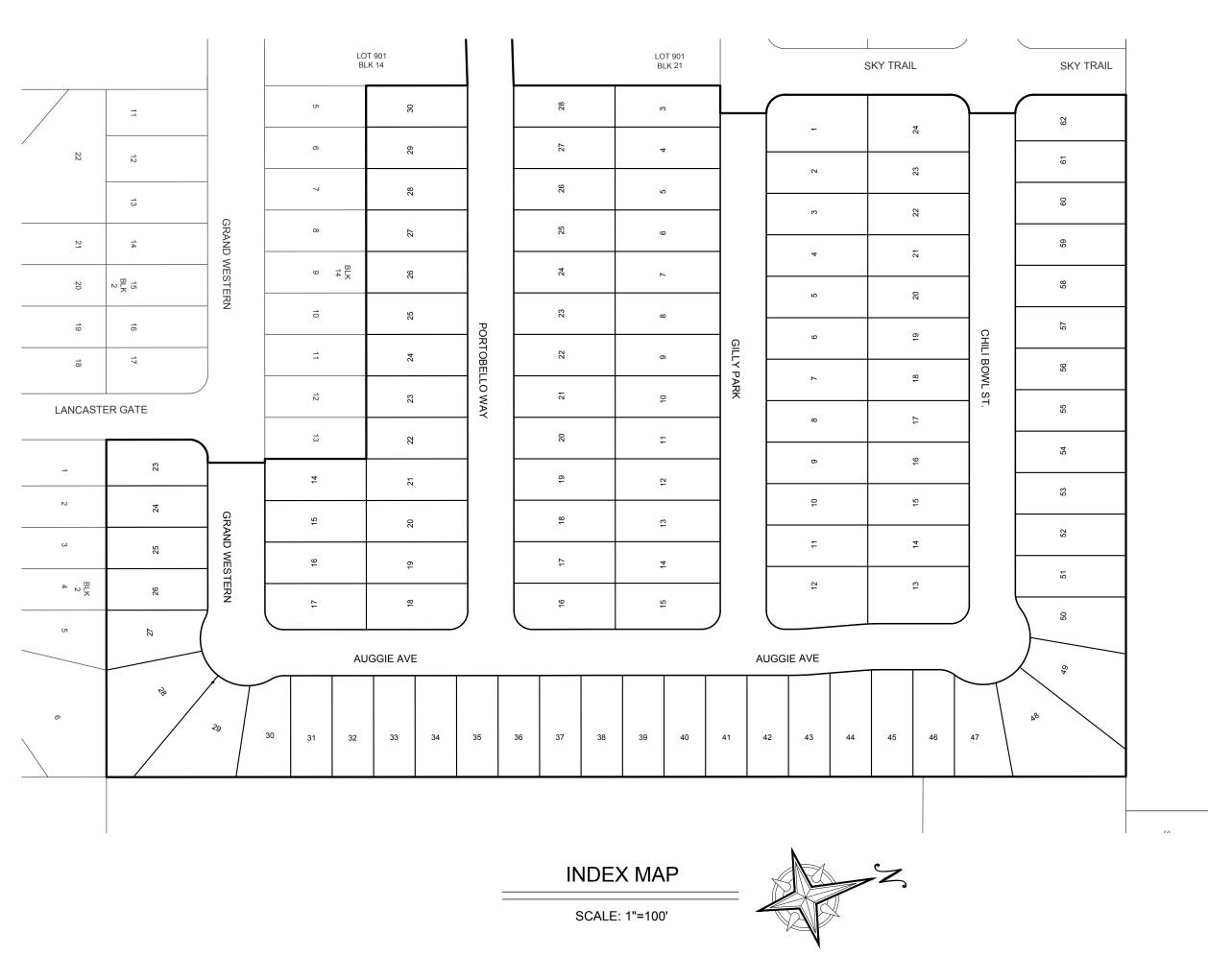


LOCATION MAP





# **CONSTRUCTION PLANS** for NOTTING HILL UNIT 5

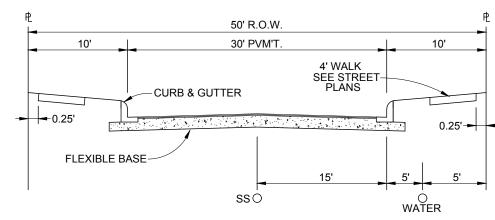
CIVIL ENGINEERING CONSULTANTS dba. DON DURDEN, INC. 11550 IH 10 WEST, SUITE 395 SAN ANTONIO, TEXAS 78230-1037 TEL: (210) 641-9999 FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000

OWNER/DEVELOPER: CASTLEROCK COMMUNITIES 2401 FOUNTAIN VIEW DRIVE, SUITE 215 HOUSTON, TEXAS 77057 PHONE: (713) 600-7060

		PLAT NO. 2021-224				
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201	UTILITY OVERALL PLAN		1	BIDD AFA	CONSTR	
300	SANITARY SEWER COVER			Ш U	1	
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303	SANITARY SEWER LINE B PLAN & PROFILE	E				
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305	SANITARY SEWER LINE E PLAN & PROFILE	E				
306	SANITARY SEWER DETAILS					
307	SANITARY SEWER NOTES					
308	SANITARY SEWER NOTES					
400	WATER COVER					
401	WATER OVERALL					
402 403	WATER DETAILS WATER DETAILS					
403 500	STREET & DRAIN COVER					
501	OVERALL GRADING PLAN					
502	AUGGIE AVE PLAN & PROFILE					
503	CHILI BOWL PLAN & PROFILE					
504	GILLY PARK PLAN & PROFILE					
505	PORTOBELLO WAY & GRAND WESTERN PLAN & P	PROFILE				
506	STORM DRAIN A PLAN & PROFILE					
507	DRAIN DETAILS		TION			
508	DRAIN DETAILS		DESCRIPTION			
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511	SIGN PLAN		DATE			
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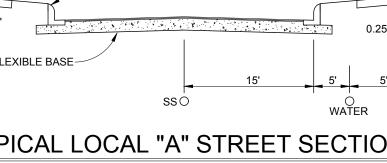
NOTE:

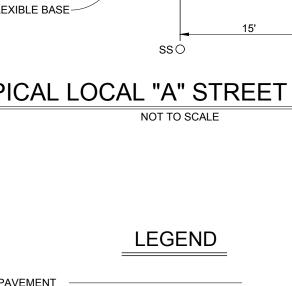
- 1. 6" P.V.C. SCHEDULE 80 CONDUIT WILL BE REQUIRED FOR C.P.S. UTILITY CROSSING FROM ROW TO ROW AT A DEPTH OF 36" BELOW FINAL GRADE, WHEN STREET OR DRAIN CONSTRUCTION PRECEDES UTILITY INSTALLATION.
- 2. 4" P.V.C. SCHEDULE 40 CONDUIT WILL BE REQUIRED FOR UNDERGROUND TELEPHONE AND CABLE T.V. FROM ROW TO ROW AT A DEPTH OF 36" BELOW FINAL GRADE, WHEN STREET OR DRAIN CONSTRUCTION PRECEDES UTILITY INSTALLATION.
- 3. P.V.C. CONDUIT SHALL HAVE 90° SWEEPS/BENDS TO 6" ABOVE GRADE WITH CAP. IF CONDUIT IS NOT INSTALLED 6" ABOVE FINAL GRADE IT SHALL BE CONTRACTORS RESPONSIBILITY TO UNDERCOVER
- CONDUIT ENDS FOR EACH UTILITY PROVIDER AS NECESSARY. IF OWNER ELECTS TO HAVE DRY UTILITIES INSTALLED PRIOR TO STREET CONSTRUCTION NO CONDUIT FOR CPS & CABLE TV WILL BE INDICATED ON THIS PLAN. IF CONTRACTOR ELECTS TO PROCEED WITH ANY PORTION OF DRAIN CONSTRUCTION PRIOR TO UTILITY INSTALLATION, THEN CONTRACTOR WILL BE
- REQUIRED TO INSTALL ALL DRY UTILITY CONDUIT REQUIRED AT EACH DRAIN CROSSING AT NO EXTRA PAY.









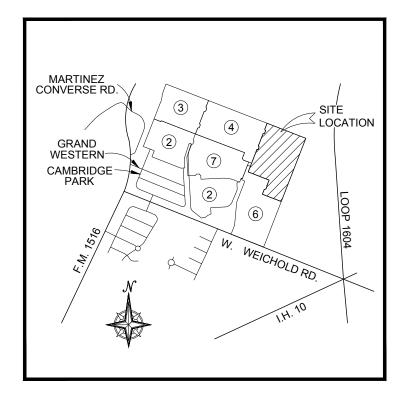


EXISTING SANITARY SEWER MAIN	
PROPOSED SANITARY SEWER MAIN	
EXISTING WATER MAIN	
PROPOSED WATER MAIN	
EXISTING GAS MAIN	
PROPOSED GAS MAIN	
EXISTING UNDERGROUND TELEPHONE	
PROPOSED UNDERGROUND TELEPHONE	
EXISTING UNDERGROUND ELECTRIC	
PROPOSED UNDERGROUND ELECTRIC	
EXISTING OVERHEAD ELECTRIC	O.E
PROPOSED OVERHEAD ELECTRIC	<b>— — — — — — — — — —</b>
EXISTING OVERHEAD TELEPHONE	O.T
PROPOSED OVERHEAD TELEPHONE	0.T
EXISTING UNDERGROUND CABLE T.V.	Т.V
PROPOSED UNDERGROUND CABLE T.V.	— — — — — — — — — — — — — — — — — — —
EXISTING OVERHEAD CABLE T.V.	O.T.V
PROPOSED OVERHEAD CABLE T.V.	— — — — — O.T.V. — — — — —
SANITARY SEWER MANHOLE	••
FIRE HYDRANT	
GAS, ELECTRIC, TELEPHONE & CABLE T.V. EASEMENT	G.E.T.TV.E.
PROPOSED STREET LIGHT (100 WATT/SINGLE ARM)	≢ L.P.
PROPOSED STREET LIGHT (250 WATT/SINGLE ARM)	♥ L.P.(250)
EXISTING STREET LIGHT	¢ E.L.P.
HIGH DENSITY POLYETHYLENE	H.D.P.E.
EXISTING SANITARY SEWER LATERAL	ESS
SANITARY SEWER LATERAL	SS
WATER SERVICE	W
IRRIGATION SERVICE	IS

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 INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN

ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION, SAFETY PROTECTION THAT COMPLIES 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.

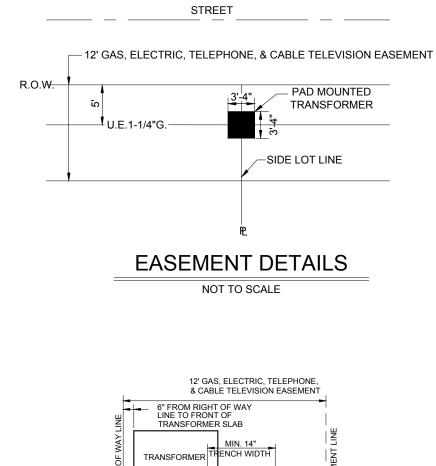
# UTILITY PLANS for NOTTING HILL UNIT 5

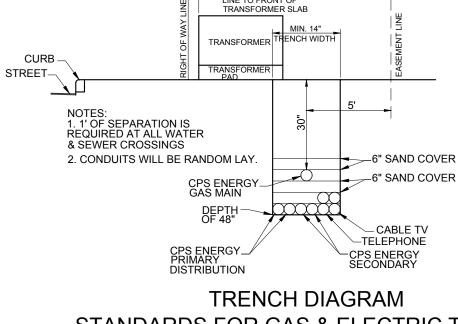


LOCATION MAP NOT TO SCALE

SHEET INDEX SHEET TITLE 200 UTILITY COVER

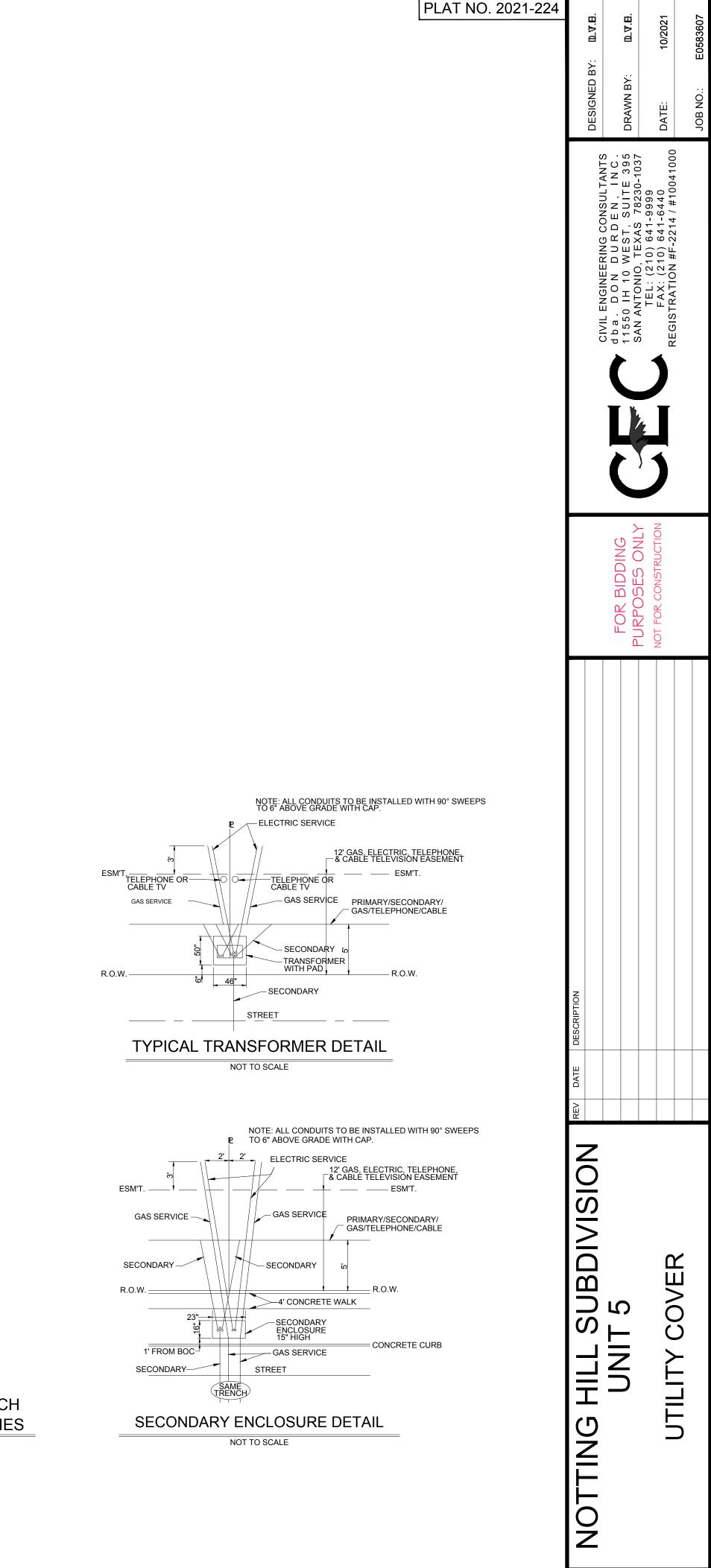
201 UTILITY OVERALL PLAN





STANDARDS FOR GAS & ELECTRIC TRENCH OR ELECTRIC TRENCH WITH JOINT UTILITIES NOT TO SCALE

CIVIL ENGINEERING CONSULTANTS dba. DON DURDEN, INC. 11550 IH 10 WEST, SUITE 395 SAN ANTONIO, TEXAS 78230-1037 TEL: (210) 641-9999 FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000 OWNER/DEVELOPER: CASTLEROCK COMMUNITIES 2401 FOUNTAIN VIEW DRIVE, SUITE 215 HOUSTON, TEXAS 77057 PHONE: (713) 600-7060

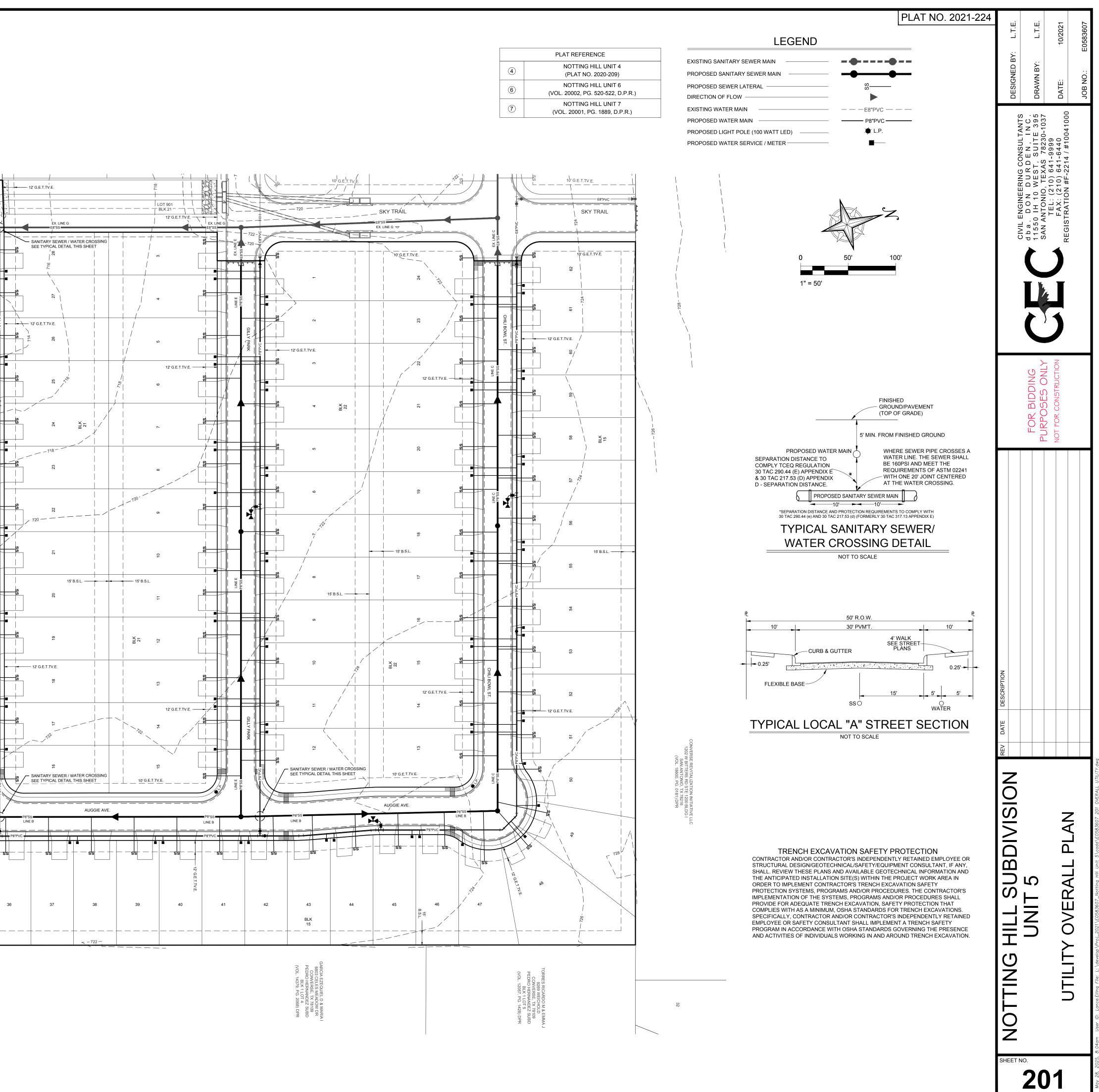


SHEET NO.

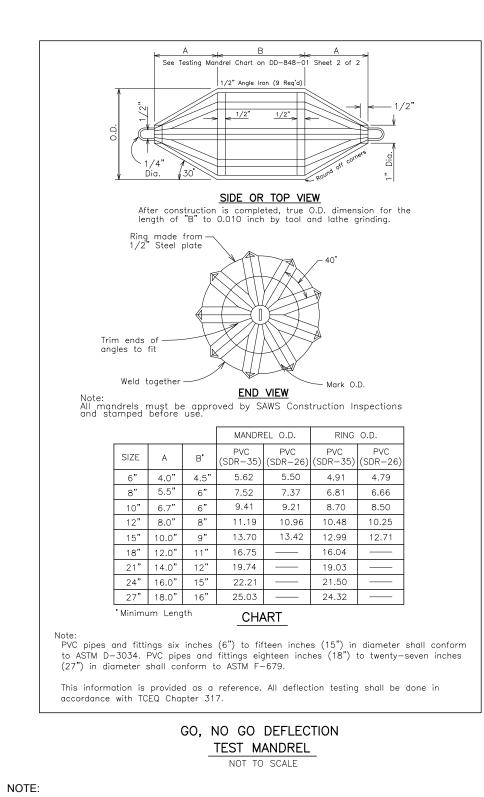
200

12' G.E.T.TV.W.E. 12' G.E.T.TV.E. ------\_\_\_\_ \_\_\_\_\_ 710 \_\_\_\_\_710 \_\_\_\_\_710 \_\_\_\_\_ \_\_\_\_\_ 706 \_\_\_\_\_ 708 -12' G.E.T.TV.E. 1 -12' G.E.T.TV.E. 14 BLK 9 2 H 15 -12' G.E.T.TV.E. LANCASTER GATE \_\_\_\_ \_\_\_\_\_ E8"PVC \_\_\_\_\_/ \_\_\_\_\_ 10' G.E.T.TV.E. 15' B.S.L. -----12' G.E.T.TV.E. ------12' G.E.T.TV.E. 25 12' G.E.T.TV.E. 4 2<sup>BLK</sup> 35 15 SANITARY SEWER / WATER CROSSING <u>s</u>\_\_\_\_ **1** AUGGIE AVE. P8"PVC 78 30 32 33 34 <del>5</del> 35 BLK 15 SOSA ALICIA & ERNES I U 9265 WEICHOLD CONVERSE, TX 78109 PEDRO HERNANDEZ SUBD BLK 1 LOT 3 ^// 6220. PG. 0059) DPR

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# SANITARY SEWER CONSTRUCTION PLANS NOTTING HILL UNIT 5

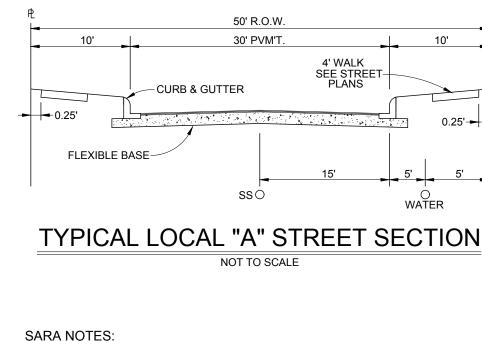


THE DEVELOPER DEDICATES THE SANITARY SEWER MAINS UPON COMPLETION BY THE

SUBDIVISION.

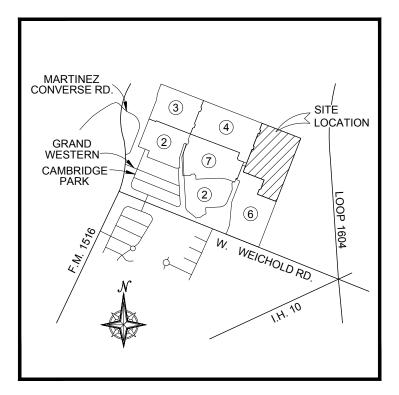
DEVELOPER AND ACCEPTANCE BY SAN ANTONIO RIVER AUTHORITY "SARA". SARA WILL OWN

AND MAINTAIN SAID SANITARY SEWER MAINS WHICH ARE LOCATED WITHIN THIS PARTICULAR



- wastewater collection and treatment facilities in the areas designated on this plat as "wastewater easement" for the purpose of installing, constructing, reconstructing, operating, maintaining, removing and inspecting wastewater pipelines and collection facilities and all necessary above-ground or below-ground appurtenances, together with the right of ingress and egress over grantor's adjacent land, the right to relocate said facilities within said easement and right-of-way areas and the right to remove from said land all trees and vegetation or parts thereof, or other obstructions which endanger or may interfere with the function of said facilities. No structures, concrete slabs or walls may be placed within said easement areas, and San Antonio River Authority shall have the right to enter the easement areas and remove such
- structures. 2. The developer dedicates the wastewater collection and treatment facilities to San Antonio River Authority upon developer's completion of construction and acceptance by the San Antonio River Authority. The San Antonio River Authority will own and maintain said facilities, which are located within the particular subdivision plat. 3. Any San Antonio River Authority monetary loss resulting from modifications made to
- San Antonio River Authority infrastructure and service facilities located within said easements, due to grade changes or ground elevation alterations shall be charged to the person or persons deemed responsible for said grade changes or ground elevation alterations. 4. Wastewater EDU note: The number of wastewater equivalent dwelling units (EDUs)
- paid for the subdivision plat is kept on file at the San Antonio River Authority under the plat number.

**OWNER/DEVELOPER:** CASTLEROCK COMMUNITIES 2401 FOUNTAIN VIEW DRIVE, SUITE 215 HOUSTON, TEXAS 77057 PHONE: (713) 600-7060



## LOCATION MAP

### SHEET INDEX

SHEET	TITLE
300	SANITARY SEWER COVER
301	OVERALL SANITARY SEWER
302	SANITARY SEWER LINE A & LINE C PLAN & PROFILE
303	SANITARY SEWER LINE B PLAN & PROFILE
304	SANITARY SEWER LINE D PLAN & PROFILE
305	SANITARY SEWER LINE E PLAN & PROFILE
306	SANITARY SEWER DETAILS
307	SANITARY SEWER NOTES
308	SANITARY SEWER NOTES

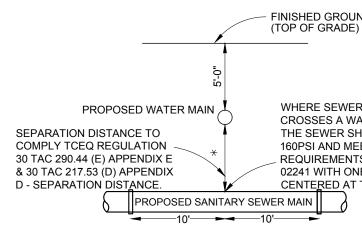
### LEGEND

EXISTING SANITARY SEWER MAIN
PROPOSED SANITARY SEWER MAIN
DIRECTION OF FLOW
EXISTING WATER MAIN
PROPOSED WATER MAIN

PROPOSED LIGHT POLE (100 WATT LED) -

### NOTES

- ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE CAPPED AND SEALED. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR
- STACK AT 2% THROUGH THE G.E.T.TV.E LOCATED IN THE FRONT OF THE LOT. ALL SEWER PIPE TO BE SDR-26 UNLESS OTHERWISE NOTED. 4. CONTRACTOR TO INSURE LATERALS AT PROPOSED DRY UITLITY CROSSINGS ARE LOCATED
- AT A DEPTH TO AVOID ANY CONFLICT WITH DRY UTILITY INSTALLATION.



### **TYPICAL SANITARY SEWER/** WATER CROSSING DETAIL

\*SEPARATION DISTANCE AND PROTECTION REQUIREMENTS TO COMPLY WITH 30 TAC 290.44 (e) AND 30 TAC 217.53 (d) (FORMERLY 30 TAC 317.13 APPENDIX E)

NOT TO SCALE

### 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 INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION, SAFETY PROTECTION THAT COMPLIES 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

4' WALK SEE STREET PLANS 0.25'--WATER

1. San Antonio River Authority is hereby dedicated the easements and rights-of-way for



CIVIL ENGINEERING CONSULTANTS dba. DON DURDEN, INC. 11550 IH 10 WEST, SUITE 395 SAN ANTONIO, TEXAS 78230-1037 TEL: (210) 641-9999 FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000

### **SEWER QUANTITIES**

	Onsite Sewer		
Item No	: Description	Unit	Quantity
550.0	Trench Excavation Safety Protection	L.F.	6803
848.0	8" PVC Sanitary Sewer Line (6'-8') (SDR 26)	L.F.	1938
848.0	8" PVC Sanitary Sewer Line (8'-10') (SDR 26)	L.F.	832
848.0	8" PVC Sanitary Sewer Line (10'-12') (SDR 26)	L.F.	20
852.1	Sanitary Sewer Manhole (0'-6') (Watertight/ Unless Specified Vented)	EA.	6
852.2	Sanitary Sewer Drop Manhole (0'-6') (Watertight/ Unless Specified Vented)	EA.	1
852.3	Extra Depth Manholes (>6')	V.F.	22.9
854.0	Sanitary Sewer Laterals (6")	L.F.	4013
854.1	6" Two-Way Sanitary Sewer Clean Out	EA.	107
855.0	Reconstruct & Tie Into Existing Manhole	EA.	1
858.0	Concrete Encasement, Cradles, Saddles and Collars	CY.	2.4
860.0	Vertical Stacks (Includes Tee, Bends, and Wyes)	V.F.	37.8
866.0	Sewer Main Television Inspection (8" - 15")	L.F.	2790

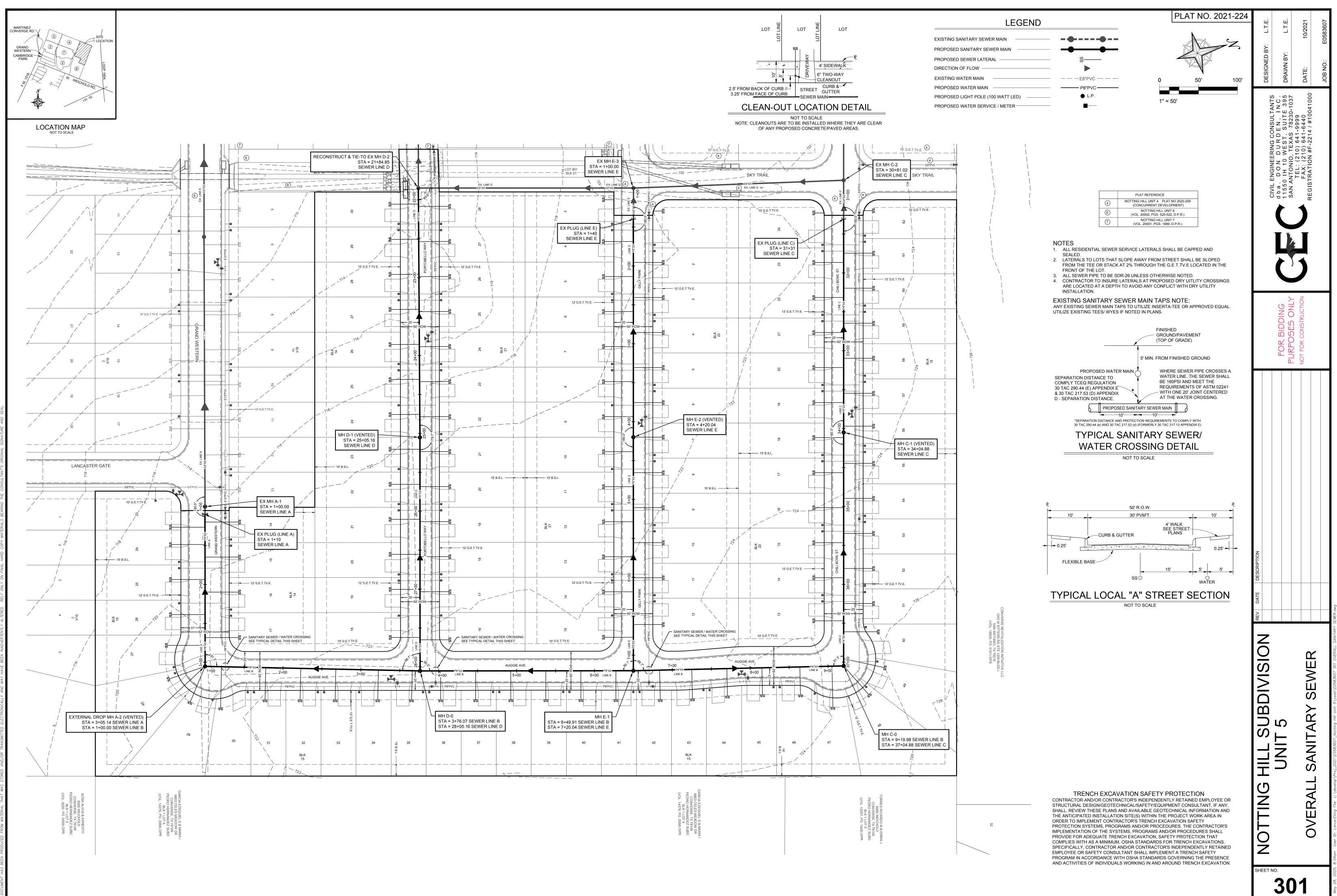
## -----— — — E8"PVC — — — • L.P.

