

CIVIL CONSTRUCTION DOCUMENTS FOR ALTURA AT TEZEL DUPLEXES

San Antonio, Bexar County, Texas

OWNER/DEVELOPER: VISTANCIA CUSTOM HOMES
20450 HWY 46, SUITE 115
SPRING BRANCH TX 78070

SURVEYOR: UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TEXAS 78216
(210) 774-5504
CONTACT: ADRIAN REYES, R.P.L.S.

ENGINEER: UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TEXAS 78216
(210) 774-5504
CONTACT: RYAN R. PLAGENS, P.E.

GEOTECHNICAL
ENGINEER: ECS SOUTHWEST, LLP
431 ISOM ROAD, SUITE 114
SAN ANTONIO, TEXAS 78216
(210) 528-1430

ADDRESS:

6950 TEZEL ROAD, CITY OF SAN ANTONIO, TEXAS, 78250

FLOODPLAIN INFORMATION:

FIRM #48029C, PANEL 0360G G 09/29/2010.

WATERSHED:

THIS SITE IS LOCATED IN THE LEON CREEK WATERSHED.

BENCHMARKS:

CP 1: SET IRON ROD W/ RED PLASTIC CAP "UP ENG CONTROL"
NORTHING: 13729308.240
EASTING: 2076063.085
ELEVATION: 864.33'

CP 2: SET IRON ROD W/ RED PLASTIC CAP "UP ENG CONTROL"
NORTHING: 13729205.720
EASTING: 2075972.729
ELEVATION: 860.48

SURVEY BASIS:

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

LEGAL DESCRIPTION:

TYLER PLACE DUPLEXES
PLAT# 21-11800597

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

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

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

WASTEWATER:

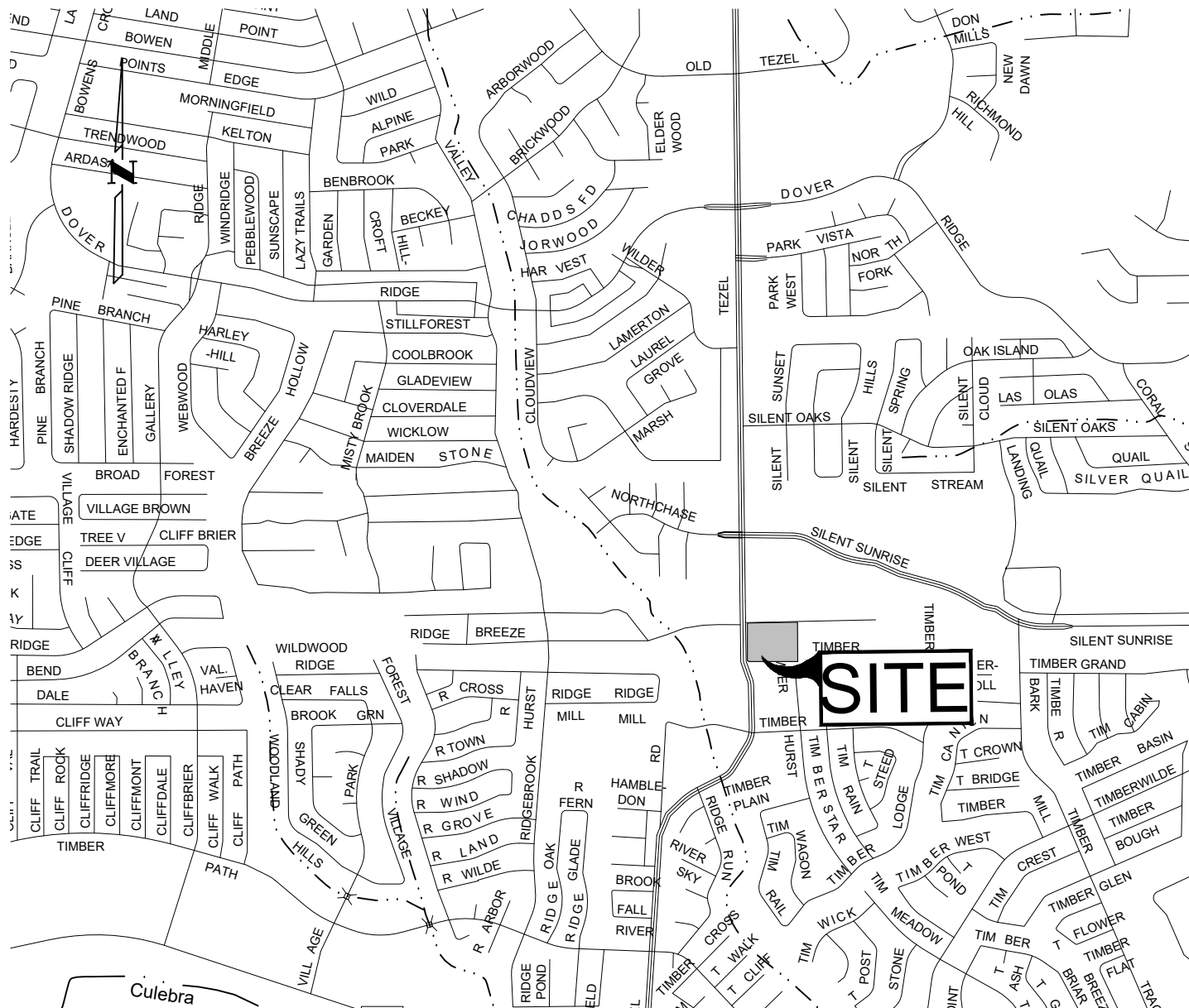
SAN ANTONIO WATER SYSTEM
2800 U.S HWY 281 NORTH
SAN ANTONIO, TX 78212
(210) 233-2010

LAND USE SUMMARY:

ZONING: C2-NA
PROPOSED SITE USE: MULTI-FAMILY
LOT SIZE: 3.89 ACRES

NOTES:

1. RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUBMITTED 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 THAT THEY ARE FULLY AWARE OF AND ACCEPT ALL 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, FOUNTAINHEAD TOWER, SUITE 605, 6200 W. INTERSTATE 10, SAN ANTONIO, TEXAS 78230.
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.



VICINITY MAP
NOT TO SCALE

SUBMITTAL DATE:

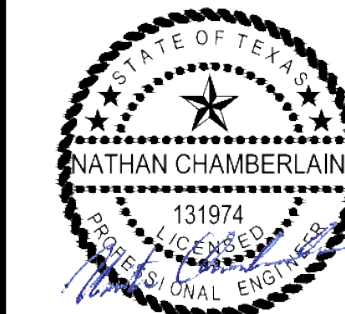
January 22, 2024

SHEET LIST TABLE	
Sheet Number	Sheet Title
C1	COVER SHEET
C2	GENERAL NOTES
C3	EXISTING CONDITIONS PLAN
C4	SITE DIMENSION PLAN
C5	GRADING AND DRAINAGE PLAN
C5.1	STORM SEWER PLAN
C5.2	SOUTH SWALE
C5.3	INTERCEPTOR EAST
C5.4	NORTH SWALE
C5.5	POND LAYOUT
C6	WATER LAYOUT
C7	SANITARY SEWER LAYOUT
C7.1	SANITARY SEWER LINE A
C8	FIRE PROTECTION PLAN
C9	DRAINAGE AREA MAP
C10	STORM WATER POLLUTION PREVENTION PLAN
C11	STORM WATER POLLUTION PREVENTION PLAN DETAILS
C12	CONSTRUCTION DETAILS
C13	CONSTRUCTION DETAILS

ALTURA AT TEZEL DUPLEXES

COVER SHEET

**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**



03/01/2024

UP
ENGINEERING
+ SURVEYING
JONES MALTSBERGER ROAD, SUITE 100
DENVER, CO 80202 TEL 303.733.7777
FAX 303.733.7778

PIPING & SURVEYING
11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.IIPENGINEERING.COM TRPE F117992

REV	DATE	DESCRIPTION	BY
DESIGNED BY:	WPF		
DRAFTED BY:	JWH		
CHECKED BY:	NFU		

SHEET

C1

Date: Mar 01, 2024, 3:47pm User ID: Nathan Chamberlain
File: U:_Projects\222 - Tezel Road\ACAD\Sheets\COVER SHEET.dwg

ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO AND/OR BEXAR COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.

2. NO EXCERPT PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS ADDITIONAL 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 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)	210-233-0099
WATER & SEWER EMERGENCIES	210-704-7297
SAN ANTONIO RIVER AUTHORITY (SARA)	210-227-1733
STORM DRAINAGE (BEXAR COUNTY)	210-335-6663
SIGNAL OPERATIONS (CITY OF SAN ANTONIO)	210-207-9022
TEXAS STATE WIDE ONE CALL LOCATOR	811
CPS ENERGY (GAS & ELECTRIC)	210-363-2000
CPS ELECTRIC/GAS ISSUES OR EMERGENCIES	210-353-4577
TIME WARNER	210-244-0500
AT&T	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 LOTS THAT WILL BLOCK OR ALTER FLOOD 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 210-215-8274 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.

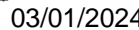
16. IF SUSPECTED CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION OPERATIONS, C.O.S.A. SHALL BE NOTIFIED IMMEDIATELY WHEN CONTAMINATED SOILS AND / OR GROUNDWATER ARE ENCOUNTERED AT LOCATIONS NOT IDENTIFIED IN THE PLANS. THE NOTIFICATION SHOULD INCLUDE THE STATION NUMBER, TYPE OF CONTAMINATED MEDIA, EVIDENCE OF CONTAMINATION AND MEASURES TAKEN TO CONTAIN THE CONTAMINATED MEDIA AND PREVENT PUBLIC ACCESS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMOVAL OF ALL CONTAMINATION 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.

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) AND THE SAN ANTONIO RIVER AUTHORITY (SARA) SPECIFICATIONS FOR SANITARY SEWER 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 OR 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 RIVER AUTHORITY 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 $\leq 12"$ 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 150 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.

- CONTRACTOR TO VERIFY ELEVATIONS PRIOR TO CONSTRUCTION. EXISTING CONTOURS BASED ON SURVEY TOPOGRAPHIC DATA.
- 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.
- 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 NOT TO ALLOW ANY PONDING OF WATER. MINIMUM SLOPE 0.50%.
- NO ABRUPT CHANGE OF GRADE SHALL OCCUR.
- ALL DISTURBED AREAS SHALL BE REVEGETATED, BY THE CONTRACTOR, IN ACCORDANCE WITH PROJECT SPECIFICATIONS, AND ARCHITECTURAL LANDSCAPING PLANS.
- 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.
- 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.
- 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).
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS FOR UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
- 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.
- THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT AT NEW PAVEMENT AND CURB JUNCTURES. NO JAGGED OR IRREGULAR CUTS IN PAVEMENT WILL BE ACCEPTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE NEOT GEOTECH OF THIS PROJECT.
- ALL EXCAVATION IS UNCLASSIFIED.
- ALL ON-SITE CURBS ARE 7" HIGH UNLESS OTHERWISE SPECIFIED.
- SEE CIVIL COVER SHEET FOR PROJECT BENCHMARK.
- CONTRACTOR TO RAISE/LOWER ALL UTILITY BOXES, COVERS, GRATES, VALVES BOXES, MANHOLES, CLEANOUTS, ETC., TO MATCH PROPOSED FINISHED GRADE ELEVATIONS.
- 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 ARCHITECT'S PLANS.
- 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).
- 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.

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/ENGINEERING/SPECIALTY/EQUIPMENT CONSULTANT (S) SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATIONS SITE(S) WITHIN THE PROJECT AREA AND THE PROJECT DESIGN AND SPECIFICATIONS TO DETERMINE THE ADEQUACY OF THE DESIGN AND SPECIFICATIONS FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TREND EXCAVATIONS SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TREND EXCAVATIONS. THE CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TREND EXCAVATION SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TREND EXCAVATION.

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. ALL CONSTRUCTION BARRICADING TO BE IN ACCORDANCE WITH CURRENT "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
4. 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.
5. 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.
6. 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.
7. 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).
8. 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.
9. CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER REGARDING QUESTIONS ON THE DEMOLITION PLAN.
10. 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.
11. 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)
12. CONTRACTOR SHALL NOT DISTURB AREAS AROUND EXISTING TREES TO BE SAVED. (IF APPLICABLE)
13. CONTRACTOR SHALL COMPENSATE OWNER FOR DAMAGE OF TREES THAT WERE TO REMAIN (IF APPLICABLE)



**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**

ALTURA AT TEZEL DUPLICES

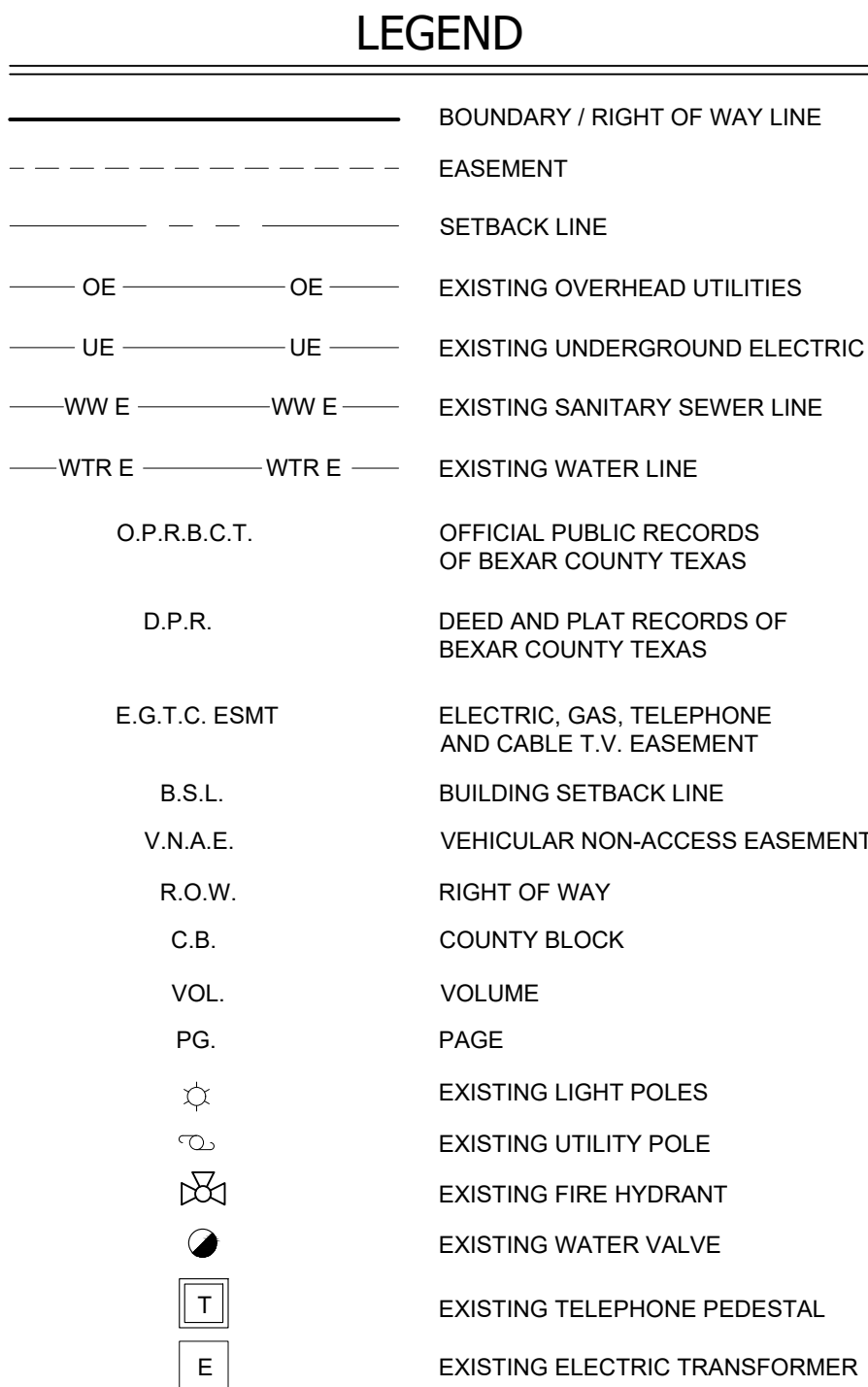
GENERAL NOTES

REV	DATE	DESCRIPTION	BY
DESIGNED BY:	WPF		
DRAFTED BY:	JWH		
CHECKED BY:	NFU		

SHEET

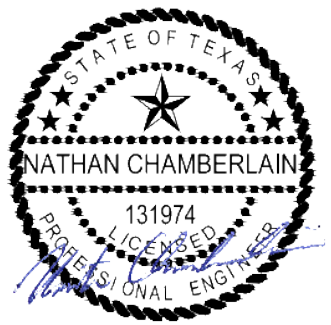
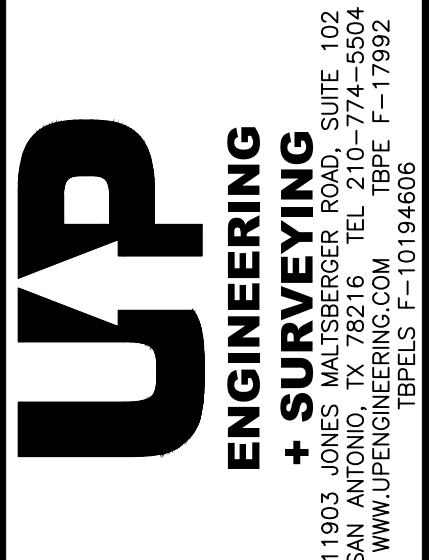
2

CZ



CURVE	RADIUS	LENGTH	DELTA	CHORD	CHORD BEARING
C1	657.00'	40.81'	3°33'32"	40.80'	S3°20'44"E
C2	30.00'	18.66'	35°38'15"	18.36'	N16°54'25"W
C3	10.00'	6.17'	35°21'41"	6.07'	N17°02'42"W
C4	657.00'	9.04'	0°47'19"	9.04'	S4°43'51"E

LINE TABLE		
LINE	BEARING	LENGTH
L1	N00°03'45"E	20.88
L2	S01°33'58"E	40.54'
L3	S89°24'00"E	111.30'
L4	S89°21'52"E	50.70'
L5	S89°21'52"E	50.63'
L6	N89°21'52"W	102.69'
L8	S00°54'42"W	49.50'
L9	N34°43'33"W	23.03'
L10	S89°24'47"E	24.51'
L11	N34°43'33"W	38.62'
L12	N00°38'08"E	48.48'
L13	N00°38'08"E	22.00'
L14	S89°21'52"E	18.94'
L15	N01°33'58"E	50.65'
L16	N00°30'20"E	50.33'



**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**

ALTURA AT TEZEL DUPLICES

EXISTING CONDITIONS PLAN

[illegible]

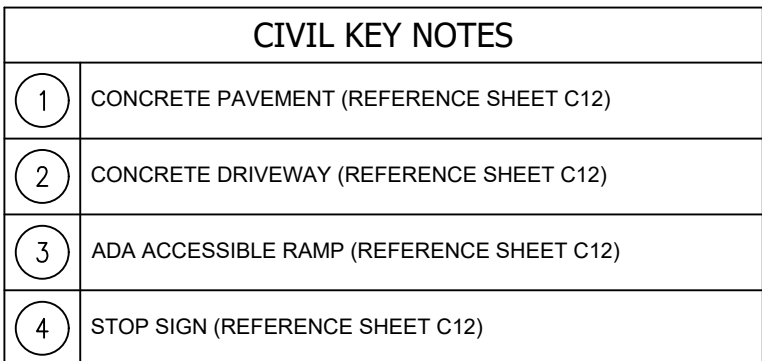
SHEET

C3

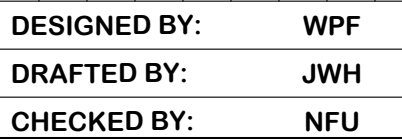
Date: Mar 01, 2024, 3:48pm User ID: Nathan Chamberlain
File: U:_Projects\222 - Tezmel Road\ACAD\Sheets\EXISTING CONDITIONS PLAN.dwg

Date: Mar 01, 2024, 3:48pm User ID: Nathan Chamberlain
File: U:_Projects\222 - Tezel Road\ACAD\Sheets\SITE DIMENSION PLAN.dwg

1. REFERENCE STRUCTURAL PLANS FOR FOUNDATIONS.
2. ALL CURB RADI ARE 3' UNLESS OTHERWISE NOTED.
3. REFER TO GENERAL NOTE SHEET FOR ADDITIONAL SITE NOTES.
4. ALL SIDEWALKS, CURBS, RAMPS AND DRIVE APPROACHES IN THE RIGHT-OF-WAY SHALL BE IN COMPLIANCE WITH CURRENT TEXAS ACCESSIBILITY STANDARDS AND CITY OF SAN ANTONIO DESIGN STANDARDS PRIOR TO FINAL INSPECTION APPROVAL.
5. EXISTING CURB ON APPLE RIDGE LANE IS TO BE SAW CUT WHERE THE DRIVEWAY FLAIR OR CURB TRANSITION WILL END AND REPLACED WITH A 1' X 1' LUG (THICKENED SLAB) SLOPED BACK TOWARDS THE DRIVEWAY TO THE EXISTING CURB. THE CONC. TO BE POURED AT THE SAME TIME THE DRIVEWAY APPROACH IS POURED.
6. PAVEMENT MARKINGS IN BEXAR COUNTY R.O.W. MUST BE THERMOPLASTIC.



