CIVIL CONSTRUCTION DOCUMENTS FOR

TRAIL STREET TOWNHOMES

San Antonio, Texas

OWNER/DEVELOPER: MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

SURVEYOR: WESTWOOD PROFESSIONAL SERVICES, INC.
1718 DRY CREEK WAY, SUITE 110
SAN ANTONIO, TX 78259
PHONE (210) 265-8300

ENGINEER: UP ENGINEERING
1270 N. LOOP 1604 E., SUITE 1310
SAN ANTONIO, TEXAS 78232
(210) 774-5504
CONTACT: NATASHA F. UHLRICH, P.E.

GEOTECHNICAL ENGINEER: InTEC OF SAN ANTONIO, L.P.
12028 RADIUM
SAN ANTONIO, TX 78216
(210) 525-9033

ADDRESS:

335 TRAIL STREET, SAN ANTONIO, TEXAS 78212

FLOODPLAIN INFORMATION:

FIRM #48029, PANEL 0405 G 09/29/2010.

WATERSHED:

THIS SITE IS LOCATED IN THE UPPER SAN ANTONIO RIVER WATERSHED.

BENCHMARKS:

CONTROL POINT 1: 1/2" IRON ROD WITH CAP STAMPED "WESTWOOD PS"
NORTHING: 13713698.983
EASTING: 2134338.184
ELEVATION: 672.57

CONTROL POINT 2: MAG NAIL IN CONCRETE CURB
NORTHING: 13713423.291
EASTING: 2133933.316
ELEVATION: 674.18

CONTROL POINT 3: MAG NAIL IN CONCRETE CURB
NORTHING: 13713665.244
EASTING: 2134226.206
ELEVATION: 674.06

ADMINISTRATIVE EXCEPTION/VARIANCES:

REFER TO PLAT NO. 19-11800095 (TRAIL STREET HOMES) FOR THE FOLLOWING APPROVED ADMINISTRATIVE EXCEPTIONS/VARIANCES:
1. CURB AND GUTTER STANDARD (UNIFIED DEVELOPMENT CODE SECTION 35-605(d)(1)
2. SIDEWALK REQUIREMENTS (UNIFIED DEVELOPMENT CODE SECTION 35-506(a)(2) AND (q)

SURVEY BASIS:

BEARINGS SHOWN HEREON ARE BASED ON ACTUAL GPS OBSERVATIONS, TEXAS STATE PLANE COORDINATES, SOUTH CENTRAL ZONE, GRID.

LEGAL DESCRIPTION:

LOT 21, BLOCK 2, N.C.B. 6078, RECORDED IN VOLUME , PAGE , DEED AND PLAT RECORDS OF BEXAR COUNTY, TEXAS.

UTILITY PROVIDERS:

GAS: CPS ENERGY
145 NAVARRO
SAN ANTONIO, TX 78205
(210) 353-2376

CABLE: TIME WARNER CABLE
1900 BLUE CREST LANE
SAN ANTONIO, TX 78247
(210) 244-0500

AT&T
1010 NORTH ST. MARY'S STREET
SAN ANTONIO, TX 78215
(972) 742-5892

ELECTRIC: CPS ENERGY
145 NAVARRO
SAN ANTONIO, TX 78205
(210) 353-2376

WATER & WASTEWATER: SAN ANTONIO WATER SYSTEM
2800 U.S HWY 281 NORTH
SAN ANTONIO, TX 78212
(210) 233-2010

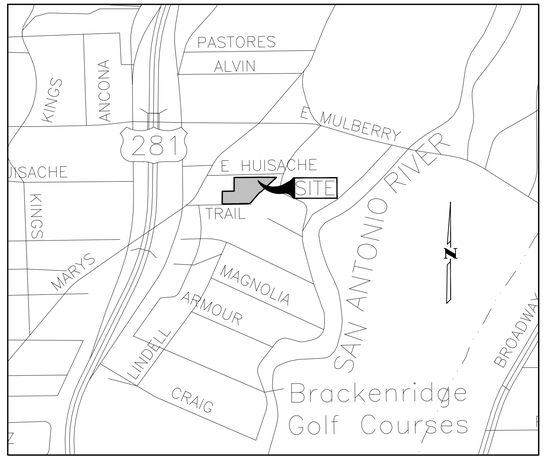
LAND USE SUMMARY:

ZONING:	MF-33
PROPOSED SITE USE:	MULTI-FAMILY
LOT SIZE:	1.003 ACRES

NOTES:

1. RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
2. BY THE ACT OF SUBMITTING A BID FOR THE PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS AND MATERIAL SUPPLIERS KNOWLEDGE ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.
3. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION AND/OR A FIELD SURVEY, AND MAY NOT MATCH LOCATIONS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT THE "ONE CALL" SYSTEM @ 811, OR THE OWNER OF EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF UTILITY CROSSING PRIOR TO BEGINNING CONSTRUCTION.
4. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, WASHINGTON SQUARE BLVD, SUITE 203, 800 DOLOROSA ST, SAN ANTONIO, TEXAS 78207-4559).
5. CONTRACTOR SHALL RESTORE ALL SIGNS AND PAVEMENT MARKINGS TO EXISTING CONDITIONS FOLLOWING THE COMPLETION OF EACH PHASE OF CONSTRUCTION. CONTRACTORS SHALL REFER TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) FOR SIGN AND MARKING DIMENSIONS AND COLORS.

PLAT NO. 19-11800095



VICINITY MAP
NOT TO SCALE

SUBMITTAL DATE:
August 30, 2019

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80% SUBMITTAL

UP ENGINEERING
1270 N. LOOP 1604 E. SUITE 1310
SAN ANTONIO, TX 78232 TEL (210) 774-5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F-17992

PRELIMINARY
NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #93502, ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

COVER SHEET

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY: WPF
DRAFTED BY: JWH
CHECKED BY: NFU

SHEET
C1
OF C12

Date: Aug 30, 2019, 12:03am User ID: jwh1
File: U:_Projects\27 - MNO Partners\27.01 - 335 Trail Street\ACAD\Sheets\27.01 COVER SHEET.dwg

GENERAL NOTES

1. ALL 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 ITEM TO WHICH IT RELATES.
3. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
5. 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.
6. IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
7. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181 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.
8. CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY UTILITY TRENCHES TO SCHEDULE FOR DENSITY TEST AS REQUIRED.
9. 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 CONTRACTOR'S EXPENSE.
10. 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:

SAN ANTONIO WATER SYSTEM (SAWS)	210–233–2009
WATER & SEWER EMERGENCIES	210–704–7297
STORM DRAINAGE (CITY OF SAN ANTONIO	210–207–8022
SIGNAL OPERATIONS (CITY OF SAN ANTONIO)	210–207–8022
TEXAS STATE WIDE ONE CALL LOCATOR	811
CPS ENERGY (GAS & ELECTRIC)	210–353–2000
CPS ELECTRIC/GAS ISSUES OR EMERGENCIES	210–353–4357
TIME WARNER	210–244–0500
AT&T (PLINEY LINDSAY)	972–742–5892

11. 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 DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
12. 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.
13. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100–YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
14. THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND / OR TRACKED CONSTRUCTION MATERIALS AND / OR DEBRIS.
15. IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE CITY HISTORIC PRESERVATION OFFICE AT 210–215–9274 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 (10) 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.
16. 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.

UTILITY GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL COMPLY TO ALL APPLICABLE CITY OF SAN ANTONIO RULES AND REQUIREMENTS FOR STREETS, SIDEWALKS, ALLEYS AND ROADWAY DESIGN (LATEST EDITIONS), THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (LATEST EDITIONS), THE SAN ANTONIO WATER SYSTEM (SAWS) SPECIFICATIONS FOR WATER WORKS CONSTRUCTION (LATEST EDITION).
2. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY CONFLICTS IMMEDIATELY. ANY DAMAGE BY THE CONTRACTOR TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OF NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
4. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
5. ALL UTILITIES SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
6. ALL UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE MECHANICAL AND ELECTRICAL PLANS. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL INSTALL ANY BENDS, FITTINGS, ETC. IN THE WATER & SEWER MAIN AS REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES. (NO SEPARATE PAY).
8. NO WATER JETTING TO BACKFILL TRENCHES WILL BE ALLOWED ON THIS PROJECT.
9. POLYVINYL CHLORIDE (PVC) SEWER PIPE SHALL BE SDR 26. FITTINGS AND JOINTS SHALL CONFORM TO COMPATIBLE SDR 26 PIPE. SOLVENT CEMENTS JOINTS SHALL NOT BE USED.
10. WHEN SEWER LINES ARE INSTALLED IN THE VICINITY OF WATER MAINS, SUCH INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
11. ALL SPOIL AND OTHER UNSUITABLE MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
12. ALL SERVICES ARE BROUGHT TO WITHIN 5 FEET OF THE BUILDING UNLESS OTHERWISE NOTED. REFERENCE MEP PLANS FOR UTILITY CONNECTIONS AT THE BUILDING.
13. WHETHER SHOWN ON THE PLANS OR NOT ALL CLEANOUT TOPS AND MANHOLES SHALL BE INSTALLED AT LEAST 3" ABOVE FINISHED GRADE OUTSIDE PAVEMENT AND FLUSH WITH FINISHED GRADE WITHIN THE PAVEMENT AREAS. TOPS WITHIN PAVEMENT SHALL BE TRAFFIC RATED.
14. SANITARY SEWER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE AND THE SAN ANTONIO WATER SYSTEM PLUMBING SPECIFICATIONS, AND AS DIRECTED BY THE PLUMBING INSPECTOR.
15. THRUST BLOCKING SHALL BE INSTALLED IN ACCORDANCE WITH SAN ANTONIO WATER SYSTEM SPECIFICATIONS.
16. UTILITY CONTRACTOR SHALL COORDINATE WITH CPS ENERGY FOR THE GAS AND ELECTRICAL SERVICE.
17. FIRE LINE SHALL BE INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR.
18. DOMESTIC WATER SHALL BE PVC C900 FOR PIPES $<$ 12" OR C905 FOR PIPES $\geq$ 12" OR COPPER TUBING AS SPECIFIED IN THE SAWS STANDARD SPECIFICATIONS – ITEM #824.
19. CLEANOUTS SHALL BE TWO–WAYS AND INSTALLED IN ACCORDANCE WITH COSA PLUMBING CODE (EVERY 100') & AS DIRECTED BY PLUMBING INSPECTOR.
20. FIRE LINE SHALL BE PVC C900, CLASS 200 AND SHALL COMPLY WITH AWWA STANDARDS AND SHALL WITHSTAND A WORKING PRESSURE OF NOT LESS THAN 200 P.S.I.
21. CONTRACTOR SHALL MAINTAIN "AS–BUILT" DRAWINGS THROUGHOUT THE COURSE OF CONSTRUCTION & SHALL SUBMIT SAME TO THE ENGINEER FOR APPROVAL PRIOR TO FINAL ACCEPTANCE BY OWNER.

GRADING AND DRAINAGE NOTES

1. CONTRACTOR TO VERIFY ELEVATIONS PRIOR TO CONSTRUCTION. EXISTING CONTOURS BASED ON 2010 BEXAR COUNTY DATA.
2. ALL GRADES AND CONTOURS SHOWN ARE FINAL, TOP OF FINISHED SURFACE ELEVATIONS, CONTRACTOR SHALL SUBTRACT PAVEMENT, BASE, TOPSOIL, MULCH, ...ETC. TO OBTAIN PROPER SUBGRADE ELEVATIONS.
3. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL AREAS WITHIN THE SCOPE OF THIS PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NO TO ALLOW ANY PONDING OF WATER. MINIMUM SLOPE 0.50%.
4. NO ABRUPT CHANGE OF GRADE SHALL OCCUR.
5. ALL DISTURBED AREAS SHALL BE REVEGETATED, BY THE CONTRACTOR, IN ACCORDANCE WITH PROJECT SPECIFICATIONS, AND ARCHITECTURAL LANDSCAPING PLANS.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLAN OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
7. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL APPLICABLE CITY OF SAN ANTONIO SPECIFICATIONS FOR CONSTRUCTION, TXDOT STANDARD SPECIFICATIONS, AND BEXAR COUNTY PUBLIC WORKS STANDARD SPECIFICATIONS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ORIGINAL, OR BETTER CONDITION ANY DAMAGES DONE TO EXISTING SIGNS, UTILITIES, PAVEMENT, CURBS, SIDEWALKS OR DRIVEWAYS (NO SEPARATE ITEM).
9. DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS ENERGY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVE THAT ARE IN THE PROJECT AREA.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
11. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS FOR UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
12. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS, OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
13. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT AT NEW PAVEMENT AND CURB JUNCTURES. NO JAGGED OR IRREGULAR CUTS IN PAVEMENT WILL BE ACCEPTED.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
15. ALL EXCAVATION IN UNCLASSIFIED.
16. ALL ON–SITE CURBS ARE 6" HIGH UNLESS OTHERWISE SPECIFIED.
17. SEE CIVIL COVER SHEET FOR PROJECT BENCHMARK.
18. CONTRACTOR TO RAISE/LOWER ALL UTILITY BOXES, COVERS, GRATES, VALVES BOXES, MANHOLES, CLEANOUTS, ETC., TO MATCH PROPOSED FINISHED GRADE ELEVATIONS.
19. ALL DISTURBED AREAS WHICH ARE NOT TO BE PAVED SHALL BE COVERED WITH 6" MIN. CLEAN TOPSOIL UNLESS OTHERWISE NOTED. CUT OR FILL SHALL BE ADJUSTED TO ALLOW FOR TOPSOIL IN ORDER TO MAINTAIN PROPOSED ELEVATIONS. AREAS FOR LANDSCAPING SHOULD BE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECTS PLANS.
20. PROVIDE THE REQUIRED MINIMUM DENSITY AND MOISTURE CONTENT OF COMPACTED FILL IN ACCORDANCE WITH THE SOILS REPORT AND THE REQUIREMENTS OF THE PROFESSIONAL ENGINEER (GEOTECH AND CIVIL).
21. A TESTING LABORATORY SHALL BE EMPLOYED BY THE CONTRACTOR TO CHECK THE SUITABILITY OF MATERIAL SELECTED FOR CONTROLLED FILLS, TO TEST AND DETERMINE IF THE REQUIRED IS BEING OBTAINED, AND TO TEST COMPACTION OF EXPOSED SUBGRADES, WHEN COMPACTION TESTS DOES NOT MEET GEOTECH REQUIREMENTS, FILL AND BACKFILL SHALL BE DRIED OUT OR MOISTENED AS NECESSARY, SCARIFIED, AND RECOMPACTED AT NO ADDITIONAL COSTS TO OWNER.

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 AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATIONS SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATIONS 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.

SAN ANTONIO WATER SYSTEM CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS

1. WHERE A SEWER MAIN CROSSES OVER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN 9 FEET, ALL PORTIONS OF THE SEWER MAIN WITHIN NINE FEET OF THE WATER LINE SHALL BE CONSTRUCTED USING 150 PSI PRESSURE RATED DUCTILE IRON, CAST IRON OR PVC PIPE AND JOINED WITH EQUALLY PRESSURE RATED PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL. A SECTION OF 150 PSI PRESSURE RATED PIPE AT LEAST EIGHTEEN (18) FEET IN LENGTH MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION REQUIREMENTS. (NO SEPARATE PAY ITEM).
2. WHERE A SEMI–RIGID OR RIGID SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET BUT GREATER THAN TWO FEET, THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF THE SEWER WITHIN NINE FEET OF THE WATER MAIN.
3. WHERE A SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN TWO FEET, THE SEWER MAIN SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI WITHIN NINE FEET OF THE WATER MAIN, SHALL HAVE A SEGMENT OF SEWER PIPE CENTERED ON THE WATER MAIN, SHALL BE PLACED NO CLOSER THAN SIX INCHES BETWEEN OUTER DIAMETERS, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL. A SECTION OF 150 PSI PRESSURE RATED PIPE OF A LENGTH GREATER THAN EIGHTEEN (18) FEET MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION REQUIREMENTS. (NO SEPARATE PAY ITEM).
4. WHERE A SEWER MAIN PARALLELS A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET, THE SEWER MAIN SHALL BE BELOW THE WATER MAIN, SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI FOR BOTH PIPE AND JOINTS FOR A DISTANCE OF NINE FEET BEYOND THE POINT OF CONFLICT, SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE BETWEEN OUTER DIAMETERS OF TWO FEET VERTICALLY AND FOUR FEET HORIZONTALLY, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL.
5. SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED ANY CLOSER THAN NINE FEET TO WATER MAINS.
6. CORROSION PROTECTED MECHANICAL COUPLING DEVICES SHALL BE OF A CAST IRON MATERIAL.
7. PLAN & PROFILE MUST SHOW TYPE OF CROSSING AND MATERIAL TO USE.

DEMOLITION NOTES

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE CITY OF SAN ANTONIO STANDARDS AND SPECIFICATIONS.
2. ALL FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD (ASTM D–698).
3. CURB RAMPS ARE TO BE CONSTRUCTED ON ALL PERMANENT CURB RETURNS AT THE INTERSECTION OF ALL STREETS OR AS DIRECTED BY THE CITY OF SAN ANTONIO INSPECTOR.
4. ALL CONSTRUCTION BARRICADING TO BE IN ACCORDANCE WITH CURRENT "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. **THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.** THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG TEST" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN PER THE APPROPRIATE REMEDIAL ACTION AGREED UPON BY THE ENGINEER.
6. DISPOSAL OF ALL DEMOLISHED MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE OFF–SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL MUNICIPAL REQUIREMENTS.
7. WHERE A STATE OR LOCAL MUNICIPAL STANDARD DETAIL DUPLICATES A DETAIL SHOWN IN THE PLANS, THE MORE STRINGENT DETAIL, AS DETERMINED BY THE REVIEWING AGENCY, SHALL APPLY.
8. ALL ITEMS NOT SPECIFICALLY CALLED OUT TO BE REMOVED SHALL REMAIN. ANY ITEM TO REMAIN WHICH IS REMOVED SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. (NO SEPARATE PAY).
9. CONTRACTOR WILL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY DEMOLITION PERMITS FOR THE PROJECT AND COORDINATION WITH THE RESPECTIVE UTILITY COMPANIES FOR REMOVAL OF THEIR INDIVIDUAL SERVICES.
10. CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER REGARDING QUESTIONS ON THE DEMOLITION PLAN.
11. DEMOLITION CONTRACTOR SHALL CLEARLY MARK ALL EXISTING UTILITY SERVICES WHERE THEY CROSS PROPERTY LINES. THIS INFORMATION WILL BE USED BY UTILITY COMPANIES AND CONTRACTORS TO TIE INTO FOR THE PROPOSED UTILITY SERVICES.
12. CONTRACTOR SHALL VERIFY WHICH TREES ARE TO BE SAVED & PROTECTED PRIOR TO COMMENCING CONSTRUCTION, DURABLE FENCE PROTECTION BARRIERS SHALL BE INSTALLED AROUND ALL TREES TO BE SAVED WITH FENCE PLACEMENT A MINIMUM OF 10 FEET FROM TREES TRUNKS. (IF APPLICABLE)
13. CONTRACTOR SHALL NOT DISTURB AREAS AROUND EXISTING TREES TO BE SAVED. (IF APPLICABLE)
14. CONTRACTOR SHALL COMPENSATE OWNER FOR DAMAGE OF TREES THAT WERE TO REMAIN. (IF APPLICABLE)

80% SUBMITTAL

UP ENGINEERING
1270 N LOOP 1604 E, SUITE 1310
SAN ANTONIO, TX 78232 TEL 210–774–5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F–17992

PRELIMINARY
NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #89502 ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

GENERAL NOTES

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY:	WPF
DRAFTED BY:	JWH
CHECKED BY:	NFU

SHEET
C2
OF C12

Date: Aug 30, 2019, 12:03pm User ID: justi
File: U:_Projects\27 – MNO Partners\27.01 – 335 Trail Street\ACAD\Sheets\27.01 GENERAL NOTES.dwg

LINE TABLE		
LINE	BEARING	LENGTH
L1	S41°34'01"W	60.21'
L2	S52°09'28"W	50.61'
L3	S36°15'37"W	42.20'

CIVIL KEY NOTES	
1	COSA STANDARD CONCRETE DRIVEWAY (REF SHEET C10)
2	ROLLOVER CURB (TYPICAL) (REFERENCE SHEET C10)
3	3' WIDE GRAVEL DRIVE STRIPS
4	CONCRETE SIDEWALK (TYPICAL) (REFERENCE SHEET C10)

NOTES:

1. REFERENCE STRUCTURAL PLANS FOR FOUNDATION.
2. ALL CURB RADII ARE 3' UNLESS OTHERWISE NOTED.
3. REFER TO GENERAL NOTE SHEET FOR ADDITIONAL SITE NOTES.
4. AS PER UDC SECTION 35–506(a)(1)(C)(2) EXISTING SIDEWALKS, CURBS AND DRIVE APPROACHES SHALL COMPLY WITH TEXAS ACCESSIBILITY STANDARDS AND CURRENT CITY OF SAN ANTONIO DESIGN STANDARDS.

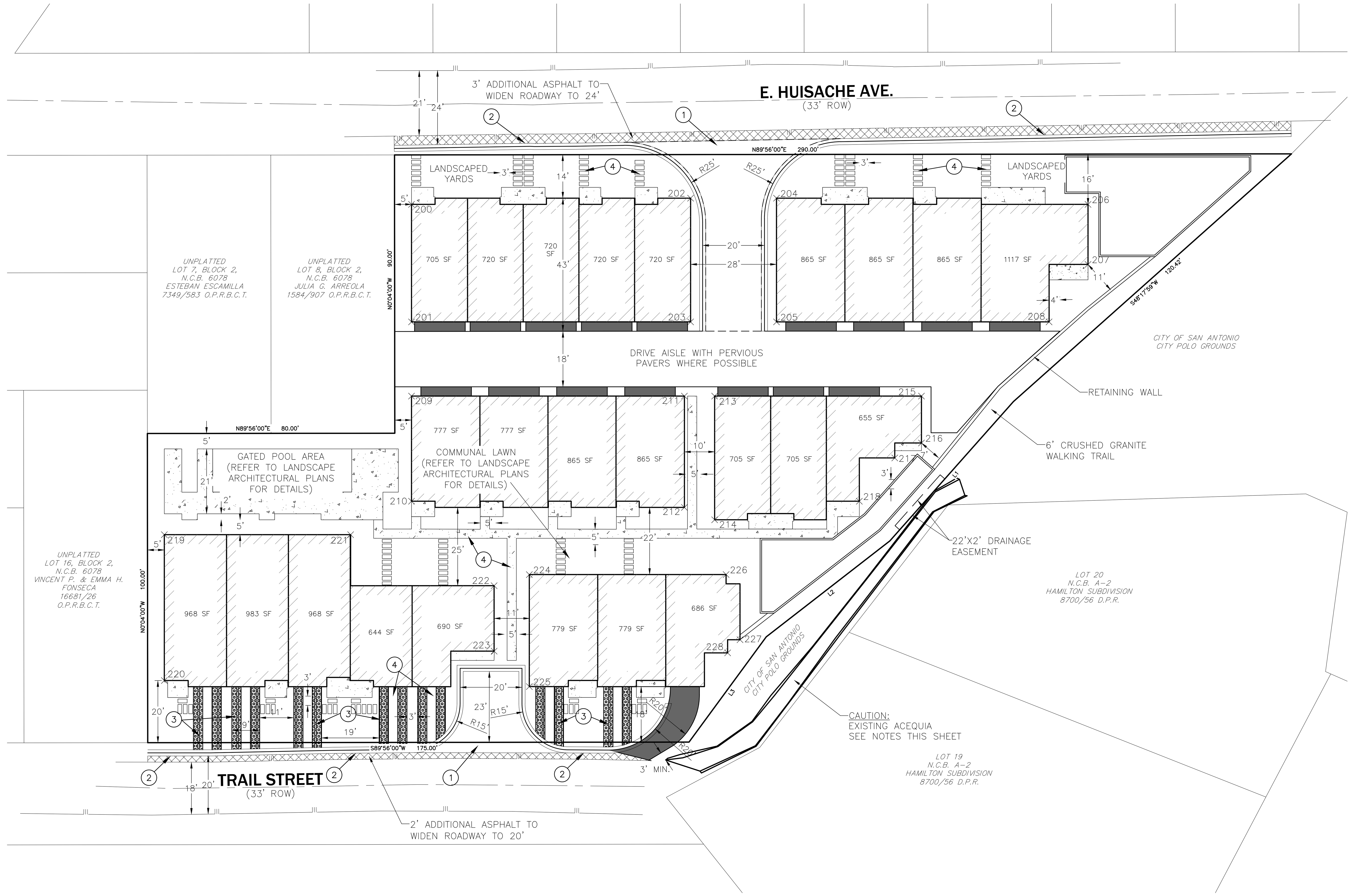
ACEQUIA NOTES:

1. NO SUBSURFACE WORK (UTILITIES, GRADING, ETC.) SHALL BE ALLOWED WITHIN THREE FEET OF THE EXISTING ACEQUIA.
2. CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING AND SILT FENCING AT A BUFFER DISTANCE OF 3 FEET FROM THE FEATURE.
3. NO CONSTRUCTION ACTIVITIES WILL OCCUR WITHIN THE BUFFER AREA.
4. THIS CONSTRUCTION AND SILT FENCING SHALL BE PRESENT ON–SITE UNTIL CONSTRUCTION IS COMPLETED.
5. THE ACEQUIA SHALL NOT BE USED FOR STORM WATER DRAINAGE. FURTHERMORE, THE ACEQUIA SHALL NOT BE USED FOR STORAGE, EQUIPMENT CLEANING OF ANY OTHER USE THAT COULD IMPACT THE FEATURE.