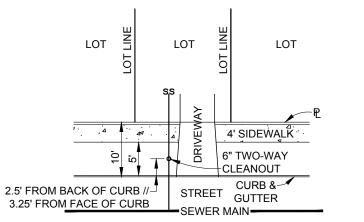
FINISHED GROUND/PAVEMENT

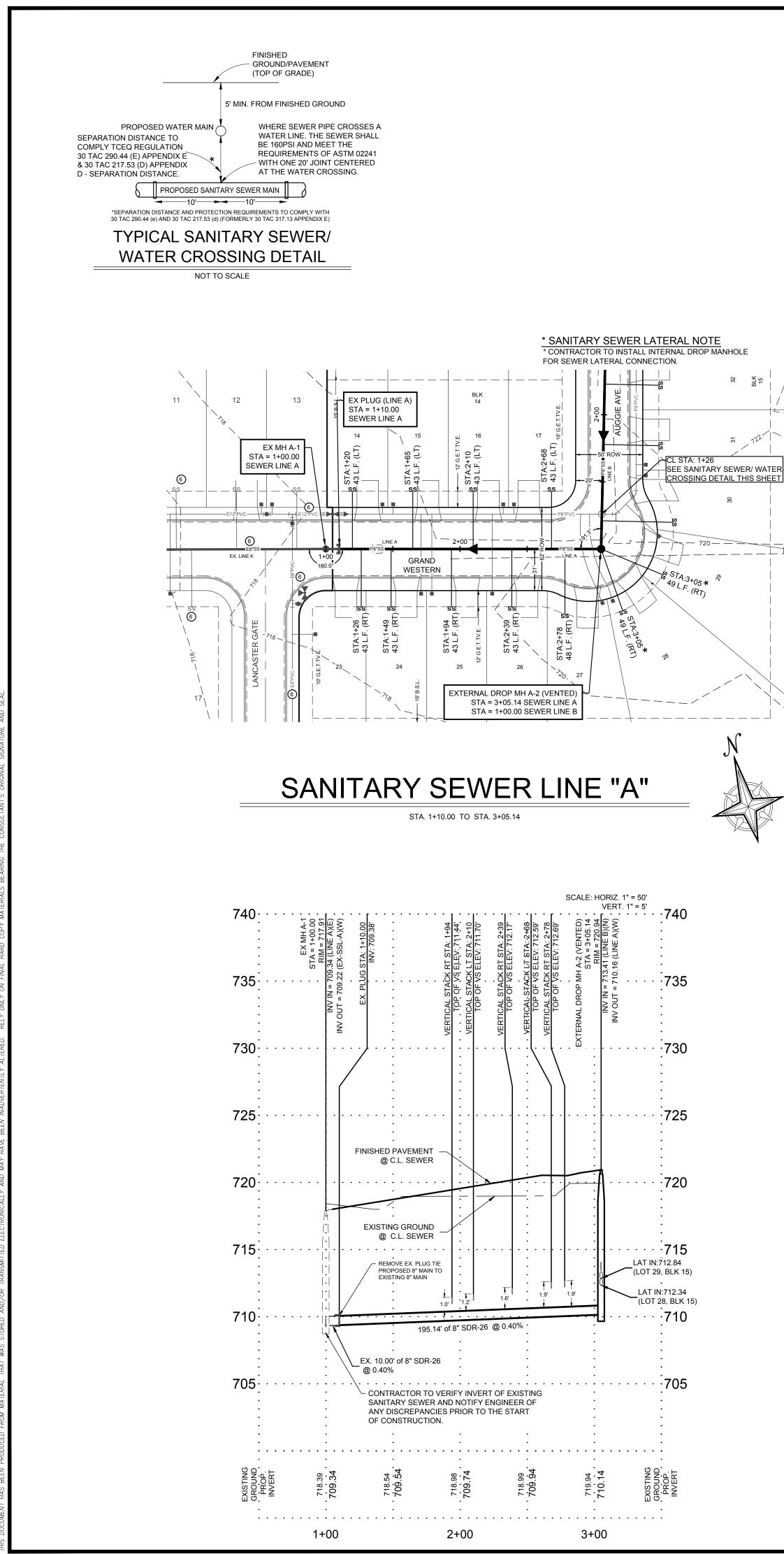
WHERE SEWER PIPE CROSSES A WATER LINE. THE SEWER SHALL BE 160PSI AND MEET THE REQUIREMENTS OF ASTM 02241 WITH ONE 20' JOINT CENTERED AT THE WATER CROSSING.

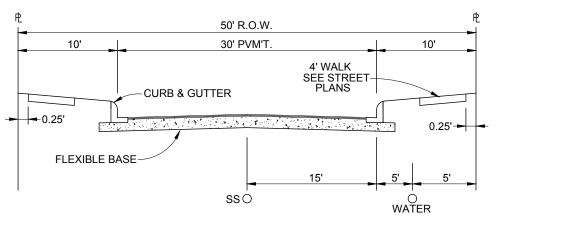
INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

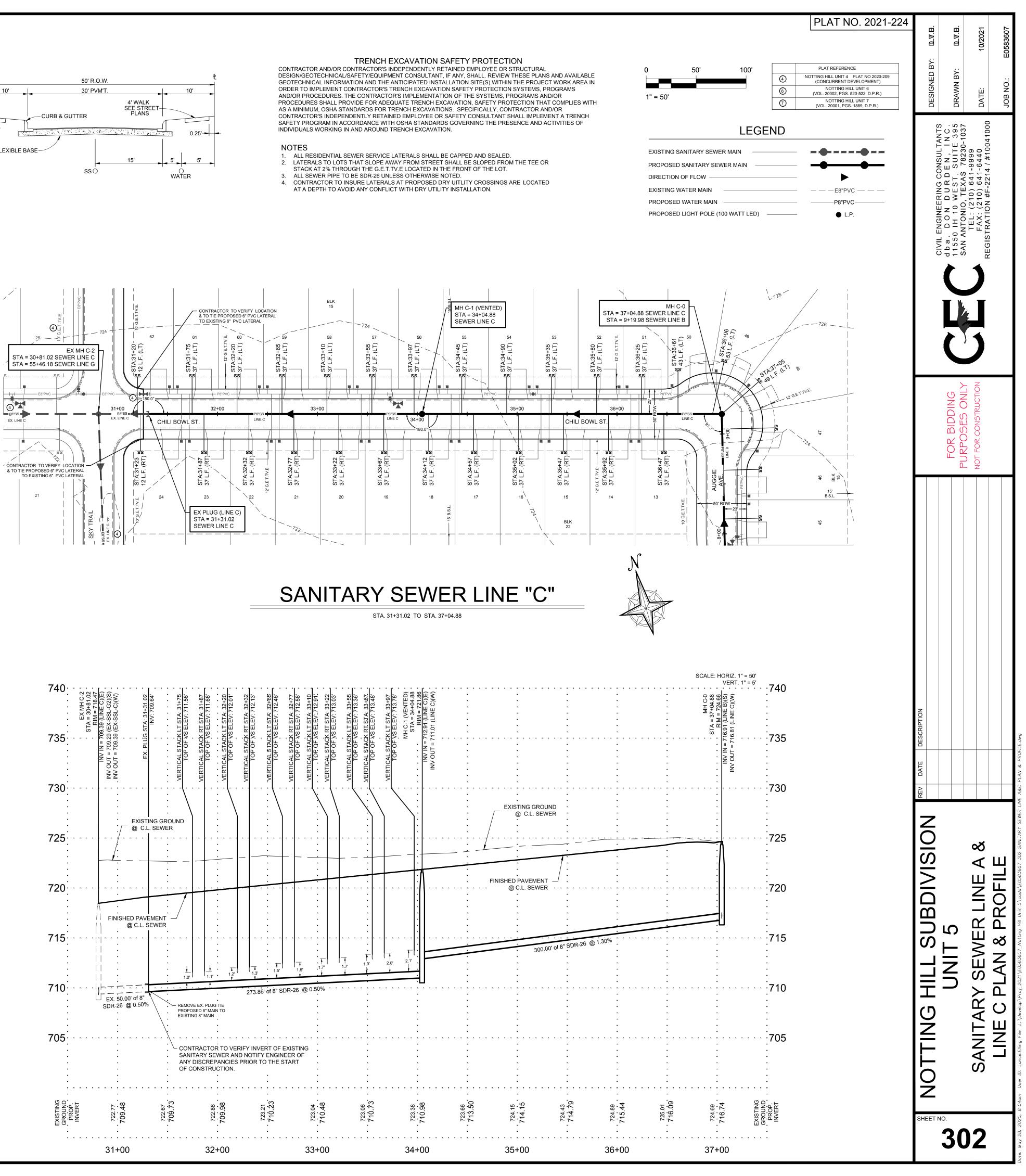
PLAT NO. 2021-224		BY: Δ.Υ.Β.		: D.V.B.		10/2021	E0583607
		DESIGNED BY:		DRAWN BY:		DAIE:	JOB NO.:
		CIVIL ENCINEEDINC CONSTITUES	divil ENGINEERING CONSOLIANTS	SAN ANTONIO TEXAS 78230-1037	TEL: (210) 641-9999 EAX: (210) 641-6999	REGISTRATION #F-2214 / #10041000	
			FOR BIDDING		NOT FOR CONSTRUCTION		
	REV DATE DESCRIPTION						
			LINIT 5			SANITARY SEWER COVER	
	SHE	1 TE			)(	)	