PAVEMENT			
Point #	North	Westing	Easting
1	17290304.8236	2075841.8601	
2	17289991.8132	2075942.4062	
3	1729005.2394	2075561.3779	
4	1729000.2397	2075652.0233	
5	17290324.2478	2076041.8031	
6	17290048.8448	2076066.3767	
7	17290348.8004	2076091.3764	
8	17290323.4122	2076116.0660	
9	1729222.5957	2076069.1455	
10	1729222.5609	2076094.1414	
11	17290324.3533	2076044.5555	
12	17290247.1599	2076014.5430	
13	17290324.7307	2075957.8858	
14	17290247.1725	2075958.3366	
15	17290328.4650	2076352.0559	
16	17290244.2034	2076301.8095	
17	1729218.9637	2076326.3055	
18	17290405.8235	2076324.5867	
19	17290261.9009	2076324.5871	
20	17290201.3478	2076299.3120	
21	17290201.5478	2076273.3062	
22	17290200.3297	2076402.0693	
23	17289955.2142	2076401.8690	



C4

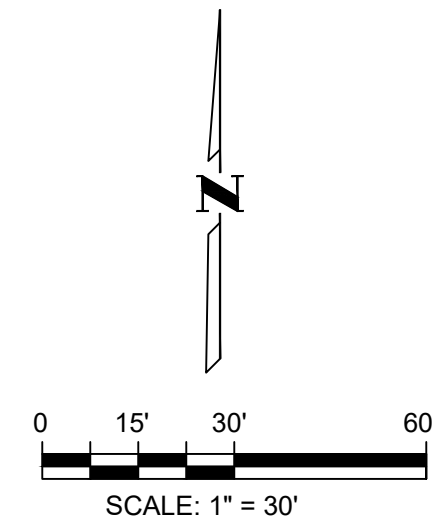
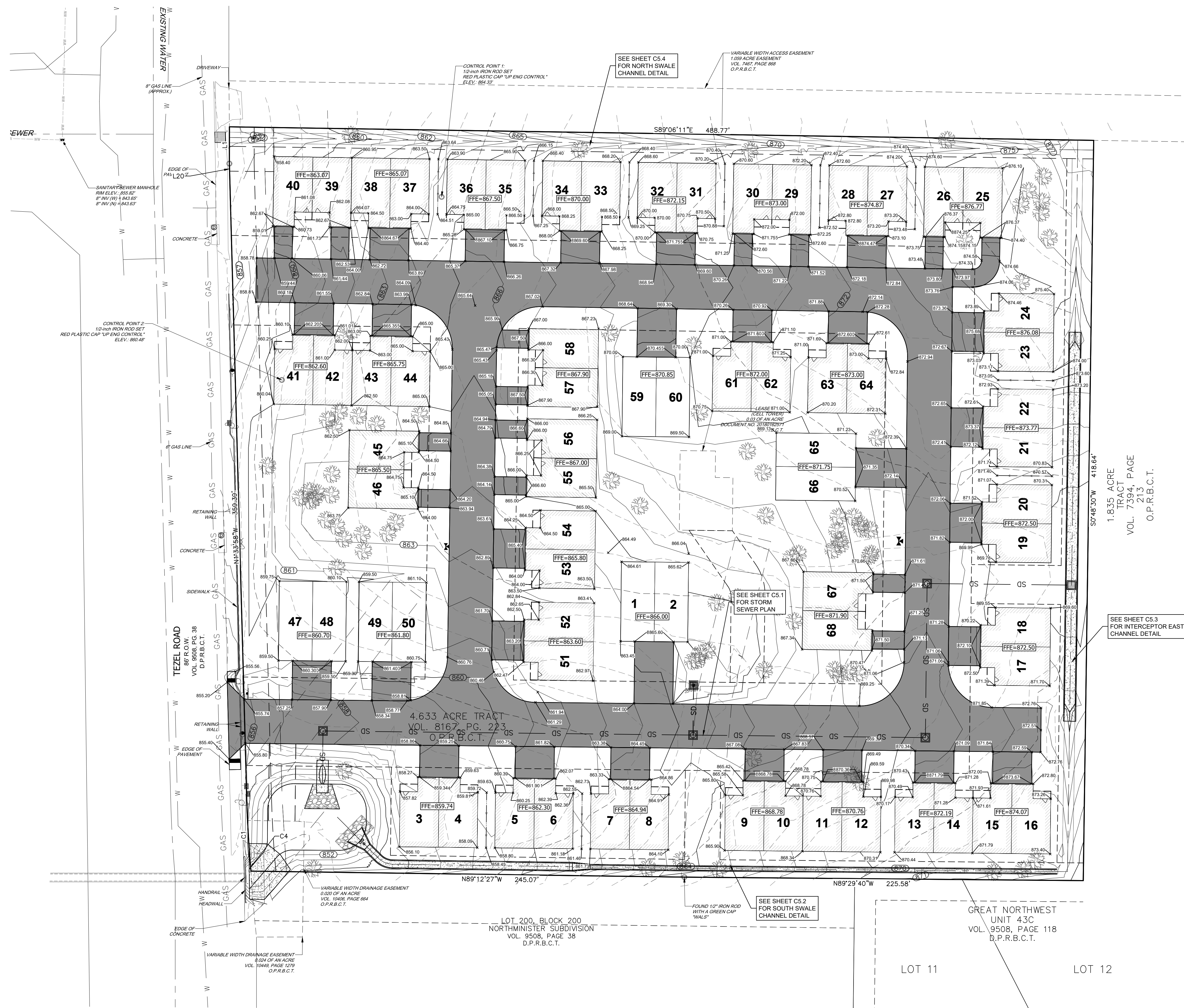


SITE DIMENSION PLAN

**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**



03/01/2024



LEGEND

	BOUNDARY / RIGHT OF WAY LINE
	CONCRETE CURB
	EASEMENT / SETBACK LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	OVERHEAD UTILITIES
	SWALE CENTERLINE
	PROPOSED ELEVATION
<i>Ex=690.05</i>	EXISTING ELEVATION
	TOP OF WALL
	BOTTOM OF WALL
	FLOW DIRECTION
	TREE TO BE SAVED

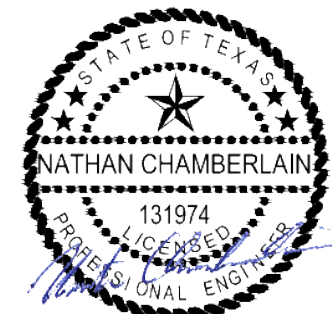
GRADING AND DRAINAGE NOTES

1. ALL GRADES AND CONTOURS SHOWN ARE FINAL, TOP OF FINISHED SURFACE ELEVATIONS, CONTRACTOR SHALL SUBTRACT PAVEMENT, BASE, TPOB, MULCH, ...ETC. TO OBTAIN PROPER SUBGRADE ELEVATIONS.
2. 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%.
3. NO ABRUPT CHANGE OF GRADE SHALL OCCUR.
4. ALL DISTURBED AREAS SHALL BE REVEGETATED, BY THE CONTRACTOR, IN ACCORDANCE WITH PROJECT SPECIFICATIONS, AND ARCHITECTURAL LANDSCAPING PLANS.
5. 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.
6. 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.
7. 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).
8. 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.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
10. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS FOR UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
11. 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.
12. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT AT NEW PAVEMENT AND CURB JUNCTURES. NO JAGGED OR IRREGULAR CUTS IN PAVEMENT WILL BE ACCEPTED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
14. ALL EXCAVATION IS UNCLASSIFIED.
15. ALL ON-SITE CURBS ARE 6" HIGH UNLESS OTHERWISE SPECIFIED.
16. SEE CIVIL COVER SHEET FOR PROJECT BENCHMARKS.
17. CONTRACTOR TO RAISE/LOWER ALL UTILITY BOXES, COVERS, GRATES, VALVES BOXES, MANHOLES, CLEANOUTS, ETC., TO MATCH PROPOSED FINISHED GRADE ELEVATIONS.
18. ALL DISTURBED AREAS WHICH ARE NOT TO BE PAVED SHALL BE COVERED WITH 6" MIN. CLEAN TPOB, UNLESS OTHERWISE NOTED. CUT OR FILL SHALL BE ADJUSTED TO ALLOW FOR TPOB IN ORDER TO MAINTAIN PROPOSED ELEVATIONS. AREAS FOR LANDSCAPING SHOULD BE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECTS PLANS.
19. 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).
20. 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 COMPACTED OF EXPOSED SUBGRADE, WHEN COMPACTATION 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.

ALTURA AT TEZEL DUPLEXES

GRADING AND DRAINAGE PLAN

**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**



03/01/202.

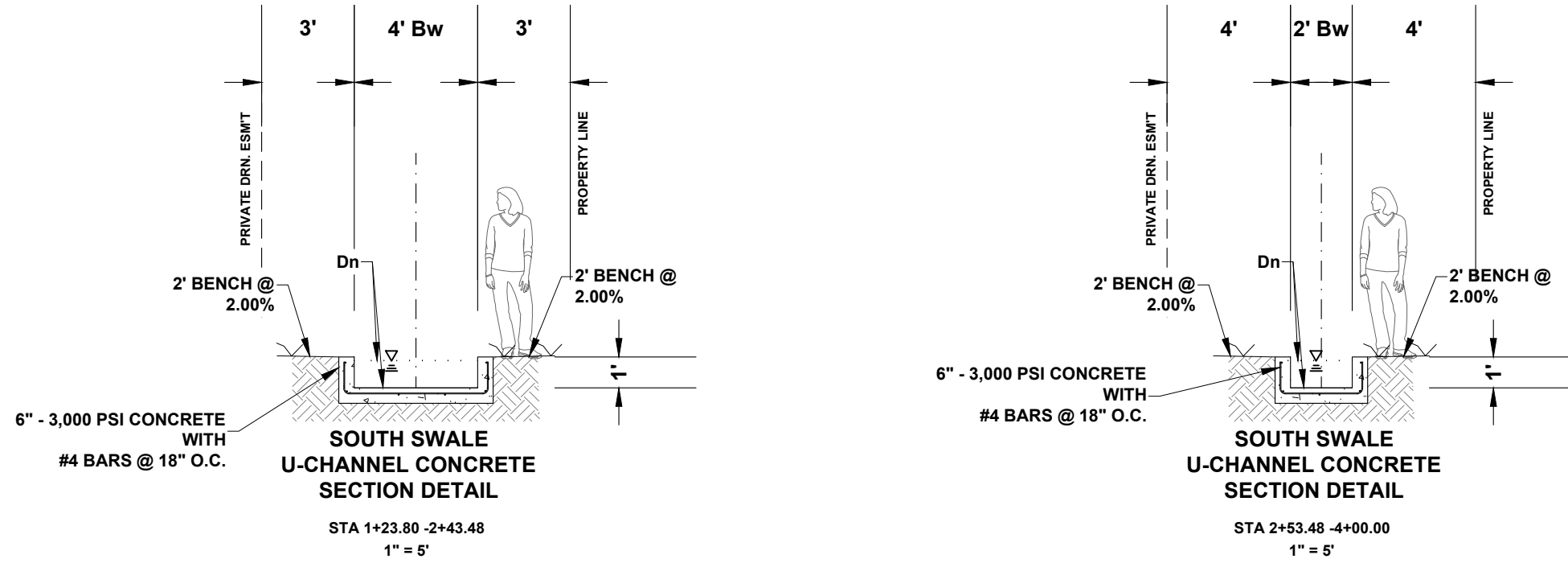
UP
ENGINEERING
+ SURVEYING
JONES MALTSBERGER ROAD, SUITE 100
OHIO, TX 78216 TEL 210-777-1000
FAX 210-777-1001
WWW.UPENGINEERING.COM
TBBT S. 5-101914506

[illegible]

SHEET

[illegible]

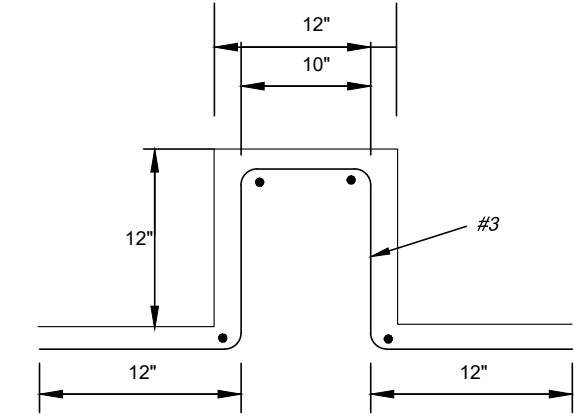
Date: May 01, 2024, 4:48pm, User: J. Nathan Chamberlain
Path: C:\Users\jchamberlain\OneDrive\Documents\Projects\2024\Altura at Tezel Duplexes\DWG\Sheet C5.2 - Interceptor Channel.dwg



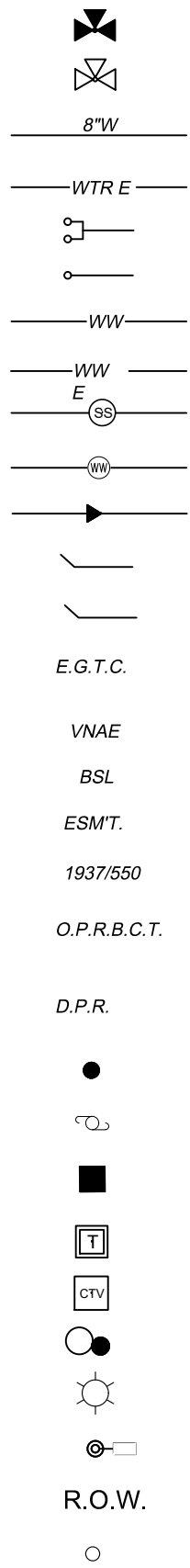
Name	South Swale PR DP C/S/C/H Q15	South Swale PR DP C/S/C/H Q15	South Swale PR DP C/S/C/H Q15
Q (cfs)	12.75	12.75	6.68
h (ft)	1.00'	1.00'	1.00'
b _u (ft)	4.00'	4.00'	2.00'
z (.) left	0	0	0
z (.) right	0	0	0
t _v (ft)	4	4	2
n	0.015	0.015	0.015
Slope (%)	2.00%	5.50%	5.50%
d _s (ft)	0.45'	0.32'	0.35'
V (fps)	7.16	9.90	9.50

DROP STRUCTURE BAFFLE CALCULATIONS

Fr ₁	4.71	Froude Number
V ₁ (fps)	13.15	velocity at drop
g (ft/s ²)	32.20	Gravitational constant
C=	0.92	Coefficient
y ₂ =	1.37	Conjugate Depth
V ₂	0.85	Exit Velocity

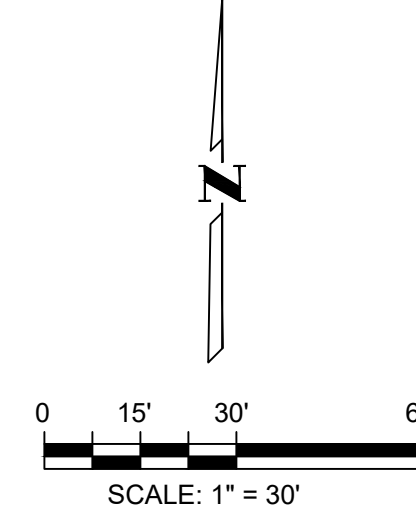


BAFFLE BLOCK DETAIL
NTS



LEGEND

- FIRE HYDRANT
- EXISTING FIRE HYDRANT
- WATER MAIN
- EXISTING WATER MAIN
- DUAL WATER SERVICE
- SINGLE WATER SERVICE
- SANITARY SEWER PIPE
- EXISTING SANITARY SEWER PIPE
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- FLOW DIRECTION
- SANITARY SEWER LATERAL
- EXIST. SANITARY SEWER LATERAL
- ELECTRIC, GAS, TELEPHONE AND CABLE TV
- VEHICLE NON-ACCESS EASEMENT
- BUILDING SETBACK LINE
- EASEMENT
- VOLUME/PAGE
- OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY TEXAS
- DEED AND PLAT RECORDS OF BEXAR COUNTY TEXAS
- POWER POLE
- EXISTING POWER POLE
- ELECTRIC TRANSFORMER
- TELEPHONE PEDESTAL
- CABLE T.V. PEDESTAL
- ELECTRIC RISER POLE
- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT (100 WATT UG)
- RIGHT-OF-WAY
- BLOWOFF

