


ENCLAVE AT HORIZON POINTE



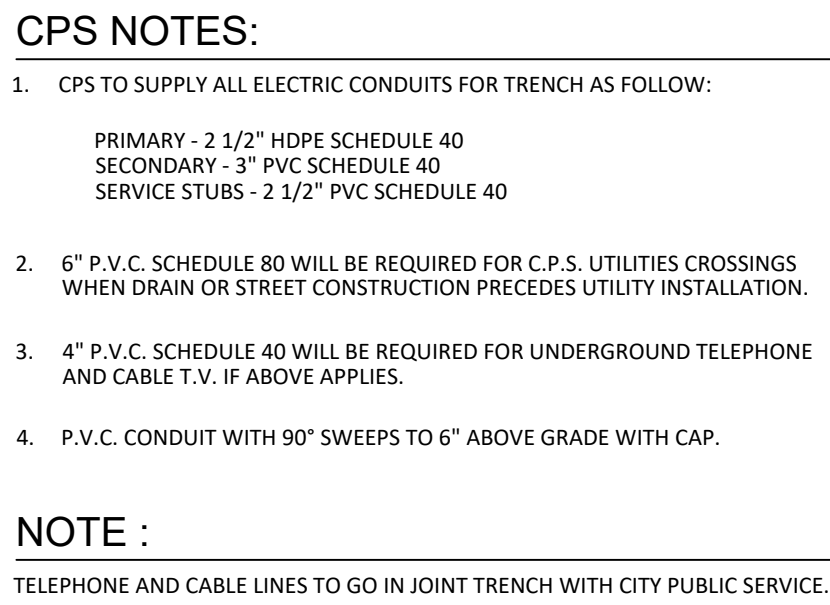
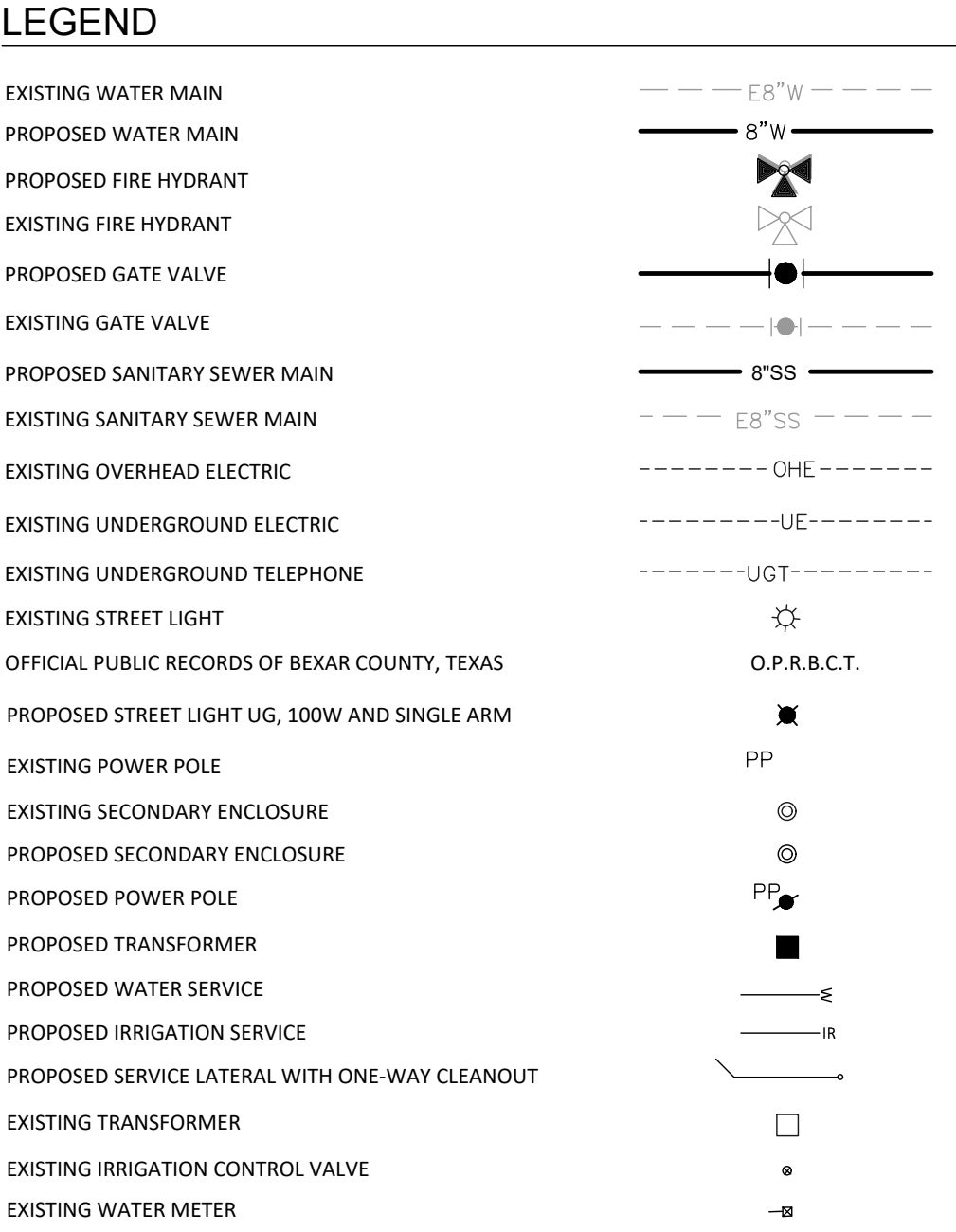
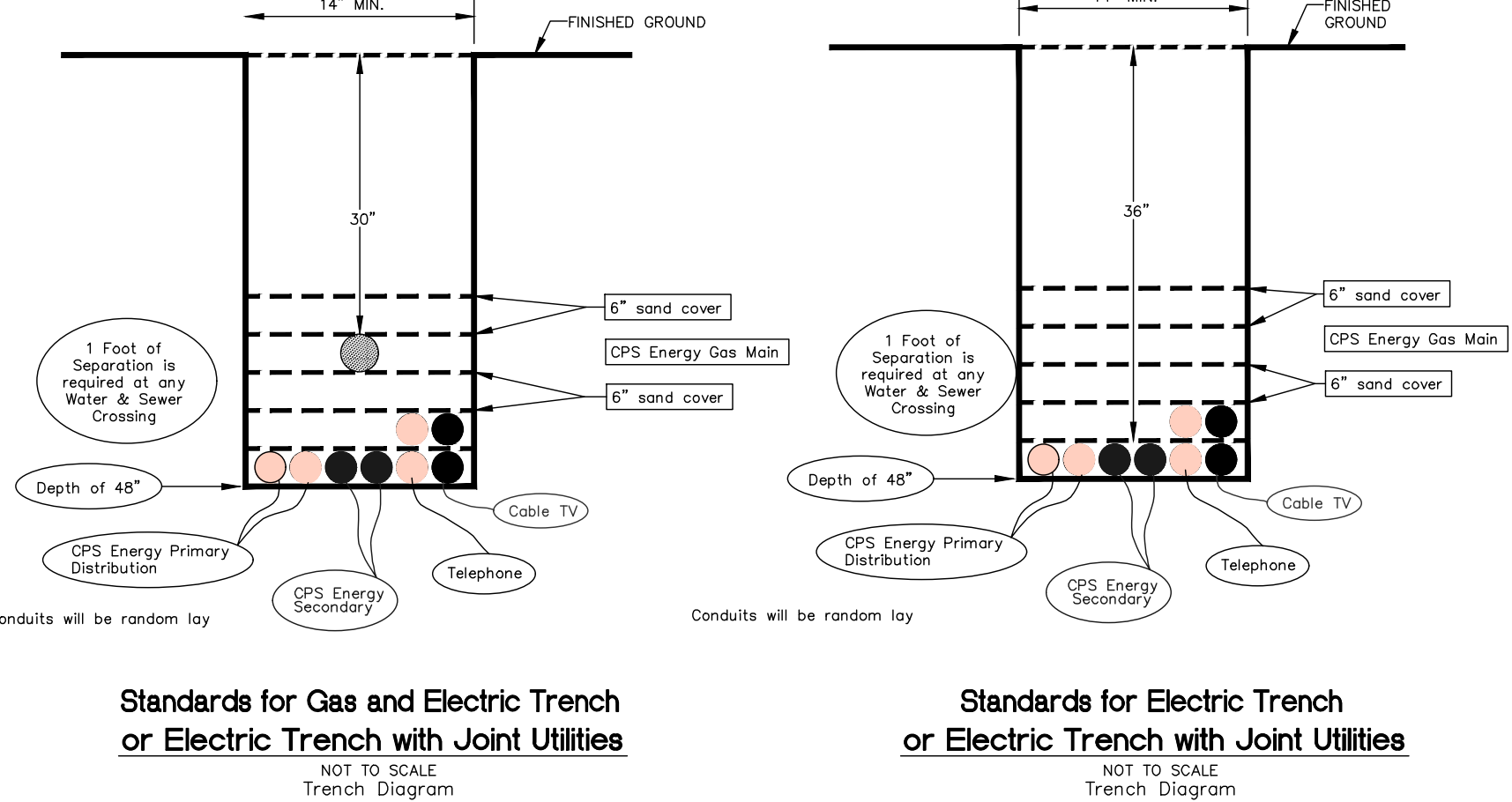
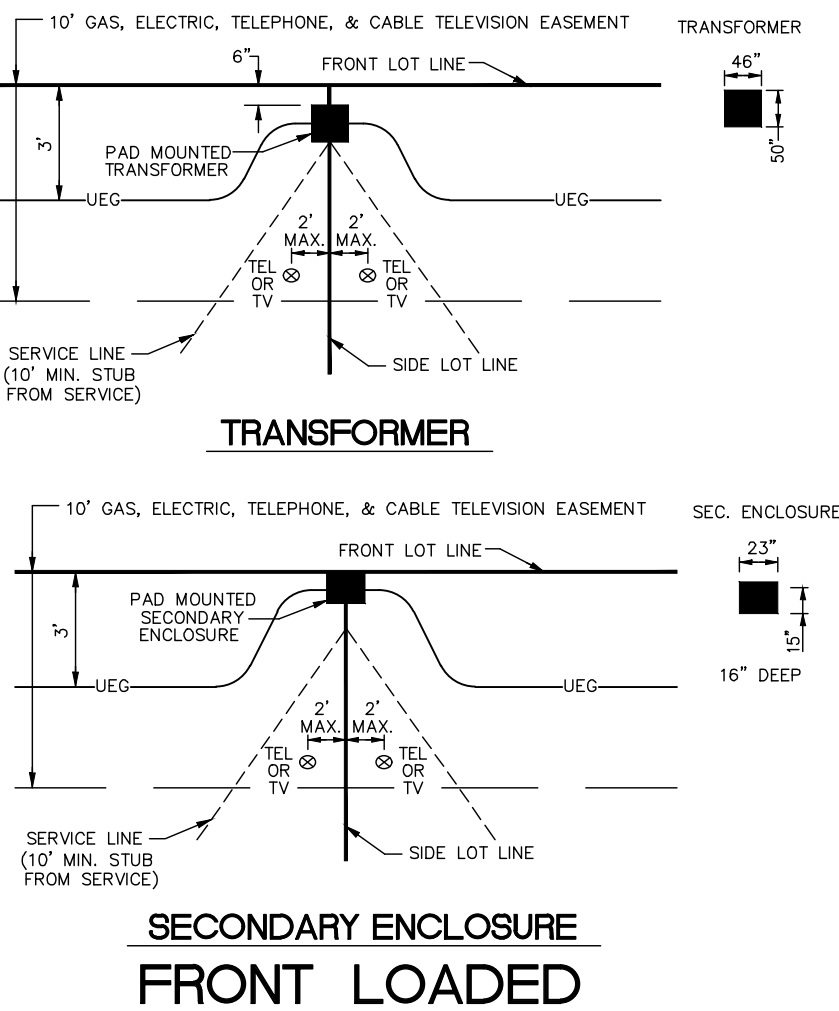
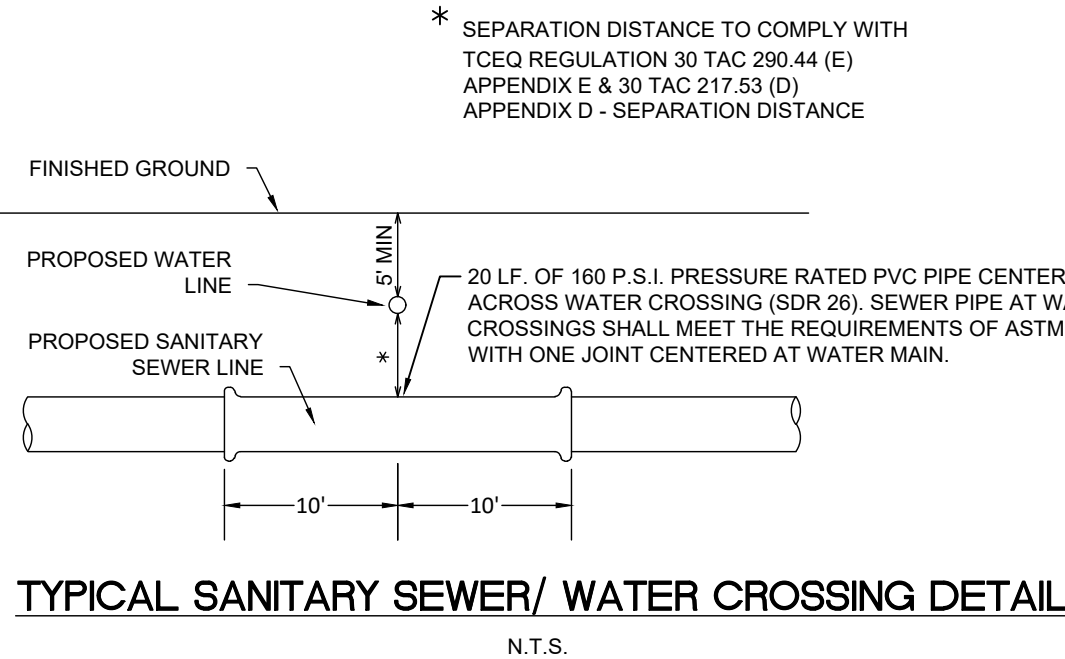
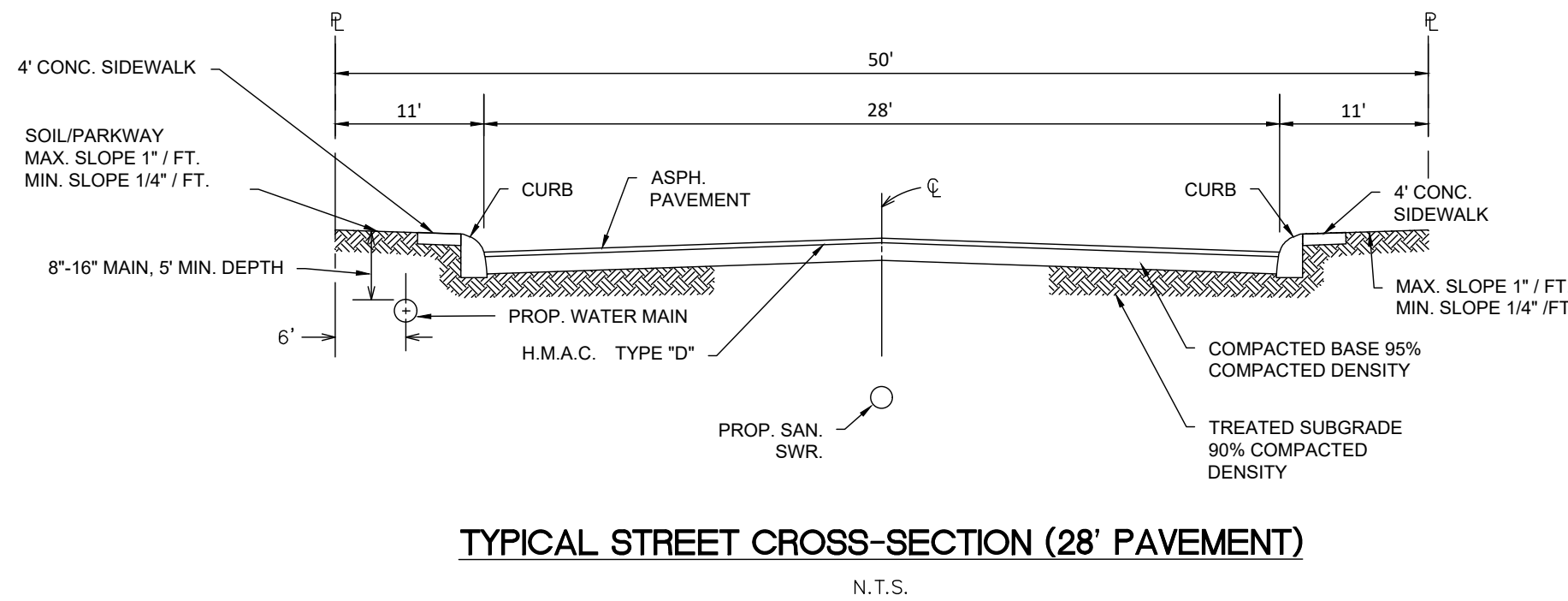
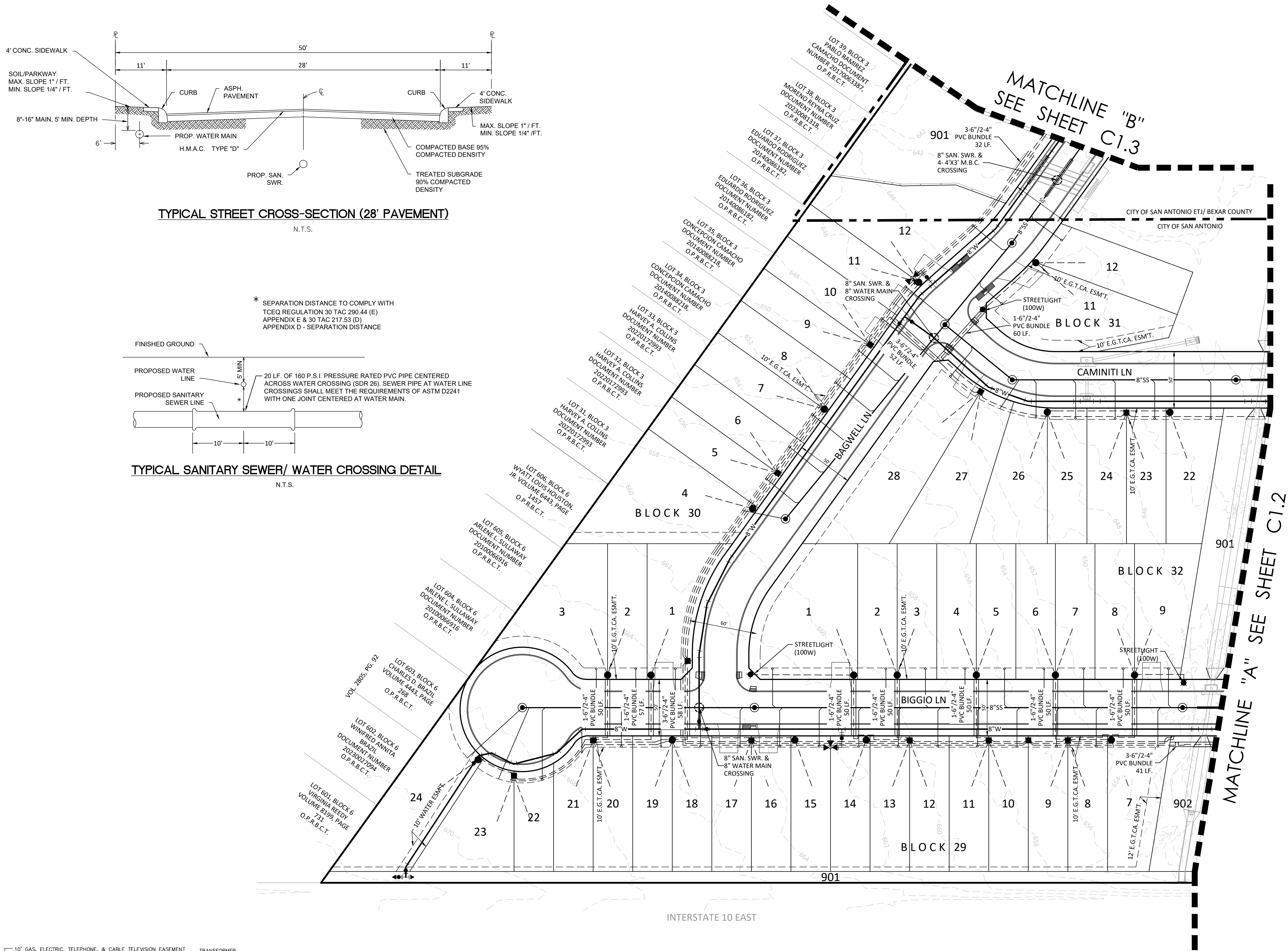
- **Engineers**
- **Surveyors**
- **Planners**

Moy Tarin Ramirez Engineers, LLC

FIRM TBPELS ENG F-5297 SVY F-10131500

12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5500
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5500

TEXAS C0.0



CAUTION: EXISTING UNDERGROUND UTILITIES, CONTRACTOR TO VERIFY PRIOR TO START OF ANY CONSTRUCTION.

NOTE TO CONTRACTOR:

BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS' AND MATERIAL SUPPLIERS' KNOWLEDGE, ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.

THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.

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 for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

REVISIONS	DESCRIPTION	BY	DATE

Engineers
Surveyors
Planners

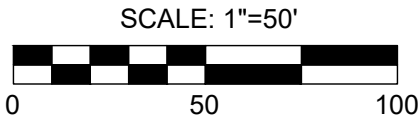
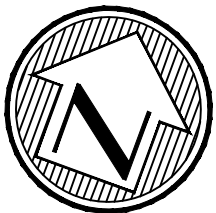
MTK

May Tarin Ramirez Engineers, LLC
TBEPLS: ENGINEERING F-5297 (SURVEYING: F-10131500)
12770 CHARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



ENCLAVE AT HORIZON POINTE

OVERALL UTILITY IMPROVEMENTS PLAN



LEGEND

- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- EXISTING FIRE HYDRANT
- PROPOSED GATE VALVE
- EXISTING GATE VALVE
- PROPOSED SANITARY SEWER MAIN
- EXISTING SANITARY SEWER MAIN
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND TELEPHONE
- EXISTING STREET LIGHT
- OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS
- PROPOSED STREET LIGHT UG, 100W AND SINGLE ARM
- EXISTING POWER POLE
- EXISTING SECONDARY ENCLOSURE
- PROPOSED SECONDARY ENCLOSURE
- PROPOSED POWER POLE
- PROPOSED TRANSFORMER
- PROPOSED WATER SERVICE
- PROPOSED IRRIGATION SERVICE
- PROPOSED SERVICE LATERAL WITH ONE-WAY CLEANOUT
- EXISTING TRANSFORMER
- EXISTING IRRIGATION CONTROL VALVE
- EXISTING WATER METER

UTILITY GENERAL NOTES

- LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND DRAINAGE STRUCTURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTHS OF ALL UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION WHETHER SHOWN ON THE PLANS OR NOT. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
- ALL EXCAVATION IS UNCLASSIFIED. THERE IS NO ADDITIONAL PAYMENT FOR ROCK EXCAVATION.
- ALL SPOIL AND UNUSABLE MATERIAL FROM THIS PROJECT SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THE PROJECT.
- CONSTRUCTION STAKING TO BE PROVIDED BY CONSULTANT IS AS FOLLOWS:
 - STREET CENTERLINE STAKING FOR CLEARING.
 - STREET STAKING (ONE SIDE) FOR STREET EXCAVATION AND WATER MAIN INSTALLATION.
 - SEWER STAKING AT 100-FT INTERVALS.
 - STAKING FOR WATER SERVICES.
 - STAKING FOR DRAINAGE CHANNELS.
 - FINAL STREET STAKING.
 - METER BOX STAKING.
 - CPS STAKING.
 - SETTING OF LOT CORNERS.

CPS NOTES:

- CPS TO SUPPLY ALL ELECTRIC CONDUITS FOR TRENCH AS FOLLOW:
 - PRIMARY - 2 1/2" HDPE SCHEDULE 40
 - SECONDARY - 3" PVC SCHEDULE 40
 - SERVICE STUBS - 2 1/2" PVC SCHEDULE 40
- 6" P.V.C. SCHEDULE 80 WILL BE REQUIRED FOR C.P.S. UTILITIES CROSSINGS WHEN DRAIN OR STREET CONSTRUCTION PRECEDES UTILITY INSTALLATION.
- 4" P.V.C. SCHEDULE 40 WILL BE REQUIRED FOR UNDERGROUND TELEPHONE AND CABLE T.V. IF ABOVE APPLIES.
- P.V.C. CONDUIT WITH 90° SWEEPS TO 6" ABOVE GRADE WITH CAP.

NOTE :

TELEPHONE AND CABLE LINES TO GO IN JOINT TRENCH WITH CITY PUBLIC SERVICE.

CAUTION: EXISTING UNDERGROUND UTILITIES, CONTRACTOR TO VERIFY PRIOR TO START OF ANY CONSTRUCTION.

REVISIONS		NO.	DATE	DESCRIPTION	BY

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Surveyors
Planners

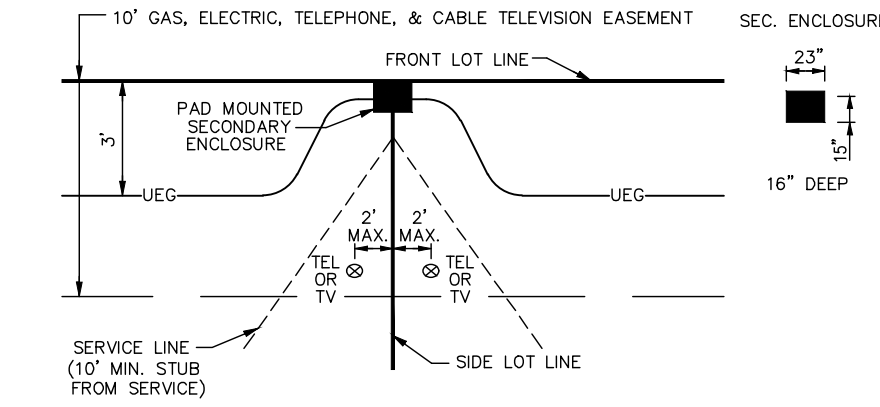
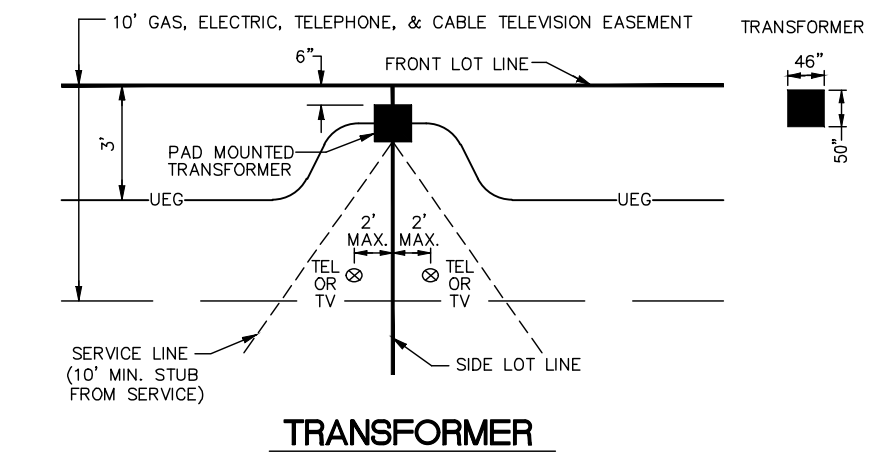
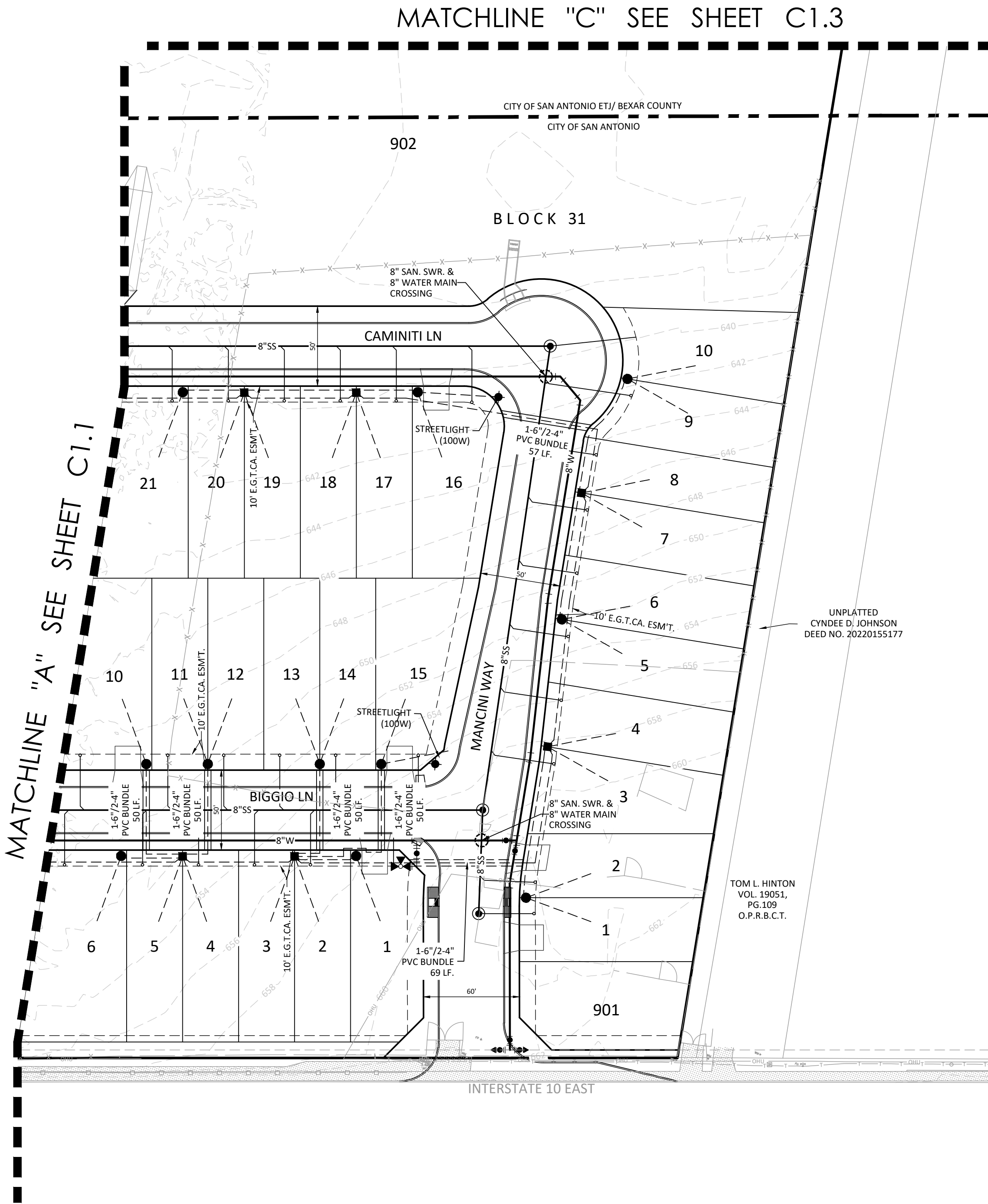
MTR

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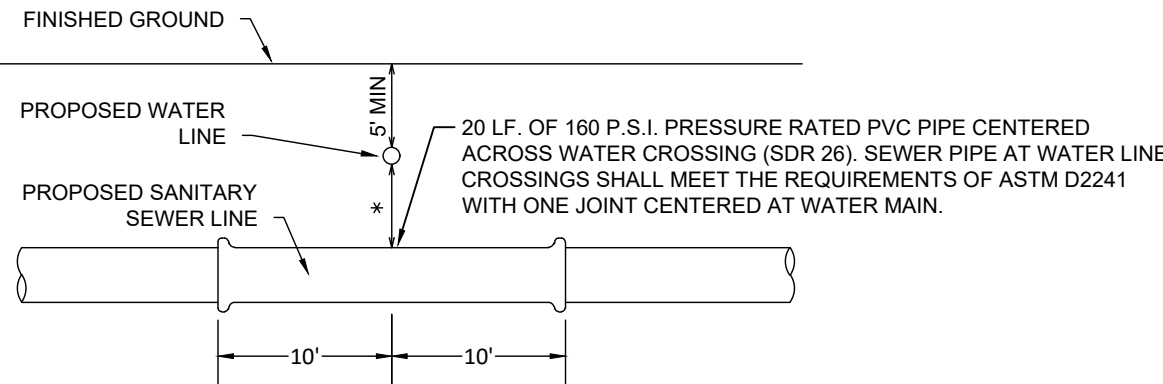
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OVERALL UTILITY IMPROVEMENTS PLAN

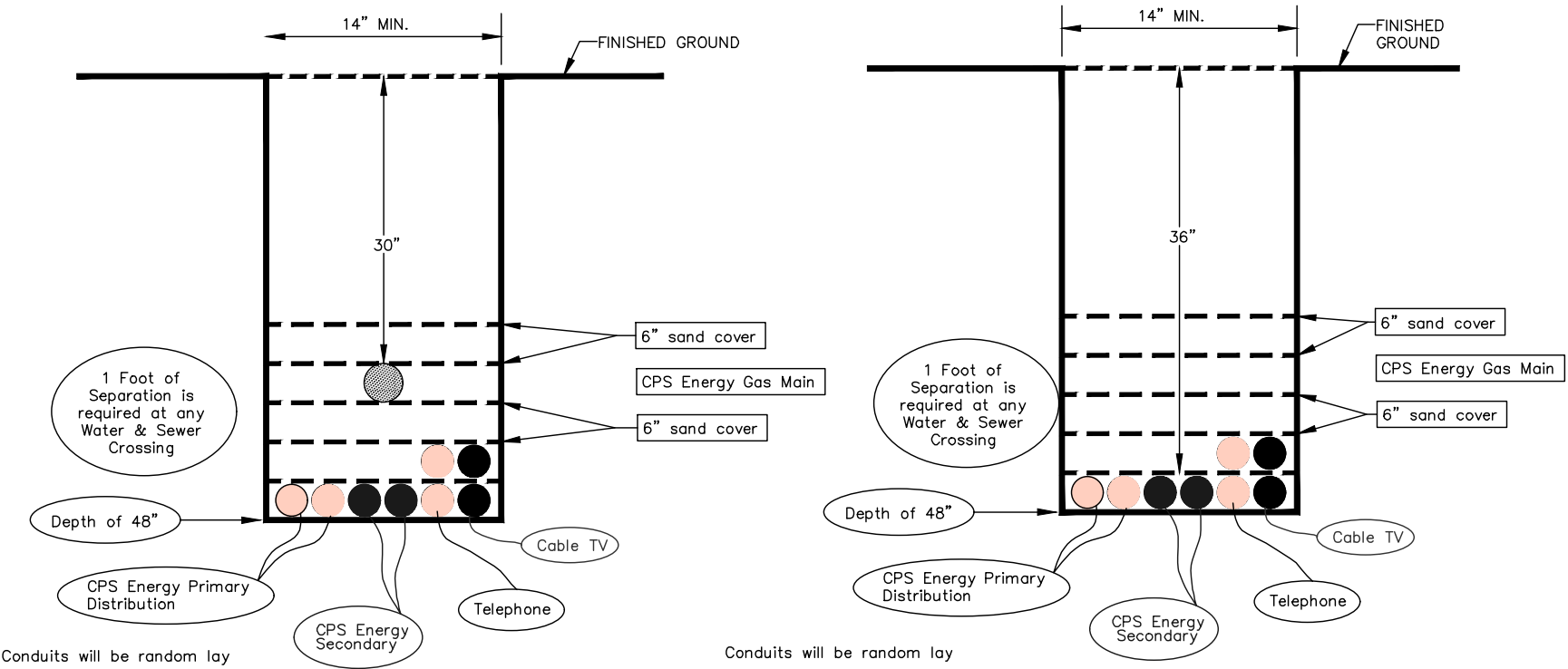


SECONDARY ENCLOSURE
FRONT LOADED

* SEPARATION DISTANCE TO COMPLY WITH
TCEQ REGULATION 30 TAC 290.44 (E)
APPENDIX E & 30 TAC 217.53 (D)
APPENDIX D - SEPARATION DISTANCE



TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL
N.T.S.



Standards for Gas and Electric Trench
or Electric Trench with Joint Utilities
NOT TO SCALE
Trench Diagram

Standards for Electric Trench
or Electric Trench with Joint Utilities
NOT TO SCALE
Trench Diagram

TRENCH DETAILS

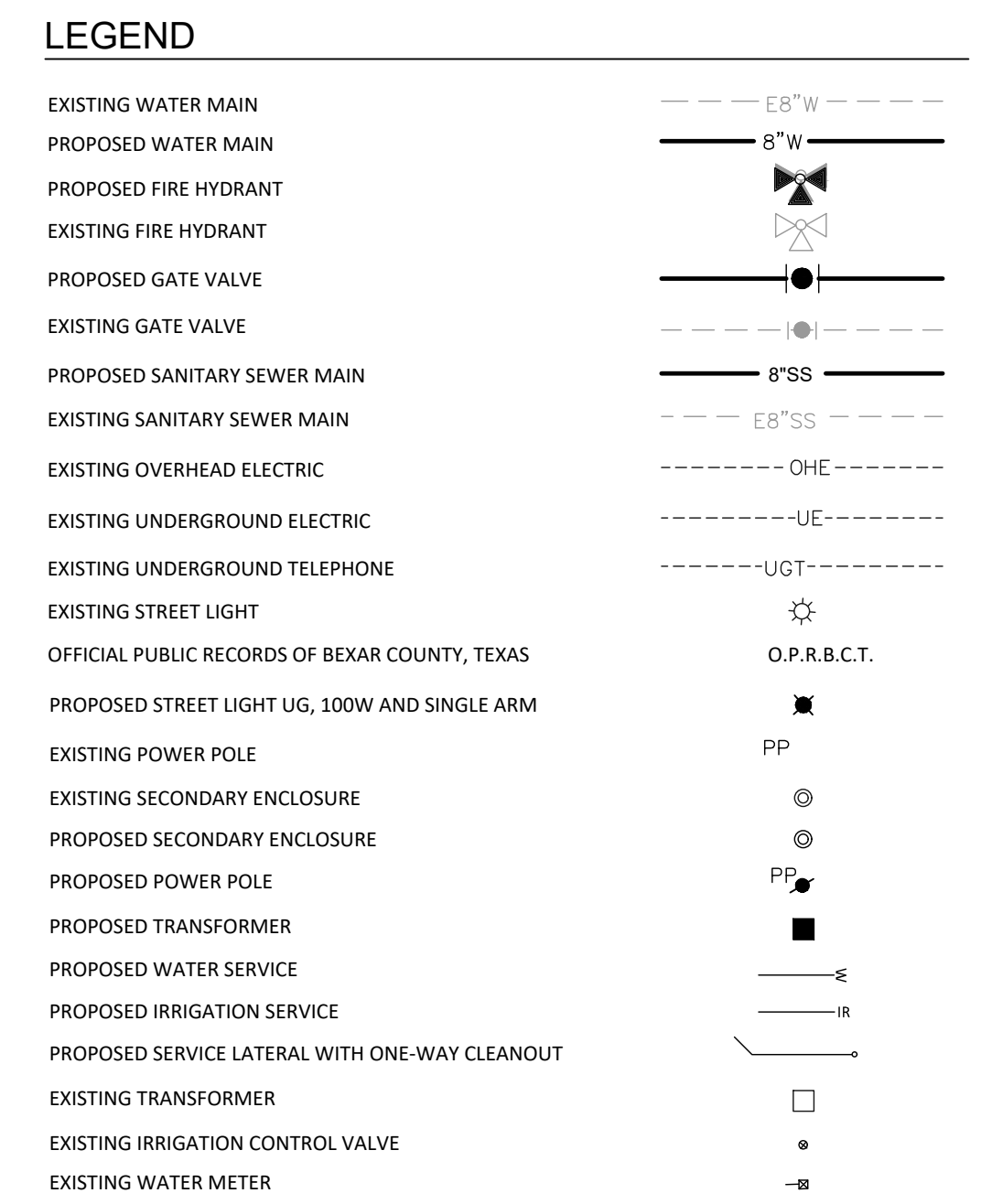
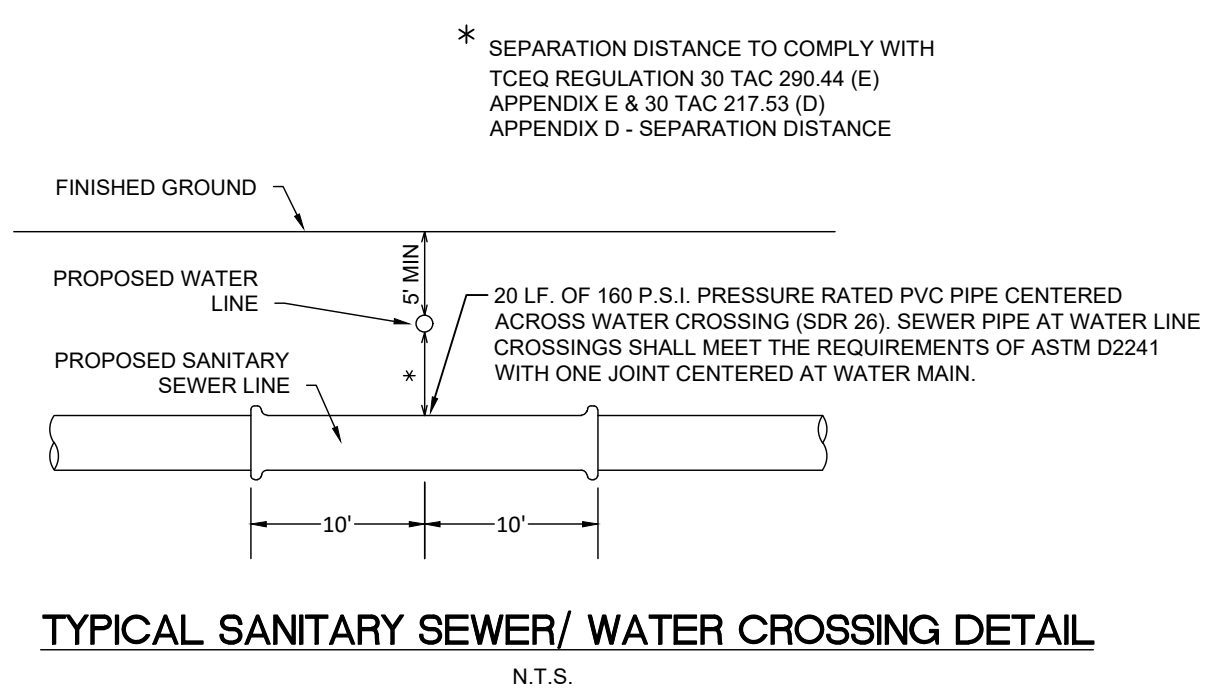
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2. ALL EXCAVATION IS UNCLASSIFIED. THERE IS NO ADDITIONAL PAYMENT FOR ROCK EXCAVATION.
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5. CONSTRUCTION STAKING TO BE PROVIDED BY CONSULTANT IS AS FOLLOWS:

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SECONDARY - 3" PVC SCHEDULE 40
SERVICE STUBS - 2 1/2" PVC SCHEDULE 40
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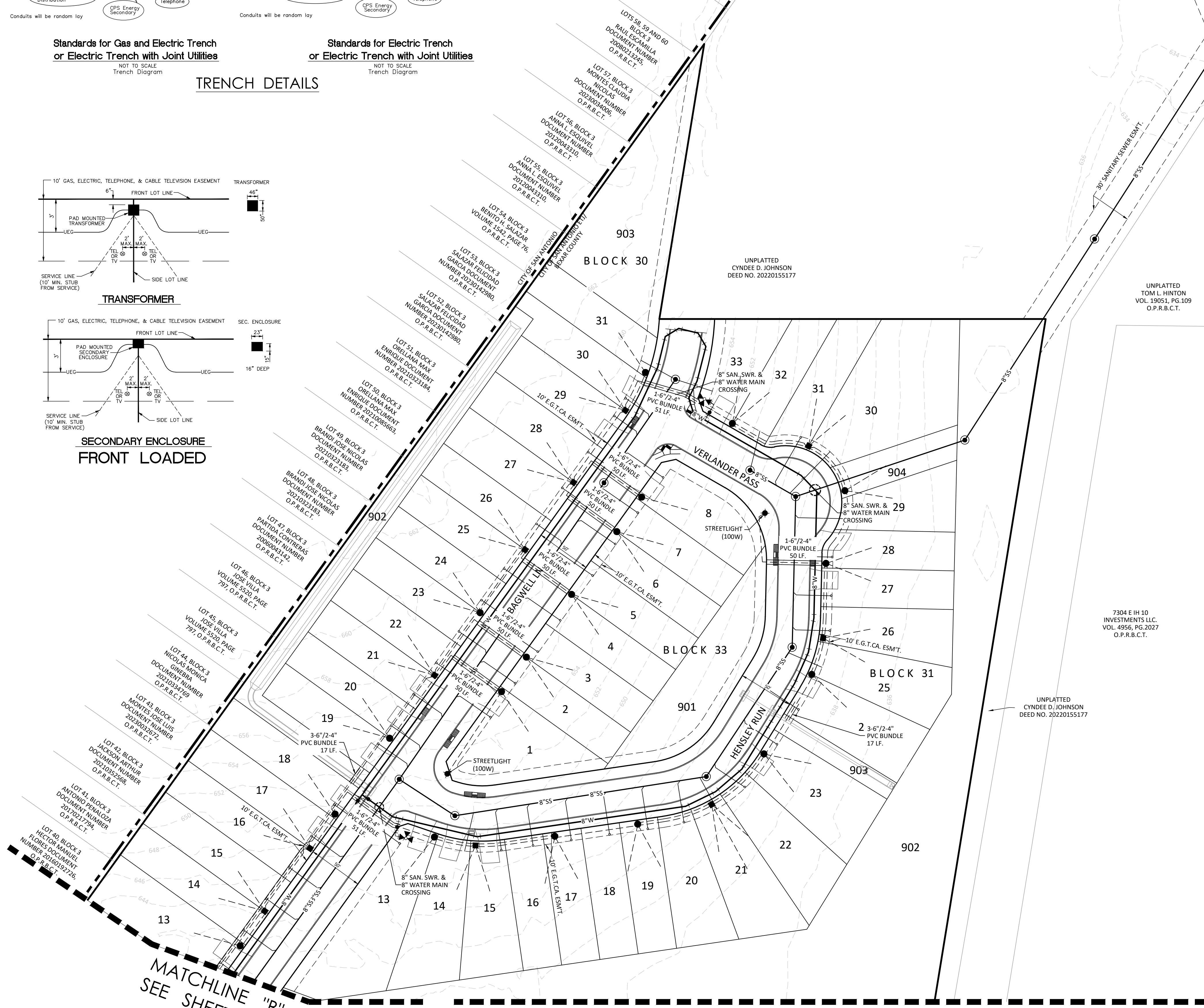
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Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available information and the anticipated installation site(s) within the project work area in order to determine if the proposed trench excavation system meets the OSHA standards for trenching described in the contract documents. The Contractor's implementation of these systems, procedures shall provide for adequate trench excavation safety protection that comply with OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independent employee or safety consultant shall implement a trench safety program in accordance with governing the presence and activities of individuals working in and around trench excavations.