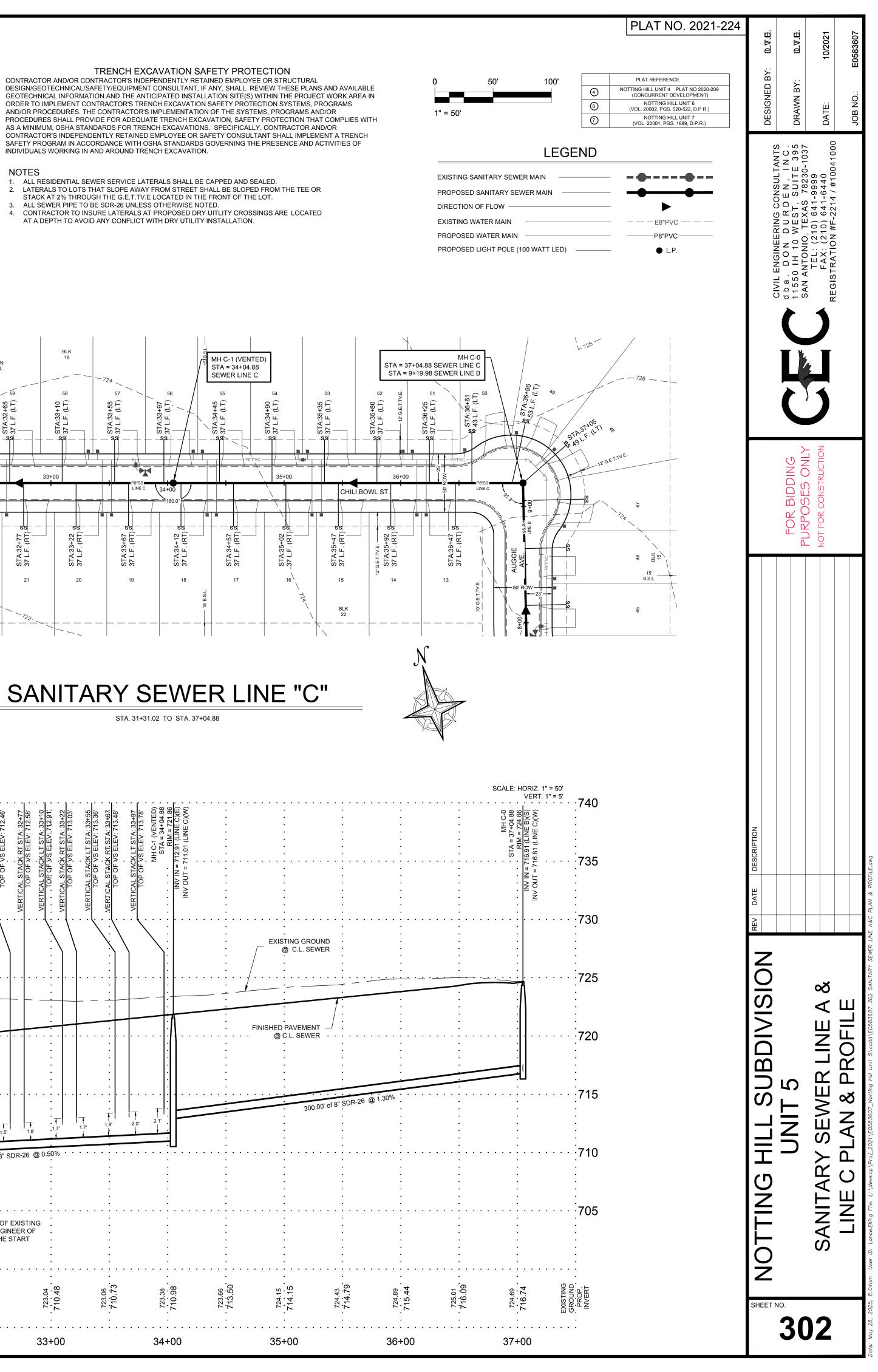


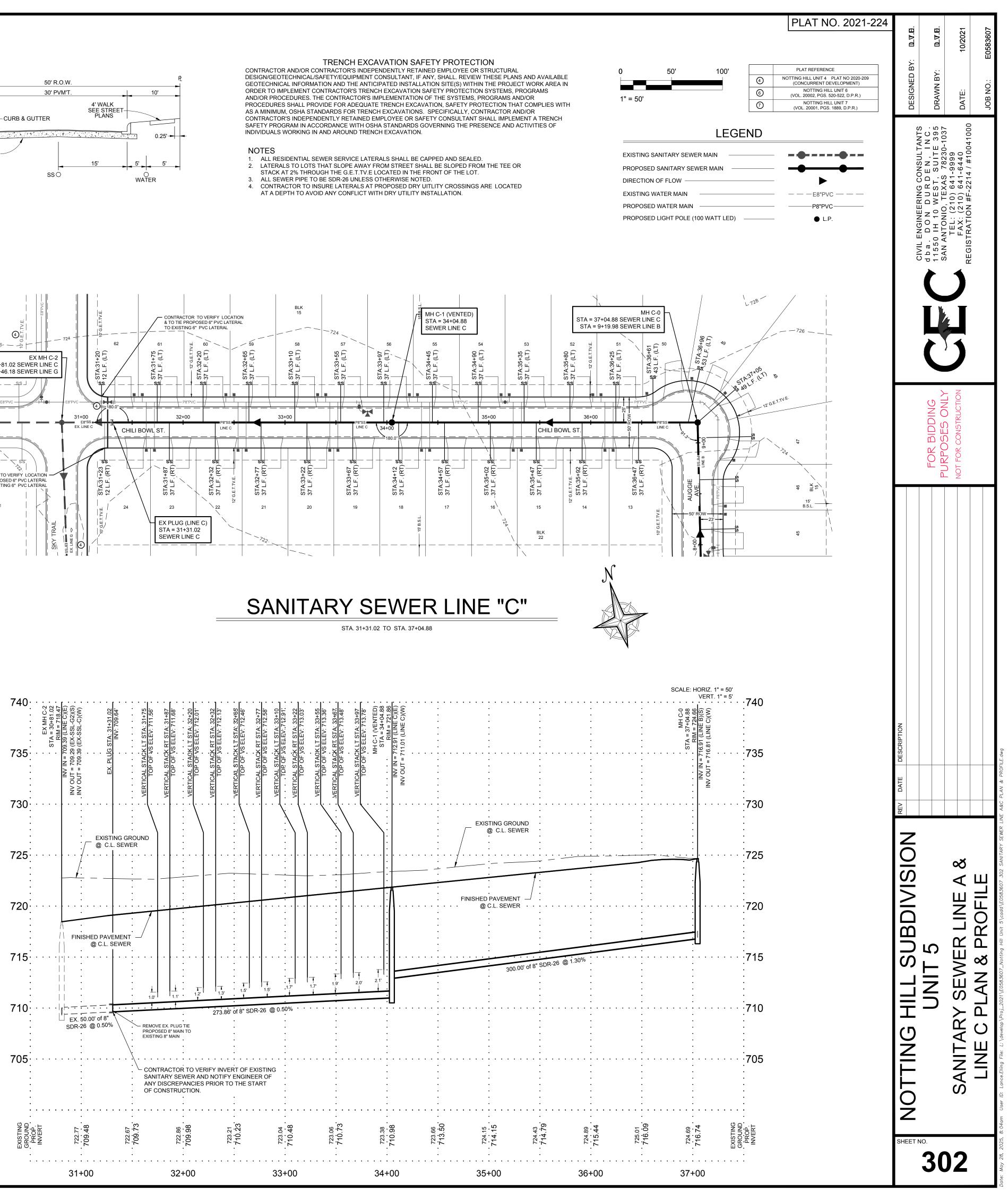


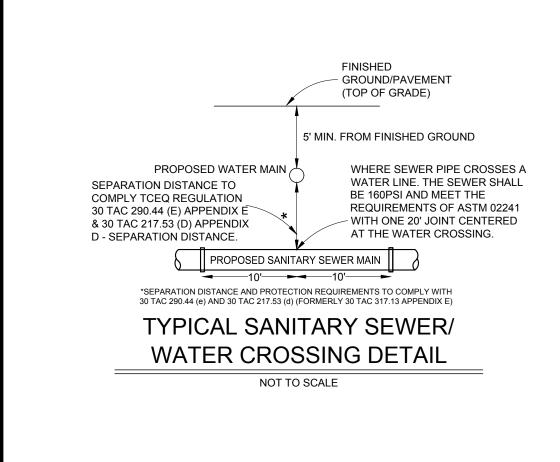


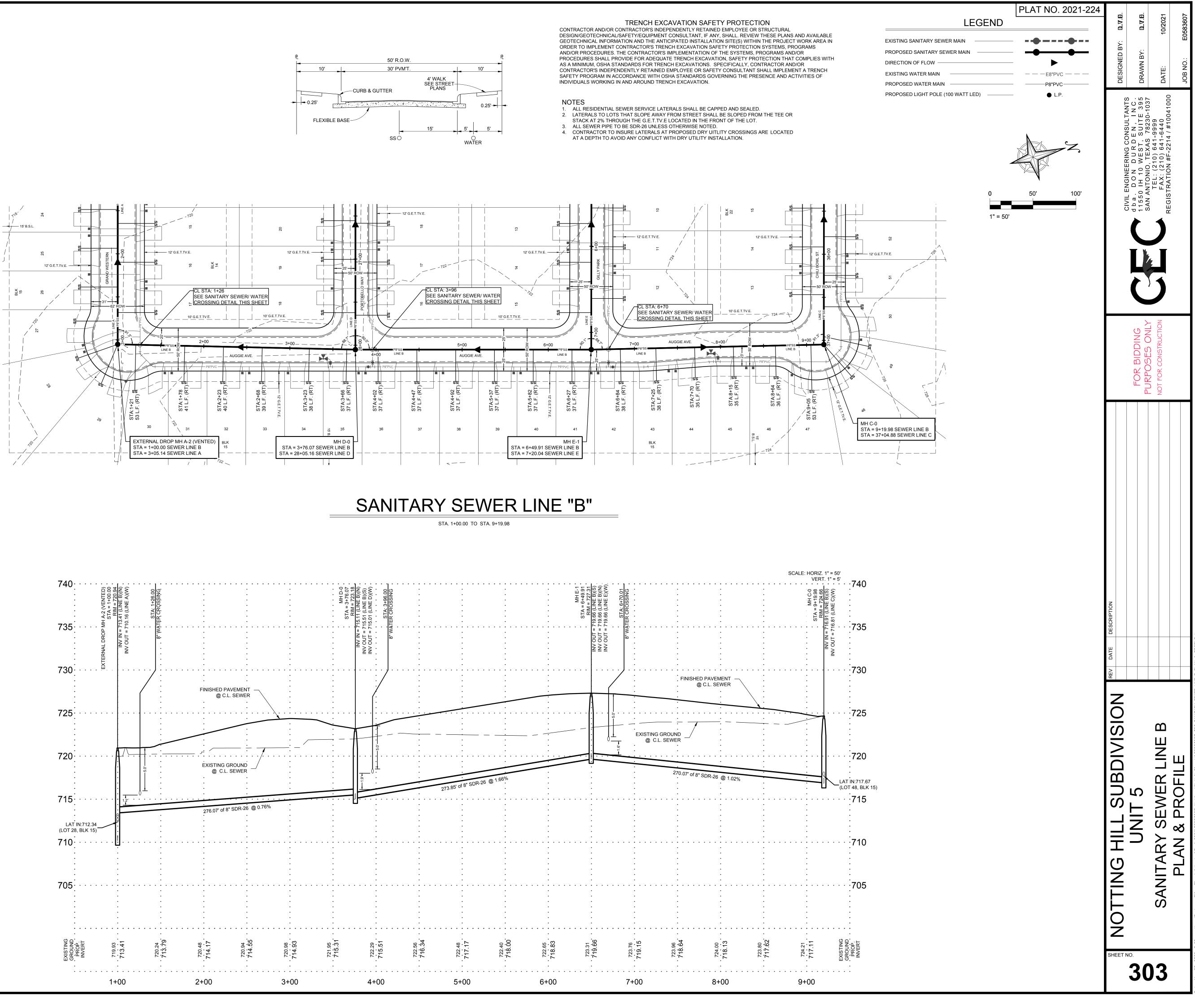


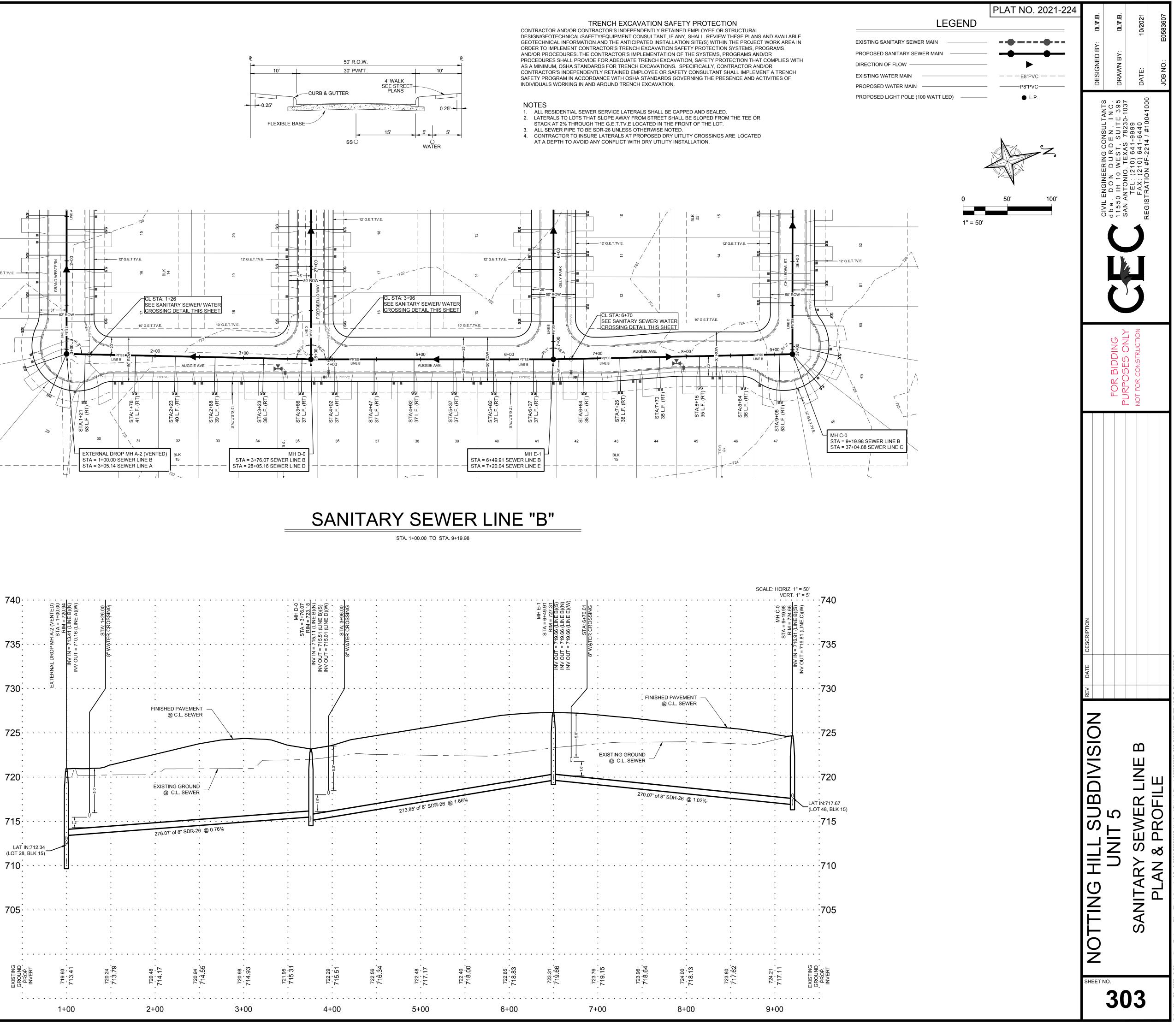


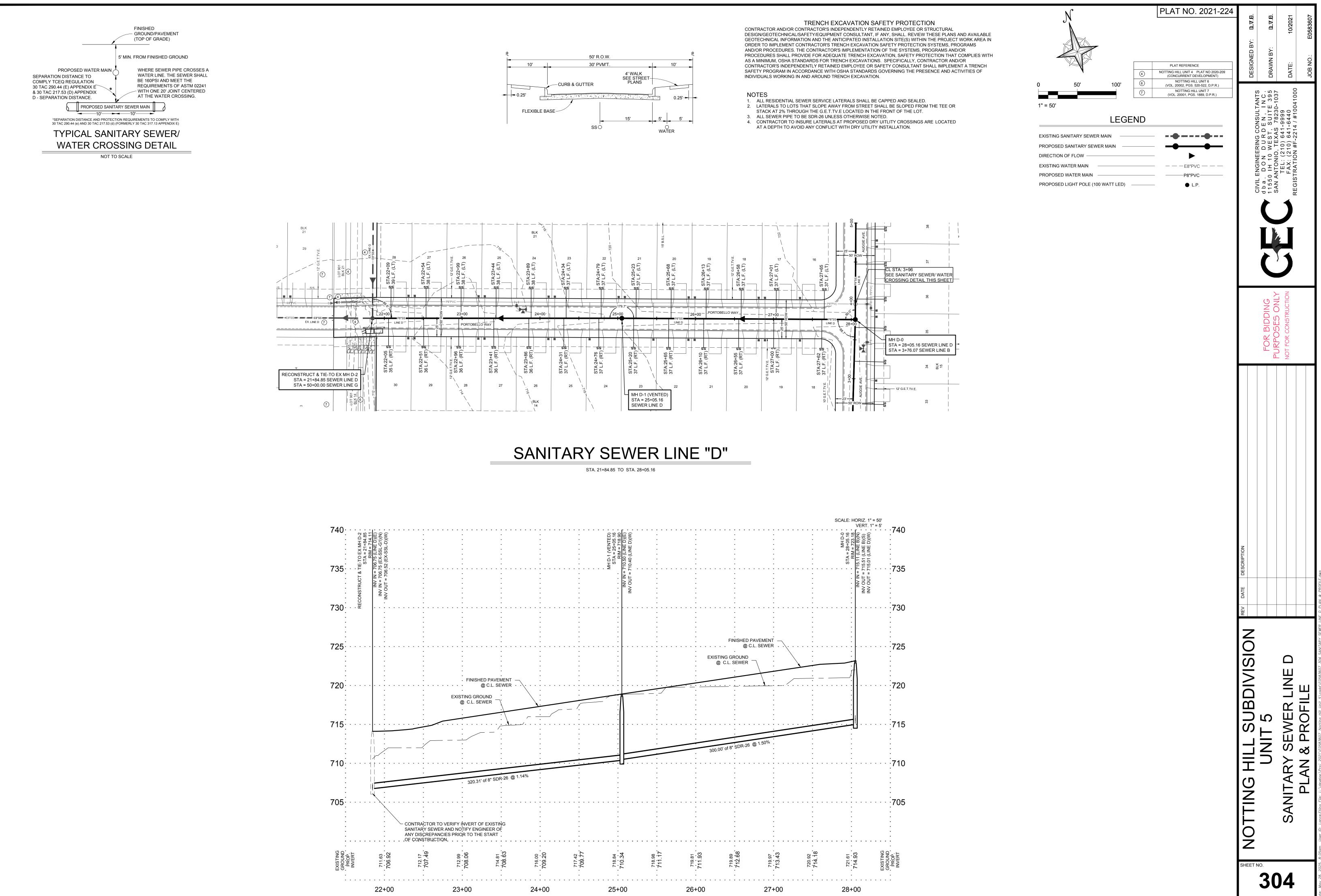


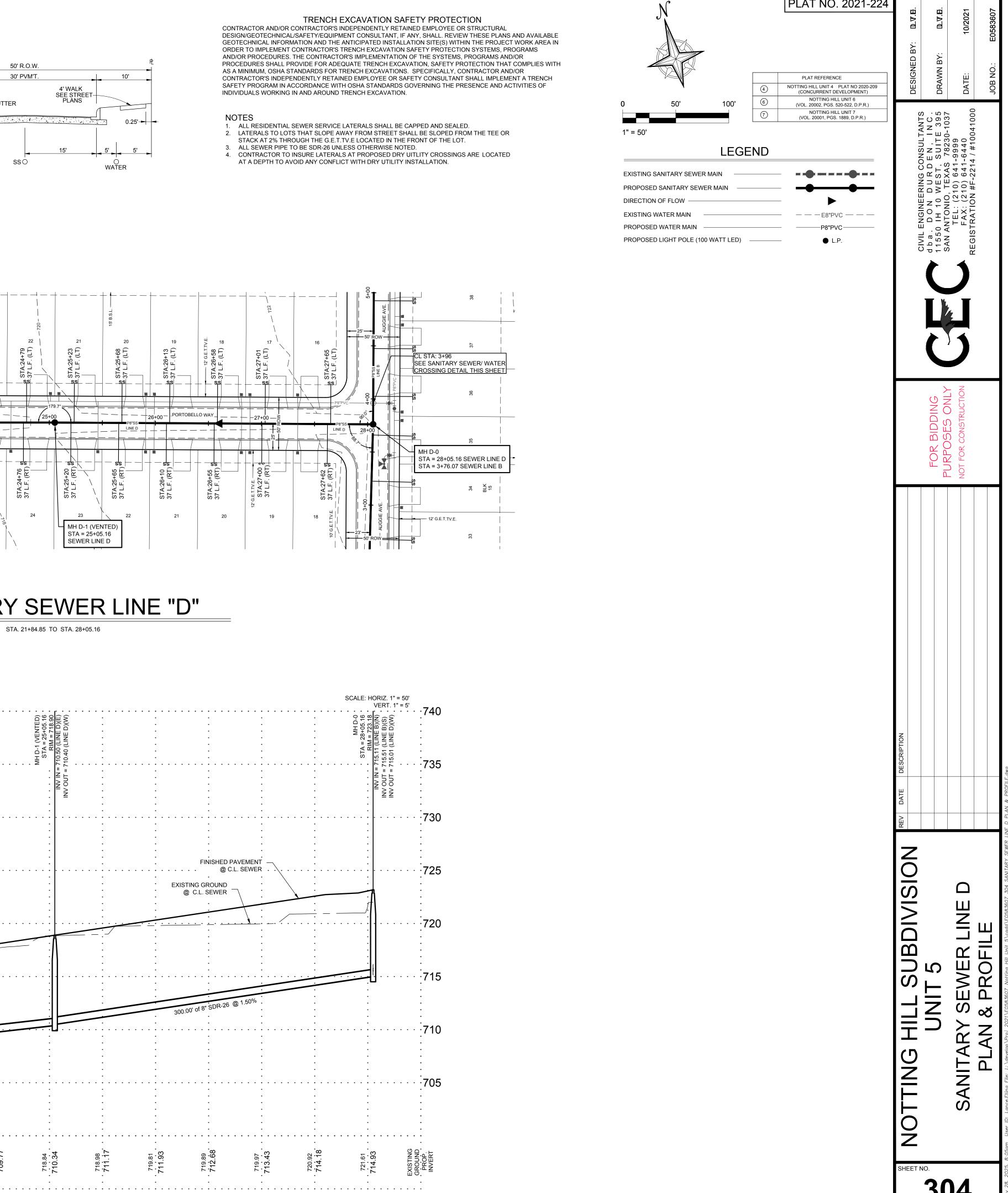


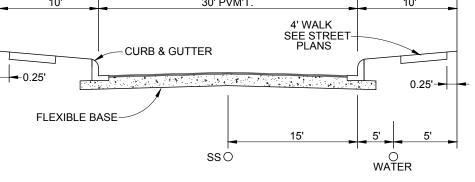




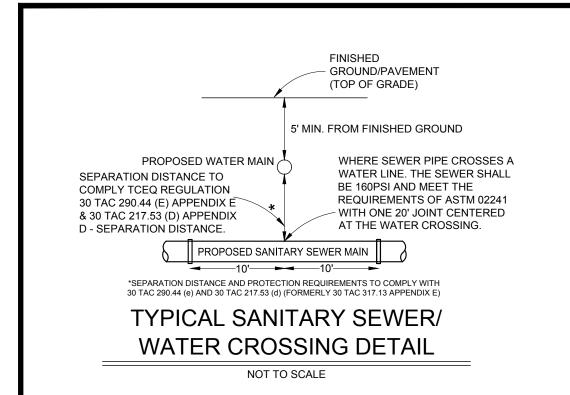


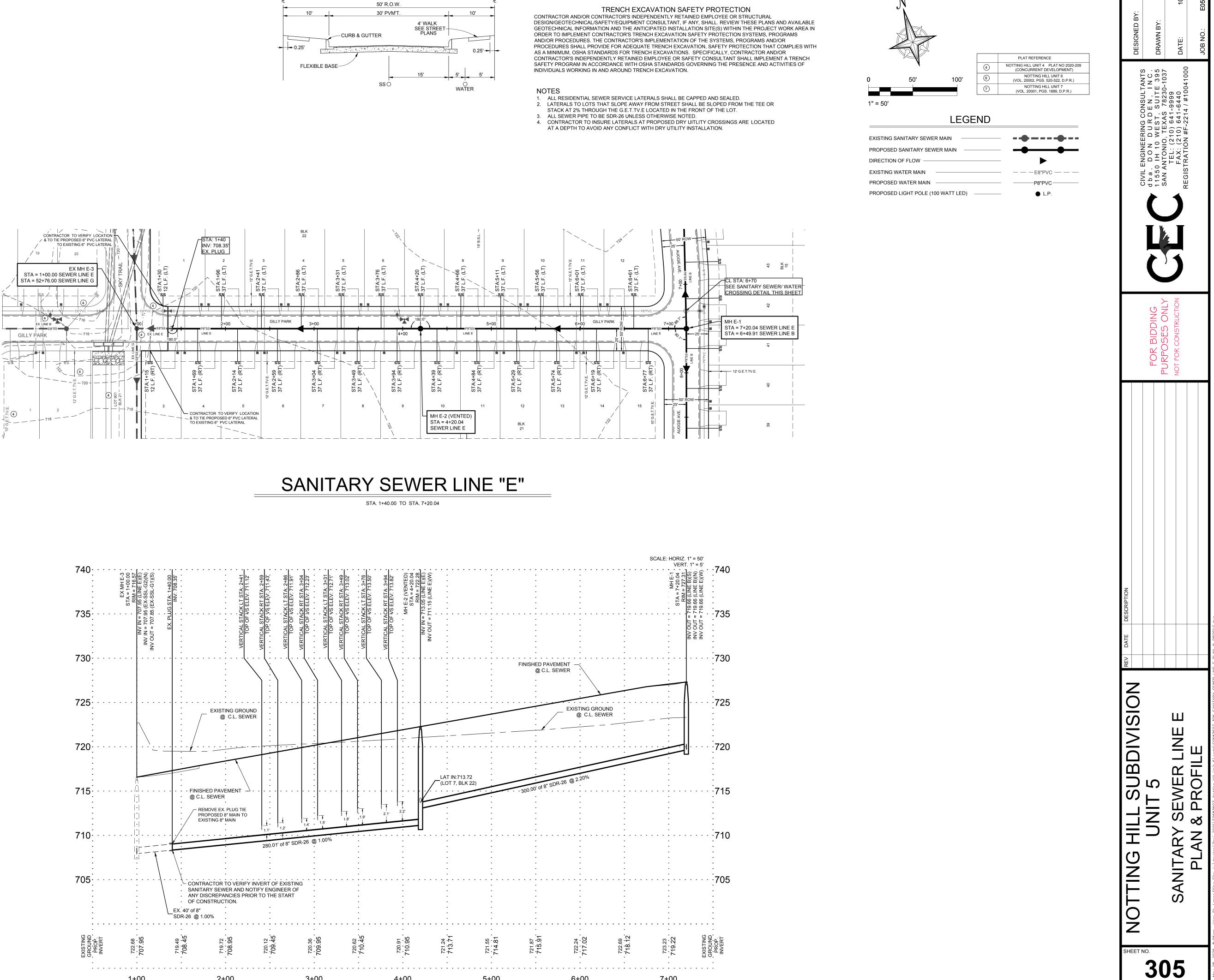


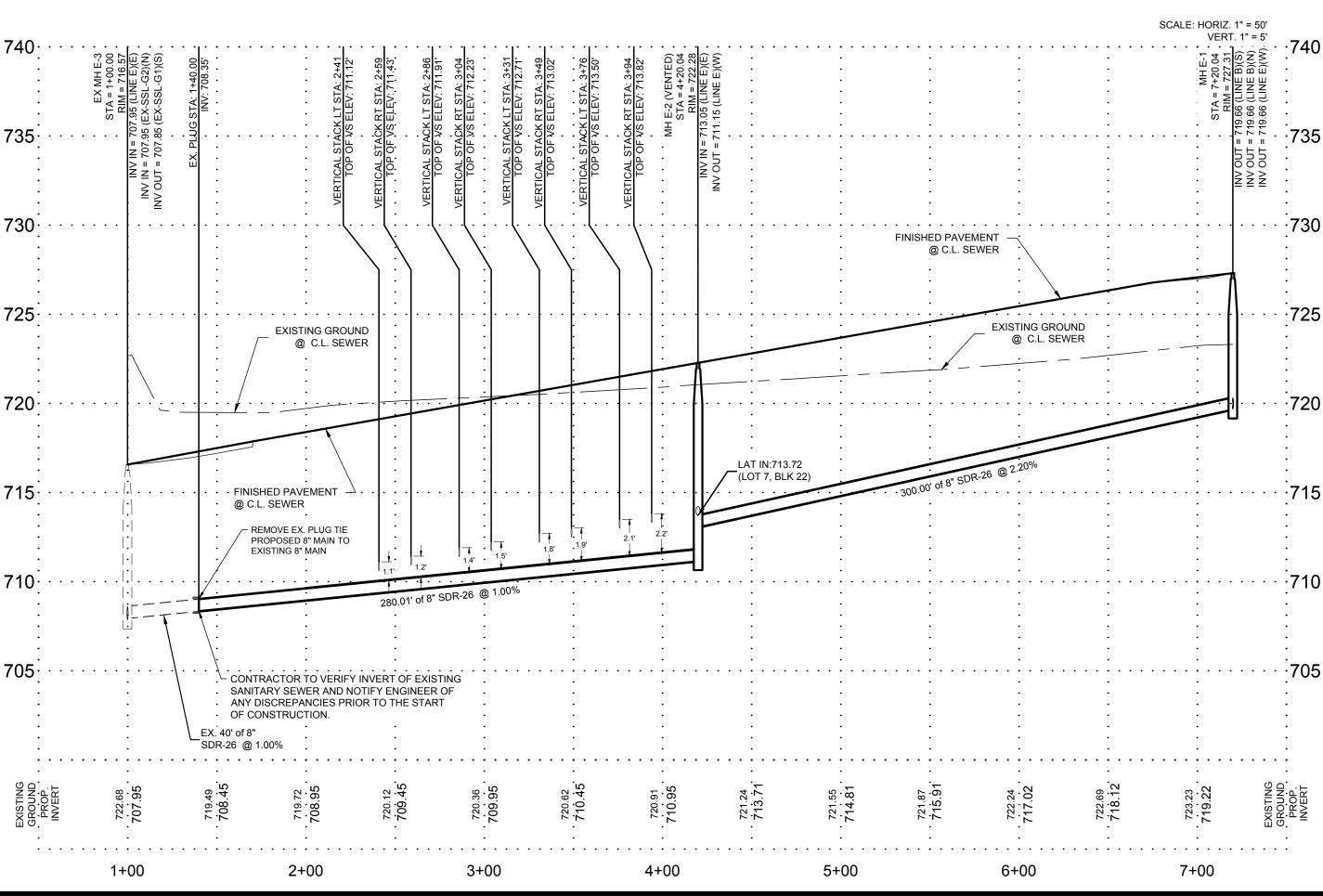


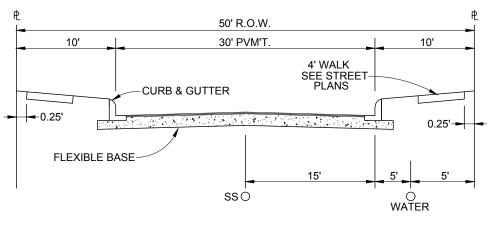






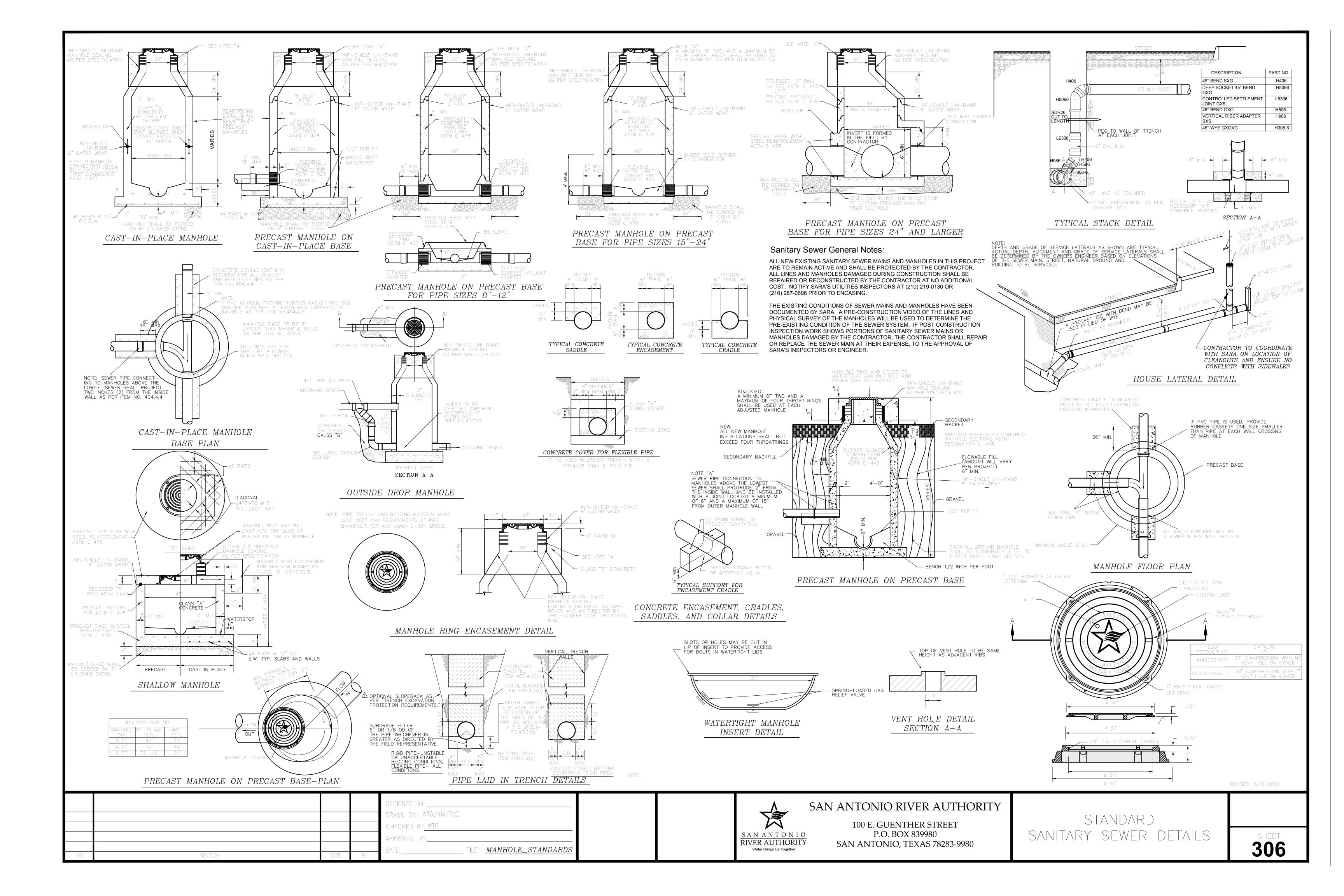






PLAT NO. 2021-224

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THE	SANITARY SEWER SYSTEM GENERAL NOTES E STANDARD SPECIFICATIONS AND DRAWING (DD) ARE PROVIDED AS A TECHNICAL RESOURCE FOR ENGINEERING PROFESSIONALS FOR U
N	DESIGN AND CONSTRUCTION OF SEWER COLLECTION SYSTEMS PROJECTS MANAGED AND CONTRACTED BY THE SAN ANTONIO RIVI THORITY.
	ANY TIME THESE SPECIFICATIONS AND DRAWING MAY BE ALTERED OR SUPERSEDED BY THE GENERAL CONDITIONS, SPECIFIC CONDITION DRAWING WITHIN THE BID DOCUMENTS ISSUED FOR EACH PROJECT.
NO' SEF JUL	CEMBER 9, 2010 - REVISE INTERCEPTORS TESTING VEMBER 2, 2010 - REVISE SEWER PIPE SDR 35 TO SDR-26 ASTM 115 PSI PTEMBER 8, 2010 - INFILTRATION I/I COATING LY 30, 2009 - REVISE ITEMS 10, 11, 13, 14,14B NUARY 28, 2010 - REVISE SEWER SERVICE LATERALS (ITEM 21A, ITEM 1, 2, 3)
JAN	NUARY 22, 2010 - REVISE SEWER LINE LOCATION (ITEM 23A, ITEM 1, 2, 3, 4, 5, 6, 7, 8) NE 11, 2010 -UPDATE NOTE 11A -GATOR WRAP
API SE/ EN(	NERAL: THE OWNER, DEVELOPER, ENGINEERING FIRM SHALL SUBMIT TO THE SAN ANTONIO RIVER AUTHORITY (SARA) ENGINEER, FO PROVAL, TWO (2) COPIES OF ALL PLATS, PLANS AND PROFILES, PLUMBING LAYOUT, WHICH HAVE BEEN DESIGNED AND THE DRAWIN ALED BY A REGISTERED PROFESSIONAL ENGINEER. WHEN APPROVED, ONE (1) COPY WILL BE RETURNED TO THE OWNER DEVELOPE GINEERING FIRM, SO MARKED. THE OWNER WILL BE REQUIRED TO MAKE ALL CHANGES INDICATED BY THE SARA ENGINEER, AND RETU FH ALL CHANGES, CORRECTIONS, BACK TO SARA FOR APPROVAL.
1.	ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SARA A COMPLY WITH:
	A. CURRENT SARA TECHNICAL SPECIFICATIONS FOR UTILITIES CONSTRUCTION.
	B. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), FORMERLY TEXAS NATURAL RESOURCE CONSERVATION COMMISSI (TNRCC), DESIGN CRITERIA FOR SEWAGE SYSTEMS 31 TAC 317.1, 31 TAC 317.2 AND 31 TAC 317.3., 30 TAC & 213, 30 TAC&217.
2.	THE CONTRACTOR IS TO NOTIFY AND MAKE ARRANGEMENTS WITH THE SARA INSPECTIONS DIVISION AT (210) 302-4216 OR (210) 219-013 48 HOURS PRIOR TO ANY EXCAVATION. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD BEFORE ANY EXCAVATION, OR STA OF PROJECT.
3.	WORK SHALL NOT BE PERFORMED ON SATURDAYS, SUNDAYS OR HOLIDAYS BEFORE 7:30 A.M., OR AFTER 4:30 P.M., UNLESS PRI APPROVAL IS GRANTED BY THE SARA ENGINEER. A LETTER WILL NEED TO BE FAXED TO (210) 661-9324 FOR ENGINEER APPROVAL ( HOURS IN ADVANCE.
	A. THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES TO INCLUDE SURFACE LATERALS, SHOWN IN THESE PLANS A APPROXIMATION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE (POT. HOLE, VERITY LOCATION, ELEVATIONS OF A UTILITY SERVICE LINES 48 HOURS PRIOR TO EXCAVATION AND TO PROTECT THE SAME DURING CONSTRUCTION. CONTRACTOR WILL RESPONSIBLE FOR ANY DAMAGES OF EXISTING UTILITIES AND REPAIRS WILL BE AT CONTRACTORS EXPENSE.
	SAN ANTONIO WATER SYSTEM (WATER) 704-7817 BEXAR METROPOLITAN WATER SYSTEM 354-6536 DRAINAGE 207-5048 1 (800) 828-5127
	CITY PUBLIC SERVICE 973-3500 TIME WARNER 352-4872
	VALERO ENERGY CO. 349-7555 SARA (INSPECTIONS) 210-302-4216 or 210- 219-0130
	<u>STING MANHOLES /SEWER</u> CONTRACTOR WILL MAINTAIN SERVICE TO ALL EXISTING SANITARY SEWERS AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR W
	MARK, CLEAN ALL DEBRIS, GRAVEL, DIRT, ETC. OUT OF MANHOLES AND ANY STOPPAGES CAUSED BY DEBRIS DURING CONSTRUCTION CONTRACTOR WILL UNPLUG STOPPAGE AT CONTRACTOR'S EXPENSE. ANY DAMAGE TO EXISTING MANHOLES OR SEWER MAIN WILL CORRECTED AT CONTRACTOR'S EXPENSE. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT DAMAGE TO EXISTING NEW RINGS, COVERS, OR CONES FROM EQUIPMENT AND MATERIALS USED OR TAKEN THROUGH THE WORK AREA. IF AN EXISTING NEW MANHOLE COVER, RING, OR CONE IS DAMAGED BY THE CONTRACTOR IT SHALL BE REPLACED AS DIRECTED BY THE SA INSPECTOR. MANHOLES WILL NEED TO BE RESEALED WITH THE SARA APPROVED SEALING. IF SEAL COATING IS BROKEN, CONTRACT WILL HAVE MANHOLE RECOATED. RESEAL ALL LEAKS AT CONTRACTOR EXPENSE.
	A. CONTRACTOR TO ENSURE ALL PLUGS USED TO PLUG SEWER LINES, WHILE TESTING THE PROJECT (SUCH AS AIR PLUGS, SCR TYPE PLUGS, ETC.) ARE LABELED, MARKED OR TAGGED. PROJECT INSPECTOR WILL RECORD HOW MANY PLUGS ARE BEING US LOCATION AND I.D., WITHIN COLLECTION SYSTEM. CONTRACTOR WILL REPORT TO PROJECT INSPECTOR OF ANY LOST UNRESTRAINED PLUGS INTO SEWER COLLECTION SYSTEM.
	B. CONTRACTOR WILL BE HELD LIABLE FOR ANY DAMAGES TO SEWER COLLECTION SYSTEM STOPPAGES, OVER-FLOWS, BACKUP IN HOMES CAUSED BY LOST RUN AWAY SEWER PLUGS THAT WERE USED ON THAT PROJECT OR OUTFALL LINE WASTEWATER TREATME PLANTS.
	C. CONTRACTOR WILL ALSO BE RESPONSIBLE FOR ANY DAMAGE TO WASTEWATER TREATMENT APPARATUS, SUCH AS SCR PUMPS, ETC, CAUSED BY LOST OR RUN AWAY SEWER PLUGS. CONTRACTOR WILL BE HELD LIABLE FOR DAMAGES, AS WELL AS COST REPAIRS.
5.	ALL WORK IN THE TEXAS HIGHWAY DEPARTMENT AND BEXAR COUNTY RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT.
6.	ALL WORK ON PUBLIC STREETS SHALL BE COORDINATED WITH AND APPROVED BY THE BEXAR COUNTY PUBLIC WORKS DEPARTME TRAFFIC DIVISION AND STREET ENGINEER
7.	DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.161, CITY PUBLIC SERVICE MUST MAINTAIN ACCESS TO GAS VALVES AT A TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND VALVES THAT ARE IN THE PROJECTED AREAS.
8.	NO TESTING WILL BE PERFORMED PRIOR TO 30 DAYS FROM THE COMPLETE INSTALLATION OF THE SANITARY SEWER LINES.
	THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO: A. PULL MANDREL- AFTER 30 DAYS OF INSTALLATION
	<ul> <li>B. PERFORM AIR TEST</li> <li>C. PULL WIPER (AFTER STREET HAS BEEN ASPHALTED IN NEW SUBDIVISIONS)</li> <li>D. VACUUM TEST ALL MANHOLES WITHIN THE PROJECT</li> </ul>
9.	E. CCTV- ALL NEW LINE - PAN /TILL ALL SERVICE LATERALS TO 6"X6" CLEAN OUT .FLOOD ALL LINES BEFORE CCTV, SUMMIT DVD CONTRACTOR SHALL SUBMIT FILED COPY PLANS AND PROFILES SHOWING AS-BUILT WORK AT END OF PROJECT, CCTV DVD A COMPACTION DENSITY REPORTS FOR MAIN SEWER LINE AND ALL SERVICE LATERALS TRENCHES. WARRANTY LETTERS ON MATERIA WORKMANSHIP FOR 24 MONTHS AFTER FINAL ACCEPTANCE.
ЛA	NHOLES
10.	ALL MANHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS AT LEAST FOUR (4) INCHES ABOVE THE FINISHED GRADE THE SURROUNDING GROUND EXCEPT WHEN LOCATED IN PAVED AREAS. IN PAVED AREAS THE MANHOLE RING SHALL BE FLUSH WITH T PAVEMENT. ALL NEW INSTALLED MANHOLES WILL BE WITH A 30" INCH OPENING, MINIMUM, WITH THE SARA LOGO ON THE COVER. EVE THIRD MANHOLE COVER WILL HAVE A 1" HOLE FOR A VENT.
11.	ALL MANHOLES SHALL BE WITH A 30" OPENING, HAVE WATERTIGHT RING AND COVERS, WITH THE SARA LOGO, I/I BARRIER, ACCORDANCE WITH THE SARA TECHNICAL SPECIFICATIONS FOR UTILITIES CONSTRUCTION. ON PRIVATE PROPERTY, MANHOLE RING A COVER SHALL BE TYPICAL MANHOLE COVER WATER TIGHT.
	A. BEFORE BACK FILLING/COMPACTION/CONCRETE ENCASEMENT ALL MANHOLE JOINT SECTION RISERS, CONE SECTIONS AND GRADE RING SHALL BE WRAPPED WITH GATOR WRAP SEALING SYSTEM BUTYL ADHESIVE SEALANT WITH A MINIMUM THICKNESS OF 30 MILS, INFI-SHIELD WRAPPED WITH RISER-WRAP SEALING SYSTEM, GAT WRAP
	MATERIAL: RUBBER MEETS ASTM C923/MASTIC MEETS ASTM C 990 OR APPROVE BY THE SARA ENGINEER SUBSTITUTION ON OUTSI FOR I/I, GROUND WATER TABLE.
12.	IF CONCRETE THROAT RINGS ARE TO BE INSTALLED THEY MUST BE USED IN CONJUNCTION WITH A UV STABILIZED POLYETHYLE LINER AND I/I BARRIER. I/I BARRIER MUST MEET THE FOLLOWING ASTM STANDARDS: ASTM D-790/1505 DENSITY OF POLYETHYLE MATERIALS, ASTM D-1238 MELT FLOW INDEX, ASTM 638 TENSILE STRENGTH@ YIELD (50 MM/MM), ASTM 790 FLEXURAL MODULUS, ASTM HEAT DEFLECTION TEMPERATURE @IGEPAL, ASTM 1693 ESCR,100% IGEPAL /10% IGEPAL. A MINIMUM OF TWO AND A MAXIMUM OF FO

- 13. INFILTRATION DISHES WILL BE REQUIRED IN MANHOLES WHERE APPLICABLE (I.E, SUCH AS LOW DRAINAGE AREAS) AND EVERY THIRD MANHOLE SHALL BE VENTED. 30" MANHOLE COVER WITH 1" INCH HOLE CENTER OF COVER WHERE APPLICABLE/OR WATER TIGHT /BOLT DOWN.
- NOTE: MANHOLE COVER INSERTS SHALL BE FRW INDUSTRIES, INC., "INFLOW PROTECTOR-COVER" "PRECO INDUSTRIES. LTD.", "SEWER GUARD", OR APPROVED EQUAL, AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING THE NECESSARY FIELD MEASUREMENTS FOR THE MANUFACTURER PRIOR TO PRODUCTION.
- A. ALL MANHOLES MUST HAVE 350-400 FEET SPACING BETWEEN MANHOLES TO PROVIDE ACCESS TO SEWER LINES FOR CLEANING, ON THE SARA PUBLIC SEWER EASEMENT. A 16 FOOT GATE WITH LOCK WILL BE PROVIDE BY CONTRACTOR FOR ACCESS TO CLEANING AND MAINTAIN SEWER LINES.
- B. DROP MANHOLES SHALL BE REQUIRED WHEN THE INFLOW ELEVATION IS MORE THAN TWENTY-FOUR (24) INCHES ABOVE THE OUTFLOW ELEVATION. DROP SHALL BE LOCATED OUTSIDE THE MANHOLE WITH ITS FLOWLINE ELEVATION LOCATED BETWEEN THE CENTER LINE AND TOP OF SEWER LINE.
- 14. ALL MANHOLES WILL BE CONCRETE ENCASEMENT 1 FOOT AROUND RING, 28-INCH DEEP AFTER GATOR WRAP SEALING SYSTEM HAS BEEN APPLIED.
- 15. NEW MANHOLE PROTECTIVE COATING, LINER IS FOR THE PURPOSE OF I/I INFILTRATION BECAUSE OF HIGH WATER TABLE. APPLICATION PROCEDURES ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND PER THE FOLLOWING SPECIFICATIONS:
- A. MANHOLE PROTECTIVE COATING: CONTRACTOR WILL BE RESPONSIBLE FOR MANHOLES ON PROJECT SAFETY ASSESSMENT; CONFINED SPACE ENTRY SET BY OCCUPATIONAL SAFETY AND HEALTH STANDARDS, 29 CFR 1910.146 APP. E.
- B. THE CONTRACTOR, SHALL NOTIFY THE SARA, UTILITIES INSPECTIONS DEPARTMENT WITH A MINIMUM OF 2 DAYS ADVANCE NOTICE OF THE START OF ANY FIELD SURFACE PREPARATION WORK OF COATING APPLICATION WORK OF MANHOLES.
- C. ALL NEW MANHOLES IN NEW DEVELOPMENTS SHALL BE 30" OPENING, WATERTIGHT AND THE INTERIOR WALL COATED WITH A SARA APPROVED SEWER STRUCTURE FOR ALL MANHOLES. APPLY A COMBINATION
- OF BOTH PRODUCTS WITH THE CEMENTATION COATING FIRST, FOLLOWED BY THE EPOXY COATING LAFARGE SEWER COAT 2000 HR REGULAR, WITH THE REQUIRED ONE-INCH THICK APPLICATION. THIS IS THE ONLY PRODUCT YET APPROVED WHICH SATISFIES THE REQUIREMENT OF APPLYING THE COMBINATION OF BOTH THE CEMENTATION COATING AND EPOXY COATING
- APPROVED MATERIALS ARE AS FOLLOWS:
- CEMENTITIOUS COATING WITH REQUIRED ONE-INCH THICK APPLICATION
- PERMACAST CR 5000 STRONG-SEAL MS-2C

125 MILS

- STANDARD CEMENT MATERIAL INC PELINER
- QUADEX ALUMINALINER

EPOXY COATING: WITH SPECIFIED THICKNESS APPLICATION.

- \* RAVEN 405 SERIES HIGH BUILD EPOXY LINER REQUIRED THICKNESS
- \* SPRAY WALL POLYURETHANE SYSTEM REQUIRED THICKNESS 150 MILS
- D. WARRANTY LETTER ON MANHOLE PROTECTIVE COATING FOR 10 YEARS AFTER FINAL ACCEPTANCE OF PROTECTIVE COATINGS CONTRACTOR IS NOT RELIEVED OF ITS RESPONSIBILITIES UNDER THE CONTRACT DOCUMENTS.
- i. ANY CONNECTIONS TO EXISTING MANHOLES WILL REQUIRE A 36-INCH CRADLE TO SUPPORT INCOMING PIPE. A RUBBER GASKET WILL ALSO BE REQUIRED (CENTERED AT MANHOLE WALL) WITH GROUTING AT INTERIOR AND EXTERIOR PENETRATIONS.
- PENETRATION INTO MANHOLE WILL BE CORE DRILLED. ANY DAMAGE EXITING MANHOLE WILL BE REPLACED AT CONTRACTOR'S EXPENSE. IF COATING SEAL IS BROKEN, THE MANHOLE WILL BE RECOATED WITH THE SAME MATERIALS. IF EXISTING SEWER MANHOLE SEAL COATING IS BROKEN, ALL OF MANHOLE WILL BE RESEALED WITH SAME MATERIALS.
- ii. ANY AND ALL EXISTING MANHOLES WITHIN CONSTRUCTION PROJECT THAT TIE IN, ARE DONE BY CONTRACTOR TO STUB-OUT ADJUSTMENT, RECONSTRUCTION, OR LEAKING. MANHOLE WILL BE COAT SEALED AT CONTRACTOR'S EXPENSE.
- III. MANHOLES WITH STUB-OUTS (8") INCH OR LARGER MUST BE LOCATED AT THE END OF ALL SEWER LINES THAT MAY BE EXTENDED IN THE FUTURE. MANHOLES PLACED AT THE END OF THE WASTEWATER COLLECTION SYSTEM PIPES THAT MAY BE EXTENDED IN THE FUTURE MUST INCLUDE PIPE STUB-OUTS WITH PLUGS.
- PIPING \*\*\*\*\*\* NEW NOTE \*\*\*\*\*\*
- 16. THE KIND AND DESCRIPTION OF THE PIPE CONDUIT IS SHOWN ON THE PLANS (IF PVC, SDR AND ASTM/ANSI DESIGNATION CLASS). AS SDR 26 PVC, ASTM D-3034 WITH A MINIMUM STIFFNESS OF 115 PSI TEXAS ADMINISTRATIVE CODE (TAC) RILES TO INCLUDE 30 TAC & 213, OR ANY REVISIONS THERE TO APPLICABLE TECQ, 30 TAC 7 217, FOR ALL NEW DEVELOPMENT.
- 17. THE USE OF ASBESTOS CEMENT PIPE WILL BE PROHIBITED UNDER THIS CONTRACT. ALL DUCTILE IRON PIPE USED IN THIS SYSTEM SHALL BE CORROSION PROTECTED ON BOTH THE INTERIOR AND EXTERIOR SURFACES. ALL CORROSION PROTECTION SHALL BE APPLIED AND INSTALLED IN SUCH A MANNER AS TO MAINTAIN A CONTINUOUSLY PROTECTED SURFACE AFTER FINAL PIPE INSTALLATION.
- 18. ALL PVC SEWER PIPE WITH OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH; MINIMUM PIPE STIFFNESS OF 150 PSI.
- 19. ALL SEWER PIPES SHALL HAVE COMPRESSION OR MECHANICAL JOINTS.
- 20. SEWER PIPE CONNECTIONS TO PRECAST MANHOLES SHALL BE APPROVED BY THE SARA. THIS CONNECTION SHALL USE A FLEXIBLE "BOOT" TYPE CONNECTOR SUCH AS THE PSX POSITIVE SEAL SYSTEM OR ENGINEER APPROVED EQUAL AND COMPLY WITH ASTM C-923. SEWER PIPE CONNECTIONS TO MONOLITHIC MANHOLES WILL BE AS SHOWN ON THE STANDARD DETAIL SHEET. ANY CHANGES IN THESE METHODS MUST BE APPROVED BY SARA ENGINEER.
- 21. ALL PIPE TRENCHING, BEDDING AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH APPROPRIATE ASTM/ANSI SPECIFICATIONS [REFERENCE 31 TAC 317.2(A)(5)(A); ASTM C-12 (ANSI A106.2) OR ASTM D-2321 (ANSI K65.171)]. ALL COMPACTION @ 98% DENSITY TESTS ACROSS THE BOARD, 1 RANDOM DENSITY TEST PER LIFT FOR EVERY 400 FEET.
- A. SAND MIGRATION PREVENTION COLLAR WHEN CHANGING THE INITIAL BACKFILL FROM SELECT INITIAL BACKFILL TO OPTIONAL SELECT INITIAL BACKFILL. A TWO (2) FOOT LONG CLASS D CONCRETE ENCASEMENT OR FIRMLY COMPACTED, CONSOLIDATED CLAY ENCASEMENT BETWEEN THE TWO SHALL BE PROVIDED FOR THE ENTIRE HEIGHT OF THE INITIAL BACKFILL, EVERY 180 FEET ALONG PIPE AND 20 FEET FROM WALL OF MANHOLE IN EACH DIRECTION.
- B. SEWER LINE LOCATION:
- i. SEWER LINES SHALL BE SIZED AND EXTENDED THROUGH THE LIMITS OF A DEVELOPMENT TO SERVE ADJACENT PROPERTY, WITH MANHOLE AND STUB-OUT AT END OF SEWER LINE.
- a. IN PHASED CONSTRUCTION OF THOROUGHFARES, THE SEWER LINE SHALL BE EXTENDED THE ENTIRE LENGTH OF THOROUGHFARE BEING CONSTRUCTED.
- ii. NO PUBLIC SEWER LINE SHALL BE LOCATED NEARER THAN FIVE (5) FEET FROM ANY TREE.
- iii. SIZES AND GRADES FOR SANITARY SEWER SHALL BE AS REQUIRED BY THE SARA ENGINEER AND CONSIDERATION SHALL BE GIVEN AS TO POSSIBLE EXTENSIONS FOR FUTURE DEVELOPMENT. NO SANITARY SEWERS, OTHER THAN LATERALS AND FORCE MAINS. SHALL BE LESS THAN EIGHT (8) INCH IN DIAMETER.
- 22. WHEN SEWER LATERALS ARE TO BE CONNECTED TO EXISTING SEWER MAINS AND NO STUB-OUT HAS BEEN EARLIER PROVIDED, THE CONNECTION MUST BE MADE WITH AN APPROVED SERVICE SADDLE AS PER 31 TAC 313.5(C) (7). NEW INVERT TO BE BUILT, SMOOTH CHANNEL FOR NEW PIPE/SLOPE AT 2 % FLOW.
- 23. ALL RESIDENTIAL SERVICE LATERALS SHALL BE SDR 26 PVC WITH RATING OF 115 PSI, BE EXTENDED TO THE PROPERTY LINE AT (6 X 6 ) CAPPED AND SEALED. ATTACH SEWER BURIAL TAPE TO THE END OF ALL SEWER LATERALS AND BRING UP TO THE GROUND LEVEL FOR MARKER (GREEN). (SEE HOUSE LATERALS DETAILS).
- A. SEWER SERVICE LATERALS. THE SIZES AND LOCATIONS OF LATERALS SHALL BE DESIGNATED AS FOLLOWS UNLESS OTHERWISE DIRECTED BY THE SARA ENGINEER:
- i. IN GENERAL FOR SINGLE FAMILY DWELLING, THE LATERAL SIZE SHALL BE A FOUR (4") INCH MINIMUM. HOUSE LATERALS SHALL BE INSTALLED CENTER OF THE LOT AND SHALL HAVE A TEN (10) FOOT SEPARATION FROM THE WATER SERVICE. THE SERVICE SHALL THEN BE EXTENDED AT A FORTY-FIVE (45) DEGREE ANGLE TO FOUR (4') FEET ABOVE THE FINISHED GRADE AND CAPPED. USE SEWER BURIAL TAPE TO MARK ALL SEWER SERVICE LATERALS.
- ii.MULTIPLE UNITS, APARTMENTS, LOCAL RETAIL AND COMMERCIAL SIX (6") INCH MINIMUM, MANUFACTURING AND INDUSTRIAL EIGHT (8") INCH MINIMUM, OR LARGER AS REQUIRED.