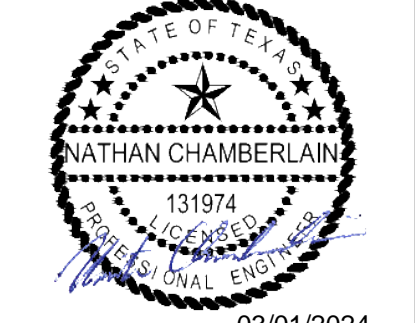
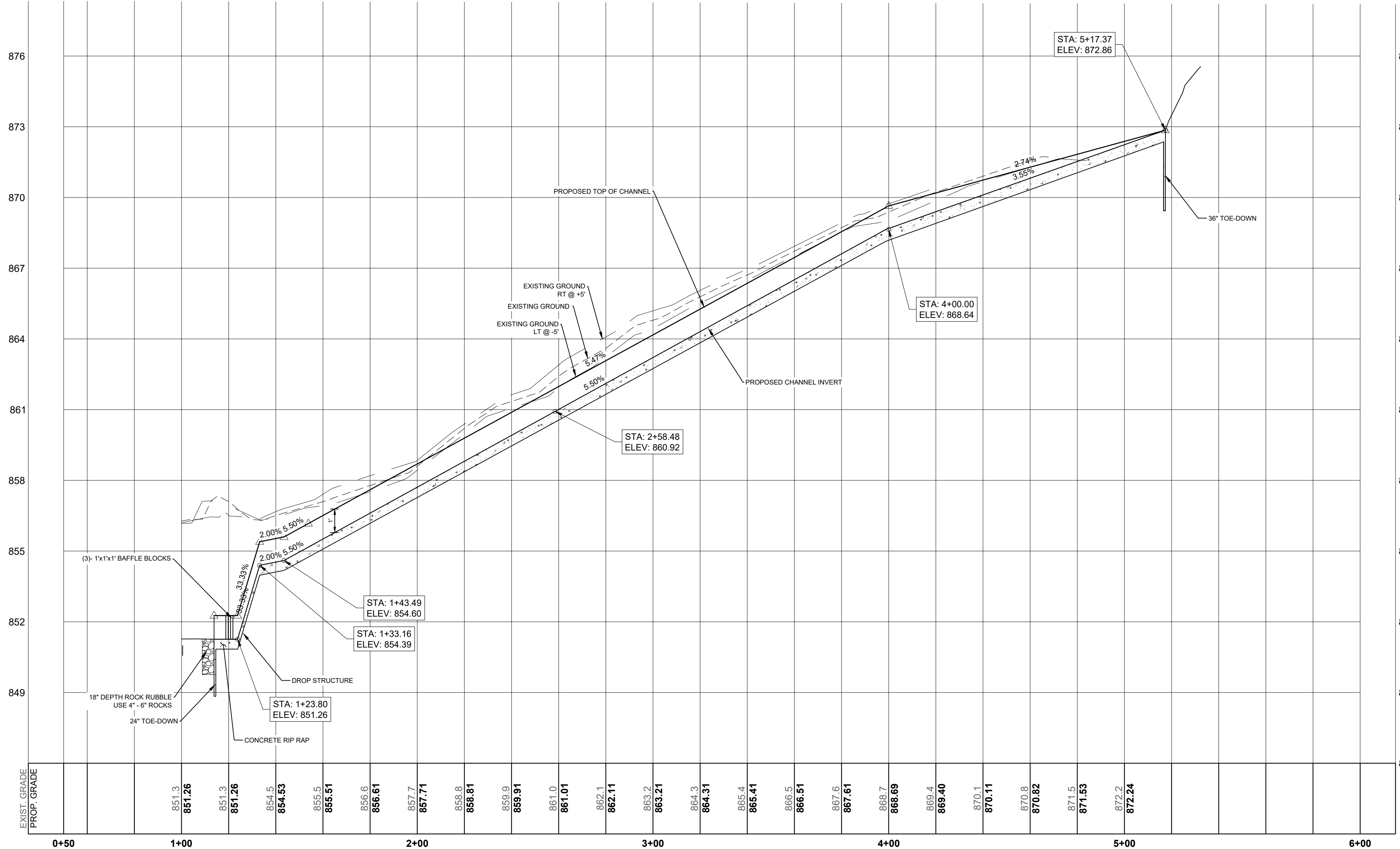
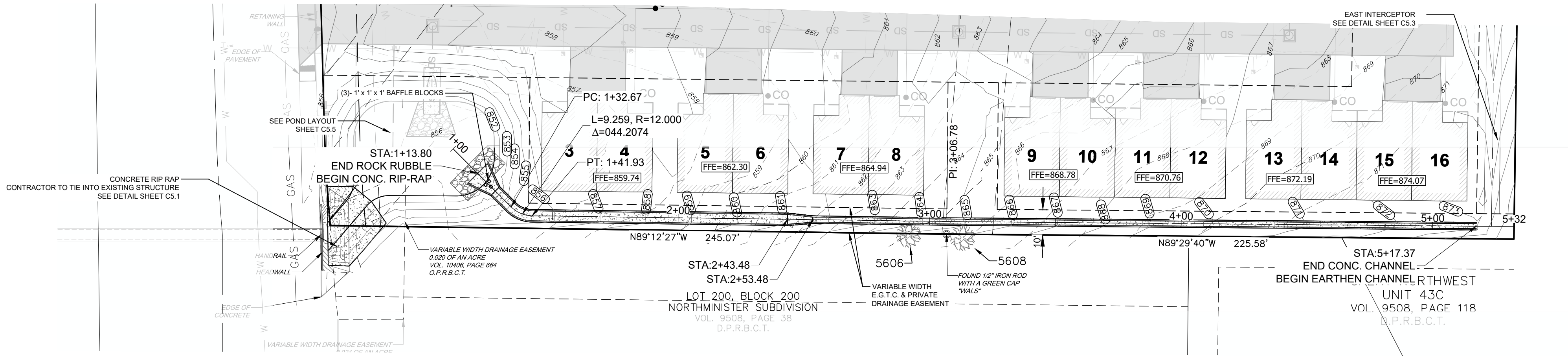


NOTE:

1. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.

GRADING AND DRAINAGE NOTES

1. 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.
2. 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%.
3. NO ABRUPT CHANGE OF GRADE SHALL OCCUR.
4. ALL DISTURBED AREAS SHALL BE REVEGETATED, BY THE CONTRACTOR, IN ACCORDANCE WITH PROJECT SPECIFICATIONS, AND ARCHITECTURAL LANDSCAPING PLANS.
5. 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.
6. 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.
7. 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).
8. 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.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
10. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS FOR UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
11. 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.
12. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT AT NEW PAVEMENT AND CURB JUNCTURES. NO JAGGED OR IRREGULAR CUTS IN PAVEMENT WILL BE ACCEPTED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
14. ALL EXCAVATION IS UNCLASSIFIED.
15. ALL ON-SITE CURBS ARE 6" HIGH UNLESS OTHERWISE SPECIFIED.
16. SEE CIVIL COVER SHEET FOR PROJECT BENCHMARKS.
17. CONTRACTOR TO RAISE/LOWER ALL UTILITY BOXES, COVERS, GRATES, VALVES BOXES, MANHOLES, CLEANOUTS, ETC., TO MATCH PROPOSED FINISHED GRADE ELEVATIONS.
18. 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.
19. 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).
20. 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.
21. IMPROVED EARTHEN CHANNELS AND DETENTION PONDS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE.
22. TURF REINFORCEMENT MATTING: 6 FPS < V < 12 FPS, IF > 12 FPS, ENGINEER'S REPORT SHOULD CERTIFY THAT MATERIAL IS APPROPRIATE FOR VELOCITY. INCLUDE MANUFACTURER SPEC'S & INSTALLATION INSTRUCTIONS. ENGINEER TO CERTIFY AT FINAL INSPECTION THAT MATERIAL WAS INSTALLED CORRECTLY.

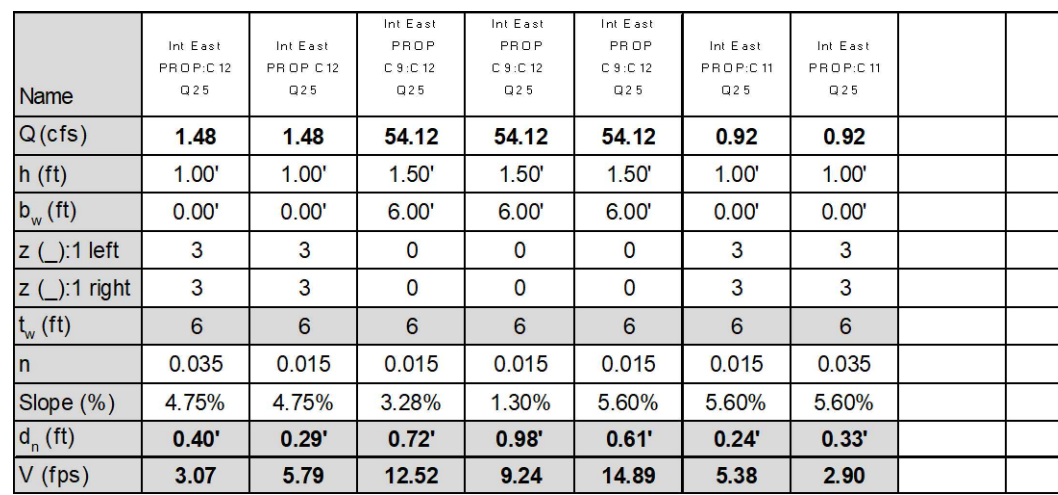


VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070

ALTURA AT TEZEL DUPLEXES
SOUTH SWALE

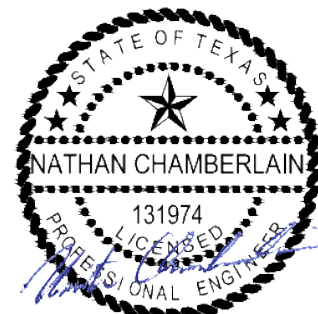
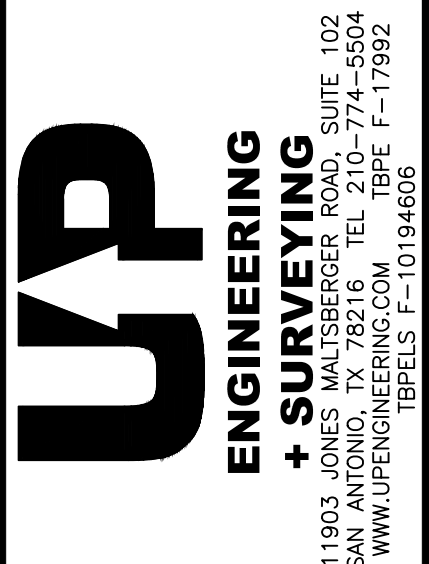
REV	DATE	DESCRIPTION	BY

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



	LEGEND
	FIRE HYDRANT
	EXISTING FIRE HYDRANT
	WATER MAIN
	EXISTING WATER MAIN
	DUAL WATER SERVICE
	SINGLE WATER SERVICE
	SANITARY SEWER PIPE
	EXISTING SANITARY SEWER PIPE
	EXISTING SANITARY SEWER MANHOLE
	PROPOSED SANITARY SEWER MANHOLE
	FLOW DIRECTION
	SANITARY SEWER LATERAL
	EXIST. SANITARY SEWER LATERAL
E. G. T. C.	ELECTRIC, GAS, TELEPHONE AND CABLE TV
VNAE	VEHICLE NON-ACCESS EASEMENT
BSL	BUILDING SETBACK LINE
ESMT.	EASEMENT
1937/550	VOLUME/PAGE
O. P. R. B. C. T.	OFFICIAL, PUBLIC RECORDS OF BEXAR COUNTY TEXAS
D. P. R.	DEED AND PLAT RECORDS OF BEXAR COUNTY TEXAS
	POWER POLE
	EXISTING POWER POLE
	ELECTRIC TRANSFORMER
	TELEPHONE PEDESTAL
	CABLE T.V. PEDESTAL
	ELECTRIC RISER POLE
	EXISTING STREET LIGHT
	PROPOSED STREET LIGHT (100 WATT UG)
R.O.W.	RIGHT-OF-WAY
	BLOWOFF

1. 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.
2. 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%.
3. NO ABRUPT CHANGE OF GRADE SHALL OCCUR.
4. ALL DISTURBED AREAS SHALL BE REVEGETATED, BY THE CONTRACTOR, IN ACCORDANCE WITH PROJECT SPECIFICATIONS, AND ARCHITECTURAL LANDSCAPING PLANS.
5. 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.
6. 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.
7. 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).
8. DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, OPS 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.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
10. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS FOR UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
11. 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.
12. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT AT NEW PAVEMENT AND CURB JUNCTIONS. NO JAGGED OR IRREGULAR CUTS IN PAVEMENT WILL BE ACCEPTED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
14. ALL EXCAVATION IS UNCLASSIFIED.
15. ALL ON-SITE CURBS ARE 6" HIGH UNLESS OTHERWISE SPECIFIED.
16. SEE CIVIL COVER SHEET FOR PROJECT BENCHMARKS.
17. CONTRACTOR TO RAISE/LOWER ALL UTILITY BOXES, COVERS, GRATES, VALVES BOXES, MANHOLES, CLEANOUTS, ETC., TO MATCH PROPOSED FINISHED GRADE ELEVATIONS.
18. 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.
19. 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).
20. 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.
21. IMPROVED EARTHEN CHANNELS AND DETENTION PONDS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE.
22. TURF REINFORCEMENT MATTING: 6 FPS < V < 12 FPS. IF > 12 FPS, ENGINEER'S REPORT SHOULD CERTIFY THAT MATERIAL IS APPROPRIATE FOR VELOCITY. INCLUDE MANUFACTURER SPREADSHEET INSTALLATION INSTRUCTIONS. ENGINEER TO CERTIFY AT FINAL INSPECTION THAT MATERIAL WAS INSTALLED CORRECTLY.



**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**

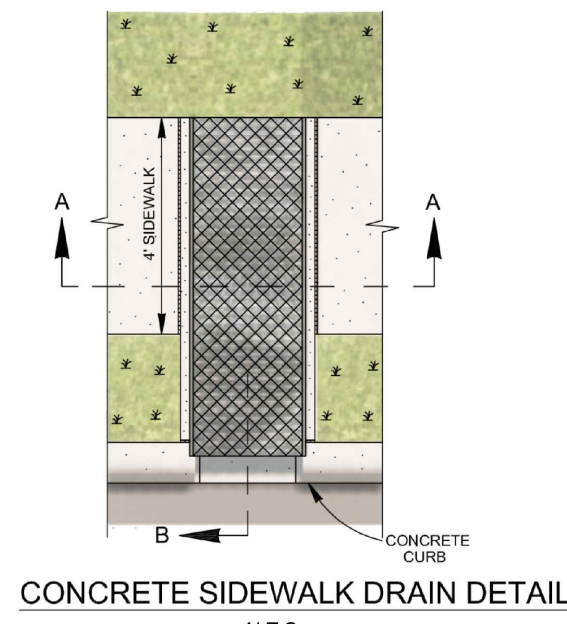
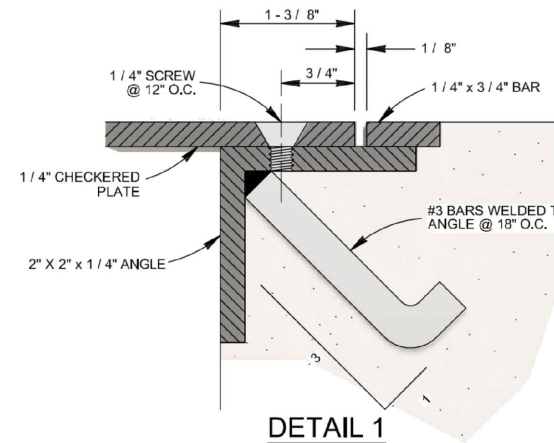
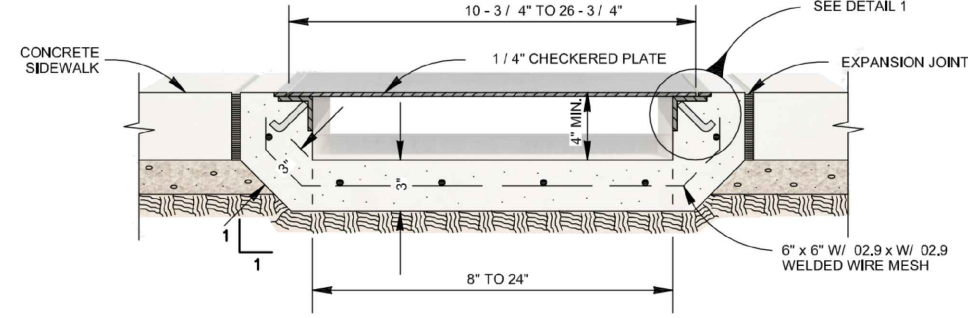
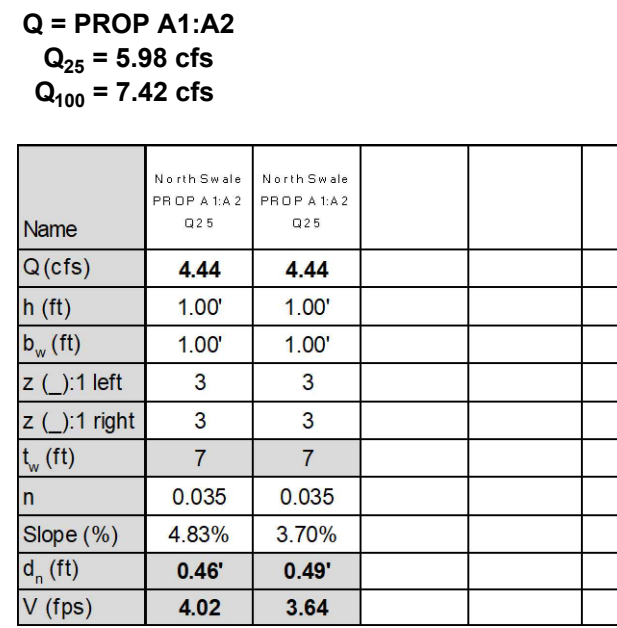
ALTURA AT TEZEL DUPLICES

INTERCEPTOR EAST

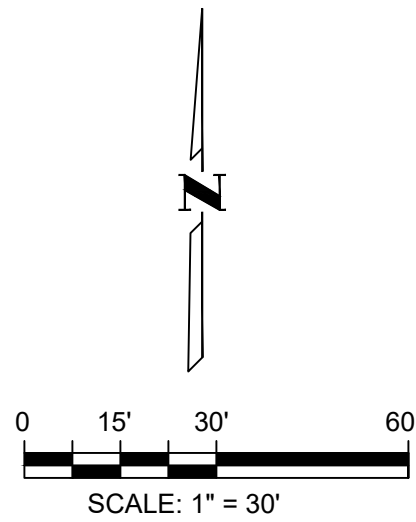
[illegible]