SUB



Plot Date: January 24, 2024 User ID: Donald McCroskey
R:\Edminson Tract\Unit 1\Drawings\22179_C1.1-C1.3 Utility Plan.dwg

CAUTION!
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

TRENCH EXCAVATION SAFETY PROTECTION
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SAWS CONSTRUCTION NOTES
COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT
JANUARY 2022

General Section

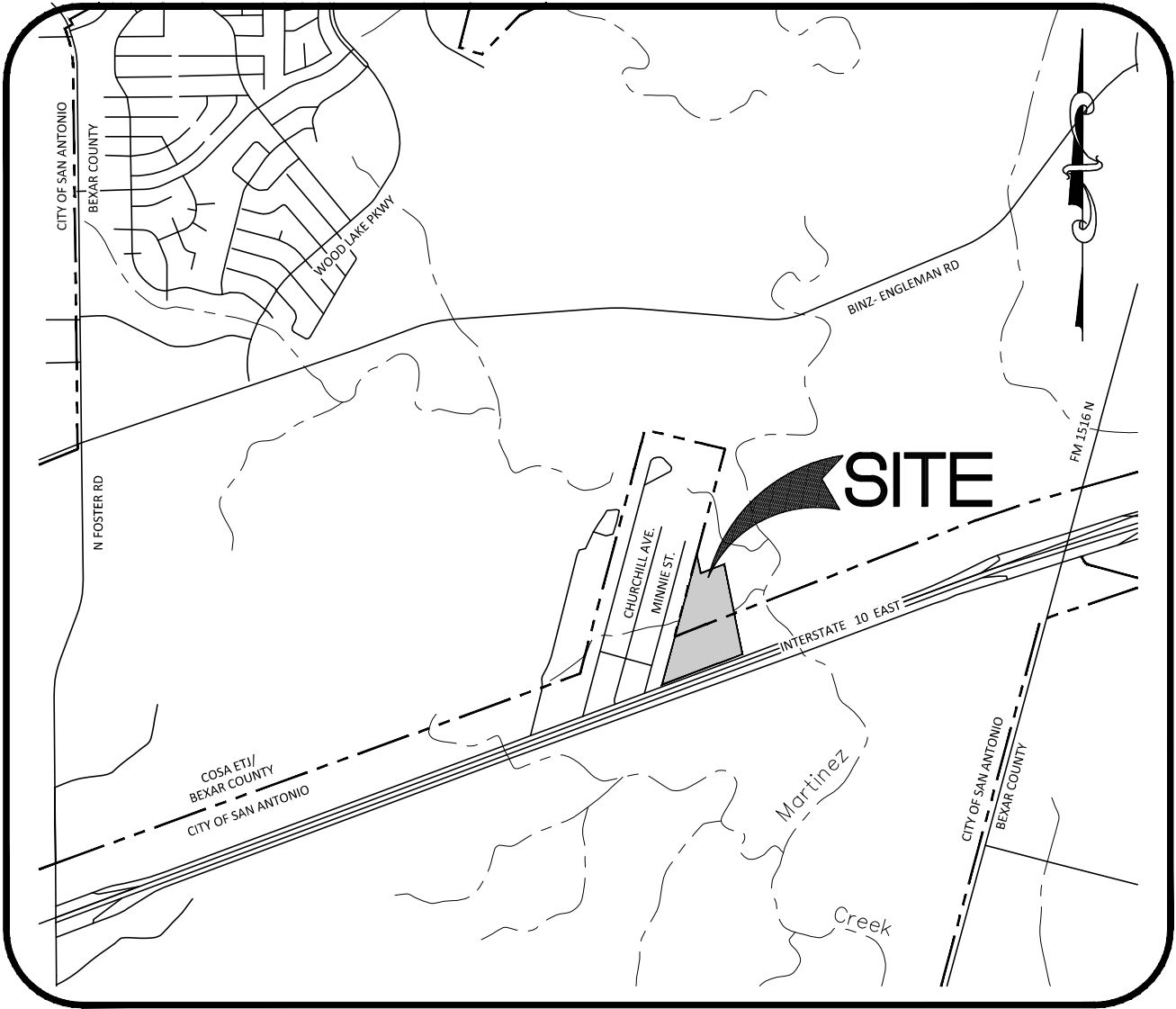
- All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:
 - Current Texas Commission on Environmental Quality (TCEQ) "Design 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.
 - Current TxDOT "Standard Specifications for Construction of Highways, Streets and Drainage".
 - Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction".
 - Current City of San Antonio "Standard Specifications for Public Works Construction".
 - Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
- 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.
- 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.
- 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.
- 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.
- 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 is supplied for verification purposes:
 - SAWS Utility Locates: <http://www.saws.org/Service/Locates>
 - COSA Drainage (210) 207-0724 or (210) 207-6026
 - COSA Traffic Signal Operations (210) 206-8480
 - COSA Traffic Signal Damages (210) 207-3951
 - Texas State Wide One Call Locator 1-800-545-6005 or 811
- 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.
- 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.
- The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating near trees.
- The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood Plain Permit.
- 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.
- Compaction note (Item 804): The Contractor shall be responsible for meeting the compaction requirements on all trench backfill and for paying for the tests performed by a third party. Compaction tests will be done at one location point randomly selected, or as indicated by the SAWS Inspector and/or the test administrator, per each 12-inch loose lift per 400 linear feet at a minimum. This project will not be accepted and finalized by SAWS without this requirement being met and verified by providing all necessary documented test results.
- A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division.

Water Section

- 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 of 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
- 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".
- 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)
- 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.
- All valves shall read "open right".
- PRVs Required: Contractor to verify that no portion of the tract is below ground elevation of 643 feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below 643 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).
- 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.
- Backflow Prevention Devices:
 - All irrigation services within residential areas are required to have backflow prevention devices.
 - All commercial backflow prevention devices must be approved by SAWS prior to installation.
- Final connection to the existing water main shall not be made until the water main has been pressure tested, chlorinated, and SAWS has released the main for tie-in and use.
- 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.

CONSTRUCTION PLANS FOR

ENCLAVE AT HORIZON POINTE WATER IMPROVEMENTS



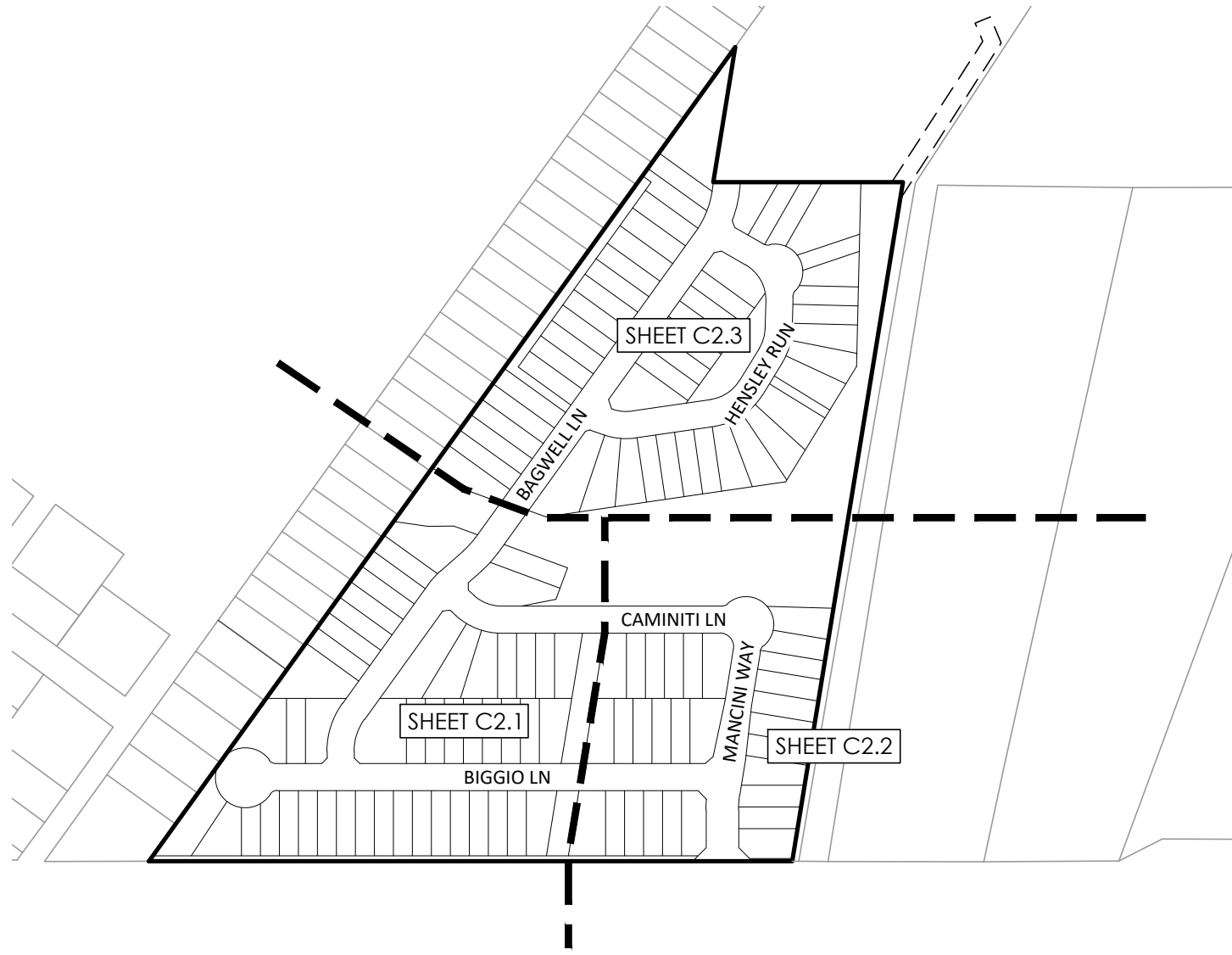
VICINITY MAP

N.T.S.



WATER PLANS

Sheet Number	Sheet Title
C2.0	WATER COVER
C2.1	OVERALL WATER PLAN
C2.2	OVERALL WATER PLAN
C2.3	OVERALL WATER PLAN
C2.4	WATER DETAILS
C2.5	WATER DETAILS



INDEX MAP
NOT TO SCALE

ESTIMATED WATER QUANTITIES

ITEM	DESCRIPTION	UNIT	EST/QTY
Phase I			
1	8" Water Tie-In	EA.	2
2	Trench Excavation Protection	L.F.	4,354
3	8" Pipe, C900 DR 18 PVC Class 235 (Incl. Joint Restraints)	L.F.	4,354
4	8" D.I. Pipe	L.F.	133
5	24" Steel Casing	EA.	65
6	8" Gate Valve, M.J. w/8" Valve Box, Complete	EA.	15
7	Standard Fire Hydrant	EA.	5
8	2" Blow-Off (Temporary)	EA.	2
9	3/4" Single Service: Short (Shared Trench)	EA.	92
10	3/4" Single Service: Long (Shared Trench)	EA.	33
11	3/4" Irrigation Service: Short	EA.	2
12	3/4" Irrigation Service: Long	EA.	1
13	D.I. Fittings	TON	1.25
14	Hydrostatic Testing	EA.	1
Phase II			
15	Meter Box	EA.	128

PRESSURE ZONE 828

Developer's Name	SAN ANTONIO LD, LLC		
Developer's Address	4058 NORTH COLLEGE AVE SUITE 300, BOX 9		
City	FAYETTEVILLE	State	AR
		Zip	72703
Phone #	(479) 455-9090	Fax #	
SAWS Block Map #	212590	Total EDU's	128
		Total Acreage	24.428
Total Linear Footage of Pipe	4,354 L.F. ~ 8" PVC, 133 L.F. ~ 8" DI	PLAT NO.	22-11800606
Number of Lots	125	SAWS Job No.	23-1101

NOTE TO CONTRACTOR:

BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS' AND MATERIAL SUPPLIERS' KNOWLEDGE, ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.

THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.

TRAFFIC CONTROL NOTE:

NECESSARY TRAFFIC CONTROL, FLAGMEN, DETOUR ROUTING AROUND WORK ACTIVITIES AND MAINTENANCE OF DETOUR SIGNS ARE THE CONTRACTOR'S RESPONSIBILITY. UNLESS DIRECTED OTHERWISE BY THE PLANS, IN ALL AREAS WHERE WORK IS ADJACENT TO OR CROSSING ROADWAYS, THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE OPEN TRAFFIC LANE (12 FT.), CONTROLLED WITH FLAGMEN, DURING WORKING HOURS. DURING ALL NON-WORKING HOURS A MINIMUM OF TWO TRAFFIC LANES (24 FT.) SHALL BE OPEN TO TRAFFIC. CONTRACTOR WILL FURNISH AND MAINTAIN ALL REQUIRED TRAFFIC CONTROL DEVICES PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD), TO PROPERLY WARN, GUIDE AND CONTROL TRAFFIC AT ALL TIMES DURING CONSTRUCTION.

MISCELLANEOUS GENERAL NOTES

- MACHINE CHLORINATION BY THE SAN ANTONIO WATER SYSTEM FOR NEW WATER MAINS GREATER THAN 800 FEET. CONTRACTOR SHALL CHLORINATE NEW MAINS WITH HTH FOR NEW WATER MAINS 750 FEET AND LESS.
- JUMPER CONNECTIONS TO EXISTING WATER SERVICE TO BE PROVIDED AS REQUIRED OR DIRECTED BY THE SAWS INSPECTOR.
- ALL MAINS ARE 90°-SITE.
- FITTINGS WEIGHT IS BASED ON M.J. DUCTILE IRON FITTINGS (COMPACT).
- CONTRACTOR TO OBTAIN STREET CUT PERMITS AS NECESSARY FOR WATER MAIN INSTALLATION, REPLACEMENT OF CURB, SIDEWALKS, BASE AND PAVEMENT WILL BE SUBSIDIARY TO THE ITEMS THAT THE STREET CUT WAS NEEDED FOR.

*6. MINIMUM COVER OVER WATER MAIN BASED ON FINISHED GROUND.
WATER LINE DIA. MIN. DEPTH
8"-12" 4'
≥16" 5'



Moy Tarin Ramirez Engineers, LLC

FIRM TBPELS ENG F-5297 SVY F-10131500

12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085







- Engineers
- Surveyors
- Planners

BEXAR COUNTY

SUBMITTAL SET

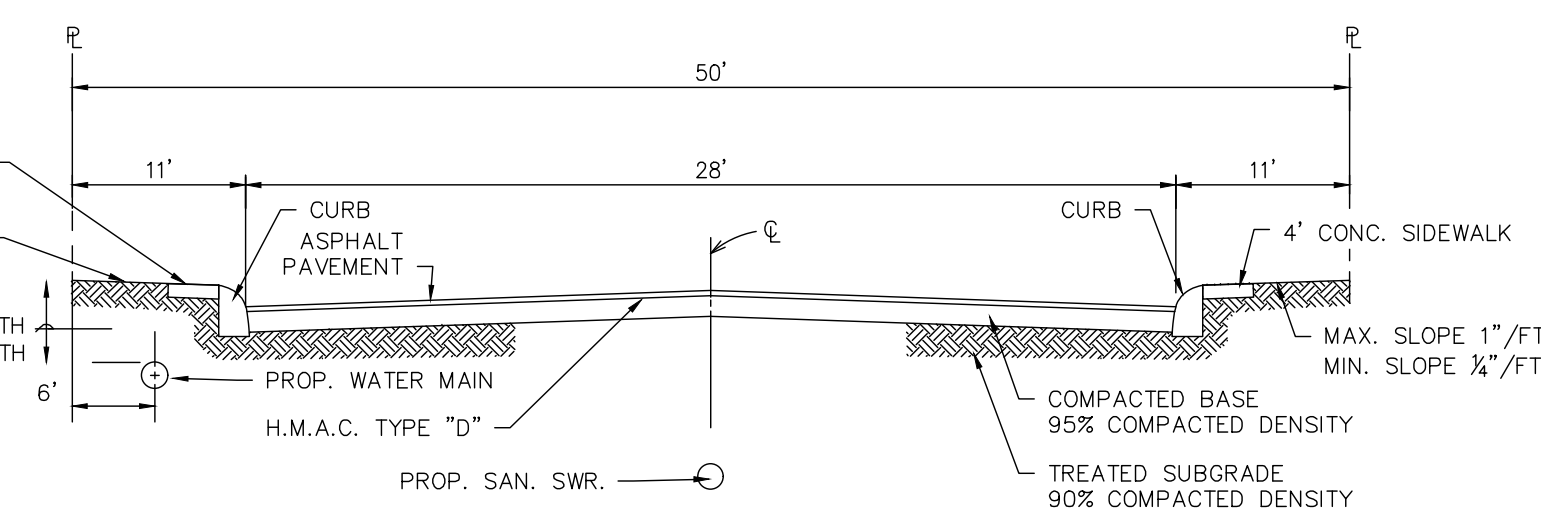
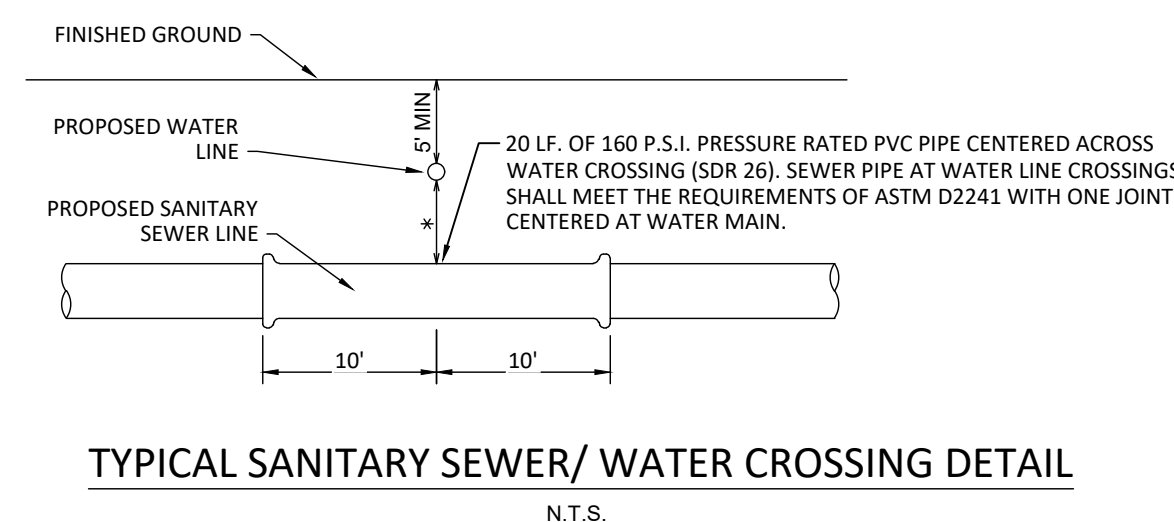
TEXAS C2.0



- | | | |
|--|---|--|
| EXISTING WATER MAIN | ----- 8" W ----- | |
| PROPOSED WATER MAIN | ----- 8" PVC ----- | |
| EXISTING FIRE HYDRANT |  | |
| PROPOSED FIRE HYDRANT |  | |
| EXISTING GATE VALVE |  | |
| PROPOSED GATE VALVE |  | |
| 3/4" SINGLE SERVICE | ----- ≤ | |
| ELEC, GAS, TELE, CABLE TV ESM'T. | E.G.T.T.V.E. | |
| EXISTING IRRIGATION CONTROL VALVE |  | |
| EXISTING WATER METER |  | |
| DEED & PLAT RECORDS OF BEXAR COUNTY, TEXAS D.P.R.B.C.T. | | |
| OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS O.P.R.M.C.T. | | |

<h2 style="text-align: center;">RESTRAINT JOINTS</h2>	
①	ALL TEES RESTRAINT JOINT AS REQUIRED PER SAWS DD-839-04
②	ALL BENDS RESTRAINT JOINT AS REQUIRED PER SAWS DD-839-08
③	ALL VALVES/DEAD ENDS RESTRAINT JOINT AS REQUIRED PER SAWS DD839-05
④	ALL VERTICAL BENDS RESTRAINT JOINT AS REQUIRED PER SAWS DD-839-06

* SEPARATION DISTANCE TO COMPLY WITH
TCEQ REGULATION 30 TAC 290.44 (E)
APPENDIX E & 30 TAC 217.53 (D)
APPENDIX D - SEPARATION DISTANCE

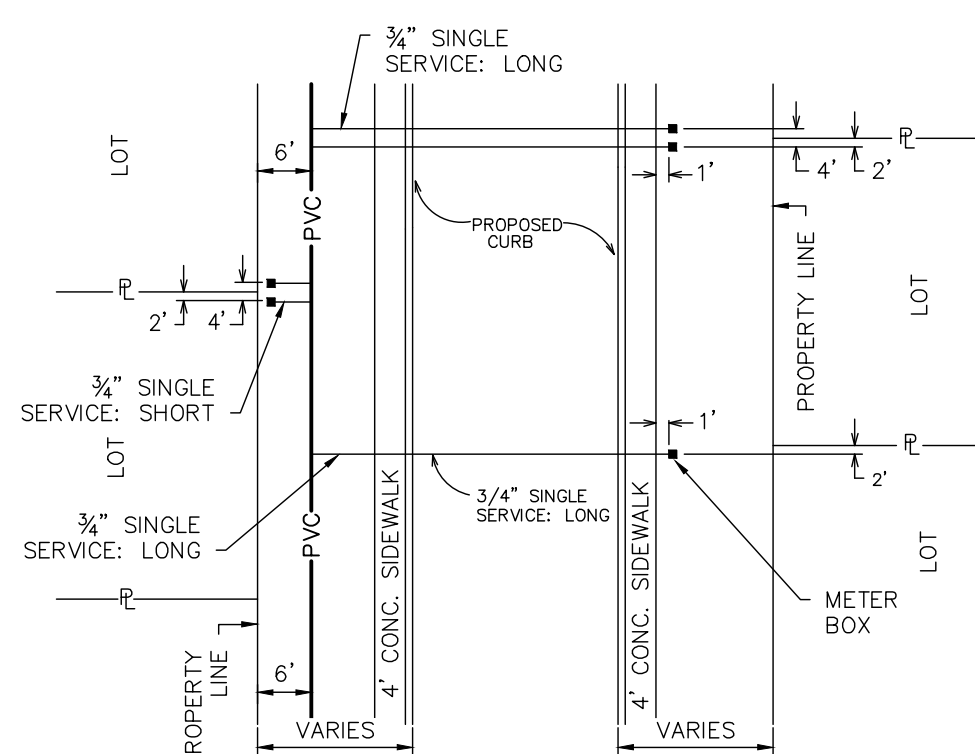


TYPICAL STREET CROSS-SECTION (28' PAVEMENT)

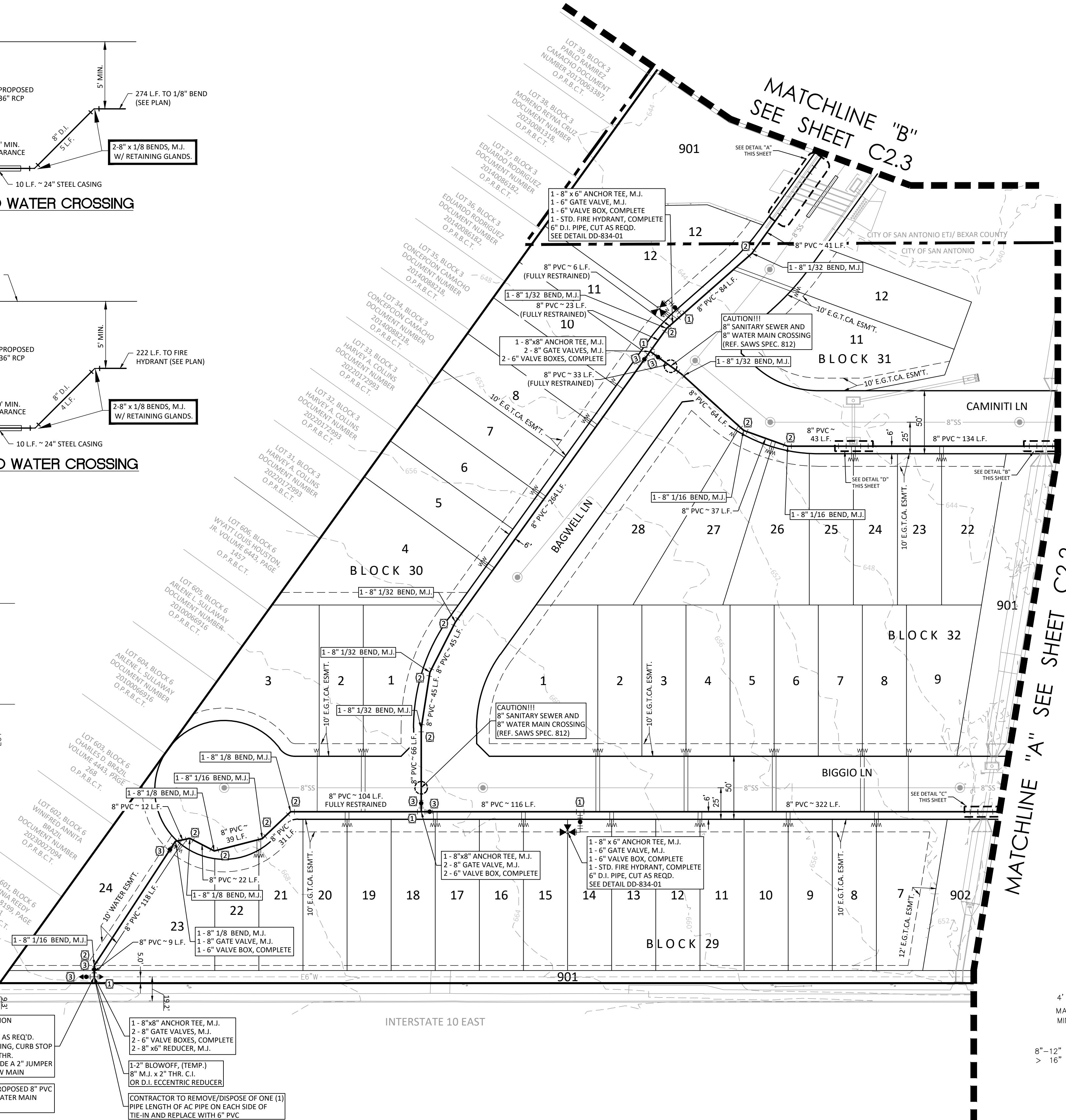
PRESSURE ZONE 828

Developer's Name SAN ANTONIO LD, LLC
Developer's Address 4058 NORTH COLLEGE AVE SUITE 300, BOX 9
City FAYETTEVILLE, State AR Zip 72703
Phone # (479) 455-9090 Fax # _____
SAWS Block Map # 212590 Total EDU's 128 Total Acreage 24.428
Total Linear Footage of Pipe 4,354 L.F. - 8" PVC, 133 L.F. - 8" DI PLAT NO. 22-11800606
Number of Lots 125 SAWS Job No. 23-1101

SUBMITTAL SET



TYPICAL METER BOX DETAIL
N.T.S.

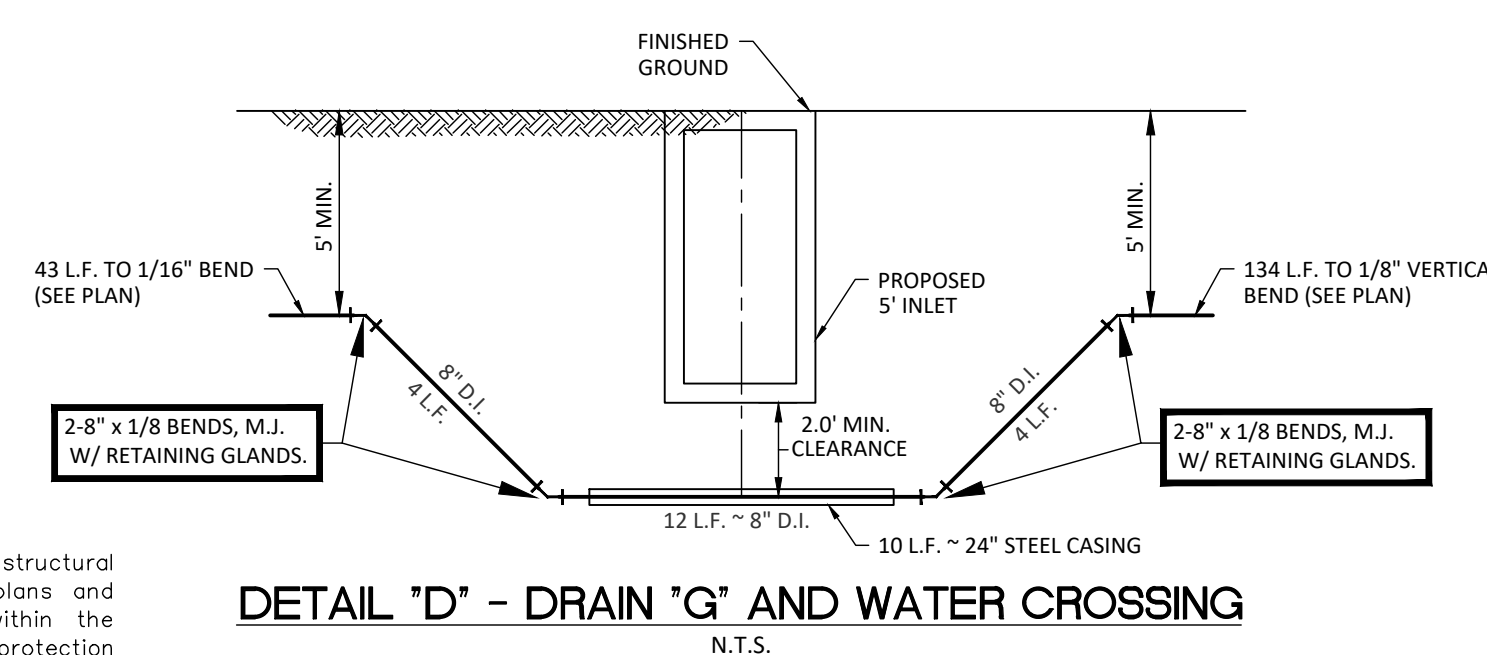


CAUTION!!!
EXISTING WATER MAIN, SANITARY
SEWER MAIN, MANHOLES, SEWER
LATERALS AND UTILITIES
CROSSING. CONTRACTOR TO
CHECK LOCATION VERTICAL AND
HORIZONTAL OF EXISTING UTILITIES
BEFORE CONSTRUCTION. IF ANY
DISCREPANCY NOTIFY ENGINEER

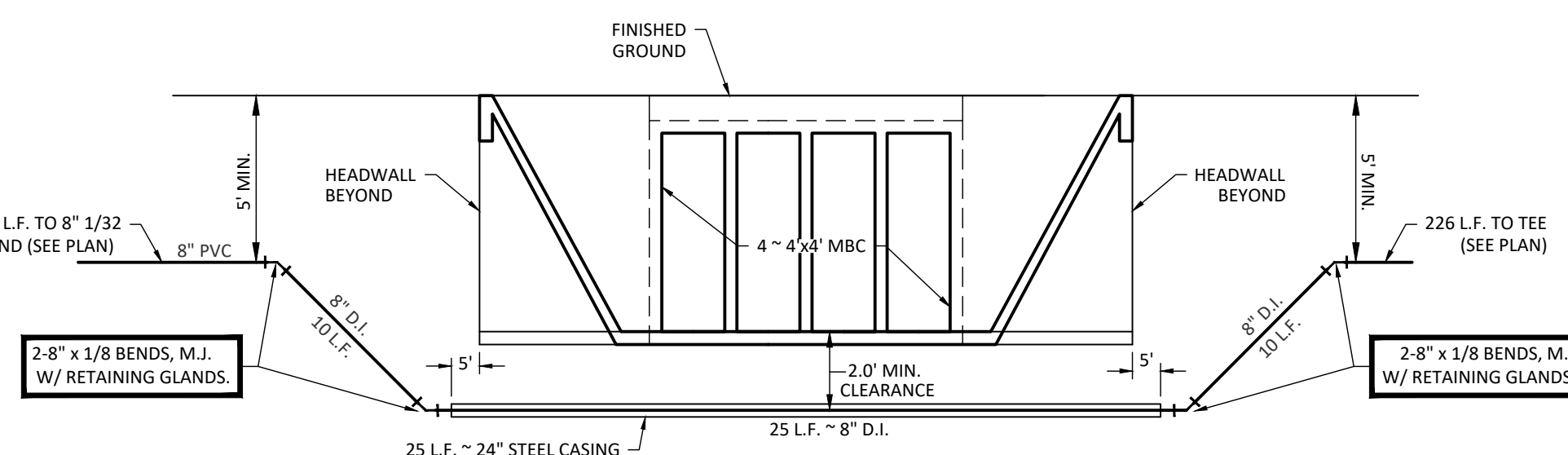
ALL 8" PIPE SHALL BE C900 CLASS 235 DR 18

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 provide geotechnical information and the anticipated installation site(s) within the project area. The consultant shall review the project plans and specifications, systems, programs and/or procedures for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide adequate trench excavation safety protection that comply with the requirements of OSHA standards governing trench excavations. Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the excavation of trenches and trench shoring and trench shields.



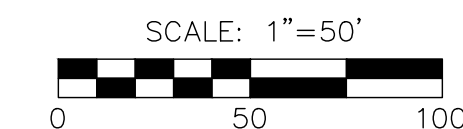
DETAIL "D" - DRAIN "G" AND WATER CROSSING
N.T.S.



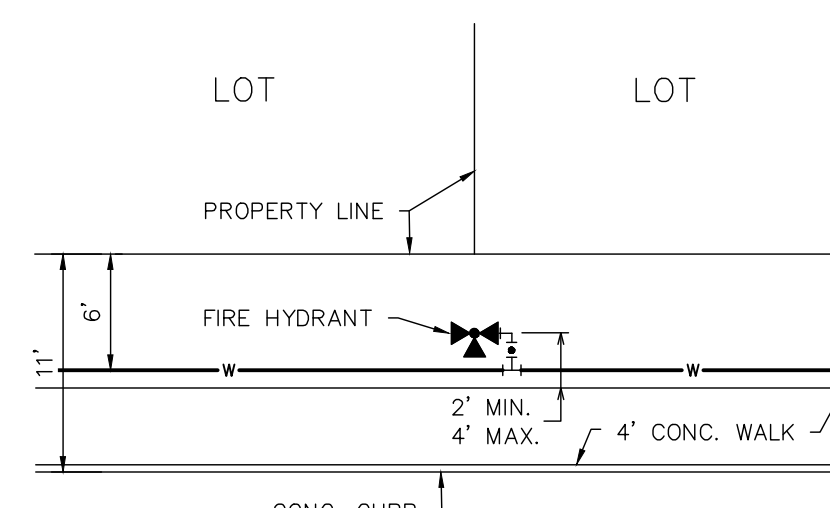
DETAIL "A" - DRAIN 'A' AND WATER CROSSING
N.T.S.

Pilot Date: April 9, 2021 User ID: Mayra Aguilera
 8: Edmundo TractUnit 1\Normales\22179_C21-C23_Overall Water.doc

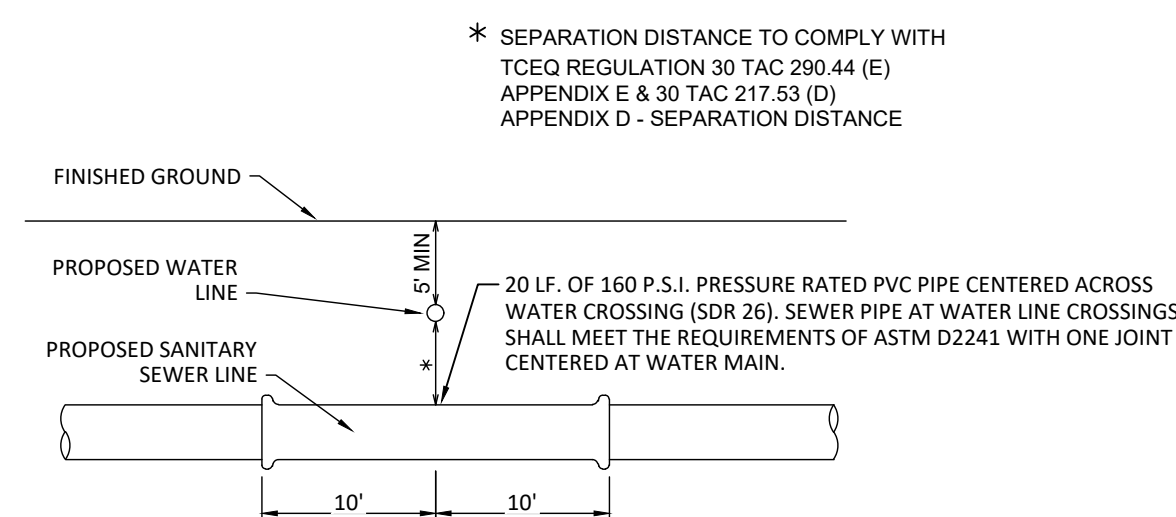
ALL 8" PIPE SHALL BE C900 CLASS 235 DR 18



EXISTING WATER MAIN	----- 8" W -----	
PROPOSED WATER MAIN	===== 8" PVC =====	
EXISTING FIRE HYDRANT		
PROPOSED FIRE HYDRANT		
EXISTING GATE VALVE		
PROPOSED GATE VALVE		
3/4" SINGLE SERVICE	----- 3/4" -----	
ELEC, GAS, TELE, CABLE TV ESM'T.		E.G.T.V.T.V.E.
EXISTING IRRIGATION CONTROL VALVE		
EXISTING WATER METER		
DEED & PLAT RECORDS OF BEXAR COUNTY, TEXAS		D.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS		O.P.R.M.C.T.

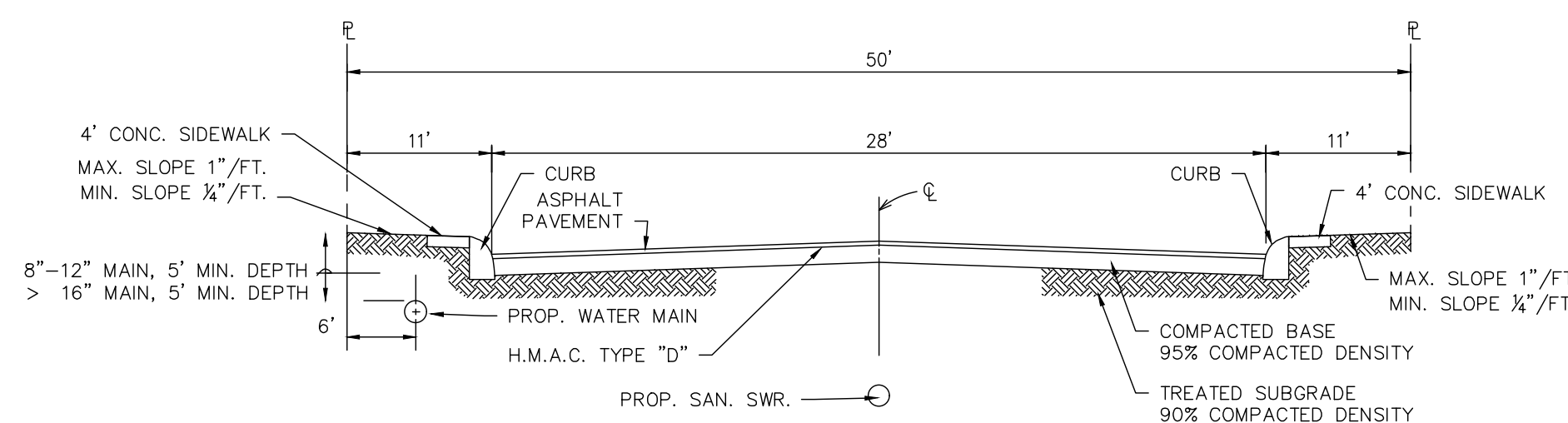


TYPICAL FIRE HYDRANT DETAIL
N.T.S.



TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

- ① ALL TEES RESTRAINT JOINT AS REQUIRED PER
SAWS DD-839-04
- ② ALL BENDS RESTRAINT JOINT AS REQUIRED PER
SAWS DD-839-08
- ③ ALL VALVES/DEAD ENDS RESTRAINT JOINT AS REQUIRED
PER SAWS DD839-05
- ④ ALL VERTICAL BENDS RESTRAINT JOINT AS REQUIRED
PER SAWS DD-839-06



TYPICAL STREET CROSS-SECTION (28' PAVEMENT)

Developer's Name SAN ANTONIO LD, LLC			
Developer's Address 4058 NORTH COLLEGE AVE SUITE 300, BOX 9			
City FAYETTEVILLE,	State AR	Zip 72703	
Phone # (479) 455-9090	Fax #		
SAWS Block Map # 212590	Total EDU's 128	Total Acreage 24.428	
Total Linear Footage of Pipe 4,354 L.F. ~ 8" PVC, 133 L.F. ~ 8" DI	PLAT NO 22-11800606		
Number of Lots 125	SAWS Job No 23-1101		








Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and provide geotechnical information and the anticipated installation site(s) within the project area and the anticipated trench location(s) to the Contractor. The Contractor shall prepare and submit to the Engineer for the project described in the contract documents, systems, programs and/or procedures for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with the OSHA standards governing the trench excavation safety protection. The Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the trench excavation safety protection.

SUBMITTAL SET



ALL 8" PIPE SHALL BE C900 CLASS 235 DR 18



EXISTING WATER MAIN	----- E8"W -----
PROPOSED WATER MAIN	----- 8" PVC -----
EXISTING FIRE HYDRANT	
PROPOSED FIRE HYDRANT	
EXISTING GATE VALVE	
PROPOSED GATE VALVE	
3/4" SINGLE SERVICE	-----  -----
ELEC, GAS, TELE, CABLE TV ESM'T.	E.G.T./T.V.E.
EXISTING IRRIGATION CONTROL VALVE	
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DEED & PLAT RECORDS OF BEXAR COUNTY, TEXAS	D.P.R./B.C.T.
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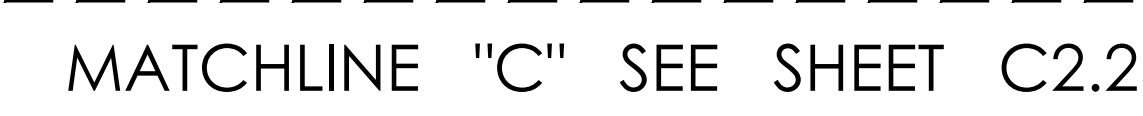
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PRESSURE ZONE 828

Developer's Name SAN ANTONIO LD, LLC
Developer's Address 4058 NORTH COLLEGE AVE SUITE 300, BOX 9
City FAYETTEVILLE, State AR Zip 72703
Phone # (479) 455-0990 Fax # _____
SAWS Block Map # 212590 Total EDU's 128 Total Acreage 24.428
Total Linear Footage of Pipe 4,354 L.F. ~ 8" PVC, 133 L.F. ~ 8" DI PLAT NO. 22-11800606
Number of Lots 125 SAWS Job No. 23-1101

SUBMITTAL SET



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 for the project described in the contract documents. The Contractor's geotechnical design, safety, equipment, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independent employee or employee of 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.

SUBMITTED BY:
MOY TARIN RAMIREZ ENGINEERS, LLC.
12770 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

OWNER/DEVELOPER

SAN ANTONIO LD, LLC
4058 N COLLEGE ST SUITE 300, BOX 9
FAYETTEVILLE, AR 72703
(479) 455-9090

CONSTRUCTION PLANS FOR

ENCLAVE AT HORIZON POINTE

SANITARY SEWER IMPROVEMENTS



SITE PLAN (BENCHMARKS)

SCALE: 1"=250'

BENCHMARKS

- BM CP-1: 1/2" IRON ROD W/PINK PLASTIC CAP STAMPED "MTR ENG CONTROL"
N 13713432.0100
E 2180542.8820
ELEV = 663.37
- CP-BM2: NAIL W/SHINER STAMPED "MTR ENGINEERING"
N 13,713,369.0580
E 2,180,833.8780
ELEV.=664.39
- CP-BM3: NAIL W/SHINER STAMPED "MTR ENGINEERING"
N 13,713,166.4710
E 2,180,275.7110
ELEV.=673.00
- CP-BM4: NAIL W/SHINER STAMPED "MTR ENGINEERING"
N 13,713,580.7930
E 2,181,402.1810
ELEV.=663.74

NOTE TO CONTRACTOR:

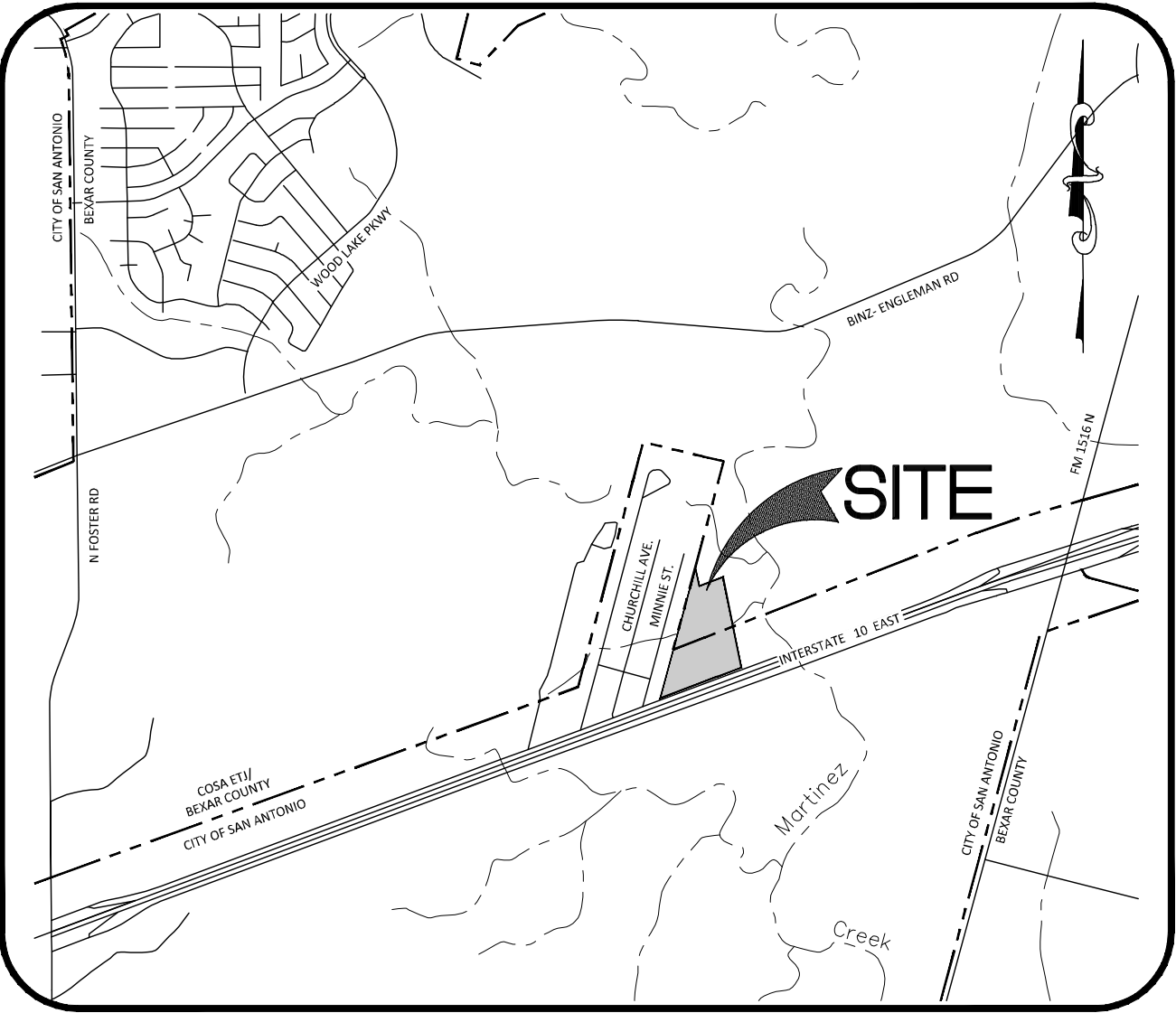
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CONTRACTOR SHALL ADD 3-INCH PVC MARKERS TO THE ENDS OF ALL SANITARY SEWER LATERALS. MARKERS SHALL EXTEND 2 FEET ABOVE FINAL GRADE.

GENERAL SEWER NOTES

- ALL SEWER CONSTRUCTION IS WITHIN THE JURISDICTION OF THE SAN ANTONIO RIVER AUTHORITY (SARA).
- A PRECONSTRUCTION CONFERENCE WILL BE HELD WITH THE CONTRACTOR, CONSULTANT AND SARA STAFF PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN A COPY OF THE TECHNICAL SPECIFICATIONS FOR UTILITIES CONSTRUCTION, DATED APRIL, 2012, AS PUBLISHED BY THE SAN ANTONIO RIVER AUTHORITY. THESE SPECIFICATIONS AND THE GENERAL NOTES SHOWN ON THE PLANS WILL GOVERN ALL SEWER CONSTRUCTION IN THIS PROJECT.
- DENSITY TESTING OF SECONDARY BACKFILL MATERIAL IN SEWER TRENCHES WILL BE REQUIRED. SEE SECTION 400.4 OF THE SPECIFICATIONS FOR MORE INFORMATION.
- SEEPAGE RETAINERS WILL BE REQUIRED AT CERTAIN LOCATIONS. SEE SECTION 400.4(C) OF THE SPECIFICATIONS FOR MORE INFORMATION.
- COORDINATE ALL WORK WITH THE SARA INSPECTOR.



VICINITY MAP

N.T.S.

SUBMITTAL DATE:

DECEMBER 2022

REVISION DATE:

DECEMBER 2023

LEGAL DESCRIPTION:

BEING A TOTAL OF 24.428 ACRES (1,063,822.32 SQUARE FEET) OF LAND, SITUATED IN COUNTY BLOCK NUMBER 5090, AND BEING PART OF THE GUADALUPE TORRES SURVEY NO. 38, ABSTRACT NO. 739, BEXAR COUNTY, TEXAS AND INCLUDING THE TRACT CALLED 10.058 ACRES OF LAND CONVEYED TO SAN ANTONIO LD, LLC BY GENERAL WARRANTY DEED AS RECORDED IN DOCUMENT NUMBER 20220203708 AND THE TRACT CALLED 14.384 ACRES OF LAND CONVEYED TO SAN ANTONIO LD, LLC BY GENERAL WARRANTY DEED AS RECORDED IN DOCUMENT NUMBER 20200143665, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS



Moy Tarin Ramirez Engineers, LLC

FIRM TBPELS ENG F-5297 SVY F-10131500

12770 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249

- Engineers
- Surveyors
- Planners

TEL: (210) 698-5051
FAX: (210) 698-5085

SANITARY SEWER

Sheet Number	Sheet Title
C3.0	SANITARY SEWER COVER
C3.1	SANITARY SEWER GENERAL NOTES
C3.2	SANITARY SEWER DETAILS
C3.3	OVERALL SEWER
C3.4	OVERALL SEWER
C3.5	SANITARY SEWER PLAN & PROFILE LINE A
C3.6	SANITARY SEWER PLAN & PROFILE LINE F
C3.7	SANITARY SEWER PLAN & PROFILE LINE B
C3.8	SANITARY SEWER PLAN & PROFILE LINE C
C3.9	SANITARY SEWER PLAN & PROFILE LINE D & LINE E

ESTIMATED SEWER QUANTITIES

ITEM	DESCRIPTION	UNIT	EST/QT/Y
1	Tie into Existing Sanitary Sewer Main	EA.	1
2	Trench Excavation Protection	L.F.	4,144
3	8" Sanitary Sewer Pipe, SDR-26 (0'-6")	L.F.	685
4	8" Sanitary Sewer Pipe, SDR-26 (6'-10')	L.F.	1,519
5	8" Sanitary Sewer Pipe, SDR-26 (10'-14')	L.F.	1,494
6	8" Sanitary Sewer Pipe, SDR-26 (14'-18')	L.F.	446
7	Standard Sanitary Sewer Manhole	EA.	20
8	External Drop Manhole	EA.	3
9	Extra Depth Manhole	V.F.	95.9
10	Sanitary Sewer Laterals, SDR-26 Class 160 with PVC Markers	L.F.	4,573
11	Vertical Stacks	V.F.	278.4
12	Sewer Main Television Inspection	L.F.	4,144
13	30" Steel Casing	L.F.	40
14	20" Steel Casing	L.F.	40

CAUTION!

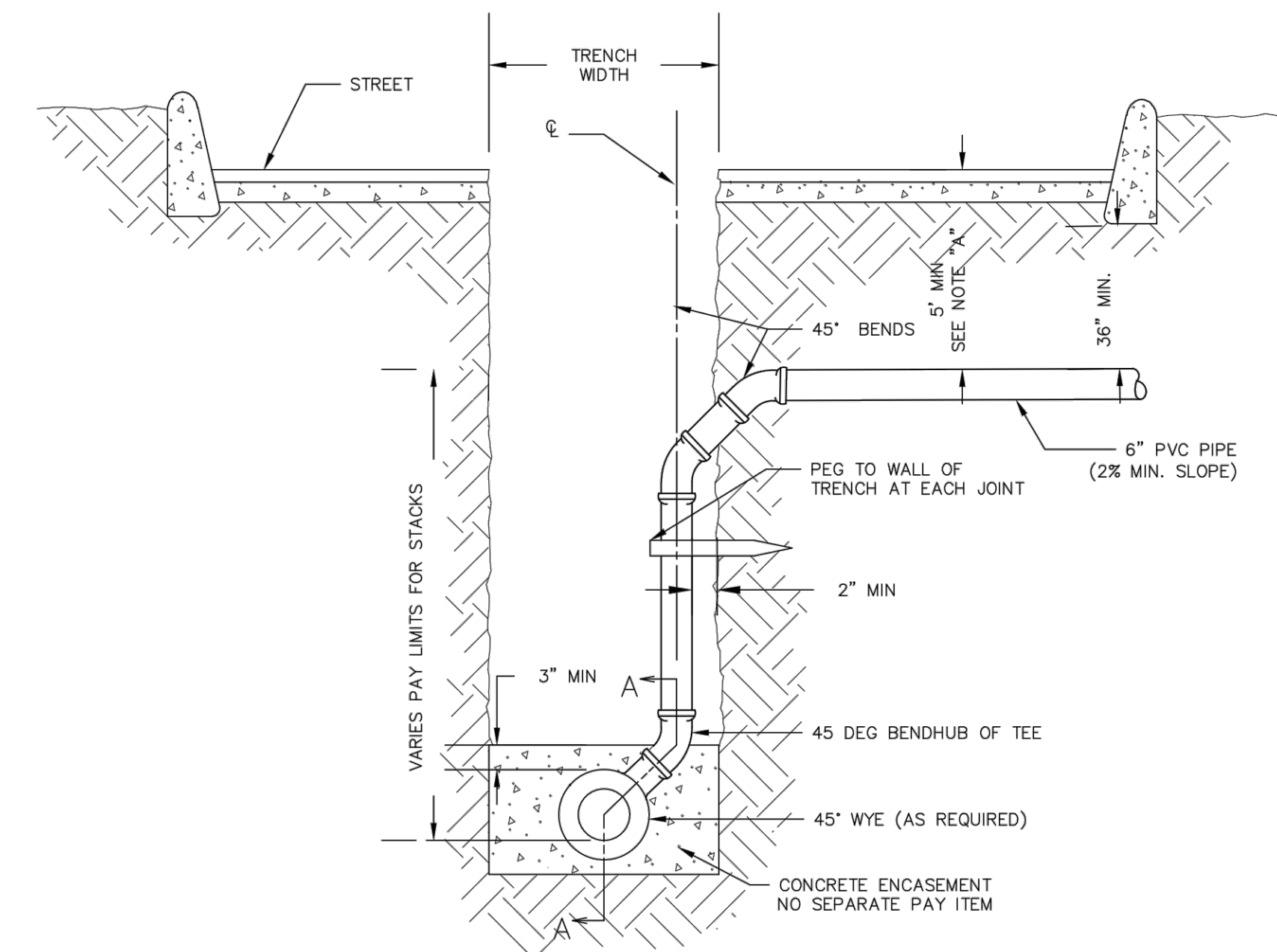
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

TRENCH EXCAVATION SAFETY PROTECTION

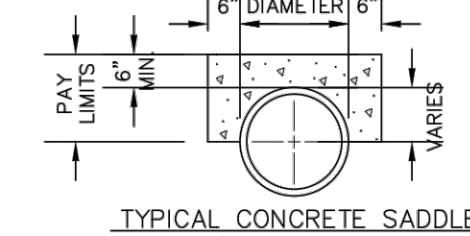
Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation site(s) within the project work area in order to implement Contractor's trench excavation safety protection systems, programs and/or procedures for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

SEWER NOTES:	31. CONTRACTOR WILL BE HELD LIABLE FOR ANY DAMAGE TO SEWER COLLECTION SYSTEM, STOPPAGES, OVER-FLOWS, OR BACKUPS INTO HOMES CAUSED BY LOST OR RUNAWAY SEWER PLUGS.	41. PENETRATION INTO THE MANHOLE WILL BE CORE DRILLED, DRAINAGE TO EXISTING MANHOLE WILL BE REPAIRED AT CONTRACTOR'S EXPENSE. IF EXISTING SEWER MANHOLE SEAL COATING IS COMPROMISED, ALL OF THE MANHOLE WILL BE RESEALED.	<div> <div>SEWER</div> <div> <div>DATE: 10/2/2023</div> <div>REVISED: 10/2/2023</div> </div> <div> <div>GENERAL NOTES</div> <div>2 of 4</div> </div> </div>
25. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THE WORK. ALL PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND CONTROL SHALL BE TRAINED ON THE PROPER RESPONSE SHOULD AN SSO OCCUR. THE CONTRACTOR SHALL:	32. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO WASTEWATER TREATMENT EQUIPMENT CAUSED BY LOST OR RUNAWAY SEWER PLUGS. CONTRACTOR WILL BE HELD LIABLE FOR REPAIRS.	42. IF ANY EXISTING MANHOLES CONNECTED WITH THIS PROJECT ARE FOUND TO HAVE INFILTRATION, THE MANHOLES SHALL BE SEALED AND TESTED AT CONTRACTOR'S EXPENSE.	
25.1. IDENTIFY THE SOURCE OF THE SSO AND ATTEMPT TO ELIMINATE ANY ADDITIONAL SPILLAGE.	33. RIVER AUTHORITY IS NOT RESPONSIBLE FOR ANY ABNORMALITIES ON STUB OUT, INVERT, GRADE OR SLOPE FOR ANY EXISTING MANHOLE 12-IN OR SERVICE LATERAL	43. 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. STUB-OUTS SHALL BE FLUSHED.	
25.2. NOTIFY RIVER AUTHORITY CONSTRUCTION INSPECTIONS DIVISION AT 210-302-4216 OR 210-219-0130.	MANHOLE NOTES:	44. MANHOLE COVER INSERTS ARE SHOWN IN RIVER AUTHORITY APPROVED PRODUCT SHEET. SEALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY FIELD MEASUREMENTS FOR THE MANUFACTURER PRIOR TO PRODUCTION.	
25.3. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO.	34. THERE SHALL BE 400 FEET MAXIMUM SPACE BETWEEN MANHOLES TO PROVIDE ACCESS FOR CLEANING. A 16-FOOT WIDE GATE WITH A LOCK SHALL ALSO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR FOR ACCESSING THE SANITARY SEWER LINE IN EASEMENTS.	45. BEFORE BACK FILLING/COMPACTION/CONCRETE ENCASEMENT, ALL MANHOLE JOINT SECTION RISERS, CONE SECTIONS AND GRADE RING SHALL BE WRAPPED WITH INFIL-SEAL GATOR GRADE RING WITH ETHYLENE MATTER. ADHESIVE SEALANT WITH A MINIMUM THICKNESS OF 30 MILS. JOINT SEALANT MUST MEET ASTM C923. MASTIC MUST MEET ASTM C 990 OR BE APPROVED BY THE RIVER AUTHORITY ENGINEER.	
25.4. CONTAIN SEWAGE FROM THE SSO TO PREVENT CONTAMINATION OF WATERWAYS.	35. ALL MANHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS AT LEAST FOUR (4) INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING GROUND IN UNPAVED AREAS. IN PAVED SYSTEMS, THE MANHOLE RING SHALL BE FLUSH WITH THE PAVEMENT.	46. IF CONCRETE THROAT RINGS ARE TO BE INSTALLED THEY MUST BE USED IN CONJUNCTION WITH A UV STABILIZED POLYETHYLENE LINER AND 1/1 BARRIER. 1/1 BARRIER MUST MEET THE FOLLOWING ASTM STANDARDS: ASTM D-790/1505 DENSITY OF POLYETHYLENE MATERIALS, ASTM D-1238 MELT FLOW INDEX, ASTM 638 TENSILE STRENGTH W/50 (mm/mm), ASTM 790 FLEXURAL MODULUS, ASTM 648 HEAT DEFORMATION TEMPERATURE @GPEAL, ASTM 1693 ESCR/100K IEPAL /10% IEPAL.	
25.5. CLEAN UP TOP OF SITE AND REMOVE CONTAMINATED MATERIALS.	36. EVERY THIRD MANHOLE COVER WILL HAVE A 1/4" HOLE FOR A VENT. VENTING SHALL COMPLY WITH CAST 217.55.	47. A MINIMUM OF TWO AND A MAXIMUM OF FOUR THROAT RINGS WILL BE USED AT EACH MANHOLE FOR ADJUSTMENT.	
25.6. DISINFECT THE AREA OF THE SPILL WITH A MIXTURE OF 1% BLEACHING AND WATER.	37. EACH MANHOLE SHALL HAVE TWO LOCKS INSTALLED TO PREVENT REMOVAL.	48. DROP MANHOLES SHALL BE REQUIRED WHEN THE INFLOW ELEVATION IS MORE THAN 18 INCHES ABOVE THE OUTFLOW ELEVATION. DROP SHALL BE LOCATED OUTSIDE THE MANHOLE WITH THE FLOWLINE ELEVATION LOCATED BETWEEN THE CENTER LINE AND TOP OF SEWER LINE.	
25.7. CLEAN THE AFFECTED SEWER LINE AND REMOVE ANY DEBRIS.	38. ALL MANHOLES SHALL HAVE A 30" OPENING, WATER/TIGHT RINGS AND COVERS, WITH THE RIVER AUTHORITY LOGO AND 1/1 BARRIER.	49. THERE SHALL BE CONCRETE ENCASEMENT 18 INCHES AROUND MANHOLE RING, AND 18 INCHES AROUND THE THROAT. THE SEALING SYSTEM, CONCRETE ENCASEMENT SHALL BE CIRCULAR, FORMED, AND HAVE A SMOOTH OR BROOM FINISH. SEE SPECIFICATIONS.	
25.8. IDENTIFY AND TRAIN PERSONNEL RESPONSIBLE FOR SPILLAGE PREVENTION AND CONTROL.	39. NEW MANHOLE PROTECTIVE COATING LINER MUST BE APPLIED TO ALL MANHOLES. APPLICATION PROCEDURES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND PER THE FOLLOWING SPECIFICATIONS:	50. SEWER PIPE CONNECTIONS TO PRECAST MANHOLES SHALL BE APPROVED BY RIVER AUTHORITY. THE PROJECT PRODUCT LIST, SEWER PIPE CONNECTIONS TO MONOLITHIC MANHOLES WILL BE AS SHOWN ON THE STANDARD DETAIL SHEET. ANY CHANGES IN THESE METHODS MUST BE APPROVED BY RIVER AUTHORITY ENGINEER.	
25.9. NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET FORTH BY RIVER AUTHORITY.	39.1. CONTRACTOR WILL BE RESPONSIBLE FOR MANHOLE SAFETY AND CONFINED SPACE ENTRY SET BY OCCUPATIONAL SAFETY AND HEALTH STANDARDS, 29 CFR 1910.146 APP E.	51. ALL PIPE TRENCHING, BEDDING AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH APPROPRIATE ASTM/ANSI SPECIFICATIONS [REFERENCE 30 TAC 217.5; ASTM C-12 (ANSI A106.2) OR ASTM D-2321 (ANSI 615.171)] ALL COMPACTION SHALL BE TO 98% DENSITY. THERE SHALL BE A MINIMUM OF 15 FEET LIFT FOR EVERY 400 FEET. ALL TESTING SHALL BE IN COMPLIANCE WITH CURRENT TxDOT SPECIFICATIONS.	
26. TIE-INS OR SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE RIVER AUTHORITY INSPECTOR AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN.	39.2. THE CONTRACTOR SHALL NOTIFY THE RIVER AUTHORITY UTILITIES INSPECTIONS DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE OF ANY FIELD SURVEY.	52. A SAND TRANSLATION PREVENTION COLLAR SHALL BE INSTALLED ON OPTION. TRANSITION FROM SELECT INITIAL BACKFILL TO A SATIONAL SELECT INITIAL BACKFILL. A 2-FOOT LONG CLASS B CONCRETE ENCASEMENT BETWEEN THE TWO SHALL BE PROVIDED FOR THE ENTIRE LENGTH OF THE COLLAR. THE COLLAR SHALL BE 18 FEET LONG ALONG PIPE AND 20 FEET FROM WALL OF MANHOLE IN EACH DIRECTION.	
26.1. CONTRACTOR SHALL PROVIDE A SEQUENCE OF WORK AS RELATED TO TIE-INS AT AN ADDITIONAL COST TO RIVER AUTHORITY OR THE PROJECT.	39.3. ALL NEW MANHOLES AND THE EXISTING MANHOLE THAT THE PROPOSED SEWER LINE SHALL HAVE THE INTERIOR WALL PREPARED AS PER MANUFACTURER'S RECOMMENDATIONS AND COATED WITH A RIVER AUTHORITY APPROVED PRODUCT.		
27. ELEVATIONS OF THE TOP OF MANHOLES AND INVERTS ARE FOR REFERENCE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ADJUSTMENTS AND ADJUSTMENTS FOR THE TOPS OF MANHOLES AND INVERTS TO MATCH THE FINISHED GRADE OF THE PROJECT IMPROVEMENTS (NPSI).	39.4. FOR ALL MANHOLES, APPLY THE CEMENTITIOUS COATING FIRST, FOLLOWED BY THE EPOXY COATING, LAFARGE SEMPERCOAT 1200. IF ONLY ONE APPROVED PRODUCT WHICH COMBINES THE CEMENTITIOUS AND EPOXY COATINGS, UNLESS OTHERWISE LISTED IN THE APPROVED PRODUCT LIST.		
28. THE CONTRACTOR SHALL PROVIDE BYPASS PUMPING OF SEWAGE AROUND EACH SEGMENT OF PIPE TO BE REPLACED. CONTRACTOR SHALL HAVE STAFFINGS AVAILABLE TO BYPASS FLOW IN CASE PRIMARY PUMP FAILS. THE CONTRACTOR SHALL PROVIDE A SEQUENCE OF BYPASS PUMPING FOR REVIEW AND APPROVAL BY THE RIVER AUTHORITY. THE CONTRACTOR SHALL PROVIDE A DETAILED SKETCH SHOWING THE LOCATION OF BYPASS PUMPING, SPECIFICATIONS FOR THE PUMPING EQUIPMENT, AND TYPE, SIZE, CAPACITY AND NUMBER OF PUMPS REQUIRED TO HANDLE THE PEAK WEATHER FLOW.	39.5. CEMENTITIOUS COATING WITH REQUIRED ONE-INCH-THICK APPLICATION: SEE RIVER AUTHORITY APPROVED PRODUCT SHEET.		
29. CONTRACTOR WILL MAINTAIN SERVICE TO ALL EXISTING SANITARY SEWERS AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR WILL CLEAN ALL DEBRIS, GRAVEL, DIRT, ETC. OUT OF MANHOLES AND SEALS CAUSED BY DEBRIS.	39.6. EPOXY COATING: WITH SPECIFIED THICKNESS APPLICATION: SEE RIVER AUTHORITY APPROVED PRODUCT SHEET.	</	

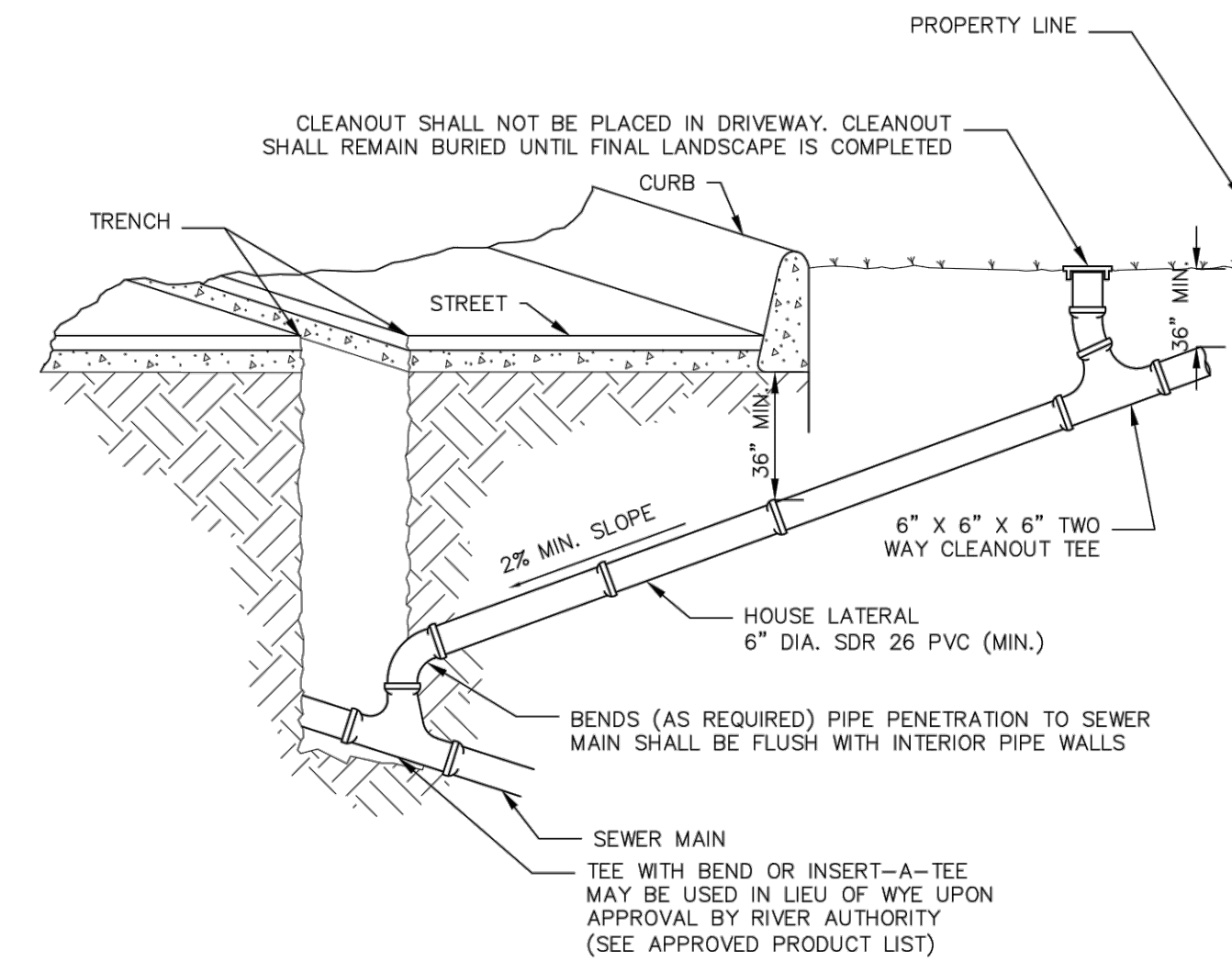
WATERTIGHT TESTING (24 HOURS):		THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO:		94. A COPY OF ALL TESTING RESULTS INCLUDING BACKFILL COMPACTION TESTS SHALL BE FORWARDED TO THE RIVER AUTHORITY.	
84. ALL INTERCEPTORS SHALL BE WATER TESTED OUT AT JOB SITE AFTER BEING INSTALLED (PLUG BOTH ENDS AND FILL TO TOP OF INTERCEPTOR). INTERCEPTOR SHALL SHOW NO LEAKAGE FROM SECTION SEAMS, PINHOLES, OR OTHER IMPERFECTIONS. ANY LEAKAGE IS CAUSE FOR REJECTION, WHEN LEAKAGE OCCURS, ADDITIONAL WATER TESTING SHALL BE MADE AFTER CORRECTING MEASURE TEST, REPORTS SHALL SHOW TOTAL NUMBER OF INTERCEPTERS TESTED, WHEN LEAKAGE OCCURS, CORRECTIVE MEASURES TAKEN SHALL BE REPORTED BY THE RIVER AUTHORITY INSPECTORS. RIVER AUTHORITY INSPECTORS SHALL RECORD IN DAILY LOG WITH PROJECT NAME, DATE IT WAS TESTED AND COMPLETED.		A. PULL MANHOLE AFTER 30 DAYS OF INSTALLATION		95. 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.	
84.1. MANHOLES WILL BE REQUIRED ON SIX (6) INCH AND LARGER LATERALS WHERE THEY CONNECT TO THE MAIN.		B. PERFORM AIR TEST		96. 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 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. SPECIALLY, CONTRACTOR AND/OR CONTRACTORS 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.	
84.2. LATERALS WILL NOT BE ATTACHED TO SEWER MAINS THAT ARE DEEPER THAN TWELVE (12) FEET.		C. PULL WIPER (AFTER STREET HAS BEEN ASPHALTED), AS APPLICABLE		97. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT STOCKPILE ANY WASTE MATERIAL IN THE 100 YEAR FLOODPLAIN.	
84.3. FITTINGS ARE NOT PERMITTED ON LATERALS BETWEEN THE WYE AND THE PROPERTY LINE.		D. VACUUM TEST ALL MANHOLES WITHIN THE PROJECT			
84.4. CUT DEEP OUT OR DROP CONNECTIONS SHALL NOT BE PERMITTED.		E. CCTV- ALL OF THE NEW LINES AND PAN/TILT ALL SERVICE LATERALS TO 6"Ø CLEAN OUT. CONTRACTOR SHALL FLOOD ALL LINES BEFORE CCTV.			
84.5. A MINIMUM OF ONE (1) LATERAL PER BUILDING SHALL BE REQUIRED. ALSO, A MINIMUM OF ONE (1) LATERAL PER RESIDENTIAL LOT SHALL BE REQUIRED. DUPLEXES SHALL HAVE TWO (2) LATERALS THAT SHALL BE INDEPENDENTLY ATTACHED TO THE MAIN.		90. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH THE FOLLOWING:			
84.6. ALL SEWER LATERAL CROSSING WATER MAINS OR WATER SERVICE LINE SHALL CONFORM TO THE SAME REQUIREMENTS OF TAC CHAPTER 217.53, LATEST REVISION, SDR 26 150 PSI, OR DUCT IRON PIPE, CONCRETE ENCASEMENT		A. 217.57- DEFLECTION TEST FOR FLEXIBLE AND SEMI-RIGID PIPE CONDUCTED AFTER FINAL BACKFILL HAS BEEN IN PLACED AT LEAST 30 DAYS.			
85. 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.		B. 217.57, OR RIVER AUTHORITY SPECIFICATIONS INFILTRATION OR EXFILTRATION AND OR LOW-PRESSURE AIR TEST.			
86. 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		C. 217.58 OR RIVER AUTHORITY SPECIFICATIONS: ALL MANHOLES AND WET WELLS MUST BE TESTED SEPARATELY AND INDEPENDENTLY OF THE COLLECTION LINES.			
87. WHERE POROUS MATERIAL, INCLUDING "SUBGRADE FILLER" IS USED FOR BACKFILL IN THE EXISTING AND INITIAL BACKFILL ZONES, REFER TO SPECIFICATIONS SEC. 33-05-05 FOR SPACING OF SEEPAGE RETAINERS. RETAINERS SHALL CONSIST OF CLASS 11 CONCRETE ENCASEMENT OR FIRMLY COMPACTED, CONSOLIDATED CLAY ENCASEMENT, THE RETAINERS SHALL EXTEND FROM THE BOTTOM OF THE TRENCH TO THE TOP OF THE GRANULAR MATERIAL FOR THE ENTIRE TRENCH WIDTH. ENCASEMENT SHALL BE 24 INCHES LONG. NO EXTRA PAY ITEM.		D. IN THE EVENT THAT TESTING REQUIREMENTS CONFLICT, THE LATEST TQ DESIGN CRITERIA SHALL BE USED.			
BLASTING		91. SEWER LINES SHALL BE TESTED FROM MANHOLE TO MANHOLE.			
88. BLASTING SHALL NOT BE ACCEPTABLE.		92. 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 RIVER AUTHORITY SPECIFICATIONS. THEY MUST HAVE A PROTECTIVE COATING SPECIFIED IN THE RIVER AUTHORITY APPROVED PRODUCTS LIST. COATING WILL BE A MINIMUM OF 200 MILS THICKNESS. DEFENDING ON EXISTING CONDITIONS, TO PREVENT INFRASTRUCTURE INFILTRATION, FOLLOW MANUFACTURER'S RECOMMENDATION ON PROTECTIVE COATING.			
TESTING		93. 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 8" SERVICE LATERALS TO 6"Ø" 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 H2O BEFORE BEING TV. ALL SEWER LINES MUST BE PRESSURE TESTED TO INCLUDE SERVICE LATERALS 8"Ø" TO STUB-OUT. ALL VIDEOS SHALL BE SUBMITTED IN DVD FORMAT WITH WRITTEN REPORTS.			
99. TESTING SHALL NOT BE CONDUCTED UNTIL ALL OTHER UTILITIES WITHIN THE VICINITY OF THE SANITARY SEWER ARE FULLY INSTALLED.					



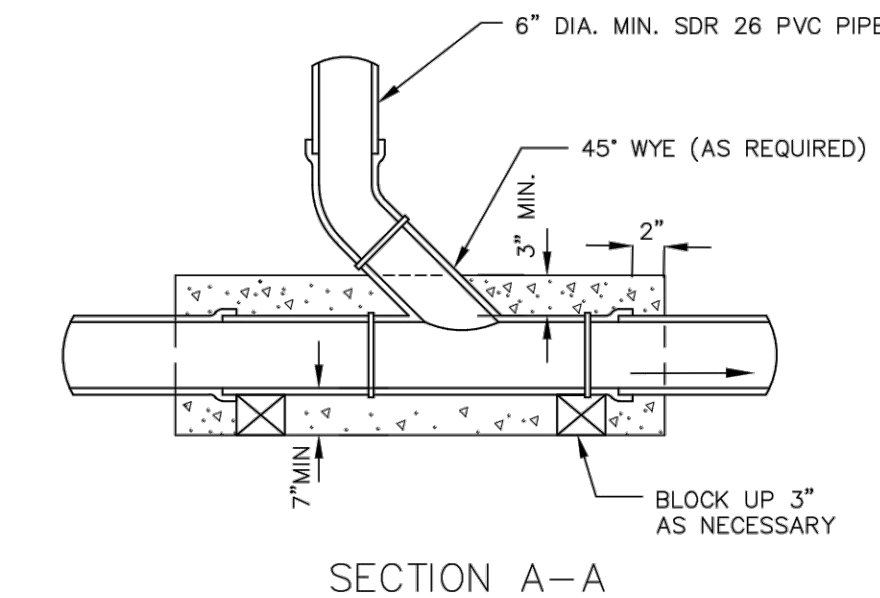
VERTICAL STACK DETAIL



- NOTES:
1. DEPTH OF HOUSE LATERAL SHALL FOLLOW ALL APPLICABLE LOCAL BUILDING REQUIREMENTS WITHIN PRIVATE PROPERTY. DEPTH SHALL BE 36" MINIMUM IN PUBLIC RIGHT OF WAY. IF COVER CANNOT BE MAINTAINED, LATERALS SHALL BE CONCRETE ENCASED.
 2. DEPTH AND GRADE OF SERVICE LATERALS AS SHOWN, ARE NOT TO SCALE. ACTUAL DEPTH, ALIGNMENT AND GRADE OF SERVICE LATERALS SHALL BE DETERMINED BY THE ENGINEER BASED ON THE ELEVATIONS OF THE SEWER MAIN, STREET, NATURAL GROUND AND BUILDING TO BE SERVICED.



- NOTES:
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SECTION A-A

- NOTE:
1. MANHOLE RING ENCASEMENT (COLLAR)
REQUIRED ON ALL MANHOLES. SEE DETAIL.

BASE-PLAN

The diagram illustrates the base plan of a manhole. Key dimensions include a total width of 28" MIN., a central opening of 12", and a distance of 30" from the centerline to the edge of the concrete slab. A 3" MAXIMUM gap is indicated between the concrete slab and the surrounding structure. The concrete is specified as CLASS "B" CONCRETE. The manhole is sealed per specification with flintlock or equal as approved by the river authority, with a thickness of 1/8" THICKNESS.