0 10' 20' 40'

LEGEND

- BOUNDARY / RIGHT OF WAY LINE
- CONCRETE CURB
- EASEMENT / SETBACK LINE
- ACCESSIBLE ROUTE
- EXISTING EDGE OF PAVEMENT
- D GARBAGE DUMPSTER
- CONCRETE WHEEL STOP
- SIGN
- 9 PARKING STALL COUNT
- ACCESSIBLE PARKING
- CONCRETE DRIVEWAY
- COSA CONCRETE DRIVEWAY



BUILDING CORNERS		
Point #	Northing	Easting
200	13713618.53	2133994.59
201	13713580.53	2133994.59
202	13713620.53	2134084.82
203	13713580.53	2134084.82
204	13713620.53	2134112.59
205	13713580.53	2134112.59
206	13713618.53	2134213.30
207	13713599.11	2134213.30
208	13713580.53	2134200.72
209	13713556.53	2133994.59
210	13713522.53	2133994.59
211	13713556.53	2134082.82
212	13713520.53	2134082.82
213	13713556.53	2134092.59
214	13713516.53	2134092.59
215	13713556.53	2134159.46
216	13713541.36	2134159.46
217	13713536.53	2134150.83
218	13713522.53	2134139.37
219	13713511.71	2133914.68
220	13713464.54	2133914.68
221	13713511.71	2133974.91
222	13713495.21	2134021.29
223	13713474.04	2134021.29
224	13713498.79	2134032.68
225	13713462.58	2134032.68
226	13713498.82	2134096.29
227	13713477.74	2134100.79
228	13713473.49	2134096.79

CAUTION:
BUILDING CORNER POINTS ARE FOR BUILDING ALIGNMENT AND ORIENTATION ONLY. FINAL BUILDING CORNERS SHALL BE SET FROM STRUCTURAL FOUNDATION PLANS.

80% SUBMITTAL

PROPERTY ADDRESS:
335 TRAIL STREET
LOT 1, BLOCK 2, N.C.B. 6078

UP ENGINEERING
1270 N LOOP 1604 E, SUITE 1310
SAN ANTONIO, TX 78232 TEL 210–774–5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F–17992

PRELIMINARY
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PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #89502 ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

SITE DIMENSION PLAN

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY:	WPF
DRAFTED BY:	JWH
CHECKED BY:	NFU

SHEET
C3
OF C12

LINE TABLE		
LINE	BEARING	LENGTH
L1	S41°34'01"W	60.21'
L2	S52°09'28"W	50.61'
L3	S36°15'37"W	42.20'

ACEQUIA NOTES:

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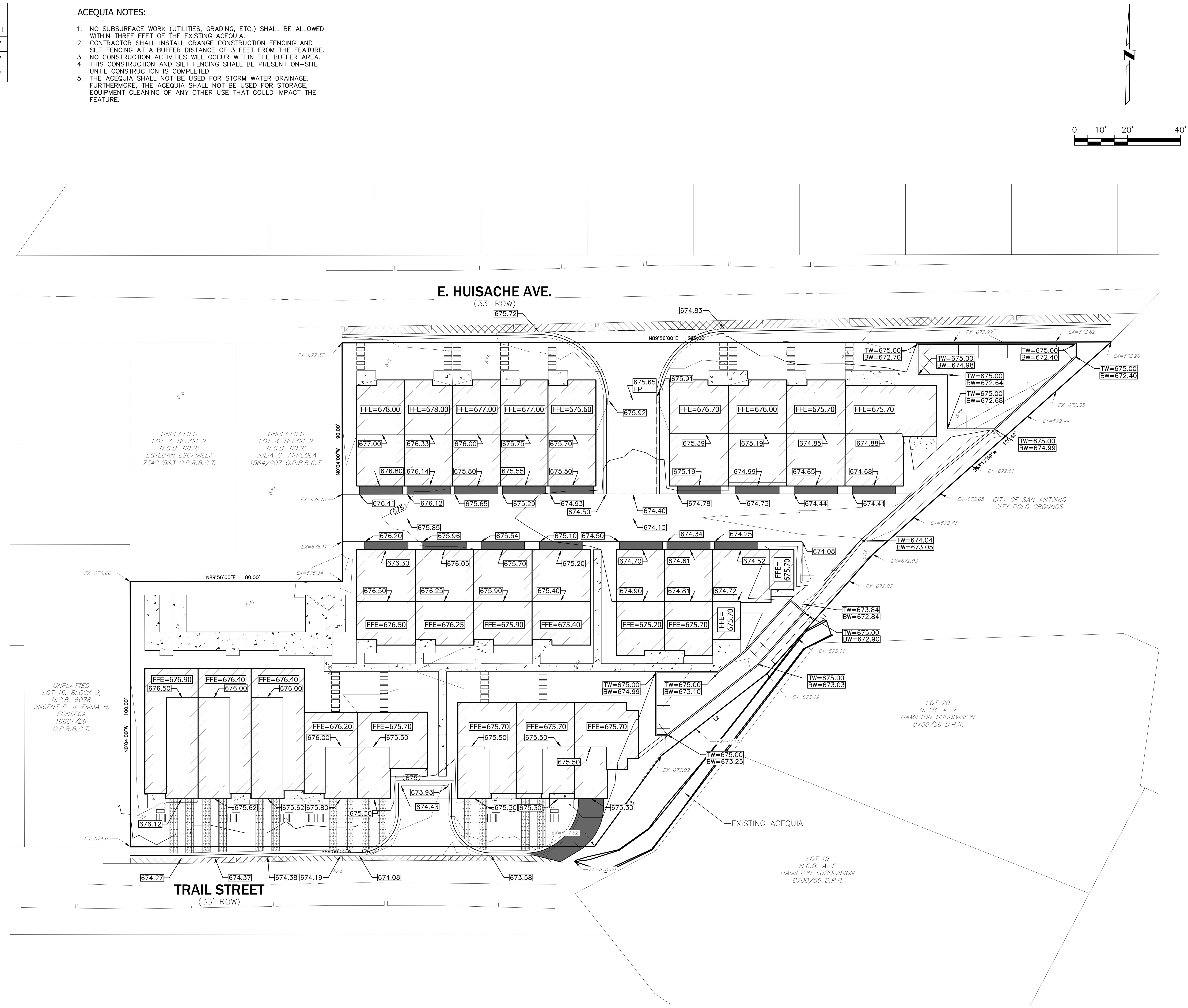

LEGEND

- BOUNDARY / RIGHT OF WAY LINE
- CONCRETE CURB
- EASEMENT / SETBACK LINE
- 102 EXISTING CONTOUR
- 102 PROPOSED CONTOUR
- OE OVERHEAD UTILITIES
- SWALE CENTERLINE
- 692.28 PROPOSED ELEVATION
- EX=690.05 EXISTING ELEVATION
- TW TOP OF WALL
- BW BOTTOM OF WALL
- FLOW DIRECTION

UP ENGINEERING
1270 N LOOP 1604 E, SUITE 1310
SAN ANTONIO, TX 78232 TEL 210-774-5504
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MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

80% SUBMITTAL

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

GRADING PLAN

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY:	WPF
DRAFTED BY:	JWH
CHECKED BY:	NFU

NOTE: REFER TO GENERAL NOTE SHEET FOR ADDITIONAL GRADING NOTES.

PROPERTY ADDRESS: 335 TRAIL STREET LOT 1, BLOCK 2, N.C.B. 6078

SHEET C4 OF C12

LINE TABLE		
LINE	BEARING	LENGTH
L1	S41°34'01"W	60.21'
L2	S52°09'28"W	50.61'
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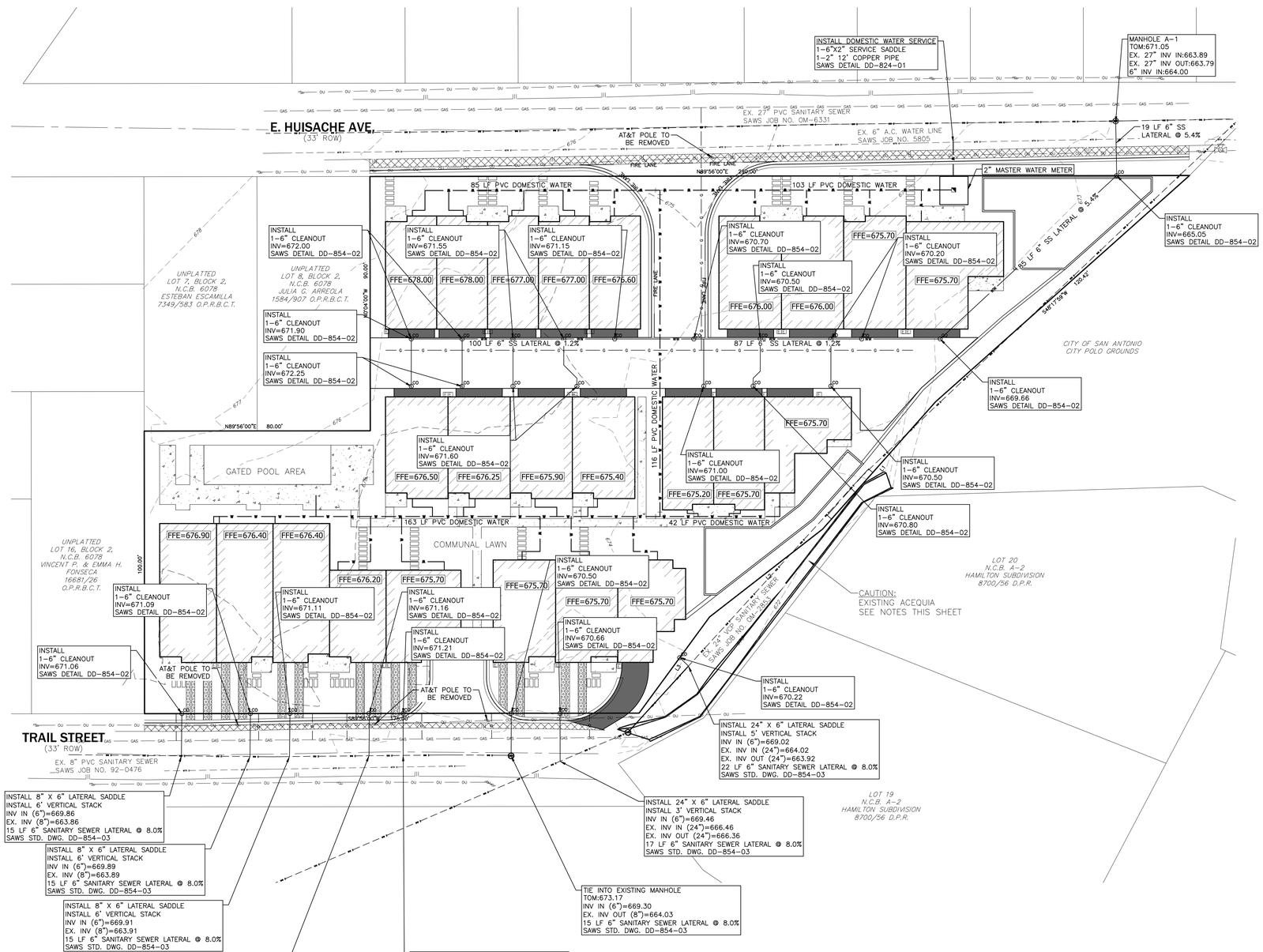
LEGEND

- BOUNDARY / RIGHT OF WAY LINE
- CONCRETE CURB
- EASEMENT / SETBACK LINE
- ACCESSIBLE ROUTE
- FIRE LANE
- OU — EXISTING OVERHEAD UTILITIES
- GAS — EXISTING GAS MAIN
- WW E — EXISTING WASTEWATER MAIN
- WTR E — EXISTING WATER MAIN
- G — PROPOSED GAS MAIN
- WW — PROPOSED WASTEWATER MAIN
- W — PROPOSED WATER MAIN
- LIGHT POLES
- UTILITY POLE
- WATER VALVE
- WATER VAULT
- EXISTING FIRE HYDRANT
- CO — WASTEWATER CLEAN-OUT
- UTILITY MANHOLE
- ELECTRIC PULL BOX
- E — ELECTRIC TRANSFORMER
- G — GAS METER



NOTES:

1. ALL WASTEWATER PIPE TO BE PVC SDR 26.
2. ALL GRAVITY LINES ARE TO BE INSTALLED FROM DOWNSTREAM TO UPSTREAM.
3. DOMESTIC WATER SHALL BE PVC C900 FOR PIPES < 12" OR C905 FOR PIPES ≥ 12" OR COPPER TUBING AS SPECIFIED IN THE SAWS SPECIFICATIONS.
4. ALL WATER LINE JOINTS ARE TO BE RESTRAINED PER MANUFACTURERS RECOMMENDATIONS.
5. REPAIR ASPHALT AS REQUIRED FOR INSTALLATION OF WATER & WASTEWATER LINES.
6. CONTRACTOR SHALL FURNISH & INSTALL ALL MATERIALS AND APPURTENANCES AS CALLED OUT ON PLANS.
7. REFERENCE GENERAL NOTES SHEETS FOR ADDITIONAL UTILITY NOTES.
8. LIMITS OF CONSTRUCTION ARE SHOWN ON THE EROSION & SEDIMENTATION CONTROL PLAN.
9. CONTRACTOR TO COORDINATE WITH CPS ELECTRIC AND GAS ON ELECTRICAL SERVICE CONNECTION AND INSTALLATION OF RISER POLES AND TRANSFORMER PADS.
10. INSTALL CLEANOUTS EVERY 100 FEET ALONG SANITARY SEWER LINES, OR PER SAWS SPECIFICATIONS. CLEANOUTS IN PAVEMENT SHALL HAVE TRAFFIC RATED COVERS. MATCH TOP TO PROPOSED GRADES.
11. CONTRACTOR SHALL COORDINATE WITH THE CITY FIRE INSPECTOR PRIOR TO INSTALLING FIRE LANE STRIPING AND EXACT LOCATION OF FIRE LANE SIGNS.
12. REFERENCE MEP PLANS FOR GAS AND ELECTRICAL LAYOUT AND DIRECT CONNECTIONS TO BUILDINGS.
13. REFERENCE MEP PLANS FOR INTERNAL WATER SERVICE LINE SIZING AND SUB-METERING.
14. REFERENCE MEP PLANS FOR LOCATIONS OF DIRECT CONNECTIONS OF SANITARY SEWER LATERALS TO BUILDINGS.

CAUTION:
CONTRACTOR TO VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

NOTE:
REFER TO GENERAL NOTE SHEET FOR ADDITIONAL UTILITY NOTES.

PROPERTY ADDRESS:
335 TRAIL STREET
LOT 1, BLOCK 2, N.C.B. 6078

UP ENGINEERING
7270 N. LOOP 1604 E, SUITE 1310
SAN ANTONIO, TX 78233 TEL 210.714.5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F-17992

PRELIMINARY
NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #93502, ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

80% SUBMITTAL

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

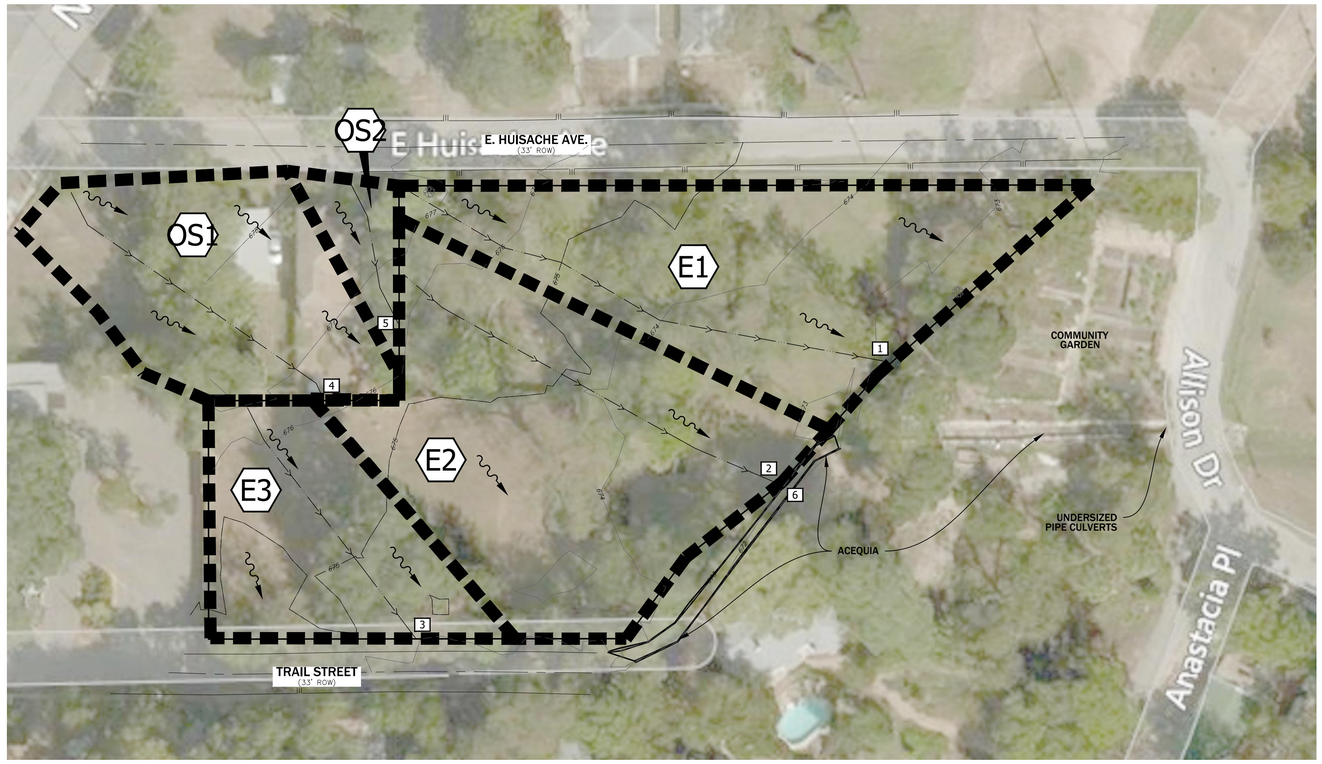
UTILITY AND FIRE PROTECTION PLAN

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

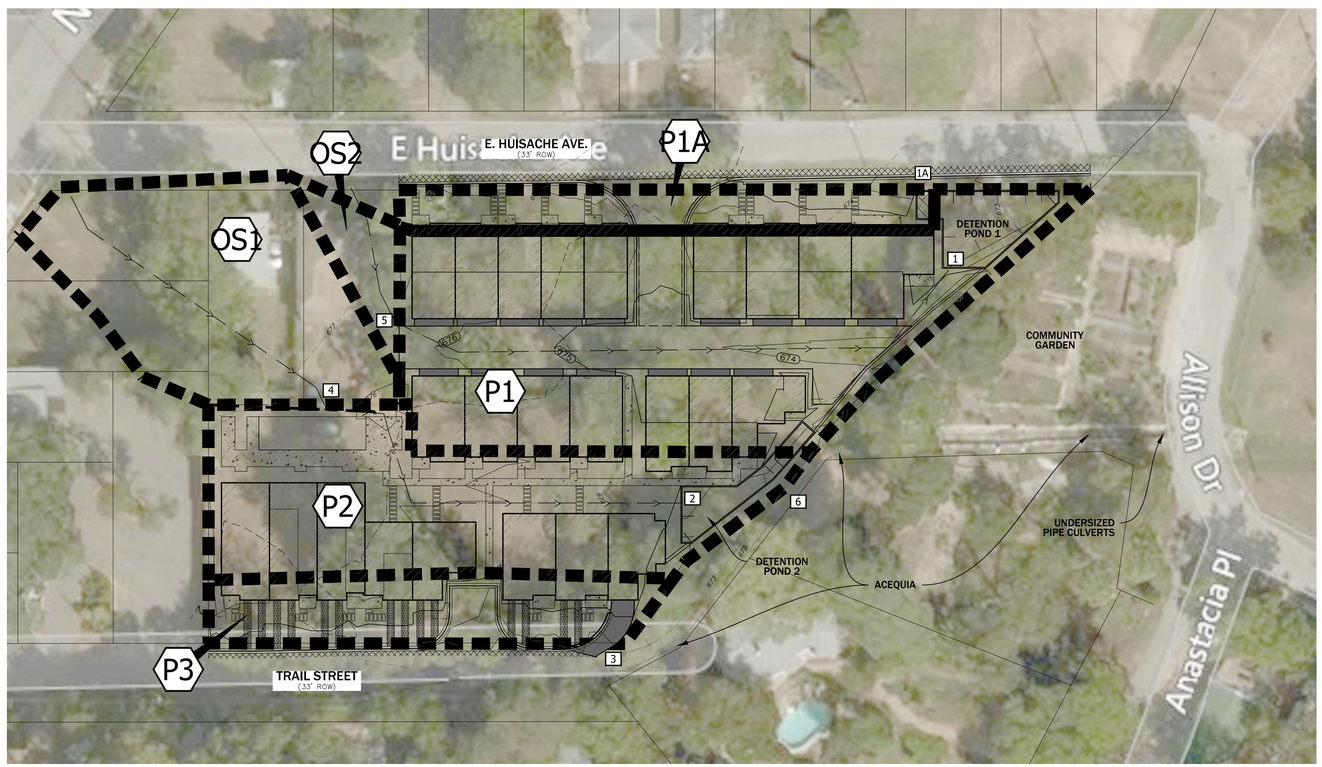
DESIGNED BY: WPF
DRAFTED BY: JWH
CHECKED BY: NFU

SHEET
C5
OF C12

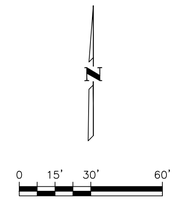
Date: Aug 30, 2019, 12:01pm User ID: jwh1
File: U:\Projects\27-01 - MNO Partners\27-01 - 335 Trail Street\ACAD\Sheets\27-01 UTILITY AND FIRE PROTECTION PLAN.dwg



EXISTING ON-SITE CONDITIONS



PROPOSED/ULTIMATE ON-SITE CONDITIONS



1	DRAINAGE POINT
1	DRAINAGE AREA
5.2	ACREAGE
0.47	ULTIMATE C-VALUE
920	EXIST. CONTOUR
	Tc PATH

Existing Runoff Flow Rates

REFERENCE POINT	Drainage Areas	C	Drainage Area (ac)	Tc (min)	I(5) (in/hr)	I(10) (in/hr)	I(25) (in/hr)	I(100) (in/hr)	Q(5) (cfs)	Q(10) (cfs)	Q(25) (cfs)	Q(100) (cfs)
1	E1	0.47	0.36	14.7	5.34	6.19	7.40	9.23	0.9	1.0	1.3	1.6
3	E3	0.47	0.20	11.7	5.93	6.93	8.28	10.36	0.6	0.7	0.8	1.0
6	E2-E3, OS1-OS2	0.50	0.91	16.6	5.00	5.80	6.93	8.62	2.3	2.6	3.2	3.9