DESIGNED BY:	W
DRAFTED BY:	JV
CHECKED BY:	N

SHEET
C5.3



	FIRE HYDRANT
	EXISTING FIRE HYDRANT
	WATER MAIN
	EXISTING WATER MAIN
	DUAL WATER SERVICE
	SINGLE WATER SERVICE
	SANITARY SEWER PIPE
	EXISTING SANITARY SEWER PIPE
	EXISTING SANITARY SEWER MANHOLE
	PROPOSED SANITARY SEWER MANHOLE
	FLOW DIRECTION
	SANITARY SEWER LATERAL
	EXIST. SANITARY SEWER LATERAL
E.G.T.C.	ELECTRIC, GAS, TELEPHONE AND CABLE TV
VNAE	VEHICLE NON-ACCESS EASEMENT
BSL	BUILDING SETBACK LINE
ESMT.	EASEMENT
1937/550	VOLUME/PAGE
O.P.R.B.C.T.	OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY TEXAS
D.P.R.	DEED AND PLAT RECORDS OF BEXAR COUNTY TEXAS
	POWER POLE
	EXISTING POWER POLE
	ELECTRIC TRANSFORMER
	TELEPHONE PEDESTAL
	CABLE T.V. PEDESTAL
	ELECTRIC RISER POLE
	EXISTING STREET LIGHT
	PROPOSED STREET LIGHT (100 WATT UG)
R.O.W.	RIGHT-OF-WAY
	BLOWOFF

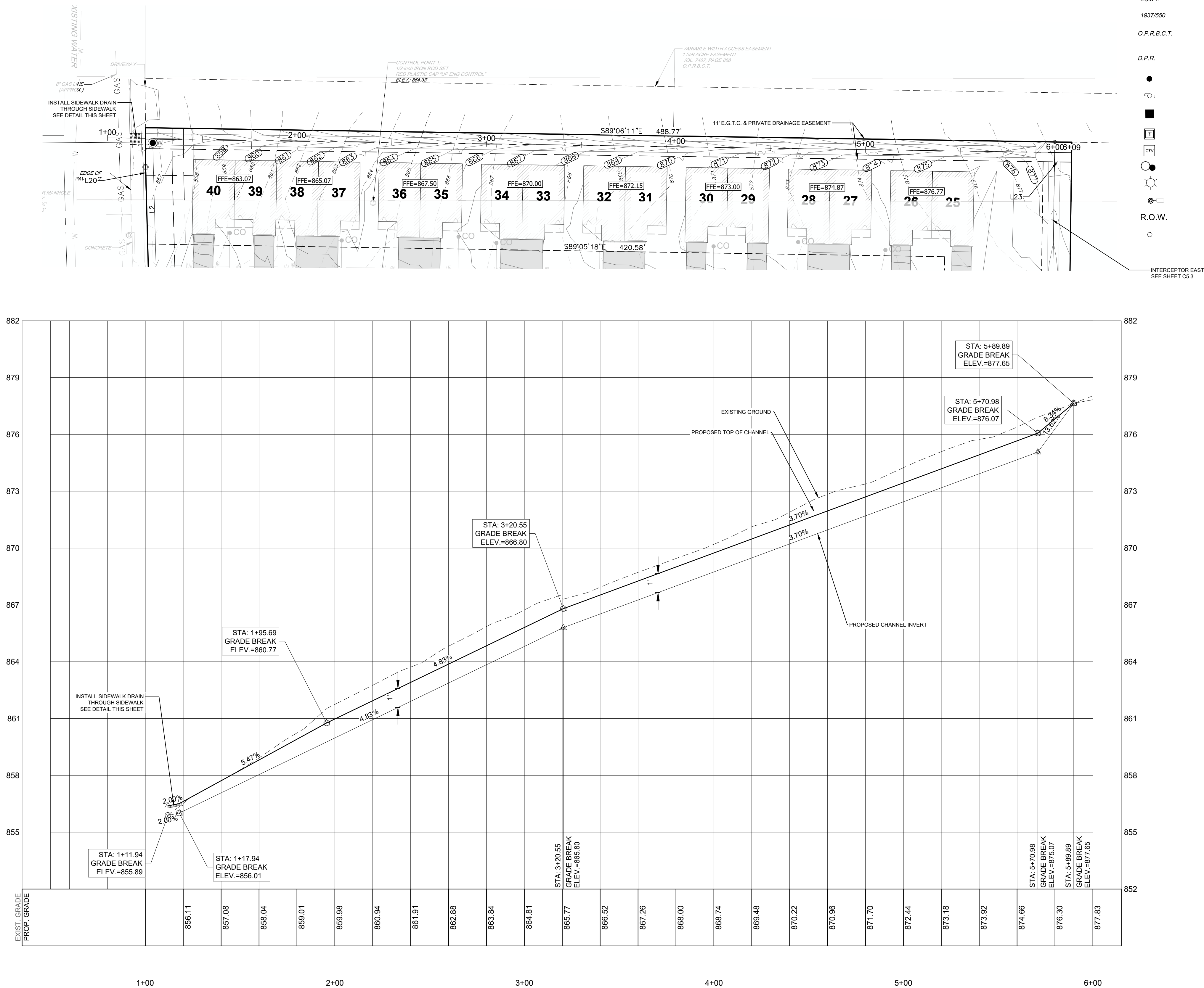


NOTE:

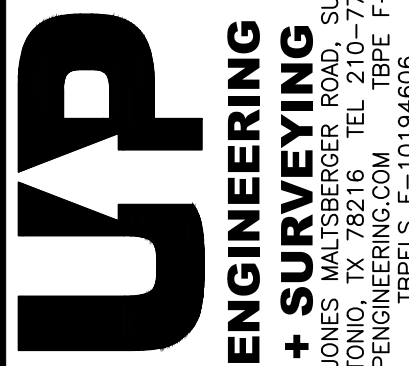
1. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.

GRADING AND DRAINAGE NOTES

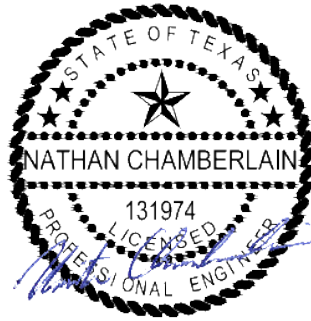
1. ALL GRADES AND CONTOURS SHOWN ARE FINAL, TOP OF FINISHED SURFACE ELEVATIONS, CONTRACTOR SHALL SUBTRACT PAVEMENT, BASE, TOPSOIL, MULCH, ETC. TO OBTAIN PROPER SUBGRADE ELEVATIONS.
2. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL AREAS WITHIN THE SCOPE OF THIS PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER. MINIMUM SLOPE 0.50%.
3. NO ABRUPT CHANGE OF GRADE SHALL OCCUR.
4. ALL DISTURBED AREAS SHALL BE REVEGETATED, BY THE CONTRACTOR, IN ACCORDANCE WITH PROJECT SPECIFICATIONS, AND ARCHITECTURAL LANDSCAPING PLANS.
5. 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.
6. 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.
7. 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).
8. 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.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
10. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS FOR UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.
11. 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.
12. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT AT NEW PAVEMENT AND CURB JUNCTURES. NO JAGGED OR IRREGULAR CUTS IN PAVEMENT WILL BE ACCEPTED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
14. ALL EXCAVATION IS UNCLASSIFIED.
15. ALL ON-SITE CURBS ARE 6" HIGH UNLESS OTHERWISE SPECIFIED.
16. SEE CIVIL COVER SHEET FOR PROJECT BENCHMARKS.
17. CONTRACTOR TO RAISE/LOWER ALL UTILITY BOXES, COVERS, GRATES, VALVES BOXES, MANHOLES, CLEANOUTS, ETC., TO MATCH PROPOSED FINISHED GRADE ELEVATIONS.
18. 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.
19. 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).
20. 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.
21. IMPROVED EARTHEN CHANNELS AND DETENTION PONDS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE.
22. TURF REINFORCEMENT MATTING: 6 FPS < V < 12 FPS. IF > 12 FPS, ENGINEER'S REPORT SHOULD CERTIFY THAT MATERIAL IS APPROPRIATE FOR VELOCITY. INCLUDE MANUFACTURER SPEC'S & INSTALLATION INSTRUCTIONS. ENGINEER TO CERTIFY AT FINAL INSPECTION THAT MATERIAL WAS INSTALLED CORRECTLY.



Date: Mar 01, 2024, 3:50pm User ID: Nathan Chamberlain
File: U:\Projects\222 - Tezel Road\ACAD\Sheets\C5.4 INTERCEPTOR NORTH.dwg



11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPE'S E-10194606



03/01/2024

**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**

ALTURA AT TEZEL DUPLEXES

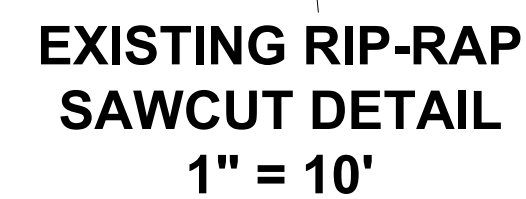
NORTH SWALE

[illegible]

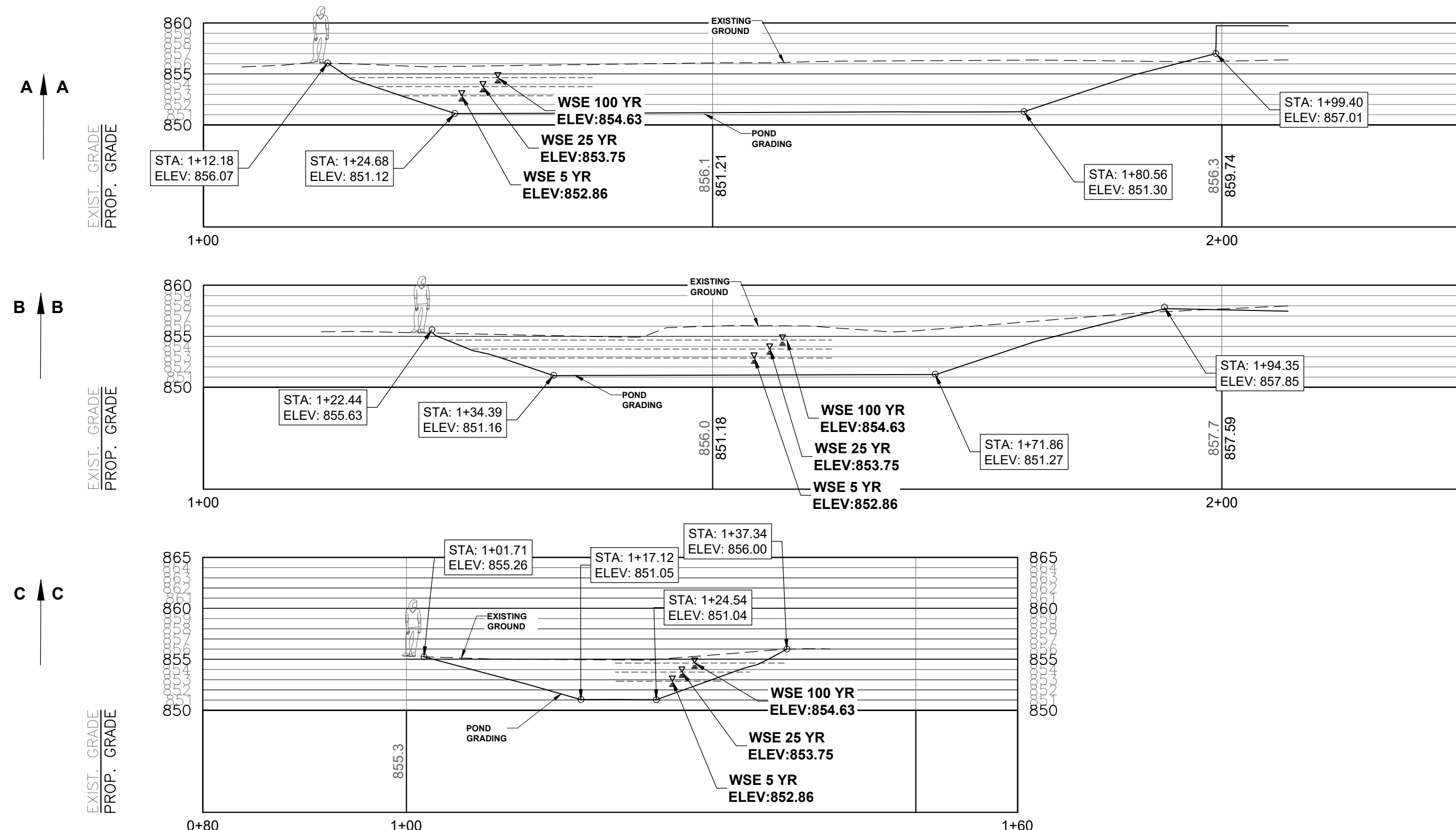
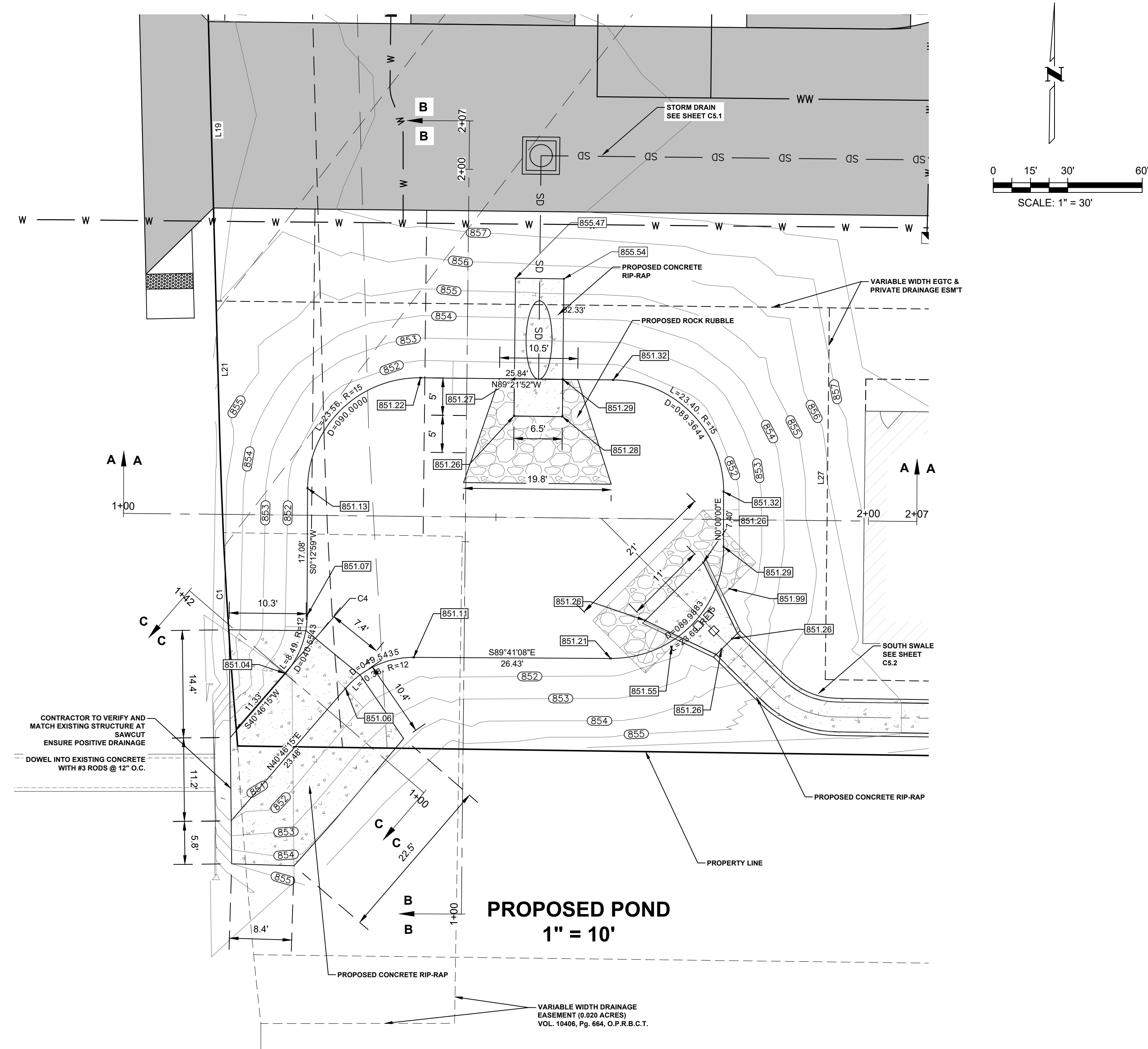
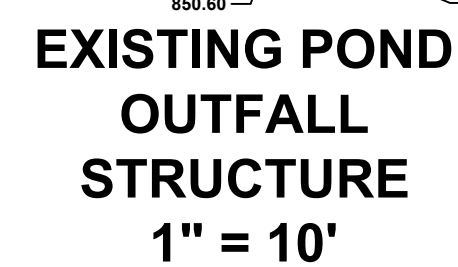
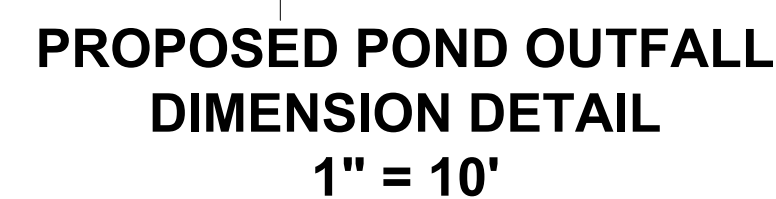
DESIGNED BY:	WPF
DRAFTED BY:	JWH
CHECKED BY:	NFU

SHEET

C5.4



OVERALL OVERDETERENTION WITH POND JUNCTION C		
	EXISTING Q ₁₀₀ (CFS)	PROPOSED Q ₁₀₀ (CFS)
JUNCTION A	4.06	5.51
JUNCTION B	14.37	23.72
JUNCTION C (Hydrographs)	79.75	67.04
TOTAL	98.18	96.27



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 ANTICIPATE INSTALLATION SYSTEMS FOR THE PROJECT WORK IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH EXCAVATION SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

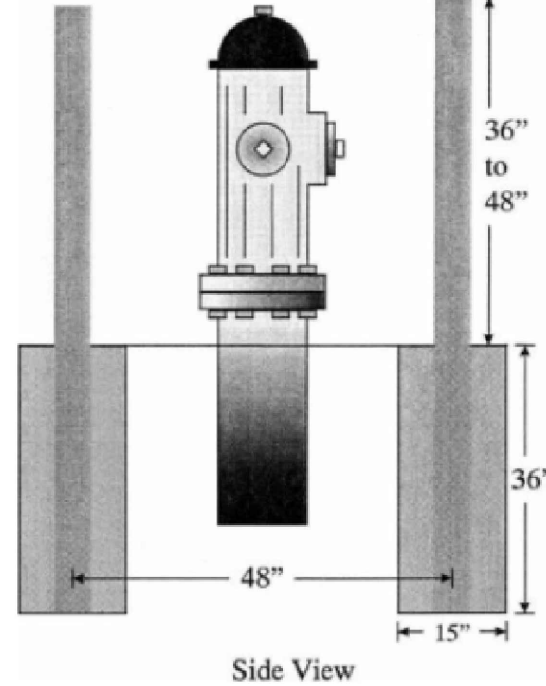
CONTRACTOR SHALL INSTALL RETAINER GLANDS OR MEGALUGS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESS OR FIELD LOK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOWN. CONTRACTOR SHALL INSURE THAT ALL TEES, BENDS, VALVES, ETC., HAVE A MINIMUM OF 5 FT OF PIPE WITH NO JOINTS ON EACH SIDE OF THE FITTING. JOINT RESTRAINTS AND RETAINER GLANDS OR MEGALUGS SHALL BE CALCULATED BY SAWS APPROVED PROGRAMS AND VERIFIED BY SAWS INSPECTOR. CONTRACTOR SHALL INSTALL CONCRETE THRUST BLOCKING IN ACCORDANCE WITH SAWS STD. DRAWING 839 IN ADDITION TO JOINT RESTRAINTS UNLESS OTHERWISE DIRECTED BY THE SAWS INSPECTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE JOINT RESTRAINTS AND THRUST BLOCKING WITH THE SAWS INSPECTOR.