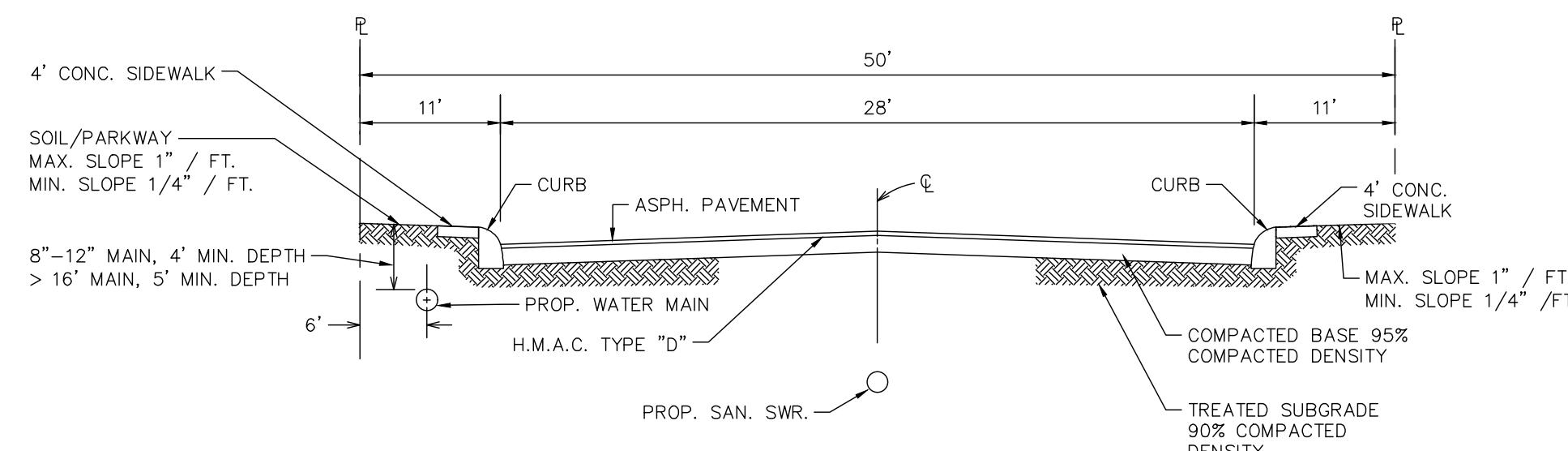
MANHOLE SEALING PER SPECIFICATION.
FLINTLOCK OR EQUAL AS APPROVED
THE RIVER AUTHORITY (1/8" THICKNESS, N

* SEWER GRAVEL 12" MIN. OR 1/8
O.D. OF THE PIPE, WHICHEVER IS
GREATER AS DIRECTED BY THE RIVER
AUTHORITY

* IN AREAS OF OVER EXCAVATION, ENCASEMENT SHALL EXTEND FROM TRENCH WALL TO TRENCH WALL. PAY LIMITS SHALL NOT EXCEED 12" MAX. AS SHOWN ON DETAIL. ADDITIONAL ENCASEMENT SHALL

1) RIGID PIPE - UNSTABLE OR UNACCEPTABLE CONDITIONS
FLEXIBLE PIPE - ALL CONDITIONS

2) RIGID PIPE - EXISTING STABLE BEDDING CONDITION

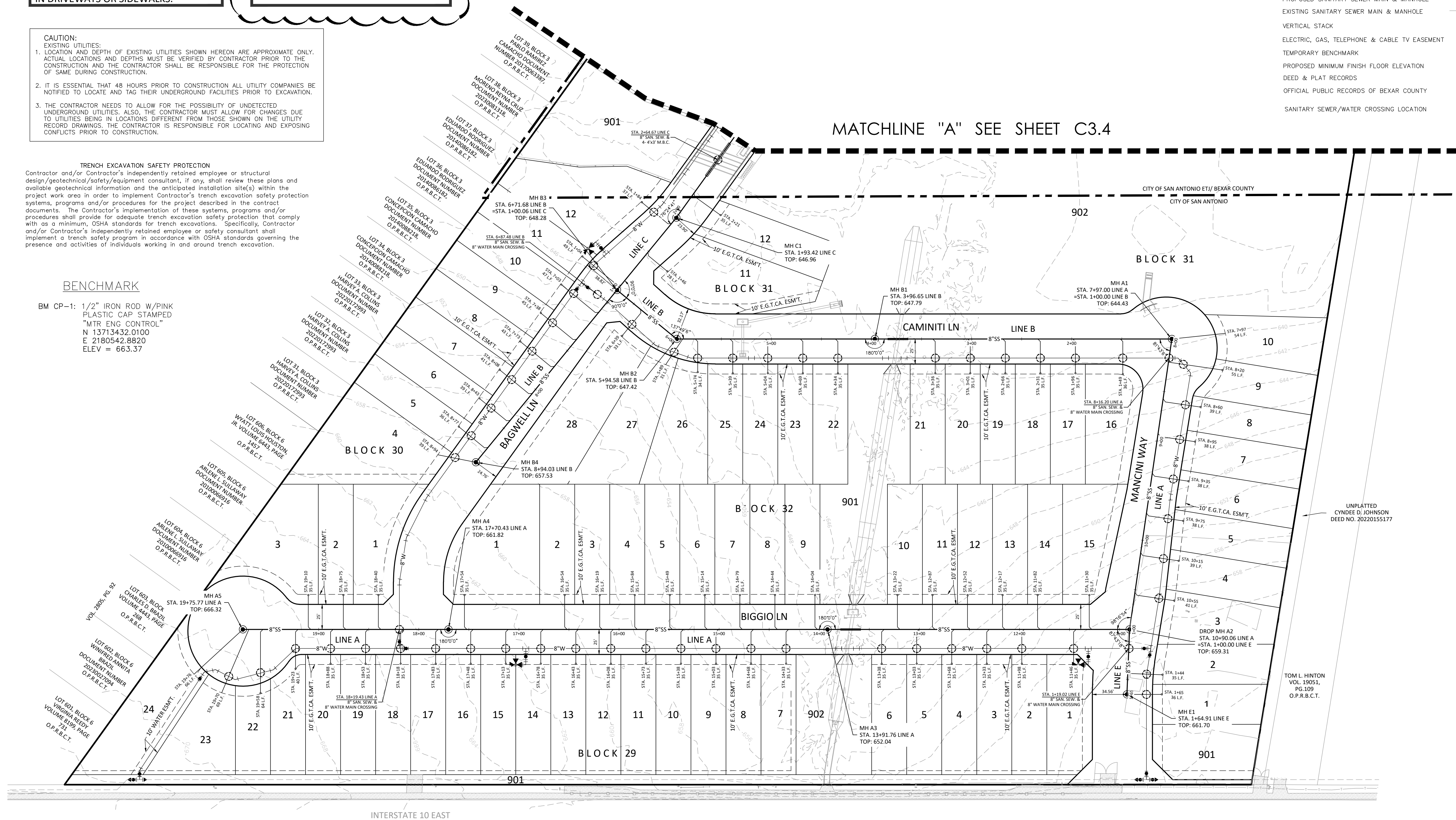


TYPICAL STREET CROSS-SECTION (28' PAVEMENT)

NOTE: CLEANOUTS CANNOT BE LOCATED IN DRIVEWAYS OR SIDEWALKS.

- TRENCH EXCAVATION SAFETY PROTECTION**
Contractor and/or Contractor's independently retained employee or structural design/geotechnical engineer(s) and/or geologist(s) shall review the plans 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. Contractor shall prepare and submit to the Engineer for review and approval documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with applicable OSHA standards. Contractor shall ensure that Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the trench excavation safety protection.

BM CP-1: 1/2" IRON ROD W/PINK
PLASTIC CAP STAMPED
"MTR ENG CONTROL"
N 13713432.0100
E 2180542.8820
ELEV = 663.37



EXISTING WATER MAIN
PROPOSED WATER MAIN
PROPOSED FIRE HYDRANT
EXISTING FIRE HYDRANT
PROPOSED GATE VALVE
EXISTING GATE VALVE
PROPOSED SANITARY SEWER MAIN & MANHOLE
EXISTING SANITARY SEWER MAIN & MANHOLE
VERTICAL STACK
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT
TEMPORARY BENCHMARK
PROPOSED MINIMUM FINISH FLOOR ELEVATION
DEED & PLAT RECORDS
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
SANITARY SEWER/WATER CROSSING LOCATION

MATCHLINE "A" SEE SHEET C3.4

MTR

- Engineers
- Surveyors
- Planners

Moy Tarin Ramirez Engineers, LLC

SPICES: ENGINEERING F-5297/SURVEYING: F-101315000
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



ENCLAVE AT HORIZON POINTE OVERALL SANITARY SEWER

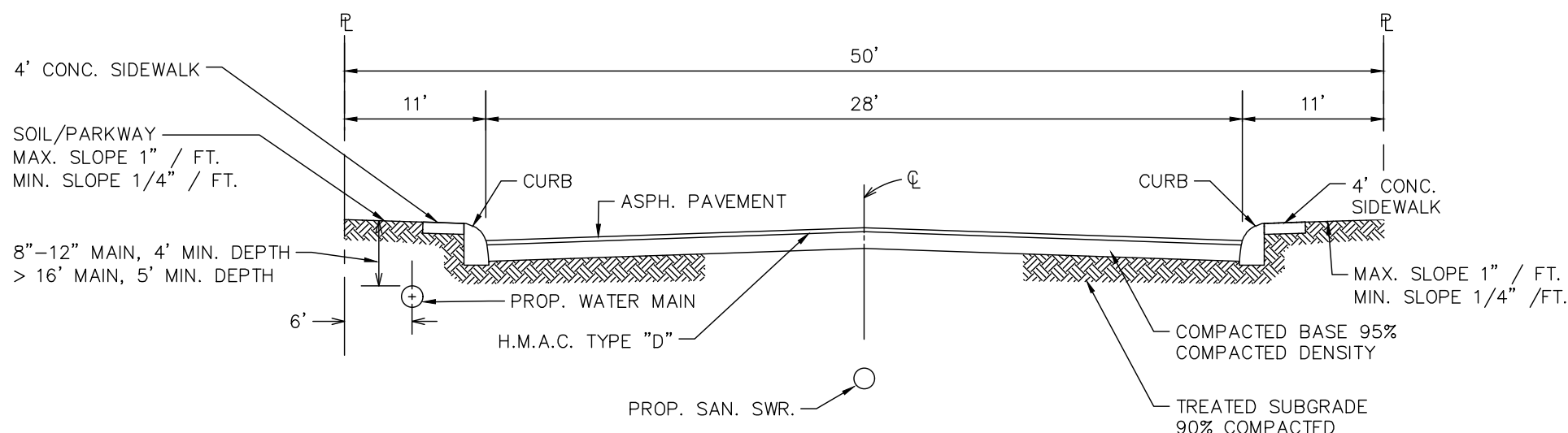
SHIFT

C3.3

SUBMITTAL SET

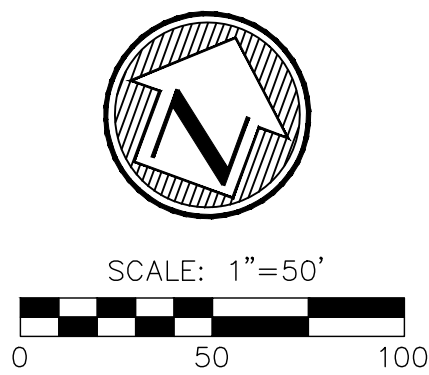
NOTE: CONTRACTOR TO ADD 3" PVC MARKERS TO THE ENDS OF ALL SANITARY SEWER LATERALS. MARKERS TO EXTEND 2 FEET ABOVE FINAL GRADE.

PLAT NO. 22-11800606

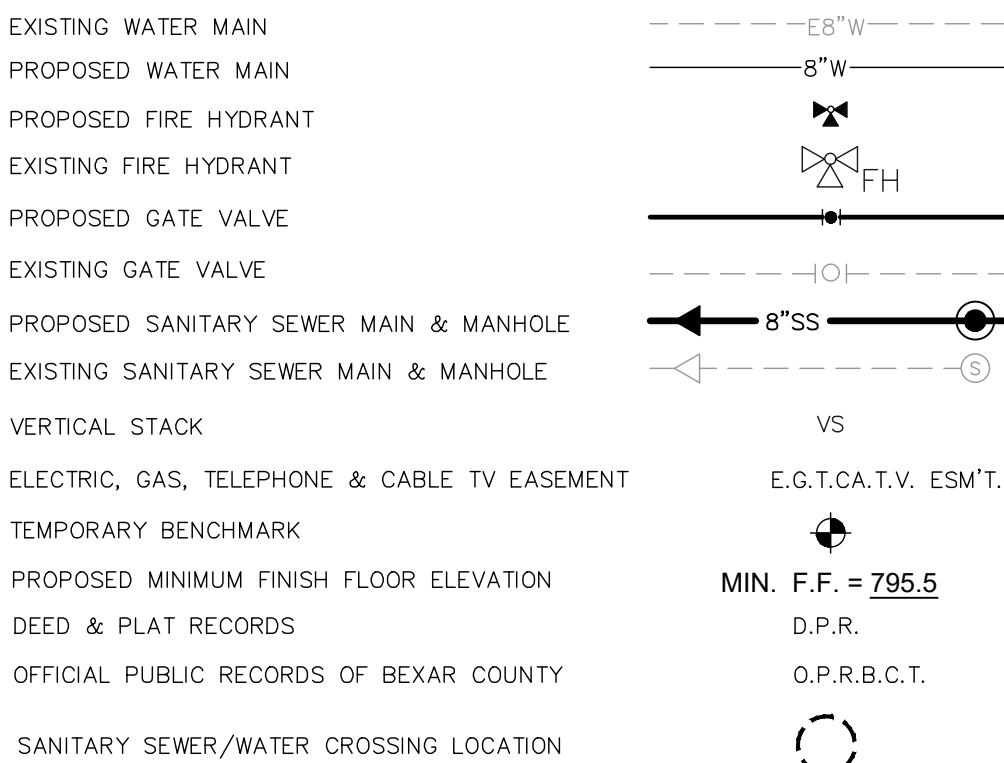


TYPICAL STREET CROSS-SECTION (28' PAVEMENT)

NOTE: CONTRACTOR TO ADD 3" PVC MARKERS TO THE ENDS OF ALL SANITARY SEWER LATERALS. MARKERS TO EXTEND 2 FEET ABOVE FINAL GRADE.



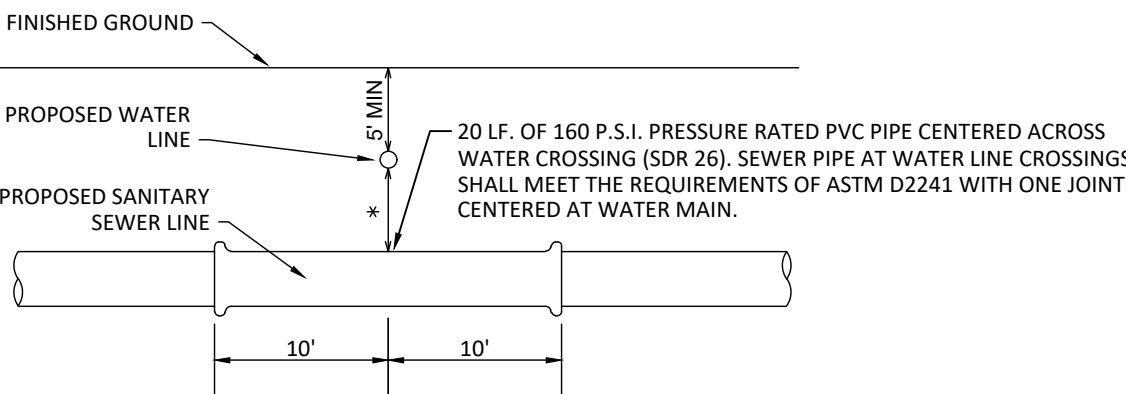
LEGEND



BENCHMARK

BM CP-1: 1/2" IRON ROD W/PINK PLASTIC CAP STAMPED "MTR ENG. CONTROL" N 13713432.0100 E 2180542.8820 ELEV = 663.37

* SEPARATION DISTANCE TO COMPLY WITH TCEQ REGULATION 30 TAC 290.44 (E) APPENDIX E & 30 TAC 217.53 (D) APPENDIX D - SEPARATION DISTANCE



TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

NOTE: CLEANOUTS CANNOT BE LOCATED IN DRIVEWAYS OR SIDEWALKS.

- CAUTION: EXISTING UTILITIES:
1. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY CONTRACTOR PRIOR TO THE CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SAME DURING CONSTRUCTION.
 2. IT IS ESSENTIAL THAT 48 HOURS PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES BE NOTIFIED TO LOCATE AND TAG THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.
 3. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE UTILITY RECORD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.

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 for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

MATCHLINE "A" SEE SHEET C3.3

NO.	DATE	DESCRIPTION	BY
1	02/01/24	ADDED NOTE (SEE SHEET) FOR LATERAL PVC MARKERS	DNC

Engineers
Surveyors
Planners

MIR
Moy Tarin Ramirez Engineers, LLC
TEPELS: ENGINEERING P-5297/SURVEYING: P-10131500
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

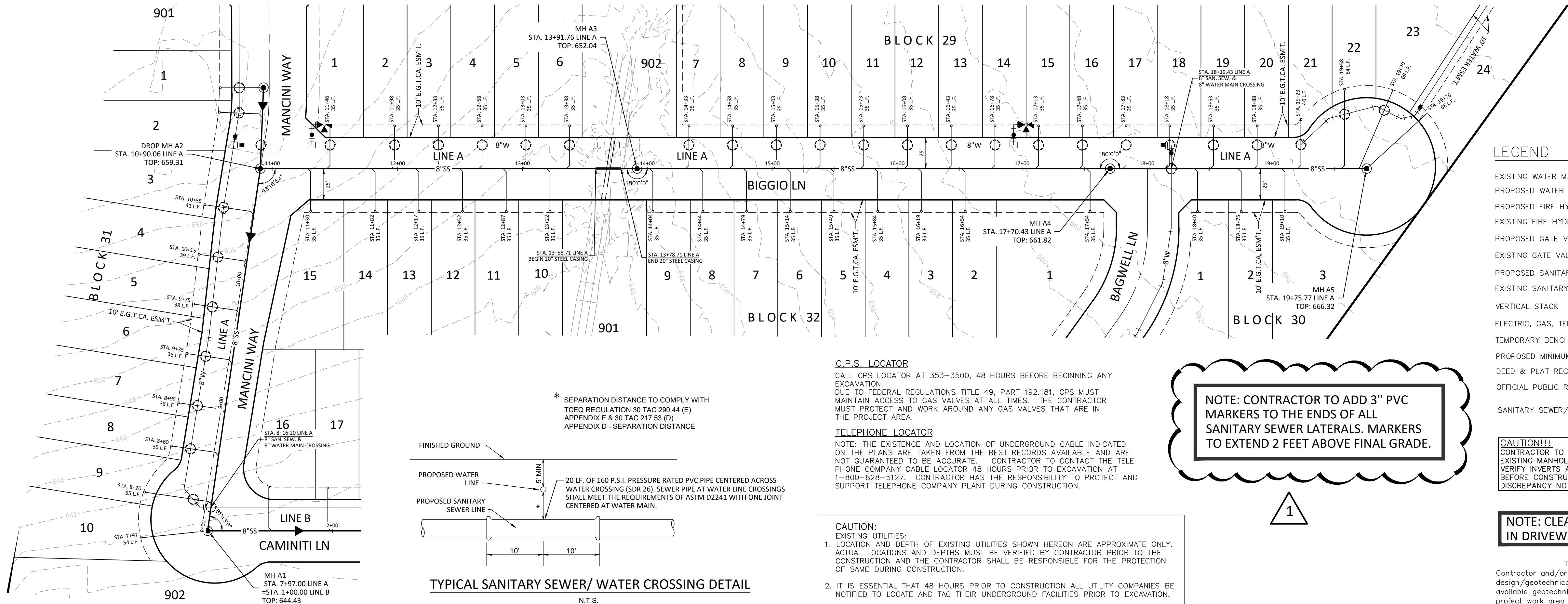


ENCLAVE AT HORIZON POINTE
OVERALL SANITARY SEWER

SHEET

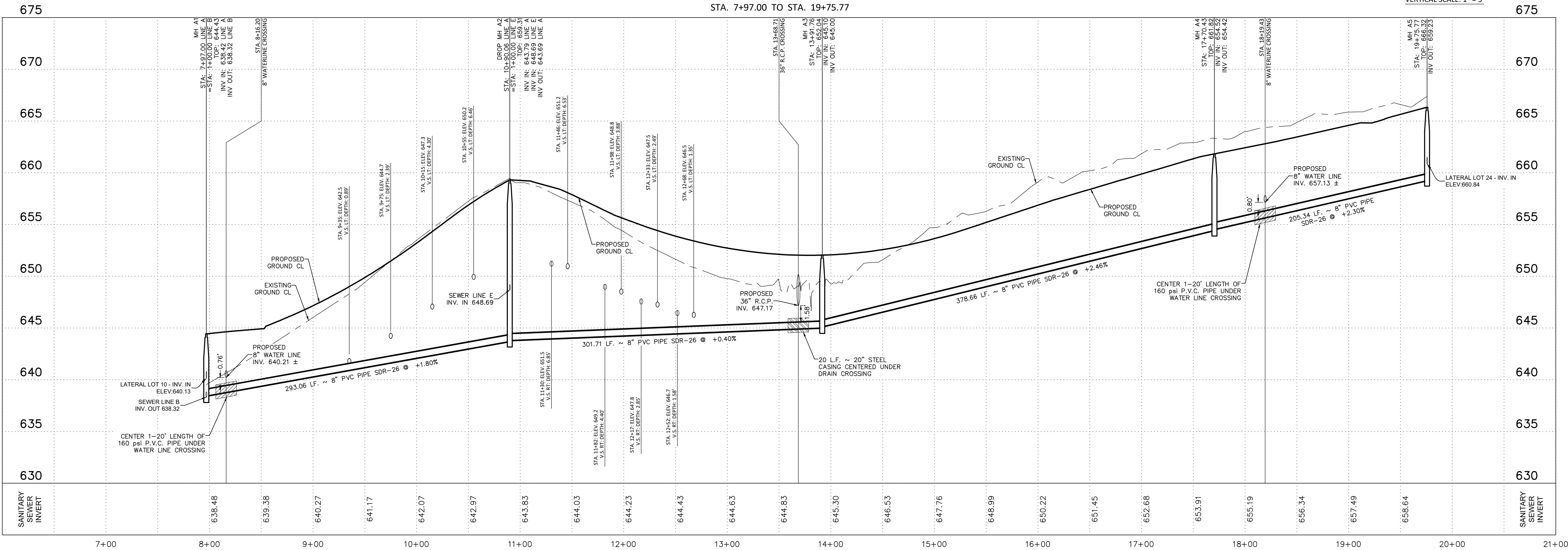
C3.4

SUBMITTAL SET



LINE A

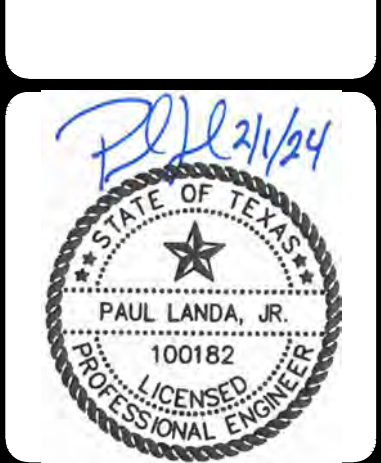
STA. 7+97.00 TO STA. 19+75.77



REVISIONS				
NO.	DATE	DESCRIPTION		
1	02/01/24	ADDED NOTE (PER SARA) FOR LATERAL PVC MARKERS		
				DMC

Engineers
Surveyors
Planners

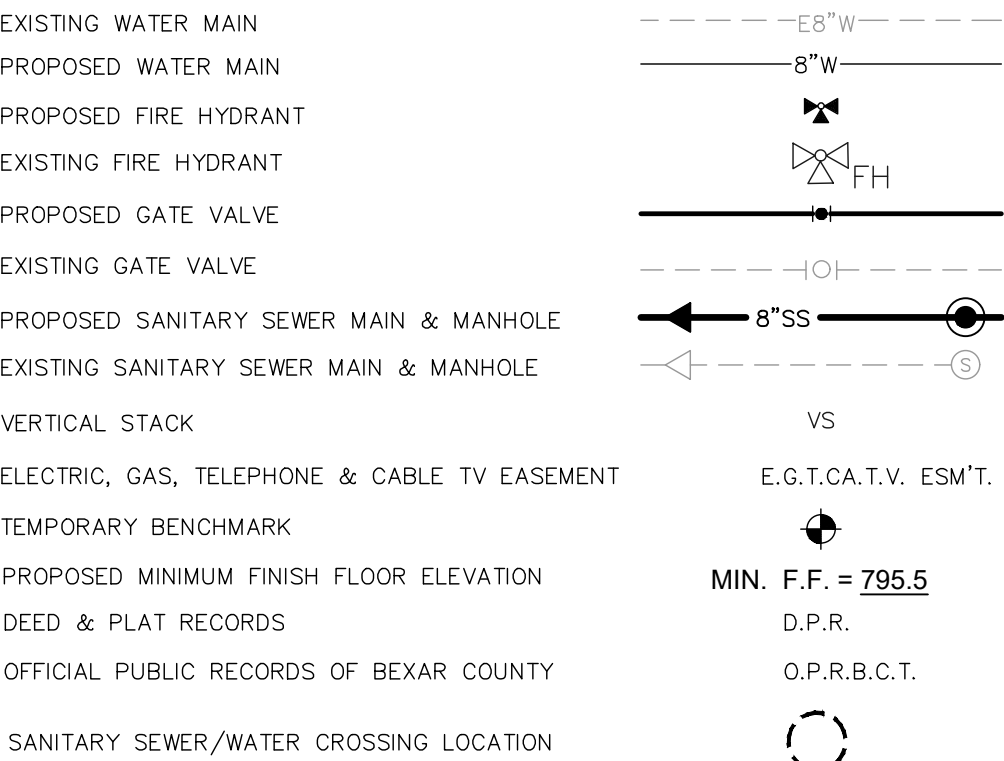
MIR
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ENCLAVE AT HORIZON POINTE

SANITARY SEWER PLAN & PROFILE

LINE A



CAUTION!!!
CONTRACTOR TO TIE INTO
EXISTING MANHOLE. AND
VERIFY INVERTS AND LOCATION
BEFORE CONSTRUCTION. IF ANY
DISCREPANCY NOTIFY ENGINEER

C.P.S. LOCATOR
CALL CPS LOCATOR AT 353-3500, 48 HOURS BEFORE BEGINNING ANY
EXCAVATION.
DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, 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.

TELEPHONE LOCATOR

NOTE: THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48 HOURS PRIOR TO EXCAVATION AT 1-800-828-5127. CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.

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 trench excavation safety protection systems, programs and/or procedures for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

CAUTION:
EXISTING UTILITIES:
LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY CONTRACTOR PRIOR TO THE CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SAME DURING CONSTRUCTION.

2. IT IS GIVEN THAT 48 HOURS PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES BE NOTIFIED BY THE CONTRACTOR AND TAC THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.

3. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE UTILITY RECORD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.

NOTE: CLEANOUTS CANNOT BE LOCATED IN DRIVEWAYS OR SIDEWALKS.

NOTE: CONTRACTOR TO ADD 3" PVC MARKERS TO THE ENDS OF ALL SANITARY SEWER LATERALS. MARKERS TO EXTEND 2 FEET ABOVE FINAL GRADE.



MTR

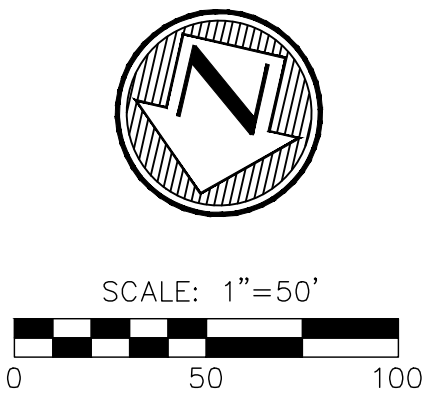
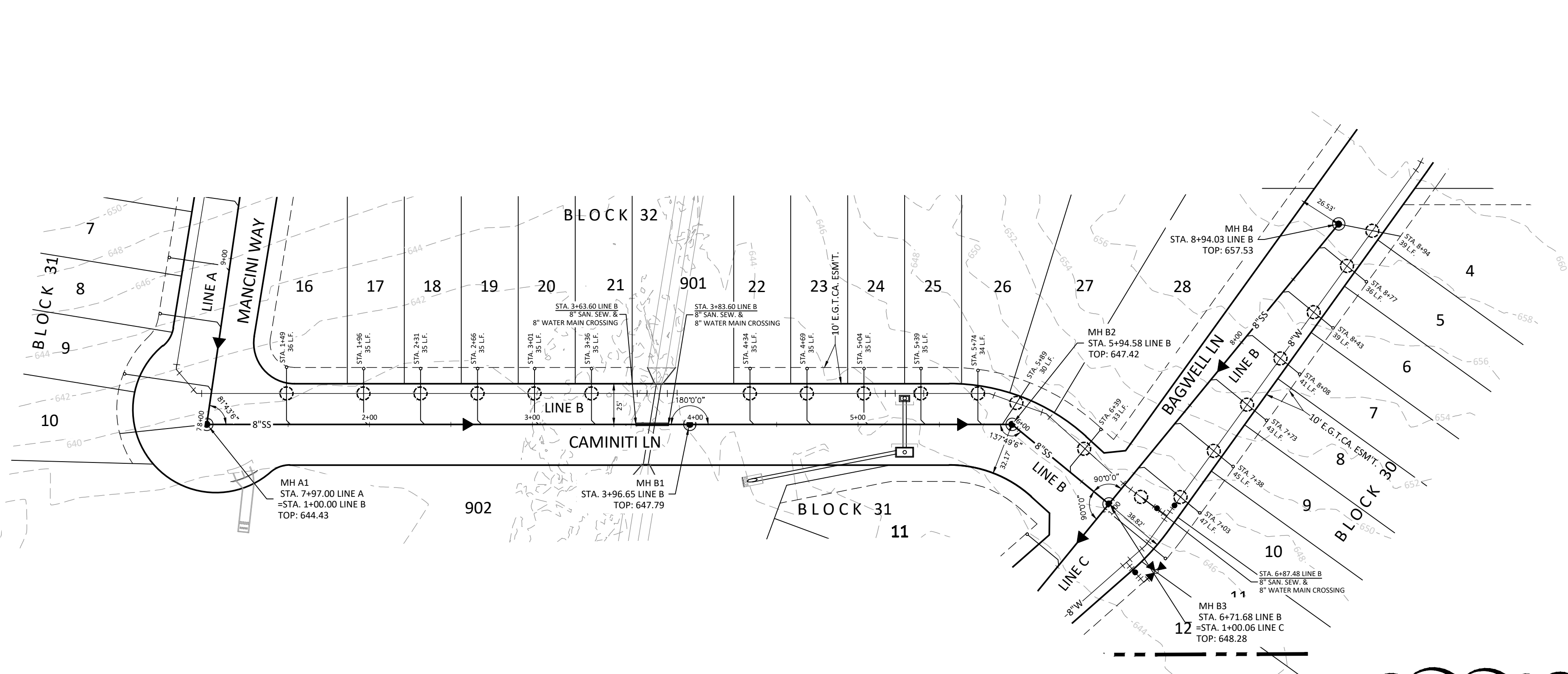
- Engineers
- Surveyors
- Planners

May Tarin Ramirez Engineers, LLC
12775 COWAN PATH, SUITE 100
SAN ANTONIO, TEXAS 78249

TEL: (210) 698-5051
FAX: (210) 698-5085



ENCLAVE AT HORIZON POINTE
SANITARY SEWER PLAN & PROFILE
LINE F



LEGEND

EXISTING WATER MAIN
PROPOSED WATER MAIN
PROPOSED FIRE HYDRANT
EXISTING FIRE HYDRANT
PROPOSED GATE VALVE
EXISTING GATE VALVE
PROPOSED SANITARY SEWER MAIN & MANHOLE
EXISTING SANITARY SEWER MAIN & MANHOLE
VERTICAL STACK
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT
TEMPORARY BENCHMARK
PROPOSED MINIMUM FINISH FLOOR ELEVATION
DEED & PLAT RECORDS
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
SANITARY SEWER/WATER CROSSING LOCATION

8" W
8" W
FH
8" SS
VS
E.G.T.C.A.T.V. ESM'T.
MIN. F.F. = 795.5
D.P.R.
O.P.R.B.C.T.

CAUTION!!!
CONTRACTOR TO TIE INTO EXISTING MANHOLE, AND VERIFY INVERTS AND LOCATION BEFORE CONSTRUCTION. IF ANY DISCREPANCY NOTIFY ENGINEER

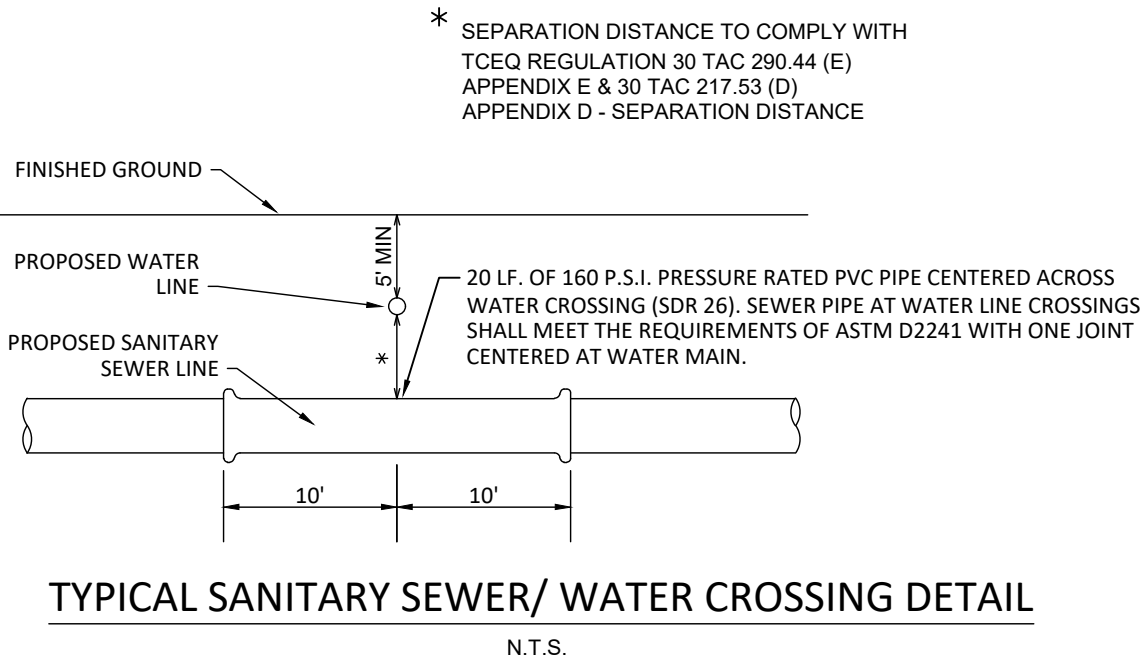
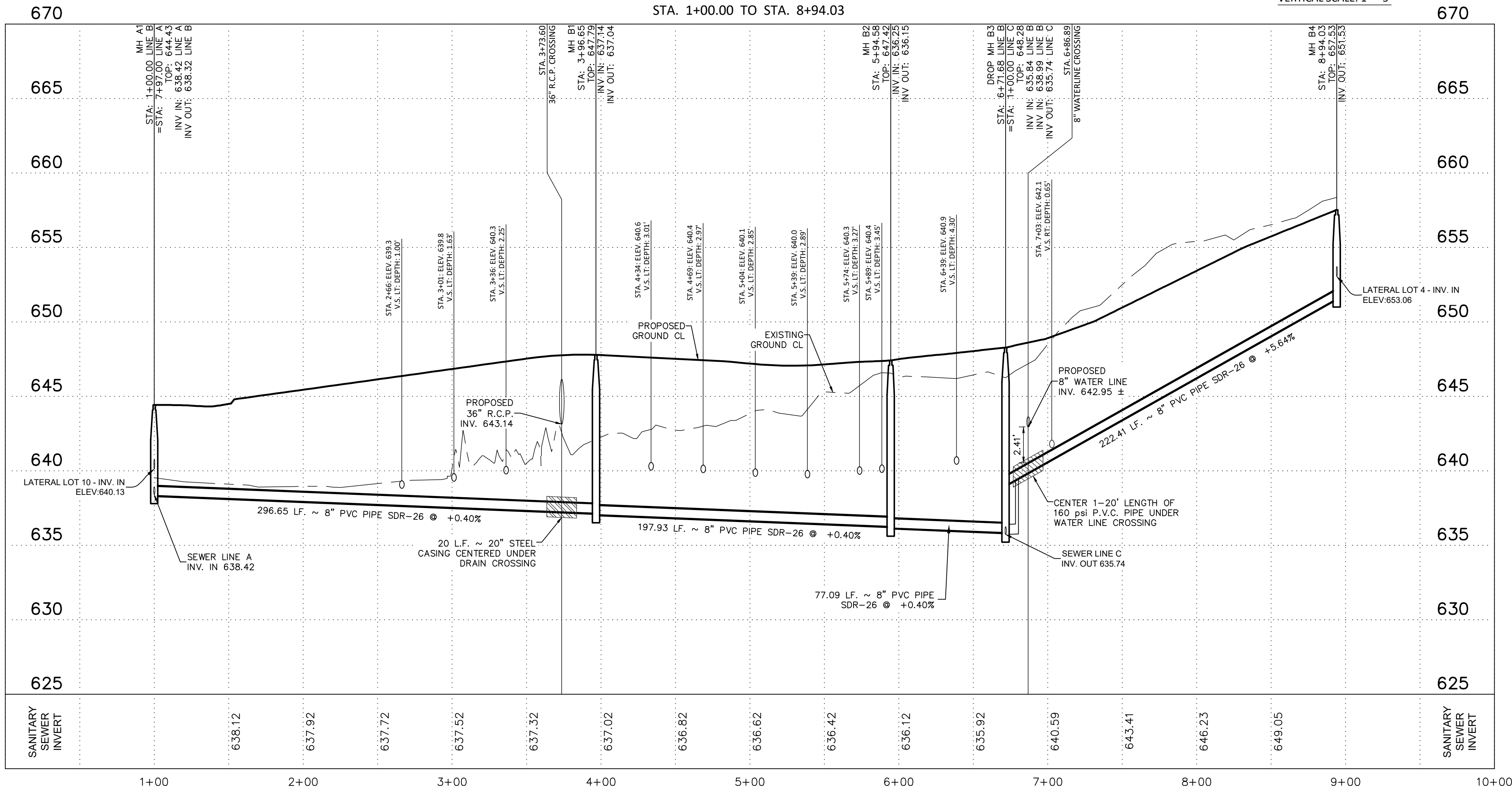
NOTE: CONTRACTOR TO ADD 3" PVC MARKERS TO THE ENDS OF ALL SANITARY SEWER LATERALS. MARKERS TO EXTEND 2 FEET ABOVE FINAL GRADE.

NOTE: CLEANOUTS CANNOT BE LOCATED IN DRIVEWAYS OR SIDEWALKS.

LINE B

STA. 1+00.00 TO STA. 8+94.03

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



C.P.S. LOCATOR
CALL CPS LOCATOR AT 353-3500, 48 HOURS BEFORE BEGINNING ANY EXCAVATION. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, 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.

TELEPHONE LOCATOR
NOTE: THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE, AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48 HOURS PRIOR TO EXCAVATION AT 1-800-828-5127. CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.

CAUTION:
EXISTING UTILITIES:
1. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY CONTRACTOR PRIOR TO THE CONSTRUCTION AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SAME DURING CONSTRUCTION.
2. IT IS ESSENTIAL THAT 48 HOURS PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES BE NOTIFIED TO LOCATE AND TAG THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.
3. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE UTILITY RECORD DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.

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 for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

SUBMITTAL SET

NO.	DATE	DESCRIPTION	BY
1	02/01/24	ADDED NOTE (PER SARA) FOR LATERAL PVC MARKERS	DNC

Engineers
Surveyors
Planners

MIR

Moy Tarin Ramirez Engineers, LLC

TBPELS: ENGINEERING F-5297 / SURVEYING: F-1011500
12770 CHARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5095



ENCLAVE AT HORIZON POINT

SANITARY SEWER PLAN & PROFILE

LINE B #

REVISIONS		NO.	DATE	DESCRIPTION
		1	02/01/24	ADDED NOTE (PER SAR) FOR LATERAL PVC MARKERS

Engineers
Surveyors
Planners

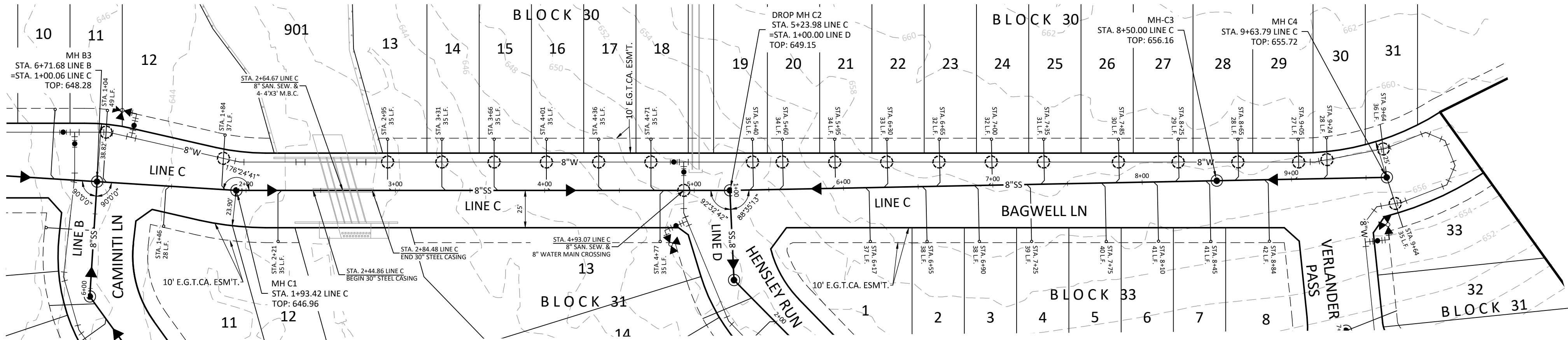
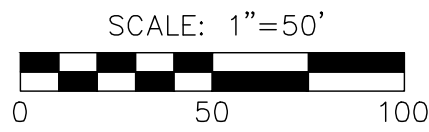
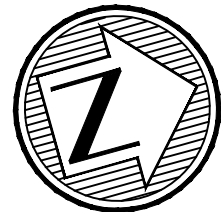
MIR
Moy Tarin Ramirez Engineers, LLC
12770 CHARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5095



ENCLAVE AT HORIZON POINT

SANITARY SEWER PLAN & PROFILE

LINE C #



LEGEND

- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- PROPOSED GATE VALVE
- EXISTING GATE VALVE
- PROPOSED SANITARY SEWER MAIN & MANHOLE
- EXISTING SANITARY SEWER MAIN & MANHOLE
- VERTICAL STACK
- ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT
- TEMPORARY BENCHMARK
- PROPOSED MINIMUM FINISH FLOOR ELEVATION
- DEED & PLAT RECORDS
- OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
- SANITARY SEWER/WATER CROSSING LOCATION

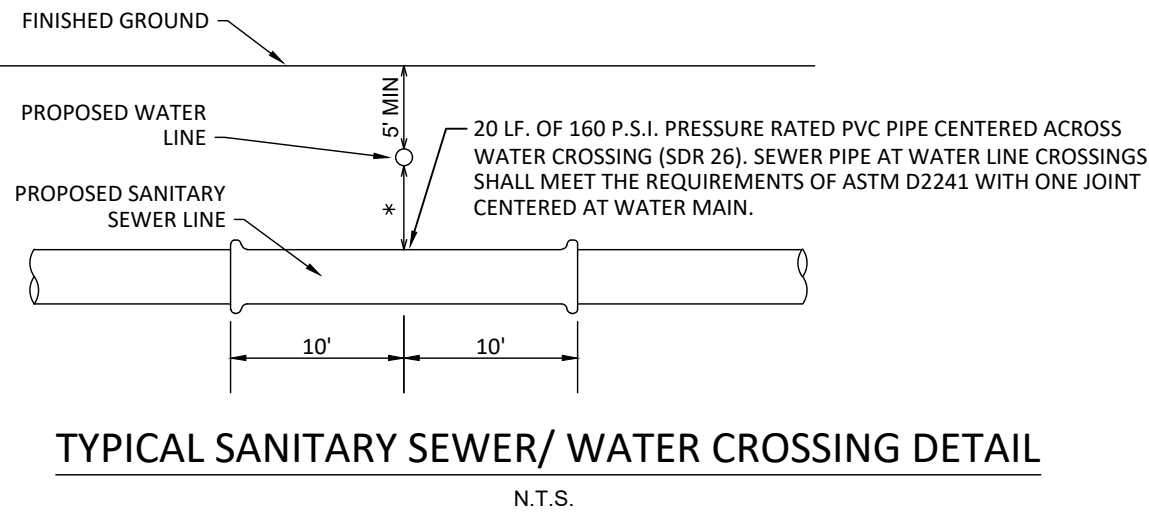
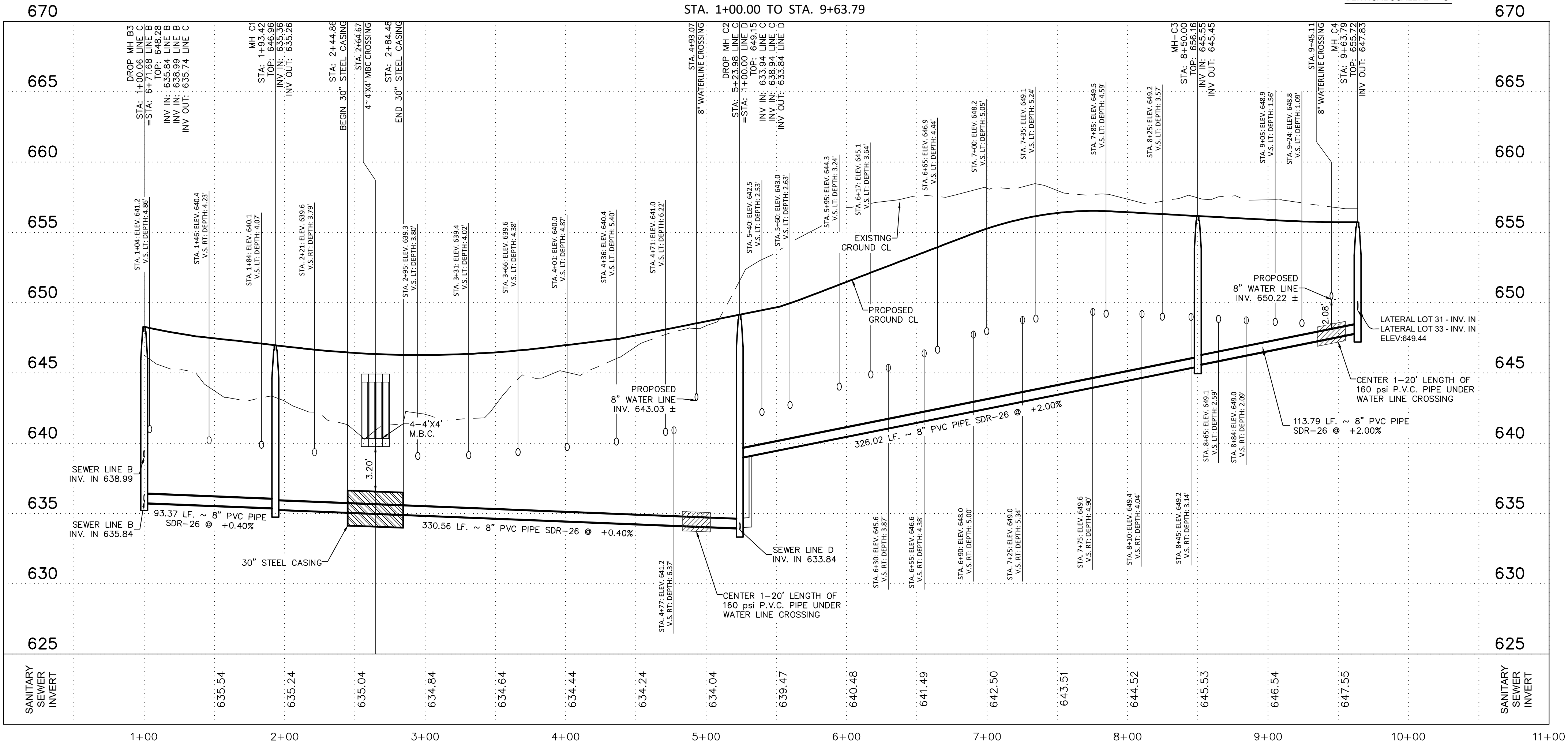
NOTE: CONTRACTOR TO ADD 3" PVC MARKERS TO THE ENDS OF ALL SANITARY SEWER LATERALS. MARKERS TO EXTEND 2 FEET ABOVE FINAL GRADE.