TOTAL PRELIMINARY FLOW RELEASE

REFERENCE POINT	Drainage Areas	Discharge Area	Q(5) (cfs)	Q(25) (cfs)	Q(100) (cfs)
1	P1, OS2	Proposed Outfall Rate Pond 1	1.1	1.5	1.8
2	P2, OS1	Proposed Outfall Rate Pond 2	1.2	1.5	2.0
1A	P1A	Bypass Flow (Huisache Ave)	0.3	0.5	0.6
3	P3	Bypass Flow (Trail Street)	0.6	0.9	1.1
PRELIMINARY COMBINED FLOWS LEAVING SITE			3.2	4.4	5.5
EXISTING FLOWS LEAVING SITE			3.2	4.4	5.5

PROPERTY ADDRESS:
335 TRAIL STREET
LOT 1, BLOCK 2, N.C.B. 6078

80% SUBMITTAL

UP ENGINEERING
1270 N. LOOP 1604 E. SUITE 1310
SAN ANTONIO, TX 78232 TEL: 210-545-5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F-17992

PRELIMINARY
NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #93502, ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

DRAINAGE AREA MAP

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY: WPF
DRAFTED BY: JWH
CHECKED BY: NFU

SHEET
C6
OF C12

Date: Aug 30, 2019, 12:08am User ID: jwh
File: U:_Projects\27 - MNO Partners\27.01 - 335 Trail Street\ACAD\Sheets\27.01 DRAINAGE AREA MAP.dwg

LINE TABLE		
LINE	BEARING	LENGTH
L1	S41°34'01"W	60.21'
L2	S52°09'28"W	50.61'
L3	S36°15'37"W	42.20'

ACEQUIA NOTES:

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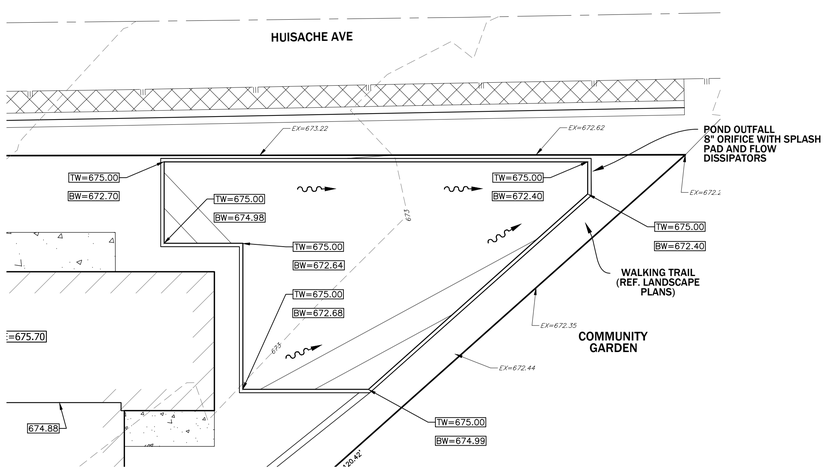
LEGEND

- BOUNDARY / RIGHT OF WAY LINE
- CONCRETE CURB
- EASEMENT / SETBACK LINE
- 102 — EXISTING CONTOUR
- 102 — PROPOSED CONTOUR
- OE — OVERHEAD UTILITIES
- SWALE CENTERLINE
- 692.28 — PROPOSED ELEVATION
- EX=690.05 — EXISTING ELEVATION
- TW — TOP OF WALL
- BW — BOTTOM OF WALL
- FLOW DIRECTION

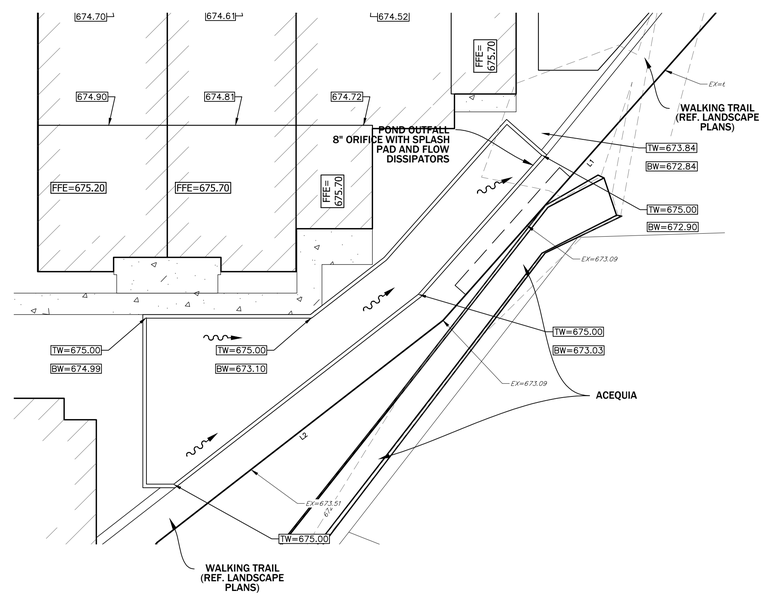
N

0 5' 10' 20'

DETENTION POND 1



DETENTION POND 2



TOTAL PRELIMINARY FLOW RELEASE					
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NOTE:
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PROPERTY ADDRESS:
335 TRAIL STREET
LOT 1, BLOCK 2, N.C.B. 6078

80% SUBMITTAL

UP ENGINEERING
17270 N LOOP 1604 E, SUITE 1310
SAN ANTONIO, TX 78232 TEL 210.714.5504
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MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

DETENTION POND PLAN

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY: WPF
DRAFTED BY: JWH
CHECKED BY: NFU

SHEET
C7
OF C12

Date: Aug 30, 2019, 12:28pm User ID: Ryan
File: U:_Projects\27-MNO Partners\27-01 - 335 Trail Street\ACAD\Sheets\27-01 DETENTION PONDS (UP Engineering's conflicted copy 2019-08-30).dwg

LINE TABLE		
LINE	BEARING	LENGTH
L1	S41°34'01"W	60.21'
L2	S52°09'28"W	50.61'
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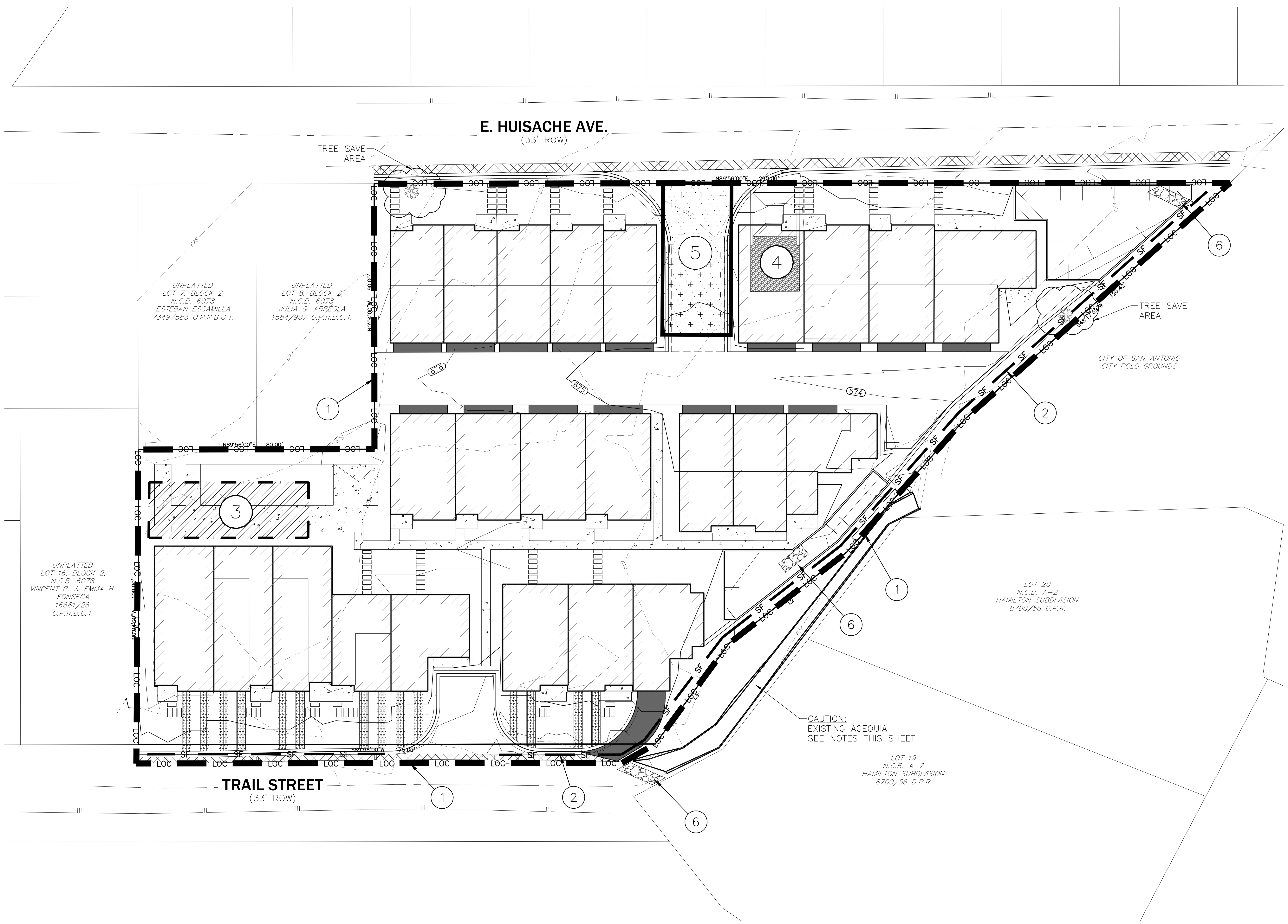
4. THIS CONSTRUCTION AND SILT FENCING SHALL BE PRESENT ON-SITE UNTIL CONSTRUCTION IS COMPLETED.
5. THE ACEQUIA SHALL NOT BE USED FOR STORM WATER DRAINAGE. FURTHERMORE, THE ACEQUIA SHALL NOT BE USED FOR STORAGE, EQUIPMENT CLEANING OF ANY OTHER USE THAT COULD IMPACT THE FEATURE.



LEGEND

- BOUNDARY / RIGHT OF WAY
- EXIST. GRADE ELEVATIONS
- TEMPORARY SILT FENCE
- LIMITS OF CONSTRUCTION / DISTURBANCE
- LIMITS OF TEMPORARY PARKING, STORAGE, SPOILS, AND STAGING AREA.
- STABILIZED CONSTRUCTION ENTRANCE
- ROCK FILTER DAM
- CONCRETE WASHOUT

0 10' 20' 40'

NOTES:

1. FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED (SEE NOTE #6).
2. INSPECTOR HAS THE AUTHORITY TO ADD AND OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH CITY RULES AND REGULATIONS.
3. THE CONTRACTOR MAY NOT BLOCK, DIRECT, IMPEDE, OR REROUTE PEDESTRIAN AND VEHICULAR TRAFFIC, NOR PLACE A BARRICADE OR OTHER TRAFFIC CONTROL DEVICE IN A RIGHT-OF-WAY, WITHOUT FIRST OBTAINING A TEMPORARY USE OF RIGHT-OF-WAY PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS THAT ARE REQUIRED TO COMPLY WITH THE CITY CODE REGARDING EXCAVATION IN PUBLIC RIGHT-OF-WAY.
5. CONTRACTOR SHALL CLEAN UP SPOILS THAT MIGRATE INTO EXISTING RIGHT-OF-WAY A MINIMUM OF ONCE PER DAY.
6. CONTRACTOR TO INSTALL CHAIN LINK FENCE AT ALL POINTS WHERE LIMITS OF CONSTRUCTION IS SHOWN.
7. ALL STORM WATER LEAVING THE SITE DURING CONSTRUCTION ACTIVITIES MUST PASS THROUGH THE SILT FENCE OR ROCK BERMS.
8. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING.

EROSION CONTROL MEASURES	
1	LIMITS OF CONSTRUCTION
2	INSTALL SILT FENCE (2' FROM PROPERTY LINE) – SEE DETAIL SHEET C9
3	STAGING AREA
4	CONCRETE WASHOUT PIT – SEE DETAIL SHEET C9
5	STABILIZED CONSTRUCTION ENTRANCE – SEE DETAIL SHEET C9
6	ROCK FILTER DAM – SEE DETAIL SHEET C9
7	INLET PROTECTION – SEE DETAIL SHEET C9

80% SUBMITTAL

PROPERTY ADDRESS:
335 TRAIL STREET
LOT 1, BLOCK 2, N.C.B. 6078

UP ENGINEERING
1270 N LOOP 1604 E, SUITE 1310
SAN ANTONIO, TX 78232 TEL 210-774-5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F-17992

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PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #89502 ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

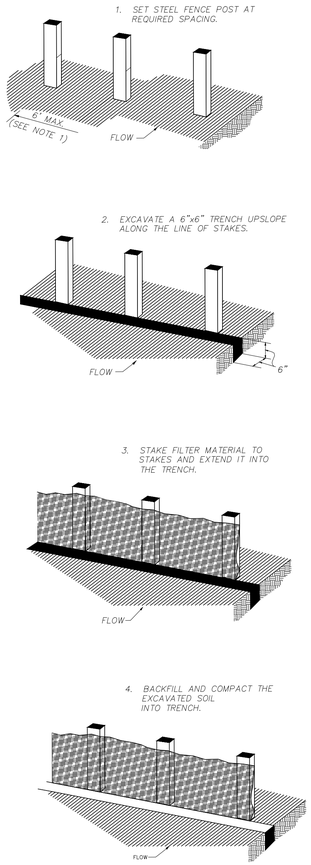
PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

STORM WATER POLLUTION PREVENTION PLAN

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

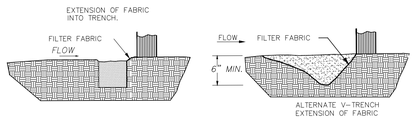
DESIGNED BY:	WPF
DRAFTED BY:	JWH
CHECKED BY:	NFU

SHEET
C8
OF C12



GENERAL NOTES:

1. STEEL POSTS TO BE SET AT 3-FOOT MAXIMUM SPACING WITH MINIMUM EMBEDMENT OF 1-FOOT. IF FACTORY PREASSEMBLE FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAXIMUM.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 3 FEET AND SECURELY FASTENED WHEN ENDS OF FABRIC MEET.



SILT FENCE

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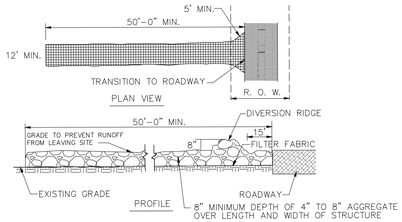
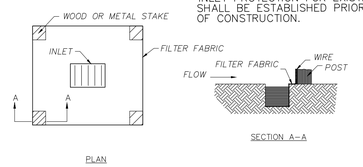


STABILIZED CONSTRUCTION EXIT

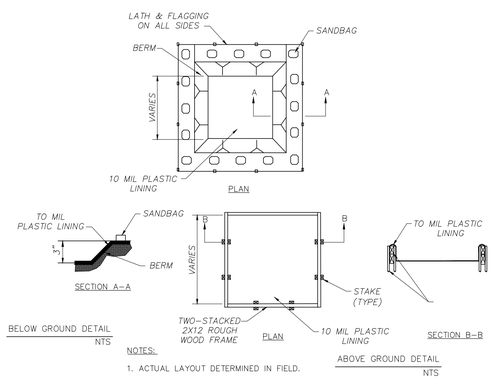
N.T.S.

GENERAL NOTE:
INLET PROTECTION FOR EXISTING INLETS SHALL BE ESTABLISHED PRIOR TO START OF CONSTRUCTION.



INLET PROTECTION

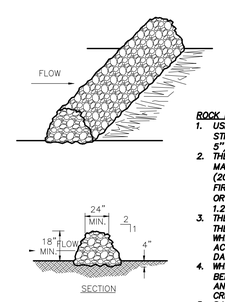
NTS



NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.

CONCRETE WASHOUT AREA



ROCK FILTER DAM

NTS

ROCK BERM NOTES:

1. **USE ONLY OPEN GRADED ROCK 100 to 200 mm (4 to 8") DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR OTHER CONDITIONS.**
2. **THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE). ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 150 mm (6 ") WITH T-POSTS OR WITH 15M OR 20M (#5 OR #6) REBAR, WITH MAXIMUM SPACING APART OF 1.2 m (48") ON CENTER.**
3. **THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.**
4. **WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM.**
5. **DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 150 mm (6").**
6. **WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.**

SEDIMENTATION AND EROSION CONTROLS

A. DESIGN CRITERIA

(1) Fences are to be constructed along level contours.

(2) The ends of the fence shall be turned upstream to prevent bypass of stormwater.

(3) Steel posts which support the silt fence shall be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of one foot.

(4) The toe of the silt fence shall be trenched in with a spade or mechanical trencher, so that the downslope face of the trench is flat and perpendicular to the line of flow. Where fence cannot be trenched in (e.g. pavement). weight fabric flap with washed gravel on uphill side to prevent flow under fence.

(5) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

(6) Silt fence should be securely fastened to each steel support post or to woven wire. Which is in turn attached to the steel fence post. There shall be a 6" double overlap, securely fastened where ends of fabric meet.

(7) Inspection shall be made weekly or after each rainfall. Repair or replacement shall be made promptly as needed.

(8) Accumulated silt shall be removed when it reaches a depth of 6 inches. The silt shall be disposed of in an approved site and in such a manner as to not contribute to the additional siltation.

B. TEMPORARY DIVERSION DIKE

(1) Maximum depth of flow at the dike shall be 1 foot.

(2) Side slopes of the diversion dike shall be 3:1 or flatter.

(3) Minimum width of the embankment at the top shall be 2 feet.

(4) Minimum embankment height shall be 18 inches as measured from the toe of slope on the upgrade side of the berm.

(5) The dikes shall remain in place until all disturbed areas which are protected by the dike are permanently stabilized unless other controls are put into place to protect the site.

(6) Compacted earth dikes require stabilization immediately upon placement so as not to contribute to the problem they are addressing.

(7) All diversion dikes shall have positive drainage to an outlet.

(8) Dikes must be inspected on a regular basis to determine if silt is building up behind the dike, or if erosion is occurring on the face of the dike. Silt shall be removed in a timely manner. If erosion is occurring on the face of the dike, the slopes of the face shall be stabilized.

C. INTERCEPTOR SWALE

(1) Maximum depth of flow in the swale shall be 1 foot.

(2) The minimum bottom width of the swale shall be 2 feet.

(3) Side slopes of the swale shall be 3:1 or flatter.

(4) Minimum design channel freeboard shall be 6 inches.

(5) Swales must maintain positive grade to an acceptable outlet.

(6) Interceptor swales must be stabilized immediately upon excavation so as not to contribute to the erosion problem they are addressing.

(7) All trees, brush, stumps, obstructions and other material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.

(8) All earth removed and not needed in construction shall be disposed of in an approved spoils site.

(9) Inspection must be made after each rain event to locate and repair any damage to the channel or to clear debris or other obstructions so as not to diminish flow capacity. Damages which result from normal construction activities shall be repaired at the end of each work day.

D. HAY BALE DIKE

(1) Each hay bale shall be placed into an excavated trench having a depth of 4 inches and a width just wide enough to accommodate the bales themselves.

(2) Hay bales shall be installed in such a way that there is no space between to allow for any kind of seepage.

(3) Individual bales shall be held in place by no less than two wood or steel stakes driven a minimum distance of 6 inches into undisturbed ground, with the first stake driven at an angle toward the previously installed bale.

(4) The ends of the dike shall be turned upgrade to prevent bypass of stormwater.

(5) Inspection shall be weekly or after each rainfall event and repair or replacement shall be made promptly as needed by the contractor.

(6) When silt reaches a depth of 6 inches, it shall be removed and disposed of in an approved sit.

(7) Hay bales shall be replaced if there are signs of degradation such as straw located downstream from the bales, structural deficiencies due to rotting straw in the bale or other signs of deterioration. Sediment should be removed from behind the bales when it reaches a depth of approximately 6 inches. If the bales become clogged, they should be replaced immediately.

E. SANDBAG BERM

(1) Minimum height shall be 18 inches.

(2) Minimum width of the berm shall be 18 inches at the top and 48 inches measured at the bottom.

(3) Maximum side slopes shall be 2:1.

(4) The ends of the berm shall be turned upgrade or shall tie into natural grades to prevent bypass of stormwater.

(5) Sandbags should be stacked in at least three rows abutting each other, and in staggered arrangement.

(6) Inspections should be made on a daily basis and after each rain event. The sandbags shall be reshaped or replaced as needed during the inspection. Silt should be removed when it reaches a depth of six (6) inches.

F. STONE OUTLET SEDIMENT TRAP

(1) Minimum width of the embankment at the top shall be 3 feet perpendicular to the flow.

(2) Minimum embankment slope shall be 3:1.

(3) Maximum embankment height shall be 2 feet as measured from the toe of slope to the crest of the stone outlet. The height of the compacted earth embankment shall be one foot higher than the crest of the outlet.

(4) Sediment shall be removed and the area directly behind the berm shall be regraded to its original dimensions at such point when the capacity of impoundment has been reduced to one-half of its original storage capacity.

(5) The stone outlet structure should be inspected frequently and after each major rain event to check for clogging of the void spaces between stones. If the aggregate appears to be silted in such that efficiency is diminished, the stone should be replaced.

G. SEDIMENT BASIN

(1) Maximum drainage area contributing to the basin shall be 100 acres.

(2) Deposited sediment shall be removed when the storage capacity of the basin has been depleted by one-half.

(3) Minimum width of the embankment at the top shall be 8 feet.

(4) Minimum embankment slope shall be 3:1.

(5) Sediment shall be removed and the basin shall be regraded to its original dimensions. The removed sediment shall be stockpiled or redistributed in areas which are protected from erosion.

(6) The basin outlet structure and emergency spillway (if present) should be checked frequently and after each major rain event to check for damage.

H. STABILIZED CONSTRUCTION EXIT

(1) Stone size – 3 to 5 inches crushed rock.

(2) Length – as effective, but not less than 50 feet, unless depth of lot is less than 150 feet from edge of pavement where length must only be 30 feet.

(3) Thickness – not less than 8 inches.

(4) Width – not less than full width of all points of ingress or egress.

(5) Washing – when necessary, wheels shall be cleaned to remove sediment prior to entrance onto public roadway. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch or watercourse using approved methods.

(6) Maintenance – the entrance shall be maintained in condition which will prevent tracking or flowing of sediment onto public roadways. This may require periodic top dressing with additional stone as conditions demand, and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public roadway, must be removed immediately.

(7) Drainage – entrance must be properly graded or incorporate a drainage swale to prevent runoff from leaving the construction site.

ADDITIONAL NOTES:

(1) Upon completion of construction all disturbed areas shall be revegetated to 70% of existing conditions in accordance with the SWPPP and TPDES requirements.

(2) This project will not use any off-site material, waste/borrow/fill, or equipment storage areas.

(3) This site is not located adjacent to any surface waters.

(4) This site will not have any locations where storm water discharges directly to a surface water body.

PROPERTY ADDRESS:
335 TRAIL STREET
LOT 1, BLOCK 2, N.C.B. 6078

80% SUBMITTAL

UP ENGINEERING
7270 N. LOOP 1604 E, SUITE 1310
SAN ANTONIO, TEXAS 78233 TEL 210.777.5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F-17992

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PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #93502, ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

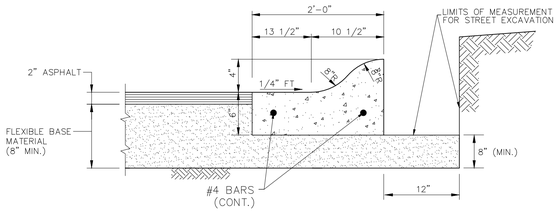
STORM WATER POLLUTION PREVENTION PLAN DETAILS

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY: WPF
DRAFTED BY: JWH
CHECKED BY: NFU

SHEET
C9
OF C12

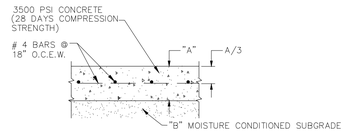
Date: Aug 30, 2019, 12:04pm User ID: jwh1
File: U:_Projects\27 - MNO Partners\27.01 - 335 Trail Street\ACAD\Sheets\27.01 SWPPP.dwg



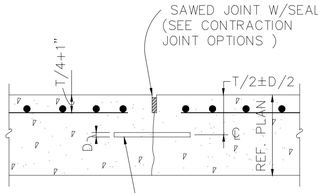
TYPICAL ROLLOVER CURB
NTS

		PARKING AREAS	DRIVE AREAS
"A"	REINFORCED CONCRETE	5"	6"
"B"	MOISTURE CONDITIONED SUBGRADE	6"	6"

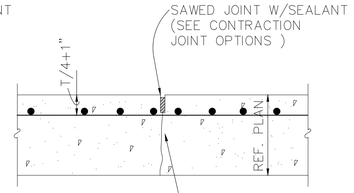
NOTE: REFER TO GEOTECHNICAL ENGINEERING STUDY BY InTEC, PROJECT NO. S181369, DATED AUGUST 24, 2018 FOR ADDITIONAL INFORMATION.