1. PROPOSED STREET LIGHTS SHALL BE LOCATED BETWEEN THE BACK OF CURB AND STREET R.O.W. AND INSTALLED PER THE CPS DESIGN.

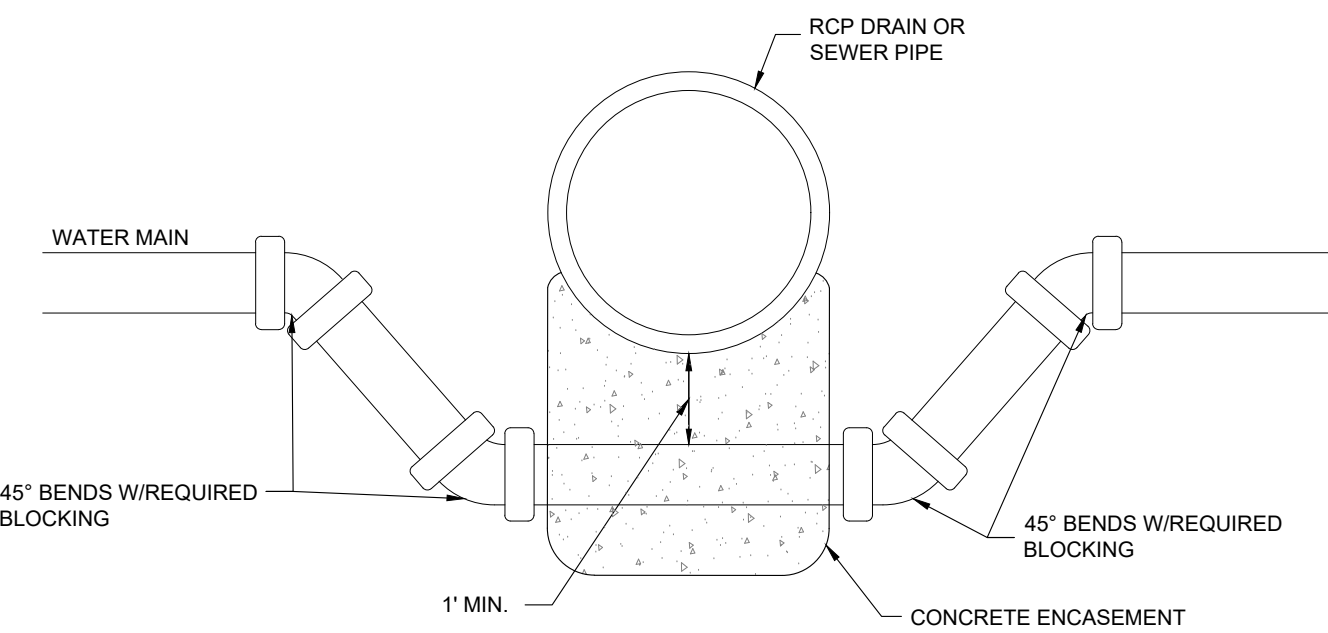
3. ALL 8" AND 12" PIPE TO BE C-900 PVC DR-18, CLASS 235, UNLESS OTHERWISE INDICATED.

4. FIRE HYDRANTS AND VALVE BOXES TO BE RAISED TO PROPOSED TOP OF PARKWAY.

6. CONTRACTOR/HOME BUILDER RESPONSIBLE FOR ANY PERMITTING/INSPECTIONS REQUIRED BY THE CITY FOR CONNECTION TO THE WATER METERS.

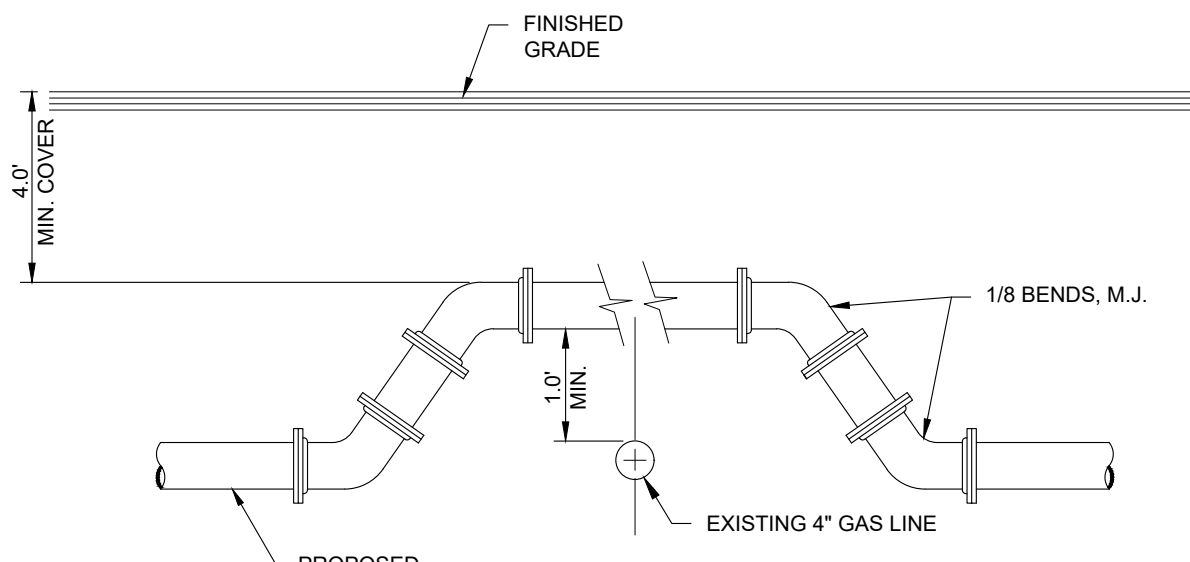


- Height of bollards (posts) not to exceed top of hydrant bonnet.
- Post height above top of asphalt or ground. MIN.3 foot, Max: 4 foot.
- Install Bollards a minimum of 36 inches deep encased in 15" (dia) of concrete.



NOTE:
IF CONTRACTOR CHOOSES TO INSTALL THE PUBLIC WATER MAIN PRIOR TO THE STORM SEWER SYSTEM, HE SHALL ENSURE THE WATER MAINS ARE CONSTRUCTED SO AS NOT TO CONFLICT WITH STORM SEWER LINES AND/OR WASTE WATER LINES.

NOT TO SCALE



NOT TO SCALE

Developer: Vistancia Custom Homes

Address: 20450 HWY 46, Suite 115

City: Spring Branch State: Texas Zip: 78070

Phone: _____ Fax: _____

SAWS Block Map: 106-604 Total EDUs: 34 Total Acreage: 4.63

Total Linear Footage of Pipe: 8", 1,394 Plat No.: 21-11800597

Number of Lots: 1 LOT: 68 UNITS SAWS Job No: 22-1243

**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**

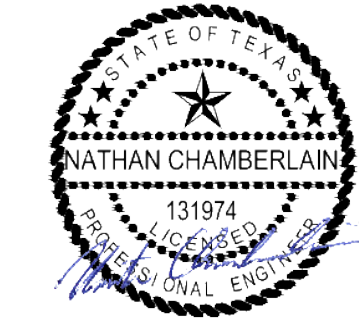
ALTURA AT TEZEL DUPLICES

WATER LAYOUT

[illegible]

SHEET

C6



03/01/2024

NOTES:

1. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
2. ALL WASTEWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FEBRUARY 2017 SAWS SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION.
3. ALL WASTEWATER PRECAST MANHOLES SHALL BE PROVIDED BY SUPPLIERS APPROVED BY SAWS.
4. CONTRACTOR SHALL PROVIDE MANUFACTURED STUB OUT CAP & PLUG TO MEET 30 TAC 213.5(3)(G) STANDARDS AND TO MEET ASTM D3034 SPECIFICATIONS UNLESS OTHERWISE NOTED.
5. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.

NOTES:

6. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.V.E. AND CAPPED AND SEALED.
7. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE PROPERTY LINE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/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.

NOTES:

9. 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 ANTICIPATE INSTALLATION 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 DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

NOTES:

10. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA. EITHER IN SERVICE OR ABANDON. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
11. CONTRACTORS TO CALL UTILITY COMPANIES AND VERIFY THE LOCATIONS OF UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION.
12. ALL PIPE TO BE SDR 26 PVC PER ASTM D3034 SPECIFICATIONS UNLESS OTHERWISE NOTED. PIPE JOINTS TO BE SDR 26 PER ASTM D3139 SPECIFICATIONS.
13. ALL SANITARY SEWER LINES WHICH CROSS WATERLINES ARE TO HAVE A MINIMUM OF A SINGLE LENGTH OF SDR 26 (ASTM D2241-09), PRESSURE RATED (150 PSI) PIPE, CENTERED ON THE WATERLINE SUCH THAT EACH SEWER LINE JOINT IS A MINIMUM OF NINE FEET FROM THE WATERLINE.

NOTES:

14. CONTRACTOR TO VERIFY TOP OF MANHOLE ELEVATION WITH FINISHED PAVEMENT ELEVATION AND ADJUST AS NECESSARY.
15. CONTRACTOR TO PROVIDE MANUFACTURED STUB OUT CAP & PLUG TO MEET 30 TAC 213.5(3)(G) STANDARDS AND TO MEET ASTM D3034 SPECIFICATION.
16. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.
17. CONTRACTOR TO REFER TO SAWS STANDARD DETAILS FOR ALL SAWS APPURTENANCES AND STRUCTURES.
18. ALL ONSITE SANITARY SEWER INFRASTRUCTURE TO BE PRIVATELY OWNED AND MAINTAINED.

WEST SEWERSHED - LEON CREEK W.R.C.

Developer: Vistancia Custom Homes			
Address: 20450 HWY 46, Suite 115			
City: Spring Branch	State: Texas	Zip: 78070	
Phone: _____	Fax: _____		
SAWS Block Map: 106-604	Total EDUs: 34	Total Acreage: 4.63	
Total Linear Footage of Pipes: 28 DUPLICATIONS	8" 98 L.F. Plat No.: 21-118000597		
Number of Lots: 3 FOURPLEXES	SAWS Job No.: 22-1734		

LEGEND

- 8"W
- WTR E
- DUAL WATER SERVICE
- SINGLE WATER SERVICE
- WW
- EXISTING SANITARY SEWER PIPE
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- FLOW DIRECTION
- SANITARY SEWER LATERAL
- EXIST. SANITARY SEWER LATERAL
- E.G.T.C.
- ELECTRIC, GAS, TELEPHONE AND CABLE TV
- VNAE
- VEHICLE NON-ACCESS EASEMENT
- BSL
- BUILDING SETBACK LINE
- ESMT
- EASEMENT
- 1937/550
- VOLUME/PAGE
- O.P.R.B.C.T.
- OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY TEXAS
- D.P.R.
- DEED AND PLAT RECORDS OF BEXAR COUNTY TEXAS
- POWER POLE
- EXISTING POWER POLE
- ELECTRIC TRANSFORMER
- TELEPHONE PEDESTAL
- CABLE T.V. PEDESTAL
- ELECTRIC RISER POLE
- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT (100 WATT UG)
- RIGHT-OF-WAY
- BLOWOFF

NOTE:

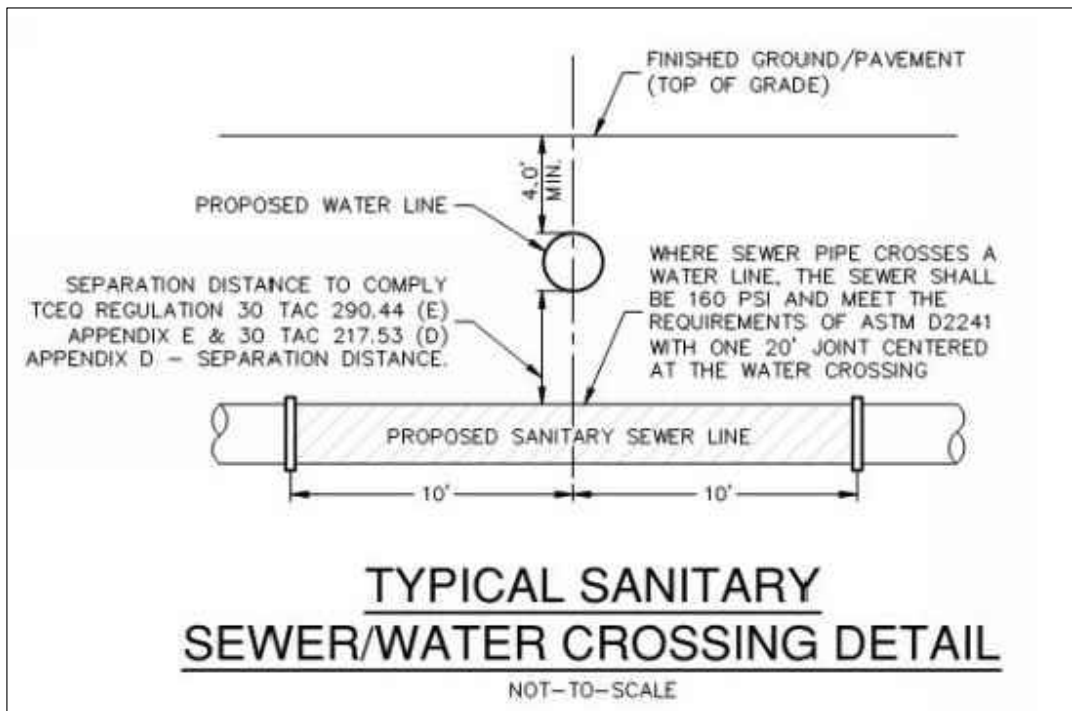
1. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.

SAWS STANDARD DETAILS:

- DD-804-01
- DD-848-01 1 OF 2
- DD-848-01 2 OF 2
- DD-852-01 1 OF 2
- DD-852-01 2 OF 2
- DD-852-02 1 OF 5
- DD-854-02 2 OF 2
- DD-854-03
- DD-858-01