NOTE: CLEANOUTS CANNOT BE LOCATED IN DRIVEWAYS OR SIDEWALKS.

LINE C

STA. 1+00.00 TO STA. 9+63.79

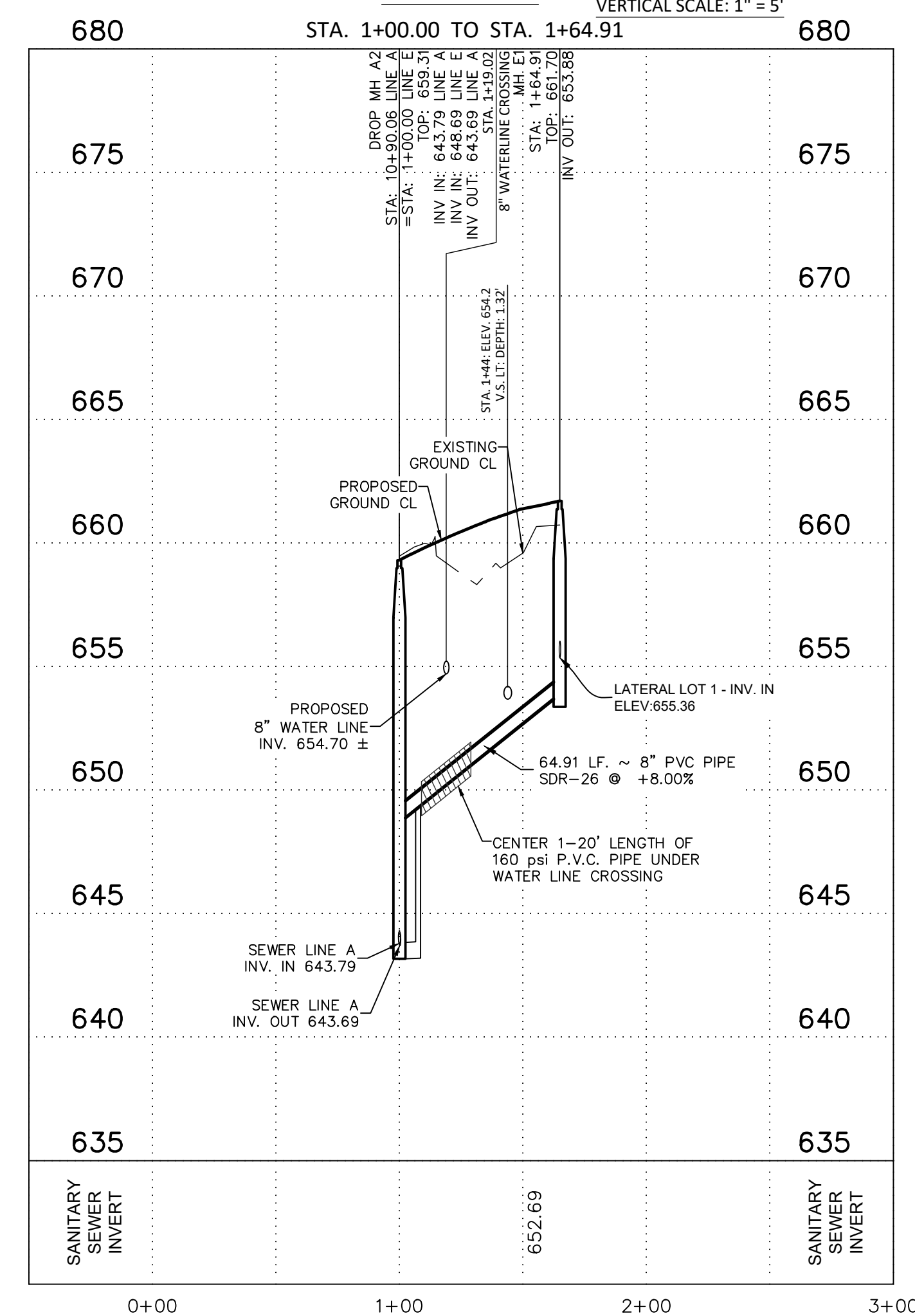
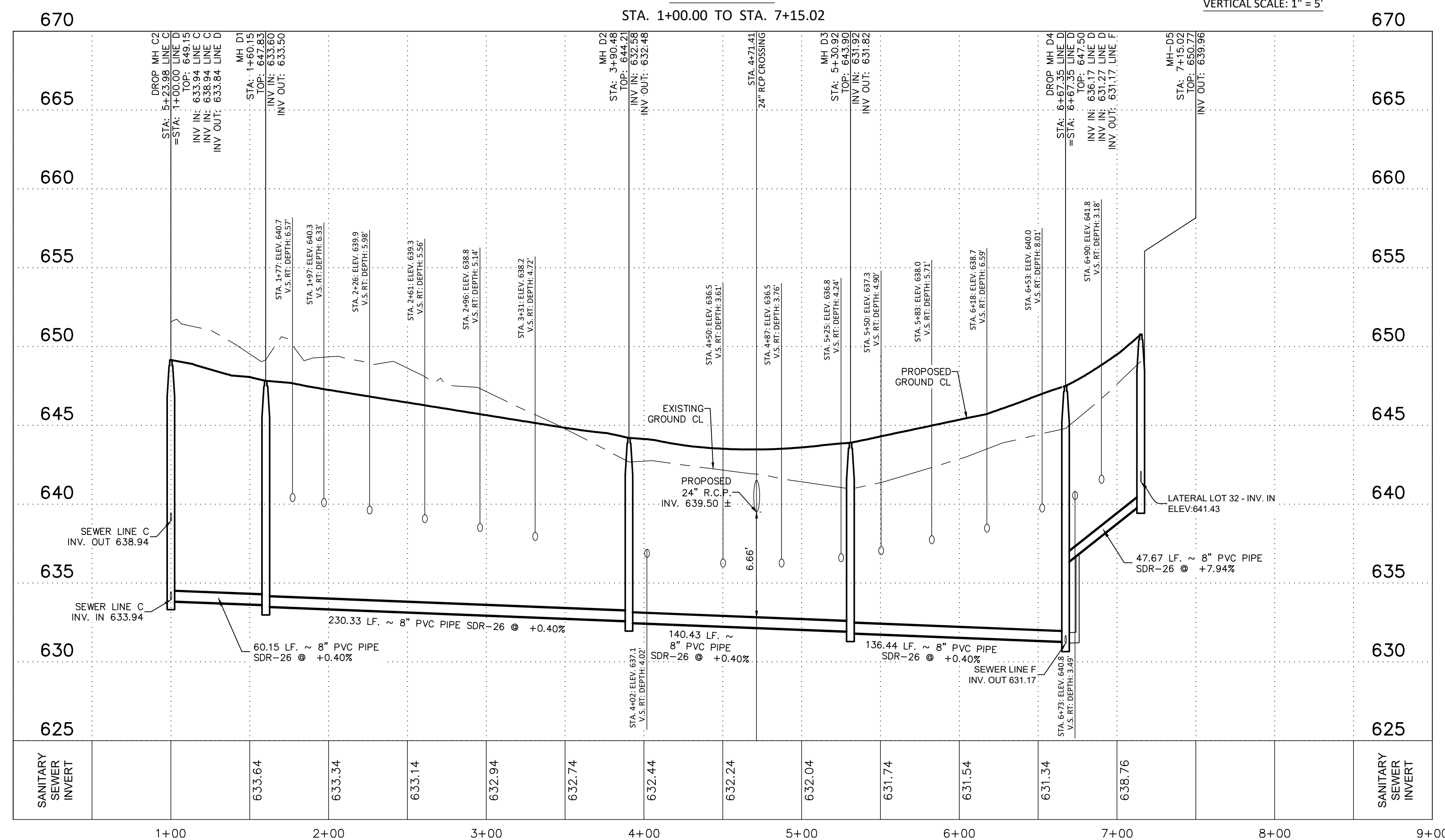
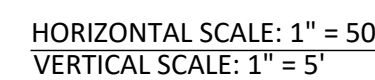
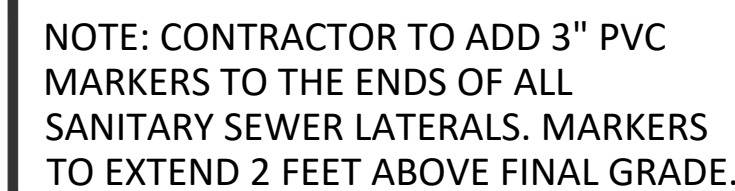
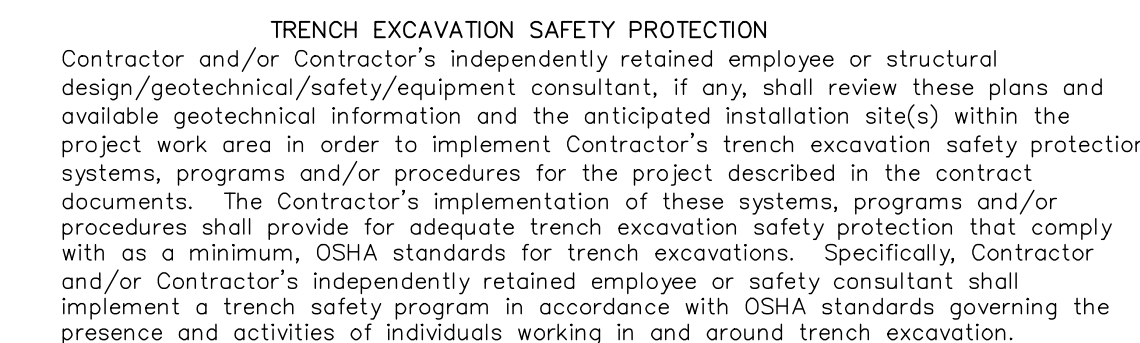
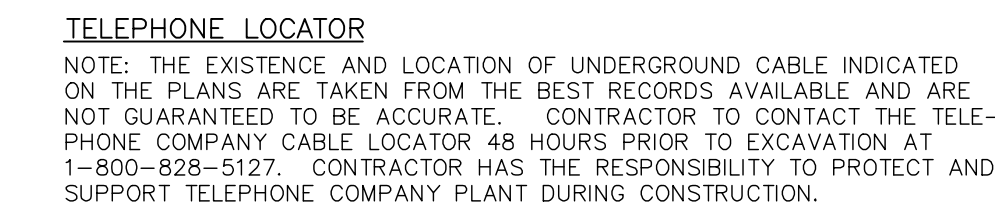
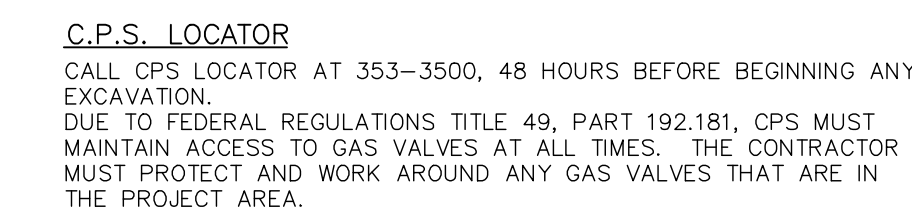
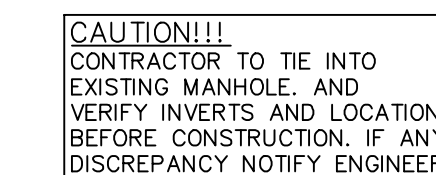
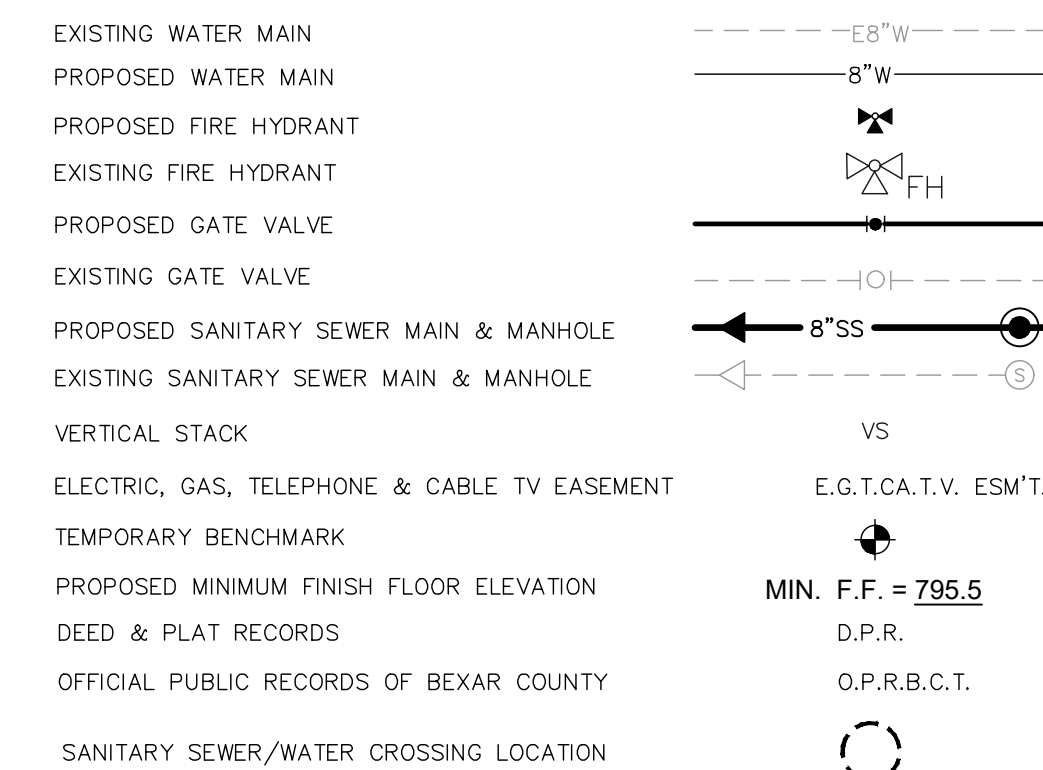
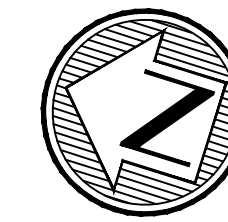
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



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- CAUTION:**
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SUBMITTAL SET

NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE TO THE CITY OF SAN ANTONIO SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- ALL CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF SAN ANTONIO.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES DURING CONSTRUCTION. THE LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION:

SAN ANTONIO WATER SYSTEM

TELE. NO.: 210-704-7109

TEXAS STATE WIDE ONE CALL LOCATOR

TELE. NO.: 800-545-6005

CITY PUBLIC SERVICE

AT&T

TIME WARNER CABLE
- DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, 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.
- THE CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT THE TELEPHONE COMPANY DURING CONSTRUCTION.
- THE CONTRACTOR HAS THE RESPONSIBILITY OF RESTORING TO ITS ORIGINAL OR BETTER CONDITION, ANY DAMAGE DONE TO THE EXISTING PAVEMENT, STRUCTURES OR FENCES (NO SEPARATE PAY ITEM).
- MATERIAL SPECIFICATIONS:

CONCRETE/CONCRETE RIPRAP: CLASS A 3000 PSI IN 28 DAYS UNLESS OTHERWISE NOTED ON PLANS

REINFORCING STEEL: CONFORM TO A.S.T.M. A-615, GRADE 60 (2" COVER UNLESS OTHERWISE NOTED ON PLANS)

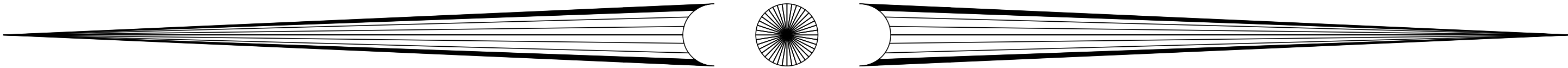
PIPE RAILING: CONFORM TO A.S.T.M. A-53, GRADE B, OR A-501

STRUCTURAL STEEL: CONFORM TO A.S.T.M. A-36
- CONTRACTOR TO COORDINATE CONCRETE CURB DEPRESSIONS WITH THE DEVELOPER (NO SEPARATE PAY ITEM).
- TRANSITION TO/FROM WASHOUT CROWNS IN TWENTY-FIVE FEET (25').
- IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SUBGRADE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CANNEL FOR MAINTENANCE. REFER TO 16.2.1 OF THE CITY OF SAN ANTONIO STORM WATER DESIGN CRITERIA MANUAL. NO EXTRA PAY ITEM.

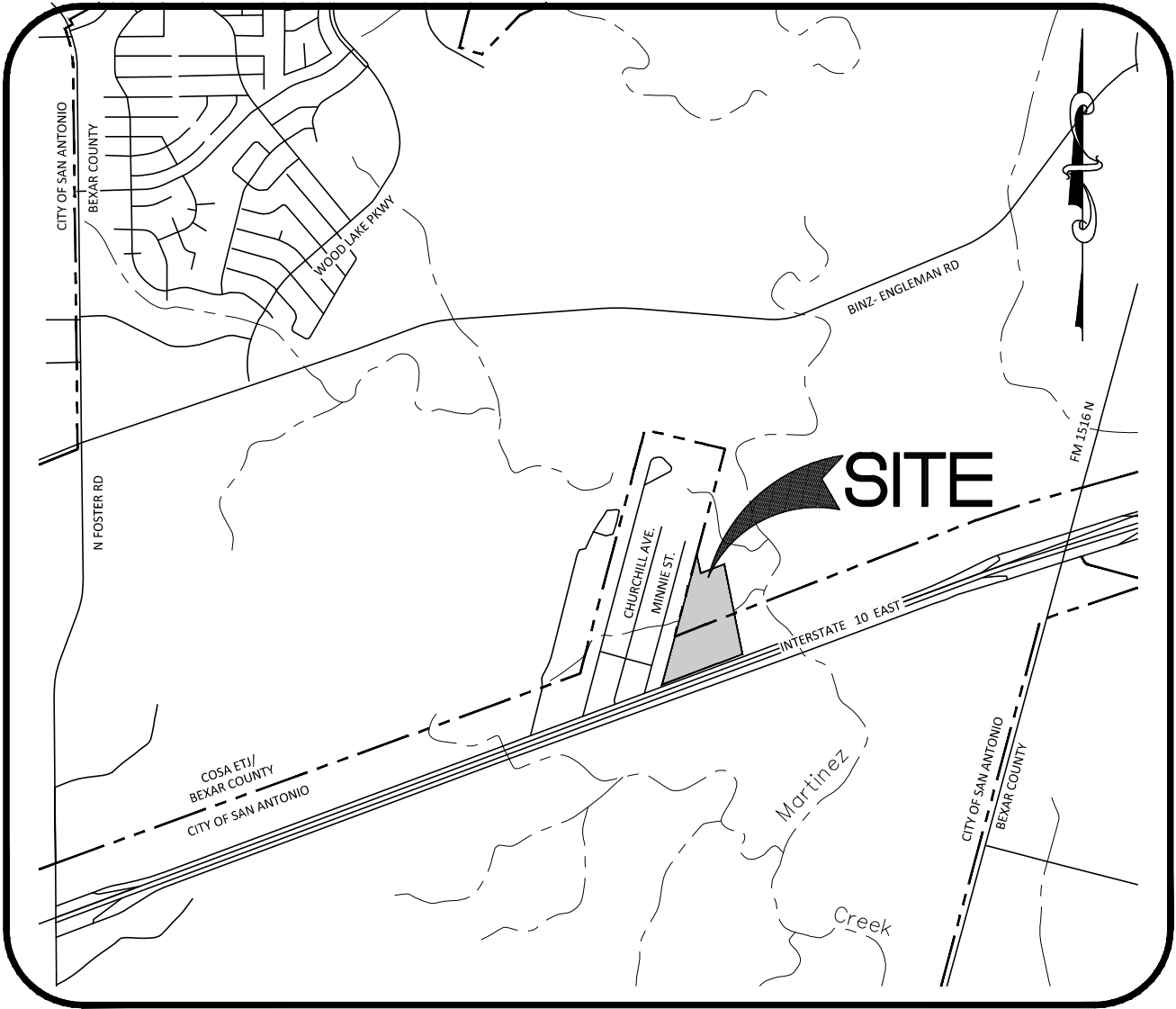
LEGEND	
SIDEWALK WHEELCHAIR RAMP – TYPE I DEVELOPER INSTALLED	(A)
SIDEWALK WHEELCHAIR RAMP – TYPE 10 DIRECTIONAL RAMPS (SINGLE) DEVELOPER INSTALLED	(B)
SIDEWALK WHEELCHAIR RAMP – TYPE II DEVELOPER INSTALLED	(C)
SIDEWALK WHEELCHAIR PASSING SPACE DEVELOPER INSTALLED	(D)
SIDEWALK WHEELCHAIR RAMP – TYPE 10 DIRECTIONAL RAMPS (DUAL) DEVELOPER INSTALLED	(E)
SIDEWALK WHEELCHAIR RAMP – TYPE 11 DEVELOPER INSTALLED	(F)
TYPICAL SIDEWALK WHEELCHAIR RAMP – MODIFY DIRECTIONAL RAMP DEVELOPER INSTALLED	(G)
EXISTING GUTTER ELEVATION	621.810
EXISTING TOP OF CURB ELEVATION	621.8170
PROPOSED TOP OF CURB ELEVATION	621.81
PROPERTY LINE	
EXISTING CONTOUR	621
PROPOSED CONTOUR	621
PROPOSED CONCRETE CURB	
FLOW ARROW	
DEED & PLAT RECORDS	D.P.R.
OFFICIAL PUBLIC RECORDS	O.P.R.
EXISTING SIDEWALK	
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
WASH-OUT CROWN	
FILL HATCH	
PAVEMENT REPLACEMENT	
SIDEWALK WHEELCHAIR RAMP	
POSSIBLE DRIVEWAY LOCATION	
VNAE	VEHICULAR NON-ACCESS EASEMENT

BEXAR COUNTY R.O.W. NOTE:
BEXAR COUNTY PERMIT REQUIRED FOR STREET TIE-IN, CURB/SIDEWALK & INTERSECTION PAVEMENT REPLACEMENT AND/OR ANY WORK BEING DONE IN BEXAR COUNTY R.O.W.

CONSTRUCTION PLANS FOR



ENCLAVE AT HORIZON POINTE
STREET AND DRAINAGE IMPROVEMENTS



VICINITY MAP
N.T.S.

SUBMITTAL DATE:
JUNE 2023

LEGAL DESCRIPTION:

BEING A TOTAL OF 24.428 ACRES (1,063,822.32 SQUARE FEET) OF LAND, SITUATED IN COUNTY BLOCK NUMBER 5090, AND BEING PART OF THE GUADALUPE TORRES SURVEY NO. 38, ABSTRACT NO. 739, BEXAR COUNTY, TEXAS AND INCLUDING THE TRACT CALLED 10.058 ACRES OF LAND CONVEYED TO SAN ANTONIO LD, LLC BY GENERAL WARRANTY DEED AS RECORDED IN DOCUMENT NUMBER 20220203708 AND THE TRACT CALLED 14.384 ACRES OF LAND CONVEYED TO SAN ANTONIO LD, LLC BY GENERAL WARRANTY DEED AS RECORDED IN DOCUMENT NUMBER 20200143665, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS



Sheet List Table

Sheet Number	Sheet Title
C4.0	STREET COVER
C4.1	TRAFFIC PLAN
C4.2	TRAFFIC PLAN
C4.3	BEXAR TRAFFIC DETAILS
C4.4	BEXAR TRAFFIC DETAILS
C4.5	COSA TRAFFIC DETAILS
C4.6	STEET PLAN & PROFILE BAGWELL LN
C4.7	STREET PLAN & PROFILE BAGWELL LN
C4.8	STREET PLAN & PROFILE BIGGIO LN
C4.9	STREET PLAN & PROFILE CAMINITI LN
C4.10	STREET PLAN & PROFILE MANCINI WAY
C4.11	STREET PLAN & PROFILE HENSLEY RUN
C4.11A	STREET PLAN & PROFILE VERLANDER PASS
C4.12	STANDARD STREET DETAILS
C4.13	STANDARD STREET DETAILS
C4.14	WHEELCHAIR RAMP DETAILS
C4.15	DRAINAGE PLAN & PROFILE DRAIN A
C4.16	DRAINAGE PLAN & PROFILE DRAIN A
C4.17	DRAINAGE PLAN & PROFILE DRAIN B
C4.18	DRAINAGE PLAN & PROFILE DRAIN C
C4.19	DRAINAGE PLAN & PROFILE DRAIN D
C4.20	DRAINAGE PLAN & PROFILE DRAIN E
C4.21	DRAIN E DETAILS
C4.22	DRAINAGE PLAN & PROFILE DRAIN F
C4.23	DRAINAGE PLAN & PROFILE DRAIN F
C4.24	DRAINAGE PLAN & PROFILE DRAIN G
C4.25	DRAINAGE PLAN & PROFILE DRAIN H
C4.26	STANDARD DRAINAGE DETAILS
C4.27	STANDARD DRAINAGE DETAILS
C4.28	STANDARD DRAINAGE DETAILS
C4.29	STANDARD DRAINAGE DETAILS
C4.29A	STANDARD DRAINAGE DETAILS
C4.30	RIGHT TURN LANE

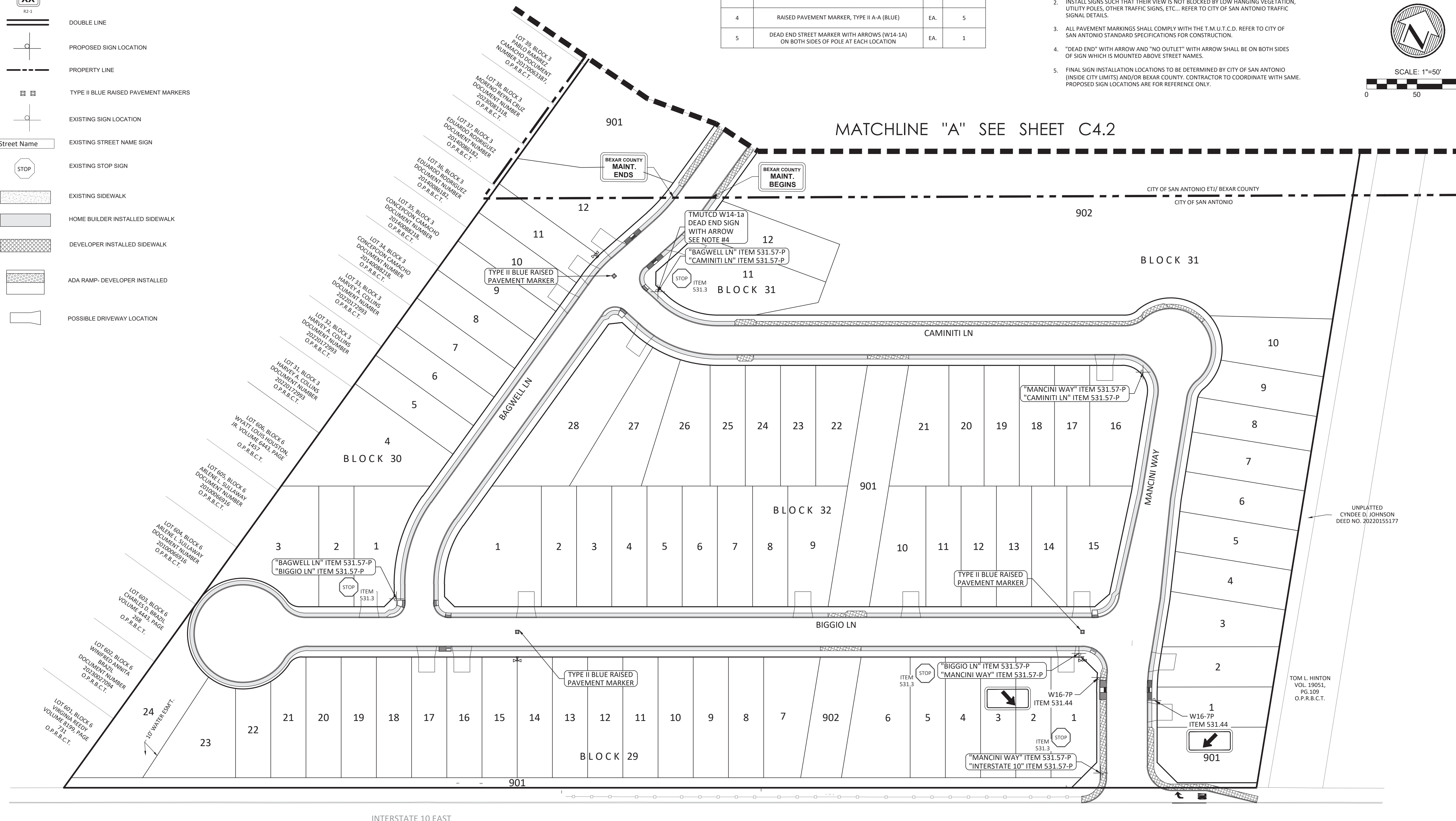
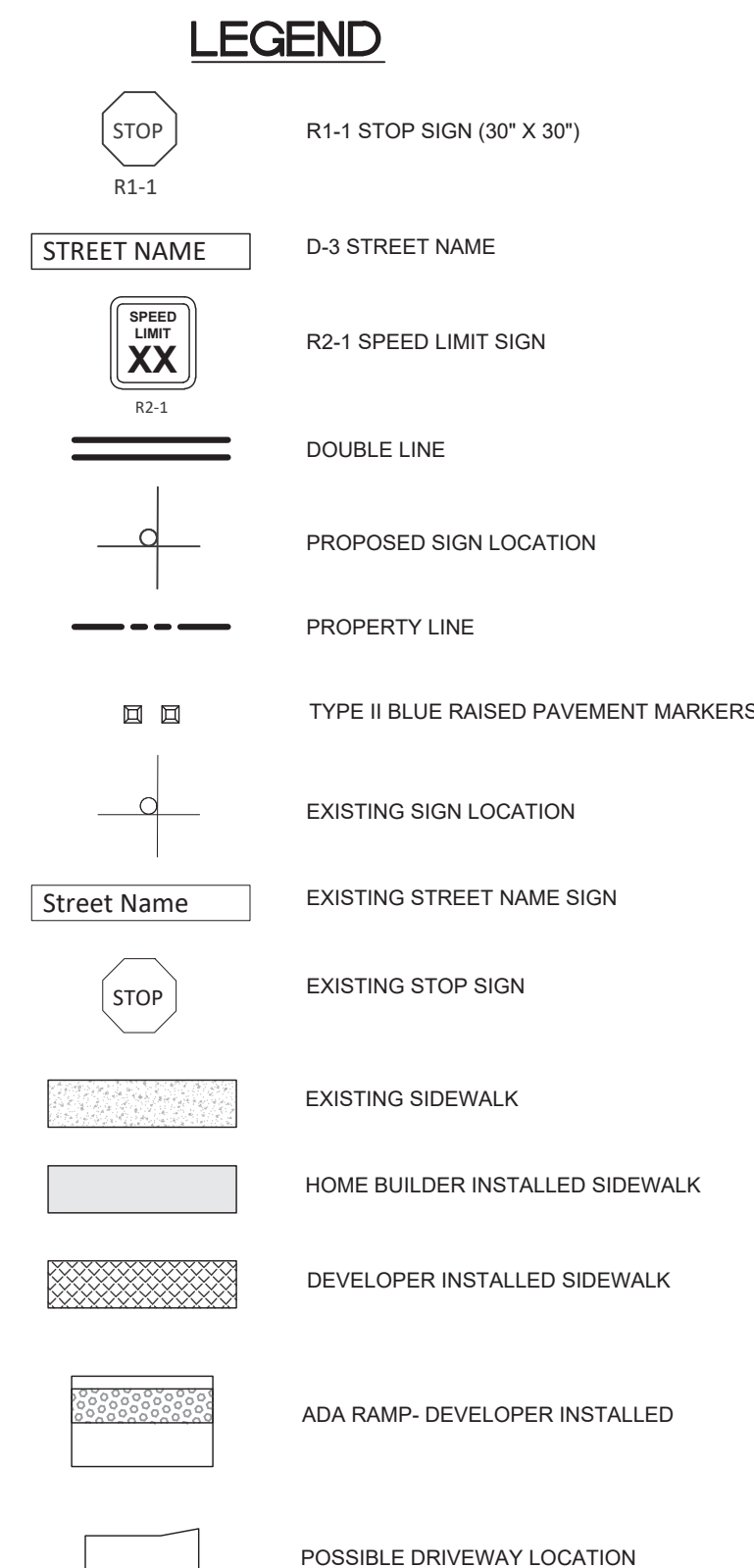
BEXAR COUNTY PERMIT REQUIRED FOR STREET
TIE-IN & INTERSECTION PAVEMENT
REPLACEMENT AND/OR ANY WORK BEING
DONE IN BEXAR COUNTY R.O.W.



ITEM	DESCRIPTION	UNIT	QUANTITY
1	INSTALL SIGN POLE WITH STREET NAMES, BLOCK NUMBERS, AND STOP SIGN (30")	EA.	6
2	OM4-3 END OF ROAD MARKER 18"x18"	EA.	3
3	W16-7P PLAQUE	EA.	4
4	RAISED PAVEMENT MARKER, TYPE II A-A (BLUE)	EA.	5
5	DEAD END STREET MARKER WITH ARROWS (W14-1A) ON BOTH SIDES OF POLE AT EACH LOCATION	EA.	1

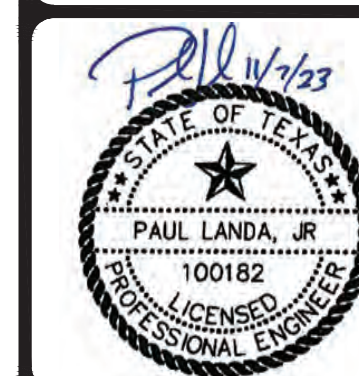
ALL PERMANENT REGULATORY, WARNING, AND STREET NAME SIGNS ARE TO BE PROVIDED AND INSTALLED BY THE DEVELOPER TO COUNTY SPECIFICATIONS.

1. ALL TRAFFIC SIGNS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE (T.M.U.T.C.D.).
2. INSTALL SIGNS SUCH THAT THEIR VIEW IS NOT BLOCKED BY LOW HANGING VEGETATION, UTILITY POLES, OTHER TRAFFIC SIGNS, ETC... REFER TO CITY OF SAN ANTONIO TRAFFIC SIGNAL DETAILS.
3. ALL PAVEMENT MARKINGS SHALL COMPLY WITH THE T.M.U.T.C.D. REFER TO CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION.
4. "DEAD END" WITH ARROW AND "NO OUTLET" WITH ARROW SHALL BE ON BOTH SIDES OF SIGN WHICH IS MOUNTED ABOVE STREET NAMES.
5. FINAL SIGN INSTALLATION LOCATIONS TO BE DETERMINED BY CITY OF SAN ANTONIO (INSIDE CITY LIMITS) AND/OR BEAR COUNTRY. CONTRACTOR TO COORDINATE WITH SAME. PROPOSED SIGN LOCATIONS ARE FOR REFERENCE ONLY.



UNPLATTED
CYNDEE D. JOHNSON
DEED NO. 2022015517

TOM L. HINTON
VOL. 19051,
PG.109
O.P.R.B.C.T.



ENCLAVE AT HORIZON POINTE OVERALL TRAFFIC PLAN

SHEET

C4.1

SUBMITTAL SET

NOTE:

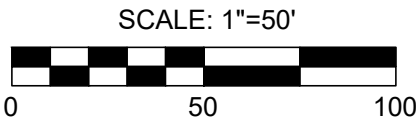
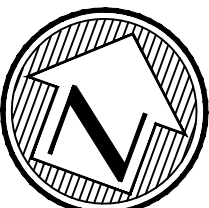
ALL PERMANENT REGULATORY, WARNING, AND STREET NAME SIGNS ARE TO BE PROVIDED AND INSTALLED BY THE DEVELOPER TO COUNTY SPECIFICATIONS.

GENERAL NOTES:

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- INSTALL SIGNS SUCH THAT THEIR VIEW IS NOT BLOCKED BY LOW HANGING VEGETATION, UTILITY POLES, OTHER TRAFFIC SIGNS, ETC... REFER TO CITY OF SAN ANTONIO TRAFFIC SIGNAL DETAILS.
- ALL PAVEMENT MARKINGS SHALL COMPLY WITH THE T.M.U.T.C.D. REFER TO CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- "DEAD END" WITH ARROW AND "NO OUTLET" WITH ARROW SHALL BE ON BOTH SIDES OF SIGN WHICH IS MOUNTED ABOVE STREET NAMES.
- FINAL SIGN INSTALLATION LOCATIONS TO BE DETERMINED BY CITY OF SAN ANTONIO (INSIDE CITY LIMITS) AND/OR BEXAR COUNTY. CONTRACTOR TO COORDINATE WITH SAME. PROPOSED SIGN LOCATIONS ARE FOR REFERENCE ONLY.

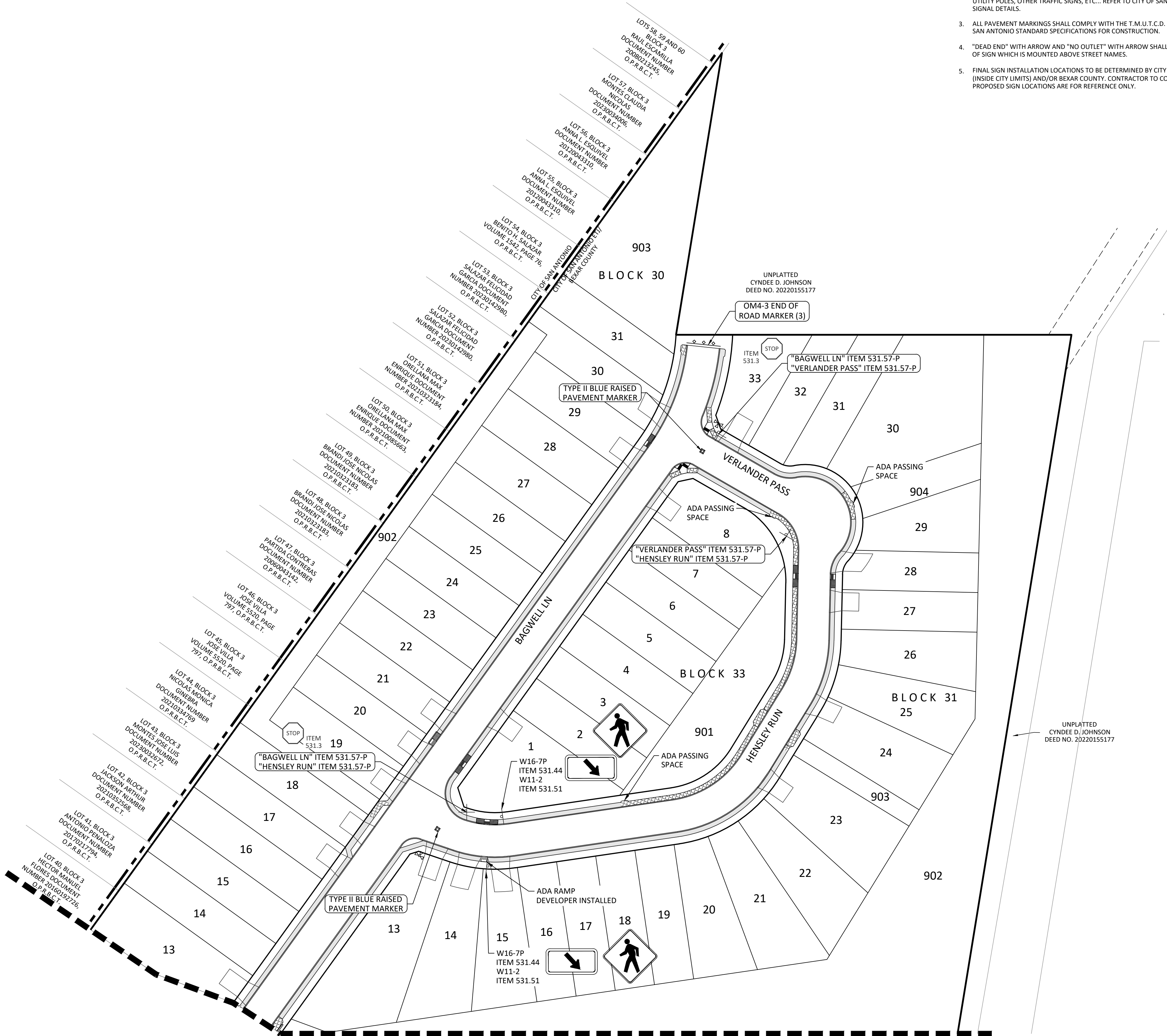
BEXAR COUNTY R.O.W. NOTE:

BEXAR COUNTY PERMIT REQUIRED FOR STREET TIE-IN & INTERSECTION PAVEMENT REPLACEMENT AND/OR ANY WORK BEING DONE IN BEXAR COUNTY R.O.W.