### OIL SEPARATORS

### **NEUTRALIZING DEVICES**

### LINT TRAPS

### SILVER RECOVERY UNITS

### SOLIDS INTERCEPTORS

### INTERCEPTORS

- a. INTERCEPTORS SHALL BE C CONSISTING OF A MINIMUM OF TWELVE (12) MINUTES RE
- b. THERE SHALL BE AN ADEQU MANHOLE PER TRAP COMPA DIMENSION OF 20 INCH INCH
- c. IN AREAS WHERE TRAFFIC N
- d. ALL INTERCEPTORS SHALL TO THE DEVICE.
- e. ALL CONCRETE UTILIZED IN
- AN EFFLUENT SAMPLING WE INCHES IN DIAMETER AND S **DISCHARGING INTO SANITAR** VISUAL OBSERVATION OF TH

### WATER TIGHT TESTING (24 HOUR

- g. ALL INTERCEPTORS SHALL INTERCEPTOR). INTERCEPT CAUSE FOR REJECTION. WH **REPORTS SHALL SHOW TOT REPORTED BY THE SARA INS** COMPLETED.
- B. MANHOLES WILL BE REQUIR
- A. LATERALS WILL NOT BE ATT
- B. FITTINGS ARE NOT PERMITT
- C. DEEP CUT OR DROP CONNE
- F. A MINIMUM OF ONE (1) LATE
- G. ALL SEWER LATERAL CROSS
- FOR SEWERAGE SYSTEMS) 24. WHERE REQUIRED CONCRE
- TOP OF THE PIPE WITH PAY 25. A MINIMUM OF FOUR (4) FEE
- CONCRETE ENCASEMENT IS
- 26. WHERE POROUS MATERIAL RETAINERS ARE REQUIRED FIRMLY COMPACTED. CONS TOP OF THE GRANULAR MAT

### BLASTING

- 27. WHEN ALLOWABLE, BLASTIN PROTECTION ASSOCIATION
- 28. BLASTING SEWER LINE EXC REQUIRED EXCAVATION. TH THE BLASTING CHARGE ANI ACCOMPLISHED ONLY BY Q SAN ANTONIO FIRE DEPART BE REPAIRED AND RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE.

	PLAT NO. 2021-224	H	Н	5	20
		D_V.B.	D_V.B.	10/2021	E0583607
<u>TR</u>	APS AND INTERCEPTORS (FOG - TECQ)	BY:			Ш
	FORM PLUMBING CODE, CITY OF SAN ANTONIO BUILDING INSPECTIONS DEPARTMENT. ALL COMMERCIAL BUILDINGS WILL HAVE TRAPS (FOG CQ).	ESIGNED	NN ΒΥ		.: NO.:
	SEPARATORS	DESI	DRAWN	DATE:	JOB
WF	IICH INCLUDE OIL SEPARATOR- GASOLINE SERVICE STATIONS, CAR WASHES, GARAGES, DRY CLEANERS, CHEMICAL PLANTS, GAS PLANTS,	, v	0.		
SY	E PROCESSORS, TESTING LABORATORIES, OR ANY PLACE WHERE OIL OR SOLVENTS MAY BE INTRODUCED INTO THE SANITARY SEWER STEM.THE SIZING CRITERIA FOR OIL SEPARATORS SHALL BE BASED ON THE G.P.M. RATE OF ALL FIXTURES, APPLIANCE OR APPURTENANCE, ANNUAL INTER SEWER OVERTIME			01410	
	AINING INTO SEWER SYSTEM. ND INTERCEPTORS			99999 99999 6440 / #10	
	ND INTERCEPTORS SHALL BE INSTALLED IN THE SEWER SYSTEM OF THE FOLLOWING ESTABLISHMENTS, GARAGES, CAR WASHES, SERVICE			641- 641- 2214	
ST/	ATIONS, OR ANY PLACE OF BUSINESS WHERE HEAVY SOLIDS MAY BE INTRODUCED INTO THE SANITARY SEWER SYSTEM. THE SIZING ITERIA FOR A SAND INTERCEPTOR SHALL BE BASED ON THE REQUIRED G.P.M. x 12 MINUTE RETENTION TIMES TO OBTAIN THE TANK SIZE IN			2 1 0 1 2 2 4 1 0 1 2 2 4 1 0 1 2 2 4 1 0 1 2 2 4 1 0 1 2 1 2 4 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	
	TOMATIC CAR WASHES TH HIGH PRESSURE SPRAYS AND /OR BRUSHES INSTALL A 50 G.P.M. INTERCEPTOR.MINIMUM, FOR A 4-BAY VEHICLE WASH, THE SIZE OF THE		a 50 D 8 ANJ	TI TI ISTR	
INT	ERCEPTOR SHALL INCREASE 10 G.P.M. FOR EACH ADDITIONAL WASH BAY OVER 4. SINGLE BAY OR PORTABLE WASHER TYPE VEHICLE SHES SHALL INSTALL A 20 GPM INTERCEPTOR MINIMUM.		d b a 1155 SAN	RFG	
NE	UTRALIZING DEVICES		t	1	
	NO CASE SHALL CORROSIVE LIQUIDS, SPENT ACIDS, OR OTHER HARMFUL CHEMICALS WHICH MIGHT DESTROY OR INJURE A DRAIN, SEWER,				
TH	IL, OR WASTE PIPE, OR WHICH MIGHT CREATE NOXIOUS OR TOXIC FUMES, DISCHARGE INTO THE SANITARY SEWER SYSTEM WITHOUT BEING OROUGHLY NEUTRALIZED BY PASSING THROUGH A PROPERLY CONSTRUCTED AND ACCEPTABLE NEUTRALIZING DEVICE. SUCH DEVICE ALL BE PROVIDED WITH A SUFFICIENT INTAKE OF NEUTRALIZING MEDIUM, CONSISTING OF LIMESTONE OR MARBLE CHIPS, SO AS TO MAKE			ž I	
	CONTENTS NON-INJURIOUS BEFORE BEING DISCHARGED INTO THE SANITARY SEWER SYSTEM.				
	<u>IT TRAPS</u>				
AN	BLIC AND PRIVATE WASHATERIAS AND COMMERCIAL LAUNDRIES SHALL INSTALL A LINT TRAP EQUIPPED WITH A CONVENIENTLY LOCATED D EASILY REMOVABLE WIRE BASKET OR OTHER SIMILAR DEVICE THAT WILL PREVENT THE STRINGS, RAGS, BUTTONS, OR OTHER DHIBITED MATERIAL FROM ENTERING THE SANITARY SEWER SYSTEM. THE BASKET OR OTHER SIMILAR DEVICE SHALL PREVENT PASSAGE				
то	THE SANITARY SEWER SYSTEM OF SOLIDS GREATER THAN ½ INCH IN DIAMETER. THE LINT TRAP SIZE SHALL BE BASED ON THE TOTAL M. OF ALL FIXTURES, APPLIANCES AND APPURTENANCES DRAINING TO IT IN LIEU OF A LINT TRAP,A LINT INTERCEPTOR MAY BE		ک ا		
INS	TALLED.THE INTERCEPTOR SHALL BE SIZED AND DESIGNED BY A TEXAS REGISTERED ENGINEER WITH HIS SEAL AND SIGNATURE ON THE AWINGS.			IRUCI	
SIL	VER RECOVERY UNITS		BIDI РГО	CONSTRU	
	VER RECOVERY UNITS SHALL BE INSTALLED IN WASTE LINE(S) LEADING FROM X- RAY PROCESSING, PHOTOGRAPHIC PROCESSING, AND /OR Y PROCEDURES IN ESTABLISHMENT SUCH AS MEDICAL LABS, DENTAL LABS, PHOTO FINISHERS, PRINTERS, GRAPHIC ARTS PRODUCTION		A O R P O C d a	FOR	
FAG	CILITIES, HOSPITAL, FACILITIES, VETERINARY HOSPITALS, OR OTHER ESTABLISHMENTS WHERE SILVER MAY BE INTRODUCED INTO THE NITARY SEWER SYSTEM.			NOT	
<u>so</u>	LIDS INTERCEPTORS				
	LIDS INTERCEPTORS SHALL BE INSTALLED WHEN PRE-TREATMENT OF WASTE STREAMS IS NECESSARY TO PREVENT SOLIDS GREATER THAN				
	N DIAMETER, WHICH MAY CAUSE LINE STOPPAGE FROM ENTERING THE SANITARY SEWER SYSTEM. ERCEPTORS				
	INTERCEPTORS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN APPROVED BY THE SAN ANTONIO RIVER AUTHORITY				
	CONSISTING OF A MINIMUM OF TWO COMPARTMENTS WITH FITTINGS DESIGNED FOR GREASE RETENTION AND PROVIDE FOR A MINIMUM OF TWELVE (12) MINUTES RETENTION.				
b.	THERE SHALL BE AN ADEQUATE NUMBER OF MANHOLES TO PROVIDE ACCESS FOR CLEANING ALL AREAS OF AN INTERCEPTOR, ONE MANHOLE PER TRAP COMPARTMENT. MANHOLE COVERS SHALL BE GAS TIGHT IN CONSTRUCTION HAVING A MINIMUM OPENING				
	DIMENSION OF 20 INCH INCHES (0.5 M).				
C.	IN AREAS WHERE TRAFFIC MAY EXIST THE INTERCEPTOR SHALL BE DESIGNED TO HAVE ADEQUATE REINFORCEMENT AND COVER.				
d.	ALL INTERCEPTORS SHALL HAVE THE SIZE OF THE INTERCEPTOR (IN GALLON PER MINUTE OR GALLON CAPACITY) PERMANENTLY AFFIXED TO THE DEVICE.				
e.	ALL CONCRETE UTILIZED IN THE CONSTRUCTION OF INTERCEPTOR SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI.				
f.	AN EFFLUENT SAMPLING WELL ON ALL INTERCEPTORS SHALL BE REQUIRED. THE SAMPLE WELL SHALL HAVE A RISER A MINIMUM OF 6 INCHES IN DIAMETER AND SHALL BE INSTALLED AFTER THE CONFLUENCE OF ALL WASTE STREAMS FROM THE FACILITY AND PRIOR TO				
	DISCHARGING INTO SANITARY SEWER COLLECTION SYSTEM. THE WELL SHALL BE PERPENDICULAR TO THE EFFLUENT LATERAL TO ALLOW VISUAL OBSERVATION OF THE FLOW STREAM AND PROVIDE FOR SAMPLING OF WASTE WATER.				
WA	TER TIGHT TESTING (24 HOURS)	TION			
g.	ALL INTERCEPTORS SHALL BE WATER TESTED OUT AT JOB SITE AFTER BEING INSTALLED (PLUG BOTH ENDS AND FILL TO TOP OF INTERCEPTOR). INTERCEPTOR SHALL SHOW NO LEAKAGE FROM SECTION SEAMS, PINHOLES, OR OTHER IMPERFECTIONS. ANY LEAKAGE IS	DESCRIP			
	CAUSE FOR REJECTION. WHEN LEAKAGE OCCURS, ADDITIONAL WATER TESTING SHALL BE MADE. AFTER CORRECTING MEASURE TEST, REPORTS SHALL SHOW TOTAL NUMBER OF INTERCEPTORS TESTED. WHEN LEAKAGE OCCURS CORRECTIVE MEASURES TAKEN SHALL BE				
	REPORTED BY THE SARA INSPECTORS. SARA INSPECTORS SHALL RECORD IN DAILY LOG WITH PROJECT NAME, DATE IT WAS TESTED AND COMPLETED.	DATE			
	MANHOLES WILL BE REQUIRED ON SIX (6) INCH AND LARGER LATERALS WHERE THEY CONNECT TO THE MAIN.	REV			
	LATERALS WILL NOT BE ATTACHED TO SEWER MAINS THAT ARE DEEPER THAN TWELVE (12) FEET.				
	FITTINGS ARE NOT PERMITTED ON LATERALS BETWEEN THE WYE AND THE PROPERTY LINE.	6			
	A MINIMUM OF ONE (1) LATERAL PER BUILDING SHALL BE REQUIRED. ALSO, A MINIMUM OF ONE (1) LATERAL PER RESIDENTIAL LOT SHALL			Ú	
0	BE REQUIRED. DUPLEXES SHALL HAVE TWO (2) LATERALS THAT SHALL BE INDEPENDENTLY ATTACHED TO THE MAIN.	<b>NOISIN</b>			_
G.	ALL SEWER LATERAL CROSSING WATER MAINS SHALL CONFORM TO THE REQUIREMENTS OF THE TCEQ CHAPTER 317 (DESIGN CRITERIA FOR SEWERAGE SYSTEMS) LATEST REVISION, SDR 26 150 PSI, OR DUCT IRON PIPE, CONCRETE ENCASEMENT.				
24.	WHERE REQUIRED CONCRETE ENCASEMENT SHALL BE PLACED FOR FULL WIDTH OF THE TRENCH TO A PLAIN SIX (6) INCHES ABOVE THE TOP OF THE PIPE WITH PAY UNITS AS SHOWN ON THE STANDARD DETAIL SHEET.	Ш			
25.	A MINIMUM OF FOUR (4) FEET OF COVER IS TO BE MAINTAINED OVER THE SANITARY SEWER MAIN AND LATERALS AT GRADE, OTHERWISE CONCRETE ENCASEMENT IS REQUIRED.		Ŋ		
26.	WHERE POROUS MATERIAL INCLUDING SUBGRADE FILLER IS USED FOR BACKFILL IN THE BEDDING AND INITIAL BACKFILL ZONES, SEEPAGE	က	F	> U	
	RETAINERS ARE REQUIRED AT AN APPROXIMATE OF 180 FEET. RETAINERS SHALL CONSIST OF CLASS D CONCRETE ENCASEMENT OR FIRMLY COMPACTED. CONSOLIDATED CLAY ENCASEMENT, THE RETAINERS SHALL EXTEND FROM THE BOTTOM OF THE TRENCH TO THE		Ζ	Ŭ	
	TOP OF THE GRANULAR MATERIAL FOR THE ENTIRE TRENCH WIDTH. ENCASEMENT SHALL BE 24 INCHES LONG. NO EXTRA PAY ITEM.	<b>IT</b>	$\supset$	>	-
	A <u>STING</u> WHEN ALLOWABLE, BLASTING SHALL BE PERFORMED IN ACCORDANCE WITH THE ABOVE CRITERIA ESTABLISHED BY THE NATIONAL FIRE	<u>ں</u>			ξ
	PROTECTION ASSOCIATION 312 TAC 313.5(C) (6).	Ĭ		H	ļ
28.	BLASTING SEWER LINE EXCAVATION MUST BE DONE IN SUCH A MANNER AS TO MINIMIZE THE FRACTURING OF ROCK BEYOND THE REQUIRED EXCAVATION. THE CONTRACTOR SHALL CONSIDER THE ELEVATION OF THE EXISTING SANITARY SEWER MAIN IN RELATION TO THE BLASTING CHARGE AND RELATIVE DIRECTION OF EXISTING AND PROPOSED TRENCHES. BLASTING WITHIN SUCH AREAS SHALL BE			<	ξl
	ACCOMPLISHED ONLY BY QUALIFIED BLASTING CONTRACTORS WHO HOLD BLASTING LICENSES FROM A QUALIFIED AGENCY SUCH AS THE SAN ANTONIO FIRE DEPARTMENT IN BEXAR COUNTY. ANY DAMAGE TO EXISTING SANITARY SEWERS RESULTING FROM BLASTING SHALL			Ú	י כי

29. NO BLASTING SHALL BE PERFORMED WITHIN 75 FEET OF EXISTING UTILITIES.

SHEET NO.

<u>TESTING</u>

- 30. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH THE FOLLOWING:
- A. 317.2(A)(5)(B); DEFLECTION TEST FOR FLEXIBLE AND SEMI-RIGID PIPE CONDUCTED AFTER FINAL BACKFILL HAS BEEN IN PLACED AT LEAST 30 DAYS.
  B. 317.2(A)(4)(A) & (B) OR SARA SPECIFICATIONS INFILTRATION AND OR EXFILTRATION AND OR LOW-PRESSURE AIR TEST.
- C. 313.5(C)(10)(C) OR SARA SPECIFICATIONS: ALL MANHOLES AND WET WELLS MUST BE TESTED SEPARATELY AND INDEPENDENTLY OF THE COLLECTION LINES.
- D. IN THE EVENT THAT TESTING REQUIREMENTS CONFLICT, THE LATEST TCEQ DESIGN CRITERIA SHALL BE USED.
- 31. SEWER LINES SHALL BE TESTED FROM MANHOLE TO MANHOLE.
- 32. SANITARY SEWER CONNECTIONS MADE DIRECTLY TO EXISTING MANHOLES WHICH REQUIRE PENETRATION INTO THE MANHOLE WILL BE CORE DRILLED. ANY DAMAGE TO EXISTING MANHOLE WILL BE REPLACED AT CONTRACTOR'S EXPENSE AND WILL REQUIRE SUCCESSFUL TESTING OF THE EXISTING MANHOLE IN ACCORDANCE WITH THE SARA SPECIFICATIONS. THEY MUST HAVE A PROTECTIVE COATING WITH SEWPERCOAT, RAVEN 405, SAUEREISEN 210, SPRAY WALL, OR APPROVED EQUIVALENT BY THE ENGINEER, COATING WILL BE MINIMUM OF 200 MILS THICKNESS DEPENDING ON EXISTING CONDITIONS, TO PREVENT INFRASTRUCTURE INFILTRATION, FOLLOW MANUFACTURER'S RECOMMENDATION ON PROTECTIVE COATING.
- 33. AFTER CONSTRUCTION, TESTING WILL BE DONE BY PAN/TILT TV CAMERA BY THE CONTRACTOR AND OBSERVED BY THE INSPECTOR, WASTEWATER ENGINEERING PERSONNEL AND CONTRACTOR AS CAMERA IS RUN THROUGH THE LINES. PAN/TILT ALL 6" SERVICE LATERALS TO 6 X6" STUB-OUT. VIDEOS MUST INCLUDE SUBDIVISION NAME, MANHOLE NUMBER, SERVICE LATERAL STATION NUMBER, FLOW DIRECTION, LOCATION ANY ABNORMALITIES, SUCH AS BROKEN PIPE OR MISALIGNED, JOINT, GRAVEL, DIRT, MUST BE CLEANED OUT, REPLACE AT CONTRACTOR'S EXPENSE. NEW SEWER SYSTEM WILL BE FLOODED WITH H20 BEFORE BEING TV ALL SEWER LINES MUST BE PRESSURE CLEANED TO INCLUDE SERVICE LATERALS 6 INCH TO STUB-OUT. ALL VIDEOS SHALL BE SUBMITTED IN DVD FORMAT WITH WRITTEN REPORTS.
- 34. A COPY OF ALL TESTING REPORTS INCLUDING BACKFILL COMPACTION TESTS SHALL BE FORWARDED TO THE SARA.
  A. DENSITY TEST WILL BE REQUIRED ON ALL SANITARY SEWER TRENCHES INCLUDING SERVICE LATERALS. SERVICE LATERALS TO BE CHOSEN RANDOMLY BY FIELD INSPECTOR. DENSITIES ON SERVICE LATERAL SHALL NOT EXCEED 25% OF TOTAL NUMBER OF SERVICE.

### EXCAVATION

- 35. 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 INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTORS IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIALLY, CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITHIN OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
- 36. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PERMANENTLY PLACE ANY WASTE MATERIALS IN THE 100 YEAR FLOODPLAIN WITHOUT AN APPROVED FLOODPLAIN PERMIT.
- 37. WATER JETTING THE BACKFILL WITHIN A STREET WILL NOT BE PERMITTED. SANITARY SEWER TRENCHES SUBJECT TO TRAFFIC SHALL CONFORM TO SARA SPECIFICATIONS.

### WATERLINE CROSSING

38. WHERE THE MINIMUM 9 FOOT SEPARATION DISTANCE BETWEEN SEWER LINES AND WATERLINES, MAINS CANNOT BE MAINTAINED. THE INSTALLATION OF SEWER LINES SHALL BE IN STRICT ACCORDANCE WITH THE TCEQ RULES (31 TAC 317.3 APPENDIX E), SDR 26 ASTM 150 PSI OR CONCRETE ENCASEMENT DUCT IRON.

### EROSION AND SEDIMENTATION

- 39. THE TCEQ AND THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTED ON THE PROJECTS PLAN AND PROFILE SHEETS.
- 40. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE SARA.

### SUPPLEMENTING

- 41. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER PAY ITEM 10 WHICH IT RELATES TO.
- 42. UNLESS THE DEVELOPMENT IS PRIVATELY OWNED, THE DEVELOPER DEDICATES THE SANITARY SEWER MAIN AND MANHOLES TO THE SARA, UPON COMPLETION BY THE DEVELOPER AND FINAL ACCEPTANCE BY THE SARA. SARA WILL OWN AND MAINTAIN SAID SANITARY SEWER MAINS AND MANHOLES WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION.
- 43. WORK COMPLETED BY CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE CONSENT OF THE SARA CONSTRUCTION INSPECTION DIVISION WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.
- 44. SARA IS NOT TO BE RESPONSIBLE FOR ANY ABNORMALITIES ON STUB OUT, INVERT, GRADE OR SLOPE FOR ANY EXISTING MANHOLE TIE IN OR SERVICE LATERAL TIE IN.
- 45. ENGINEER, DEVELOPER AND BUILDER, WILL HAVE PLUMBER AND CONTRACTOR WITH BID PRICE ON NEW INSTALLATION OF ALL 4" INCH SEWER SERVICE LATERALS TO COMPLY WITH TRENCH SAFETY (OSHA) SHORING PROTECTION ON ALL NEW INSTALLATION OF 4" INCH SEWER SERVICE LATERALS. SARA WILL NOT BE HELD RESPONSIBLE FOR ANY INJURIES OR DEATH CAUSED BY TRENCH FAILURE, OR A WRONG OR DAMAGE DONE TO A PERSON OR TO HIS PROPERTY. OSHA GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.
- 46. ALL 4 INCH SEWER SERVICE LATERALS WILL BE HYDRAULIC TESTED AND OR LOW AIR PRESSURE TESTED. ALL 4 INCH SEWER SERVICE LATERALS WILL BE TELEVISED (TV) FROM 4 INCH CLEAN OUT AT OUTSIDE EACH RESIDENCE TO 6" X 6" CLEAN OUT. CONTRACTOR AND PLUMBER WILL SUBMIT REPORTS AND/OR VIDEOS TO SARA, WITH THE FOLLOWING INFORMATION: SUBDIVISION NAME, LOT NUMBER, BLOCK NUMBER, STATION NUMBER, STREET NAME AND ADDRESS OF EACH SEWER SERVICE LATERAL. PLUMBER WILL BE PROVIDED PLAN/PROFILE BY ENGINEER/BUILDER.
  - PLUMBER WILL WORK CLOSELY WITH THE SARA PROJECT INSPECTOR ON DAILY TESTING AND TELEVISION BY MAKING ARRANGEMENTS 48 HOURS IN ADVANCE. SEWER SERVICE LATERALS THAT HAVE NOT BEEN INSPECTED OR APPROVED AND/OR COVERED UP, WILL HAVE TO BE RE-DUG AT CONTRACTOR/PLUMBER EXPENSE AND RE-INSPECTED.
- A. A PROPERTY LINE CLEANOUT (6" X 6") SHALL BE INSTALLED FOR RESIDENTIAL SERVICES. CLEANOUTS IN THE SIDEWALK OR DRIVEWAY SHALL HAVE A CAST IRON BOOT. CLEANOUT NOT LOCATED IN A SIDEWALK OR DRIVEWAY SHALL BE LOCATED ON A REINFORCED CONCRETE PAD A MINIMUM OF TWELVE (12 ") INCHES BY TWELVE (12"). INCHES BY SIX (6") INCHES THICK. ALL PROPERTY LINE CLEANOUTS SHALL INCLUDE A LID WITH SEWER IN GREEN COLOR.
- 47. N1 FENCING: ANY AND ALL FENCING, INCLUDING ELECTRIC FENCE, WHETHER OR NOT IDENTIFIED ON THE PLANS, MUST BE MAINTAINED AT ALL TIMES. ANY AND ALL DAMAGES DIRECTLY ATTRIBUTED TO THE CONTRACTOR MUST BE REPLACED TO EQUAL OR BETTER CONDITIONS AT THE CONTRACTORS EXPENSE AND AS APPROVED BY THE PROJECT MANAGER. GAPS IN THE FENCING MUST BE PROVIDED AT ALL LOCATIONS WHERE THE SEWER LINE EASEMENT CROSSES FENCING. FENCING REQUIRED TO MAINTAIN LIVESTOCK MUST BE MAINTAINED AT ALL TIMES.
- 48. N2 DAMAGE TO ADJACENT LAND: THE CONTRACTOR MUST AVOID DAMAGE TO ADJACENT LAND OUTSIDE THE IDENTIFIED CONSTRUCTION LIMITS. ANY AND ALL CLAIMS DIRECTLY ATTRIBUTED TO THE CONTRACTOR RESULTING FROM HIS STRAYING BEYOND THE CONSTRUCTION LIMITS MUST BE SETTLED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE APPROPRIATE LANDOWNER.
- 49. N3 PROPERTY OWNER ACCESS: THE CONTRACTOR MUST MAINTAIN ACCESS FOR PRIVATE INDIVIDUALS AT ALL TIMES. IF NORMAL ACCESS IS DAMAGED DURING CONSTRUCTION THE CONTRACTOR MUST REPLACE THE ACCESS TO EQUAL OR BETTER CONDITIONS AT THE CONTRACTORS EXPENSE, AS APPROVED BY THE ENGINEER.
- 50. N4 CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES WHETHER OR NOT SHOWN ON THE PLANS. SHOULD THE CONTRACTOR DAMAGE ANY UTILITIES THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS TO REPAIR THE UTILITIES TO THEIR ORIGINAL CONDITION. CONTRACTOR IS SOLELY RESPONSIBLE FOR LOST REVENUE, LOSSES ETC. CLAMED BY UTILITY COMPANIES DUE TO CONTRACTORS WORK. CONTRACTOR SHALL NOTIFY SARA AND IMPACTED UTILITY COMPANIES 48 HRS. PRIOR TO BEGINNING WORK. CONTRACTOR SHALL VERIFY THE LOCATION OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- 51. N5 CLEARING PERMANENT EASEMENTS: THE LIMITS OF BOTH THE EXISTING AND PARALLEL SEWER LINES PERMANENT EASEMENTS, AS DELINEATED IN THESE PLANS, MUST BE CLEARED IN ACCORDANCE WITH THE SPECIFICATION. THE CONTRACTOR MAY BE DIRECTED BY THE ENGINEER TO PROTECT AND AVOID CERTAIN TREES WITHIN THE LIMITS OF THE PERMANENT AND TEMPORARY CONSTRUCTION EASEMENTS. ALL BRUSH MUST BE REMOVED FROM SITE, NO BRUSH PILES TO REMAIN AFTER CONSTRUCTION. BURNING OF BRUSH OR TRASH WILL NOT BE ACCEPTABLE.
- 52. N7 CONTRACTOR SHALL PROVIDE APPROPRIATE SAFE ACCESS AND BARRICADE WORK AT ALL TIMES TO PROTECT THE PUBLIC. THIS INCLUDES SUBSTANTIAL BARRICADES AROUND ALL TRENCHES, BORE PITS, OPEN EXCAVATIONS, EQUIPMENT ETC. THE SITE MUST BE LEFT IN A SECURE SAFE CONDITION AT NIGHT. IT IS THE CONTRACTORS RESPONSIBILITY TO TAKE NECESSARY PRECAUTIONS TO PROTECT THE PUBLIC THROUGHOUT THE DURATION OF THE PROJECT.

- 53. N14 SHOULD CONTRACTOR SELECT A TRENCH EXCAVATION PROCEDURE THAT EXTENDS THE LIMITS OF SEEDING OR PAVING AND FINAL SITE PREPARATION (I.E. SLOPE BACK PROTECTION SYSTEM) HE WILL BE RESPONSIBLE FOR MEETING PLAN AND SPECIFICATION REQUIREMENTS TO THE NEW LIMITS AT NO ADDITIONAL COST TO SARA.
- 54. N16 WARNING: NOTE THAT CERTAIN PORTIONS OF THE PROJECT MAY PARALLEL AND /OR CROSS EXISTING UTILITIES. THE CONTRACTORS WILL BE REQUIRED TO PROTECT EXISTING UTILITIES. ADDITIONAL SUPPORTIVE SHORING MAY BE REQUIRED. IT IS SPECIFICALLY THE CONTRACTORS RESPONSIBILITY TO PROTECT HIS WORKERS, EXISTING UTILITIES, AND FINISHED WORK THROUGHOUT THE JOB.
- 55. N 17 OVERHEAD ELECTRIC, CITY PUBLIC SERVICE (CPS) AN APPROPRIATELY SAFE OVERHEAD CLEARANCE MUST BE MAINTAINED BETWEEN ALL EQUIPMENT AND PERSONNEL. THE CONTRACTOR SHALL NOTIFY CITY PUBLIC SERVICE AT 353-2700 AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION IN THE VICINITY OF THE CPS OVERHEAD ELECTRIC LINE CONTRACTOR SHALL MAINTAIN CPS RECOMMENDED CLEARANCE REQUIREMENTS.
- 56. N 23 BYPASS PUMPING: THE CONTRACTOR IS RESPONSIBLE FOR ALL BYPASS PUMPING REQUIRED TO COMPLETE THE WORK. BYPASS PUMPS SHALL BE ADEQUATE TO HANDLE PEAK FLOW EVENTS DURING STORM EVENTS. CONTRACTOR SHALL HAVE STANDBY PUMPS AVAILABLE TO BYPASS FLOW IN CASE PRIMARY PUMP FAILS, CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL COSTS FOR CLEANUP OF AN UNAUTHORIZED DISCHARGE AND ANY ASSOCIATED FINES.
- 57. N26 CONTRACTOR SHALL BACKFILL ALL OPEN TRENCHES AT THE END OF THE DAY. CONTRACTOR SHALL NOT INSTALL MORE PIPE THAN CAN BE COVERED. NO OPEN TRENCHES WILL BE PERMITTED OVERNIGHT ALL END OF OPEN PIPE WILL BE PLUGGED OVER NIGHT.
- 58. N33 THE PROJECT AREA MAY BE SUBJECT TO ARCHEOLOGICAL MONITORING. SHOULD THE CONTRACTOR ENCOUNTER ANY ARCHEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL STOP ALL WORK IN THE AREA OF THE DEPOSITS AND IMMEDIATELY CALL THE PROJECT MANAGER.
- 59. N37 CONTRACTOR TO NOTE THAT PORTIONS OF THE CONSTRUCTION ARE WITHIN THE LIMITS OF THE 100 YEAR FLOODPLAIN. THE CONTRACTOR IS REQUIRED TO KEEP THE CHANNEL CLEAR OF POTENTIAL OBSTRUCTIONS TO FLOOD FLOWS. POTENTIAL OBSTRUCTIONS INCLUDE HEAVY CONSTRUCTION EQUIPMENT, TEMPORARY ROADS ACROSS CHANNEL, EXCAVATED MATERIAL, STOCKPILED DEBRIS, ETC. UNDER THREATENING WEATHER CONDITIONS WHERE FLOODING IS LIKELY, OBSTRUCTIONS SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR AT NO ADDITIONAL COST TO SARA. THE CONTRACTOR ASSUMES ALL RISK FOR UNFINISHED WORK.