WASTE WATER/GAS CROSSING DETAIL

NOT TO SCALE



ALTURA AT TEZEL DUPLEXES

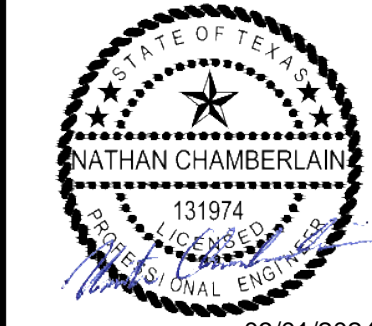
SANITARY SEWER LAYOUT

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

SHEET

C7

VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070



03/01/2024

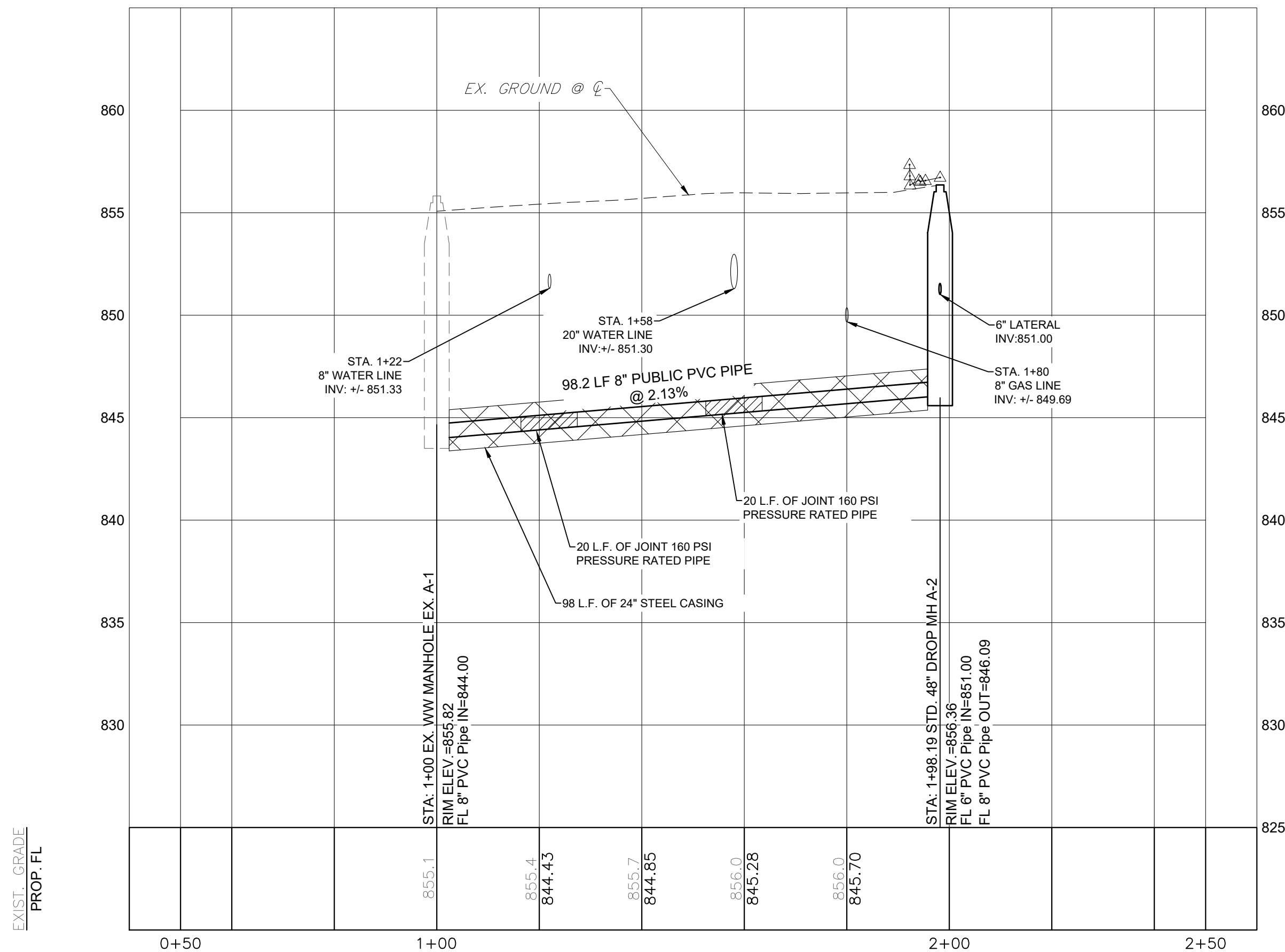
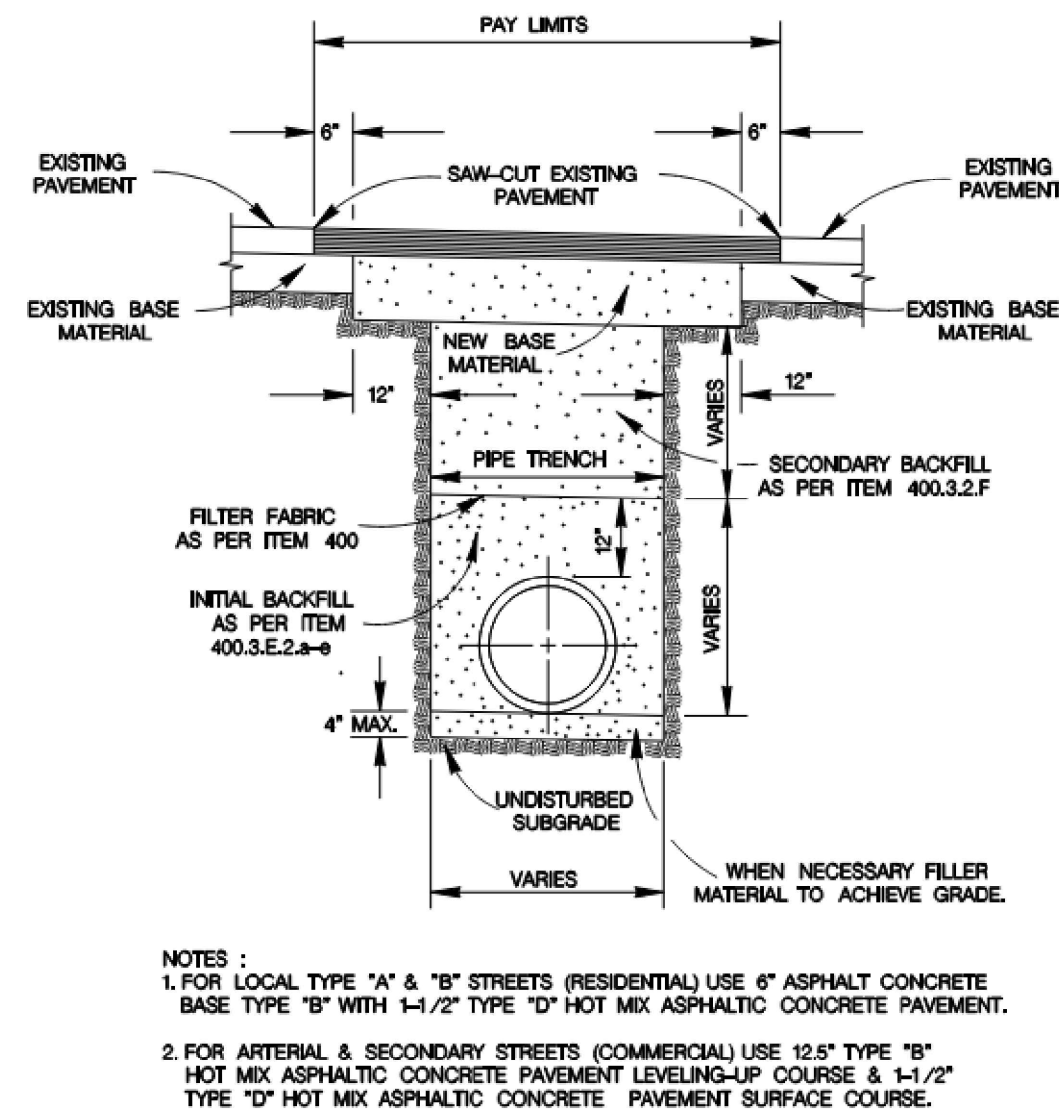
UP
ENGINEERING + SURVEYING

11903 JONES MALBERGER ROAD, SUITE 102
SAN ANTONIO, TX 78216
WWW.OPENINGUPDESIGN.COM
TEL 210-774-5604
FAX 210-774-1792

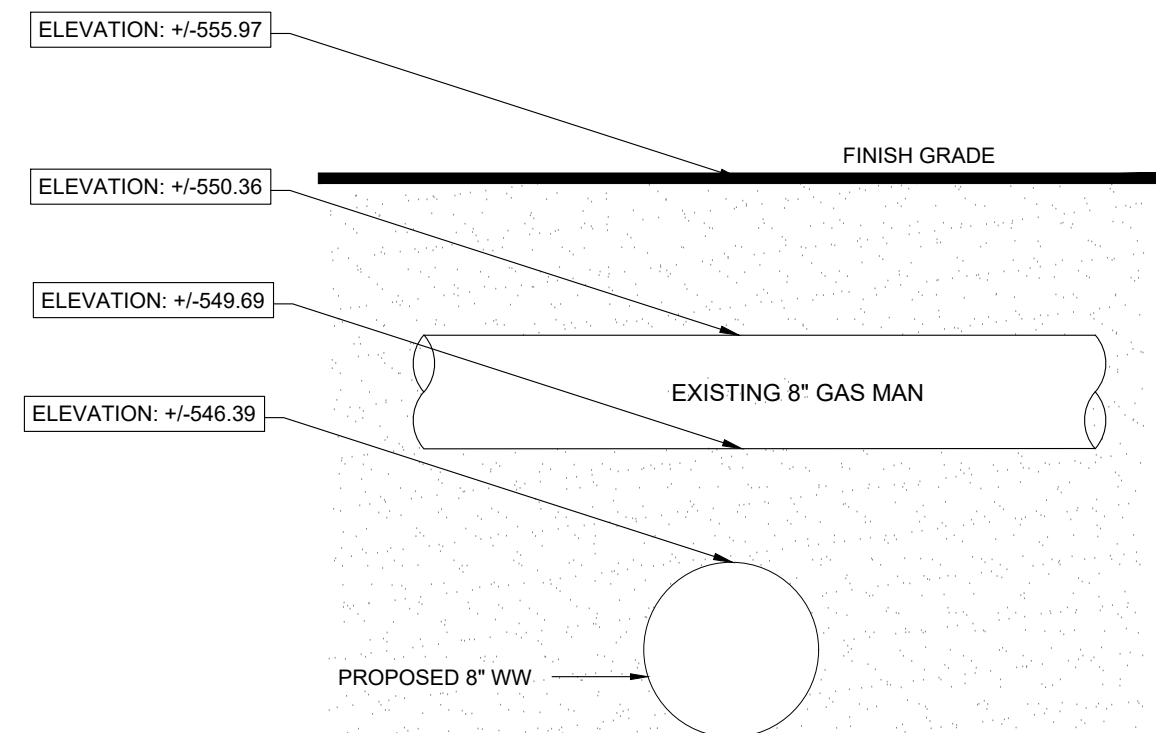
Drawn: May 01, 2024, 1:23 PM, User ID: Vistasia Custom Homes
Project: 20450 HWY 46, Suite 115, Spring Branch, TX 78070
SAWS Job No.: 22-1734

WEST SEWERSHED - LEON CREEK W.R.C.

Developer:	Vistancia Custom Homes
Address:	20450 HWY 46, Suite 115
City:	Spring Branch
State:	Texas
Zip:	78070
Phone:	
Fax:	
SAWS Block Map:	106-604
Total EDUs:	34
Total Acreage:	4.63
Total Linear Footage of Pipe:	8" 98 L.F. Plat No.: 21-118000597
Number of Lots:	28 DUPLEXES
SAWS Job No.:	22-1734

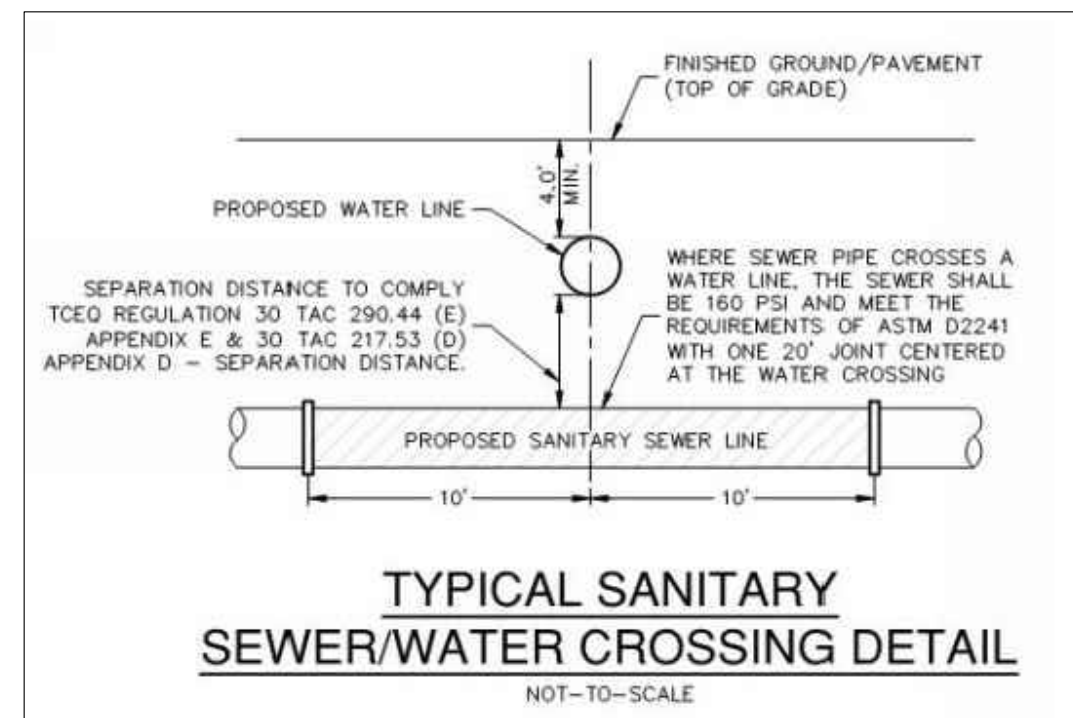


SCALE:
1" = 5' VERT.
1" = 20' HORIZ.



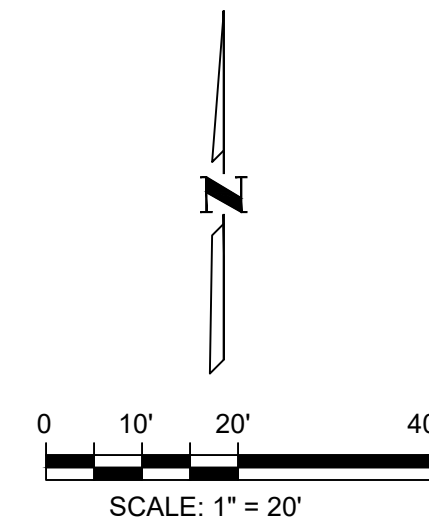
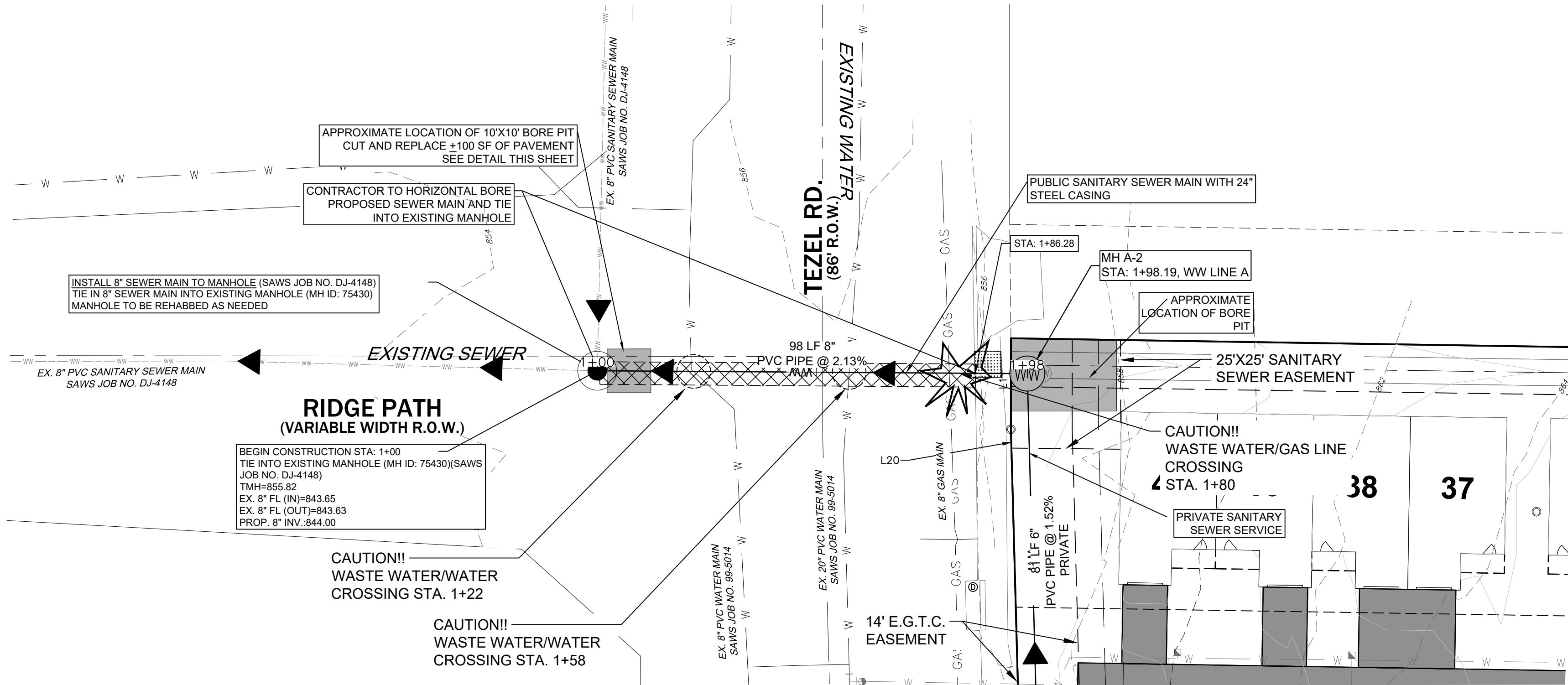
WASTE WATER/GAS CROSSING DETAIL

NOT TO SCALE



TYPICAL SANITARY SEWER/WATER CROSSING DETAIL

NOT-TO-SCALE



- LEGEND**
- FIRE HYDRANT
 - EXISTING FIRE HYDRANT
 - 8"W
 - WTR E
 - DUAL WATER SERVICE
 - SANITARY SEWER PIPE
 - EXISTING SANITARY SEWER PIPE
 - EXISTING SANITARY SEWER MANHOLE
 - PROPOSED SANITARY SEWER MANHOLE
 - FLOW DIRECTION
 - SANITARY SEWER LATERAL
 - EXIST. SANITARY SEWER LATERAL
 - E.G.T.C.
 - ELECTRIC, GAS, TELEPHONE AND CABLE TV
 - VNAE
 - VEHICLE NON-ACCESS EASEMENT
 - BSL
 - BUILDING SETBACK LINE
 - ESMT
 - EASEMENT
 - 1937/550
 - VOLUME/PAGE
 - O.P.R.B.C.T.
 - OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY TEXAS
 - D.P.R.
 - DEED AND PLAT RECORDS OF BEXAR COUNTY TEXAS
 - POWER POLE
 - EXISTING POWER POLE
 - ELECTRIC TRANSFORMER
 - TELEPHONE PEDESTAL
 - CABLE T.V. PEDESTAL
 - ELECTRIC RISER POLE
 - EXISTING STREET LIGHT
 - PROPOSED STREET LIGHT (100 WATT UG)
 - R.O.W.
 - RIGHT-OF-WAY
 - BLOWOFF

NOTE:
1. A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY ROW.

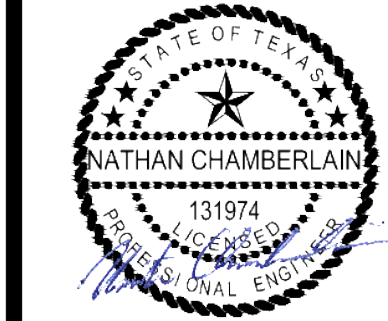
SAWS STANDARD DETAILS:

- DD-804-01
- DD-843-01 1 OF 2
- DD-848-01 2 OF 2
- DD-852-01 1 OF 2
- DD-852-07 1 OF 5
- DD-852-07 2 OF 5
- DD-852-08
- DD-854-02 2 OF 2
- DD-854-03
- DD-858-01
- DD-860-01

TYLER PLACE DUPLEXES

SANITARY SEWER LINE A

VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070



UP ENGINEERING + SURVEYING
11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM
TBEELS E-10194606

03/01/2024

REV	DATE	DESCRIPTION	BY
DESIGNED BY:	WPF		
DRAFTED BY:	JWH		
CHECKED BY:	NFU		

SHEET
C7.1

1. FIRE LINES SHALL HAVE A MINIMUM 2-WAY TRAFFIC WIDTH OF 25 FT. WITH A MINIMUM OUTSIDE TURNING RADIUS OF 50 FT., UNLESS OTHERWISE NOTED.
2. FIRE LINES NEXT TO FIRE HYDRANTS OR DESIGNATED FOR AERIAL APPARATUS SHALL BE A MINIMUM OF 26 FT.
3. FIRE LINES SHALL BE DESIGNATED IN ACCORDANCE TO THE 2015 INTERNATIONAL FIRE CODE AND PER BEARX COUNTY FIRE MARSHAL AMENDMENTS.
4. THE SURFACE SHALL BE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF FIRE APPARATUS WEIGHING AT LEAST 75,000 POUNDS.
5. BLUE TRAFFIC REFLECTORS SHALL BE PROVIDED ON EACH SIDE OF THE SURFACE EVERY 20 FEET TO CLEARLY MARK THE BOUNDARIES OF THE SURFACE AND THE SURROUNDING SURFACE SHALL BE MAINTAINED SUCH THAT SAID REFLECTORS ARE VISIBLE AT ALL TIMES.
6. A SIGNED LETTER FROM THE MANUFACTURER SHALL BE PROVIDED TO THE FIRE MARSHALL'S OFFICE CERTIFYING THAT THE INSTALLATION MEETS ALL REQUIREMENTS IN THE CURRENTLY EFFECTIVE INTERNATIONAL FIRE CODE TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
7. THE SURFACE SHALL BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES WHEN UTILIZED AS A REQUIRED FIRE LANE. SHOULD THE SURFACE BECOME DAMAGED OR FALL INTO DISREPAIR, THE FIRE MARSHALL OR HIS DESIGNEE SHALL BE AUTHORIZED TO REQUIRE THE REPAIR AND RE-CERTIFICATION OF SAID SURFACE.