LEGEND

- R1-1 STOP SIGN (30" X 30")
- D-3 STREET NAME
- R2-1 SPEED LIMIT SIGN
- DOUBLE LINE
- PROPOSED SIGN LOCATION
- PROPERTY LINE
- TYPE II BLUE RAISED PAVEMENT MARKERS
- EXISTING SIGN LOCATION
- EXISTING STREET NAME SIGN
- EXISTING STOP SIGN
- EXISTING SIDEWALK
- HOME BUILDER INSTALLED SIDEWALK
- DEVELOPER INSTALLED SIDEWALK
- ADA RAMP- DEVELOPER INSTALLED
- POSSIBLE DRIVEWAY LOCATION



MATCHLINE "A" SEE SHEET C4.1

REVISIONS		BY	DATE
NO.	DESCRIPTION		

Engineers
Surveyors
Planners

MTI

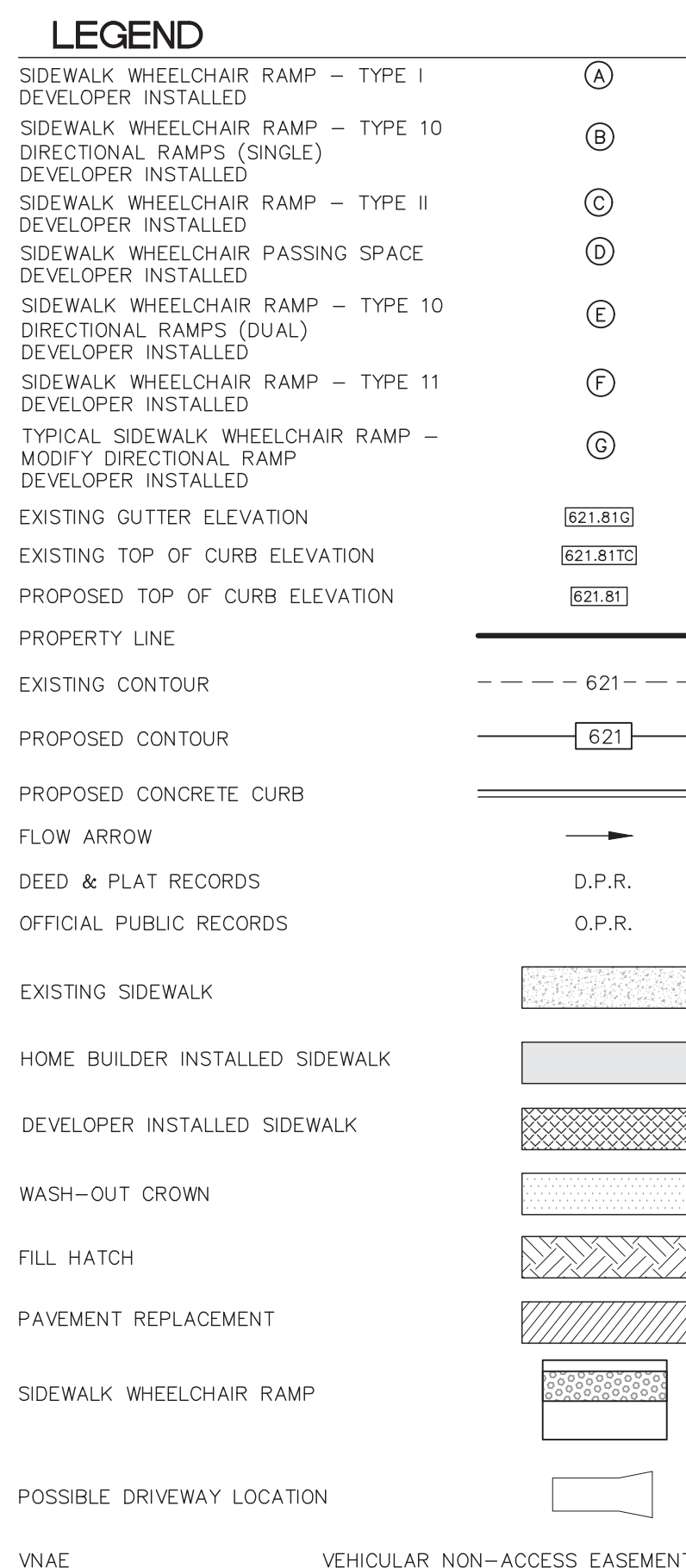
Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297 / SURVEYING: F-10131500
12770 CARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



ENCLAVE AT HORIZON POINTE
OVERALL TRAFFIC PLAN

BAGWELL LN

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SUBMITTAL SET

MTR

- Engineers
- Surveyors
- Planners

Moy Tarin Ramirez Engineers, LLC

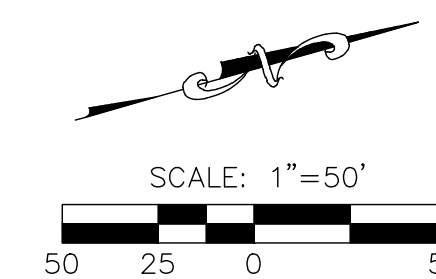
PELLETS: ENGINEERING F-5297/SURVEYING: F-10131500
12770 GARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



ENCLAVE AT HORIZON POINTE
STREET PLAN & PROFILE
BAGWELL LANE
CITY OF SAN ANTONIO STA. 2+55.00 TO STA. 7+80.41
REXAR COUNTY STA. 7+80.41 TO STA. 10+00.00

C4.6

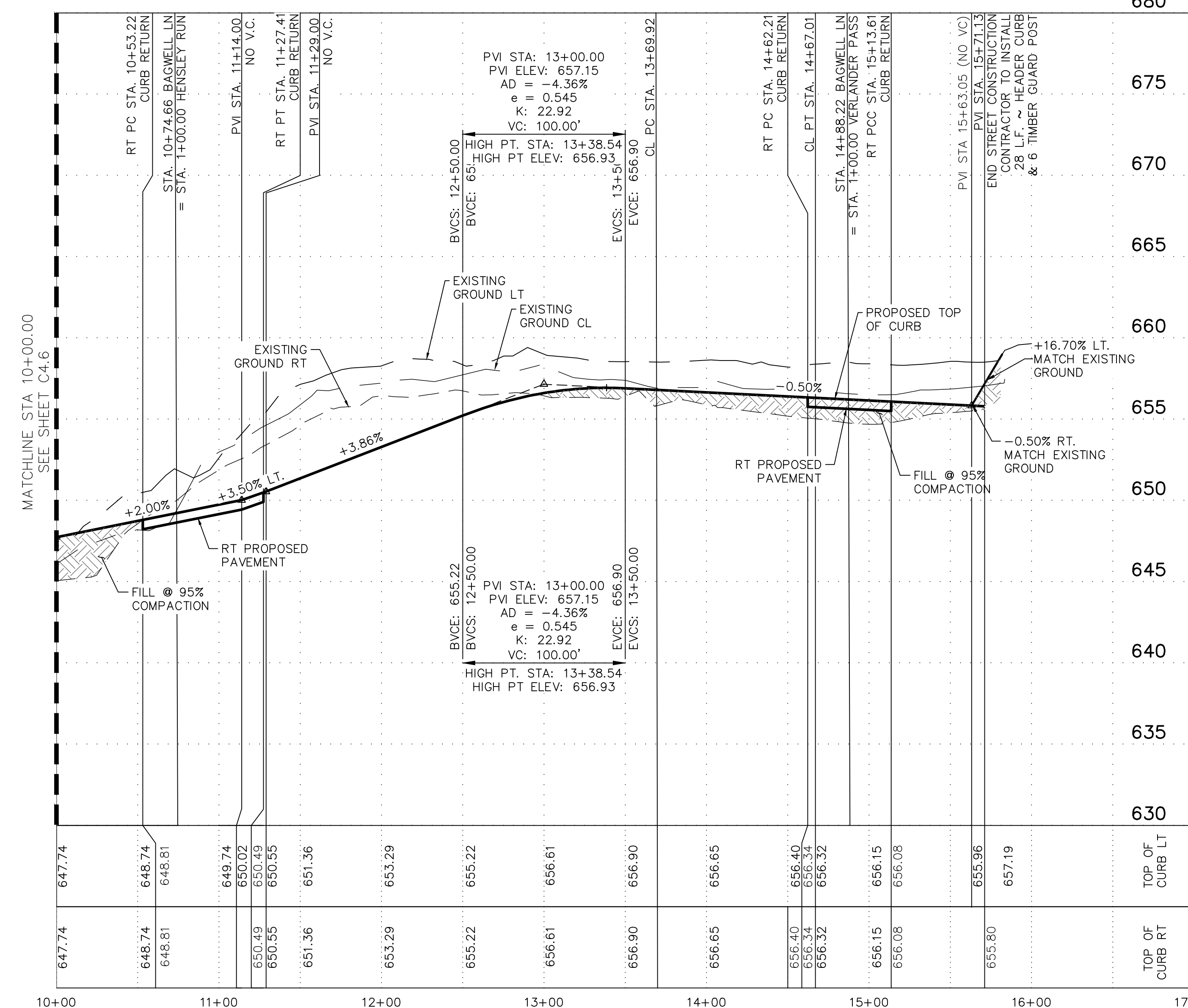
Plot Date: November 7, 2023 User ID: Mayela Aguilera
 C:\Emlison Trost\Unit 1\Drawings\22179_04.6-C4.7 Bagwell Lndwg



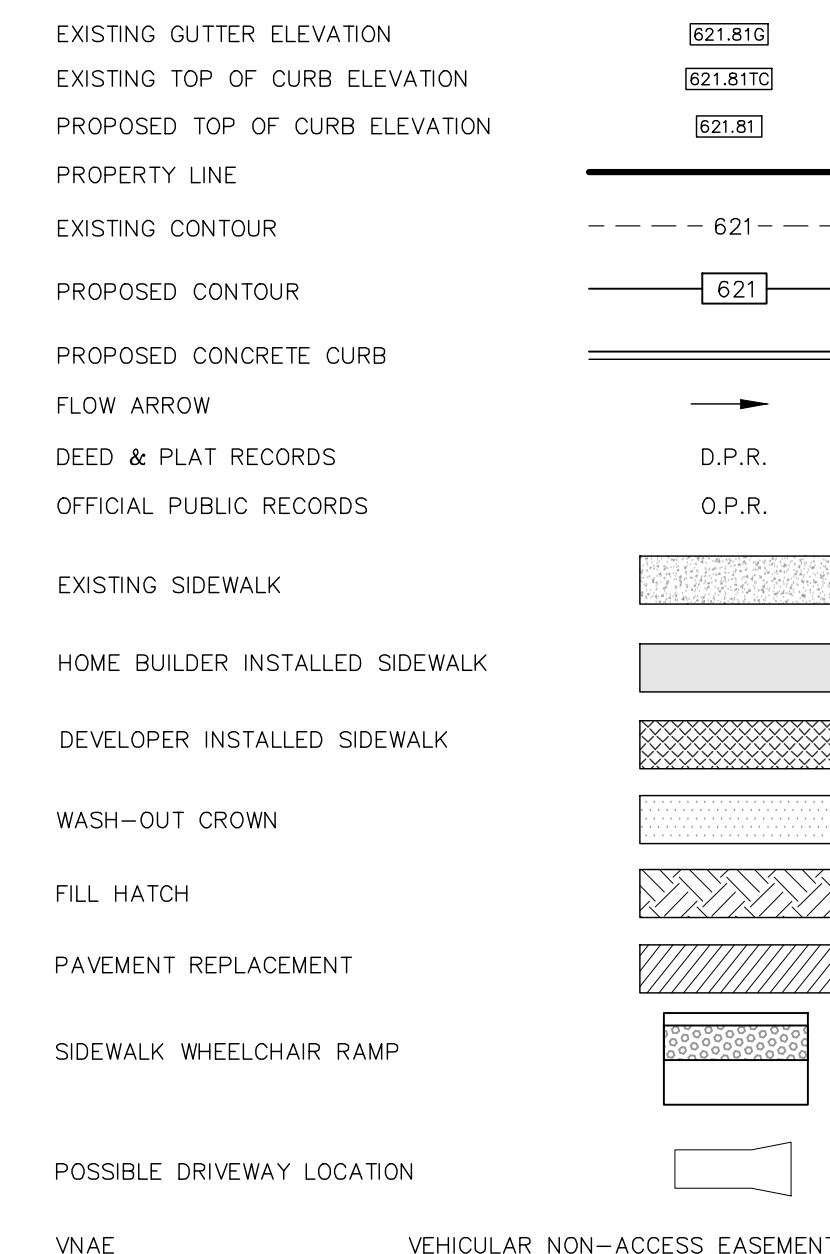
CURVE	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD DISTANCE
C1	35°46'02"	125.00'	78.03'	N2°19'33"W	76.77'
C2	12°49'44"	125.00'	27.99'	N21°58'20"E	27.93'
C3	12°49'44"	175.00'	39.18'	N21°58'20"E	39.13'
C4	29°49'36"	200.00'	104.12'	N0°38'40"E	102.94'

BEXAR COUNTY
STA. 10+00.00 TO END

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



SIDEWALK WHEELCHAIR RAMP - TYPE I DEVELOPER INSTALLED	RAMP - TYPE I
SIDEWALK WHEELCHAIR RAMP - TYPE I DEVELOPER INSTALLED	RAMP - TYPE I
SIDEWALK WHEELCHAIR RAMP - TYPE II DEVELOPER INSTALLED	RAMP - TYPE II
SIDEWALK WHEELCHAIR PASSING SPACE DEVELOPER INSTALLED	SPACE
SIDEWALK WHEELCHAIR RAMP - TYPE I DEVELOPER INSTALLED	RAMP - TYPE I
SIDEWALK WHEELCHAIR RAMP - TYPE I DEVELOPER INSTALLED	RAMP - TYPE I
TYPICAL SIDEWALK WHEELCHAIR RAMP - MODIFIED DIRECTIONAL RAMP DEVELOPER INSTALLED	RAMP - MODIFIED

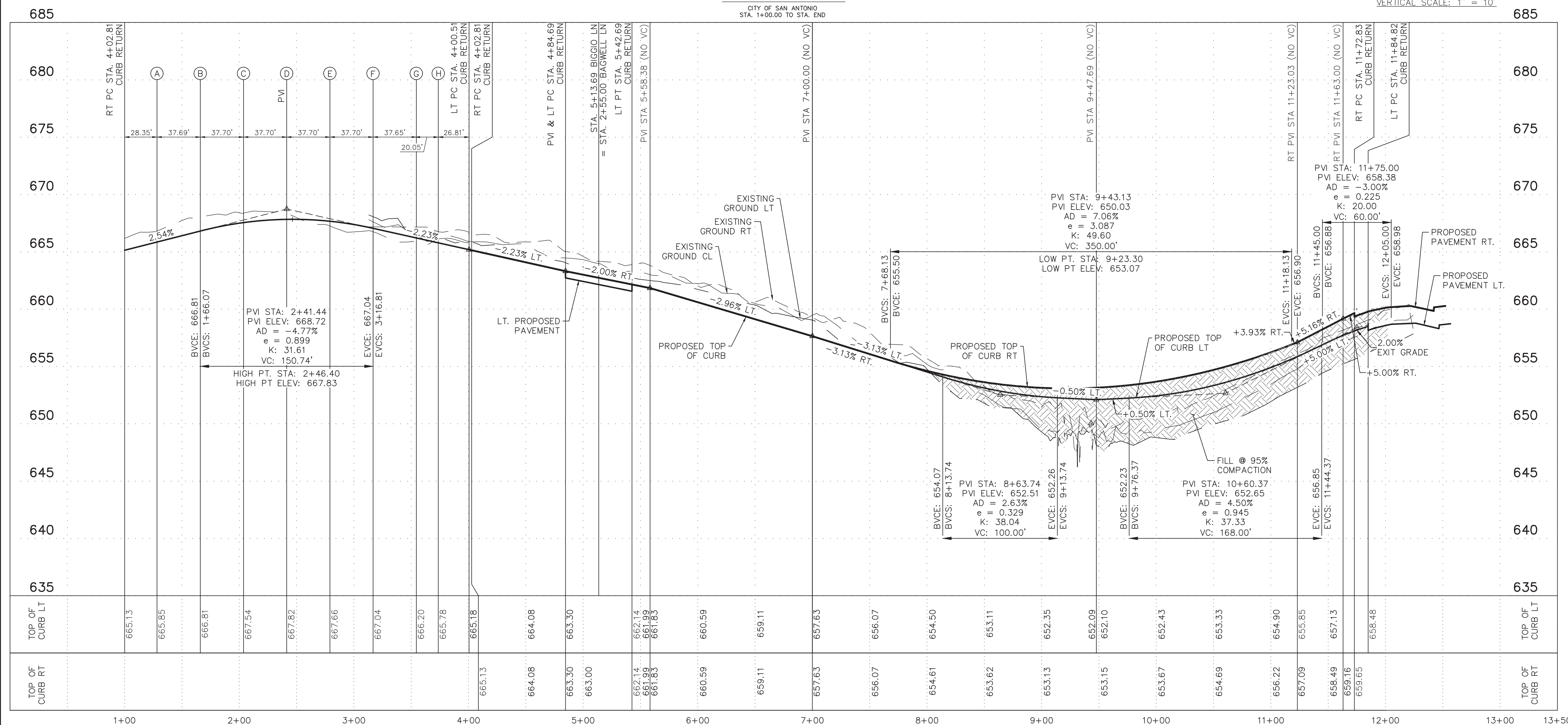


BEXAR COUNTY PERMIT REQUIRED FOR
STREET TIE-IN, CURB/SIDEWALK &
INTERSECTION PAVEMENT REPLACEMENT
AND/OR ANY WORK BEING DONE IN
BEXAR COUNTY R.O.W.











CUL-DE-SAC TABLE		
POINT	TOP OF CURB	GUTTER
RT. PC STA. 4+02.81	665.13	664.55
A	665.85	665.27
B	666.81	666.23
C	667.54	666.96
D	667.82	667.24
E	667.66	667.08
F	667.04	666.46
G	666.20	665.62
H	665.78	665.20
LT. PC STA. 4+00.52	665.18	664.60

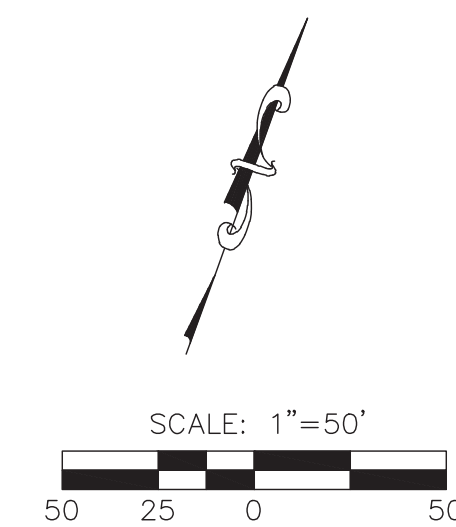
CAUTION!!!
CONTRACTOR TO VERIFY EXISTING
CONDITIONS AND UTILITIES BEFORE
CONSTRUCTION. IF ANY
DISCREPANCIES NOTIFY ENGINEER

CITY OF SAN ANTONIO
STA. 1+00.00 TO STA. END

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

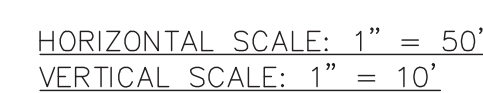
LEGEND

- | | |
|---|---|
| SIDEWALK WHEELCHAIR RAMP – TYPE I DEVELOPER INSTALLED | (A) |
| SIDEWALK WHEELCHAIR RAMP – TYPE 10 DIRECTIONAL RAMPS (SINGLE) DEVELOPER INSTALLED | (B) |
| SIDEWALK WHEELCHAIR RAMP – TYPE II DEVELOPER INSTALLED | (C) |
| SIDEWALK WHEELCHAIR PASSING SPACE DEVELOPER INSTALLED | (D) |
| SIDEWALK WHEELCHAIR RAMP – TYPE 10 DIRECTIONAL RAMPS (DUAL) DEVELOPER INSTALLED | (E) |
| SIDEWALK WHEELCHAIR RAMP – TYPE 11 DEVELOPER INSTALLED | (F) |
| TYPICAL SIDEWALK WHEELCHAIR RAMP – MODIFY DEVELOPER INSTALLED | (G) |
| EXISTING GUTTER ELEVATION | 621.81D |
| EXISTING TOP OF CURB ELEVATION | 621.81TC |
| PROPOSED TOP OF CURB ELEVATION | 621.81 |
| PROPERTY LINE | — — — — — 621 — — — — — |
| EXISTING CONTOUR | — — — — — 621 — — — — — |
| PROPOSED CONTOUR | ===== 621 ===== |
| PROPOSED CONCRETE CURB | ===== |
| FLOW ARROW | ➔ |
| DEED & PLAT RECORDS | D.P.R. |
| OFFICIAL PUBLIC RECORDS | O.P.R. |
| EXISTING SIDEWALK |  |
| HOME BUILDER INSTALLED SIDEWALK |  |
| DEVELOPER INSTALLED SIDEWALK |  |
| WASH-OUT CROWN |  |
| FILL HATCH |  |
| PAVEMENT REPLACEMENT |  |
| SIDEWALK WHEELCHAIR RAMP |  |
| POSSIBLE DRIVEWAY LOCATION |  |
| VNAE | VEHICULAR NON-ACCESS EASEMENT |

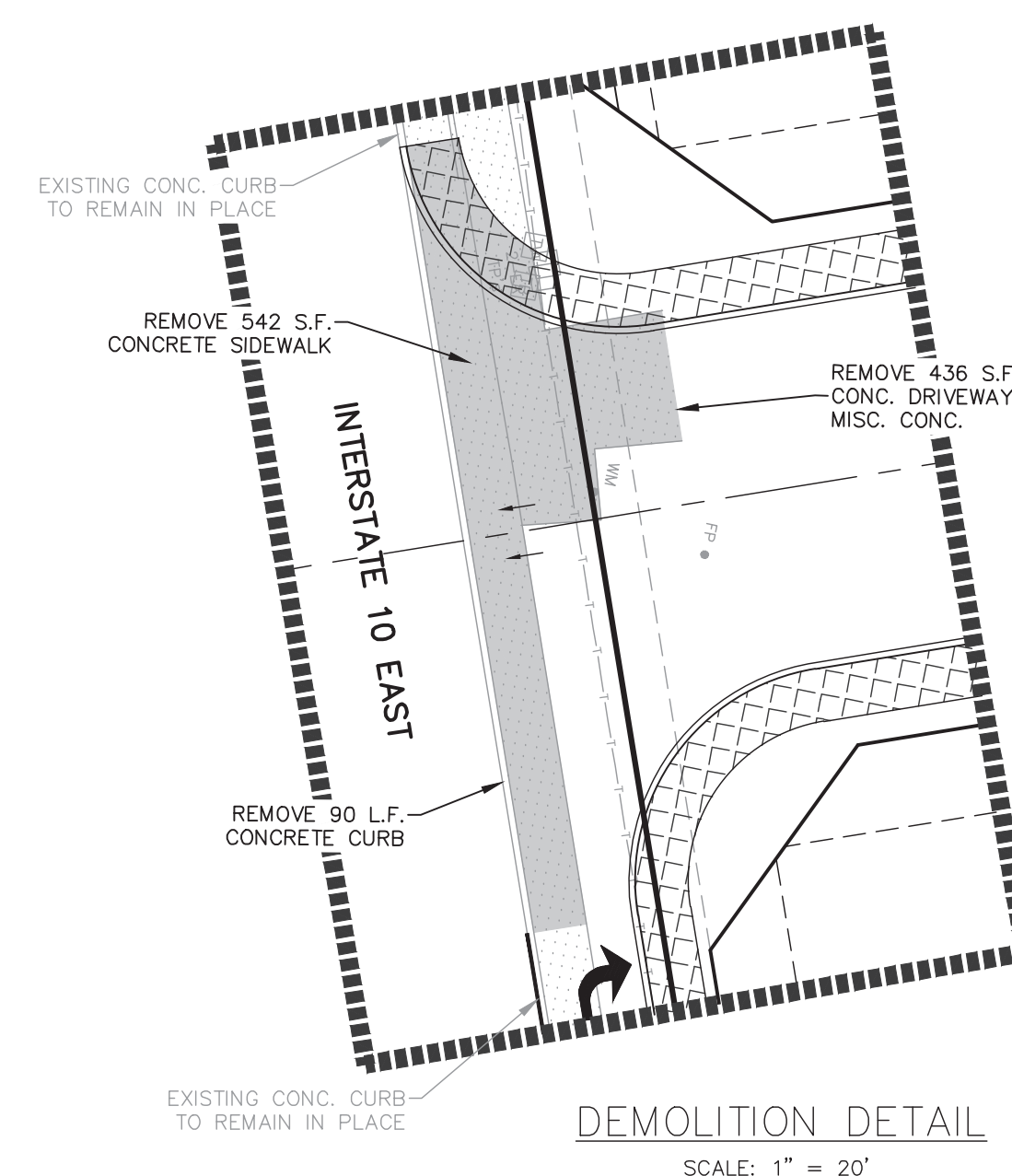


CAUTION!!!
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CONDITIONS AND UTILITIES BEFORE
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DISCREPANCIES NOTIFY ENGINEER

SIDEWALK WHEELCHAIR RAMP – TYPE I DEVELOPER INSTALLED	(A)
SIDEWALK WHEELCHAIR RAMP – TYPE 10 DIRECTIONAL RAMPS (SINGLE)	(B)
DEVELOPER INSTALLED	(C)
SIDEWALK WHEELCHAIR RAMP – TYPE II DEVELOPER INSTALLED	(D)
SIDEWALK WHEELCHAIR PASSING SPACE DEVELOPER INSTALLED	(E)
SIDEWALK WHEELCHAIR RAMP – TYPE 10 DIRECTIONAL RAMPS (DUAL)	(F)
DEVELOPER INSTALLED	(G)
SIDEWALK WHEELCHAIR RAMP – TYPE 11 DEVELOPER INSTALLED	(H)
TYPICAL SIDEWALK WHEELCHAIR RAMP – MODIFY DIRECTIONAL RAMP	(I)
EXISTING GUTTER ELEVATION	621.810
EXISTING TOP OF CURB ELEVATION	621.811C
PROPOSED TOP OF CURB ELEVATION	621.81
PROPERTY LINE	
EXISTING CONTOUR	--- 621 ---
PROPOSED CONTOUR	
PROPOSED CONCRETE CURB	
FLOW ARROW	
DEED & PLAT RECORDS	D.P.R.
OFFICIAL PUBLIC RECORDS	O.P.R.
EXISTING SIDEWALK	
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
WASH-OUT CROWN	
FILL HATCH	
PAVEMENT REPLACEMENT	
SIDEWALK WHEELCHAIR RAMP	
POSSIBLE DRIVEWAY LOCATION	

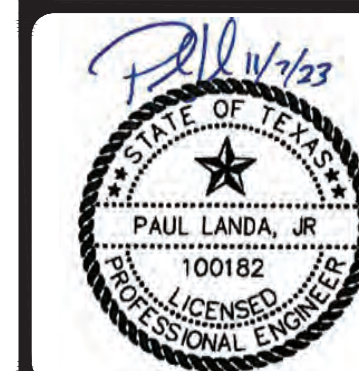


CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD DISTANCE
C1	9°17'15"	200.00'	32.42'	S15°36'09"E	32.38'



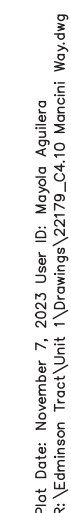
LEGEND

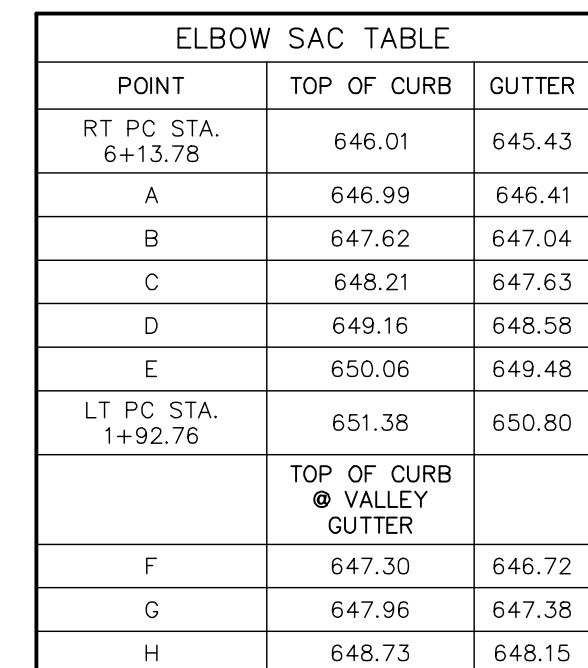
- MTR**
- Engineers
 - Surveyors
 - Planners
- Moy Tarin Ramirez Engineers, LLC**
- PELPS: ENGINEERING F-5297/SURVEYING: F-10131560
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



SHEET

SUBMITTAL SET

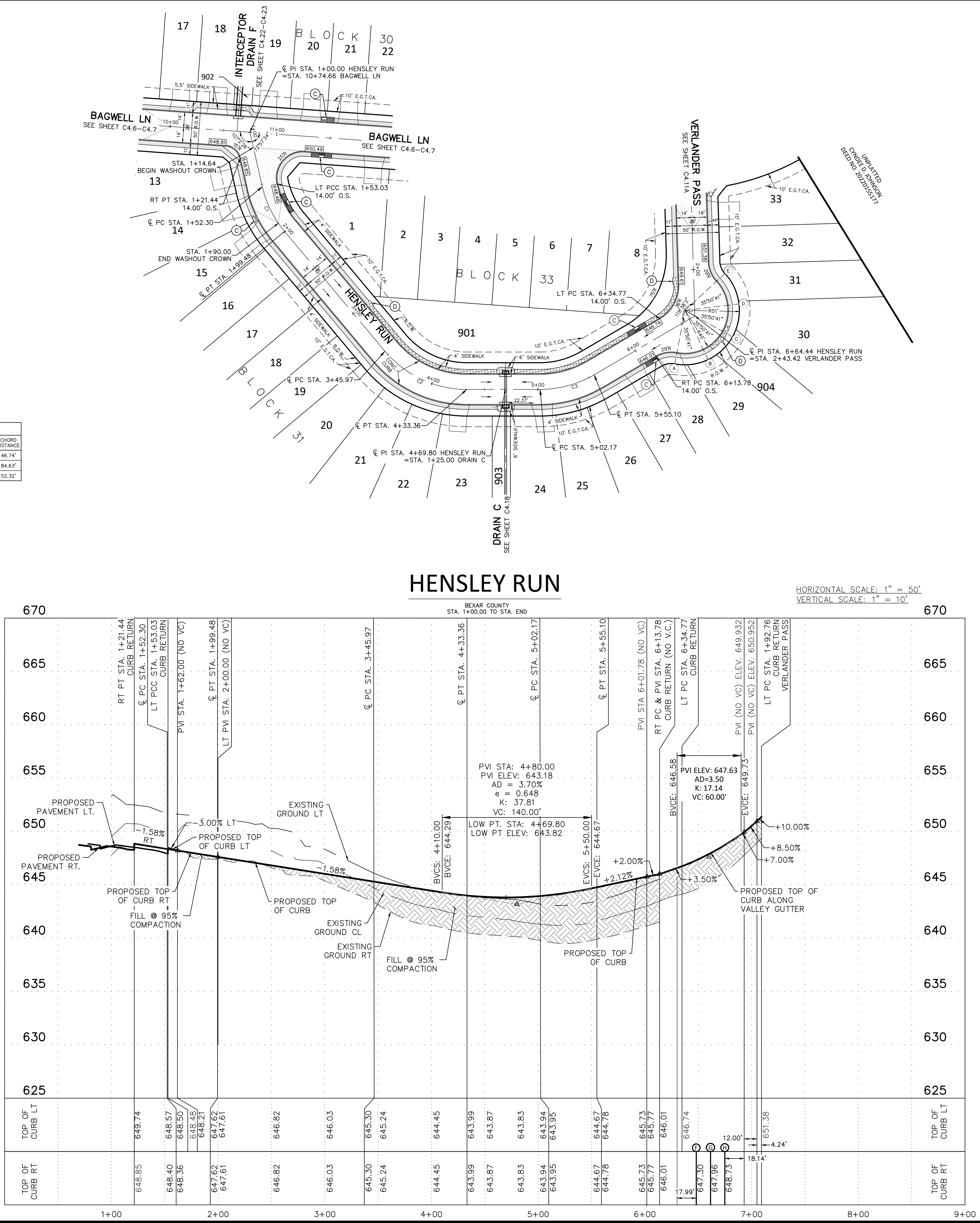
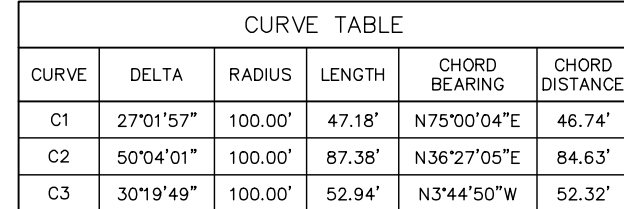


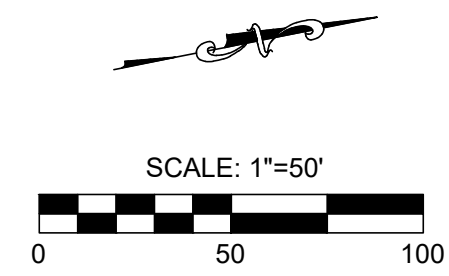


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SIDEWALK WHEELCHAIR RAMP – TYPE I DEVELOPER INSTALLED	(A)
SIDEWALK WHEELCHAIR RAMP – TYPE 10 DIRECTIONAL RAMPS (SINGLE) DEVELOPER INSTALLED	(B)
SIDEWALK WHEELCHAIR RAMP – TYPE II DEVELOPER INSTALLED	(C)
SIDEWALK WHEELCHAIR PASSING SPACE DEVELOPER INSTALLED	(D)
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SIDEWALK WHEELCHAIR RAMP – TYPE 11 DEVELOPER INSTALLED	(F)
TYPICAL SIDEWALK WHEELCHAIR RAMP – MODIFY DIRECTIONAL RAMP DEVELOPER INSTALLED	(G)
EXISTING GUTTER ELEVATION	621.81G
EXISTING TOP OF CURB ELEVATION	621.81TC
PROPOSED TOP OF CURB ELEVATION	621.81
PROPERTY LINE	
EXISTING CONTOUR	621
PROPOSED CONTOUR	621
PROPOSED CONCRETE CURB	
FLOW ARROW	
DEED & PLAT RECORDS	D.P.R.
OFFICIAL PUBLIC RECORDS	O.P.R.
EXISTING SIDEWALK	
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
WASH-OUT CROWN	
FILL HATCH	
PAVEMENT REPLACEMENT	
SIDEWALK WHEELCHAIR RAMP	
POSSIBLE DRIVEWAY LOCATION	
VNAE	VEHICULAR NON-ACCESS EASEMENT

BEXAR COUNTY R.O.W. NOTE:
BEXAR COUNTY PERMIT REQUIRED FOR
STREET TIE-IN, CURB/SIDEWALK &
INTERSECTION PAVEMENT REPLACEMENT
AND/OR ANY WORK BEING DONE IN
BEXAR COUNTY R.O.W.





CAUTION!!!
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CONDITIONS AND UTILITIES BEFORE
CONSTRUCTION. IF ANY
DISCREPANCIES NOTIFY ENGINEER

SIDEWALK WHEELCHAIR RAMP - TYPE I DEVELOPER INSTALLED	(A)
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE) DEVELOPER INSTALLED	(B)
SIDEWALK WHEELCHAIR RAMP - TYPE II DEVELOPER INSTALLED	(C)
SIDEWALK WHEELCHAIR PASSING SPACE DEVELOPER INSTALLED	(D)
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL) DEVELOPER INSTALLED	(E)
SIDEWALK WHEELCHAIR RAMP - TYPE 11 DEVELOPER INSTALLED	(F)
TYPICAL SIDEWALK WHEELCHAIR RAMP - MODIFY DIRECTIONAL RAMP DEVELOPER INSTALLED	(G)
EXISTING GUTTER ELEVATION	621.81G
EXISTING TOP OF CURB ELEVATION	621.81TG
PROPOSED TOP OF CURB ELEVATION	621.81
PROPERTY LINE	
EXISTING CONTOUR	- - - - - 621 - - - - -
PROPOSED CONTOUR	
PROPOSED CONCRETE CURB	
FLOW ARROW	
DEED & PLAT RECORDS	D.P.R.
OFFICIAL PUBLIC RECORDS	O.P.R.
EXISTING SIDEWALK	
HOME BUILDER INSTALLED SIDEWALK	
DEVELOPER INSTALLED SIDEWALK	
WASH-OUT CROWN	
FILL HATCH	
PAVEMENT REPLACEMENT	
SIDEWALK WHEELCHAIR RAMP	 
POSSIBLE DRIVEWAY LOCATION	
VNAE	VEHICULAR NON-ACCESS EASEMENT

MTI

- Engineers
- Surveyors
- Planners

Moy Tarin Ramirez Engineers, LLC

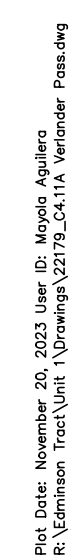
SPBELS: ENGINEERING F-5297/SURVEYING: F-101315000
127770 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249
TEL: (210) 698-5051
FAX: (210) 698-5085

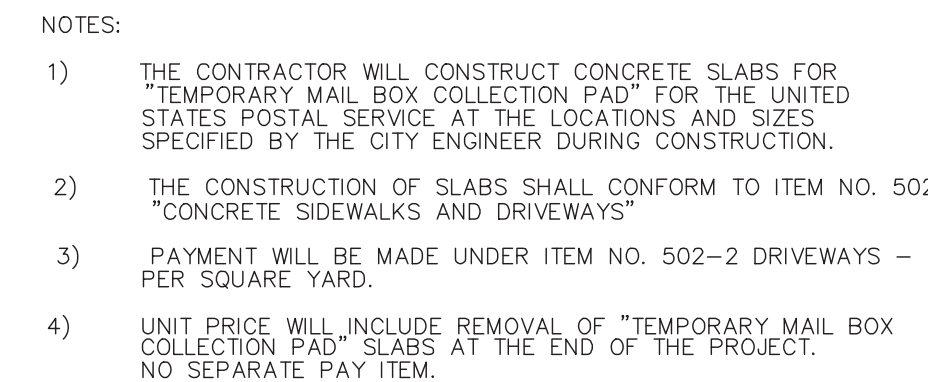
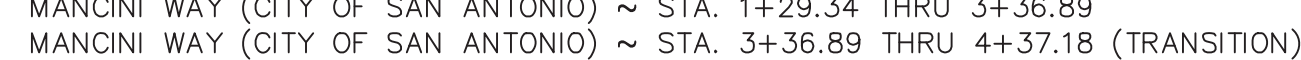
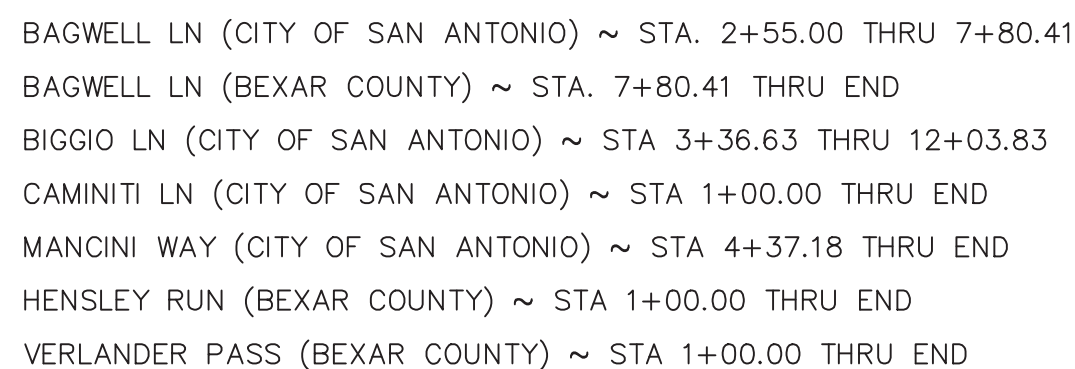


SHEET

C4.11A

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'



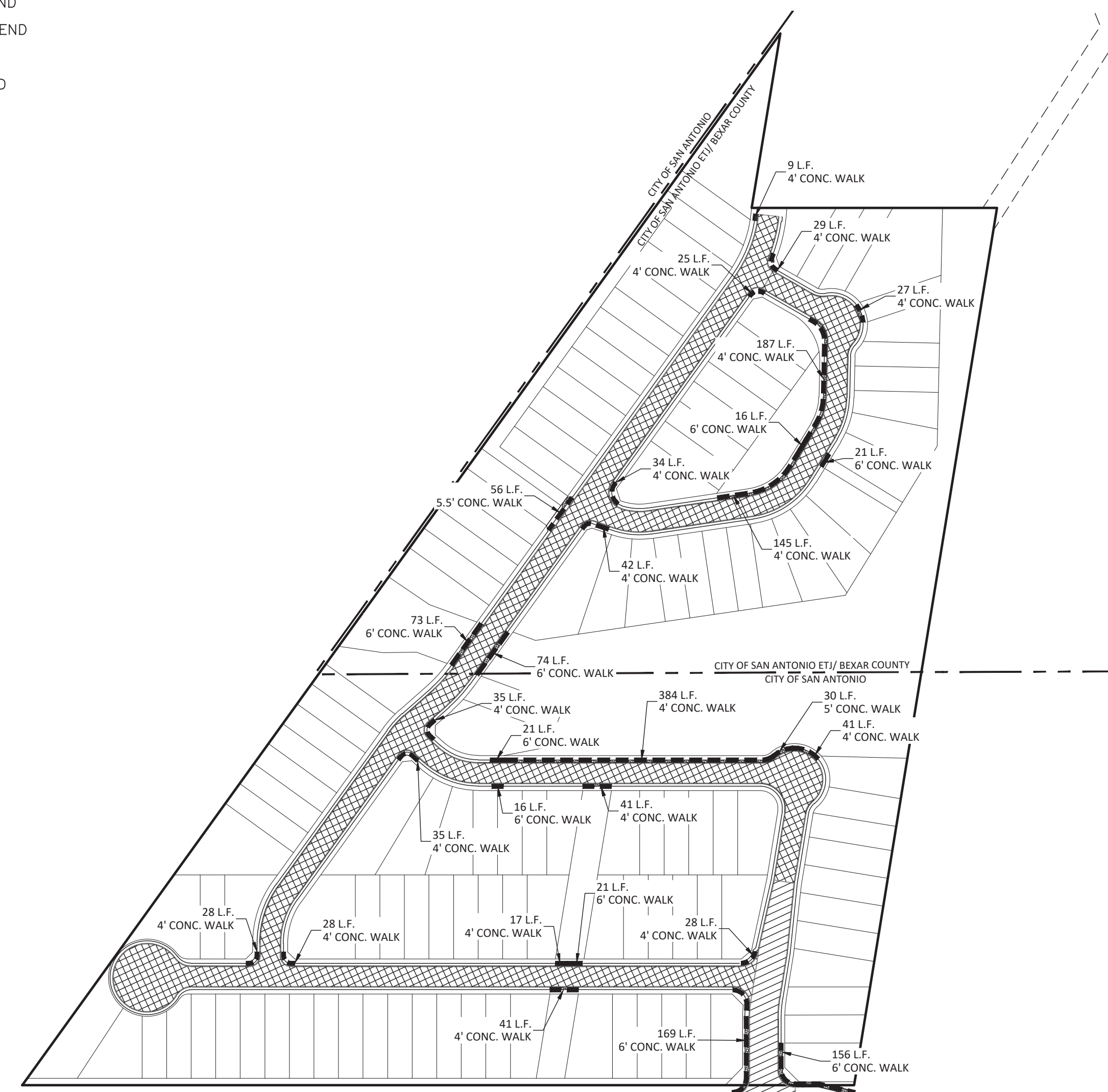


NOTE:
SELECT FILL MATERIAL SHALL HAVE
A PLASTICITY INDEX OF LESS THAN
20 AND A CALIFORNIA BEARING
RATIO (CBR) OF AT LEAST 2.0

NOTE:
THE SUBGRADE SOILS SHOULD BE TESTED
FOR SOLUBLE SULPHATE CONTENT PRIOR
TO INSTALLATION OF LIME OR CEMENT

GEOTECHNICAL REPORT:
INTEGRATED TESTING AND ENGINEERING COMPANY OF SAN ANTONIO, L.P.
PROPOSED NEW STREETS 14.384 ACRE KLOPPE TRACT
INTEC PROJECT NO. S201092-P (APRIL 22, 2020)

NOTE:
THE SUBGRADE SOILS SHOULD BE TESTED
FOR SOLUBLE SULPHATE CONTENT PRIOR
TO INSTALLATION OF LIME OR CEMENT

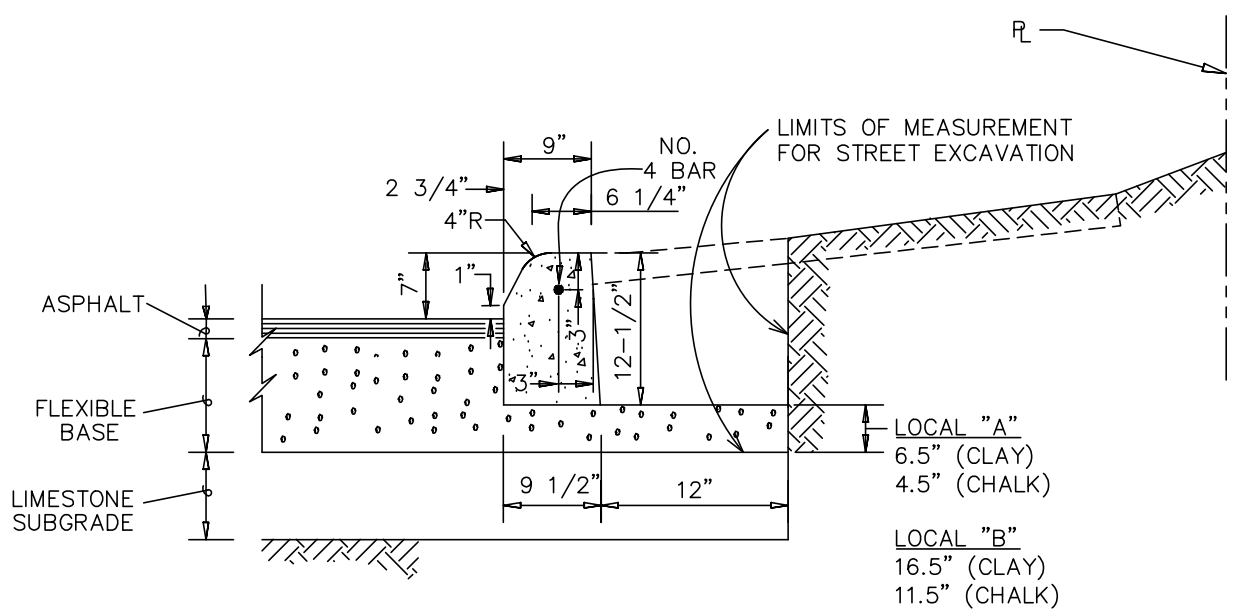
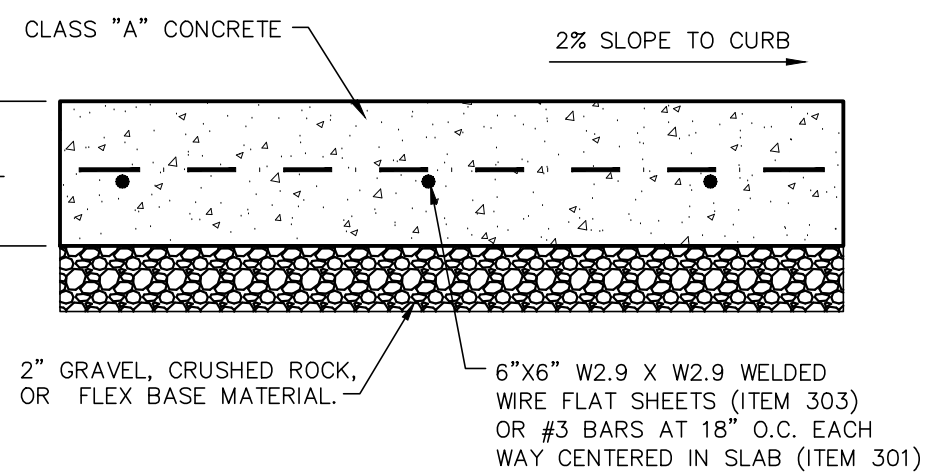
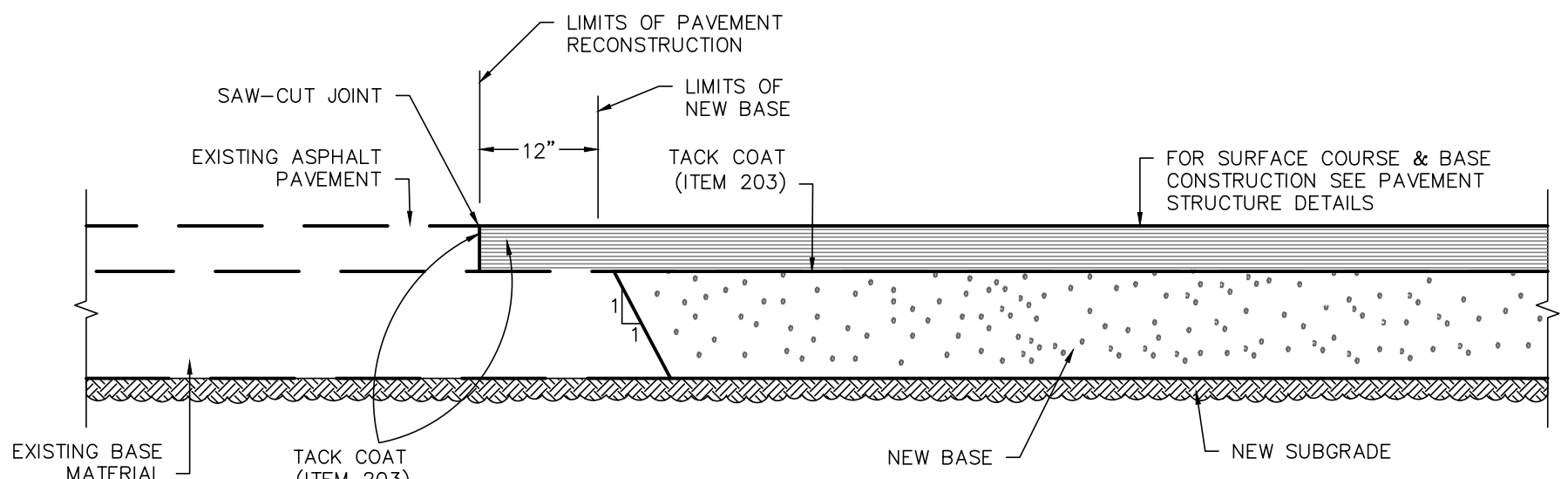
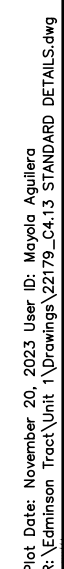


N.T.S.