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		REV DATE	DESCRIPTION				
					CIVII ENCINEEDING CONSULTANTS	DESIGNED BY:	Υ: <b>D.</b> Υ. <b>E</b> .
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80				11550 I	11550 IH 10 WEST, SUITE 395 SAN ANTONIO TEXAS 78230-1037	DRAWN BY:	<u></u> Ω_Υ. <u></u> .
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8	CANITADV CENTED NOTES			FA	FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000	DATE:	10/2021
	>						
						JOB NO.:	E0583607

PLAT NO. 2021-224	DESIGNED BY: D.Y.B.
	CIVIL ENGINEERING CONSULTANTS
	REV DATE DESCRIPTION
	SUBDIVISION

## WATERLINE CONSTRUCTION PLANS NOTTING HILL UNIT 5 LOT LOT

### SAWS CONSTRUCTION NOTES Revised July 2017

General Section Notes

1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:

A. Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 290. B. Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage". C. Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction". D. Current City of San Antonio "Standard Specifications for Public Works Construction"

2. The contractor shall not proceed with any pipe installation work until they obtain a copy of the approved Counter Permit or General Construction Permit (GCP) from the consultant and has been notified by SAWS Construction Inspection Division to proceed with the work and has arranged a meeting with the inspector and consultant for the work requirements. Work completed by the contractor without an approved Counter Permit and/or a GCP will be subject to removal and replacement at the expense of the contractors and/or the developer.

3. The Contractor shall obtain the SAWS Standard Details from the SAWS website, http://www.saws.org/business\_center/specs. Unless otherwise noted within the design plans.

E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).

4. The Contractor is to make arrangements with the SAWS Construction Inspection Division at (210) 233-2973, on notification procedures that will be used to notify affected home residents and/or property owners 48 hours prior to beginning any work.

5. Location and depth of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor at least 1 week prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction at no cost to SAWS.

6. The Contractor shall verify the exact location of underground utilities and drainage structures at least 1-2 weeks prior to construction whether shown on plans or not. Please allow up to 7 business days for locates requesting pipe location markers on SAWS facilities. The following contact information are supplied for verification purposes:

- SAWS Utility Locates: http://www.saws.org/Service/Locates
- City of Converse Public Works Department (210) 658-3453 - COSA Drainage (210) 207-0724 or (210) 207-6026
- COSA Traffic Signal Operations (210) 206-8480 - COSA Traffic Signal Damages (210) 207-3951
- Texas State Wide One Call Locator 1-800-545-6005 or 811

7. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways, sidewalks, landscaping and structures to its original or better condition if damages are made as a result of the project's construction.

8. All work in Texas Department of Transportation (TxDOT) and/or Bexar County right-of-way shall be done in accordance with respective construction specifications and permit requirements.

9. The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating near trees. 10. The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood Plain

11. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be sent to constworkreq@saws.org.

Weekend Work: Contractors are required to notify the SAWS Inspection Construction Department 48 hours in advance to request weekend work. Request should be sent to constworkreq@saws.org.

Any and all SAWS utility work installed without holiday/weekend approval will be subject to be uncovered for proper inspection. 12. Compaction note (Item 804): The contractor shall be responsible for meeting the compaction requirements on all trench backfill and for paying for the tests performed by a third party. Compaction tests will be done at one location point randomly selected, or as

will not be accepted and finalized by SAWS without this requirement being met and verified by providing all necessary documented

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

test results.

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

### Water Notes

1. Prior to tie-ins, any shutdowns of existing mains of any size must be coordinated with the SAWS Construction Inspection Division at least one week in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly.

For water mains 12" or higher: SAWS Emergency Operations Center (210) 233-2014

2. Asbestos Cement (AC) pipe, also known as transite pipe which is known to contain asbestos-containing material (ACM), may be located within the project limits. Special waste management procedures and health and safety requirements will be applicable when removal and/or disturbance of this pipe occurs. Such work is to be made under Special Specification Item No. 3000, "Special Specification for Handling Asbestos Cement Pipe".

3. Valve removal: Where the contractor is to abandon a water main, the control valve located on the abandoning branch will be removed and replaced with a cap/plug. (NSPI)

4. Suitable anchorage/thrust blocking or joint restraint shall be provided at all of the following main locations: dead ends, plugs, caps, tees, crosses, valves, and bends, in accordance with the Standard Drawings DD-839 Series and Item No. 839, in the SAWS Standard Specifications for Construction.

5. All valves shall read "open right".

6. PRVs Required: Contractor to verify that no portion of the tract is below ground elevation of 765 feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below 765 feet, the Developer or Builder shall install at each lot, on the customer's side of the meter, an approved type pressure regulator in conformance with the Plumbing Code of the City of San Antonio. No dual services allowed for any lot(s) if \*PRV is/are required for such lot(s), only single service connections shall be allowed. \*Note: A pressure regulator is also known as a pressure reducing valve (PRV).

7. Pipe Disinfection with Dry HTH for Projects less than 800 linear feet. (Item No. 847.3): Mains shall be disinfected with dry HTH where shown in the contract documents or as directed by the Inspector, and shall not exceed a total length of 800 feet. This method of disinfection will also be followed for main repairs. The Contractor shall utilize all appropriate safety measure to protect his personnel during disinfection operations.

8. Backflow Prevention Devices:

has released the main for tie-in and use.

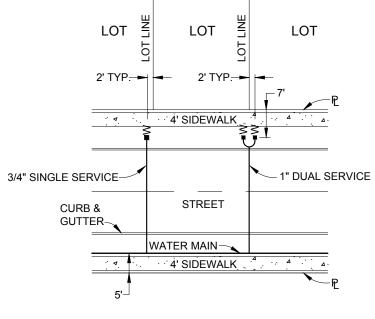
All irrigation services within residential areas are required to have backflow prevention devices.

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

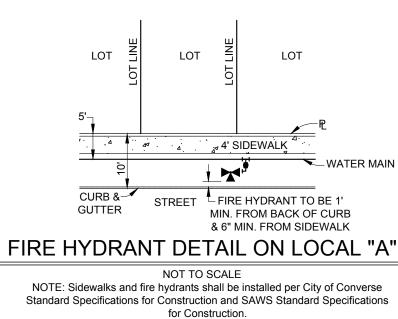
9. Final connection to the existing water main shall not be made until the water main has been pressure tested, chlorinated, and SAWS

### SAWS NOTE:

Division Valves:. Division Valves shown on plans or not shown on plans but found in the field shall only be operated by SAWS Distribution and Collection staff and only with prior written approval of the SAWS Director of Production and Operations and proper coordination with all SAWS departments. Contractor shall provide written notification to the inspector a minimum of two weeks in advance to start the coordination process and will be informed by the Inspector when the division valve will be operated by the SAWS Distribution and Collection staff. The Division Valve can only be operated by SAWS Distribution and Collection staff member not the inspector or the contractor. Operation of a Division Valve without the express prior written approval of the SAWS Distribution and Collection staff will constitute a material breach of any written SAWS contract or permit in addition to subjecting the Contractor to liability for any and all fines, fees, or other damages, direct or consequential, that may arise from or be caused by the operation of the valve without prior written permission. Please be informed that the approval of the operation or opening or closing of a division valve can take several weeks for approval. Division Valves will also have a valve lid labeled Division Valve and a locking mechanism installed with a key. The lock and key mechanism will be paid for by the contractor but will be installed by SAWS Distribution and Collection staff.

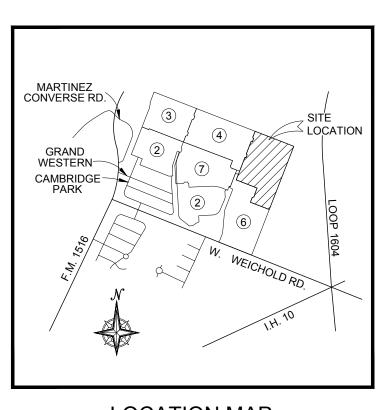






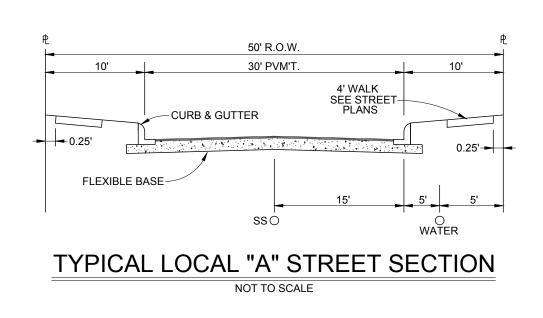
OWNER/DEVELOPER: CASTLEROCK COMMUNITIES 2401 FOUNTAIN VIEW DRIVE, SUITE 215 HOUSTON, TEXAS 77057 PHONE: (713) 600-7060





### LOCATION MAP NOT TO SCALE

Shee	t List Table
Sheet Number	Sheet Title
400	WATER COVER
401	WATER OVERALL
402	WATER DETAILS
403	WATER DETAILS



### WATER QUANTITIES Onsite Water

	Onsite Water
Item No	o: Description
550.0	Trench Protection
818.0	8" Pipe, P.V.C. C-900, Class 235 (DR-18)
824.0	3/4" Single Water Service - Short (5/8" Meter)
824.0	3/4" Single Water Service - Long (5/8' Meter)
828.0	8" Gate Valve MJ W/ Box
833.0	Meter Box
834.1	Standard Fire Hydrant
836.0	D.I. MJ Compact Fittings (C153)
840.0	8" PVC Water Tie-In To Existing 8" PVC
840.0	8" PVC Water Tie-In To Existing 12" PVC
841.0	Hydrostatic Test

844.0 2" Blowoff (Temporary)



CIVIL ENGINEERING CONSULTANTS dba. DON DURDEN, INC. 11550 IH 10 WEST, SUITE 395 SAN ANTONIO, TEXAS 78230-1037 TEL: (210) 641-9999 FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000

TRENCH EXCAVATION SAF 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 INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION. SAFETY PROTECTION THAT COMPLIES 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.

Unit	Quantity
L.F.	2921
L.F.	2921
EA.	64
EA.	43
EA.	5
EA.	107
EA.	5
TON	1.1
EA.	3
EA.	1
LS	1
EA.	4

ETY PROTECTION
NED EMPLOYEE OR STRUCTURAL

### LEGEND

PLAT NO. 2021-224

EXISTING SANITARY SEWER MAIN	
PROPOSED SANITARY SEWER MAIN	<b>—</b>
DIRECTION OF FLOW	
EXISTING WATER MAIN	——————————————————————————————————————
PROPOSED WATER MAIN	P8"PVC
PROPOSED LIGHT POLE (100 WATT LED)	● L.P.
PROPOSED WATER SERVICE / METER	∎—

### NOTES:

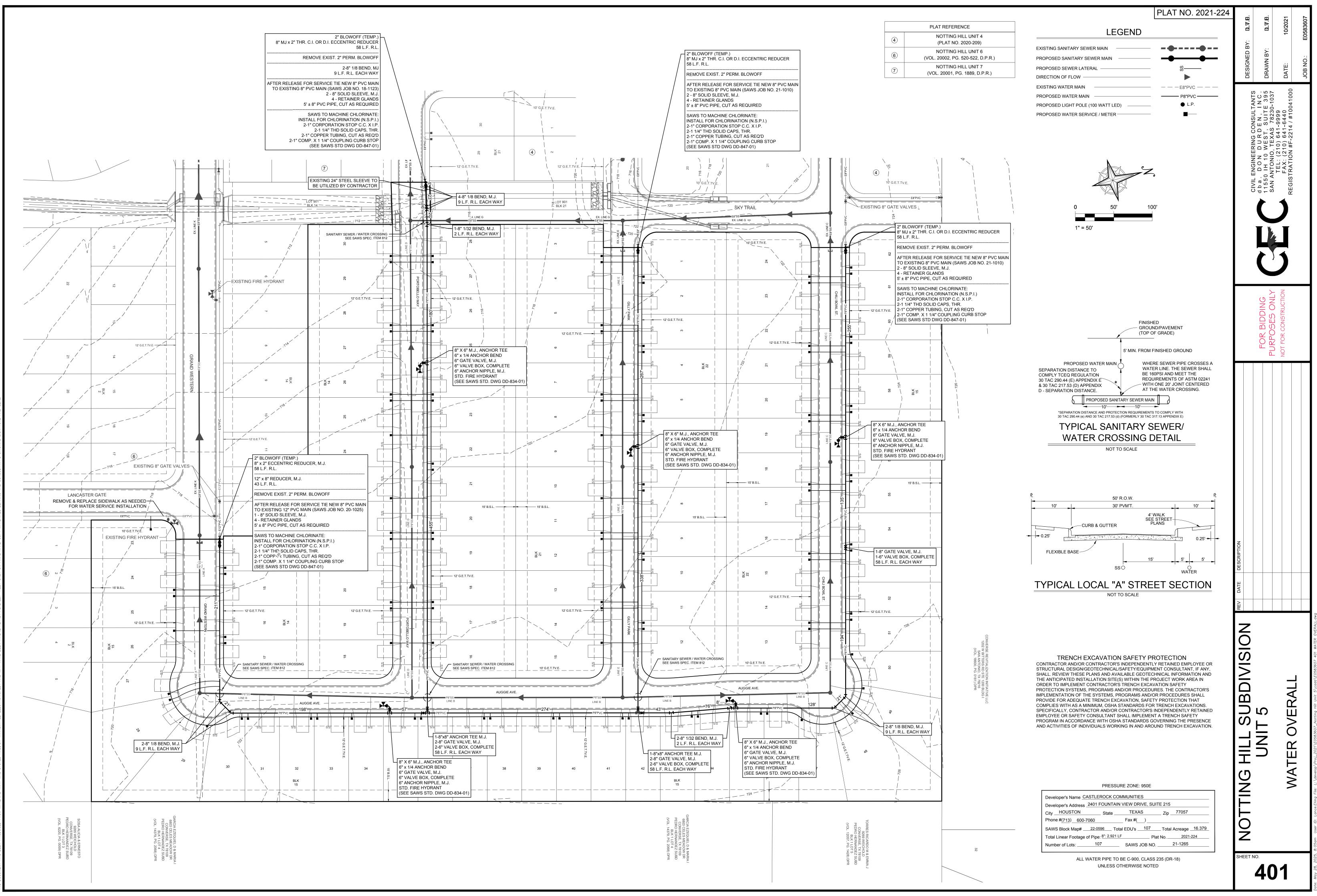
- 1) SAWS REQUIRES GCPs AND COUNTER PERMITS TO USE LEAD FREE (<0.25% LEAD) FIRE HYDRANTS.
- 2) ANCHORAGE/THRUST BLOCKING AND JOINT RESTRAINTS SHALL BE DONE IN ACCORDANCE WITH SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION. (ITEM NO. 839)
- 3) THE SAN ANTONIO WATER SYSTEM IS HEREBY GRANTED THE RIGHT OF INGRESS AND EGRESS ACROSS GRANTOR'S ADJACENT PROPERTY TO ACCESS THE WATER AND/OR WASTEWATER EASEMENTS SHOWN.

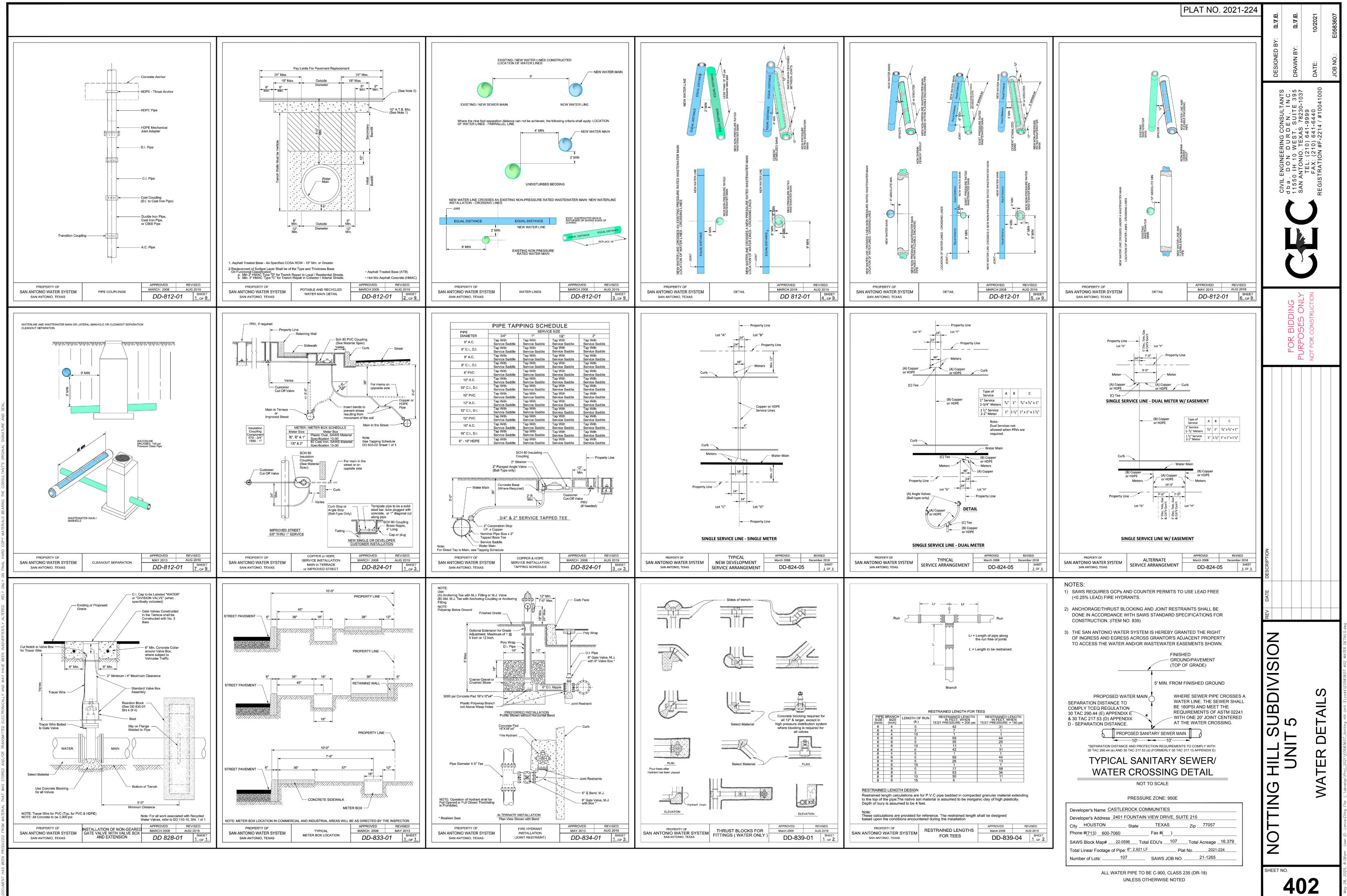


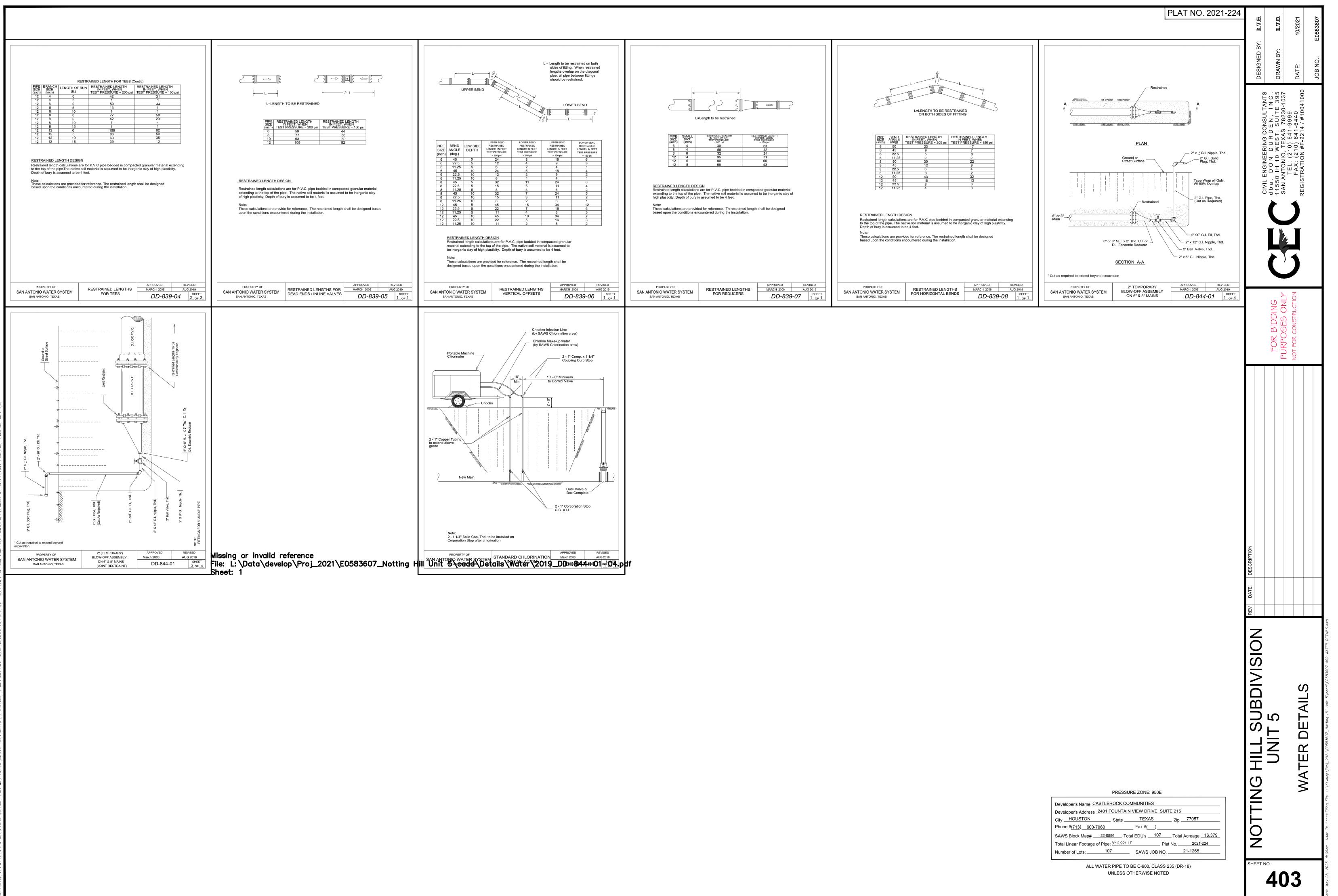


ALL WATER PIPE TO BE C-900, CLASS 235 (DR-18) UNLESS OTHERWISE NOTED

	CIVIL ENCINEEDING CONSILITANTS	dba. DON DURDEN, INC.	11550 IH 10 WEST, SUITE 395 SAN ANTONIO TEXAS 78230-1037	TEL: (210) 641-9999	FAX: (210) 641-6440 REGISTRATION #E-2214 / #10041000	
REV DATE DESCRIPTION						







### GENERAL NOTES

1. All materials and construction procedures within the scope of this project shall, be approved by the City of Converse Public Works and comply with the following as applicable: A. Reference to Current "San Antonio Water System Utility Specifications"

B. Reference to Current City of San Antonio "Standard Specifications for Public Works Construction"

2. The locations and depths of existing utilities, including service laterals, and drainage structures shown on the plans are approximate only. The Contractor shall verify the exact location and depths of underground utilities at least 48 hours prior to construction whether shown on plans or not, and to protect the same during construction. Texas State Wide One Call Locator 1-800-545-6005 City Public Service AT&T Time Warner Valero Energy Co.

3. The Contractor shall notify the City prior to the start of each phase of street construction and call for inspections with a minimum of 24 hours notice. City of Converse Public Works Department (210) 658-3453

4. Testing will be paid for by Developer, coordinated by Contractor, and witnessed by City.

5. Minimum Testing Schedule:

6. Transition washout crown to normal crown in 25'.

Densities - Subgrade	1 Per 500 Foot Minimum
Densities - Base	1 Per 500 Foot Minimum
Proctors - Subgrade	1 Per Material Per Subdivision
Proctors - Base	1 Per 5,000 C.Y.
Lime Series - Subgrade	1 Per Material Per Subdivision
Concrete - Structures	1 Set (3) Per 50 C.Y.

7. 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.

8. 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).

9. Due to federal regulations Title 49, Part 192.171 CPS 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.

10. Contractor shall notify the city inspector twenty four (24) hours prior to backfill of any utility trenches to schedule for density test as required.

11. All waste material shall become property of the contractor and shall be his sole responsibility to dispose of this material off the limits of the project. No waste material shall be placed in existing lows that will block or alter flow limits of existing artificial or natural drainage.

12. The contractor shall not place any waste material in the 100-year flood plain without first obtaining an approved Flood Plain Development Permit.

13. The contractor shall maintain all adjoining streets and traveled routes free from spilled and/or tracked construction materials and/or

14. 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 will only be responsible to inspect barricades and signs. If, in the opinion of 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 inspector shall have the option to stop operations until such time as the conditions are corrected.

LEGEND

WHEELCHAIR RAMPS — WHEELCHAIR RAMP TYPE (I-IV) SINGLE DIRECTIONAL WHEELCHAIR RAMP DUAL DIRECTIONAL WHEELCHAIR RAMP -WASHOUT CROWN ------SIDEWALK TO BE BUILT BY DEVELOPER

PROPOSED DRIVEWAY ------

TOP OF PVMT. ELEVATION EXISTING STREET LIGHT -----PROPOSED STREET LIGHT (100 WATT)

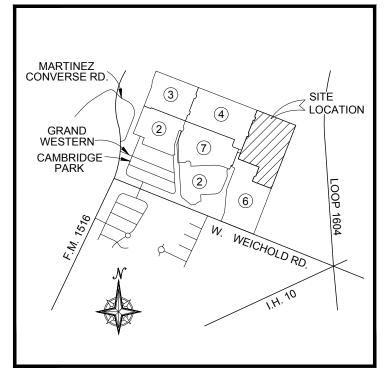
TRENCH EXCAVATION SAFETY PROTECTION CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL. REVIEW THESE PLANS AND AVAILABLE

GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION, SAFETY PROTECTION THAT COMPLIES 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.

OWNER/DEVELOPER: CASTLEROCK COMMUNITIES 2401 FOUNTAIN VIEW DRIVE, SUITE 215 HOUSTON, TEXAS 77057 PHONE: (713) 600-7060

# STREET & DRAIN **CONSTRUCTION PLANS** NOTTING HILL UNIT 5



## LOCATION MAP

	Sheet List Table
Sheet Number	Sheet Title
500	STREET & DRAIN COVER
501	OVERALL GRADING PLAN
502	AUGGIE AVE PLAN & PROFILE
503	CHILI BOWL PLAN & PROFILE
504	GILLY PARK PLAN & PROFILE
505	PORTOBELLO WAY & GRAND WESTERN PLAN & PROFILE
506	STORM DRAIN A PLAN & PROFILE
507	DRAIN DETAILS
508	DRAIN DETAILS
509	STREET DETAILS
510	STREET DETAILS
511	SIGN PLAN

ITEM	DESCRIPTION	UNIT	EST/QTY
103.1	Remove Header Curb, Timber Guard Post, End of Road Markers	LF	132
104.1	Street Excavation	CY	6,390
107.1	Embankment (Final) (Dens. Cont.) (Type A)	CY	3,174
-	3"x5" Rock Subgrade Wrapped In Mirafi 180N Filter Fabric	SY	11,159
-	Tensar TX-5 Geogrid- Local A/ Local B	SY	11,159
200.1	13" Flexible Base- Local A	SY	9,825
201.1	16.75" Flexible Base- Local B	SY	1,334
202.1	Prime Coat	GAL	2,232
203.1	Tack Coat	GAL	947
205.4	2" Hot Mix Asphaltic Pavement (Type D)- Local A	SY	8,285
205.4	3" Hot Mix Asphaltic Pavement (Type D)- Local B	SY	1,178
500.4	Concrete Curb & Gutter w/ Rebar	LF	5,528
502.1	Concrete Sidewalk	SY	50
531.3	R1-1 Stop Sign (30"x30") (High Intensity)	EA	2
531.57	City of Converse Approved Street Name Signs	EA	8
SP1	Two-Way Blue Reflective Marker (Fire Hydrant)	EA	5
SP2	COSA Type 3 Ramp	EA	12
SP3	COSA Type 4 Ramp	EA	2

	STORM DRAIN "A" IMPROVEMENTS		
Λ	DESCRIPTION	UNIT E	ST/QTY
1	30" Corrugated H.D.P.E. Pipe	LF	5
8	Inlet Type II (Complete) (10 FT)	EA	2
4	Concrete Collars	CY	0.8
1	Trench Excavation Safety Protection	LF	5
	3" French Drain	LF	37

STORIVIDRAIN A INFROVENIENTS		
DESCRIPTION	UNIT EST	/QTY
30" Corrugated H.D.P.E. Pipe	LF	5
Inlet Type II (Complete) (10 FT)	EA	2
Concrete Collars	CY	0.8
Trench Excavation Safety Protection	LF	5
3" French Drain	LF	37
	DESCRIPTION 30" Corrugated H.D.P.E. Pipe Inlet Type II (Complete) (10 FT) Concrete Collars Trench Excavation Safety Protection	DESCRIPTIONUNITEST30" Corrugated H.D.P.E. PipeLFInlet Type II (Complete) (10 FT)EAConcrete CollarsCYTrench Excavation Safety ProtectionLF



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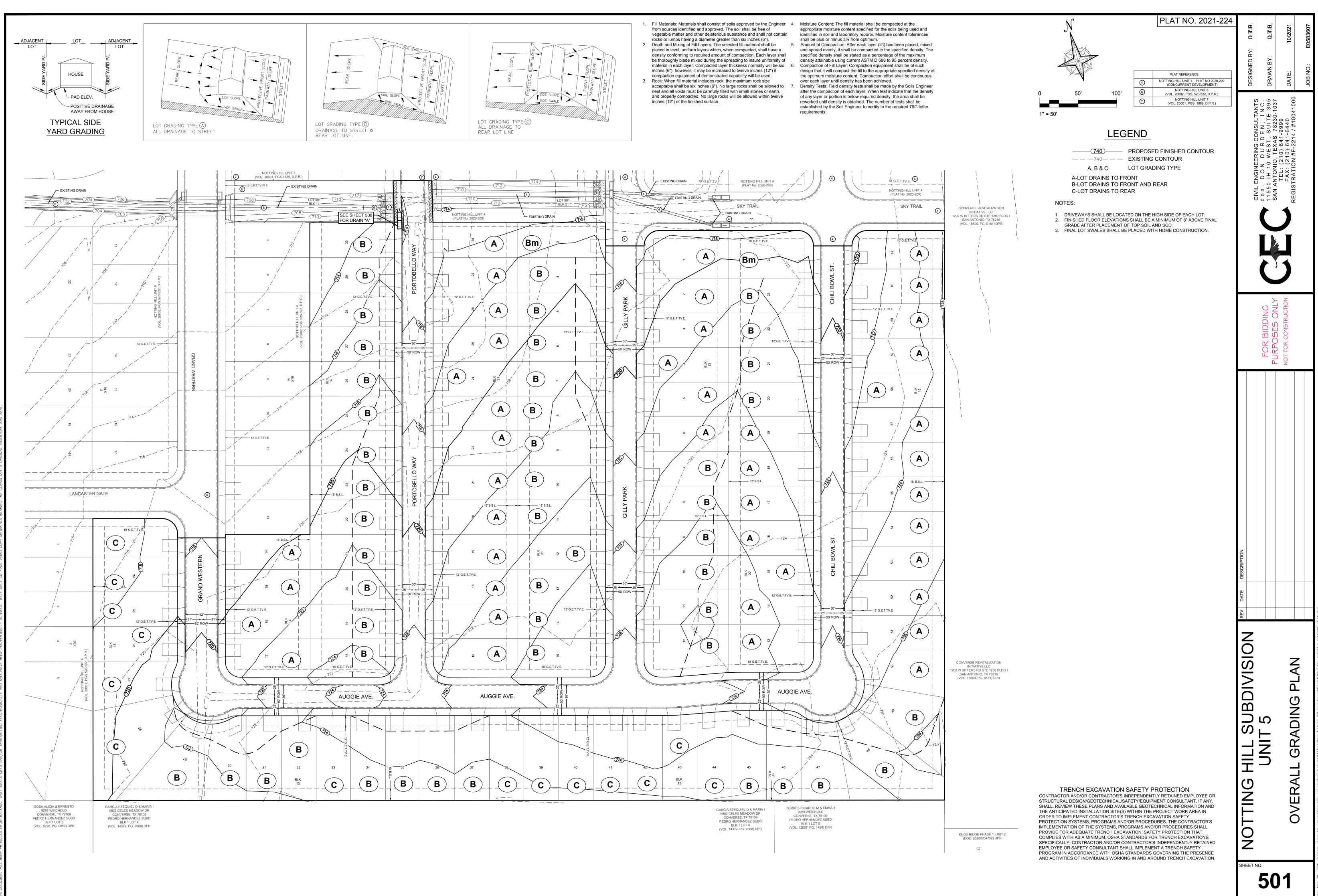
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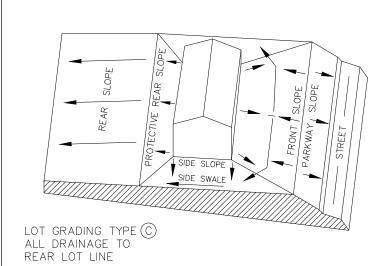
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CIVIL ENGINEERING CONSULTANTS dba. DON DURDEN, INC. 11550 IH 10 WEST, SUITE 395 SAN ANTONIO, TEXAS 78230-1037 TEL: (210) 641-9999 FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000

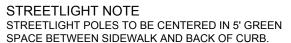
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	I I NIT S			dba. DON DURDEN, INC.		
5(				CALLER TO WEST, SUITE 395 SAN ANTONIO TEXAS 78730-1037	DRAWN BY:	<u></u> Δ.Υ.Β.
)(				TEL: (210) 641-9999		
0			NUT FUR CONSTRUCTION	FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000	DATE:	10/2021
					JOB NO.:	E0583607

PLAT NO. 2021-224



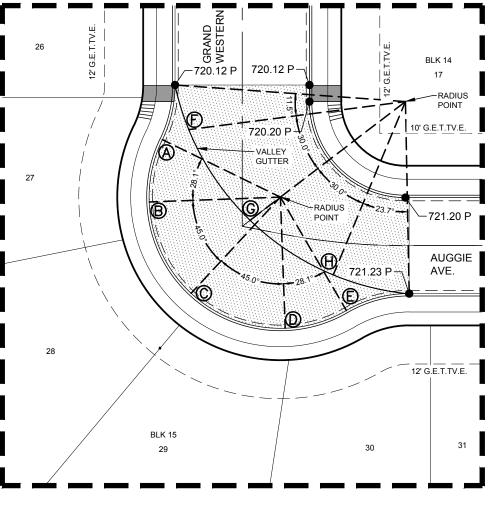


### TRENCH EXCAVATION SAFETY PROTECTION CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL. REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION, SAFETY PROTECTION THAT COMPLIES 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.