CONCRETE PAVEMENT SECTION
NTS



LONGITUDINAL
OPTIONAL



TRANSVERSE OR LONGITUDINAL

PVMT. CONTRACTION JOINT
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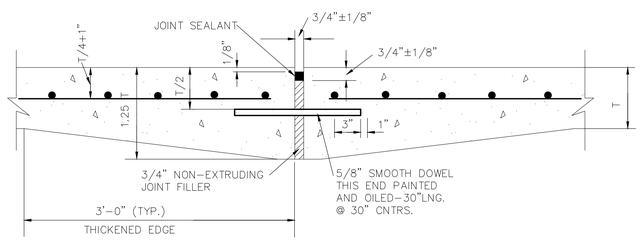

PVMT. EXPANSION JOINT
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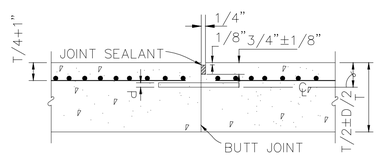


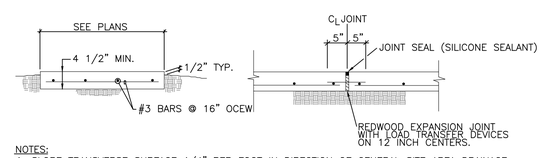
TRANSVERSE OR LONGITUDINAL

NOTE :

JOINT SHOWN TO BE USED AT A REGULARY SCHEDULED TRANSVERSE CONTRACTION JOINT. FOR A TRANSVERSE CONSTRUCTION JOINT AT A LOCATION OTHER THAN REGULARLY SCHEDULED CONTACTION JOINT:

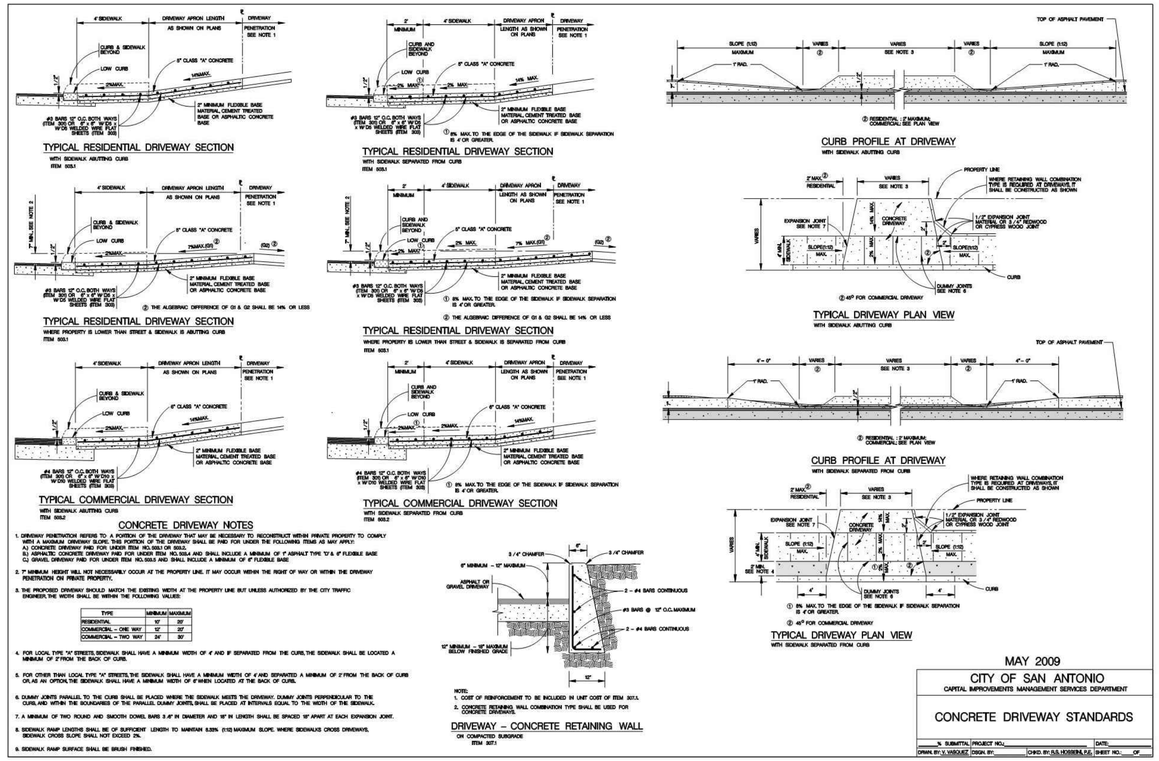
A) THE REINFORCEMENT SHALL BE CARRIED THROUGH THE JOINT
B) TIE BARS SHALL BE USED INLIEU OF DOWELS
C) NO GROOVE OR JOINT SEAL NEEDS TO BE PROVIDED

PAVEMENT CONSTRUCTION JOINTS
N.T.S.



NOTES:
1. SLOPE TRANSVERSE SURFACE 1/4" PER FOOT IN DIRECTION OF GENERAL SITE AREA DRAINAGE.
2. FLOAT EDGES 1/4" MAXIMUM AT CONTROL JOINTS.
3. USE REDWOOD BOARD EXPANSION JOINT w/ #4 SMOOTH BAR w/ LOAD KEY (10" LONG).
4. REDWOOD BOARD EXPANSION JOINTS ON 15 FOOT CENTERS MAXIMUM.
5. CONTROL JOINT SPACING NOT TO EXCEED FIVE (5) FEET. SCORED, TOOLED OR SAWN JOINTS SHALL BE 1/4 THE PAVEMENT THICKNESS BUT NOT LESS THAN ONE (1) INCH.

CONCRETE SIDEWALK
NTS



CONCRETE DRIVEWAY NOTES

1. DRIVEWAY PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE DRIVEWAY SHALL BE PAID FOR UNDER THE FOLLOWING ITEMS AS MAY APPLY:
   A.) CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO.505.1 OR 505.2.
   B.) ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO.505.4 AND SHALL INCLUDE A MINIMUM OF 1" ASPHALT TYPE "D" & 6" FLEXIBLE BASE
   C.) GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO.505.5 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE
2. 2" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE. IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.
3. THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE BUT UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	30'
COMMERCIAL – ONE WAY	12'	32'
COMMERCIAL – TWO WAY	24'	32'

4. FOR LOCAL TYPE "A" STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
5. FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR, AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
6. DUMMY JOINTS PARALLEL TO THE CURB SHALL BE PLACED WHERE THE SIDEWALK MEETS THE DRIVEWAY. DUMMY JOINTS PERPENDICULAR TO THE CURB, AND WITHIN THE BOUNDARIES OF THE PARALLEL DUMMY JOINTS, SHALL BE PLACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
7. A MINIMUM OF TWO ROUND AND SMOOTH DOWEL BARS 3 /4" IN DIAMETER AND 18" IN LENGTH SHALL BE SPACED 18" APART AT EACH EXPANSION JOINT.
8. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE. WHERE SIDEWALKS CROSS DRIVEWAYS, SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
9. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.

80% SUBMITTAL

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

CONSTRUCTION DETAILS

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4770 N. LOOP 1604 E, SUITE 1310
SAN ANTONIO, TEXAS 78232 TEL 210.877.5504
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DESIGNED BY: WPF
DRAFTED BY: JWH
CHECKED BY: NFU

SHEET
C10
OF C12

Date: Aug 30, 2019, 12:04am User ID: jwh
File: U:_Projects\27 - MNO Partners\27.01 - 335 Trail Street\ACAD\Sheets\27.01 CONSTRUCTION DETAILS.dwg

SAWS CONSTRUCTION NOTES

1. All materials and construction procedures within the scope of this project 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 Specification 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 and approved Counter Permit and/or a GCP will be subject to removal and replacement at the expense of the contractor 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 the underground utilities and drainage structures at least 1-2 weeks prior to construction wether 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, driveways, 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 material 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. Requests 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 paying for the tests preformed 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.

WATER SECTION

1. Prior to tie-ins, any shutdowns of existing mains of any size must be coordinated with 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 Operation 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 745 feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below 745 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 #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:

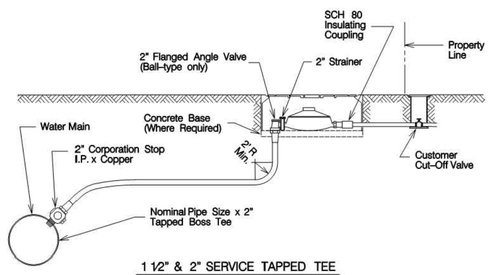
   All irrigation services within residential areas are required to have backflow prevention devices.

   All commercial backflow prevention devices must be approved by SAWS prior to installation.

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.

PIPE TAPPING SCHEDULE

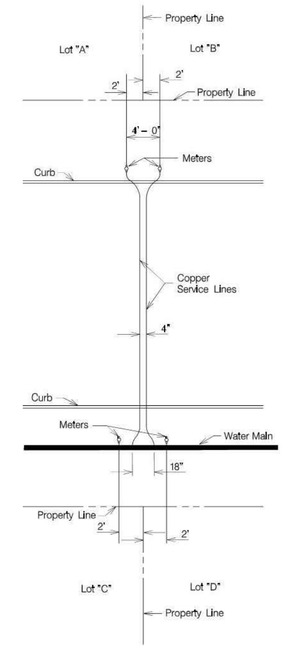
PIPE DIAMETER	SERVICE SIZE 3/4"	1"	1 1/2"	2"
6" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
6" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
8" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
8" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
8" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
10" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
10" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
10" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
12" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
12" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
12" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
16" A.C.	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
16" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle



1 1/2" & 2" SERVICE TAPPED TEE

Note:
For direct tap to main, see Tapping Schedule

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	COPPER SERVICE INSTALLATION TAPPING SCHEDULE	APPROVED March 2008	REVISED	SHEET 3 OF 3
		DD-824-01		



SINGLE SERVICE LINE - SINGLE METER

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	TYPICAL SERVICE ARRANGEMENT	APPROVED March 2008	REVISED	SHEET 1 OF 3
		DD-824-05		

80% SUBMITTAL

UP ENGINEERING
17270 N. LOOP 1604 E. SUITE 1310
SAN ANTONIO, TX 78232 TEL 210-714-5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F-17992

PRELIMINARY
NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #93502, ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

SAWS DETAILS

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY: WPF
DRAFTED BY: JWH
CHECKED BY: NFU

SHEET
C11
OF C12

Date: Aug 30, 2019, 12:04pm User ID: jwh
File: U:_Projects\27 - MNO Partners\27.01 - 335 Trail Street\ACAD\Sheets\27.01 CONSTRUCTION DETAILS.dwg

SAWS CONSTRUCTION NOTES

1. All materials and construction procedures within the scope of this project 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 Specification 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 and approved Counter Permit and/or a GCP will be subject to removal and replacement at the expense of the contractor and/or the developer.

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13. A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division.

SEWER NOTES

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 estimated volume or flow.
   B. Attempt to eliminate the source of the SSO.
   C. Contain sewage from the SSO to the extent of preventing a possible contamination of waterways.
   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 EPQ, TCEQ and/or any other Federal, State or Local Agencies.

   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 Specifications for Water and Sanitary Sewer Construction, Item No. 864, "Bypass Pumping".

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.

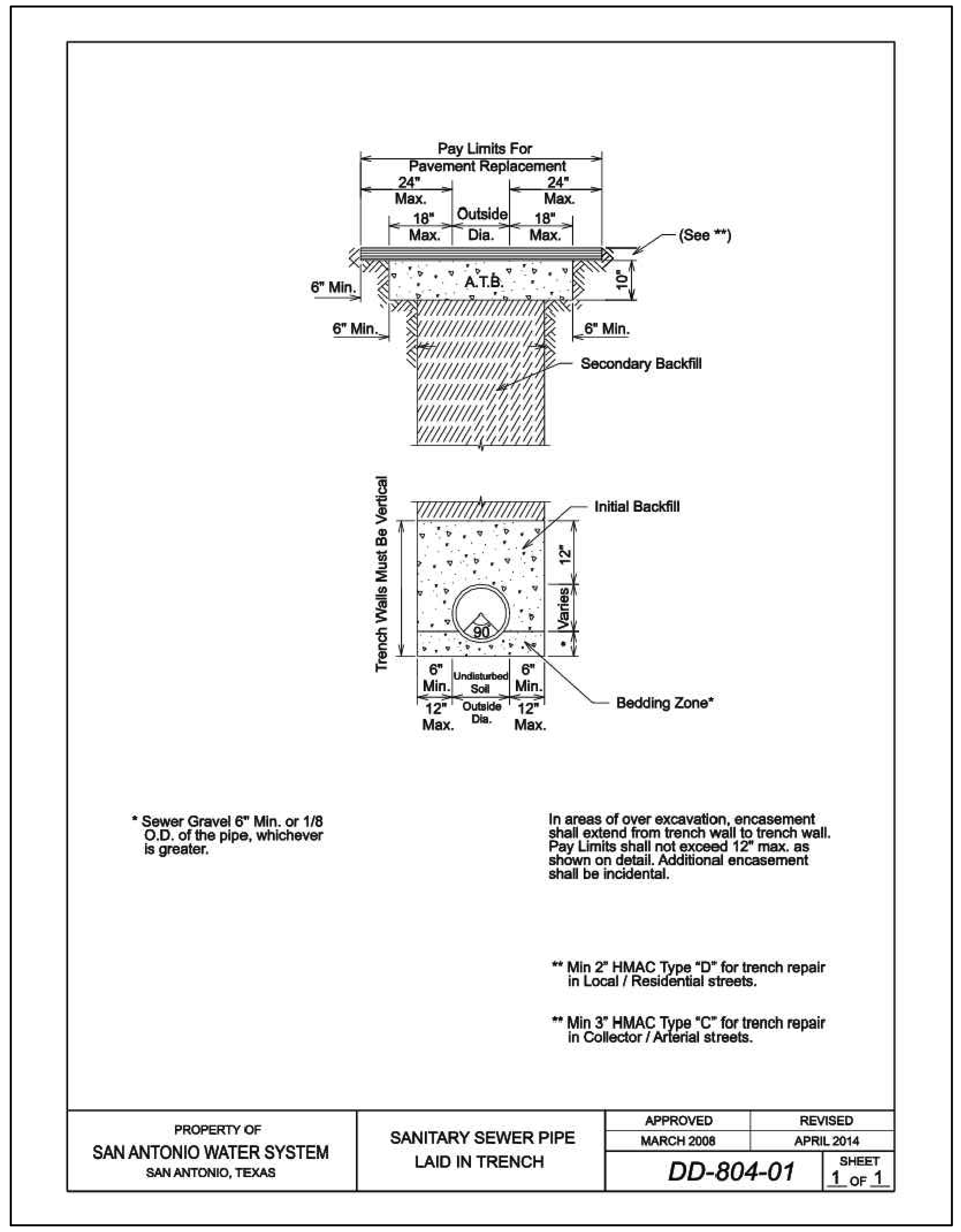
4. Sewer pipe where water lines cross shall be 160 psi and meet the requirements of ASTM D2241, TAC 217.53 and TCEQ 290.44(e)(4)(B). Contractor shall center a 20" joint of 160 psi pressure rated PVC at the proposed water crossing.

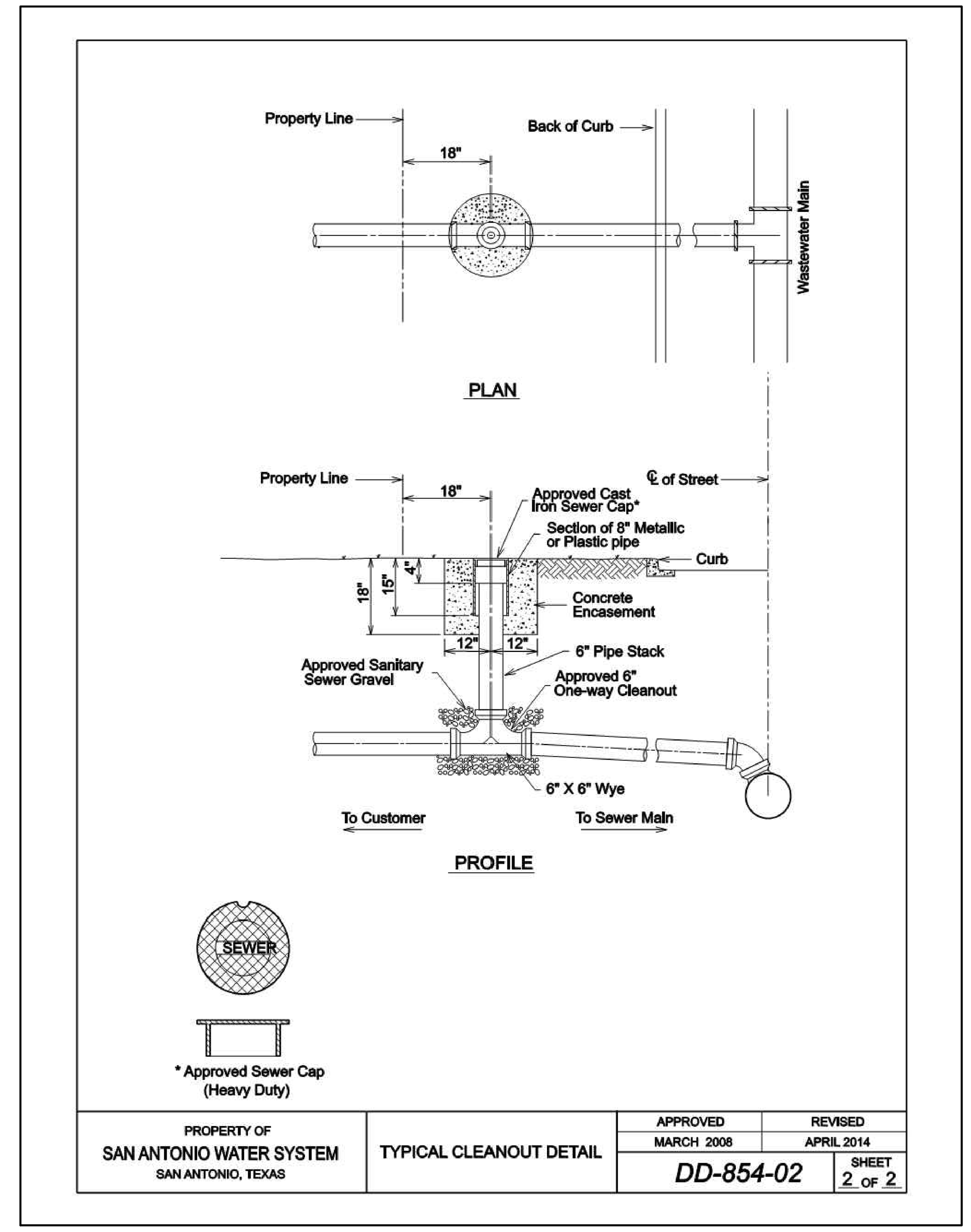
5. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: It shall be the responsibility of the contractor to make allowances and adjustments for top of manholes to match the finished grade of the project's improvements. (NSPI)

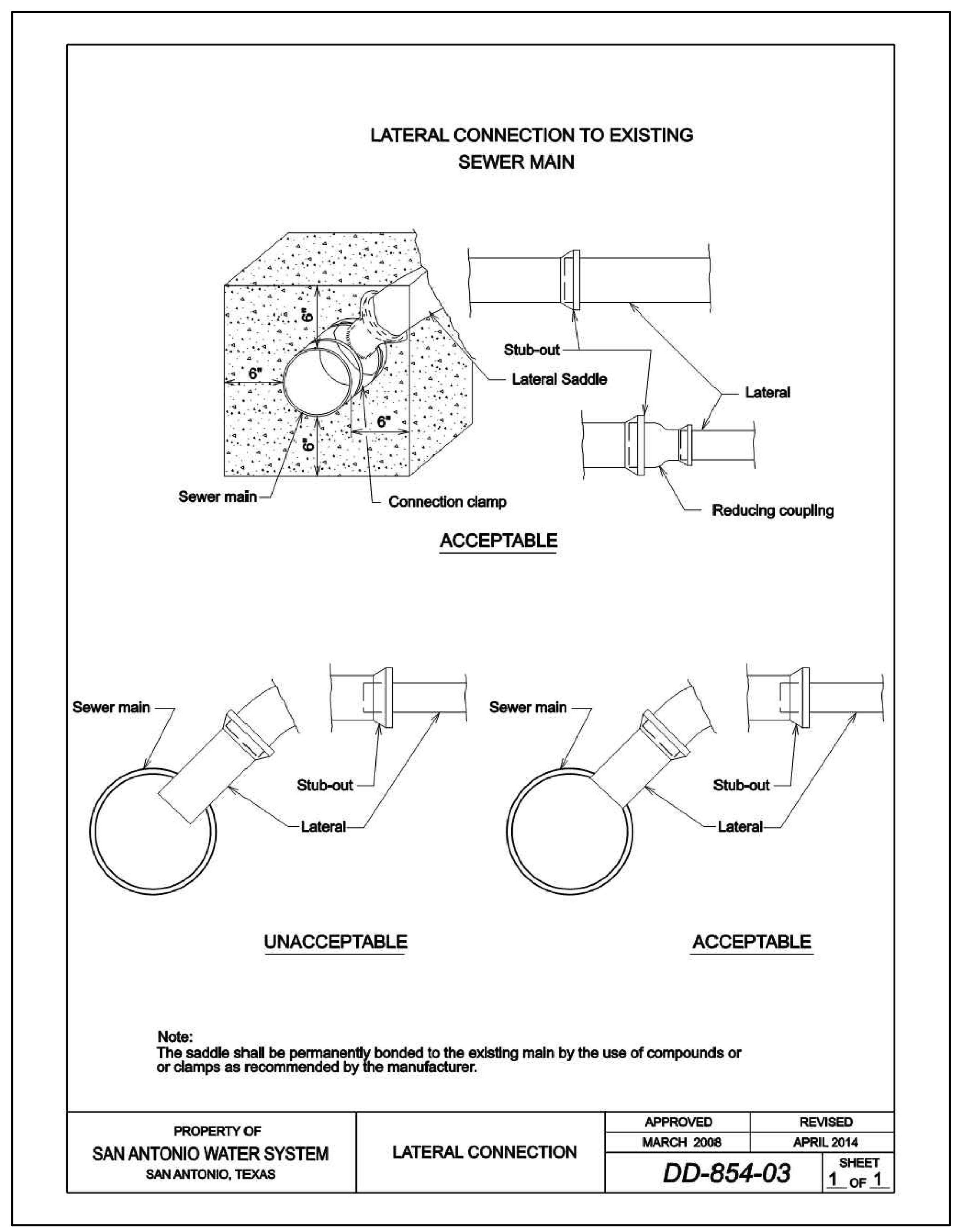
6. Spills, Overflows or Discharges of Wastewater: All spills, overflows or discharges of wastewater, recycled water, petroleum products or chemicals must be reported immediately to the SAWS Inspector assigned to the Counter Permit or General Construction Permit (GCP). This requirement applies to every spill, overflow or discharge regardless of size.