FIRE LANE STRIPING

NO
PARKING
FIRE LANE
TOW AWAY
ZONE

2" DIAM. GALV.
STEEL POSTS

EXTEND CONCRETE 3'
ABOVE FINISHED GRADE
AT LOCATIONS WHERE
SIGNAGE IS NOT
PROTECTED BY CURB &
GUTTER OR WHEEL
STOPS

FIRE LANE SIGNAGE

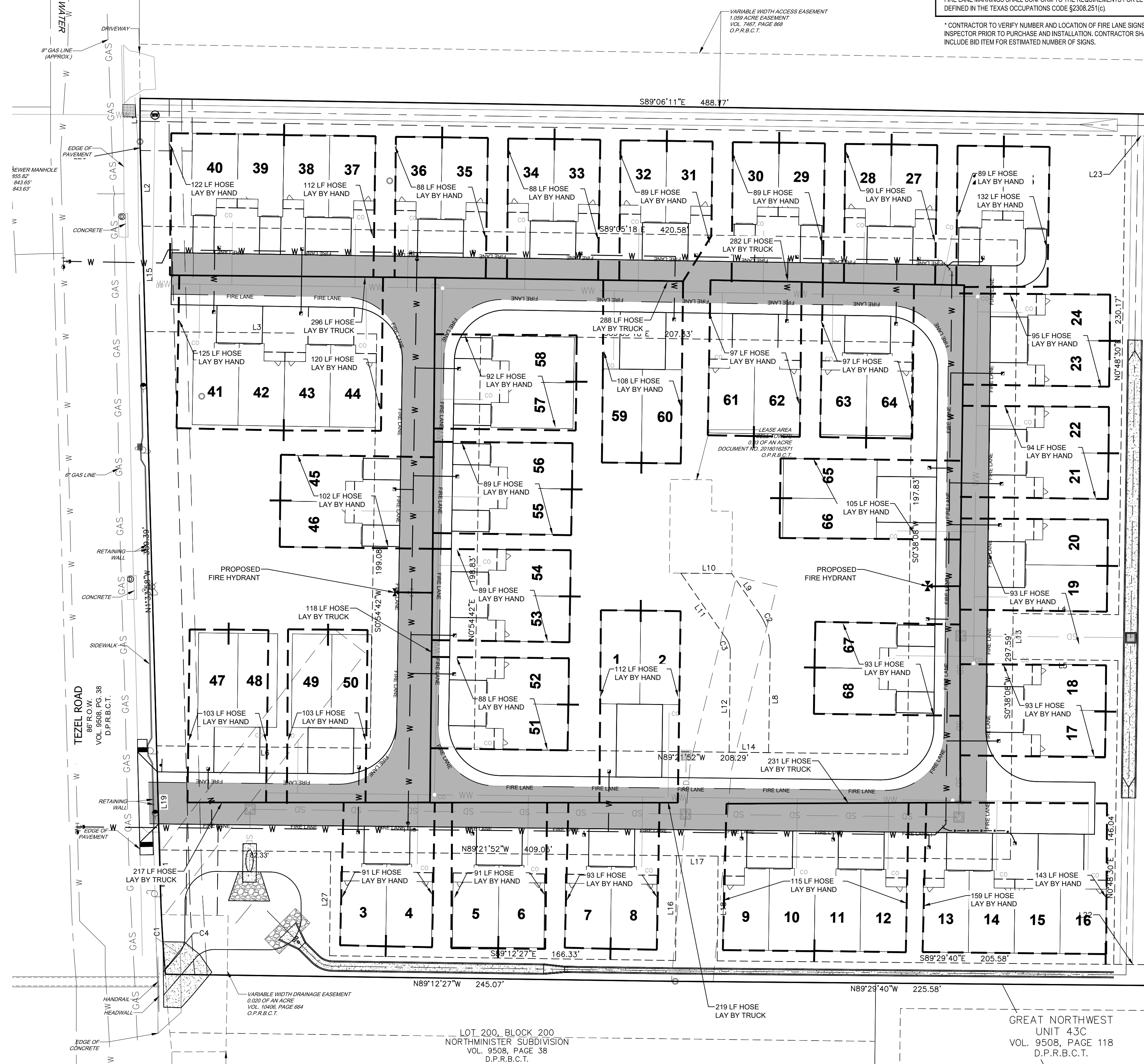
SIGN INSTALLATION NOTE:
WHEN REQUIRED TO BE POSTED, ALL SIGNS, CURB PAINTING AND MARKING, AND PARKING LOT
FIRE LANE MARKINGS SHALL CONFORM TO THE REQUIREMENTS FOR LETTERING AND WORDING AS
DEFINED IN THE TEXAS OCCUPATIONS CODE §2308.251(c).

* CONTRACTOR TO VERIFY NUMBER AND LOCATION OF FIRE LANE SIGNS WITH INSPECTOR PRIOR TO PURCHASE AND INSTALLATION. CONTRACTOR SHALL INCLUDE BID ITEM FOR ESTIMATED NUMBER OF SIGNS.

Legend for fire lane diagram symbols:

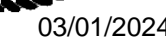
- BOUNDARY / RIGHT OF WAY
- PROPOSED BUILDING
- FIRE LANE
- HOSE LAY (TRUCK PULL) 550 LF MAX.
- HOSE LAY (HAND PULL) 200 LF MAX.
- EXISTING OVERHEAD ELECTRIC
- EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- PROPOSED FENCE
- DIRECTION OF TRAVEL

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



Date: Mar 01, 2024, 3:51pm User ID: Nathan Chamberlain
File: U:_Projects\222 - Tezel Road\ACAD\Sheets\FIRE PROTECTION PLAN.dwg

+ SURVEYING
111903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.UPENGINEERING.COM TBPE F-17992
TBPE S. E-10194606



**VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070**

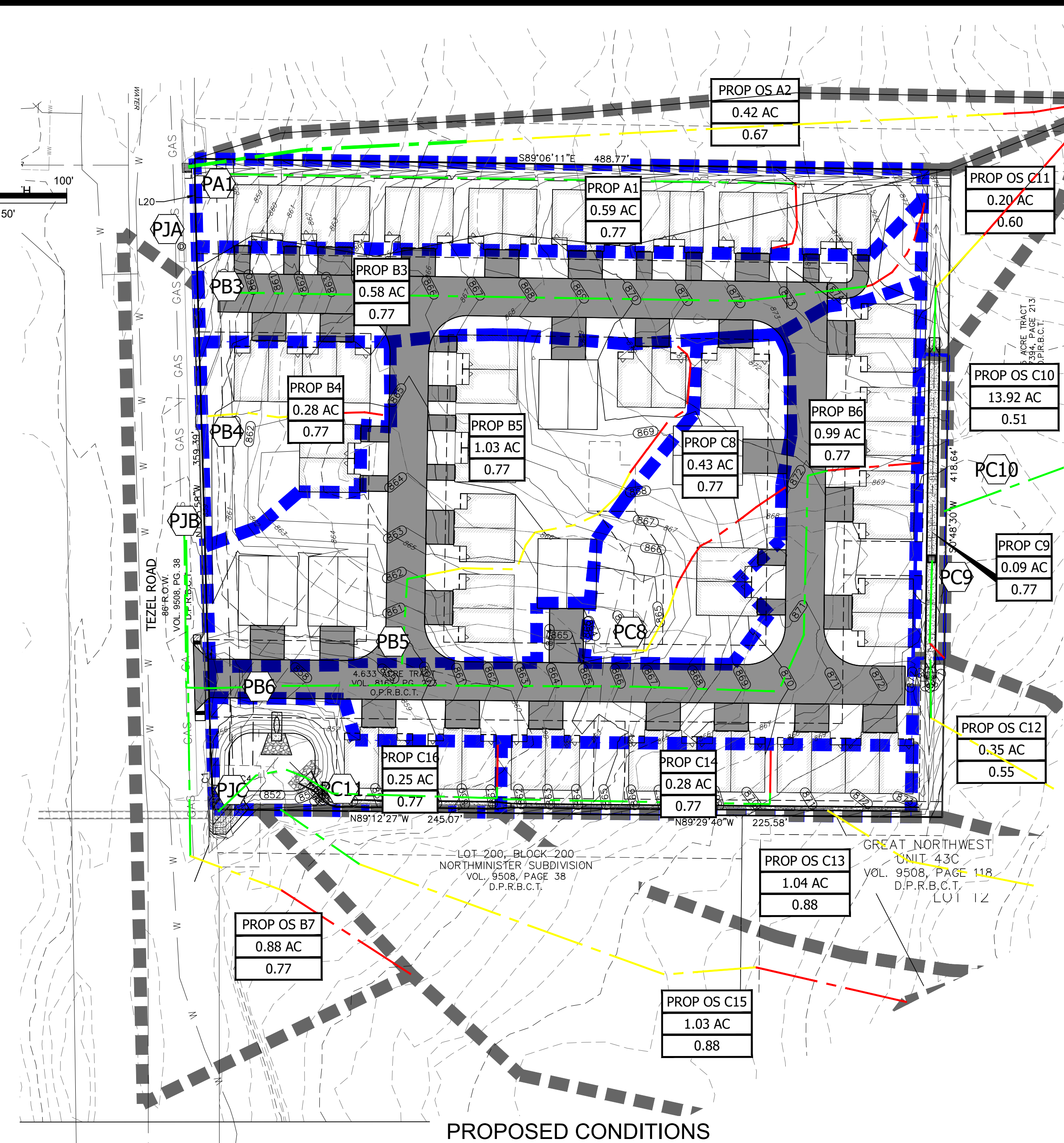
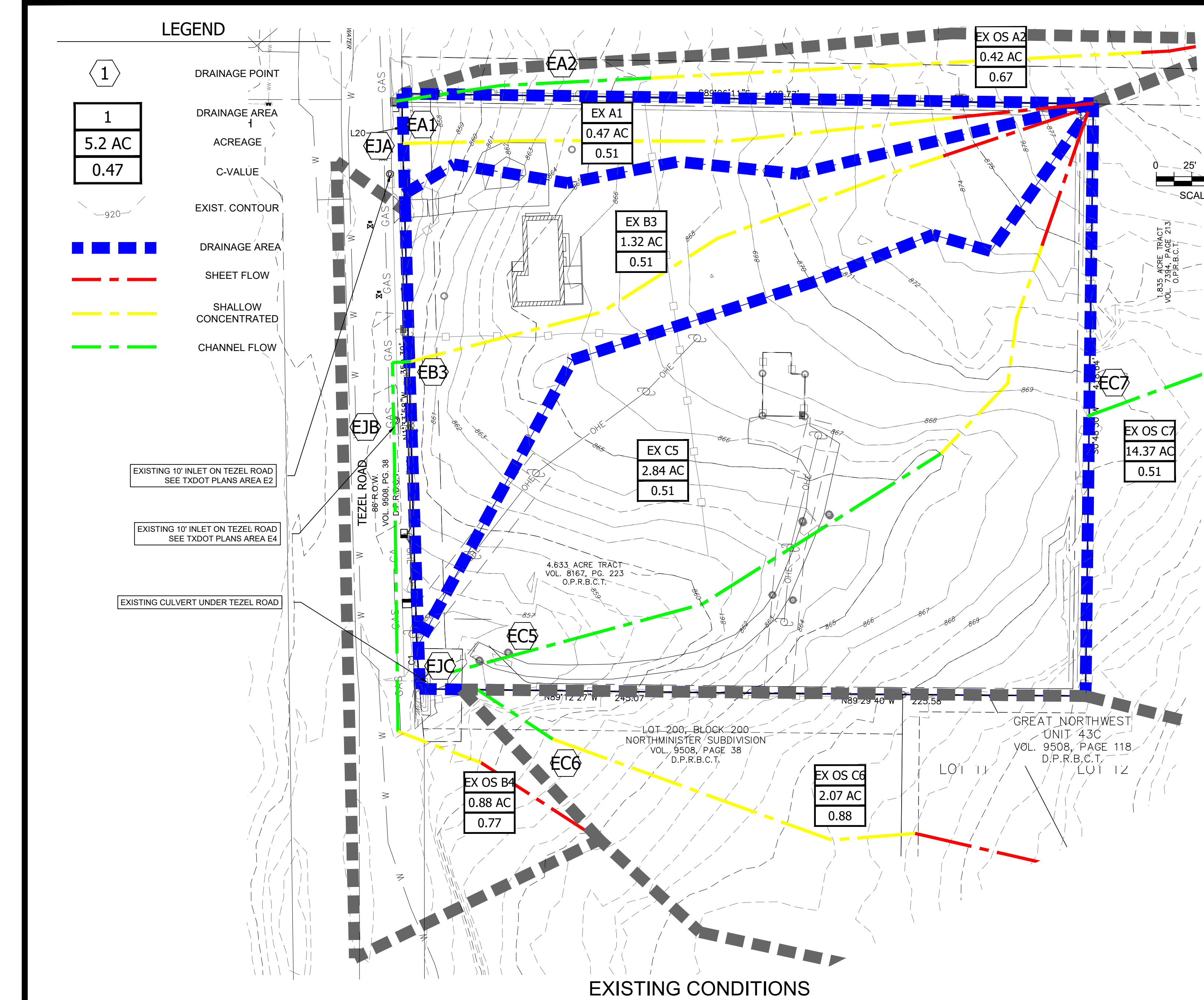
ALTURA AT TEZEL DUPLEXES

FIRE PROTECTION PLAN

[illegible]

SHEET

C8



Project Conditions
Date
Precipitation Area

Tezel Road Duplexes
Proposed
2/20/2024
PA_3

Tezel Road Duplexes Atlas14 Proposed Time of Concentration Table PA_3															
Drainage Basin(s)/ Analysis Points	Sheet Flow (max length = 150')					Shallow Concentrated Flow					Channel Flow				
	n	L _t (ft)	P ₂ (in)	S _p %	T _t (min)	L _{sc} (ft)	S _{sc} %	k	T _{sc} (min)	L (ft)	V (ft/sec)	T _{ch} (min)	T _c (min)		
PROP A1	0.41	54	3.96	0.3	20.0	Unpaved	0	1.0	16.13	0.0	373	4	1.6	21.6	
PROP OS A2	0.41	100	3.96	5.4	13.2	Unpaved	348	4.2	16.13	1.8	181	4	0.8	15.7	
JUNCTION A1:A2	0.41	54	3.96	0.3	20.0	Unpaved	0	1.0	16.13	0.0	373	4	1.6	21.6	
PROP B3	0.41	69	3.96	5.1	10.1	Unpaved	0	1.0	16.13	0.0	423	4	1.8	11.8	
PROP B4	0.41	55	3.96	4.0	9.2	Unpaved	58	4.6	16.13	0.3	0	4	0.0	9.5	
PROP B5	0.41	100	3.96	3.1	16.5	Unpaved	163	4.3	16.13	0.8	67	4	0.3	17.6	
PROP B6	0.41	60	3.96	3.5	10.5	Unpaved	0	1.0	16.13	0.0	524	4	2.2	12.7	
PROP OS B7	0.41	55	3.96	6.4	7.7	Unpaved	63	5.1	16.13	0.3	204	4	0.9	8.8	
JUNCTION B3:B7	0.41	100	3.96	3.1	16.5	Unpaved	163	4.3	16.13	0.8	223	4	0.9	18.2	
PROP C8	0.41	98	3.96	6.0	12.5	Unpaved	54	3.8	16.13	0.3	0	4	0.0	12.8	
PROP C9	0.41	14	3.96	1.0	5.4	Unpaved	0	1.0	16.13	0.0	155	4	0.6	6.0	
PROP OS C10	0.24	100	3.96	2.0	12.9	Unpaved	701	3.1	16.13	4.1	547	4	2.3	19.3	
PROP OS C11	0.41	100	3.96	5.2	13.4	Unpaved	46	3.8	16.13	0.2	41	4	0.2	13.8	
PROP OS C12	0.41	100	3.96	5.5	13.1	Unpaved	121	7.9	16.13	0.4	37	4	0.2	13.7	
JUNCTION C9:C12	0.24	100	3.96	2.0	12.9	Unpaved	701	3.1	16.13	4.1	547	4	2.3	19.3	
JUNCTION C8:C12	0.24	100	3.96	2.0	12.9	Unpaved	701	3.1	16.13	4.1	547	4	2.3	19.3	
PROP OS C13	0.41	100	3.96	1.7	20.0	Unpaved	532	4.8	16.13	2.5	0	4	0.0	22.5	
PROP C14	0.41	27	3.96	0.4	13.0	Unpaved	0	4.5	16.13	0.0	180	4	0.8	13.8	
JUNCTION C13:C14	0.41	100	3.96	1.7	20.0	Unpaved	532	4.8	16.13	2.5	0	4	0.0	22.5	
PROP OS C15	0.41	100	3.96	4.9	13.7	Paved	269	4.5	20.32	1.0	62	4	0.3	15.0	
PROP C16	0.41	27	3.96	4.4	5.0	Unpaved	0	4.5	16.13	0.0	201	4	0.8	5.9	
JUNCTION C13:C16	0.41	100	3.96	1.7	20.0	Unpaved	532	4.8	16.13	2.5	356	4	1.5	24.0	
JUNCTION C8:C16	0.41	100	3.96	1.7	20.0	Unpaved	532	4.8	16.13	2.5	356	4	1.5	24.0	
$T_t = \frac{0.007(nL_t)^{0.8}}{(P_2)^{0.5} S_t^{0.4}}$ $T_{sc} = \frac{L_{sc}}{3600 K S_{sc}^{0.5}}$ $T_{ch} = \frac{L_{ch}}{3600 \cdot V}$ $T_t + T_{sc} + T_{ch}$															
Q=CIA															

Tezel Road Duplexes Atlas14 Proposed Q Flow Table PA_3									
Drainage Area	A (ac.)	C	Intensity			Q FLOW			
			I ₅ (in/hr)	I ₂₅ (in/hr)	I ₁₀₀ (in/hr)	Q ₅ (ft ³ /s)	Q ₂₅ (ft ³ /s)	Q ₁₀₀ (ft ³ /s)	
PROP A1	0.59	0.77	4.37	6.04	7.49	1.99	2.74	3.40	
PROP OS A2	0.42	0.67	5.15	7.14	8.89	1.45	2.01	2.50	
JUNCTION A1:A2	1.01	0.73	4.37	6.04	7.49	3.22	4.44	5.51	
PROP B3	0.58	0.77	5.90	8.24	10.31	2.64	3.68	4.61	
PROP B4	0.28	0.77	6.42	8.99	11.27	1.38	1.94	2.43	
PROP B5	1.03	0.77	4.85	6.72	8.35	3.85	5.33	6.62	
PROP B6	0.99	0.77	5.73	7.98	9.98	4.37	6.09	7.61	
PROP OS B7	0.88	0.77	6.59	9.23	11.58	4.49	6.29	7.88	
JUNCTION B3:B7	3.76	0.77	4.76	6.59	8.18	13.81	19.10	23.72	
PROP C8	0.43	0.77	5.70	7.95	9.94	1.89	2.63	3.29	
PROP C9	0.09	0.77	7.44	10.41	13.06	0.52	0.72	0.90	
PROP OS C10	13.92	0.58	4.63	6.40	7.95	37.39	51.68	64.15	
PROP OS C11	0.20	0.60	5.50	7.66	9.55	0.66	0.92	1.15	
PROP OS C12	0.35	0.55	5.52	7.68	9.58	1.06	1.48	1.84	
JUNCTION C9:C12	14.56	0.58	4.63	6.40	7.95	39.16	54.12	67.18	
JUNCTION C8:C12	14.99	0.59	4.63	6.40	7.95	41.05	56.75	70.47	
PROP OS C13	1.04	0.88	4.28	5.91	7.32	3.92	5.41	6.70	
PROP C14	0.28	0.77	5.51	7.67	9.57	1.19	1.65	2.06	
JUNCTION C13:C14	1.32	0.86	4.28	5.91	7.32	4.84	6.68	8.28	
PROP OS C15	1.03	0.88	5.28	7.32	9.11	4.78	6.63	8.26	
PROP C16	0.25	0.77	7.51	10.50	13.17	1.45	2.02	2.53	
JUNCTION C13:C16	2.60	0.86	4.14	5.72	7.08	9.24	12.75	15.79	
JUNCTION C8:C16	17.59	0.63	4.14	5.72	7.08	45.65	62.97	78.03	
Q=CIA									