DRIVEWAY NOTE DRIVEWAYS SHOWN ON THIS PLAN ARE FOR THE SOLE PURPOSE OF INDICATING A POTENTIAL CONFLICT WITH CURB RAMP, DRAINAGE INFRASTRUCTURE, OR OTHER CONFLICT. DRIVEWAY LOCATION IS SUBJECT TO CHANGE

BASED ON HOME SELECTION AND FINAL LOT DESIGN.

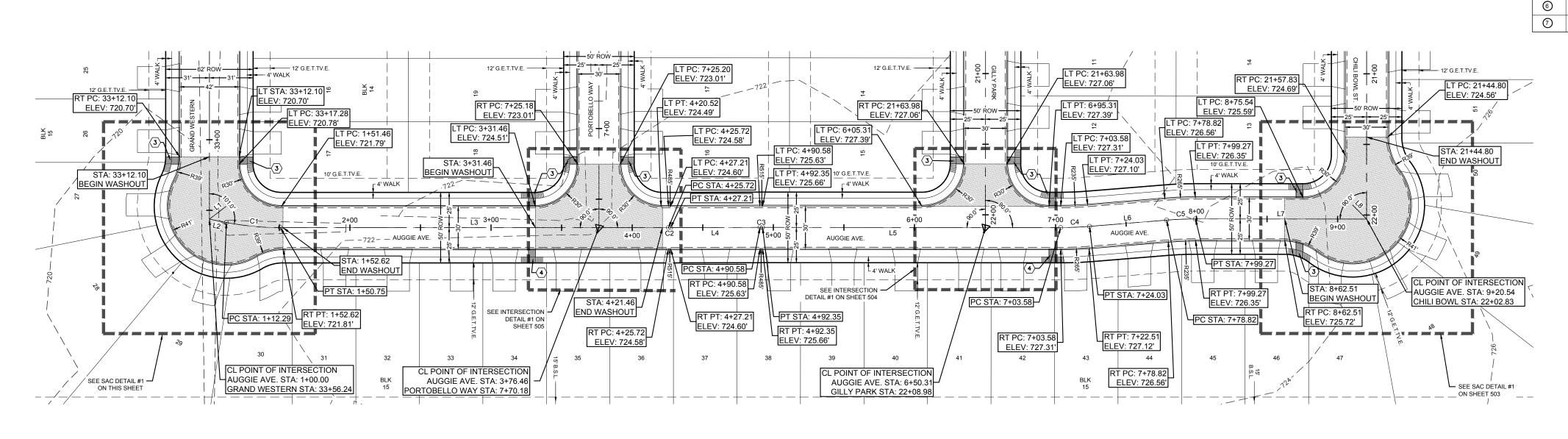


## SAC DETAIL #1

SCALE: 1" = 30'

\_\_\_\_\_

POINT	CURB ELEV.	GUTTER ELEV.
RT PC	720.70	720.12
А	721.02	720.44
В	721.41	720.83
С	721.83	721.25
D	721.92	721.34 *
E	721.86	721.28
F		720.33
G		720.67
Н		720.98
LT PT	721.81	721.23
NOTE: * I	HIGH POINT	



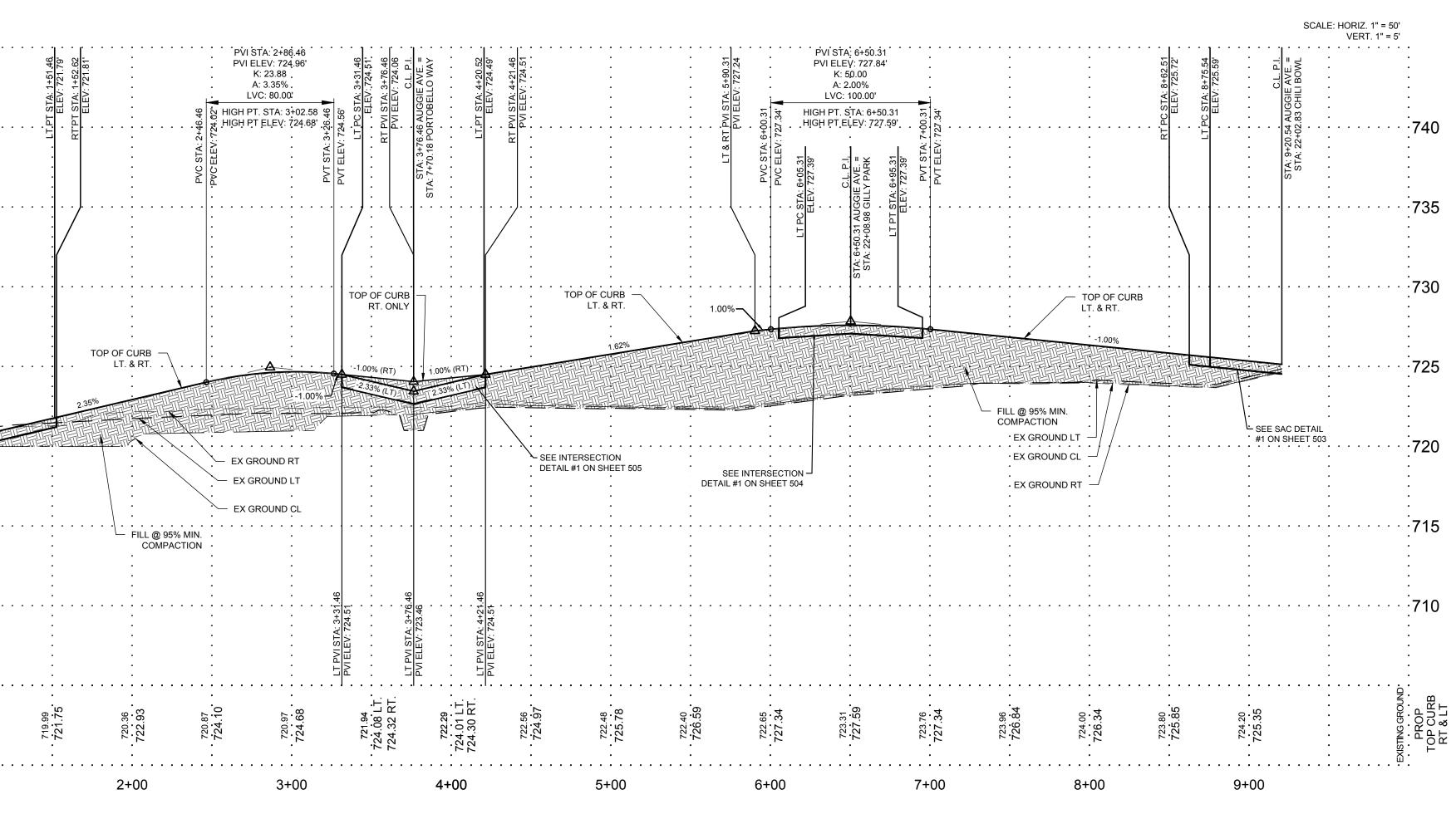
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740	C.L. P.I. C.L. P.I. STA: 33+56.24 GRAND WESTERN	
735		
730		
725		
720		
715	SEE SAC DETAIL #1 - / . ON THIS SHEET . 	
710		
EXISTING GROUND	TOP CURB RT & LT TOP CURB TOP CURB TOP CURB TOP CURB TOP CURB TOP CURB TOP CURB TOP CURB TOP CURB TOP CURB	
	1+00	

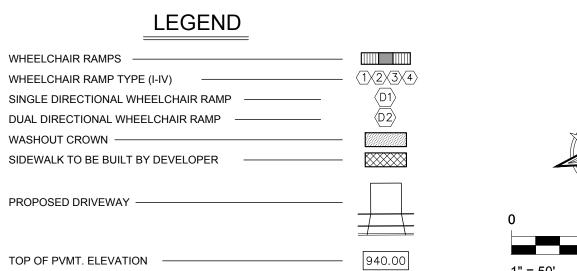
 $\overline{(3)}$  TYPICAL SIDEWALK RAMP ~ TYPE III  $\langle 4 \rangle$  TYPICAL SIDEWALK RAMP ~ TYPE IV REFER TO WHEELCHAIR RAMP STANDARDS ON STREET DETAILS.

	able	
Line	Length	Direction
L1	15.00'	S21°59'13"E
L2	12.29'	N26°24'37"E
L3	274.97'	N15°23'36"E
L4	63.37'	N15°13'20"E
L5	211.23'	N15°25'33"E
L6	54.79'	N10°44'17"E
L7	121.27'	N15°25'33"E
L8	14.00'	S60°25'33"W

		Curve Table							
ion	Curve #	Length	Radius	Delta	Chord Direction	Chord Length			
13"E	C1	38.46'	200.00'	11°01'01"	N20° 54' 06"E	38.40'			
37"E	C2	1.49'	500.00'	0°10'16"	N15° 18' 28"E	1.49'			
36"E	C3	1.78'	500.00'	0°12'13"	N15° 19' 26"E	1.78'			
20"E	C4	20.45'	250.00'	4°41'16"	N13° 04' 55"E	20.45'			
33"E	C5	20.45'	250.00'	4°41'16"	N13° 04' 55"E	20.45'			
17"E									







₩E.L.P.

₩L.P.

EXISTING STREET LIGHT

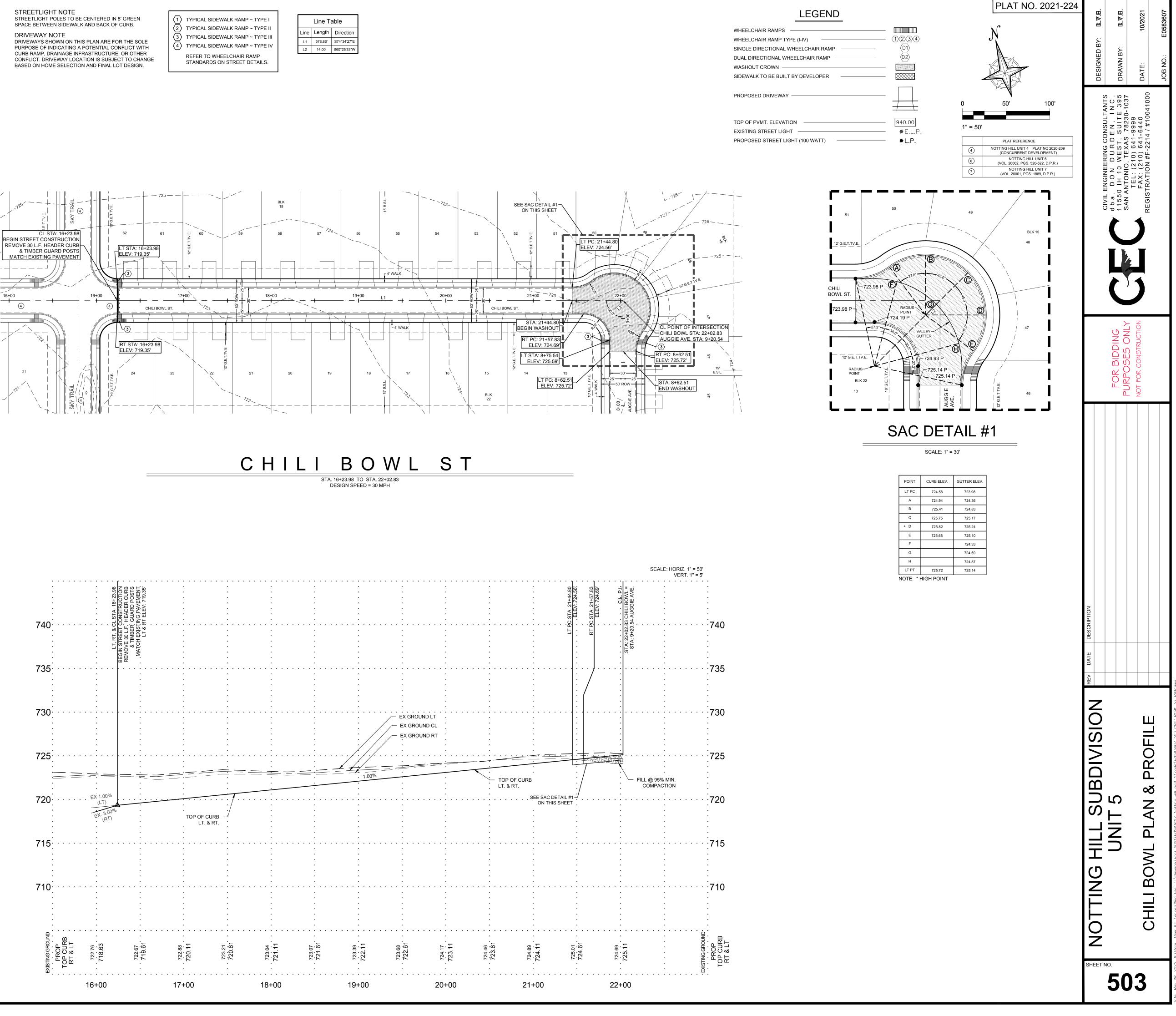
PROPOSED STREET LIGHT (100 WATT)

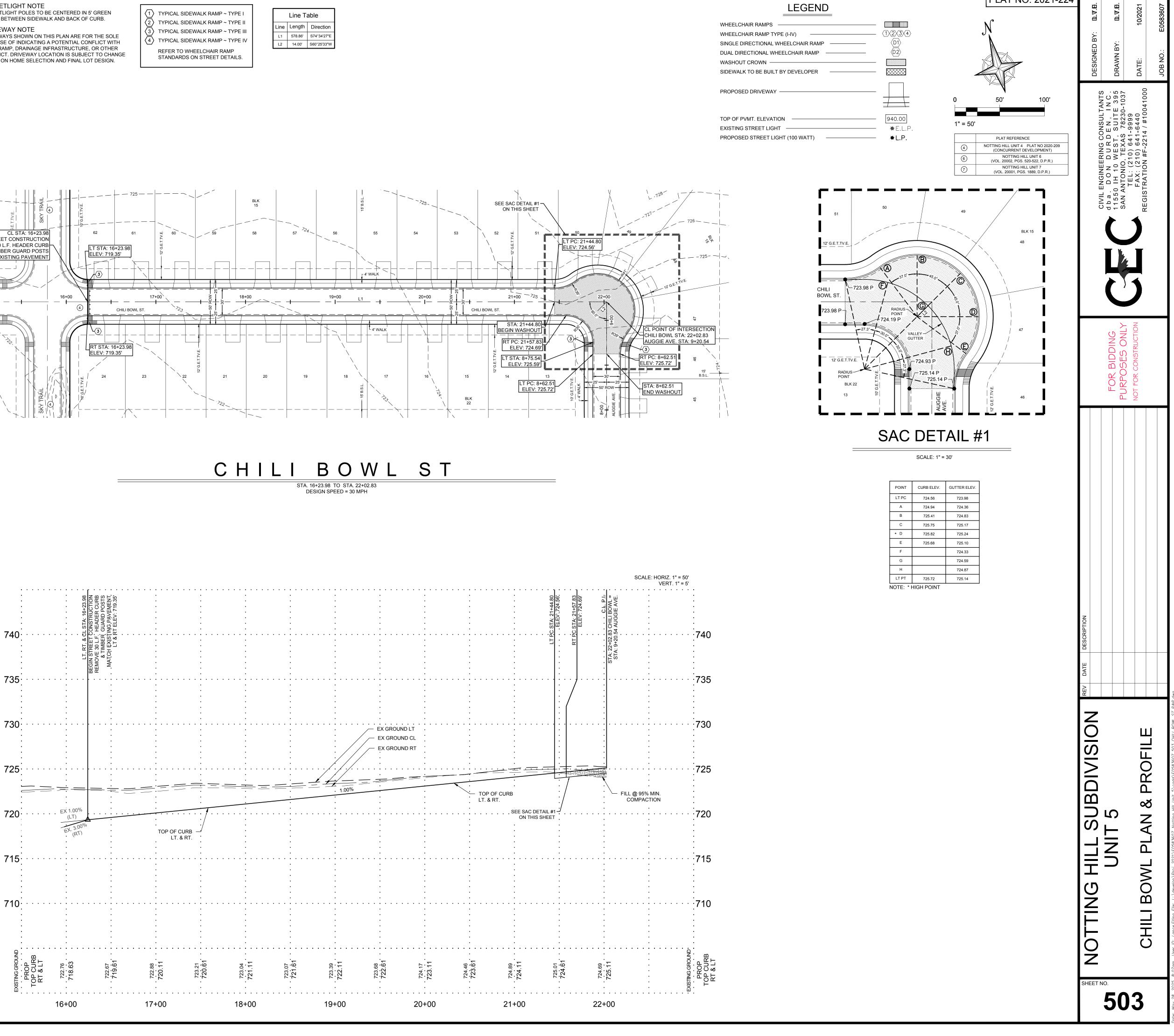
1" = 50' PLAT REFERENCE NOTTING HILL UNIT 4 PLAT NO 2020-209 (CONCURRENT DEVELOPMENT) 4 NOTTING HILL UNIT 6

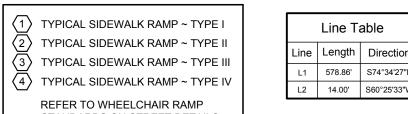
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SHEET NO. <b>502</b>

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 INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION, SAFETY PROTECTION THAT COMPLIES 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.





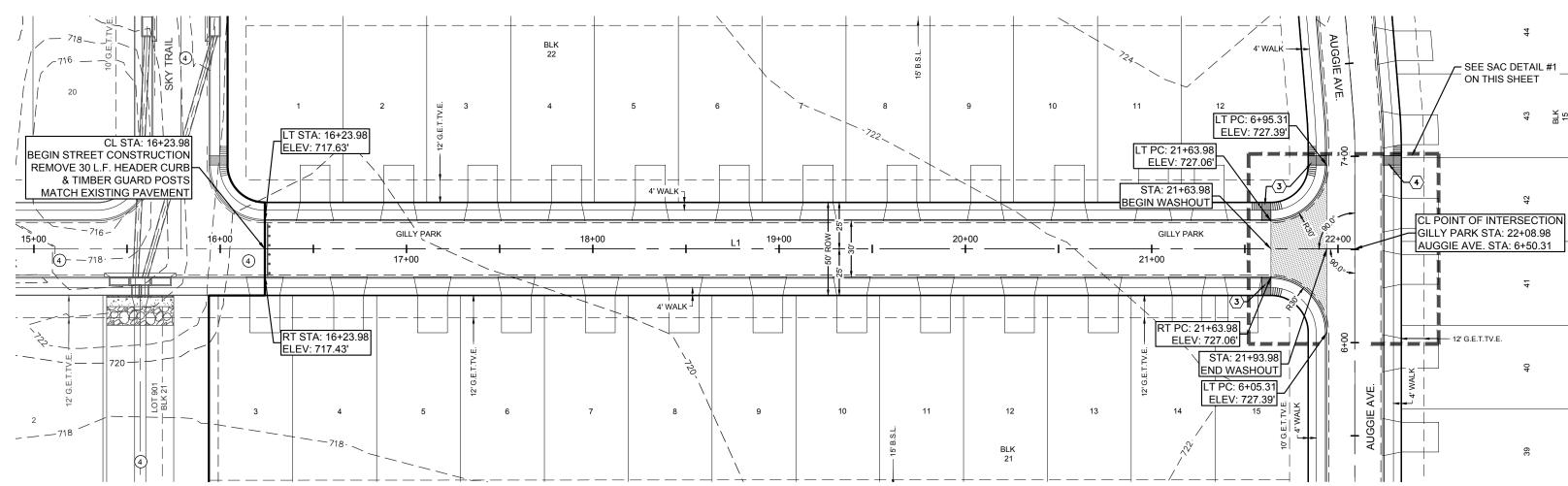


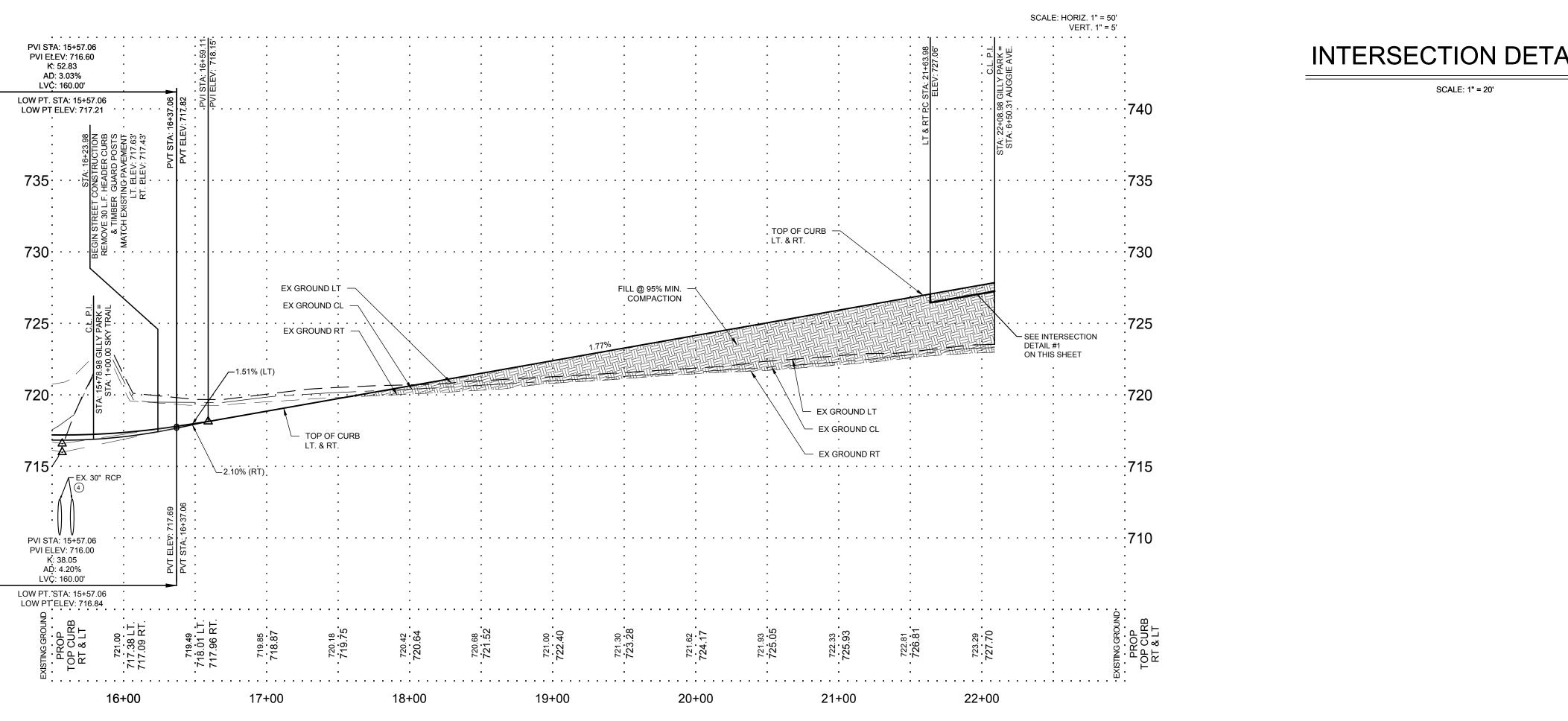
TRENCH EXCAVATION SAFETY PROTECTION

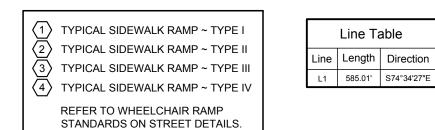
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STREETLIGHT NOTE STREETLIGHT POLES TO BE CENTERED IN 5' GREEN SPACE BETWEEN SIDEWALK AND BACK OF CURB.

DRIVEWAY NOTE DRIVEWAYS SHOWN ON THIS PLAN ARE FOR THE SOLE PURPOSE OF INDICATING A POTENTIAL CONFLICT WITH CURB RAMP, DRAINAGE INFRASTRUCTURE, OR OTHER CONFLICT. DRIVEWAY LOCATION IS SUBJECT TO CHANGE BASED ON HOME SELECTION AND FINAL LOT DESIGN.

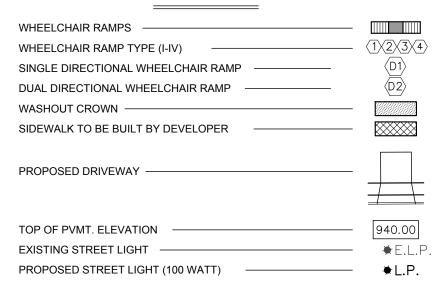


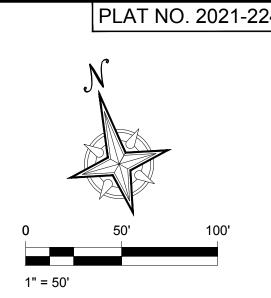


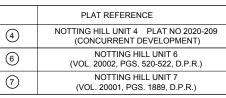




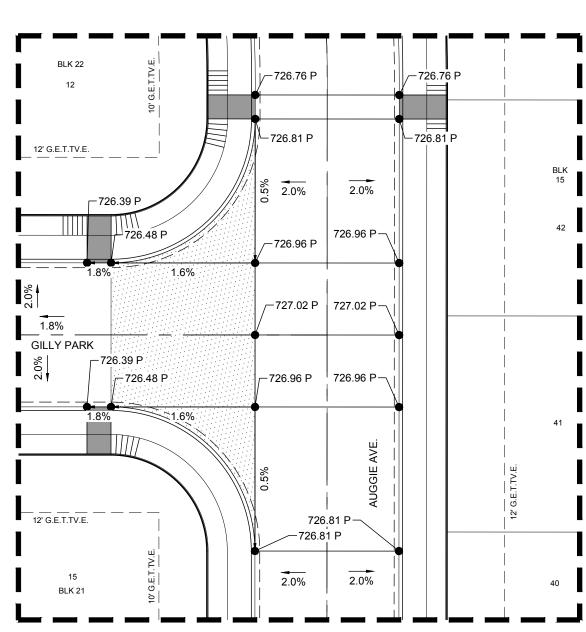






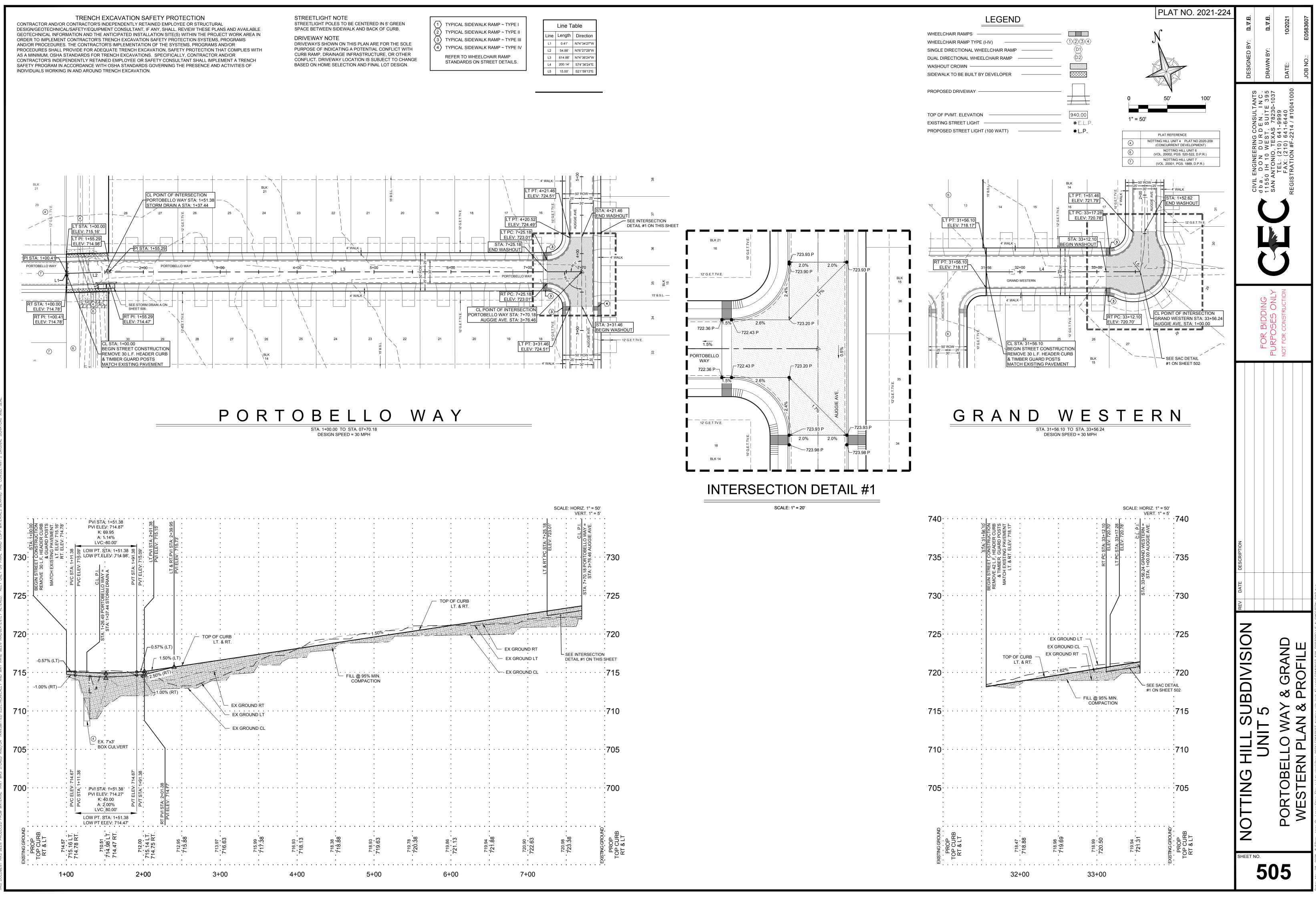


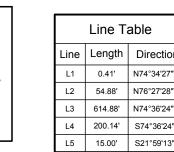
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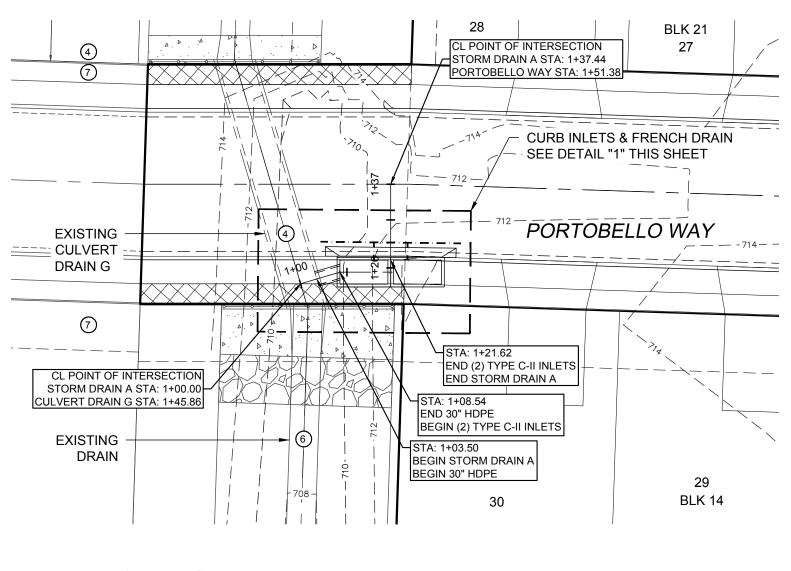