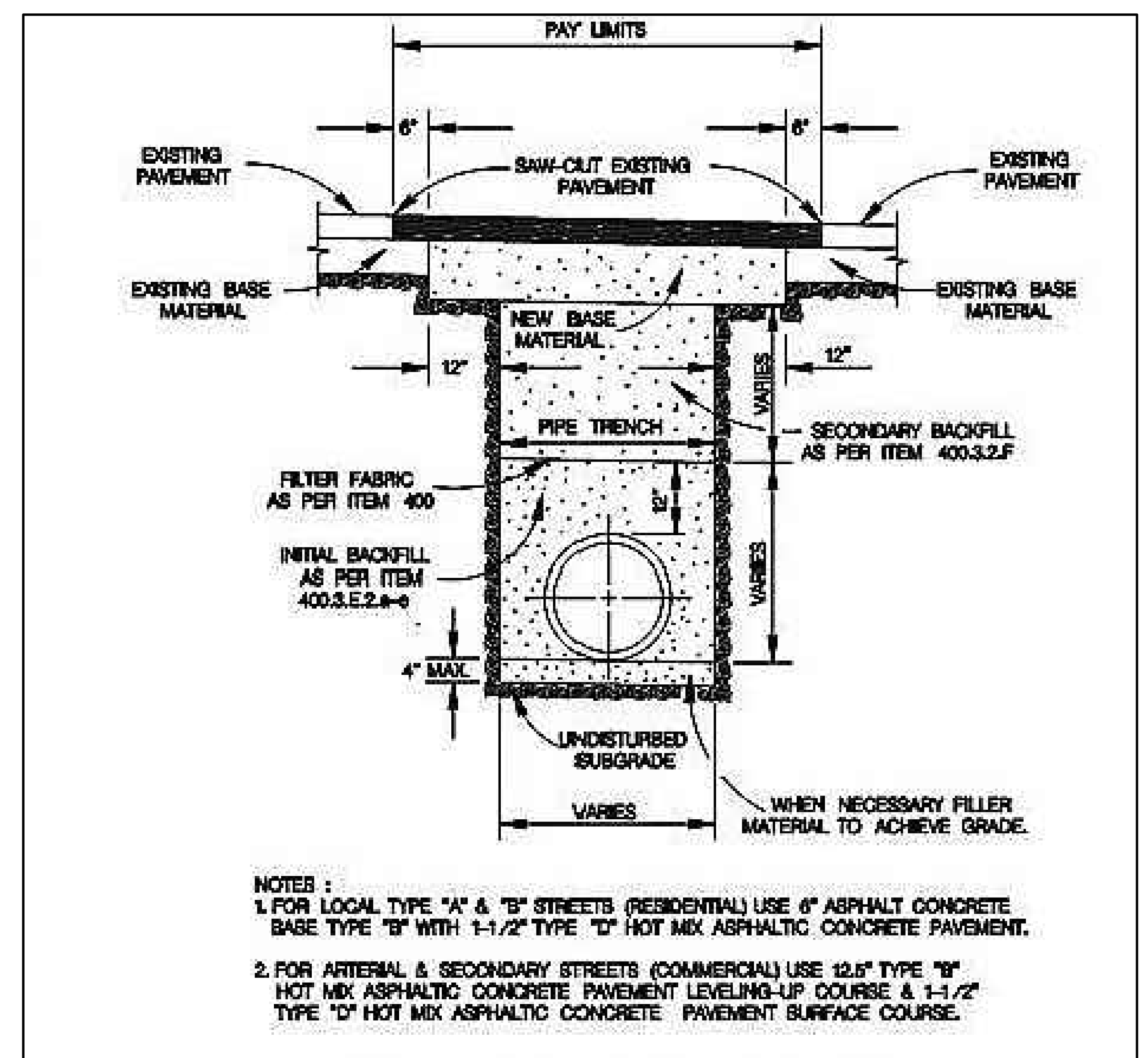
7. Manhole and all pipe testing (including the TV inspection) must be performed and passed prior to Final Field Acceptance by SAWS Construction Inspection Division, as per the SAWS Specifications for Water and Sanitary Sewer Construction.

8. All PVC pipe over 14 feet of cover shall be extra strength with minimum pipe stiffness of 115 psi.









TYPICAL PAVEMENT REPLACEMENT

80% SUBMITTAL

UP ENGINEERING
1270 N LOOP 1604 E, SUITE 1310
SAN ANTONIO, TX 78232 TEL 210-774-5504
WWW.UPENGINEERING.COM TEXAS REG. NO. F-17992

PRELIMINARY
NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
PREPARED UNDER THE SUPERVISION OF NATASHA F. UHLRICH, P.E. #89502 ON August 30, 2019

MNO INVESTMENTS, LLC
4010 GREYSTONE DRIVE
AUSTIN, TX 78731

PLAT NO. 19-11800095
TRAIL STREET TOWNHOMES

SAWS DETAILS

REV	DATE	DESCRIPTION	BY
1	8/30/19	HDRC ADDENDUM	RP

DESIGNED BY:	WPF
DRAFTED BY:	JWH
CHECKED BY:	NFU

SHEET C12 OF C12

Date: Aug 30, 2019, 12:04pm User ID: justi
File: U:_Projects\27 - MNO Partners\27.01 - 335 Trail Street\ACAD\Sheets\27.01 CONSTRUCTION DETAILS.dwg

MATERIALS SCHEDULE

POOL MATERIALS

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
P.1	SPA/POOL COPING DRY PAKC 12"x18" - 2" THICK WITH EASED EDGE	COPING (BY ARDEX) SLATE GRAY #21 GROUT-SILVER SHIMMER#19	NON-SLIP	N/A	• CONTRACTOR TO SUBMIT SAMPLE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • GROUT - 1/2" JOINTS; SUBMIT COLOR SAMPLES W/STONE • ALL COPING & GROUT JOINTS WITH GOLDEN SHIELD COPING SEALER • SAND BLAST DEPTH MARKERS W/ WHITE PAINT LETTERS ON STONE COPING TO BE FURNISHED BY POOL CONTRACTOR AND INSTALLED BY DECK CONTRACTOR • SAND BLAST "NO DIVING" SIGN AND INTERNATIONAL SYMBOLS W/ WITH PAINT LETTERS ON STONE COPING TO BE FURNISHED BY THE POOL CONTRACTOR AND INSTALLED BY THE DECK CONTRACTOR • QUANTITY & LOCATION AS REQUIRED TO MEET ALL APPLICABLE CODES, NOT SHOWN ON PLANS OR DETAILS
P.2	POOL PLASTER DIAMOND BRITE AGGREGATE PLASTER	FRENCH GRAY	STANDARD	COMPANY: DIAMOND BRITE PHONE: 1(800) 947-7807	• CONTRACTOR TO SUBMIT SAMPLE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • NO MORTAR ON PLASTER
P.3	SCUPPER (QTY 3) MODEL: 36" PURE FLOW SCUPPER	STAINLESS STEEL	STANDARD	COMPANY: BOBE WATER & FIRE FEATURES PHONE: (888) 388-2623	• INSTALL PER MANUFACTURER'S RECOMMENDATIONS OR • SUPPLY SPECS FOR APPROVED OTHER
P.5	SPA/POOL TILE AIM GS 84896 B2, SUBWAY	SUBWAY - BLACK AND GRAY	STANDARD	COMPANY: MASTERTILE OR APPROVED OTHER PHONE: (210) 403-2600	• CONTRACTOR TO SUBMIT SAMPLE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION
P.6	STEP/BENCH TILE HARMONY 100 1X1	BLACK	NON-SLIP	COMPANY: MASTERTILE OR APPROVED OTHER PHONE: (210) 403-2600	• CONTRACTOR TO SUBMIT SAMPLE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION
P.7	STAIR RAIL (SINGLE) (QTY) MODEL #: ART-1002 TYPE: 316L STAINLESS STEEL	POLISHED STEEL	N/A	COMPANY: S.R. SMITH, LLC PHONE: 1 (800) 824-4387	• INCLUDE 4" POLISHED STEEL ANCHOR SOCKETS AND ROUND ESCUTCHEON PLATES
P.8	RECESSED STEPS S.R. SMITH, LLC MODEL NO. 62-209-4001	WHITE	N/A	CONTACT: JOHN HANS COMPANY: COMMERCIAL POOL SOLUTIONS PHONE: 210.341.9159	• CONTRACTOR TO SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • INSTALL PER MANUFACTURER'S RECOMMENDATIONS

DRAINAGE

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
D.1	PLANTER AREA DRAINS (P.D.) PD: NDS 6" ATRIUM GRATE (#90S)	BLACK (1290)	N/A	COMPANY: NDS WEBSTIE: HTTPS://WWW.NDSPRO.COM/	
D.2	4" PERFORATED PIPE DRAIN	N/A	STANDARD	COMPANY: NDS WEBSTIE: HTTPS://WWW.NDSPRO.COM/	

CONCRETE

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
C.1	STANDARD CONCRETE SIDEWALK	GREY	LIGHT BROOM	COMPANY: OWNER APPROVED VENDOR	• CONTRACTOR TO SUBMIT MOCK UP FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION
C.2	DECORATIVE CONCRETE AT POOL DECK SALT ROCK FINISH	STANDARD	SALT ROCK	COMPANY: CONSTRUCOLOR PHONE: (210) 714-3488	• CONTRACTOR TO SUBMIT MOCK UP FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • SALT ROCK SHALL BE LESS THAN $\frac{3}{4}$" CRUSHED AND APPLIED WITH EVEN SPREAD

SITE MATERIALS

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
S.1	DECOMPOSED GRANITE	HILL COUNTRY BUFF	$\frac{3}{8}$" CRUSHED	COMPANY: KELLER MATERIAL LIMITED PHONE: (210) 967-1300	• 6" INSTALLED AND COMPACTED TO 4" FINISH GRADE • PROVIDE GEO-FABRICK WEED BARRIER
S.2	HARDWOOD MULCH	DARK BROWN	DOUBLE SHREDDED	COMPANY: KELLER MATERIAL LIMITED PHONE: (210) 967-1300	• 4" DEPTH MINIMUM PER SPEC DETAILS
S.3	RIVER ROCK A ROCKY MOUNTAIN SIZE: 1"-3"	TEXAS BLEND	N/A	COMPANY: KELLER MATERIAL LIMITED PHONE: (210) 967-1300	• 4" DEPTH MINIMUM PER SPEC DETAILS
S.4	RIVER ROCK B SHADOW STONE SIZE: 3/4"	STANDARD	N/A	COMPANY: KELLER MATERIAL LIMITED PHONE: (210) 967-1300	• 4" DEPTH MINIMUM PER SPEC DETAILS
S.5	LIMESTONE STEPPING STONES INDIAN BLUE TREAD 16"X60"	STANDARD	STANDARD	COMPANY: KELLER MATERIAL LIMITED PHONE: (210) 967-1300	• INCLUDE 2" SAND CEMENT BASE

FENCING

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
F.1	4' HT HORIZONTAL WOOD FENCE -HORIZONTAL PICKETS (1X6) AND CAP (2X4) TO BE CEDAR -POST - (3X3) SQUARE TUBING PAINTED	SW 3532 HILL COUNTRY	STANDARD	LOCAL SOURCE	• SUBMIT PRODUCT DATA & SHOP DRAWINGS FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • CONTRACTOR TO SUBMIT MOCK UP FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION
F.2	6' HT HORIZONTAL WOOD FENCE -HORIZONTAL PICKETS (1X6) AND CAP (2X4) TO BE CEDAR -POST - (3X3) SQUARE TUBING PAINTED	SW 3532 HILL COUNTRY	STANDARD	LOCAL SOURCE	• SUBMIT PRODUCT DATA & SHOP DRAWINGS FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • CONTRACTOR TO SUBMIT MOCK UP FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION
F.3	6' HT SPLIT FACE CMU BLOCK WALL -SPLIT FACE ONLY ON POOL SIDE. -2" WALL CAP	CASTLE GREY	STANDARD	LOCAL SOURCE	• SUBMIT PRODUCT DATA & SHOP DRAWINGS FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • CONTRACTOR TO SUBMIT MOCK UP FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION

PAVERS

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
K.1	GRASSTONE II PAVER SIZE: 8CM	GREYBLEND	STANDARD	COMPANY: PAVESTONE	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • CONTRACTOR TO SUBMIT MOCK UP FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION
K.2	CITYSTONE PAVER SIZE: 3X6X5CM VEHICULAR RATED	GREYBLEND	STANDARD	COMPANY: PAVESTONE	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • CONTRACTOR TO SUBMIT MOCK UP FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION

LIGHTING

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
L.1	FESTOON LIGHTING FIRFESV6LAMPE	BLACK WIRE	STANDARD	COMPANY: HOSSLEY LIGHTING CONTACT: STELLA BUSTOS PHONE: 210.445.5891	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • COORDINATE WIRE ATTACHMENT TO BUILDING WITH ARCHITECT
L.2	PATHWAY LIGHTING MB16I-SOI-0-120V-NSS-GROUND MOUNT	STAINLESS	STANDARD	COMPANY: HOSSLEY LIGHTING CONTACT: STELLA BUSTOS PHONE: 210.445.5891	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • COORDINATE WIRE ATTACHMENT TO BUILDING WITH ARCHITECT

SITE FURNISHINGS

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
SF.1	BIKE RACK METALCO - TYPE BIKE RACK	SILVER	STANDARD	N/A	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • COORDINATE WIRE ATTACHMENT TO BUILDING WITH ARCHITECT
SF.2	TRASH RECEPTACLE VESTRE - DIALOG LITTER BIN	SILVER	STANDARD	N/A	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • COORDINATE WIRE ATTACHMENT TO BUILDING WITH ARCHITECT

RECOMMENDED SITE FURNISHINGS (BY OWNER)

KEY	DESCRIPTION / MODEL NUMBER	COLOR	FINISH	CONTACT	REMARKS
RS.1	SUN LOUNGERS FERMOB - SUNLOUNGER XS ALIZÉ	CACTUS	STANDARD	N/A	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • COORDINATE WIRE ATTACHMENT TO BUILDING WITH ARCHITECT
RS.2	LOUNGE FURNITURE FERMOB - LUXEMBOURG LINE	TBD	STANDARD	N/A	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • COORDINATE WIRE ATTACHMENT TO BUILDING WITH ARCHITECT
RS.3	ARMCHAIR FERMOB - SIXTIES LOW	TBD	STANDARD	N/A	• SUBMIT PRODUCT DATA FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLATION • COORDINATE WIRE ATTACHMENT TO BUILDING WITH ARCHITECT

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TRAIL STREET TOWNHOMES

335 Trail Street, San Antonio, TX 78212

PROJECT NUMBER:	2019-004
ISSUED SETS	DATE
HDRC ADDENDUM	08/30/19

KEY PLAN

MATERIALS SCHEDULE

LC 1.1

GENERAL NOTES:

1.) LOCATE AND VERIFY THE CONDITION OF EXISTING UTILITIES PRIOR TO EXCAVATION. TAKE RESPONSIBILITY OF CONTACTING LINE LOCATION SERVICES AND ANY COST INCURRED FOR BODILY INJURY AND / OR DAMAGE OF OWNER'S PROPERTY OR SAID UTILITIES.

2.) THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED BY THE CONTRACTOR OF ANY DISCREPANCIES DISCOVERED BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE LIABLE FOR ALL MODIFICATIONS AND DAMAGES IF WORK PROCEEDS WITHOUT THIS NOTIFICATION.

3.) THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF MAINTAINING A SAFE WORK SITE INCLUDING, BUT NOT LIMITED TO PROVIDING FOR TRAFFIC CONTROL, INSTALLATION AND PLACEMENT OF FENCING AND BARRICADES, EXCAVATION AND TRENCH PROTECTION, AND COMPLIANCE WITH ALL FEDERAL AND LOCAL REGULATIONS AND CODES. ALL SAFETY EXPOSURES OR VIOLATIONS SHALL BE RECTIFIED IMMEDIATELY.

4.) THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL EXISTING IMPROVEMENTS BOTH ON SITE AND ADJACENT TO THE WORK SITE AND SHALL REPAIR ANY DAMAGE TO THESE IMPROVEMENTS TO THE SATISFACTION OF THE OWNER.

5.) THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE ARCHITECT 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULES.

6.) ANY ALTERNATES AND OR SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL. CHANGES TO THE SCOPE OF WORK AND / OR CONTRACT DOCUMENTS RESULTING FROM THE ACCEPTANCE OF THE CONTRACTOR'S ALTERNATES AND / OR SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

7.) THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF TRASH ON A DAILY BASIS.

8.) THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. PRIOR TO CONSTRUCTION, ALL PERMITS AND APPROVALS REQUIRED FOR CONSTRUCTION OF THE PROJECT SHALL BE PAID FOR AND OBTAINED BY THE CONTRACTOR (PLAN REVIEW FEES ARE PAID BY OWNER) COSTS FOR PERMITS SHALL BE INCLUDED IN THE BID. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME AWARE OF REQUIRED INSPECTIONS THAT ARE ASSOCIATED WITH PERMITS ISSUED FOR THE WORK AND TO SCHEDULE THESE INSPECTIONS AT THE APPROPRIATE STAGE OF CONSTRUCTION. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO ROUGH-IN ELECTRICAL, ROUGH-IN PLUMBING,IRRIGATION PIPING, FOUNDATION STEEL FOR STRUCTURES (INCLUDING WALLS), FIRE INSPECTIONS RELATED TO ENTRY GATES AND ASSOCIATED STRUCTURES AND OTHERS AS MAY APPLY.

9.) COORDINATE WORK WITH SUBCONTRACTORS TO ACCOMPLISH THE SCOPE OF WORK AS SHOWN AND NOTED IN THE CONTRACT DOCUMENTS AS WELL AS, COORDINATE CONSTRUCTION WITH OTHER CONTRACTORS WORKING ON THE SITE.

10.) THE CONTRACTOR SHALL COORDINATE THE STORING OF MATERIALS, PARKING OF VEHICLES, AND RESTRICTIONS OF WORK AND ACCESS WITH THE OWNER. UNDER NO CIRCUMSTANCES SHALL ANY CONTRACTOR STORE MATERIALS, PARK VEHICLES OR EQUIPMENT UNDER THE CANOPY OF EXISTING TREES.

11.) UNLESS SPECIFIED OTHERWISE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND PAYING ALL TEMPORARY UTILITIES AND SERVICES NECESSARY TO COMPLETELY INSTALL ALL WORK AS SHOWN AND NOTED IN THE CONTRACT DOCUMENTS.

12.) THE CONTRACTOR IS RESPONSIBLE FOR THE LEGAL OFF-SITE DISPOSAL OF SURPLUS MATERIAL AND DEBRIS.

13.) UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL APPROVAL, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE PROJECT SITE OF ALL TRASH, REPAIR ALL DAMAGE TO FINISH GRADE, INCLUDING TAILINGS FROM EXCAVATIONS, WHEEL RUTS AND ANY SETTLING OR EROSION THAT HAS OCCURRED PRIOR TO COMPLETION. ALL AREAS OF THE PROJECT SITE SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION SATISFACTORY TO THE OWNER PRIOR TO SUBMITTAL OF THE FINAL PAYMENT.

14.) THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND SERVICING TEMPORARY TOILET FACILITIES.

CONCRETE NOTES:

1.) ALL CONCRETE CONSTRUCTION, DETAILING AND ERECTION SHALL CONFORM TO THE FOLLOWING:
- A.) ACI #301: SPECIFICATIONS
- B.) ACI #318: BUILDING CODE REQUIREMENTS
- C.) ACI #315: MANUAL OF STANDARD PRACTICE

2.) CONCRETE MATERIALS SHALL CONFORM TO THE FOLLOWING ASTM REQUIREMENTS:
- A.) AGGREGATE - C33
- B.) READY MIXED CONCRETE - C94
- C.) PORTLAND CEMENT - C150
- D.) FIELD CYLINDERS - C31
- E.) COMPRESSIVE TESTING - C39

3.) ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WEIGHING NOT MORE THAN 145 PCF AND SHALL HAVE A MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI.

4.) THE WATER/CEMENT RATIO FOR STRUCTURAL CONCRETE SHALL NOT EXCEED 0.53.

5.) TOTAL AIR CONTENT SHALL BE 3 TO 5 PERCENT.

6.) PUMPED CONCRETE SHALL MEET THESE ADDITIONAL REQUIREMENTS:
- A.) MAXIMUM COARSE AGGREGATE SIZE - 1 INCH
- B.) INCREASE CEMENT FACTOR BY 1/2 SACK PER CUBIC YARD.
- C.) MAXIMUM SLUMP - 5 INCHES
- D.) DO NOT PUMP THROUGH AN ALUMINUM TUBE.

7.) CONCRETE SHALL NOT BE PLACED PRIOR TO APPROVAL OF THE CONCRETE MIX DESIGNS BY THE LANDSCAPE ARCHITECT. THE MIX DESIGNS SHALL NOT BE APPROVED PRIOR TO RECEIPT OF COMPRESSIVE TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY CERTIFYING ADEQUATE STRENGTH OF THE MIX DESIGNS AT 28 DAYS.

8.) HORIZONTAL CONSTRUCTION JOINTS ARE ONLY ALLOWED IN SLABS OF BEAMS WITH WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. CONTROL JOINTS SHALL BE PLACED MAXIMUM 25' O.C. AS REQUIRED WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.

CONCRETE REINFORCEMENT

1.) ALL REINFORCEMENT SHALL BE DEFORMED BILLET STEEL (GR.60) CONFORMING TO ASTM A615.
- A.) REINFORCING - A615, GRADE 60, DEFORMED
- B.) WELDED WIRE MESH - A185, GRADE 60

2.) SPLICES OF HORIZONTAL REINFORCEMENT SHALL LAP AT LEAST 24" AND SHALL BE CONTINUOUS AROUND CORNERS. MAINTAIN AT LEAST 1" BETWEEN REINFORCING BARS AT SPLICES IN BEAMS AND SLABS. REINFORCING BARS SCHEDULED AS CONTINUOUS SHALL BE LAPPED 24".

3.) DETAILING FABRICATION AND ERECTION OF REINFORCING BARS SHALL COMPLY WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).

4.) STANDARD PROTECTIVE COVER FOR REINFORCING, UNLESS NOTED OTHERWISE, SHALL BE AS OUTLINED IN ACI 318-83:
- A.) AGAINST DIRT OF FILL - 3 INCHES
- B.) EXPOSED TO EARTH OR WEATHER - 2 INCHES
- C.) SLABS AND WALLS - 1 INCH
- D.) OTHER - 1 1/2 INCHES

5.) PROVIDE SHOP DRAWINGS OF REINFORCING AND ACCESSORIES FOR REVIEW BY ARCHITECT. SHOP DRAWINGS SHALL CLEARLY INDICATE LOCATION, SIZE, SPACING, SPLICES AND PIECE MARK FOR ALL REINFORCING STEEL. THE SHOP DRAWINGS SHALL PROVIDE SUFFICIENT DETAIL TO PERMIT PLACEMENT OF REINFORCEMENT WITHOUT THE USE OF THE DESIGN DRAWINGS AND SHALL INCLUDE A COMPLETE BILL OF MATERIALS.

6.) FABRICATION OF REINFORCING STEEL SHALL NOT COMMENCE UNTIL SUBMITTALS HAVE BEEN REVIEWED BY LANDSCAPE ARCHITECT.

SIDEWALK NOTES:

1.) THESE PLANS INDICATE APPROXIMATE LOCATIONS OF THE CONCRETE SIDEWALKS. DIMENSIONS SHOWN ARE FROM BACK OF CURB OR PROPERTY LINE TO SIDEWALK EDGE AND ARE AT RIGHT ANGLES (OR PERPENDICULAR) TO THE CURB OR PROPERTY LINE. SIDEWALK CONTRACTOR SHALL STAKE SIDEWALK LAYOUT FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO BEGINNING CONSTRUCTION. SET ELEVATIONS OF WALKS FOR POSITIVE DRAINAGE FROM PROPERTY LINE TO CURB. OWNER AND LANDSCAPE ARCHITECT SHALL MAKE FINAL APPROVAL OF FINISHED ELEVATION AND LAYOUT OF FORMS IN THE FIELD PRIOR TO CONCRETE PLACEMENT.

2.) CONTRACTOR SHALL USE FIBERGLASS OR THIN WOOD FORMS TO CREATE SMOOTH AND UNIFORM CURVES ON MEANDERING SIDEWALKS UNLESS OTHERWISE APPROVED BY LANDSCAPE ARCHITECT.

3.) CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI. CONCRETE AND REINFORCING SHALL MEET ALL OTHER APPLICABLE CRITERIA IN THE CONCRETE AND REINFORCEMENT NOTES.

4.) CONTRACTOR TO TIE ALL SIDEWALKS INTO EXISTING WALKS WITH A SMOOTH TRANSITION AND TO MATCH EXISTING WALKS IN COLOR AND FINISH.

5.) CONTRACTOR SHALL COORDINATE SIDEWALK CONSTRUCTION WITH OTHER CONTRACTORS WORKING SIMULTANEOUSLY.