PAVEMENT MATERIAL CBR= 2.0	CLAY SUBGRADE	CLAY SUBGRADE
	LOCAL "A"	LOCAL "B"
TYPE D ASPHALTIC CONCRETE	2.0 IN.	3.0 IN.
FLEXIBLE BASE (TXDOT ITEM 247, TYPE A, GRADE 1 OR 2)	11.0 IN.	21.5 IN.
LIME STABILIZED SUBGRADE (7% BY WEIGHT)	6.0 IN. (31 LBS/SY)	8.0 IN. (41 LBS/SY)

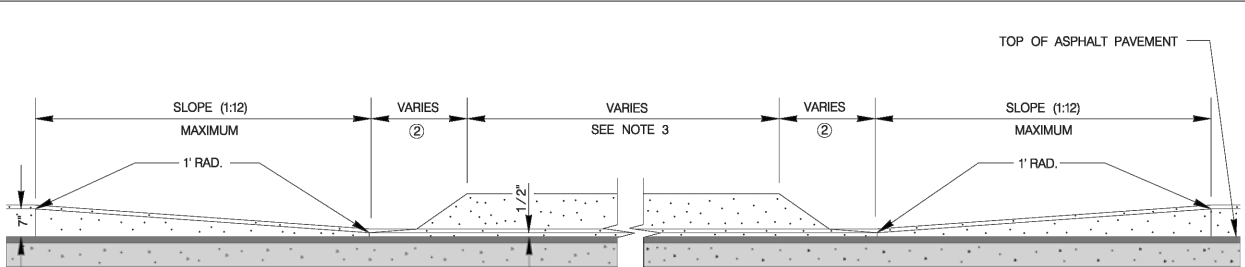


- AFTER INITIAL MIXING THE SOIL-LIME MIXTURE SHALL MELLOW FOR A PERIOD OF TWO TO THREE (2-3) DAYS. MAINTAIN MOISTURE DURING MELLOWING;
- AFTER MELLOWING AND FINAL MIXING, THE PULVERIZATION SHALL BE CHECKED USING THE FOLLOWING CRITERIA (REMOVE NON-SLAKING AGGREGATES RETAINED ON THE 3/4 INCH SIEVE FROM THE SAMPLE):
 - MINIMUM PASSING 1 1/2" SIEVE 100
 - MINIMUM PASSING 3/4" SIEVE 85
 - MINIMUM PASSING NO. 4 SIEVE 60
- SAMPLE SOIL-LIME MIXTURE FOR DETERMINATION OF MAXIMUM DRY DENSITY (MDD), IN THE LABORATORY, MOLD SPECIMENS TO 95% OF MDD AT OPTIMUM MOISTURE CONTENT AND VERIFY UCC TO BE AT LEAST 160 PSI IN ACCORDANCE WITH PROCEDURE OUTLINED ABOVE FOR MIXTURE DESIGN.
- COMPACT AND CHECK FIELD DENSITY (MINIMUM OF 95% OF MDD REQUIRED);
- CURE FOR AN ADDITIONAL 2 TO 5 DAYS (TOTAL MELLOWING AND CURING TIME SHOULD TOTAL AT LEAST 5 DAYS).
- VERIFY DEPTH OF LIME STABILIZED LAYER TO DEPTH AS NOTED ON PLAN TO WITHIN ±1.0 INCH.

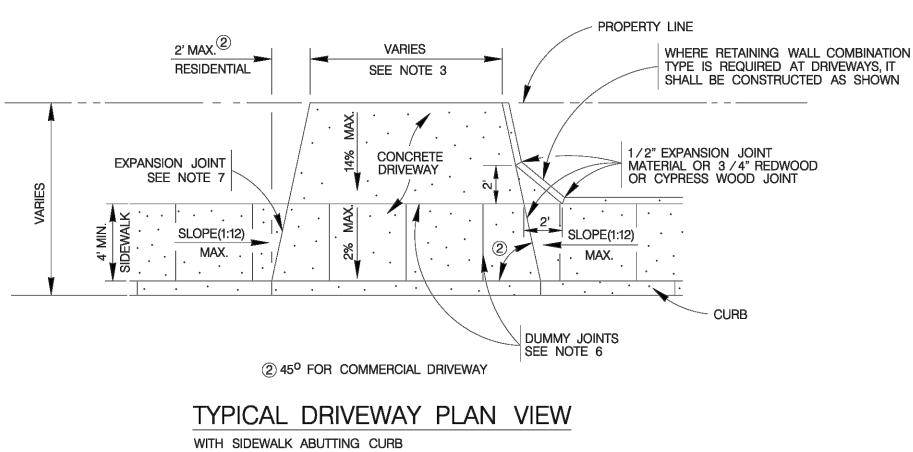


CURB NOTE: THE COST OF BASE MATERIAL UNDER & BEHIND THE CURB SHALL BE INCLUDED IN THE COST OF THE CURB.

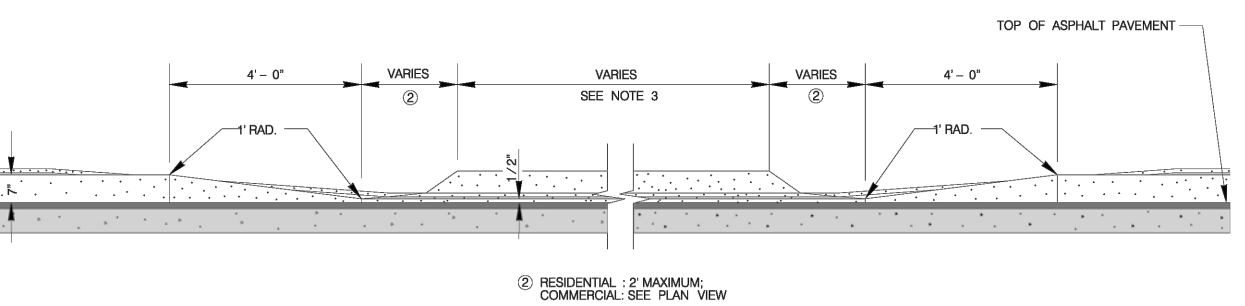
MACHINE LAID CURB	
N.T.S.	ITEM 500



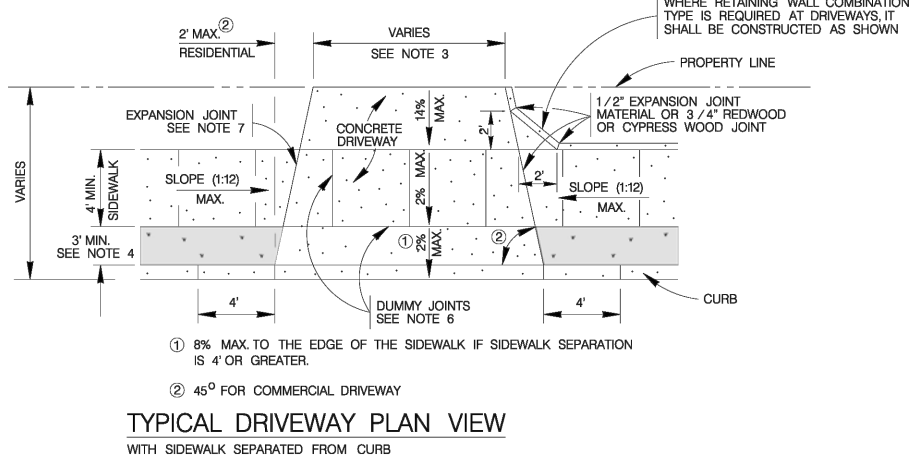
CURB PROFILE AT DRIVEWAY



TYPICAL DRIVEWAY PLAN VIEW



CURB PROFILE AT DRIVEWAY



TYPICAL DRIVEWAY PLAN VIEW
WITH SIDEWALK SEPARATED FROM CURB

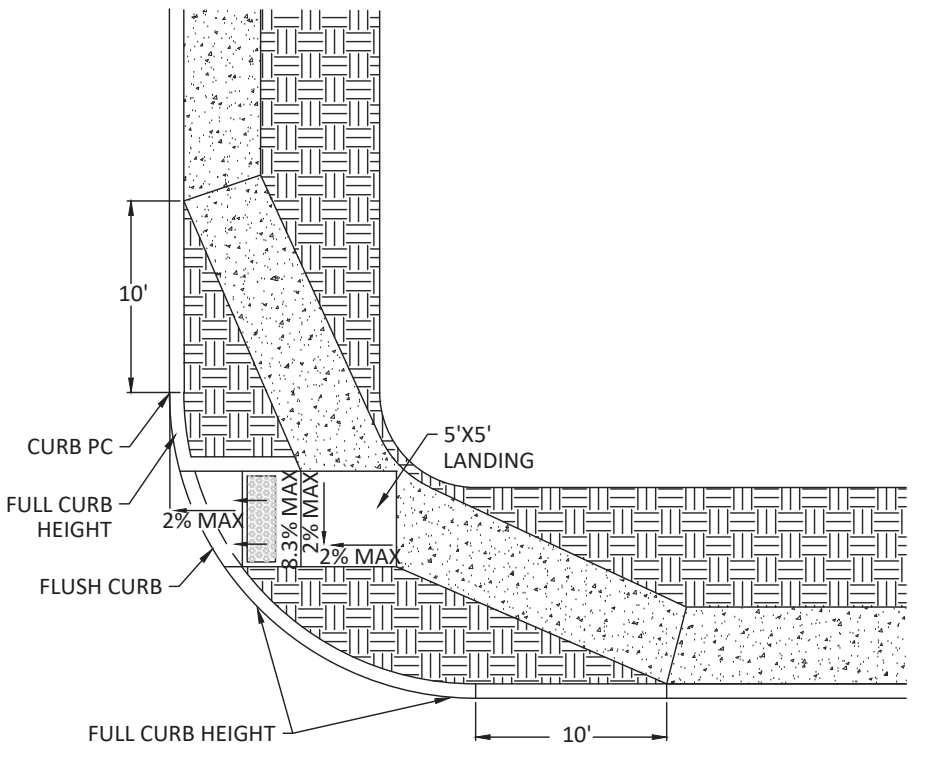
MAY 2009

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

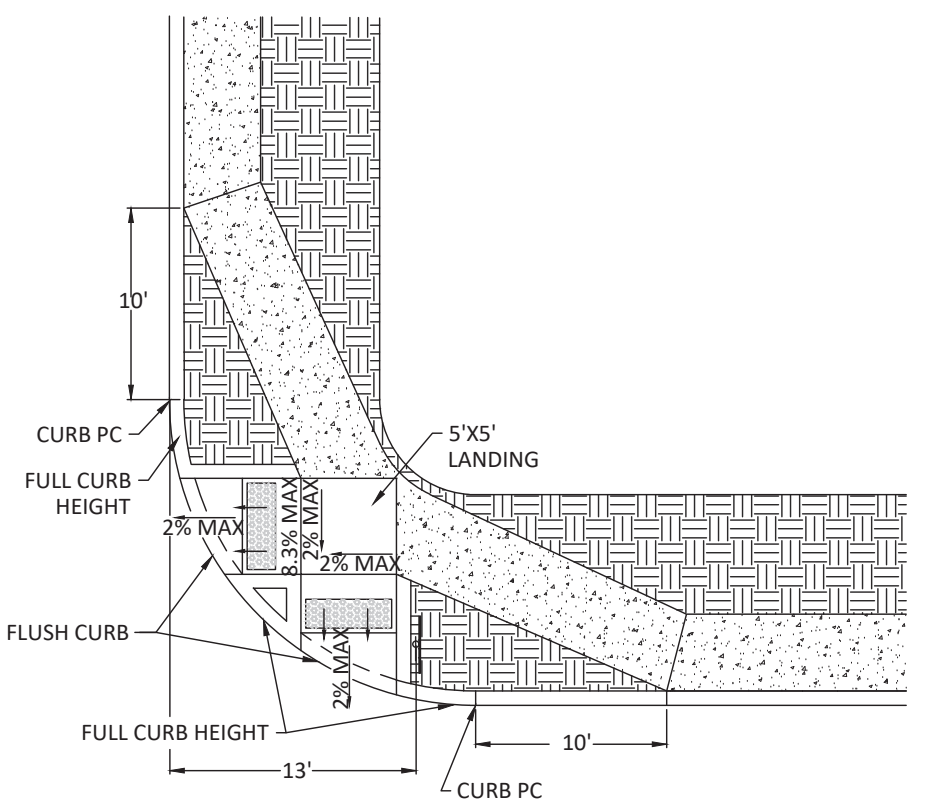
CONCRETE DRIVEWAY STANDARDS

% SUBMITTAL	PROJECT NO.:	DATE:
DRAWN BY: V. VASQUEZ	ORGN. BY:	CHECK BY: R.S. HOSSEINI, P.E.
		SHEET NO.: OF

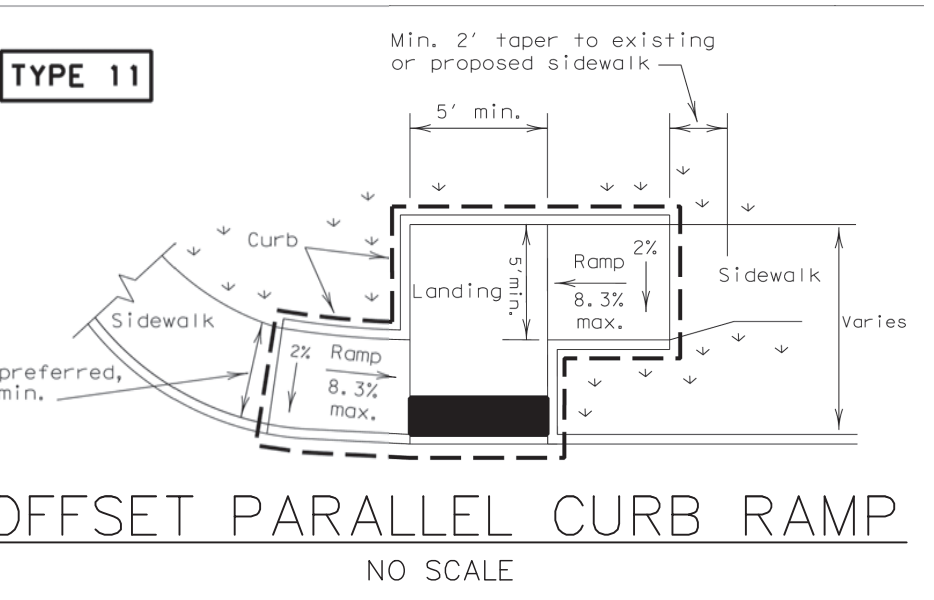
% SUBMITTAL	PROJECT NO.:	DATE:
DRAWN BY: V. VASQUEZ	ORGN. BY:	CHECK BY: R.S. HOSSEINI, P.E.
		SHEET NO.: OF



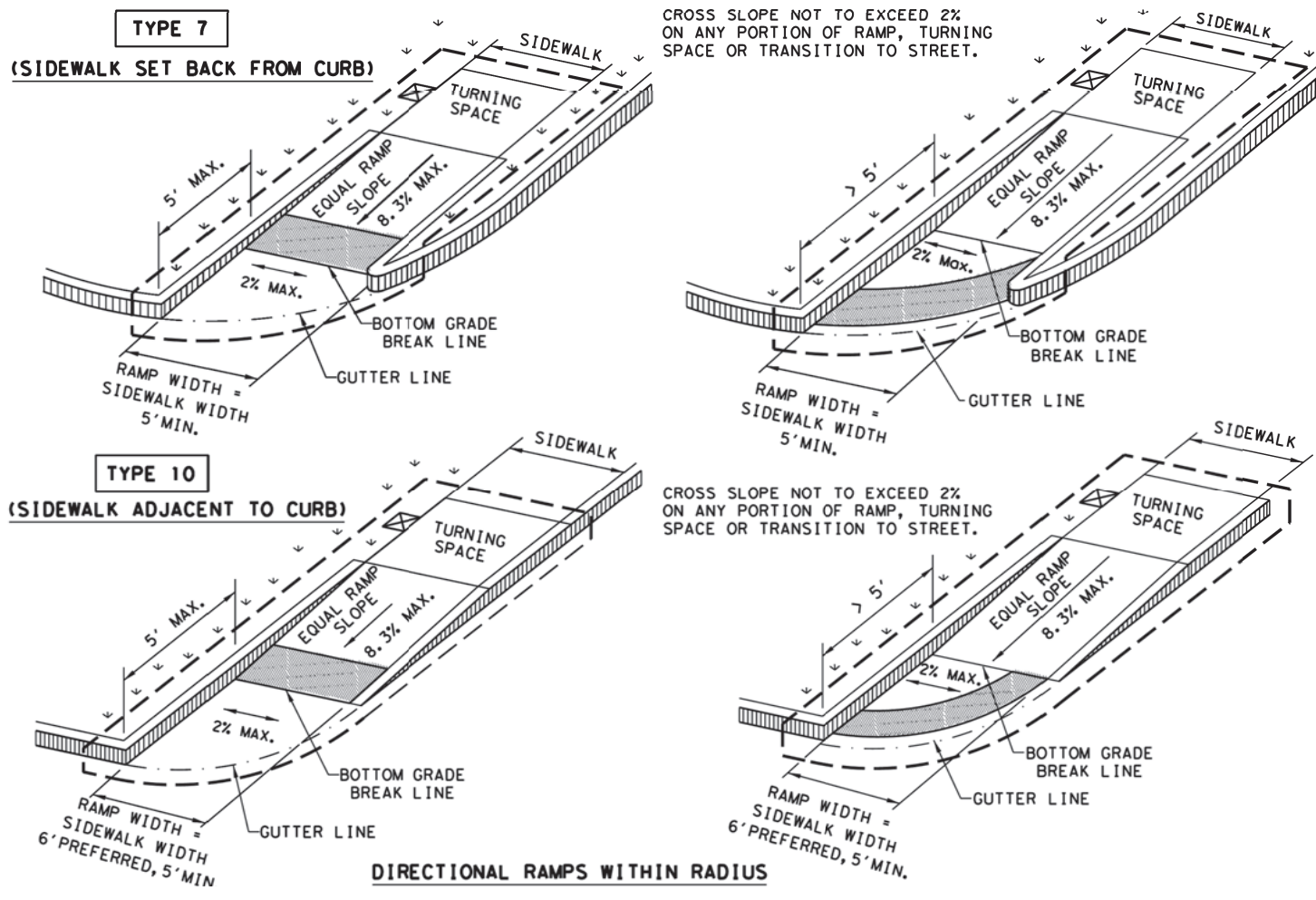
SINGLE ADA RAMP INTERSECTION LAYOUT DETAIL
(TYPE 10 DIRECTIONAL RAMPS)



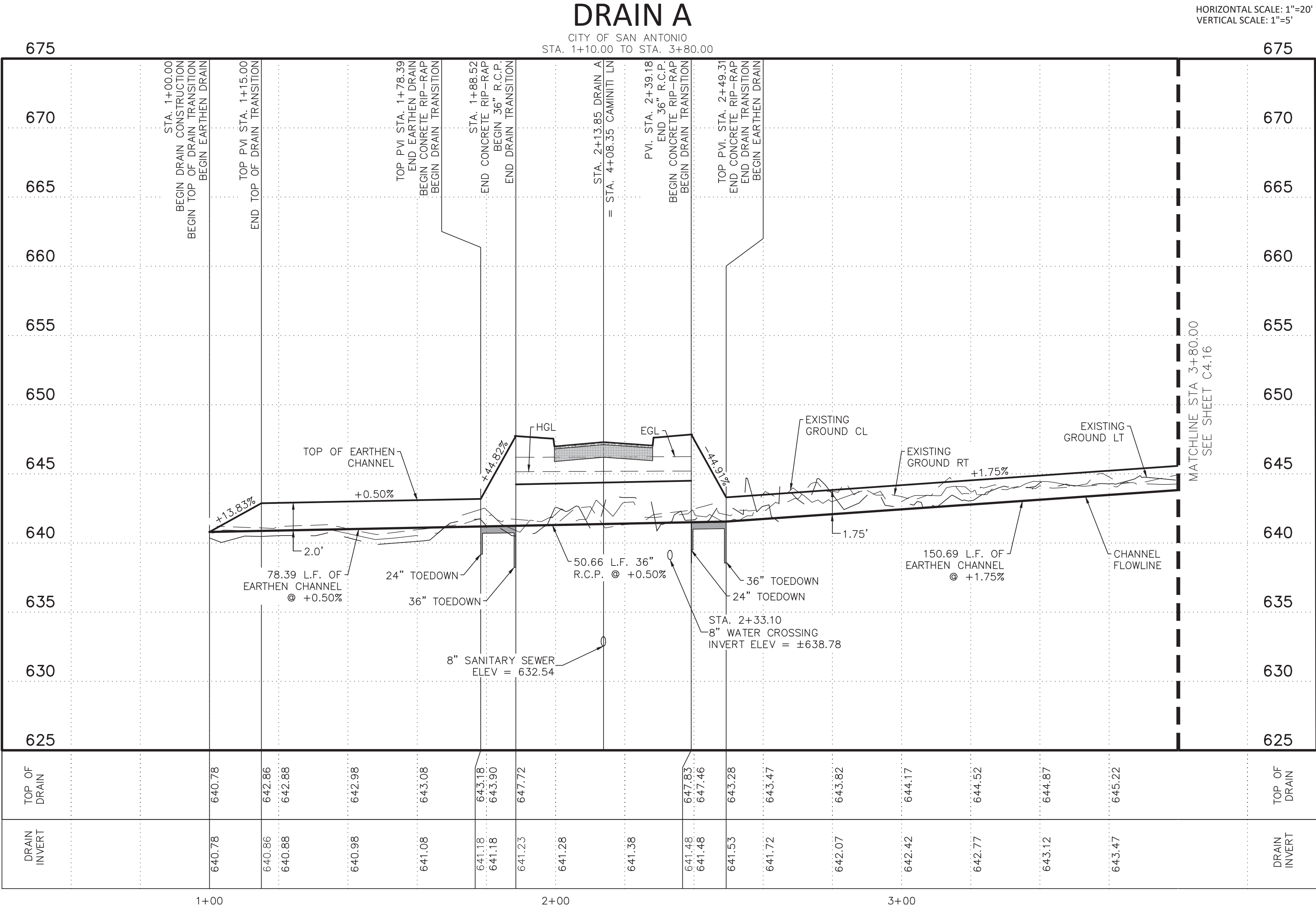
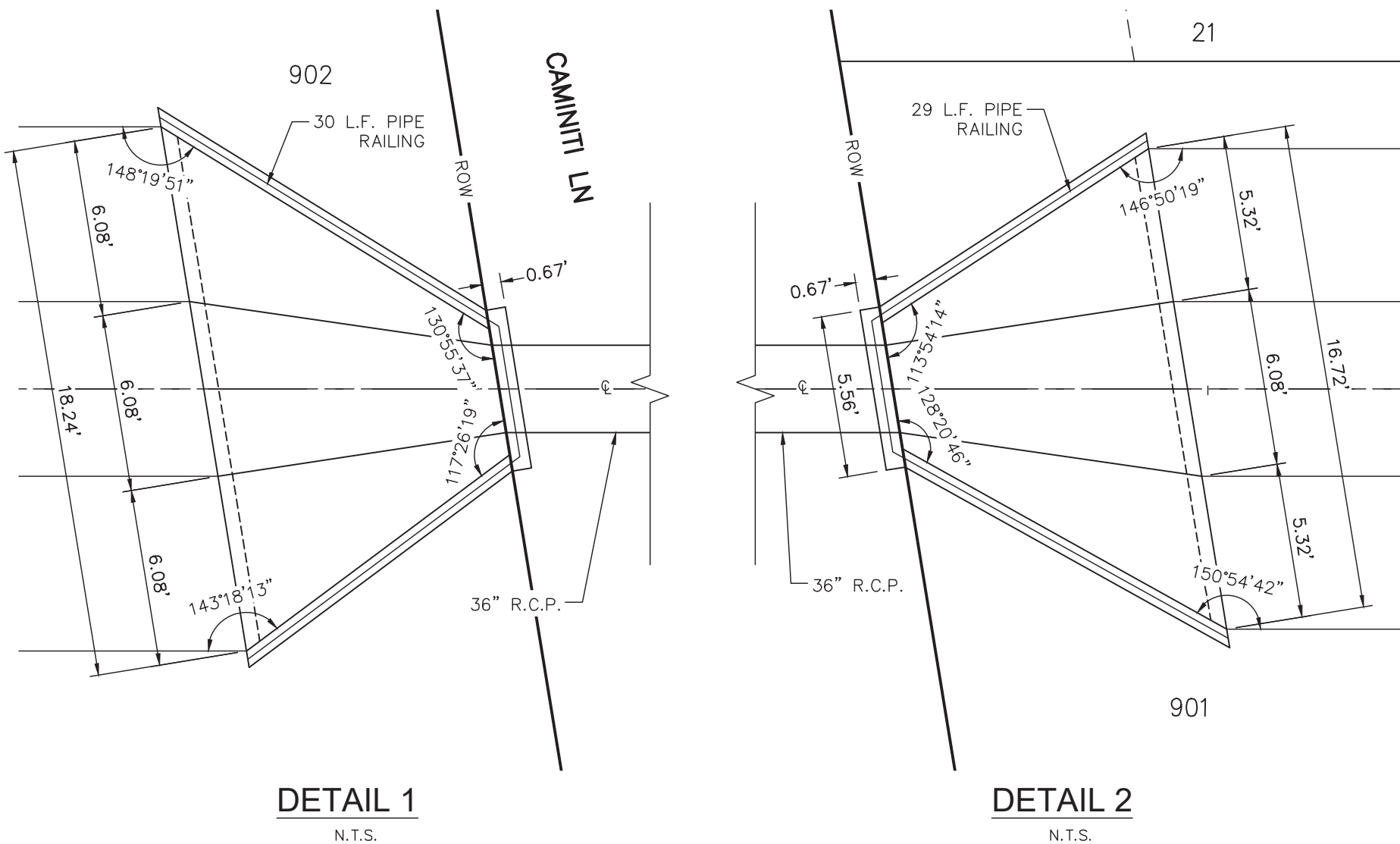
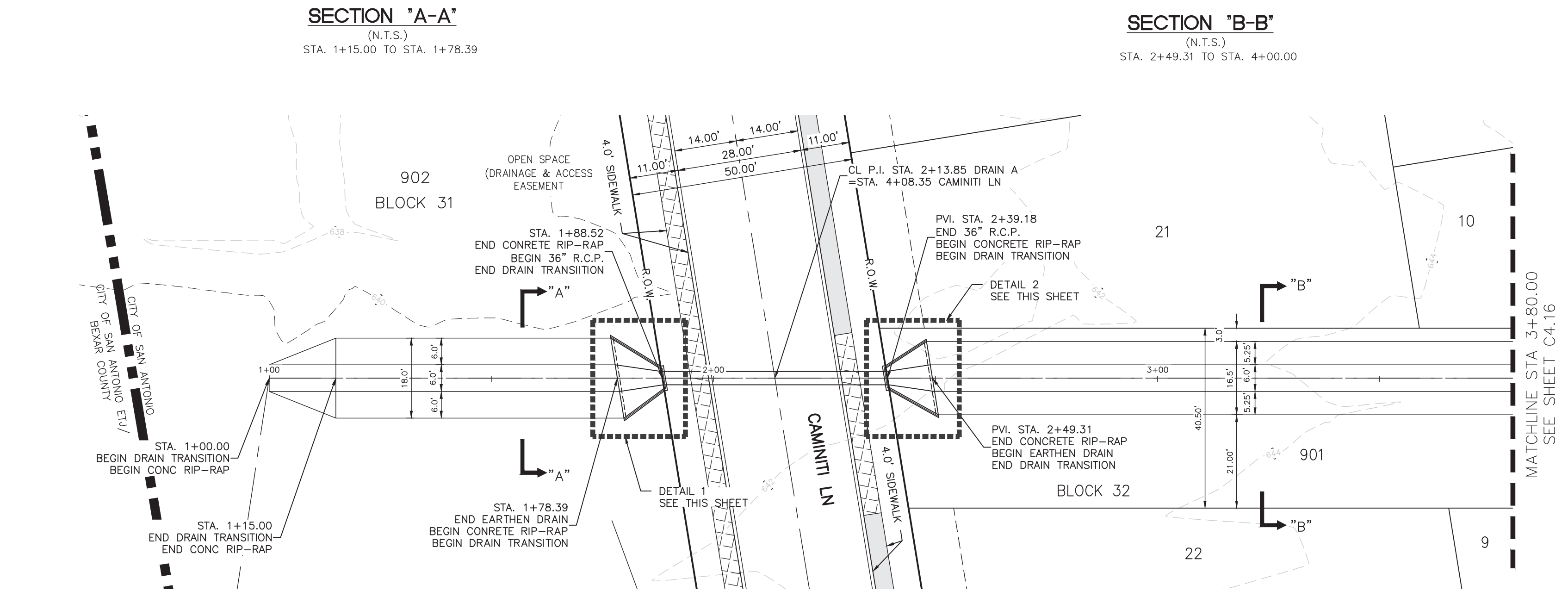
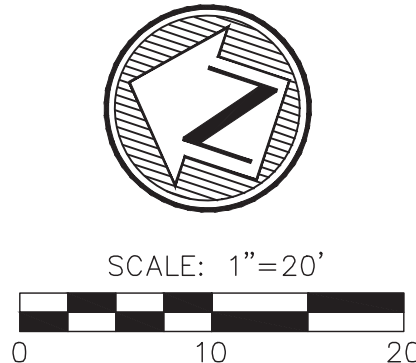
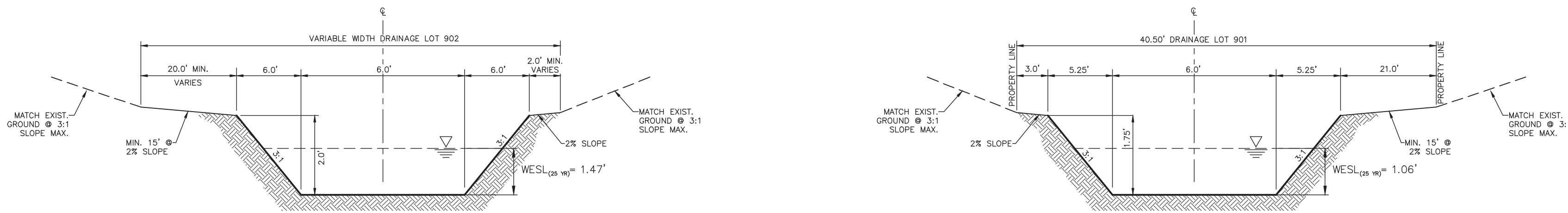
DUAL ADA RAMP INTERSECTION LAYOUT DETAIL
(TYPE 10 DIRECTIONAL RAMPS)



OFFSET PARALLEL CURB RAMP



DIRECTIONAL RAMPS WITHIN RADIUS



- NOTES:**
- COVER FOR REINFORCING STEEL IS 2" UNLESS OTHERWISE NOTED.
 - SEE GENERAL NOTES ON SHEET C4.0 FOR MATERIAL SPECIFICATIONS.
 - MINIMUM BAR DEVELOPMENT LENGTH FOR SPLICE AND BENDS AT WALL AND FLOOR CONNECTIONS SHALL BE 30 INCHES.
 - ALL CONCRETE SHALL RESIST A MINIMUM 3000 PSI 28 DAY BREAK, UNLESS OTHERWISE NOTED.
 - 3/4" CHAMFER ON ALL EXPOSED CONCRETE EDGES.
 - IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT (85%) OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO OR BEXAR COUNTY WILL ACCEPT THE CHANNEL FOR MAINTENANCE.
 - APPROACH SLOPE FOR PEDESTRIAN SIDEWALKS WHICH TIE INTO SIDEWALK BRIDGE OVER THE DRAINAGE FLUME SHALL NOT EXCEED 1:20. SAFETY RAIL SHALL EXTEND 12 INCHES BEYOND LIMITS OF SIDEWALK BRIDGE.
 - AT THE PRE-FINAL INSPECTION: THE ENGINEER MUST ISSUE CERTIFICATION TO THE CITY INSPECTOR THAT THE TURF REINFORCEMENT MAT (TRM) WAS INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CERTIFICATION MUST ALSO NOTE THAT THE MATERIAL AND INSTALLATION HAS MET CITY AND MANUFACTURER SPECIFICATIONS.

NOTE: IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT (85%) OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO OR BEXAR COUNTY WILL ACCEPT THE CHANNEL FOR MAINTENANCE.

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 for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

REVISIONS

NO.	DATE	DESCRIPTION	BY

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
TEPELS: ENGINEERING F-5927/SURVEYING: F-0131500
12770 CHAMBERLAIN PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

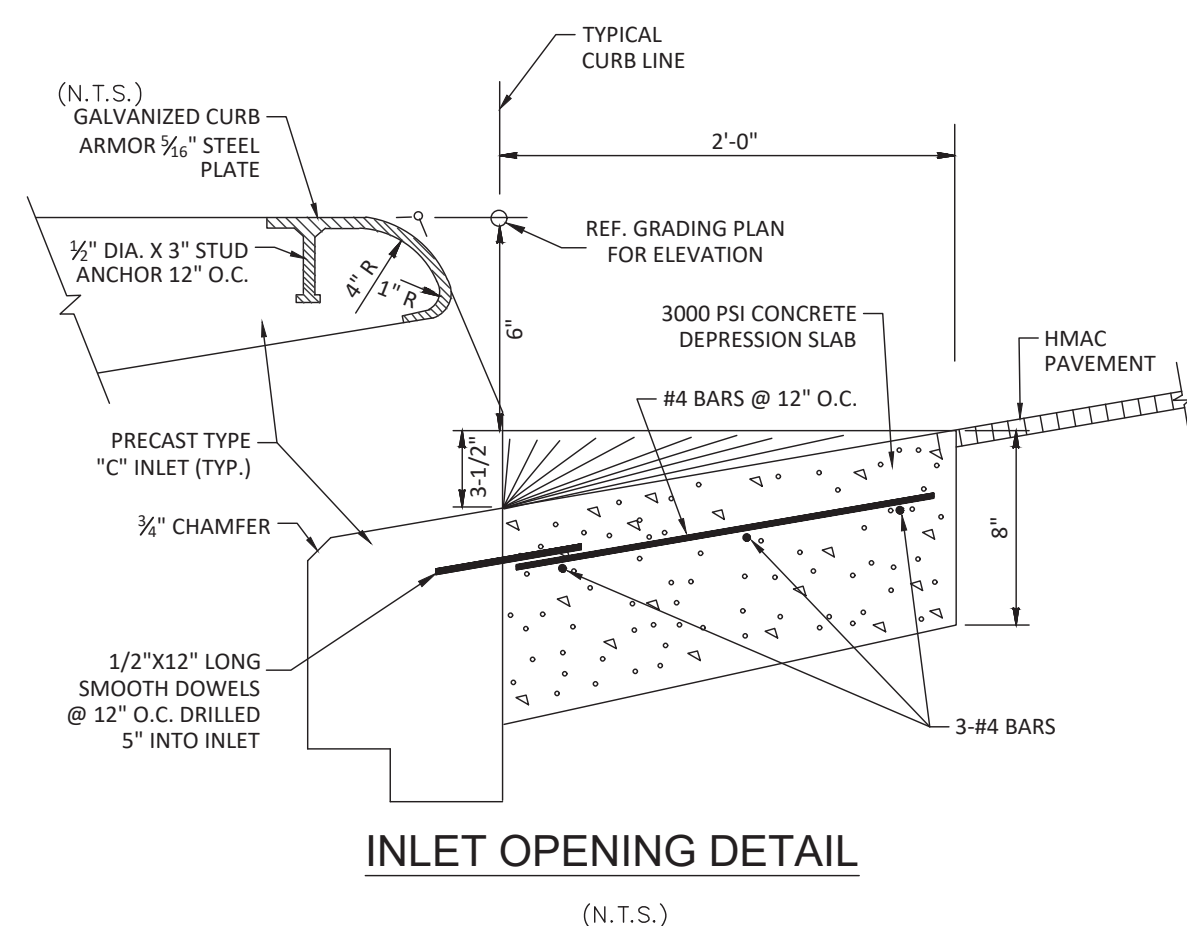
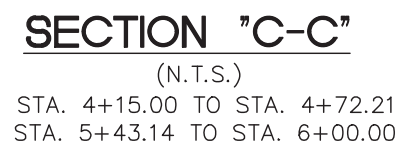
ENCLAVE AT HORIZON POINTE

DRAINAGE PLAN & PROFILE
DRAIN A
CITY OF SAN ANTONIO

SHEET

C4.15

SUBMITTAL SET



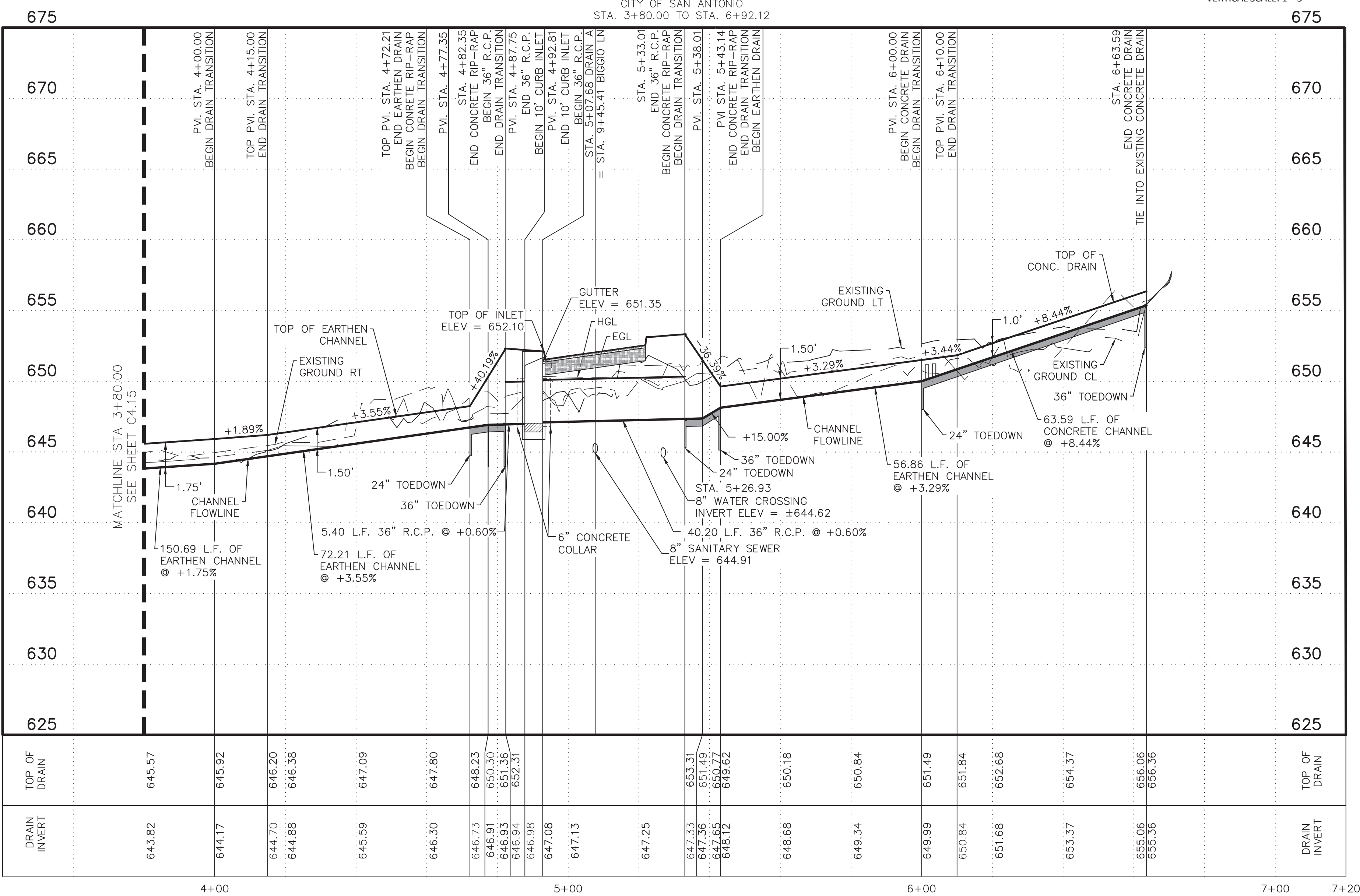
NOTES:

1. COVER FOR REINFORCING STEEL IS 2" UNLESS OTHERWISE NOTED.
2. SEE GENERAL NOTES ON SHEET C4.0 FOR MATERIAL SPECIFICATIONS.
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5. 3/4" CHAMFER ON ALL EXPOSED CONCRETE EDGES.
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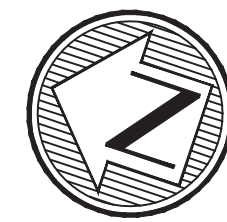
NOTE: IMPROVED EARTHEN CHANNELS WILL BE
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PERCENT (85%) OF THE CHANNEL SURFACE AREA
MUST HAVE ESTABLISHED VEGETATION BEFORE
THE CITY OF SAN ANTONIO OR BEXAR COUNTY
WILL ACCEPT THE CHANNEL FOR MAINTENANCE.