Project Conditions
Date
Precipitation Area

Tezel Road Duplexes
Existing
3/1/2024
PA_3

Tezel Road Duplexes Atlas14 Existing Time of Concentration Table PA_3															
Drainage Basin(s)/ Analysis Points	Sheet Flow (max length = 150')					Shallow Concentrated Flow					Channel Flow				
	n	L _t (ft)	P ₂ (in)	S _p %	T _t (min)	L _{sc} (ft)	S _{sc} %	k	T _{sc} (min)	L (ft)	V (ft/sec)	T _{ch} (min)	T _c (min)		
EXA1	0.41	100	3.96	3.9	15.1	Unpaved	389	4.6	16.13	1.9	0	4	0.0	16.9	
EX OS A2	0.41	100	3.96	5.4	13.2	Unpaved	347	4.2	16.13	1.8	181	4	0.8	15.7	
JUNCTION A1:A2	0.41	100	3.96	4.6	14.1	Unpaved	699	2.7	16.13	4.4	366	4	1.5	20.0	
EX B3	0.41	100	3.96	4.1	14.7	Unpaved	407	3.7	16.13	2.2	0	4	0.0	16.9	
EX OS B4	0.41	100	3.96	6.4	12.4	Unpaved	63	5.1	16.13	0.3	204	4	0.9	13.5	
JUNCTION B3:B4	0.41	55	3.96	2.6	11.0	Unpaved	0	1.0	16.13	0.0	0	4	0.0	11.0	
EX C5	0.41	100	3.96	3.8	15.3	Unpaved	170	5.8	16.13	0.7	395	4	1.6	17.6	
EX OS C6	0.41	100	3.96	4.9	13.7	Paved	269	4.5	20.32	1.0	65	4	0.3	15.0	
EX OS C7	0.24	100	3.96	2.0	12.9	Unpaved	701	3.1	16.13	4.1	547	4	2.3	19.3	
JUNCTION C5:C7	0.24	100	3.96	2.0	12.9	Unpaved	701	3.1	16.13	4.1	1049	4	4.4	21.4	
$T_t = \frac{0.007(nL_t)^{0.8}}{(P_2)^{0.5} S_t^{0.4}}$ $T_{sc} = \frac{L_{sc}}{3600 K S_{sc}^{0.5}}$ $T_{ch} = \frac{L_{ch}}{3600 \cdot V}$ $T_t + T_{sc} + T_{ch}$															
Q=CIA															

Tezel Road Duplexes Atlas14 Existing Q Flow Table PA_3									
Drainage Area	A (ac.)	C	Intensity			Q FLOW			
			I ₅ (in/hr)	I ₂₅ (in/hr)	I ₁₀₀ (in/hr)	Q ₅ (ft ³ /s)	Q ₂₅ (ft ³ /s)	Q ₁₀₀ (ft ³ /s)	
EXA1	0.47	0.51	4.95	6.85	8.52	1.19	1.64	2.04	
EX OS A2	0.42	0.67	5.15	7.14	8.89	1.45	2.01	2.50	
JUNCTION A1:A2	0.89	0.59	4.55	6.28	7.80	2.37	3.27	4.06	
EX B3	1.32	0.51	4.95	6.85	8.52	3.33	4.61	5.74	
EX OS B4	0.88	0.77	5.56	7.73	9.65	3.77	5.24	6.54	
JUNCTION B3:B4	2.20	0.61	6.08	8.50	10.64	8.21	11.48	14.37	
EX C5	2.84	0.51	4.85	6.71	8.34	7.02	9.72	12.07	
EX OS C6	2.07	0.88	5.27	7.31	9.11	9.61	13.32	16.59	
EX OS C7	14.37	0.51	4.63	6.40	7.95	33.94	46.91	58.23	
JUNCTION C5:C7	19.28	0.55	4.39	6.07	7.52	46.58	64.30	79.75	
Q=CIA									

ENGINEERING + SURVEYING

11903 JONES MALTSBERGER ROAD, SUITE 102
SAN ANTONIO, TX 78216 TEL 210-774-5504
WWW.OPENINGUPTEXAS.COM TBEELS E-10194506

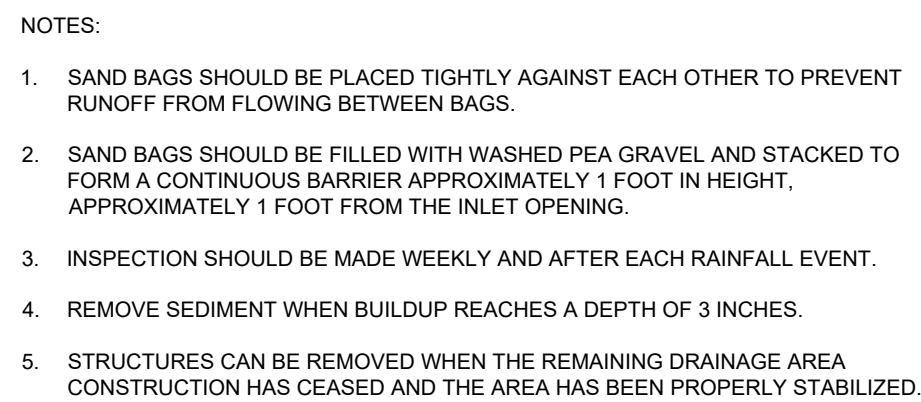
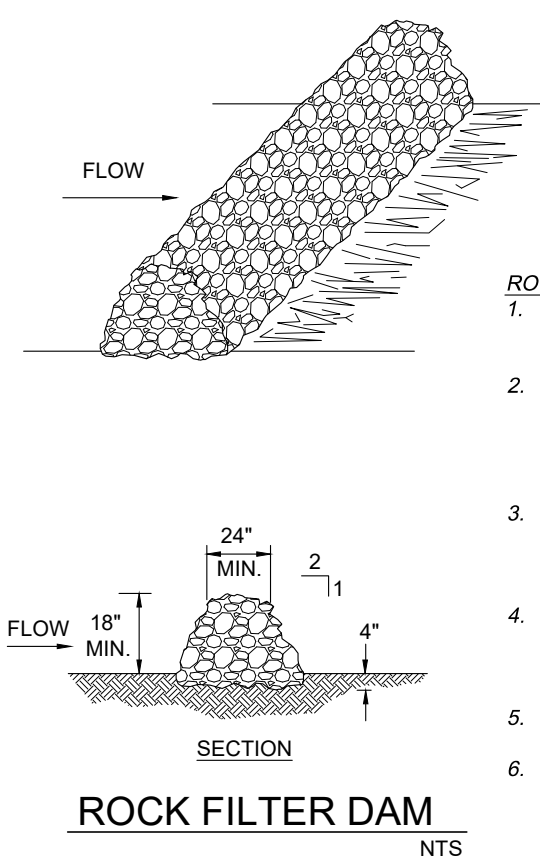
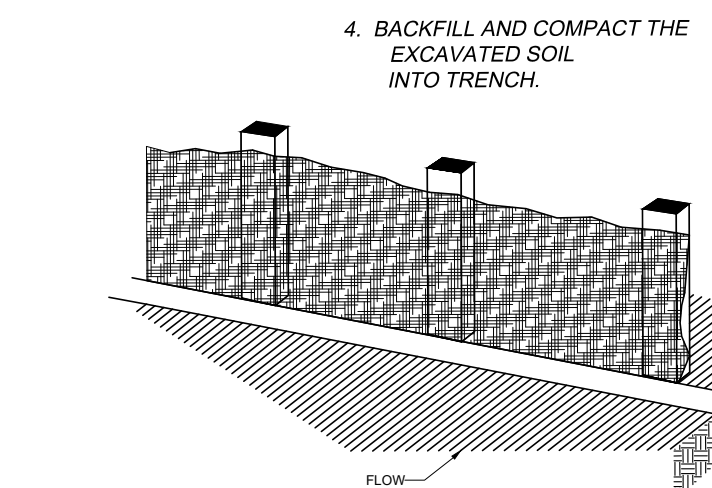
NATHAN CHAMBERLAIN
13197
03/01/2024

VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070

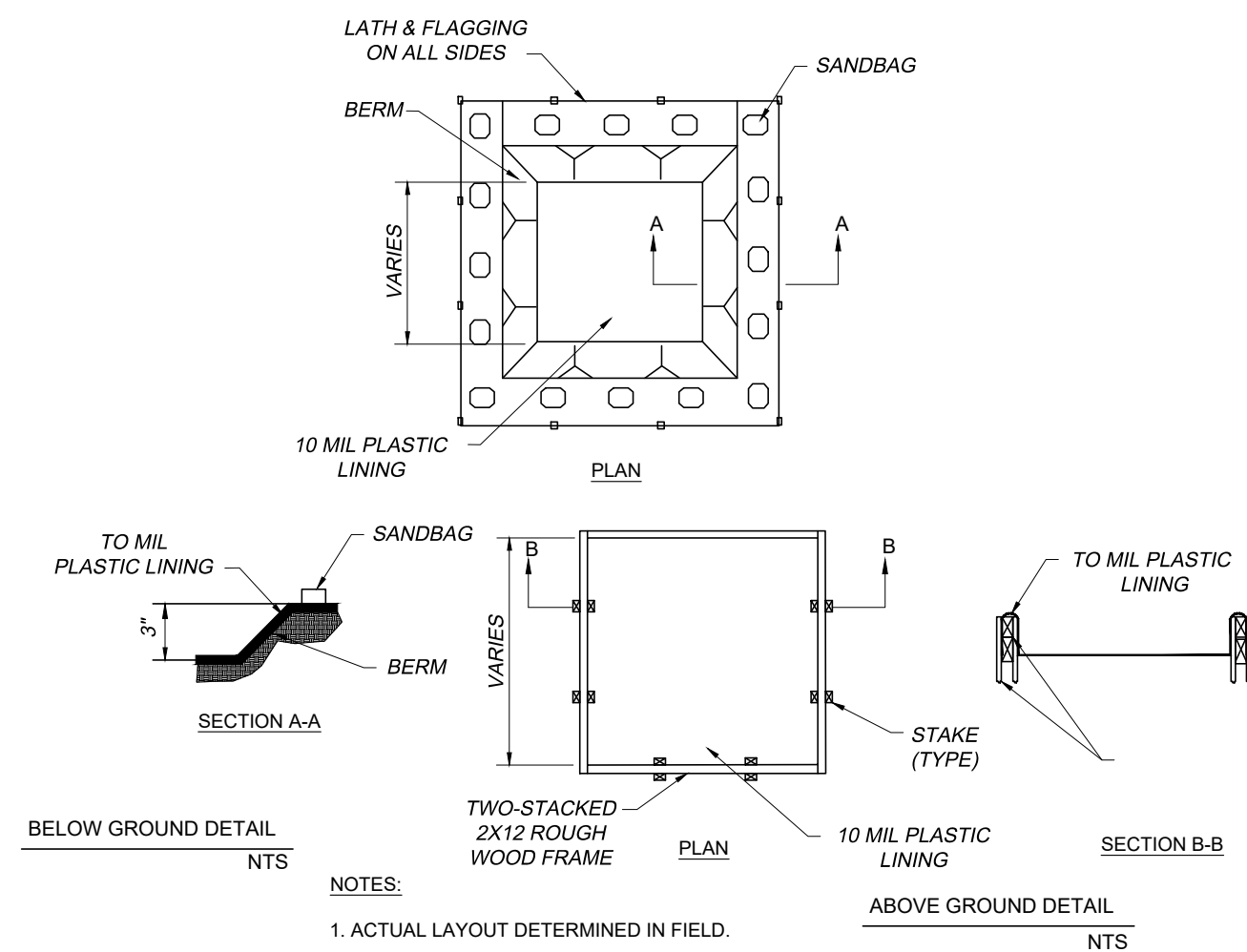
ALTURA AT TEZEL DUPLEXES
DRAINAGE AREA MAP

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

SHEET
C9



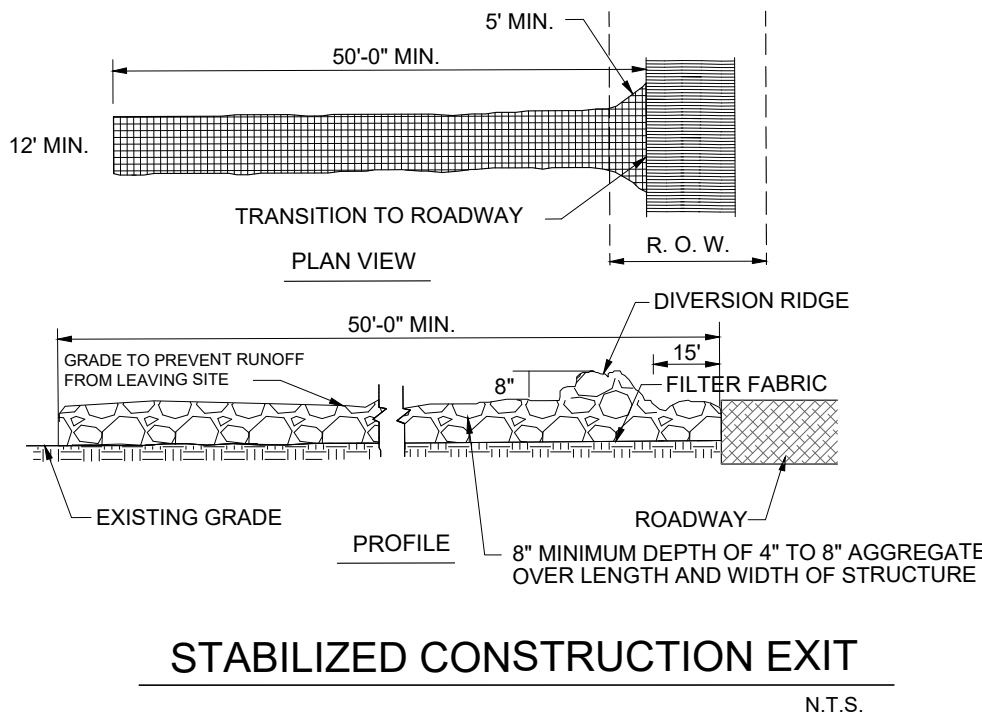
NOT TO SCALE



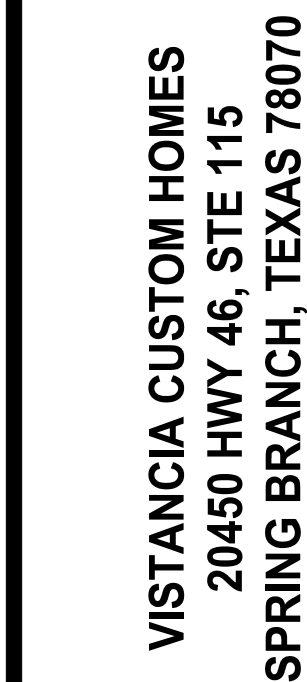
NOTES:

1. SAND BAGS SHOULD BE PLACED TIGHTLY AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN BAGS.
2. SAND BAGS SHOULD BE FILLED WITH WASHED PEA GRAVEL AND STACKED TO FORM A CONTINUOUS BARRIER APPROXIMATELY 1 FOOT IN HEIGHT, APPROXIMATELY 1 FOOT FROM THE INLET OPENING.
3. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL EVENT.
4. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES.
5. STRUCTURES CAN BE REMOVED WHEN THE REMAINING DRAINAGE AREA CONSTRUCTION HAS CEASED AND THE AREA HAS BEEN PROPERLY STABILIZED.

NOT TO SCALE



- (1) Upon completion of construction all disturbed areas shall be revegetated to 85% of existing condition 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.



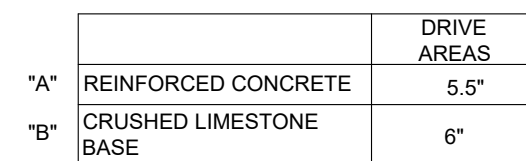
ALTURA AT TEZEL DUPLICES

STORM WATER POLLUTION PREVENTION PLAN DETAILS

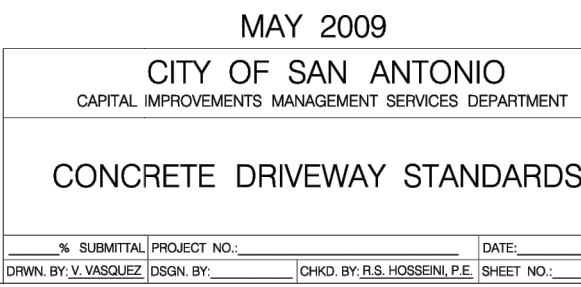
[illegible]

SHEET

C11



* ALTERNATIVELY, #3 BARS @ 12" O.C.E.W. MAY BE USED. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.





1. CROSS PIPES AND SADDLE PIPES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A53 (TYPE E OR S, GRADE B), ASTM A500 (GRADE B), OR API 5LX32.
2. BOLTS AND NUTS SHALL CONFORM TO ASTM A307.
3. ALL STEEL COMPONENTS, EXCEPT CONCRETE REINFORCING, SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING DAMAGED DURING TRANSPORT OR CONSTRUCTION SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.



1. EXISTING MRC OR RCP SHALL BE SAW CUT AT LOCATION APPROVED BY THE CITY ENGINEER (SMOOTH END).
2. PIPE EDGES SHALL TOUCH EACH OTHER. ALL GAPS IN JOINT SHALL BE FILLED WITH QUICK SETTING NON SHRINK GROUT SEE SPECIFICATION.

Date: Mar 01, 2024, 3:52pm User ID: Nathan Chamberlain
File: U:_Projects\222 - Tezel Road\ACAD\Sheets\CONSTRUCTION DETAILS.dwg

VISTANCIA CUSTOM HOMES
20450 HWY 46, STE 115
SPRING BRANCH, TEXAS 78070

ALIURA AI IEZEL DUPLÈXES

CONSTRUCTION DETAILS

[illegible]

DESIGNED BY: WPF

DRAFTED BY: JWH

CHECKED BY: NFU

SHEET

C13