6.) LOCATIONS OF ALL UTILITIES SHOWN ON PLANS ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD. NOTIFY OWNER OF ANY ELEVATION ADJUSTMENT REQUIRED OF MANHOLES OR UTILITY BOXES. THE APPROPRIATE UTILITY CONTRACTOR WILL MAKE ADJUSTMENT.

7.) STUB OUT WALKS AS SHOWN ON PLANS WITH REDWOOD EXPANSION JOINTS AND 1/2" DOWELS, 12" O.C. TO ALLOW FUTURE CONSTRUCTION. CONTRACTOR SHALL BACKFILL TO TOP OF WALK TO ENSURE NO DOWELS ARE EXPOSED.

8.) CONTROL JOINT LAYOUT AT WALK INTERSECTIONS HAS BEEN SHOWN DIAGRAMMATICALLY ON PLANS AND SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO POURING. WALKS SHALL BE POURED IN SECTIONS WITH NO CORNERS LESS THAN 45 DEGREES TO AVOID FUTURE CRACKING.

NOTE: CONTRACTOR IS RESPONSIBLE FOR PROTECTING HIS WORK FROM VANDALISM OR GRAFFITI PRIOR TO CURING. CONTRACTOR SHALL REPLACE AS NECESSARY ANY SECTIONS OF DAMAGED WALK AT NO ADDITIONAL COST TO THE OWNER.

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TRAIL STREET TOWNHOMES

335 Trail Street, San Antonio, TX 78212

PROJECT NUMBER:	2019-004
ISSUED SETS	DATE
HDRC ADDENDUM	08/30/19

KEY PLAN

MATERIALS SCHEDULE

LC 1.2

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TREE PRESERVATION

TREE PRESERVATION: (Tree Survey Method)

MITIGATION CALCULATIONS

SIGNIFICANT TREE:	126 TOTAL INCHES
126 INCH. X 40% REQUIRED TO BE PRESERVED :	50.4 INCH.
SIGNIFICANT TREE INCH. PRESERVED:	34 INCH. (26.9%)
REQUIRED MITIGATION:	**16.4" REQUIRED MITIGATION**
HERITAGE TREE:	193 TOTAL INCHES
193 INCH. X 100% REQUIRED TO BE PRESERVED :	193 INCH. (100%)
HERITAGE TREE INCH. PRESERVED:	52 INCH. (26.9%)
REQUIRED MITIGATION: 141 INCH. X 3:1 =	**423" REQUIRED MITIGATION**
TOTAL REQUIRED MITIGATION ON SITE:	
16.4" SIGNIFICANT + 423" HERITAGE REQUIRED MITIGATION =	**439.4 *INCHES REQUIRED***
TOTAL MITIGATION PROVIDED:	
TOTAL MITIGATION PROVIDED:	**120 INCHES**

MITIGATION CALCULATIONS

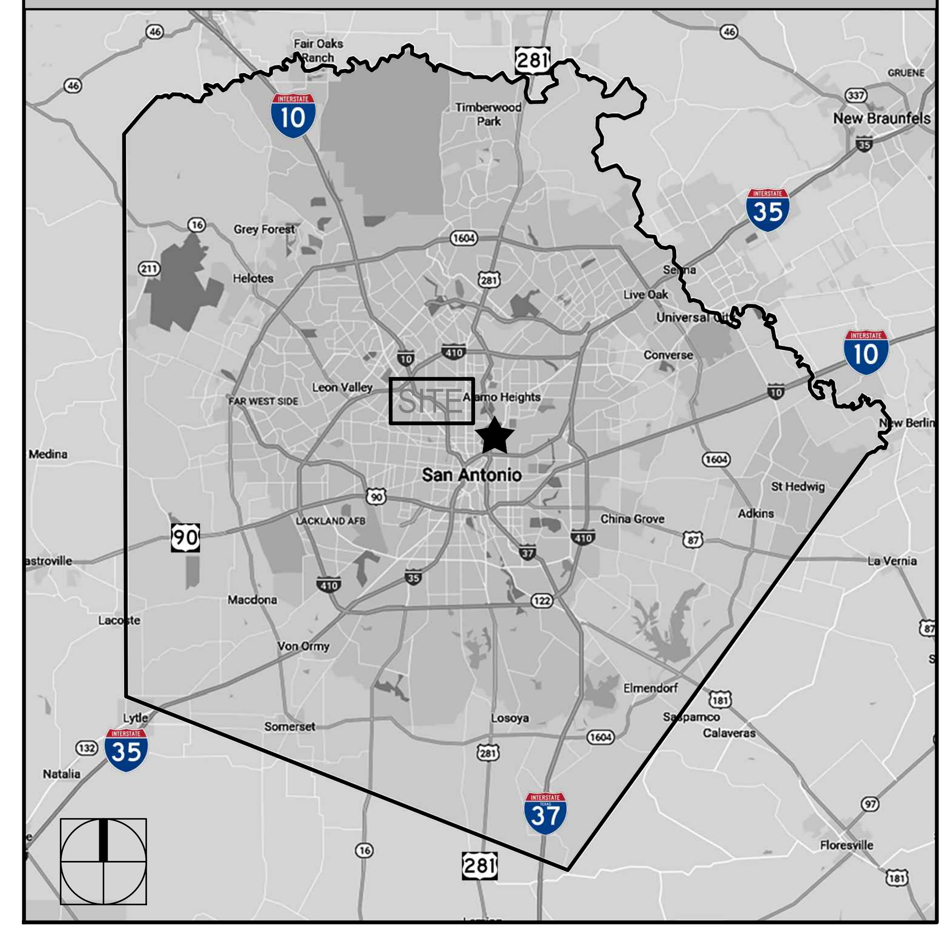
REMAINING MITIGATION: 439.4" REQUIRED MITIGATION - 120" MITIGATION PROVIDED = 319.4"

TREE MITIGATION FUND OPTION: 319.4" (NOT MITIGATED) X ($200/INCH) = **$63,880 *(PLUS FEES)***

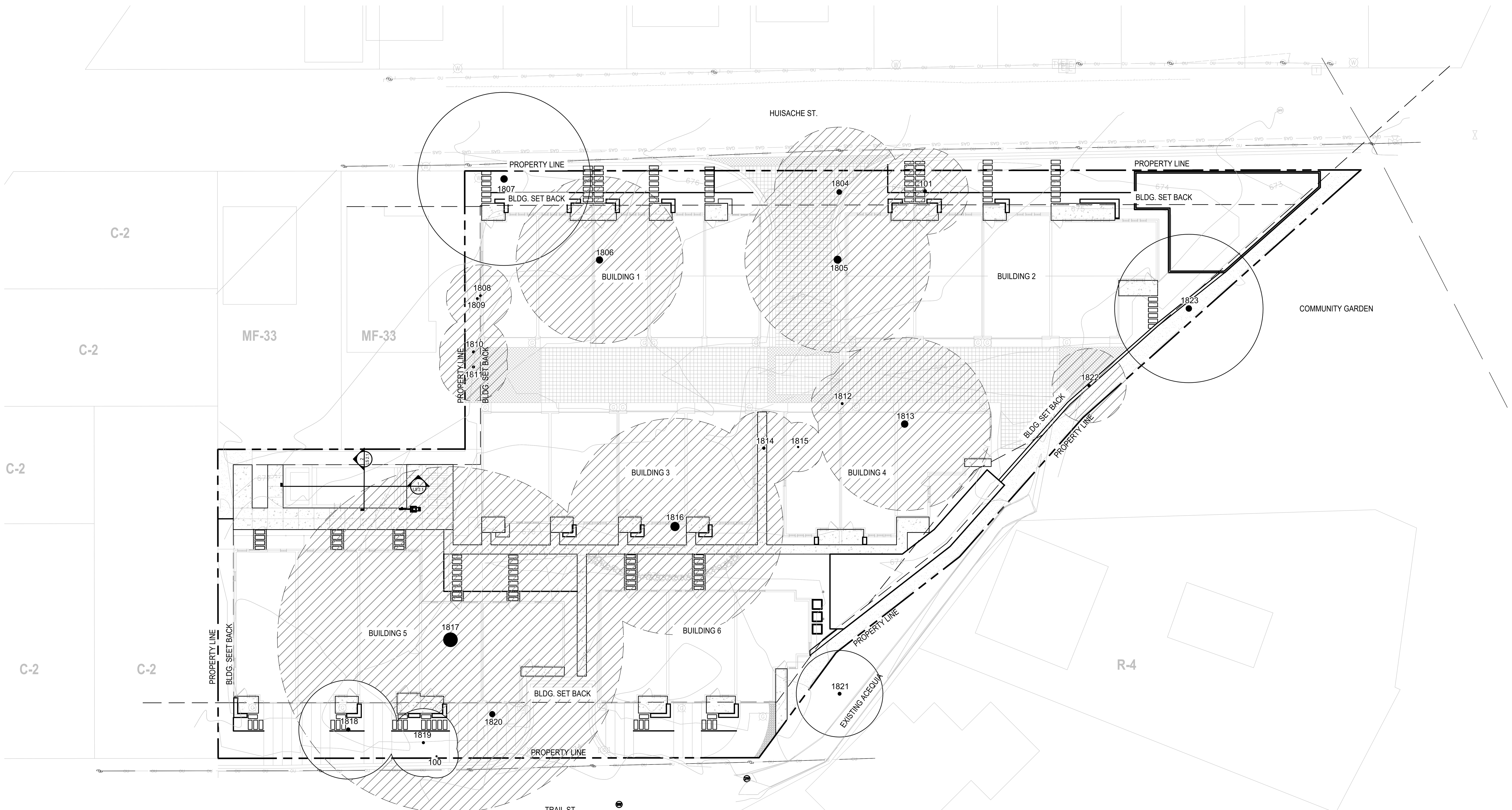
**** REFERENCE LP 1.1 FOR PROPOSED MITIGATION INCH CALCULATIONS AND TREE TYPES ****

PRESERVED TREES   REMOVED TREES

BEXAR COUNTY MAP



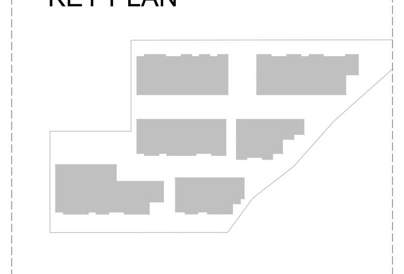
VICINITY MAP



1 TREE PRESERVATION
PLAN

SCALE: 1"=20'

KEY PLAN

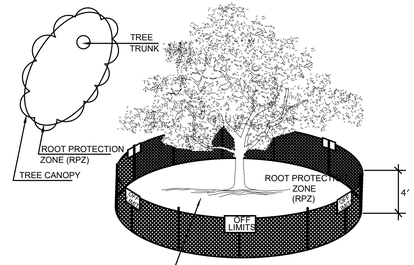


TREE PRESERVATION PLAN

TP 1.1

Trail St Townhomes TREE INVENTORY

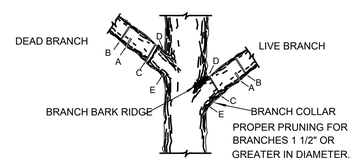
			Understory Species* 5.0" - 11.5"		Significant Tree 6" - 23.5"		Significant Tree** 10.0" - 23.5"		Heritage 3:1		Heritage 1:1		Additional Inches Preserved
Tag #	Species	Tree Caliper	Removed	Preserved	Removed	Preserved	Removed	Preserved	Removed	Preserved	Removed	Preserved	Preserved
100	ANAQUA	7				7							
101	PALM TREE	14.5											
1804	HACKBERRY	21					21						
1805	PECAN	30							30				
1806	PECAN	27							27				
1807	CYPRESS	28								28			
1808	MULBERRY (DECLINE)	10											
1809	MULBERRY (DECLINE)	10											
1810	MULBERRY (DECLINE)	11											
1811	MULBERRY	11			11								
1812	HACKBERRY	10					10						
1813	PECAN	28							28				
1814	ANAQUA	7			7								
1815	ELM	8			8								
1816	PECAN(DECLINE)	35											
1817	OAK	56							56				
1818	PECAN	16				16							
1819	PECAN	11				11							
1820	PECAN	23			20								
1821	UNK(OFF-SITE)	14											
1822	HACKBERRY	12					12						
1823	PECAN	24								24			
Sub. Tot. Inches=			0	0	46	34	43	0	141	52	0	0	0
				0		80		43		193		0	
Total inches by category=													
Preservation percentage=			#DIV/0!		Significant		28%		Heritage Preservat		27%		
Mitigation required (Commercial) =			0		Commercial (inche		15.2						
Mitigation required (Residential) =			0		Residential (inches		9.05		Heritage Mitigation (inches)			423	



NOTE:
1. THE FENCING SHOWN ABOVE IS DIAGRAMATIC ONLY AND WILL CONFORM TO THE DRIP LINE AND LIMITED TO PROJECT BOUNDARY.
2. FOR ACCEPTABLE FENCING MATERIALS SEE SPECIFICATIONS.

1 EXISTING TREE PROTECTION

ELEVATION - PLAN - 3D VIEW NOT TO SCALE



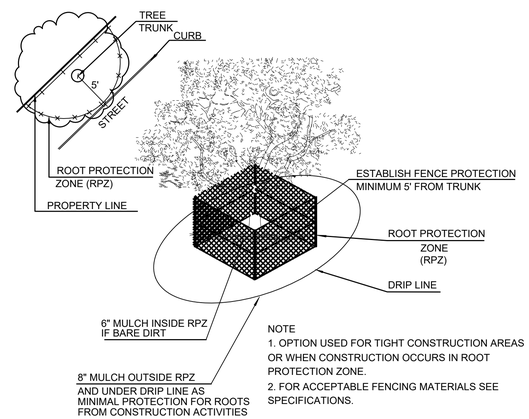
NOTE: DO NOT CUT FROM D to E.

A. FIRST CUT - TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
B. SECOND CUT - TO REDUCE THE WEIGHT OF BRANCH.
C. FINAL CUT - ALLOW FOR HEALING COLLAR BUT NO STUBS
D. BRANCH RIDGES - INDENT PROPERLY BRANCH RIDGES WHICH ARE SITE FOR DECAY.

FOR OAKS ONLY: PAINT ALL WOUNDS OR CUTS WITH PRUNING PAINT WITHIN 20 MIN TO PREVENT THE SPREAD OF OAK WILT.

2 TREE BRANCH PRUNING

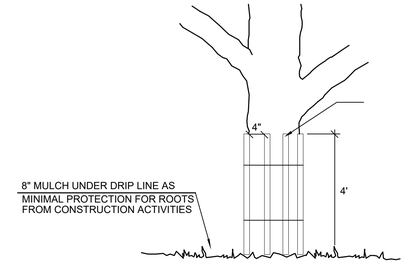
ELEVATION NOT TO SCALE



NOTE
1. OPTION USED FOR TIGHT CONSTRUCTION AREAS OR WHEN CONSTRUCTION OCCURS IN ROOT PROTECTION ZONE.
2. FOR ACCEPTABLE FENCING MATERIALS SEE SPECIFICATIONS.

3 LEVEL II A TREE PROTECTION

ELEVATION NOT TO SCALE



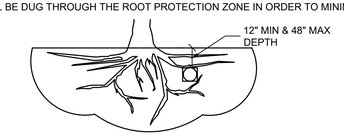
NOTE
WRAP TREE TRUNK WITH 2"X4" STUDS AND ROPE OR BAND IN PLACE AS NEEDED TO PROTECT TREES IN WORK AREAS.

4 LEVEL II B TREE PROTECTION

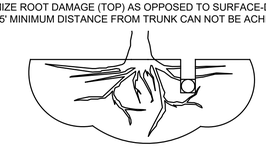
ELEVATION NOT TO SCALE

TREES THAT ARE MARKED TO BE PRESERVED ON A SITE PLAN AND FOR WHICH UTILITIES MUST PASS TROUGH THEIR ROOT PROTECTION ZONES MAY REQUIRE TUNNELING AS OPPOSED TO OPEN TRENCHES. THE DECISION TO TUNNEL WILL BE DETERMINED ON A CASE BY CASE BASIS BY THE ENGINEER.

TUNNELS SHALL BE DUG THROUGH THE ROOT PROTECTION ZONE IN ORDER TO MINIMIZE ROOT DAMAGE.



TUNNEL TO MINIMIZE ROOT DAMAGE (TOP) AS OPPOSED TO SURFACE-DUG TRENCHES IN ROOT PROTECTION ZONE WHEN THE 5' MINIMUM DISTANCE FROM TRUNK CAN NOT BE ACHIEVED.



OPEN TRENCHING MAY BE USED IF EXPOSED TREE ROOTS DO NOT EXCEED 3" OR ROOTS CAN BE BENT BACK.

5 BORING THROUGH TREE ROOT (RPZ)

SECTION NOT TO SCALE

EXISTING TREE NOTES

1. ALL THE TREES WITH A DIAMETER GREATER THAN 3 INCHES AFFECTED BY CONSTRUCTION SHALL HAVE THE LIMBS AND ROOTS TRIMMED AND PRUNED ACCORDING TO TREE PRUNING, SOIL AMENDING AND FERTILIZATION, UNLESS SPECIFIED TREES SHALL RECEIVE PROTECTION AS SHOWN ON TREE PROTECTION DETAIL ON THIS SHEET.

2. ALL TREES SHALL REMAIN UNLESS NOTED ON THE PLANS.

3. NO SITE PREPARATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED BY CITY INSPECTOR.

4. TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION.

5. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN THREE INCHES IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR.

6. THE ROOT PROTECTION ZONE IS THAT AREA SURROUNDING A TREE, AS MEASURED BY A RADIUS FROM THE TREE TRUNK, IN WHICH NO EQUIPMENT, VEHICLES OR MATERIALS MAY OPERATE OR BE STORED. THE REQUIRED RADIUS LENGTH IS 1 FOOT PER DIAMETER INCH OF THE TREE. FOR EXAMPLE, A 10-INCH DIAMETER TREE WOULD HAVE A 5-FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES THAT ARE IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. LIVE OAK WOUNDS SHALL BE PAINTED OVER, WITHIN 20 MINUTES TO PREVENT OAK WILT.

7. ACCESS TO FENCED AREAS WILL BE PERMITTED ONLY WITH THE APPROVAL OF THE ENGINEER OR CITY INSPECTOR.

8. GRADING, IF REQUIRED, SHALL BE LIMITED TO A 3 INCH CUT OR FILL WITHIN THE FENCED ROOT ZONE AREAS.

9. TREES, SHRUBS OR BUSHES TO BE CLEARED FROM PROTECTED ROOT ZONE AREAS SHALL BE REMOVED BY HAND AS DIRECTED BY THE PROJECT MANAGER OR CITY INSPECTOR.

10. TREES DAMAGED OR LOST DUE TO CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE ENGINEER'S SATISFACTION.

11. EXPOSED ROOTS SHALL BE COVERED AT THE END OF EACH DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.

12. ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST PRIOR TO ITS REMOVAL.

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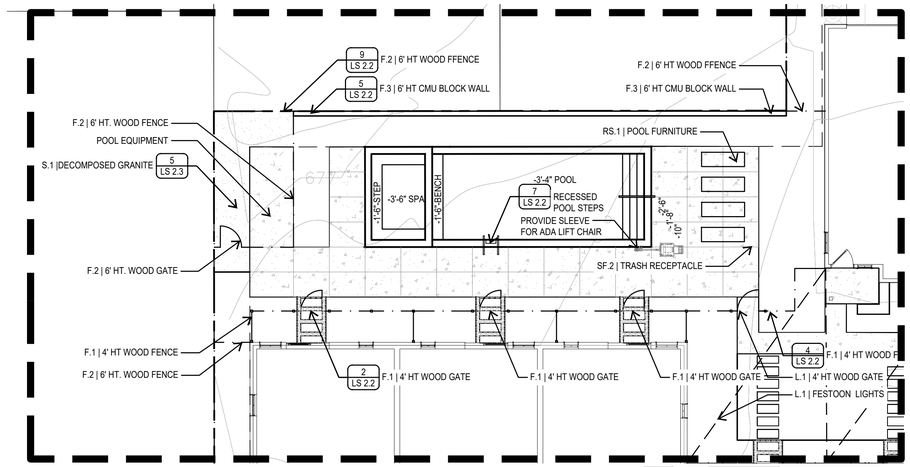
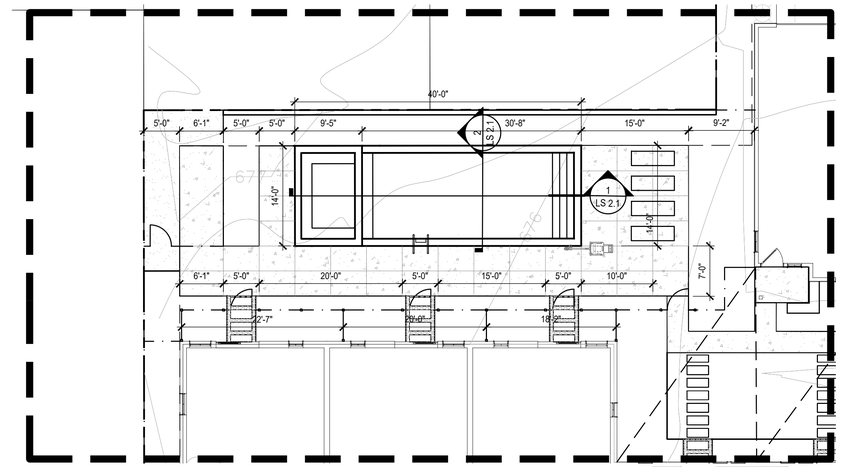
KEY PLAN

TREE PRESERVATION DETAILS & NOTES

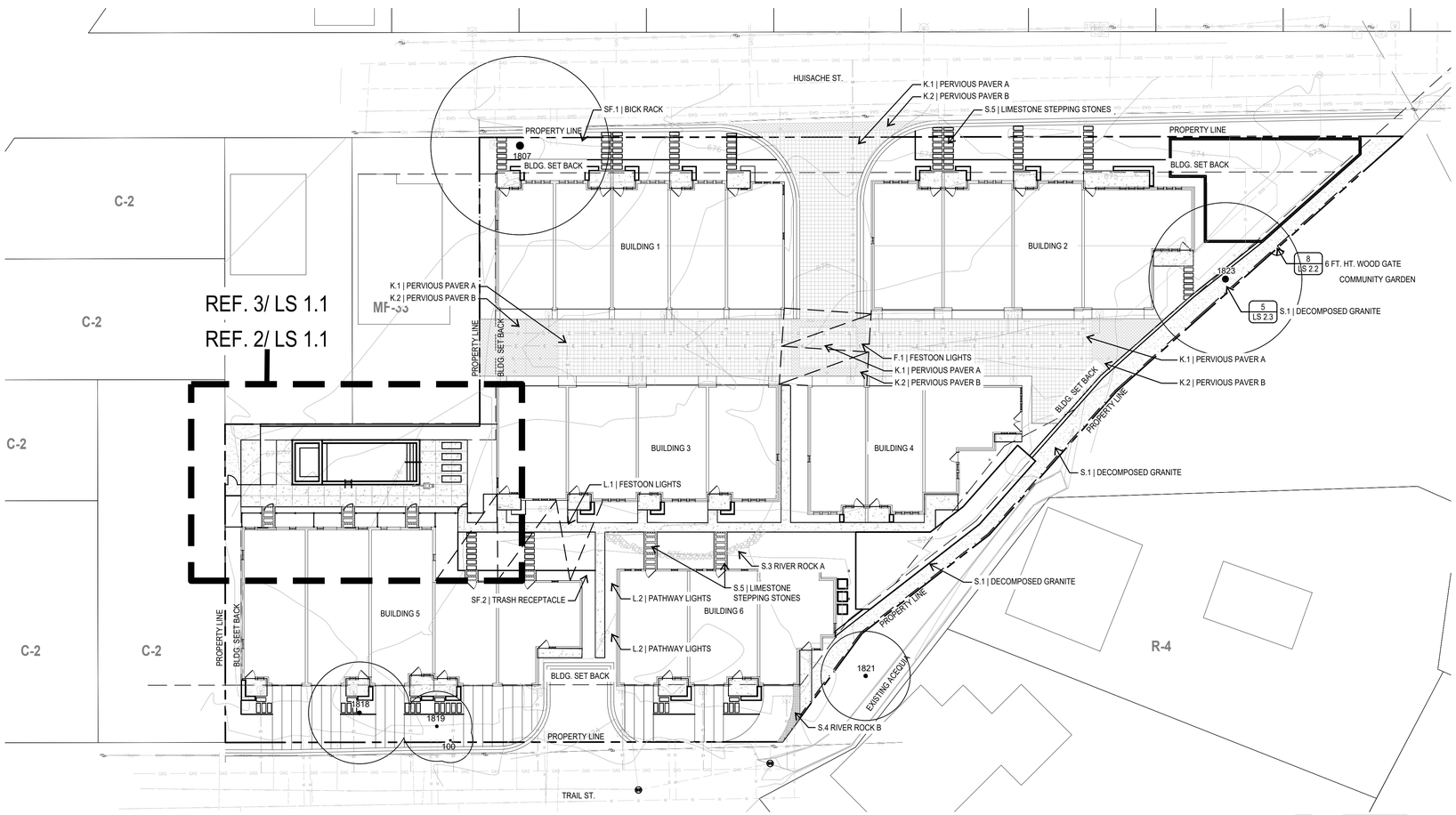
TP 2.1



2 POOL ENLARGEMENT
PLAN
SCALE: 1"=10'



3 POOL / HARDSCAPE DIMENSIONS
PLAN
SCALE: 1"=10'



1 OVERALL SITE PLAN
PLAN
SCALE: 1"=20'

m(ødm)

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TRAIL STREET TOWNHOMES

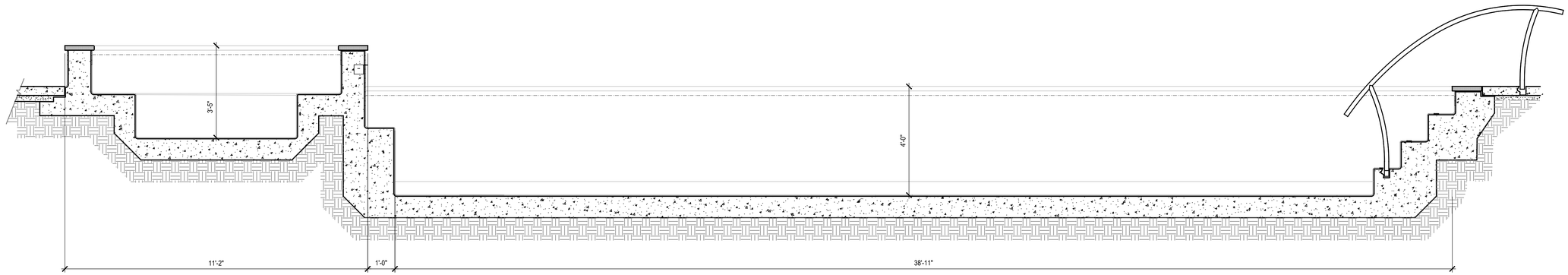
335 Trail Street, San Antonio, TX 78212

PROJECT NUMBER:	2019-004
ISSUED SETS	DATE
HDRC ADDENDUM	08/30/19

KEY PLAN

OVERALL SITE PLAN

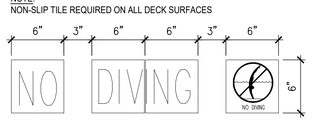
LS 1.1



1 POOL
SECTION

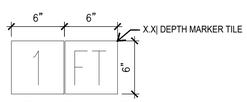
SCALE: 1/2"=1'-0"

NOTE:
NON-SLIP TILE REQUIRED ON ALL DECK SURFACES



"NO DIVING" MARKERS 6"X6" GLAZED CERAMIC FROST PROOF TILE SET INTO CONCRETE POOL DECK. QUANTITY AND LOCATION REQUIRED TO MEET ALL APPLICABLE CODES.