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ET N		CIVIL ENGINEEDING CONSULTANTS		DESIGNED BY: D_V.B.	
10.		dbar DON DURDEN, I			
50		11550 IH 10 WEST, SUITE 395 SAN ANTONIO TEXAS 78230-1037	395 DRAWN BY:	Υ: <b>D_</b> . <b>∇</b> . <b>E</b> .	
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4	_		A1000 DATE:	10/2021	
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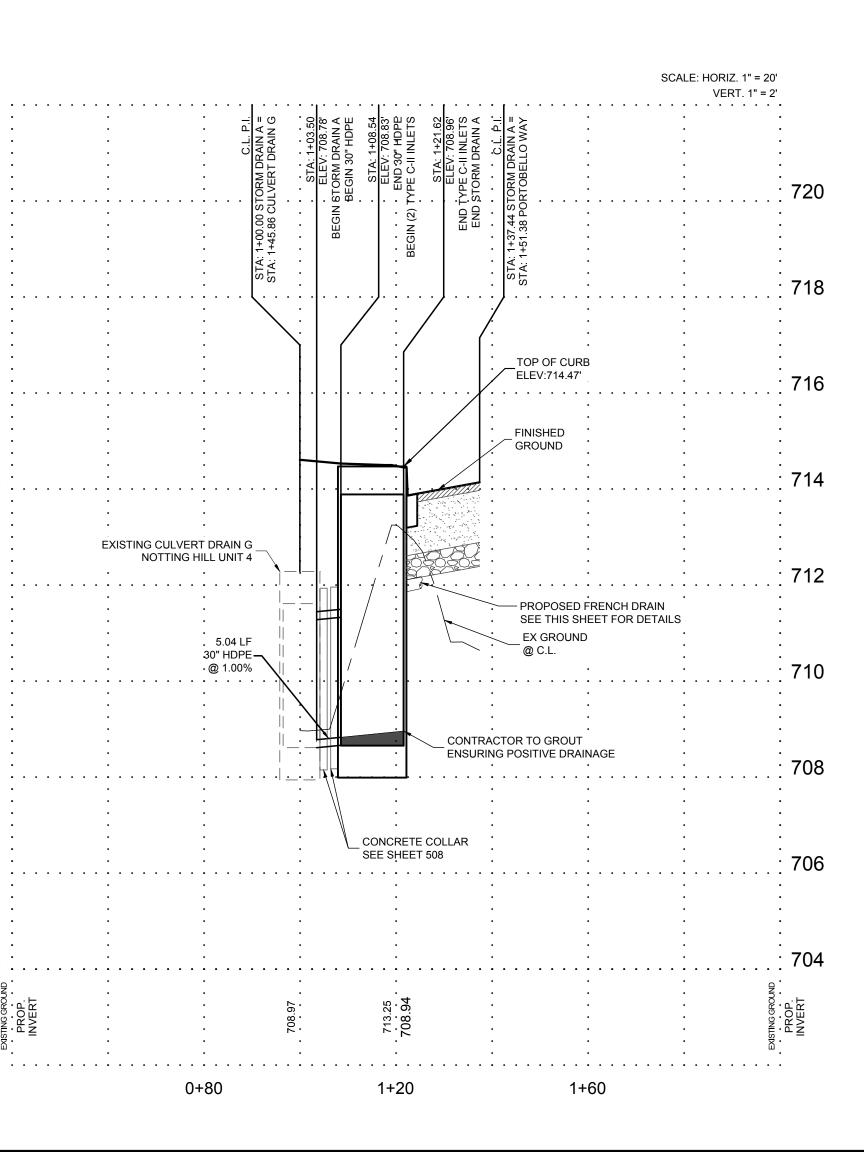
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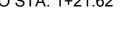
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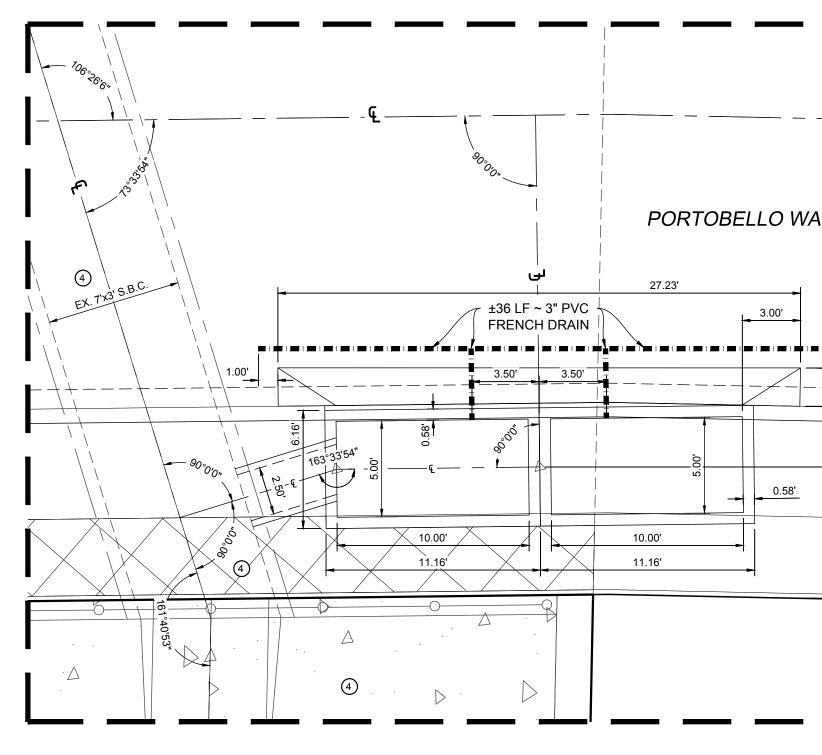
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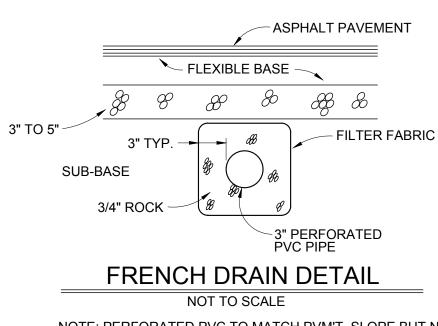




27.23'

10.00'

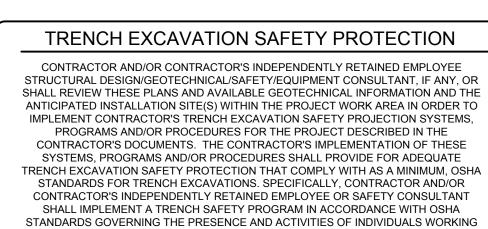
11.16'



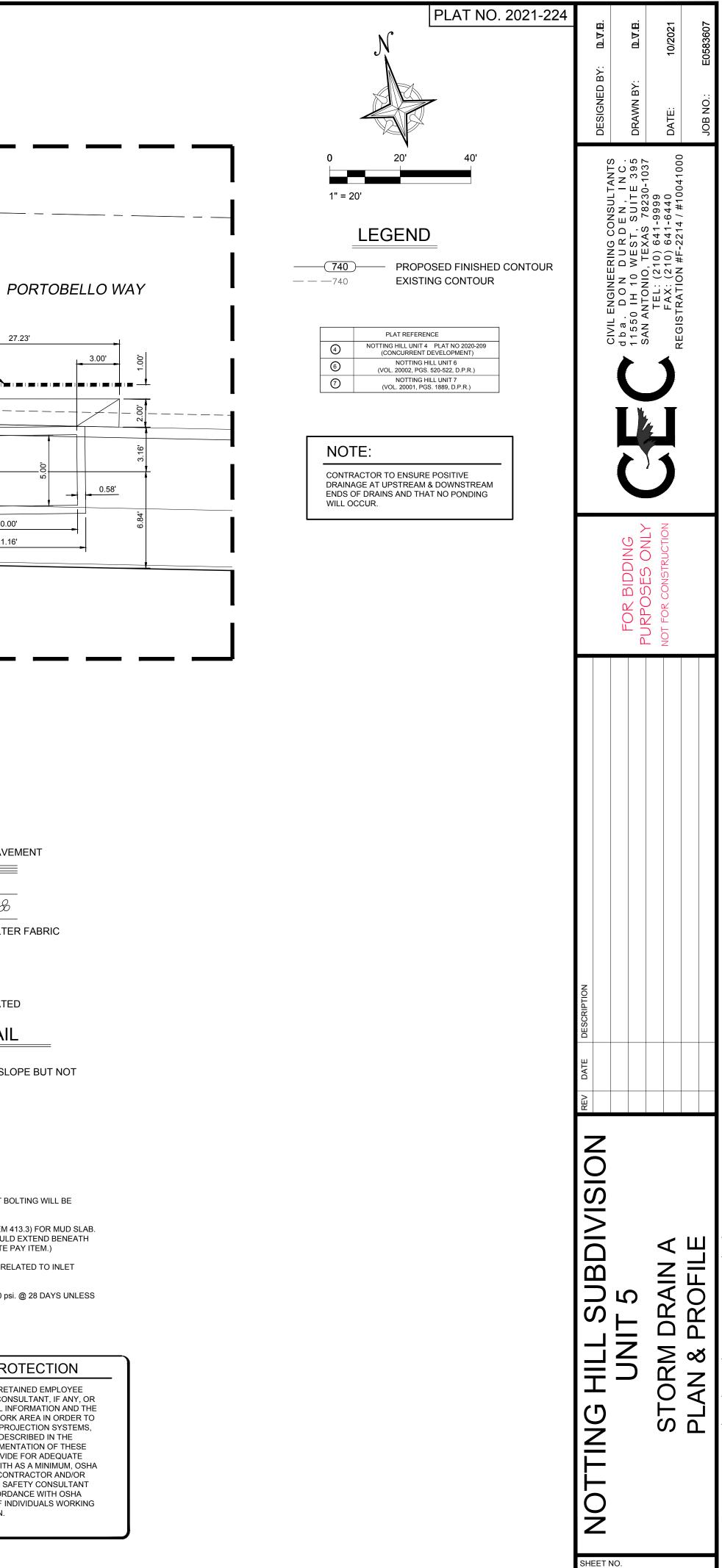
NOTE: PERFORATED PVC TO MATCH PVM'T. SLOPE BUT NOT LESS THAN A POSITIVE 1.5% SLOPE.



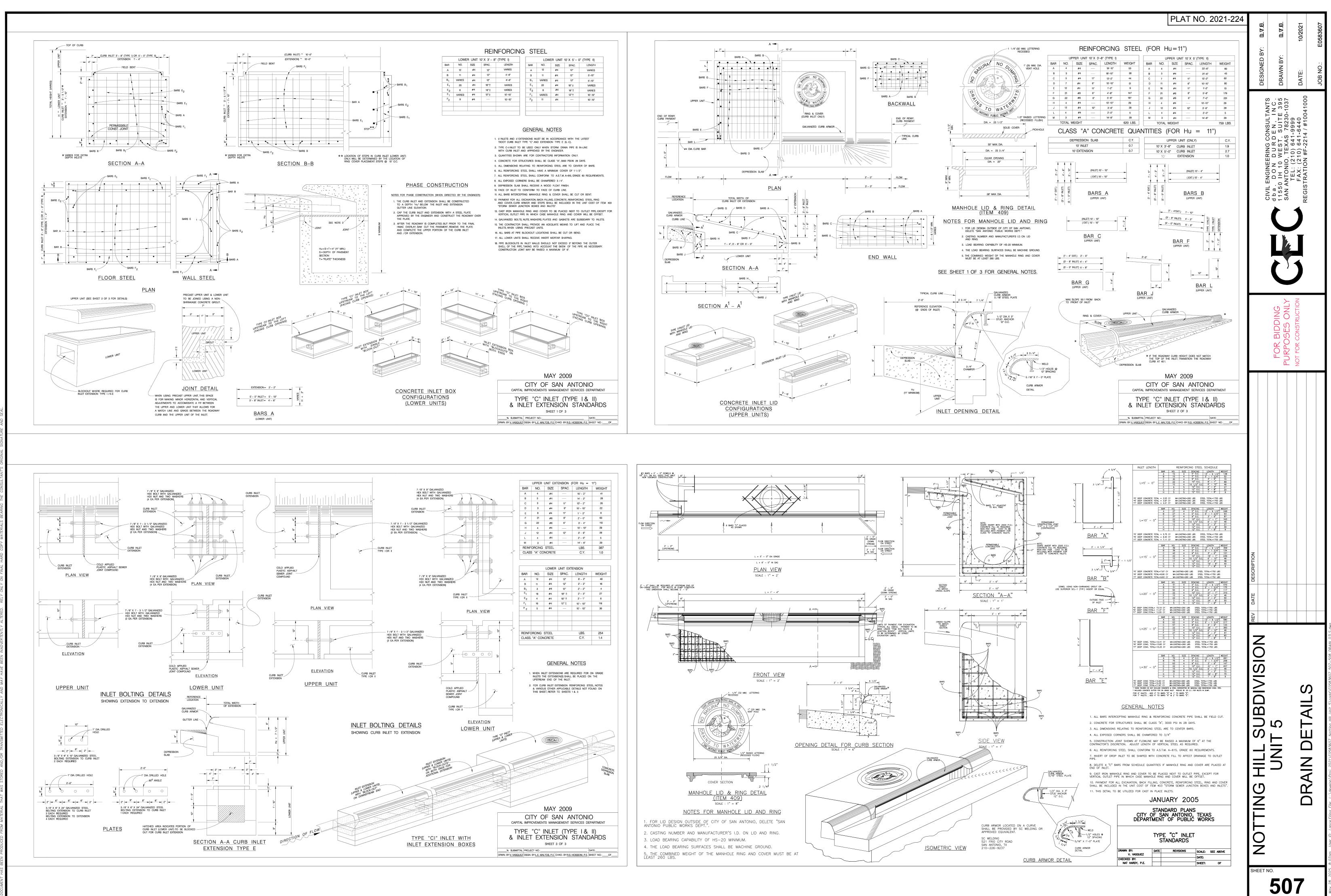
- 1. IF PRECAST INLETS ARE USED, MUD SLAB AND INLET BOLTING WILL BE REQUIRED. (NO SEPARATE PAY ITEM.)
- 2. CONTRACTOR SHALL USE FLOWABLE FILL (COSA ITEM 413.3) FOR MUD SLAB. FLOWABLE FILL SHOULD BE 2" TO 6" THICK AND SHOULD EXTEND BENEATH TOTAL LENGTH OF PROPOSED INLETS. (NO SEPARATE PAY ITEM.)
- 3. PLEASE REFER TO SHEET 507 FOR SPECIFICATIONS RELATED TO INLET BOLTING DETAILS. (NO SEPARATE PAY ITEM.)
- 4. ALL CONCRETE SHALL BE A MINIMUM CLASS "A" 3600 psi. @ 28 DAYS UNLESS NOTED.

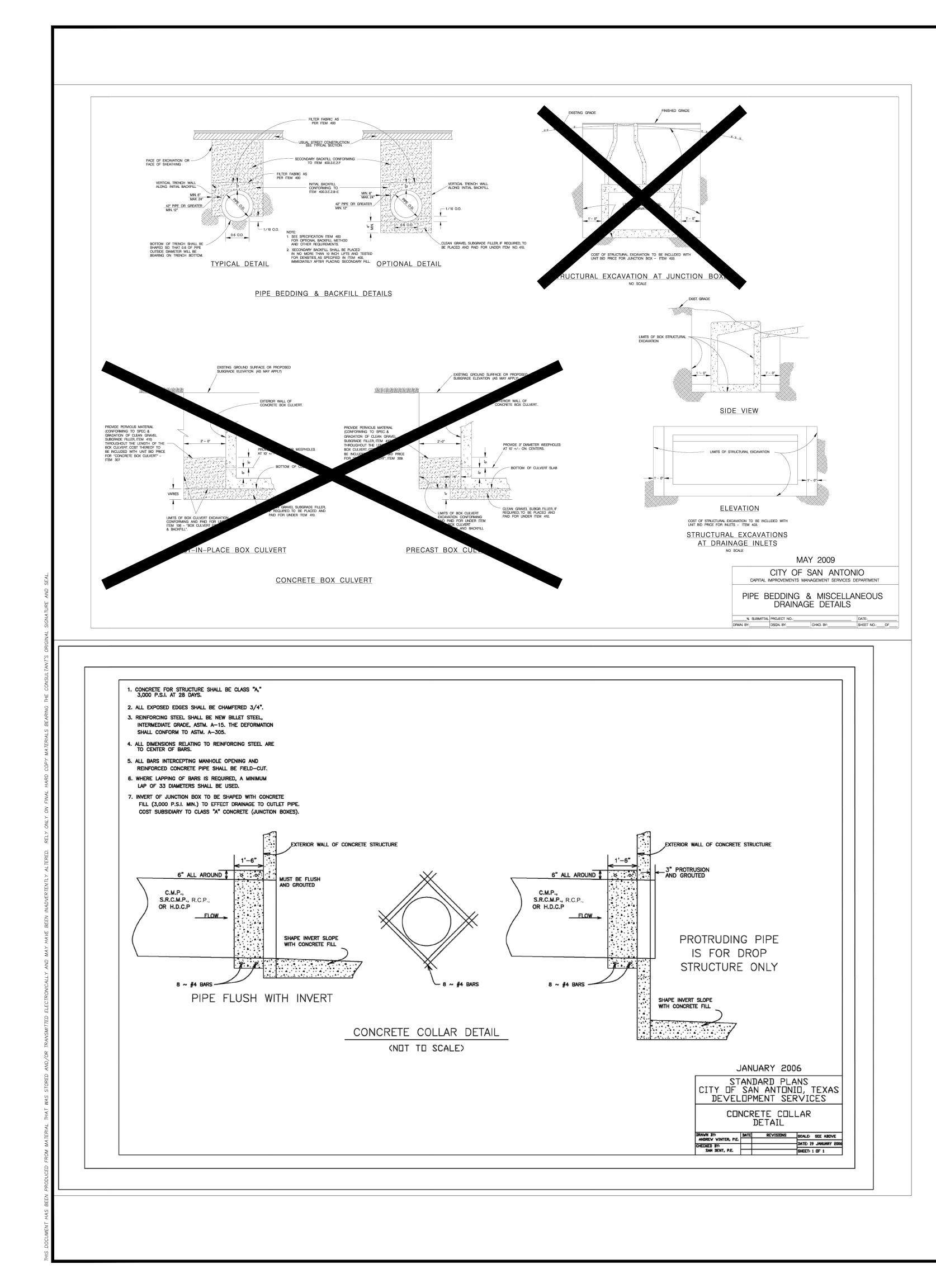


IN AND AROUND TRENCH EXCAVATION.



506



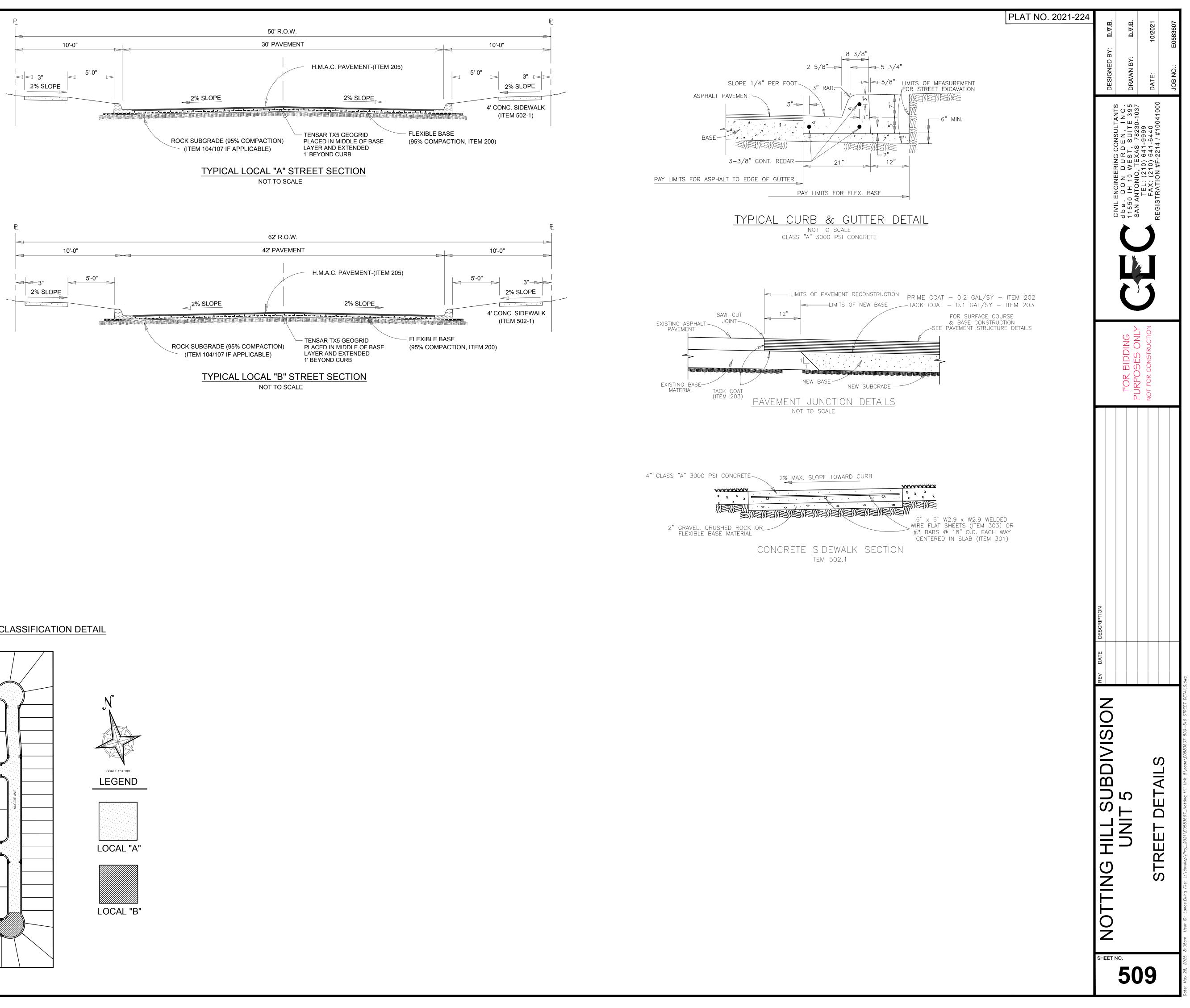


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DRAIN DETAILS     DRAIN DETAILS       DRAIN DETAILS     Image: Comparison of the construction of the constructinded of the construction of the construction of the constr	50				11550 IH 10 WEST, SUITE 395 SAN ANTONIO TEYAS 78230-1037	DRAWN BY:	<u>D.</u> V.B.
DRAIN DETAILS     DRAIN DETAILS       DRAIN DETAILS     REGISTRATION #F-2214 / #10041000	)(				TEL: (210) 641-9999		
	8				FAX: (210) 641-6440 REGISTRATION #E-2214 / #10041000		10/2021
						JOB NO.:	E0583607

PLAT NO. 2021-224	<u></u> .Δ.Υ.Β.
	DESIGNED BY:
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	TION
	DESCRIPTION
	DATE
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### LOCAL A PRIMARY PAVEMENT DESIGN PAVEMENT DESIGN WAS PREPARED BY INTEC

PAVEMENT STRUCTURE (DESIGN CBR=2.0)		STR. COEF.		STR. NO.
2" HOT MIX ASPHALT TYPE D		0.44		0.88
13" FLEXIBLE BASE (TYPE B, GRADE 2)		0.14		1.82
3"x5" ROCK SUBGRADE (6" DEPTH) *		0.08		0.48
	·	TOTAL		3.18
AUGGIE AVE	STA	. 1+00.00	то	9+20.31
CHILI BOWL ST.	STA	. 16+23.98	то	22+02.83
GILLY PARK	STA	. 16+23.98	ТО	22+08.98
PORTOBELLO WAY	STA	. 1+00.00	ТО	7+25.18
* 3"x5" ROCK SUBGRADE SHALL BE WRA	APPE	D IN MIRAFI	180N	FILTER FAB

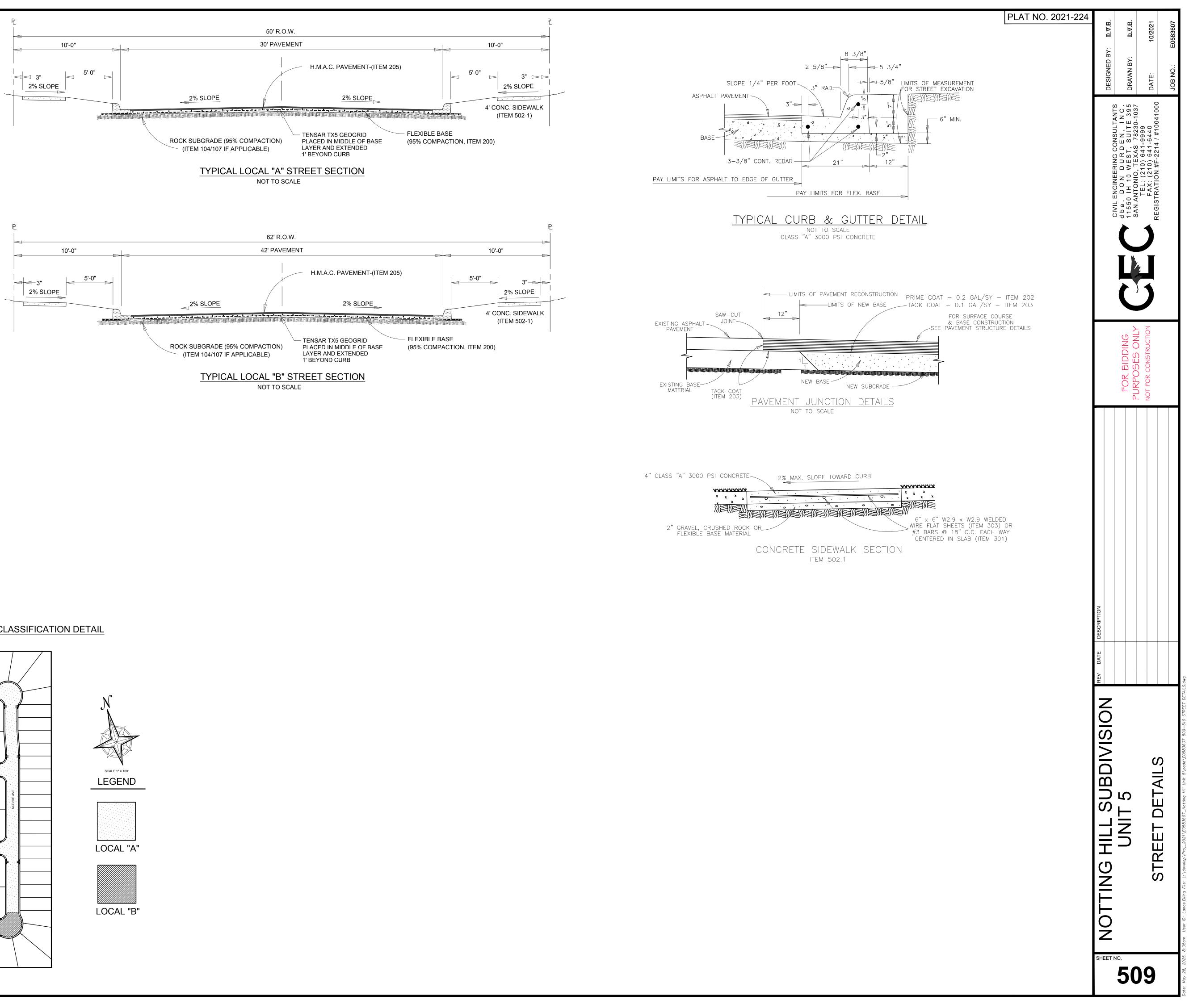


\* 3"x5" ROCK SUBGRADE SHALL BE WRAPPED IN MIRAFI 180N FILTER FABRIC

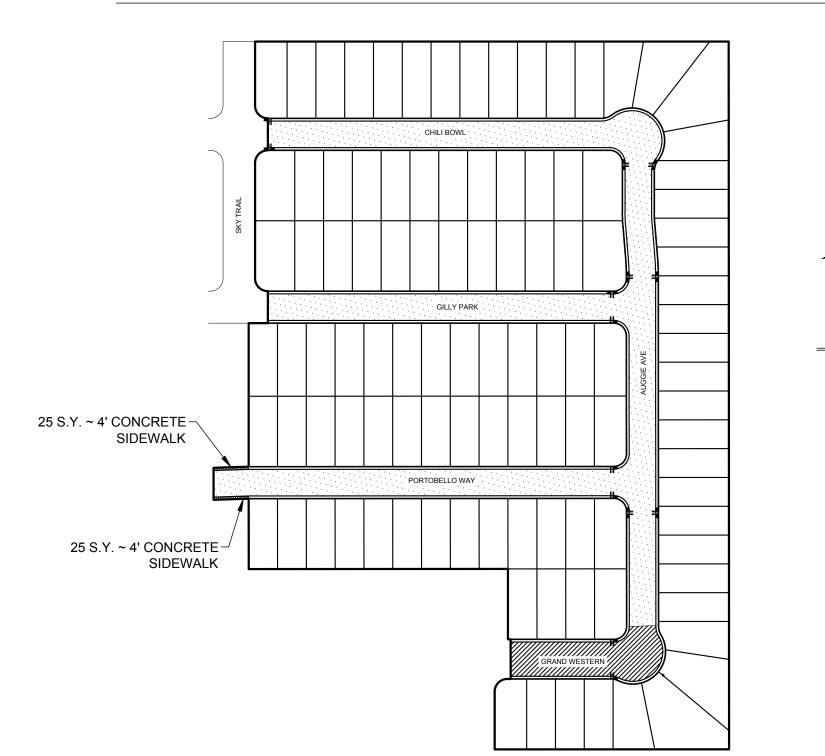
### LOCAL B PRIMARY PAVEMENT DESIGN

PAVEMENT DESIGN WAS PREP	PARED BY INTE	С
PAVEMENT STRUCTURE (DESIGN CBR=2.0)	STR. COEF.	STR. NO.
3" HOT MIX ASPHALT TYPE D	0.44	1.32
16.75" FLEXIBLE BASE (TYPE B, GRADE 2)	0.14	2.34
3"x5" ROCK SUBGRADE (6" DEPTH) *	0.08	0.48
	TOTAL	4.14