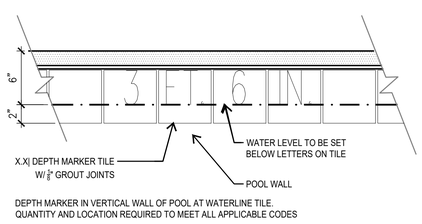
INTEGRAL COLORS FOR LETTERS



DEPTH MARKERS 6"X6" GLAZED CERAMIC FROST PROOF TILE SET INTO CONCRETE POOL DECK. QUANTITY AND LOCATION REQUIRED TO MEET ALL APPLICABLE COEDS.

INTEGRAL COLORS FOR LETTERS

CONCRETE POOL DECK TILE

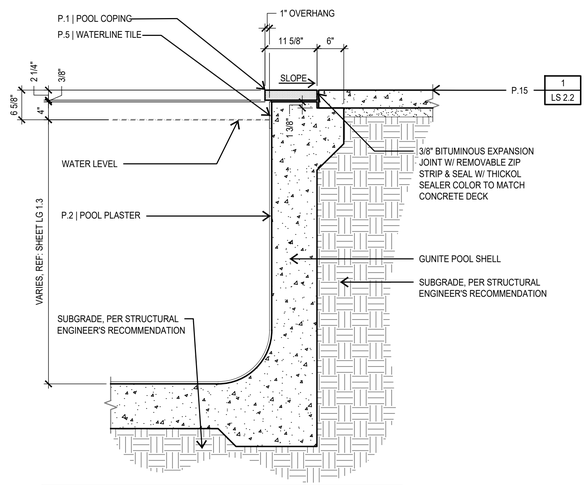


DEPTH MARKER IN VERTICAL WALL OF POOL AT WATERLINE TILE.
QUANTITY AND LOCATION REQUIRED TO MEET ALL APPLICABLE CODES

INTEGRAL COLORS FOR LETTER

3 POOL MARKERS
SECTION

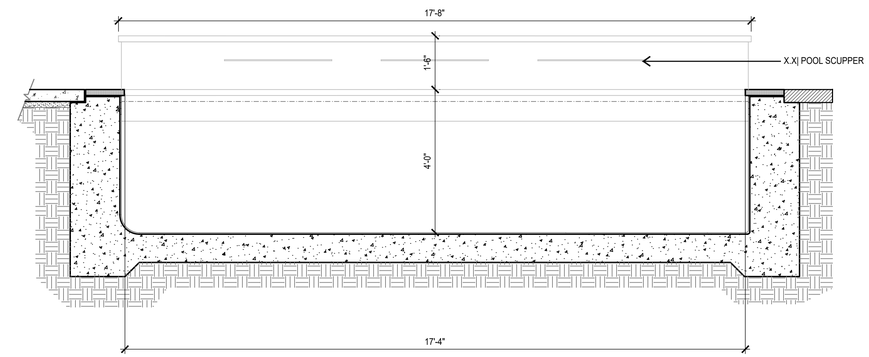
SCALE: 1-1/2"=1'-0"



GENERAL NOTE: SWIMMING POOL DETAILS ARE FOR REFERENCE PURPOSES ONLY. POOL CONTRACTOR TO SUBMIT SHOP DRAWINGS STAMPED AND SIGNED BY A LICENSED, STATE OF TEXAS STRUCTURAL ENGINEER. SHOP DRAWINGS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION. THE POOL CONTRACTOR IS TO NOTIFY THE LANDSCAPE ARCHITECT IF DESIGN OR LAYOUT CONFLICTS WITH ANY CODES.

4 TYP. POOL WALL
SECTION

SCALE: 3/4"=1'-0"

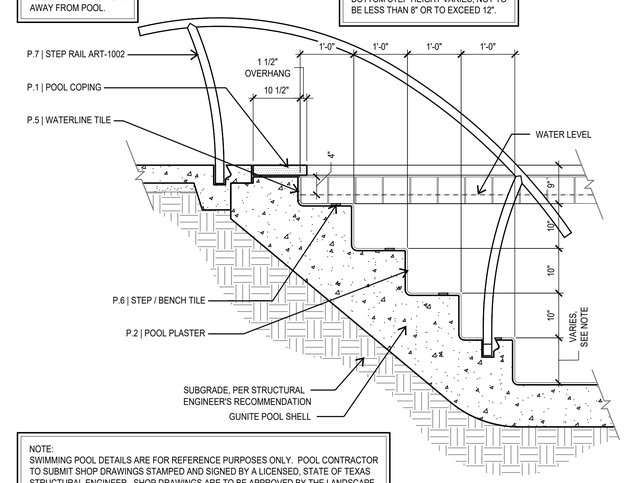


2 POOL
SECTION

SCALE: 1/2"=1'-0"

NOTE:
POOL DECK IS TO SLOPE AWAY FROM POOL.

NOTE:
BOTTOM STEP HEIGHT VARIES, NOT TO BE LESS THAN 8" OR TO EXCEED 12".



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5 TYP. POOL STEP
SECTION

SCALE: 3/4"=1'-0"

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TRAIL STREET TOWNHOMES

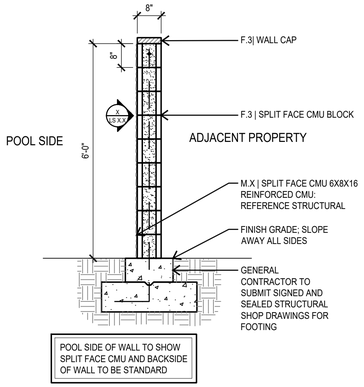
335 Trail Street, San Antonio, TX 78212

PROJECT NUMBER:	2019-004
ISSUED SETS	DATE
HDRC ADDENDUM	08/30/19

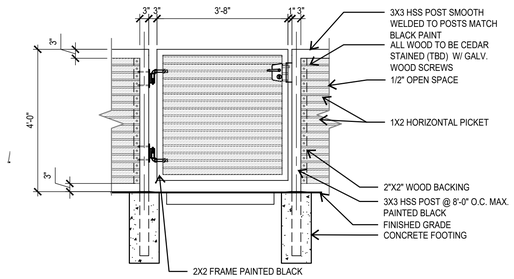
KEY PLAN

SITE DETAILS

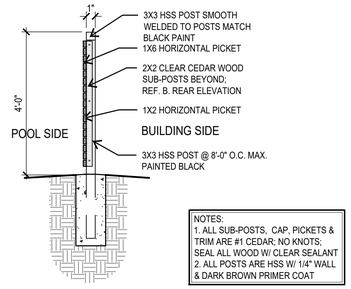
LS 2.1



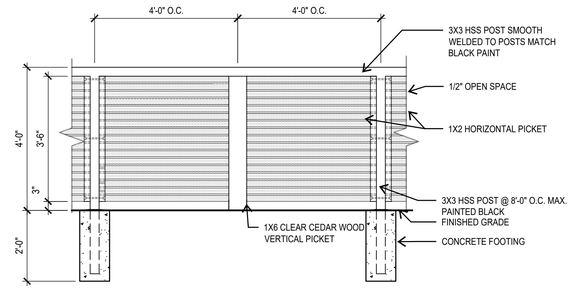
1 CMU BLOCK WALL
SECTION SCALE: 1/2"=1'-0"



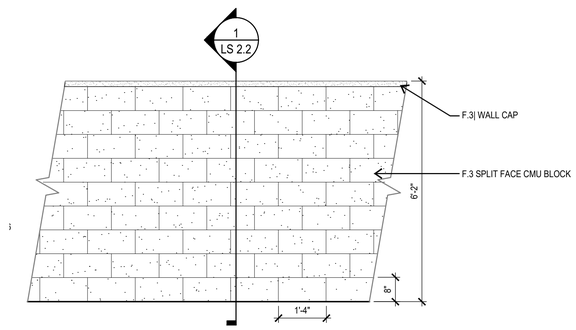
2 4' HT HORIZONTAL WOOD FENCE
SECTION SCALE: 1/2"=1'-0"



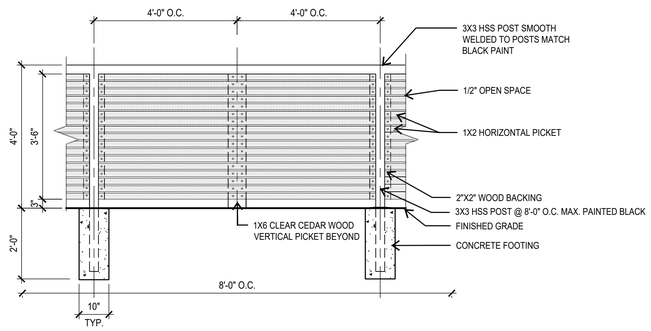
3 4' HT HORIZONTAL WOOD FENCE
SECTION SCALE: 1/2"=1'-0"



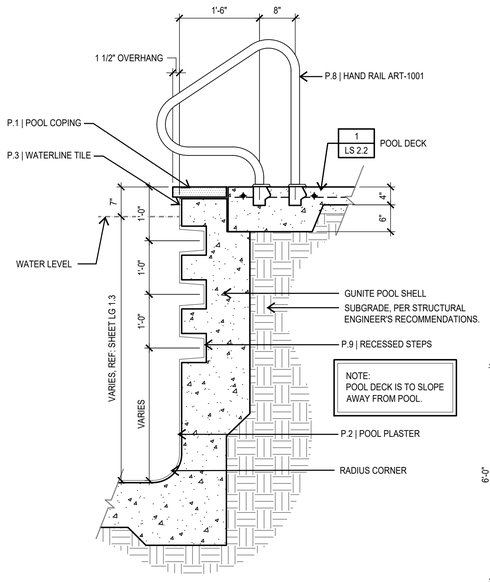
4 BACK BUILDING SIDE 4' HT HORIZONTAL WOOD FENCE
SECTION SCALE: 1/2"=1'-0"



5 CMU BLOCK WALL
ELEVATION SCALE: 1/2"=1'-0"



6 FRONT POOL SIDE 4' HT HORIZONTAL WOOD FENCE
SECTION SCALE: 1/2"=1'-0"



NOTE:
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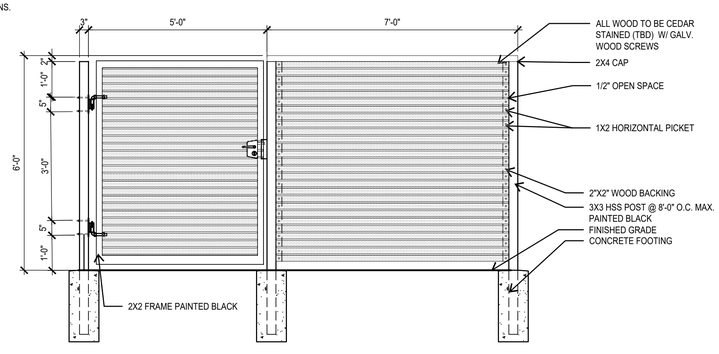
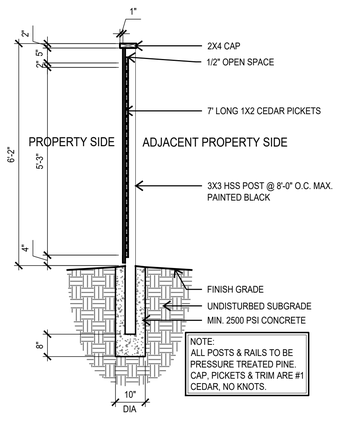
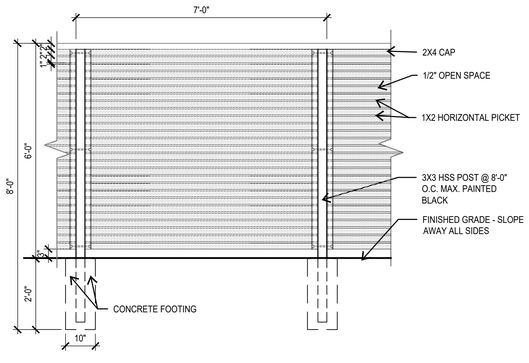
7 RECESSED POOL STEPS
SECTION SCALE: 3/4"=1'-0"



8 6' HT HORIZONTAL WOOD GATE
SECTION SCALE: 1/2"=1'-0"





9 6' HT HORIZONTAL WOOD PERIMETER/ POOL FENCE
ELEVATION SCALE: 1/2"=1'-0"

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TRAIL STREET TOWNHOMES

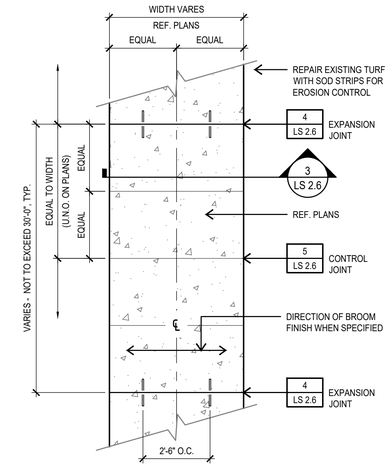
335 Trail Street, San Antonio, TX 78212

PROJECT NUMBER:	2019-004
ISSUED SETS	DATE
HDRC ADDENDUM	08/30/19

KEY PLAN

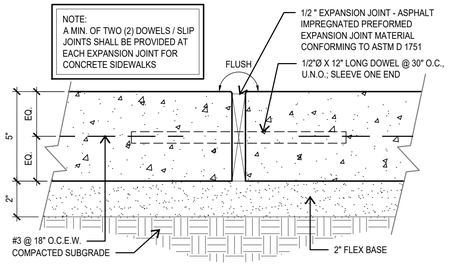
SITE DETAILS FENCING

LS 2.2



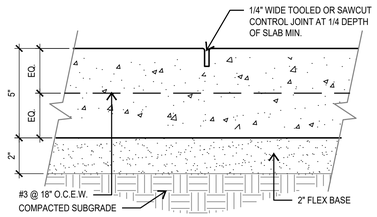
1 SIDEWALK

PLAN VIEW SCALE: 3/8"=1'-0"



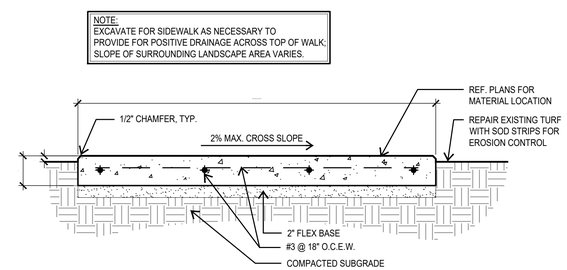
2 EXPANSION JOINT

SECTION SCALE: 3"=1'-0"



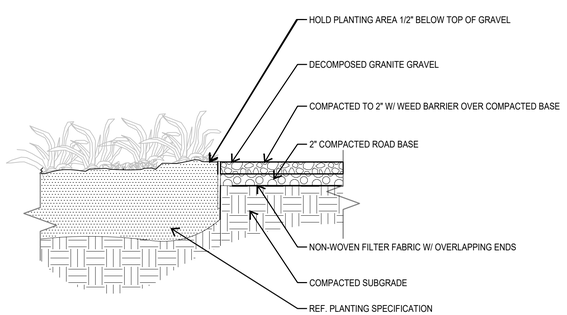
3 CONTROL JOINT

SECTION SCALE: 3"=1'-0"



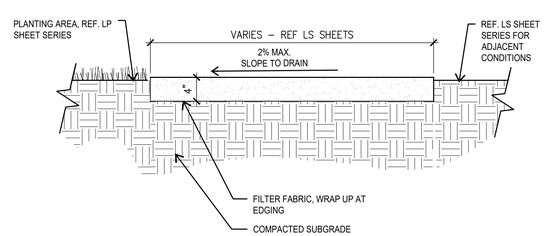
4 CONTROL JOINT

SECTION SCALE: 1"=1'-0"



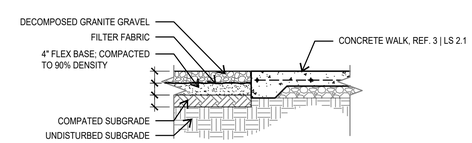
5 DECOMPOSED GRANITE WALK

SECTION SCALE: 1"=1'-0"



6 DECOMPOSED GRANITE WALK

SECTION SCALE: 1"=1'-0"



7 DECOMPOSED GRANITE @ SIDEWALK

SECTION SCALE: 1/2"=1'-0"

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TRAIL STREET TOWNHOMES

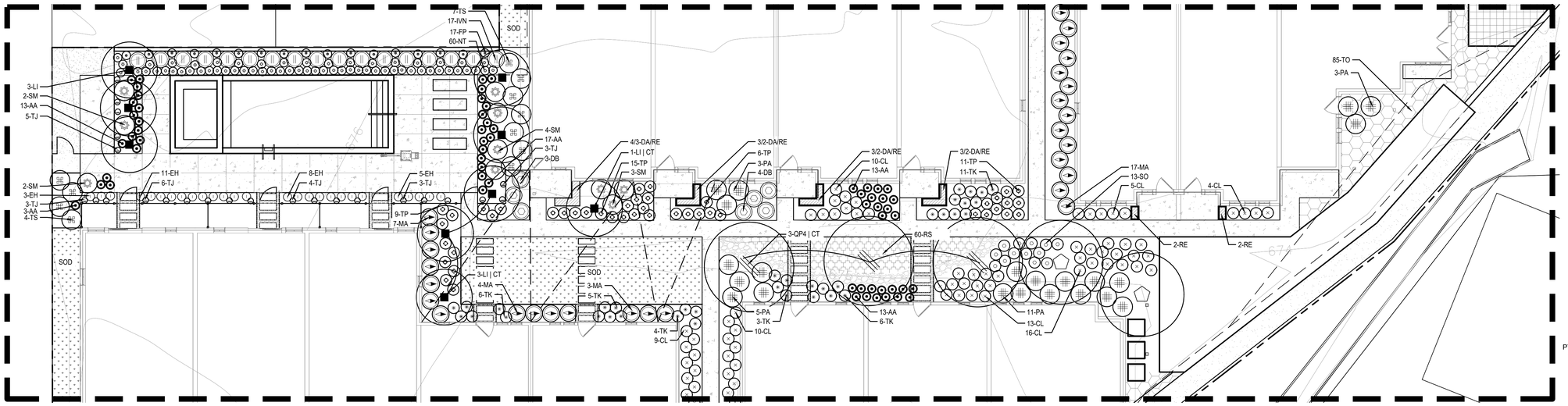
335 Trail Street, San Antonio, TX 78212

PROJECT NUMBER:	2019-004
ISSUED SETS	DATE
HDRC ADDENDUM	08/30/19

KEY PLAN

SITE DETAILS

LS 2.3

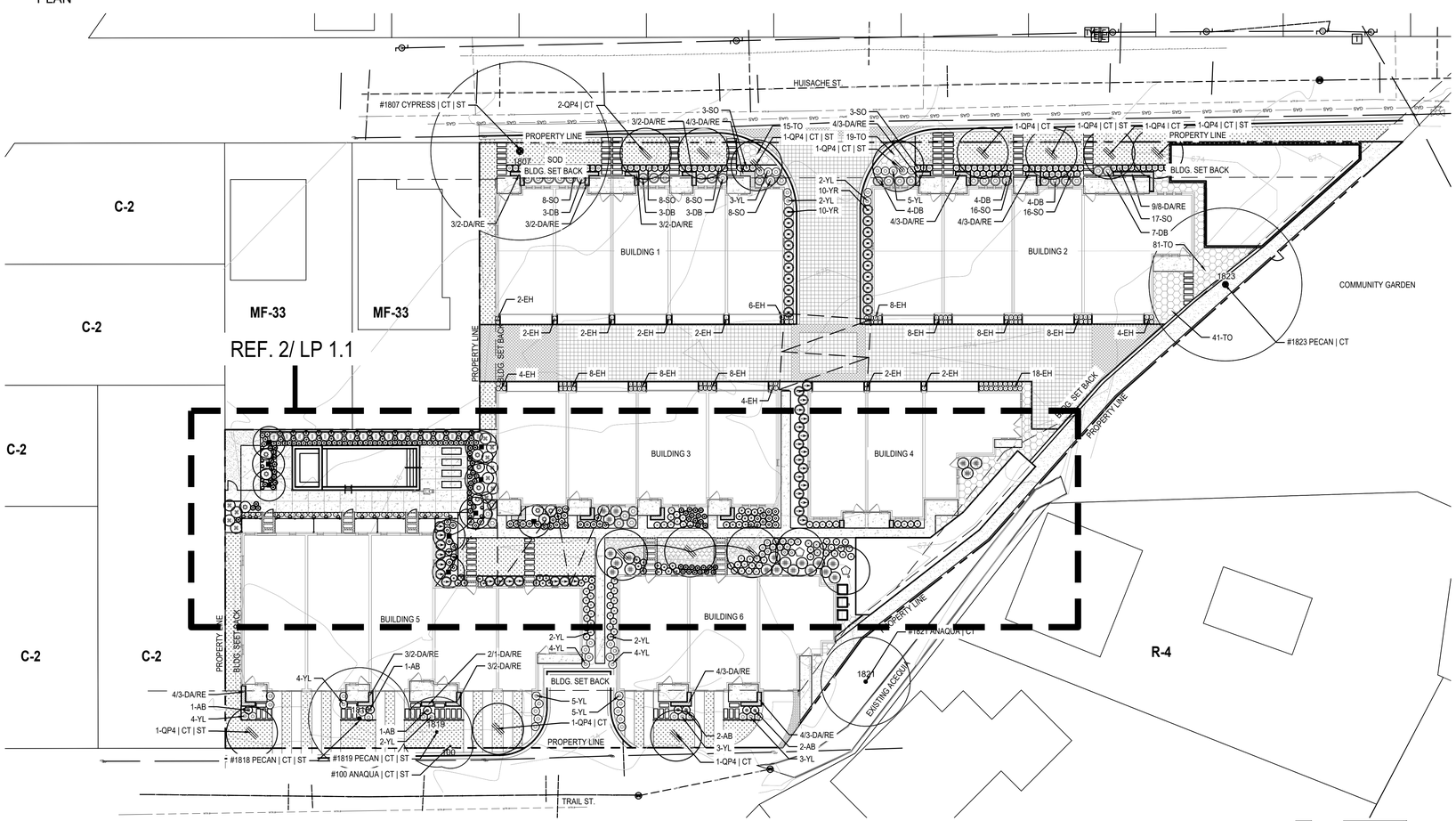


2 LANDSCAPE ENLARGEMENT PLAN

SCALE: 1"=10'

LABEL LEGEND

PM — PLANT NAME
PT | ST | BF | CT | — CANOPY TREE CREDIT
— BUFFER CREDIT
AMOUNT OF SHADE CREDIT
STREET TREE CREDIT
PARKING LOT SHADE TREE CREDIT



1 LANDSCAPE PLANTING PLAN

PLAN

SCALE: 1"=20'

MITIGATION TREES

CALLOUT	QUANTITY	COMMON NAME *BOTANICAL NAME*	TREE SIZE	MITIGATION INCHES	TOTAL MITIGATION INCHES APPLIED
QP	4	MONTERREY OAK	4"	2.5"	10"
QP	11	MONTERREY OAK	4"	4"	44"
QS	2	SHUMARD RED OAK	6"	6"	12"
PM	3	MEXICAN SYCAMORE	8"	8"	24"
LI	10	CREPE MYRTLE RED ROCKET	3"	3"	30"
				TOTAL MITIGATION	**120"**

TREE CANOPY ORDINANCE

MANDATORY CRITERIA:
1. FINAL TREE CANOPY. ALL SITES MUST PROVIDE A MINIMUM FINAL TREE CANOPY COVER AS LISTED BELOW FOR THE ENTIRE GROSS PROJECT AREA OUTSIDE OF THE REGULATORY FLOODPLAIN. IDENTIFY "FINAL TREE CANOPY" PERCENT (%) BASED ON THE LAND USE AND AS NOTED ON SECTION (e). NONRESIDENTIAL 25% FOR THE PURPOSE OF THIS SUBMITTAL APPROVAL.