GRAND WESTERN STA. 31+56.10 TO 33+56.24 \* 3"x5" ROCK SUBGRADE SHALL BE WRAPPED IN MIRAFI 180N FILTER FABRIC



**DEVELOPER RESPONSIBLE SIDEWALK & STREET CLASSIFICATION DETAIL** 

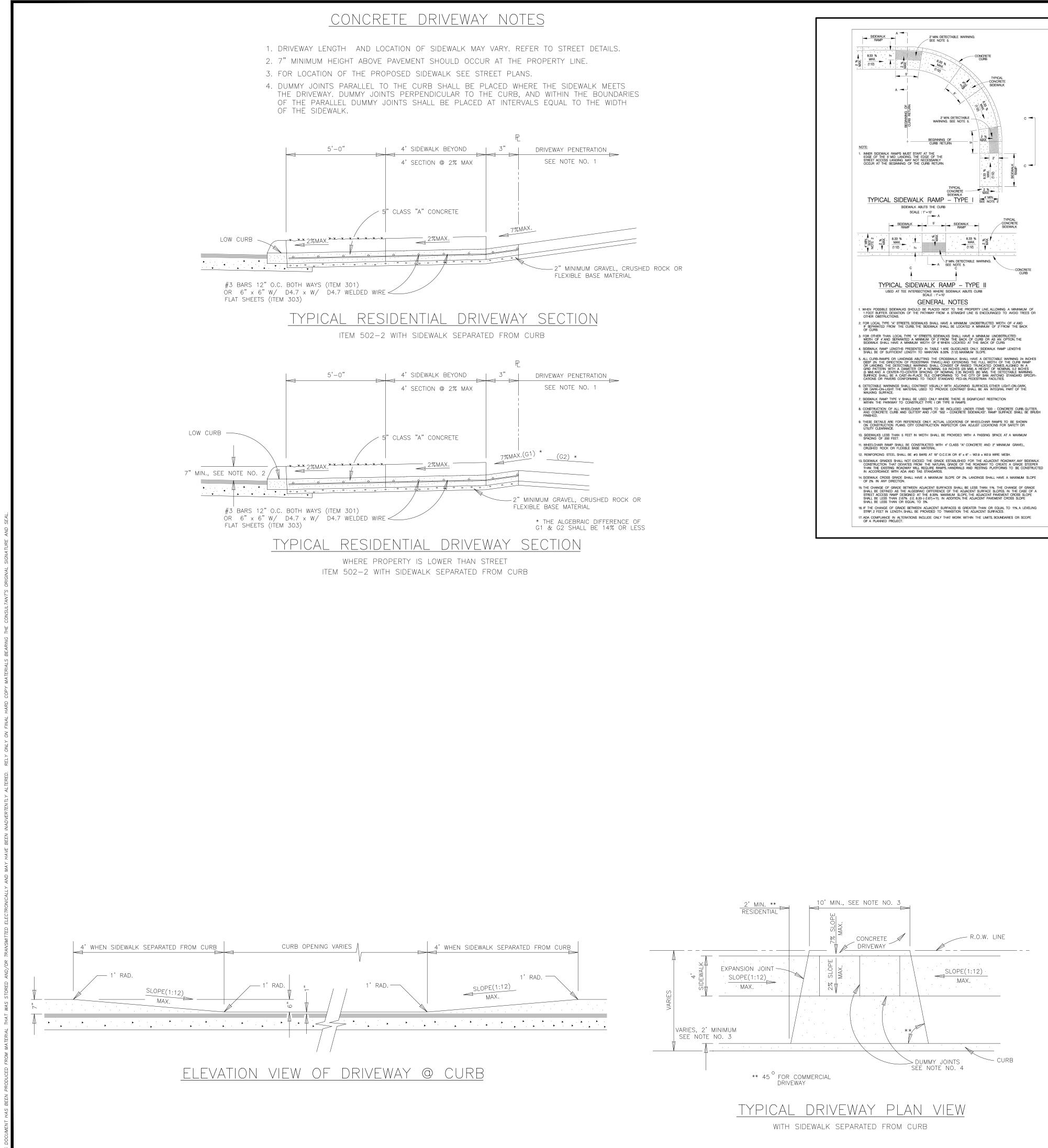


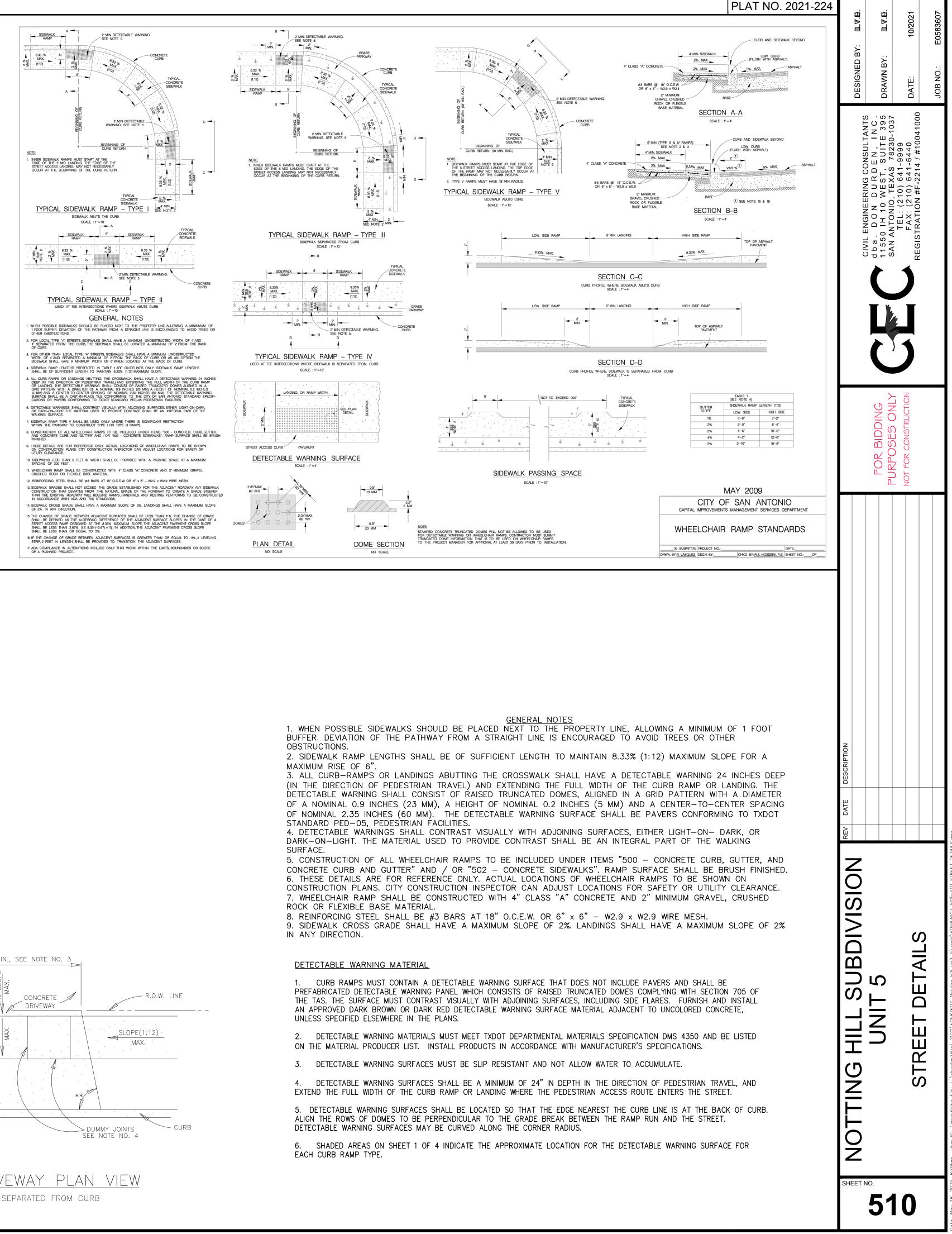




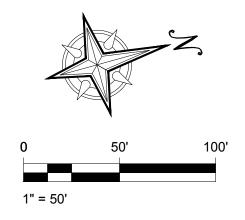


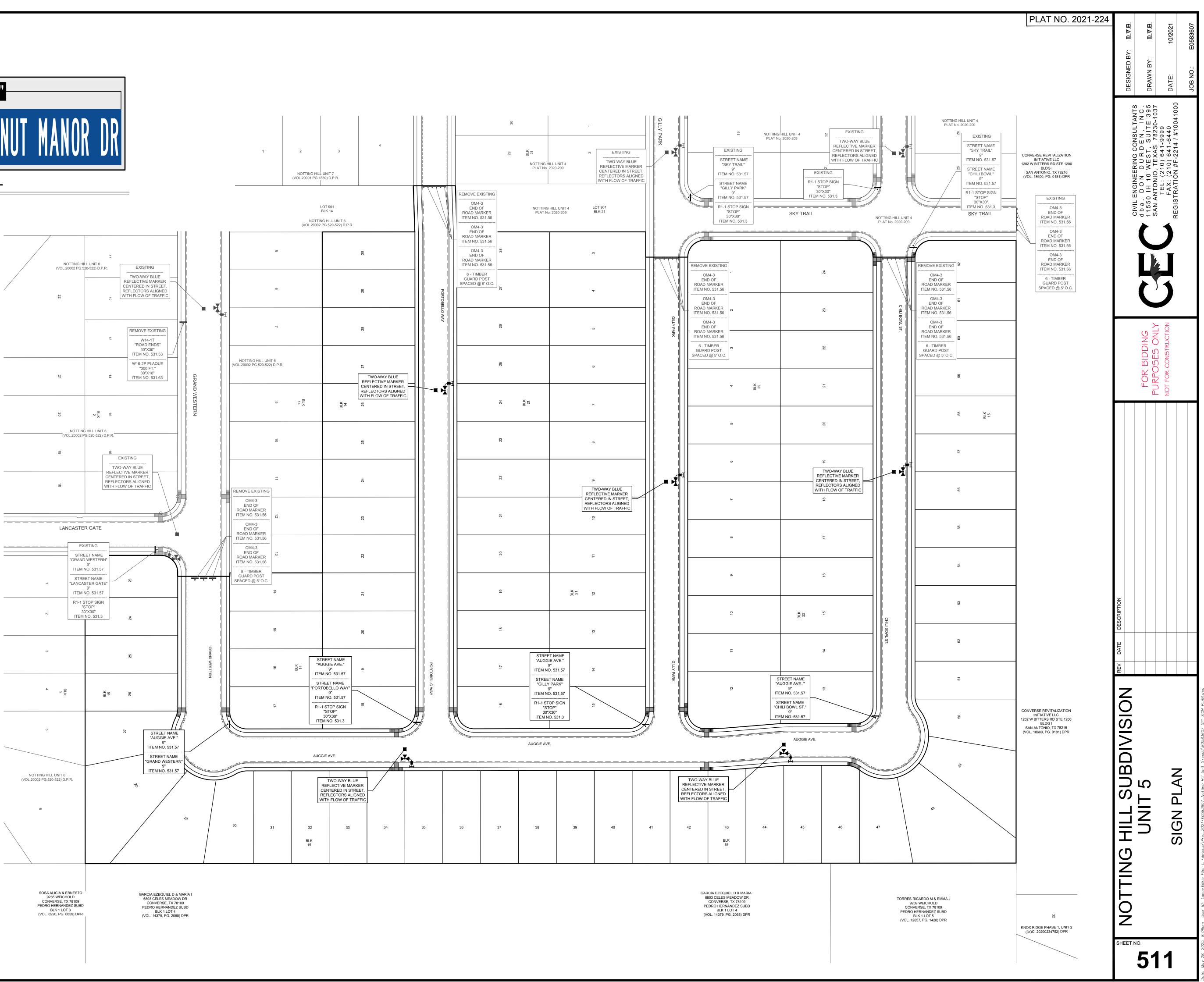












# **SEDIMENTATION & EROSION CONTROL PLANS** NOTTING HILL UNIT 5

### GENERAL NOTES

1. All materials and construction procedures within the scope of this project shall, be approved by the City of Converse Public Works and comply with the following as applicable: A. Reference to Current "San Antonio Water System Utility Specifications"

B. Reference to Current City of San Antonio "Standard Specifications for Public Works Construction"

2. The locations and depths of existing utilities, including service laterals, and drainage structures shown on the plans are approximate only. The Contractor shall verify the exact location and depths of underground utilities at least 48 hours prior to construction whether shown on plans or not, and to protect the same during construction. Texas State Wide One Call Locator 1-800-545-6005 City Public Service AT&T Time Warner Valero Energy Co.

3. The Contractor shall notify the City prior to the start of each phase of street construction and call for inspections with a minimum of 24 hours notice. City of Converse Public Works Department (210) 658-3453

4. Testing will be paid for by Developer, coordinated by Contractor, and witnessed by City.

5. Minimum Testing Schedule:

Densities - Subgrade	1 Per 500 Foot Minimum
Densities - Base	1 Per 500 Foot Minimum
Proctors - Subgrade	1 Per Material Per Subdivision
Proctors - Base	1 Per 5,000 C.Y.
Lime Series - Subgrade	1 Per Material Per Subdivision
Concrete - Structures	1 Set (3) Per 50 C.Y.
6. Transition washout crown to	normal crown in 25'.

7. 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.

8. 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).

9. Due to federal regulations Title 49, Part 192.171 CPS 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.

10. Contractor shall notify the city inspector twenty four (24) hours prior to backfill of any utility trenches to schedule for density test as required.

11. All waste material shall become property of the contractor and shall be his sole responsibility to dispose of this material off the limits of the project. No waste material shall be placed in existing lows that will block or alter flow limits of existing artificial or natural drainage.

12. The contractor shall not place any waste material in the 100-year flood plain without first obtaining an approved Flood Plain Development Permit.

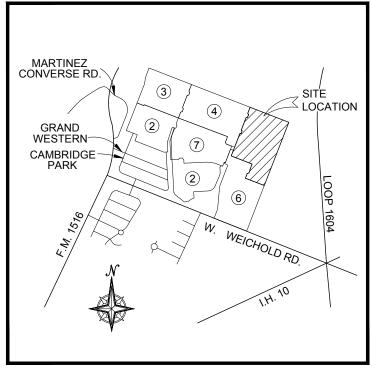
13. The contractor shall maintain all adjoining streets and traveled routes free from spilled and/or tracked construction materials and/or

14. 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 will only be responsible to inspect barricades and signs. If, in the opinion of 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 inspector shall have the option to stop operations until such time as the conditions are corrected.

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 INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION, SAFETY PROTECTION THAT COMPLIES 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.



LOCATION MAP

SHEET INDEX

SHEET TITLE

- 600 SEDIMENTATION & EROSION CONTROL PLAN COVER 601 OVERALL SEDIMENTATION & EROSION CONTROL PLAN
- 602 SEDIMENTATION & EROSION CONTROL NARRATIVE
- 603 SEDIMENTATION & EROSION CONTROL DETAILS

OWNER/DEVELOPER: CASTLEROCK COMMUNITIES 2401 FOUNTAIN VIEW DRIVE, SUITE 215 HOUSTON, TEXAS 77057 PHONE: (713) 600-7060



**CIVIL ENGINEERING CONSULTANTS** dba. DON DURDEN, INC. 11550 IH 10 WEST, SUITE 395 SAN ANTONIO, TEXAS 78230-1037 TEL: (210) 641-9999 FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000

			1		1
	PLAT NO. 2021-224	D_V.B.	D_V.B.	10/2021	ED583607
		DESIGNED BY:	DRAWN BY:	TE:	. ON AO
			dba. DON DURDEN, INC. 11550 IH 10 WEST, SUITE 395 CAN ANTONIO TEXAS 78230 1037	)	
			FOR BIDDING	NOT FOR CONSTRUCTION	
		DATE DESCRIPTION			
TOTAL QUANTITIES         SILT FENCE       0         L.F.         (EXISITING SILT FENCE TO REMAIN)         TYPE I       0         CONSTRUCTION EXIT       1         CONCRETE WASHOUT PIT       1         GRAVEL FILTER BAGS       25			UNIT 5	NTATION & EROSION	ROL PLAN COVER

SILT FENCE (EXISITNG SILT FENCE TO REMAIN	Ŭ	L.F.
TYPE I CONSTRUCTION EXIT	1	EA.
CONCRETE WASHOUT PIT	1	E.A.
GRAVEL FILTER BAGS	25	L.F.

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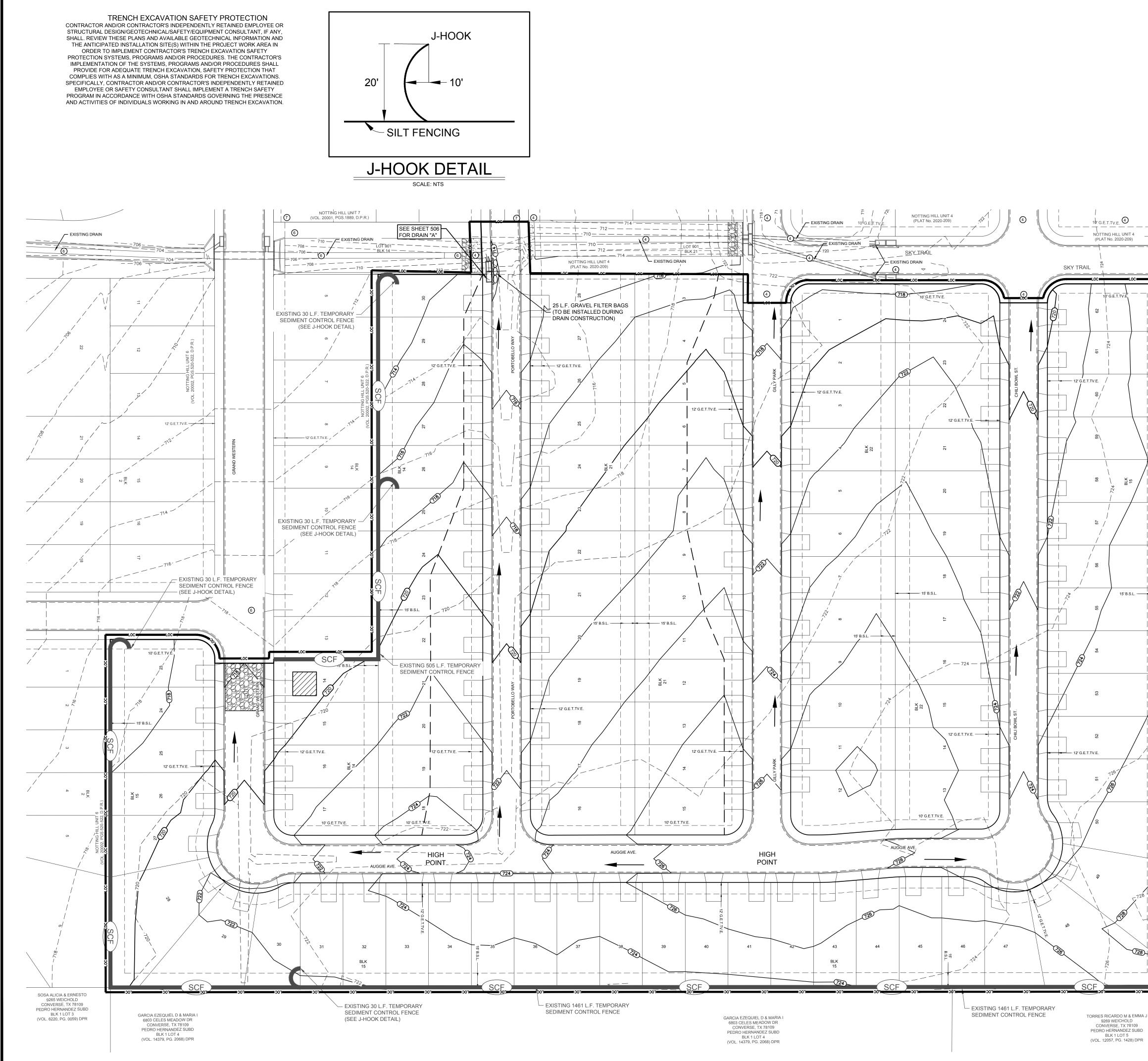
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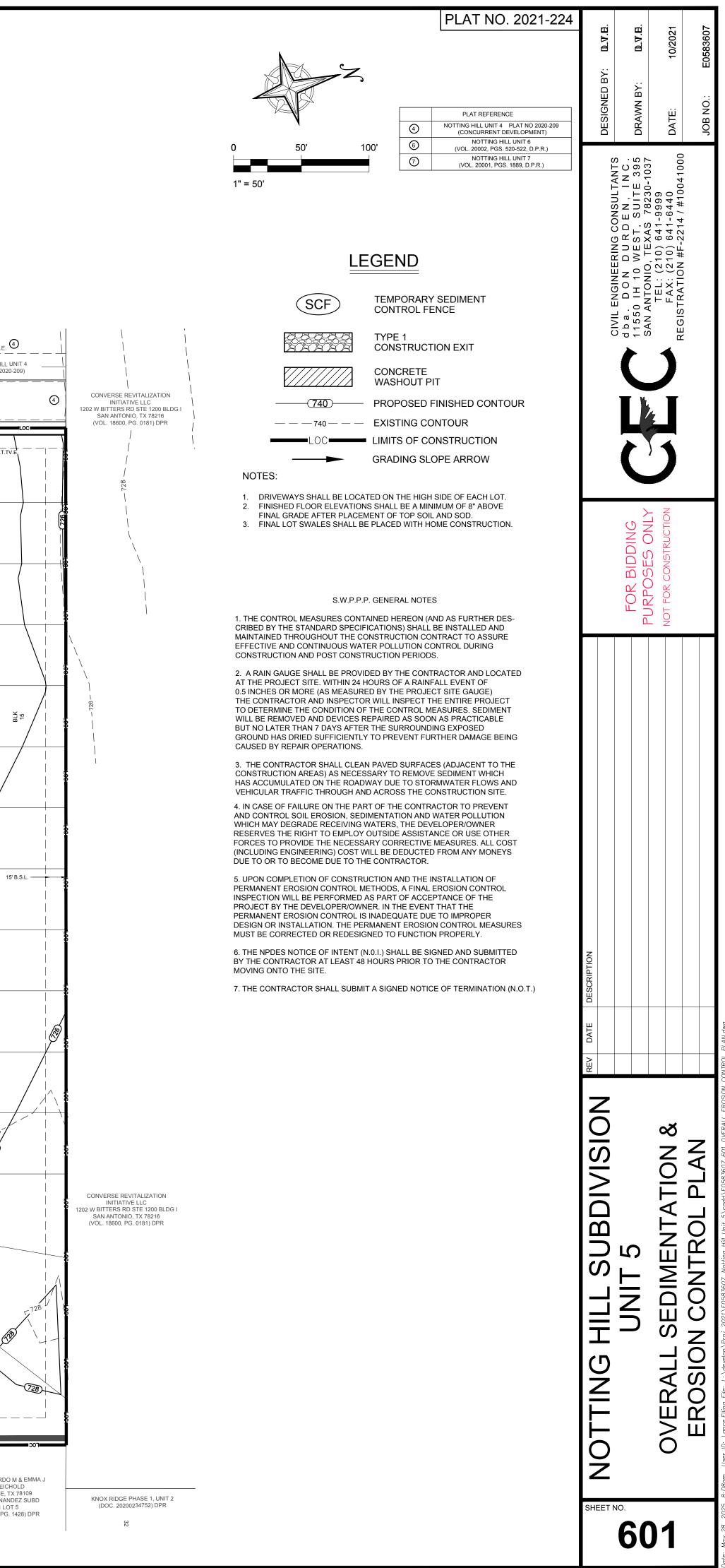
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SHEET NO.

DIMENTAT ONTROL

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3LK 15

	SITE DESCRIPTION
PROJECT	LIMITS:
LATITUDE	29°28'19.74"N LONGITUDE 98°18'27.31"W
	DESCRIPTION: Construction of subdivision improvements including: streets, water lines, sanitary sewer lines and drainage improvements.
	DIL DISTURBING ACTIVITIES:Soil disturbing activities will include preparing right-of-way clearing, and grubbing, grading, excavation an nt for the street, excavation for water, sanitary sewer, storm sewer, and structures. Erosion and sediment controls.
TOTAL PR	OJECT AREA: 16.379
TOTAL AR	EA TO BE DISTURBED:16.379 Acres (100%)
	D RUNOFF COEFFICIENT CONSTRUCTION):
	D RUNOFF COEFFICIENT
	CONDITION OF SOIL & VEGETATIVE
	ND % OF EXISTING VEGETATIVE COVER: The existing topsoil is dark bown/ tan clay.
	RECEIVING WATERS:

### EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:	

TEMPORARY SEEDING
 PERMANENT PLANTING, SODDING, OR SEEDING
 MULCHING
 SOIL RETENTION BLANKET
 BUFFER ZONES
 PRESERVATION OF NATURAL RESOURCES

### OTHER: Disturbed areas on which construction activity has ceased (temporarily or permanently) shall be stabilized within 14 days unless activities are scheduled to resume

\_\_\_\_\_

and do within 21 days.

STRUCTURAL PRACTICES:

/	
	SILT FENCES
	HAY BALES
	ROCK BERMS
	DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
	DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
	DIVERSION DIKE AND SWALE COMBINATIONS
	PIPE SLOPE DRAINS
	PAVED FLUMES
	ROCK BEDDING AT CONSTRUCTION EXIT
	TIMBER MATTING AT CONSTRUCTION EXIT
	CHANNEL LINERS
	SEDIMENT TRAPS
	SEDIMENT BASINS
	STORM INLET SEDIMENT TRAP
	STONE OUTLET STRUCTURES
	CURBS AND GUTTERS
	STORM SEWERS
	VELOCITY CONTROL DEVICES

OTHER:\_

NARRATIVE - SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES: The order of activities will be as follows:

- 1. Install controls.
- 2. Clear, grub, excavate, and embank.
- 3. Construct sanitary sewer.
- 4. Construct storm drain.
- 5. Construct water lines.
- 6. Construct streets.

\_\_\_\_\_

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7. When all construction activity is complete and the site is stabilized and approved by the project engineer, remove all temporary structural controls and stabilize areas disturbed by their removal.

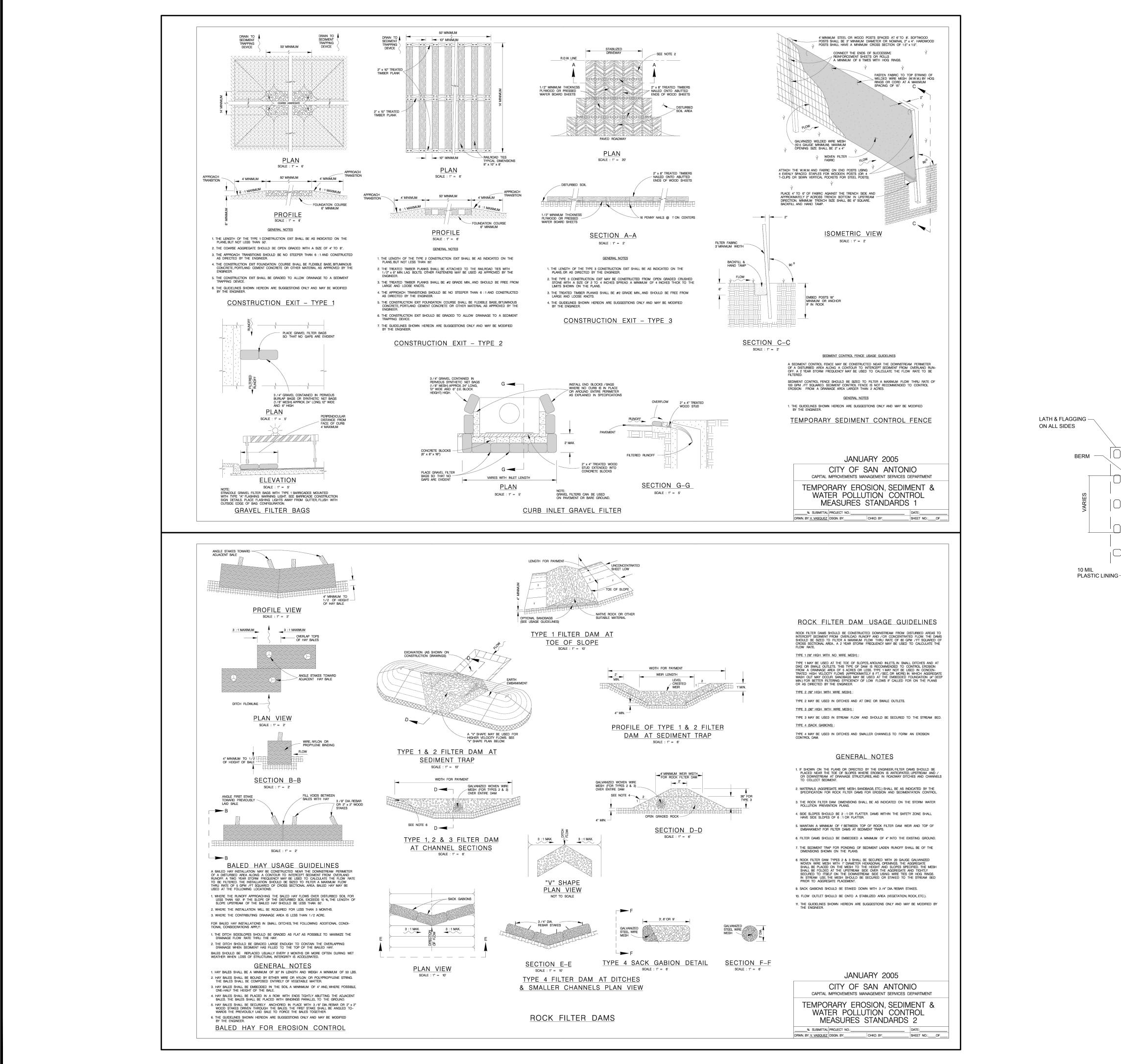
8. The contractor is responsible for implementing and maintaining the storm water pollution prevention plan.

	PLAT NO. 2	2021-224	, Δ.Ψ.Β.	D.V.B.	10/2021
ONTROL	<u>S</u>		DESIGNED BY:	DRAWN BY:	DATE.
	DSION AND SEDIMENT CONTROLS:			ANTS N C . 395	
later than 7 ca	NCE: All erosion and sediment controls will be maintained in good working order. If a repair is necessary, it will be done at the earliest date possible, but no alendar days after the surrounding exposed ground has dried sufficiently to prevent further damage from heavy equipment. The areas adjacent to creeks and is shall have priority followed by devices protecting storm sewer inlets.			RING CONSULT/ D U R D E N , I W E S T, S U I T E T E V AS 78330	1
gauge to be lo	N: An inspection will be performed by a designated inspector every week as well as after every half inch or more of rain (as recorded on a non-freezing rain bocated at the Project Site). An inspection and Maintenance Report will be made per each Inspection. Based on the inspection results, the controls shall be Project Site). An inspection and Maintenance Report will be made per each e inspection report.			CIVIL ENGINEE dba DON 11550 IH 10	
management	TERIALS: <u>All waste materials will be collected and stored in a secured metal dumpster</u> . The dumpster will meet all state and local city solid waste regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as necessary or as required by local nd the trash will be hauled to a local dump. No construction waste material will be buried on site.				ノトリ
					NSTR
paints, acids for	At a minimum, any products in the following categories are considered to be hazardous: for cleaning masonry surfaces, cleaning solvents, asphalt products, chemical additives for soil stabilization or concrete curing compounds and additives. In the zardous material spill, the spill coordinator shall be contacted immediately.				
SANITARY V Management (					
HAI LO/ EX( ST/	EHICLE TRACKING: IUL ROADS DAMPENED FOR DUST CONTROL ADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN CESS DIRT ON ROAD REMOVED DAILY ABILIZED CONSTRUCTION ENTRANCE				
	Disposal areas, stockpiles, and haul roads shall be constructed in a manner that will minimize and control the amount of sediment that may enter receiving osal areas shall not be located in any wetland, waterbody or streambed. Construction staging areas and vehicle maintenance areas shall be constructed by the		DATE DESCRIPTION		
	a manner to minimize the runoff of pollutants. All waterways shall be cleared as soon as practicable of temporary embankment, temporary bridges, matting, ing, debris or other obstructions placed during construction operations that are not a part of the finished work.		<b>N</b>		
	OWNERS CERTIFICATION I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		UBDIVISIO	5	& EROSION
	SIGNATURE DATE		<u> 3 HILL SI</u>	UNIT (	NTATION
		,	• ( ! )		_
	CONTRACTOR'S CERTIFICATION I certify under penalty of law that I understand the terms and conditions of the general Texas Pollutant Discharge Elimination System (TPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification plan.				DIME

May 28, 2025, 8:08am User ID: Lance:Elling File: L: \develop \Proj\_2021 \E0583607\_Notting Hill Unit 5 \cadd \E0583607 602-603 SEDIMENTATION & EROSION CONTROL PLAN.d

SHEET NO.

**602** 



PLAT NO. 2021-224	D BY: D.V.B.	Y: D.Y.E.	10/2021	E0583607	
	DESIGNED BY:	5. 5. 95 DRAWN BY:	DO0 DATE:	JOB NO.:	
		dba. DON DURDEN, ING 11550 IH 10 WEST, SUITE 3 SAN ANTONIO TEXAS 78230-10	TEL: (210) 641-9999 FAX: (210) 641-6440 REGISTRATION #F-2214 / #10041000		
10' MIN		FOR BIDDING	DT FOR CONSTRUCTION		
SANDBAGS SANDBAGS SANDBAGS 10 MIL PLASTIC LINING BERM SECTION A-A NOT TO SCALE					
	REV DATE DESCRIPTION				& EROSION CONTROL PLAN.dwg
	NOTTING HILL SUBDIVISION	LINU		CONTROL DETAILS	8:21am User ID: Lance.Elling File: L: \develop \Proj_2021 \E0583607_Notting Hill Unit 5 \cadd \E0583607 602-603 SEDIMENTATION
	SHEET	٥. <b>60</b>	)3		Date: May 28, 2025,