TREE CANOPY ORDINANCE: (Minimum 15% Total Site Area)

SITE AREA =**44,115 SF**
CANOPY AREA REQUIRED = 44,115 SF X 15% = **(6,617.25 SF) TOTAL CANOPY REQ**

EXISTING TREES

(3) EXISTING PECAN - 1200 SF @ 100%	3,600 SF
(1) EXISTING BALD CYPRESS - 875 SF @ 100%	875 SF
(2) EXISTING ANAQUA - 275 SF @ 100%	550 SF

PROPOSED TREES

(2) SHUMARD RED OAK - 1200 SF @ 90%=	2,160 SF
(15) MONTERREY OAK - 875 SF @ 90%=	11,812.5 SF
(3) MEXICAN SYCAMORE - 1200 SF @ 90%=	3,240 SF
(10) CREPE MYRTLE RED ROCKET - 275 SF @ 90%=	2,475 SF
TOTAL TREE CANOPY COVERAGE	**24,712.5 SF (56%)**

LANDSCAPE ORDINANCE

POINTS PROVIDED

1. **STREET TREES.** INSTALLATION OF LARGE TREES THAT MEET THE FOLLOWING REQUIREMENT; (NOTE - TREES PLANTED IN R.O.W. REQUEST VARIANCE.) A) THE TREES EXTEND ALONG A MINIMUM OF SEVENTY-FIVE (75) PERCENT OF THE TOTAL FRONTAGE OF THE STREET YARD OF THE PARCEL; B)THE TREES SHALL BE SPACED ON AVERAGE NO MORE THAN FIFTY (50) FEET APART FOR LARGE TREES AND THIRTY (30) FEET FOR SMALLER TREES, C) MEASURED FROM TRUNK TO TRUNK PROVIDED THE DISTANCE BETWEEN TREES DOES NOT EXCEED ONE HUNDRED (100) FEET; AND THE TREES SHALL BE LOCATED NO MORE THAN SEVENTEEN (17) FEET FROM THE STREET RIGHT-OF-WAY LINE **(25) POINTS**

HUISACHE AVE = 290 LF X .75=	217.5 LF
TRAIL ST = 175 LF X .75=	131.25 LF
REQUIRED TREES (217.5 + 131.25 LF) / 50 =	6.9 LARGE TREES
STREET TREES: 4 LARGE TREES + 4 EXISTING TREES=	**8 STREET TREES**

TOTAL POINTS PROVIDED
(25) POINTS

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TRAIL STREET TOWNHOMES

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PROJECT NUMBER:	2019-004
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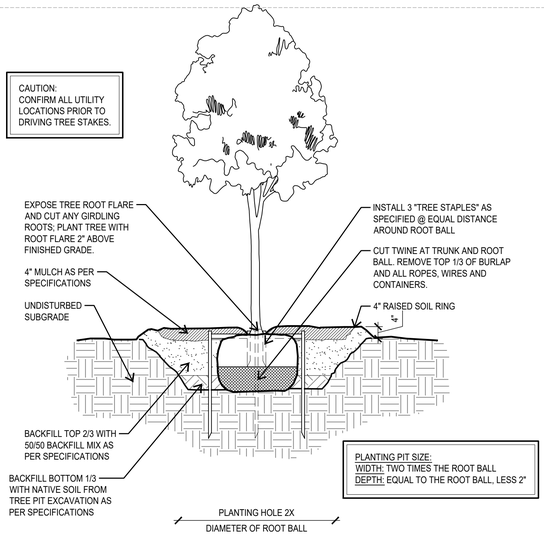
HDRC ADDENDUM	08/30/19

KEY PLAN

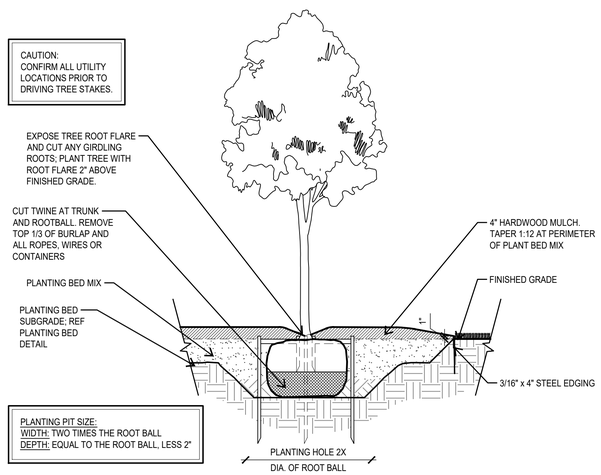
LANDSCAPE PLANTING PLAN

LP 1.1



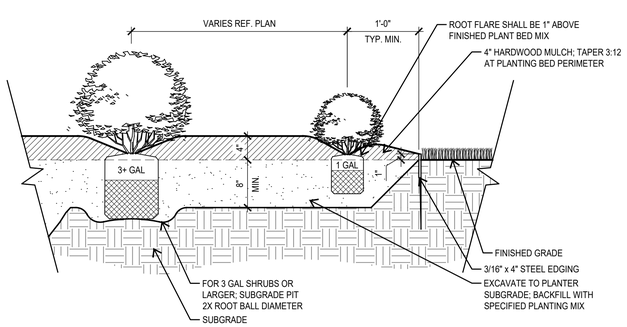
1 TYPICAL TREE PLANTING AT LAWN

SECTION SCALE: 1/2"=1'-0"



2 TYPICAL TREE PLANTING AT BED

SECTION SCALE: 1/2"=1'-0"



3 TYPICAL SHRUB PLANTING

SECTION SCALE: 1"=1'-0"

GENERAL NOTES

LANDSCAPE CONTRACTOR SHALL ACCEPT THE SITE IN ITS EXISTING CONDITION AND SHALL TIE NEW WORK TO EXISTING CONDITIONS AND CONTROLS (SUCH AS EXISTING GRADES AND WALK ELEVATIONS) AS NECESSARY TO MEET THE INTENT OF THE PLANS.

BEFORE PROCEEDING WITH ANY WORK IN AN AREA, LANDSCAPE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LAYOUTS AND SIZES AND SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL SITE CONDITIONS. IF ANY UTILITIES OR OBSTRUCTIONS ARE DISCOVERED DURING CONTRACT WHICH MAY NOT HAVE BEEN KNOWN DURING DESIGN, CONTRACTOR SHALL STOP WORK AND IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT BEFORE PRECEDING. LANDSCAPE CONTRACTOR SHALL BE LIABLE FOR ALL MODIFICATIONS AND DAMAGE IF WORK PROCEEDS IN EITHER OF THE ABOVE SITUATIONS WITHOUT NOTIFYING LANDSCAPE ARCHITECT.
PRIOR TO ANY EXCAVATION, LANDSCAPE CONTRACTOR SHALL CONTACT APPROPRIATE AUTHORITIES INCLUDING, BUT NOT LIMITED TO, TEXAS ONE CALL SYSTEM AT 1-800-245-4545 TO LOCATE EXISTING UNDERGROUND UTILITIES.

LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY DAMAGE TO ANY UTILITIES OR PROPERTY THAT MAY OCCUR IN THE EXECUTION OF HIS CONTRACT WORK. WHEN WORK REQUIRES CROSSING EXISTING WALKS OR CURBS WITH EQUIPMENT, LANDSCAPE CONTRACTOR SHALL PROVIDE APPROVED BRIDGE MATERIAL SUCH AS WOOD PLANKS AND EARTH TO PREVENT DAMAGE TO FINISHED WORK. LANDSCAPE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS THAT MAY BE WORKING ON THE SITE SIMULTANEOUSLY AND SHALL COORDINATE STAGING OF HIS WORK WITH OWNER AND LANDSCAPE ARCHITECT. ALL TRASH AND DEBRIS GENERATED FROM CONTRACT OPERATIONS SHALL BE REMOVED ON A DAILY BASIS. ALL WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY IN CONJUNCTION WITH HIS CONTRACT WORK.

MATERIALS

A.) PLANT MATERIALS:
1. CERTIFIED IN ACCORDANCE WITH TDA REQUIREMENTS.
2. SPECIES AND SIZE AS INDICATED IN PLANT SCHEDULE. LARGER SIZE MAY BE SUBSTITUTED WITHOUT ADDITIONAL COST TOOWNER, PROVIDED ROOT BALL OR SPREAD INCREASES PROPORTIONATELY.
3. WHERE MATERIALS ARE PLANTED IN MASSES, PROVIDE PLANTS OF UNIFORM SIZE.
4. GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE AT SITE. FREE FROM DISEASE, INSECT INFESTATIONS, DEFECTS INCLUDING WEAK OR BROKEN LIMBS, CROTCHES, AND DAMAGED TRUNKS, ROOTS OR LEAVES, SUN SCALD, FRESH BARK ABRASIONS, EXCESSIVE ABRASIONS, AND OBJECTIONABLE DISFIGUREMENTS.
5. EXHIBIT NORMAL GROWTH HABITS: VIGOROUS, HEALTHY, FULL, WELL-PROPORTIONED, AND SYMMETRICAL.
6. TREE TRUNKS TO BE STURDY AND EXHIBIT HARDENED SYSTEMS AND VIGOROUS AND FIBROUS ROOT SYSTEMS, NOT ROOT OR POT BOUND.
7. NOT PRUNED, TRIMMED, OR TOPPED.
8. CONTAINER-GROWN STOCK: GROWN IN CONTAINERS FROM SEEDING.

B.) MULCH:
1. SHREDDED, COMPOSTED HARDWOOD BARK OF VARYING LENGTH BY NEW EARTH LLC OR APPROVED SUBSTITUTE. PARTIALLY DECOMPOSED; FREE FROM STICKS, STONES, CLAY, AND GROWTH AND GERMINATION-INHIBITING INGREDIENTS.

C.) MIXES:
1. PLANT BED MIX:
PLANT BED MIX (BACKFILL MIX) SHALL BE NEW EARTH'S 4 WAY MIX AS PRODUCED BY NEW EARTH LLC PH. 210-661-5180. DOCUMENTATION OF PURCHASE OF THIS SPECIFIC MIX SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT. IF EQUAL IS PROPOSED, CONTRACTOR SHALL SUBMIT SAMPLE AND COMPLETE ANALYSIS WITH TEST RESULTS AND METHOD OF PRODUCTION FOR EVALUATION AS AN EQUAL SUBSTITUTE.

PREPARATION

LANDSCAPE CONTRACTOR SHALL RECEIVE THE SITE AT APPROXIMATELY FINISH GRADE LESS ANY SETTLEMENT THAT MAY HAVE OCCURRED SINCE SITE CONSTRUCTION AND BACKFILLING. THIS GRADE SHALL BE RAKED TO REMOVE ALL DEBRIS INCLUDING STICKS, CLODS, AND STONES AND SHALL BE FINE GRADED TO ELIMINATE ALL HUMPS, RUTS, DEPRESSIONS AND ABRUPT CHANGES IN GRADE AND ANY AREA THAT COULD CAUSE WATER TO POND.

A.) IF VEGETATION IS GROWING IN PLANTING/LAWN AREA, APPLY HERBICIDE AT RATES RECOMMENDED BY MANUFACTURER. ALLOW TO DIE, AND THEN GRUB OUT ROOTS TO MINIMUM 1/2 INCH DEPTH.

B.) MARK LOCATION OF TREES AND OUTLINES OF PLANTS BEDS USING COLORED WOOD STAKES OR FLAGS PRIOR TO BEGINNING PLANTING; OBTAIN LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO PROCEEDING.

PLANTING TREES

A.) REMOVE CONTAINERS WITHOUT DAMAGE TO ROOTS.

B.) REMOVE BOTTOM OF PLANT BOXES PRIOR TO PLACING TREES; REMOVE SIDES AFTER PLACEMENT AND PARTIAL BACKFILLING. PREVENT DAMAGE TO ROOTS.

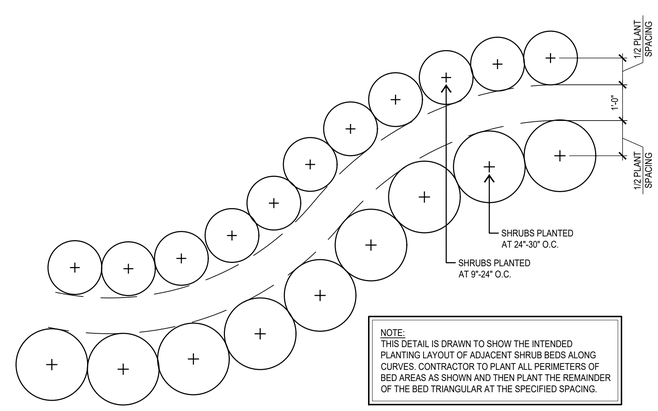
C.) REMOVE UPPER THIRD OF BURLAP FROM BALLED AND BURLAP TREES AFTER PLACEMENT.

D.) PLACE PLANT UPRIGHT AND PLUMB IN CENTER OF HOLE. PULL ANY WEEDS GROWING IN TREE BALL AND EXPOSE ROOT FLARE (THIS WILL BE THE TOP MOST IDENTIFIABLE ROOT), REMOVE ANY GIRDLING ROOTS AND SET PLANT SO THAT ROOT FLARE IS 1" ABOVE FINISH GRADE. ORIENT PLANTS FOR BEST APPEARANCE. BACKFILL THE BOTTOM 1/3 OF THE EXCAVATION WITH SOIL CUT FROM EXCAVATION OF PIT AND THOROUGHLY WATER THIS SOIL TO SETTLE IN. BACKFILL THE REMAINDER OF THE EXCAVATION WITH A 50/50 MIX OF NEW EARTHS 4 WAY MIX AND NATIVE SOIL EXCAVATED FROM THE PIT. PLACE PLANT HEALTH CARE GROUP'S "TREE SAVER" IN BACKFILL AS PER P.H.C.G. DIRECTION AND APPLICATION RATES. LIGHTLY TAMP AND WATER SOIL TO REMOVE ALL AIR POCKETS. FOR PLANTS OUTSIDE OF PLANTING BEDS, CONSTRUCT 3 INCH HIGH WATER CONTAINMENT RING AROUND PLANT. SPREAD MULCH TO MINIMUM 4 INCH DEPTH OVER PLANT BASIN.

E.) ADJUST PLANT HEIGHT IF SETTLEMENT OCCURS AFTER BACKFILL AND STAKE AS DETAILED.
1. TWO TO THREE WEEKS FOLLOWING PLANTING, INJECT PLANT HEALTH CARE INJECTABLE INOCULANT AROUND ROOT BALL FOLLOWING MANUFACTURER'S DIRECTIONS AND APPLICATION RATES. CONTACT LANDSCAPE ARCHITECT TO OBSERVE THIS OPERATION.

F.) TRIM PLANTS TO REMOVE DEAD AND INJURED BRANCHES ONLY. TREAT CUTS OVER 3/4 INCH DIAMETER WITH TREE PAINT.

G.) BRACE PLANTS OVER 65 GALLONS SIZE IMMEDIATELY AFTER PAINTING:
1. FOR TREES 2" CAL. AND GREATER PROVIDE STAKING AS DETAILED. POSITION TO PREVENT HAZARDS TO PEDESTRIANS.
2. DO NOT RESTRICT PLANT MOVEMENT UNDER LIGHT WIND LOADS OR DAMAGE BARK.



4 TYPICAL SHRUB SPACING

PLAN SCALE: 1"=1'-0"

PLANT LIST

TREES

CALLOUT	QUANTITY	COMMON NAME / *BOTANICAL NAME*	SIZE	REMARKS
QP	14	MONTERREY OAK / *QUERCUS POLYMORPHA*	4" CAL; MIN 10' HT; MIN 5' SPRD.	SINGLE TRUNK B&B; PARK GRADE; SEE SPECIFICATIONS
PM	2	MEXICAN SYCAMORE / *PLATANUS MEXICANA*	8" CAL; MIN 14' HT; MIN 6' SPRD.	SINGLE TRUNK B&B; PARK GRADE; SEE SPECIFICATIONS

ORNAMENTAL TREES

CALLOUT	QUANTITY	COMMON NAME / *BOTANICAL NAME*	SIZE	REMARKS
LI	9	CREPE MYRTLE RED ROCKET / *LAGERSTROEMIA INDICA*	3" CAL; MIN 8' HT; MIN 6' SPRD.	MULTITRUNK, 3-5 TRUNKS, 1-1/2" MIN CANE CAL.; FULL CANOPY; DARK GREEN; CONTAINER GROWN SPECIMEN

SHRUBS

CALLOUT	QUANTITY	COMMON NAME / *BOTANICAL NAME*	SIZE	REMARKS
AA	60	ASPARAGUS FERN / *ASPARAGUS AETHIOPICUS*	3 GAL; 24" HT. 24" SPRD.	DARK GREEN; FULL, PLANT 30" O.C.
DB	36	BICOLOR IRIS / *DIETES BICOLOR*	3 GAL.; 24" HT. 24" SPRD.	DARK GREEN; FULL; PLANT 36" O.C.
FP	17	CREEPING FIG VINE / *FICUS PUMILA*	1 GAL; 12" HT. 12" SPRD.	DARK GREEN; FULL, PLANT 24" O.C.
SM	10	DWARF PALMETTO / *SABAL MINOR*	3 GAL; 24" HT. 24" SPRD.	DARK GREEN; FULL, PLANT 36" O.C.
NT	60	MEXICAN FEATHER GRASS / *NASSELLA TENUISSIMA*	3 GAL; 14" HT. 24" SPRD.	DARK GREEN; FULL; PLANT 24" O.C.
TP	44	PURPLE HEART / *TRADESCANTIA PALLIDA*	1 GAL; 24" HT. 24" SPRD.	DARK GREEN; FULL, PLANT 36" O.C.
TK	36	RIVER FERN / *THELYPTERIS KUNTHII*	3 GAL; 20" HT. 20" SPRD.	DARK GREEN; FULL, PLANT 30" O.C.
YR	20	SOFT LEAF YUCCA / YUCCA RECURVIFOLIA	3 GAL.; 24" HT. 24" SPRD.	DARK GREEN; FULL; PLANT 36" O.C.
MA	31	TURKS CAP / *MALVAVISCUS ARBOREUS*	3 GAL; 18" HT. 18" SPRD.	DARK GREEN; FULL, PLANT 48" O.C.
TS	11	YELLOW BELLS / *TECOMA STANS*	3 GAL; 24" HT. 24" SPRD.	DARK GREEN; FULL, PLANT 48" O.C.
IVN	17	YAUPON HOLLY DWARF / *ILEX VOMITORIA NANA*	3 GAL; 24" HT. 24" SPRD.	DARK GREEN; FULL, PLANT 36" O.C.
YL	46	YELLOW LANTANA / *LANTANA*	1 GAL; 12" HT. 12" SPRD.	DARK GREEN; FULL, PLANT 30" O.C.
SO	93	CORALBERRY / *SYMPHORICARPOS ORBICULATUS*	1 GAL; 18" HT. 18" SPRD.	DARK GREEN; FULL, PLANT 40" O.C.
PA	22	HOJA SANTA / *PIPER AURITUM*	3 GAL; 24" HT. 24" SPRD.	DARK GREEN; FULL, PLANT 40" O.C.
TJ	24	STAR JASMINE / *TRACHELOSPERMUM JASMINOIDES*	1 GAL; 12" HT. 12" SPRD.	DARK GREEN; FULL, PLANT 24" O.C.
CL	71	INLAND SEA OATS / *CHASMANTHIUM LATIFOLIUM*	1 GAL; 12" HT. 12" SPRD.	DARK GREEN; FULL, PLANT 30" O.C.
EH	133	HORSETAIL REED / *EQUISETUM HYEMALE*	1 GAL; 12" HT. 12" SPRD.	DARK GREEN; FULL, PLANT 24" O.C.
TO	245	ASIAN JASMINE / *TRACHELOSPERMUM ASIATICUM*	4" POT; 6" HT. 6" SPRD.	DARK GREEN; FULL, PLANT 24" O.C.
RS	48	BLUE SHADE RUELLIA / *RUELLIA SQUARROSA*	4" POT; 6" HT. 6" SPRD.	DARK GREEN; FULL, PLANT 24" O.C.

GROUND COVER

CALLOUT	QUANTITY	COMMON NAME / *BOTANICAL NAME*	SIZE	REMARKS
MULCH	ALL BEDS	HARDWOOD MULCH (APPLY WEED BARRIER FABRIC)	STANDARD	4" THICK PER DETAILS; KELLER MATERIAL LIMITED PH: (210) 967-1300. REFERENCE PLANTING MATERIALS NOTES
RIVER ROCK A	FIELD VERIFY	ROCKY MOUNTAIN 1"-3" (APPLY WEED BARRIER FABRIC)	STANDARD	4" THICK PER DETAILS; KELLER MATERIAL LIMITED PH: (210) 967-1300. REFERENCE PLANTING MATERIALS NOTES
RIVER ROCK B	FIELD VERIFY	ROCKY MOUNTAIN 1"-3" (APPLY WEED BARRIER FABRIC)	STANDARD	4" THICK PER DETAILS; KELLER MATERIAL LIMITED PH: (210) 967-1300. REFERENCE PLANTING MATERIALS NOTES

CONTRACTOR TO VERIFY ALL PLANT QUANTITIES

m(ødm)

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REVIEW SET

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TRAIL STREET TOWNHOMES

335 Trail Street, San Antonio, TX 78212

PROJECT NUMBER:	2019-004
ISSUED SETS	DATE
HDRC ADDENDUM	08/30/19

KEY PLAN

LANDSCAPE PLANTING DETAILS

LP 2.1