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 provide geotechnical information and/or design recommendations to the contractor on the project work area in order to implement Contractor's trench excavation safety protection systems, programs and/or procedures for the project described in the contract documents. The Contractor's implementation of these safety protection and/or procedures shall provide for adequate trench excavation safety protection that complies with all applicable federal, state and local standards and regulations. Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the trench excavation activities.



PLAT NO. 22-11800606



SCALE: 1"=20'

[illegible]

- *Engineers*
- *Surveyors*
- *Planners*

eers, LLC

Moy Tarin Ramirez Engineers, LLC

PELS: ENGINEERING F-5297/SURVEYING: F-10131500
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



ENCLAVE AT HORIZON POINTE

DRAINAGE PLAN & PROFILE

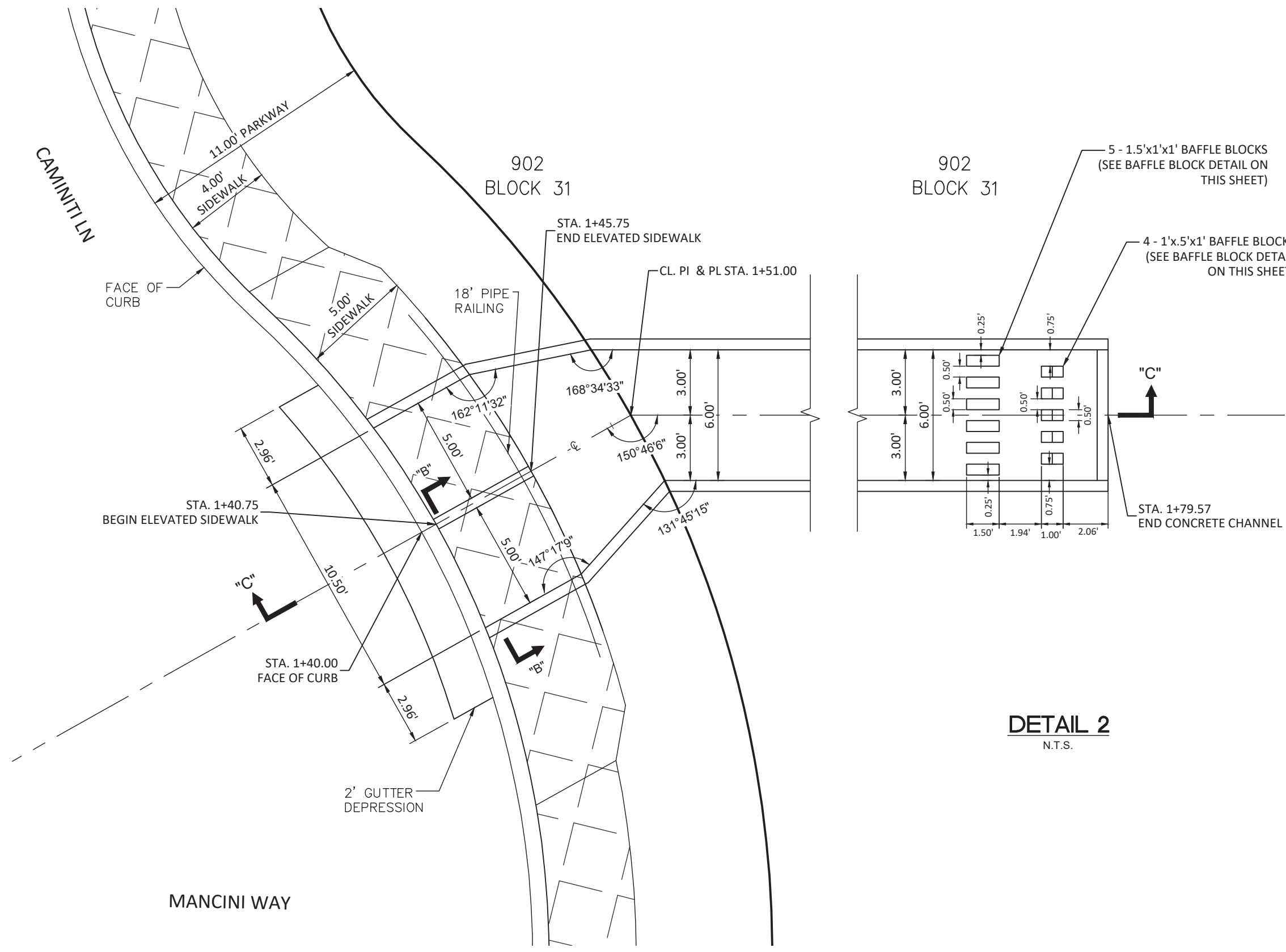
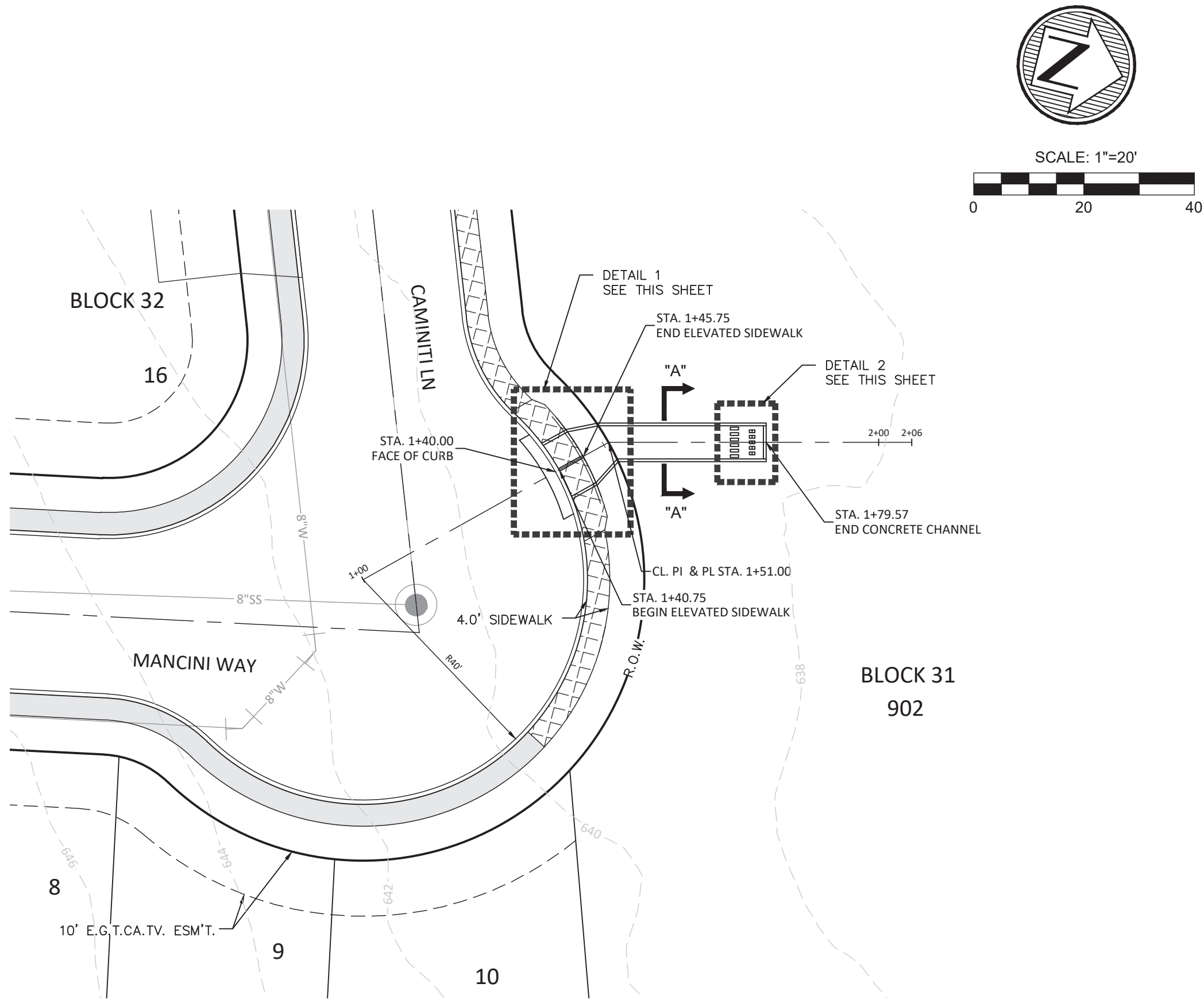
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DRAIN A
CITY OF SAN ANTONIO

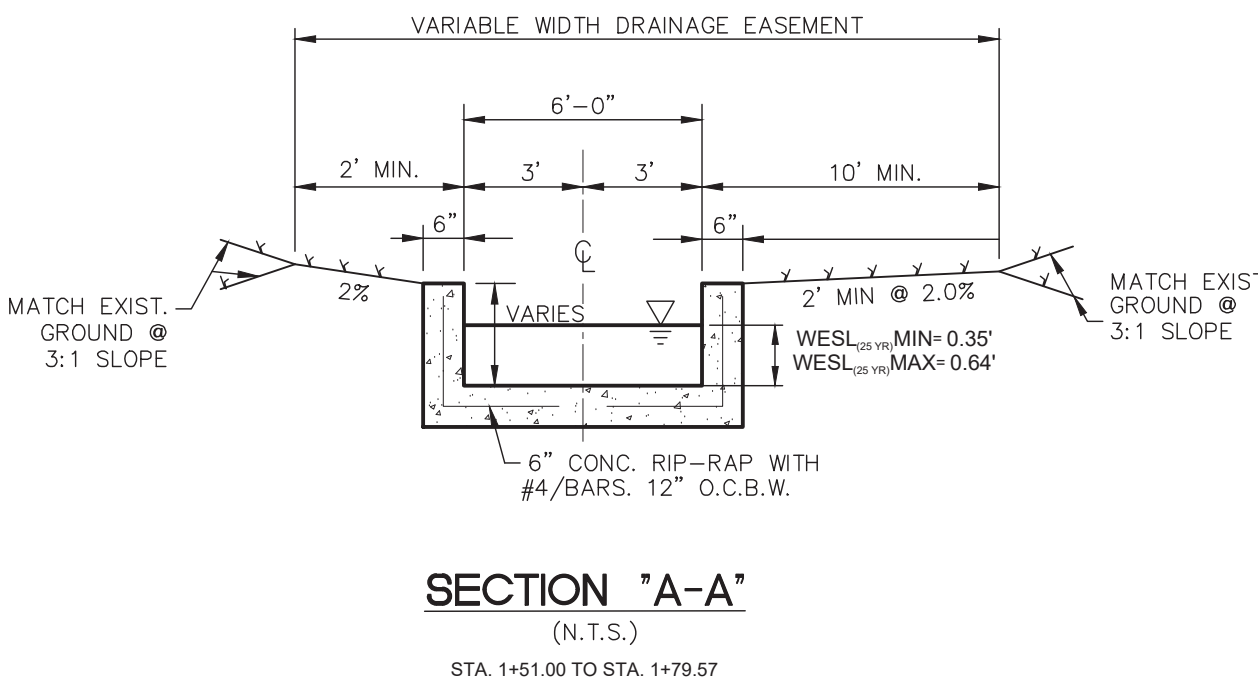
SHEET

C4.16

SUBMITTAL SET



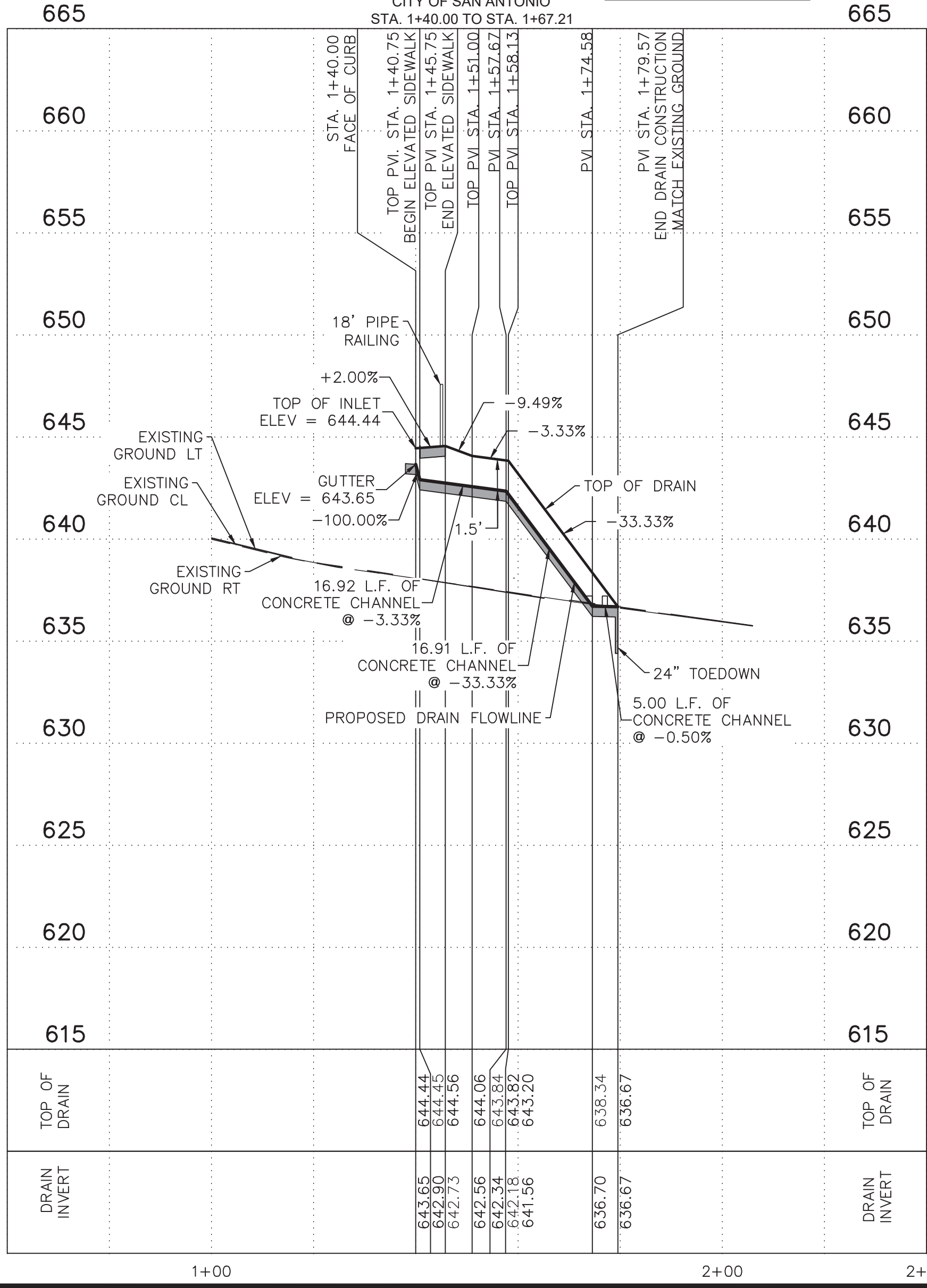
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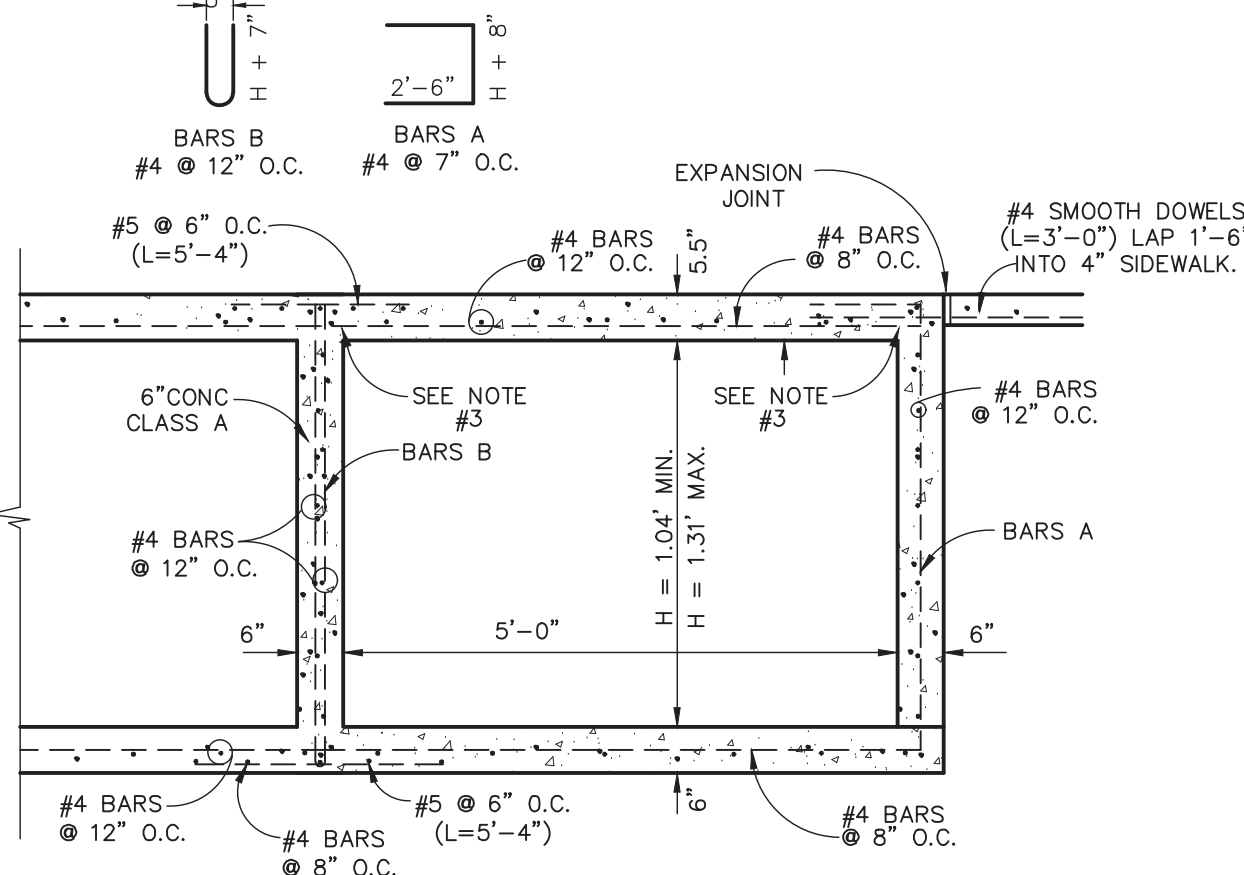
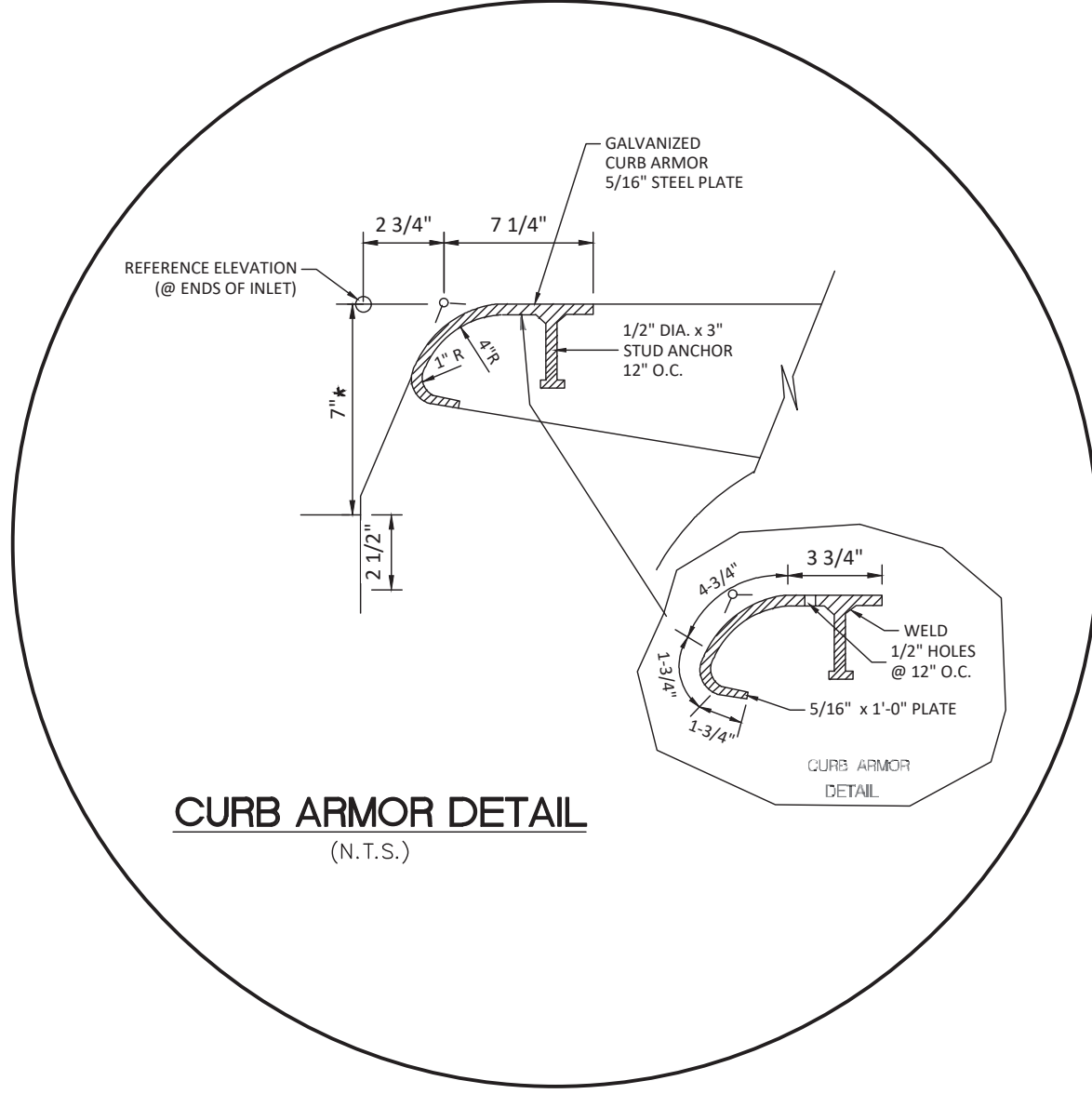
DRAIN B

CITY OF SAN ANTONIO
STA. 1+40.00 TO STA. 1+67.21

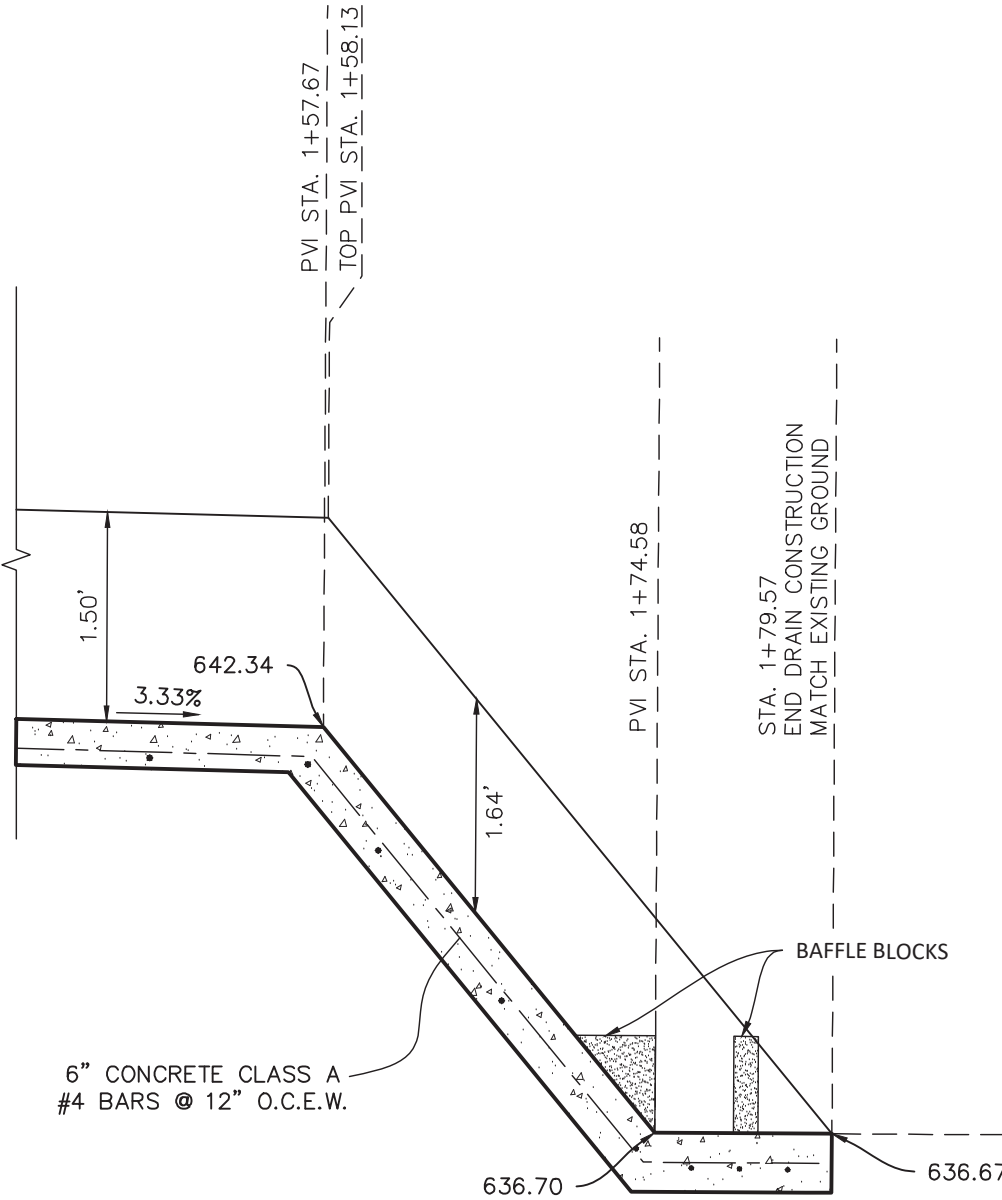
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



DETAIL 1
N.T.S.



SECTION "C-C"
(N.T.S.)



REVISIONS		NO.	DATE	DESCRIPTION
		BY		
		CHKD. BY		
		DATE		

Engineers
Surveyors
Planners

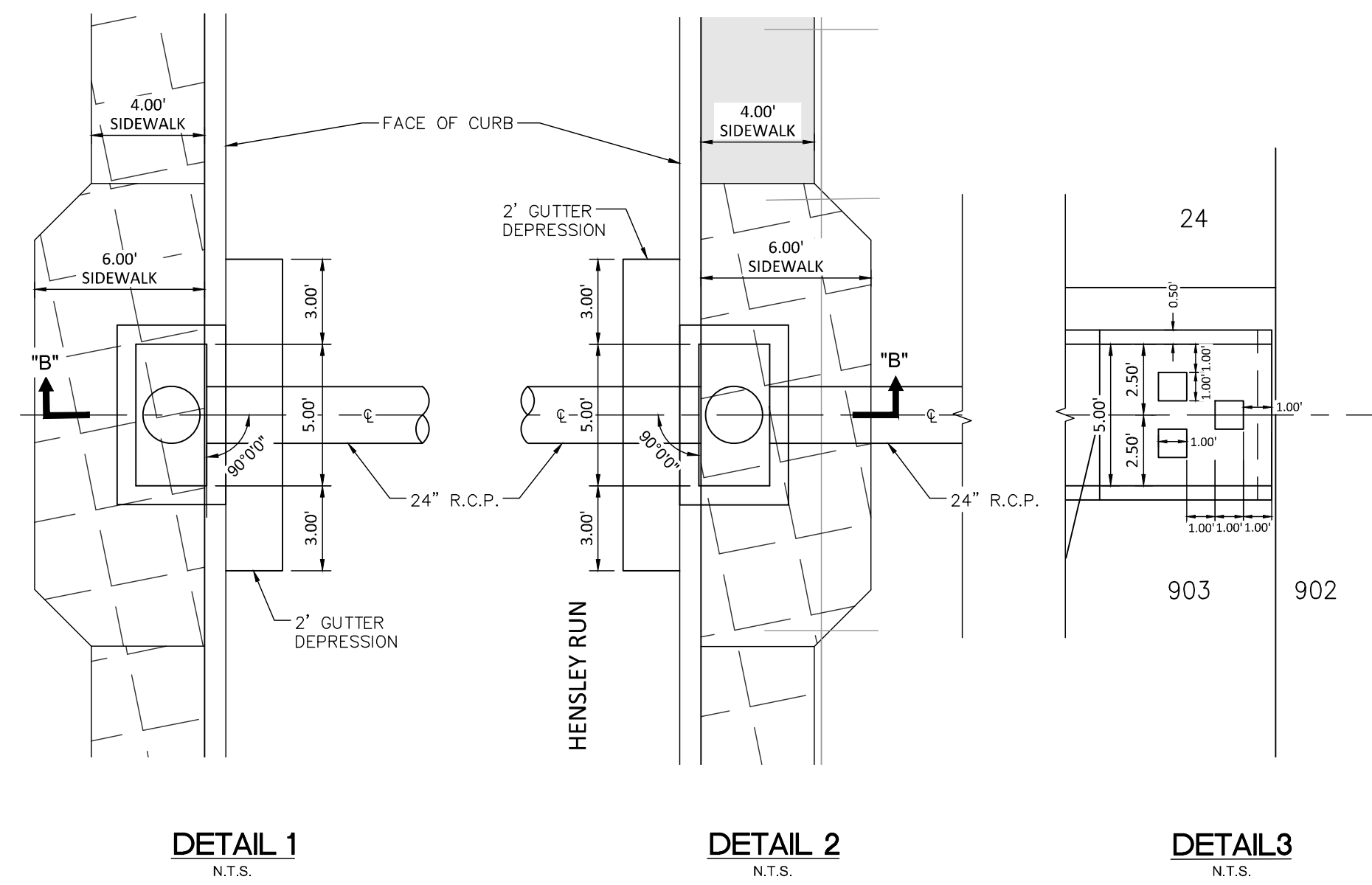
May Tarin Ramirez Engineers, LLC

12770 CARMON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249

TEL: (210) 698-5051
FAX: (210) 698-5055

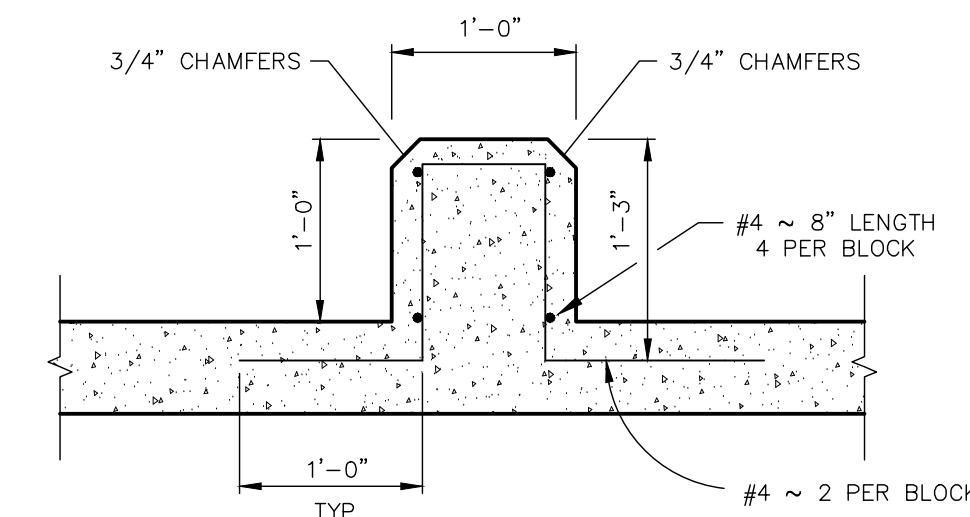


ENCLAVE AT HORIZON POINTE
DRAIN PLAN & PROFILE
DRAIN B
CITY OF SAN ANTONIO



-
- LOT 903 BLOCK 31
- PROPERTY LINE
- 5'-0"
- 2'-0" MIN.
- 2.50'
- 2.50'
- 10'-0" MIN. @ 2%
- PROPERTY LINE
- 6"
- 6"
- 10'-0" MIN. @ 2.0%
- MATCH EXIST. GROUND @ 3:1 SLOPE
- 2%
- 1.00'
- 6" CONC. R/P-RAP WITH #4/BARS. 12" O.C.B.W.
- WESL₁₀₀ TO MIN. 0.26'
- WESL₁₀₀ TO MAX. 0.80'
- MATCH EXIST. GROUND @ 3:1 SLOPE

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



PROPOSED GRADE @ PIPE CL

TOP OF INLET ELEV. 643.82

GUTTER ELEV. 643

CONCRETE FILL AS REQ'D.

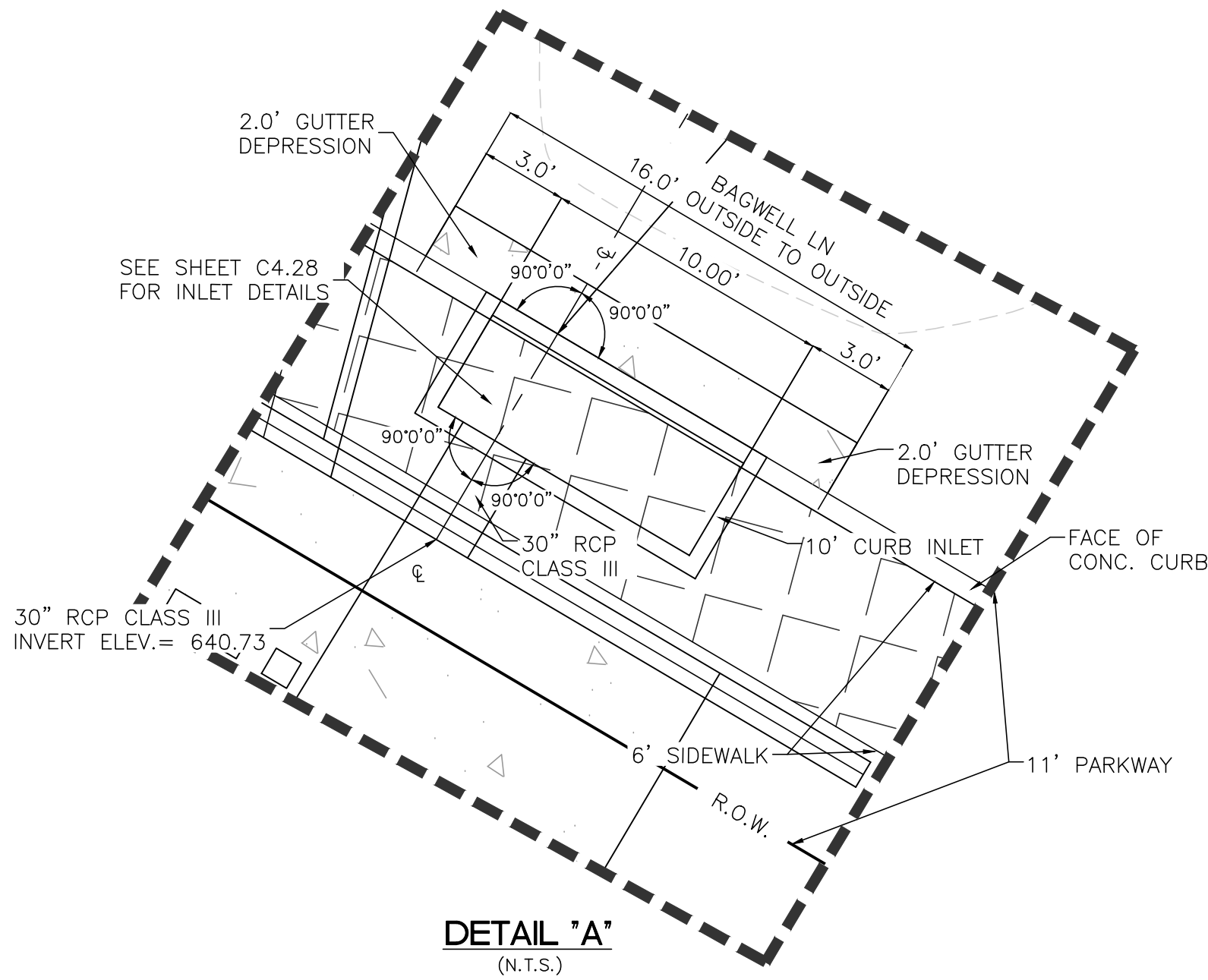
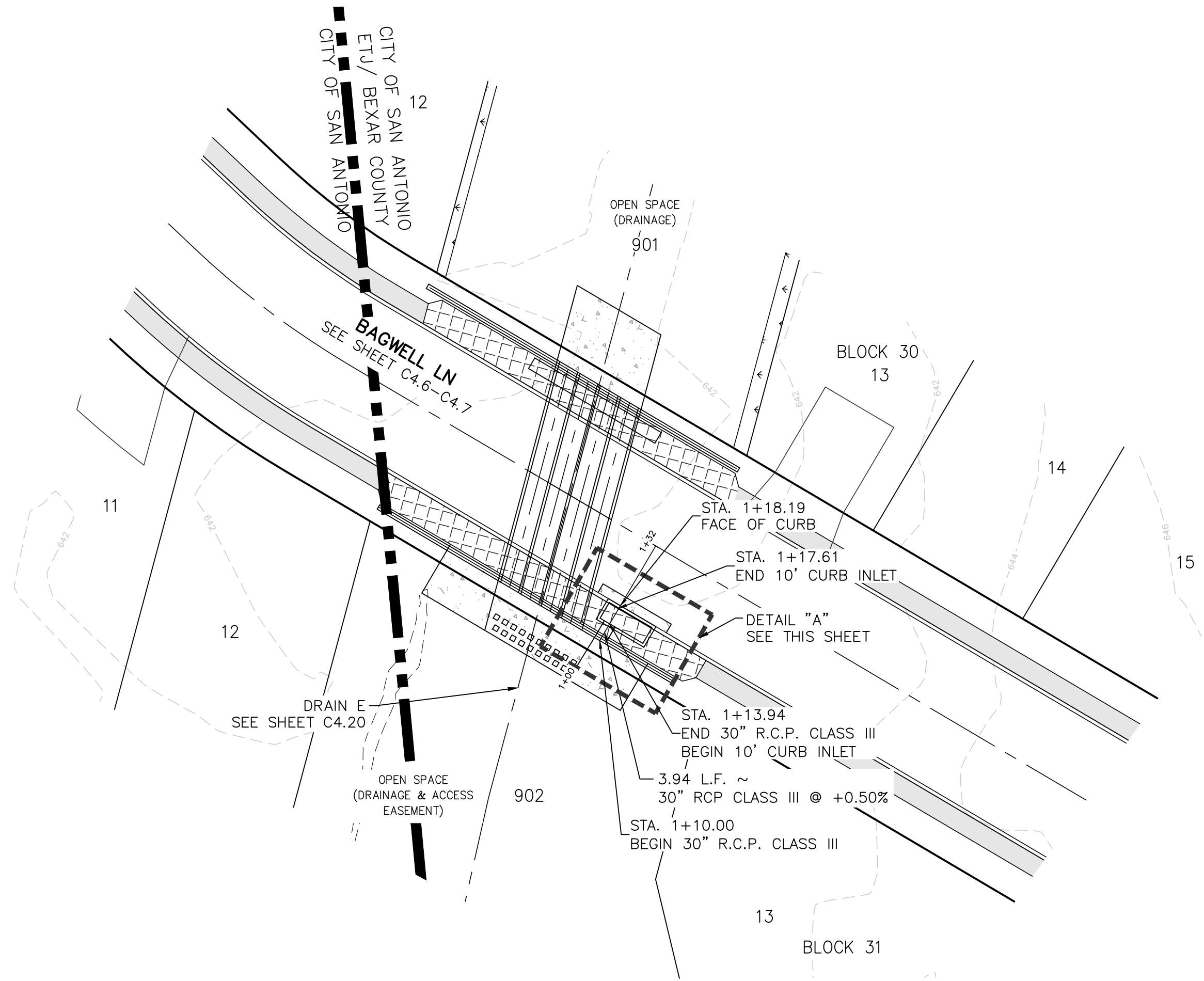
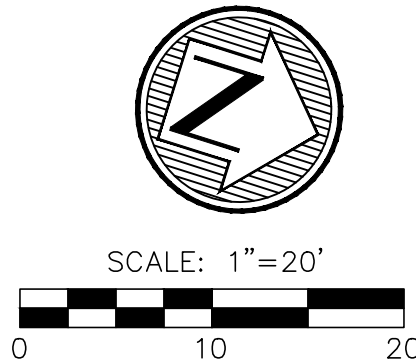
24" RCP

6" RCP

MIT 630 57

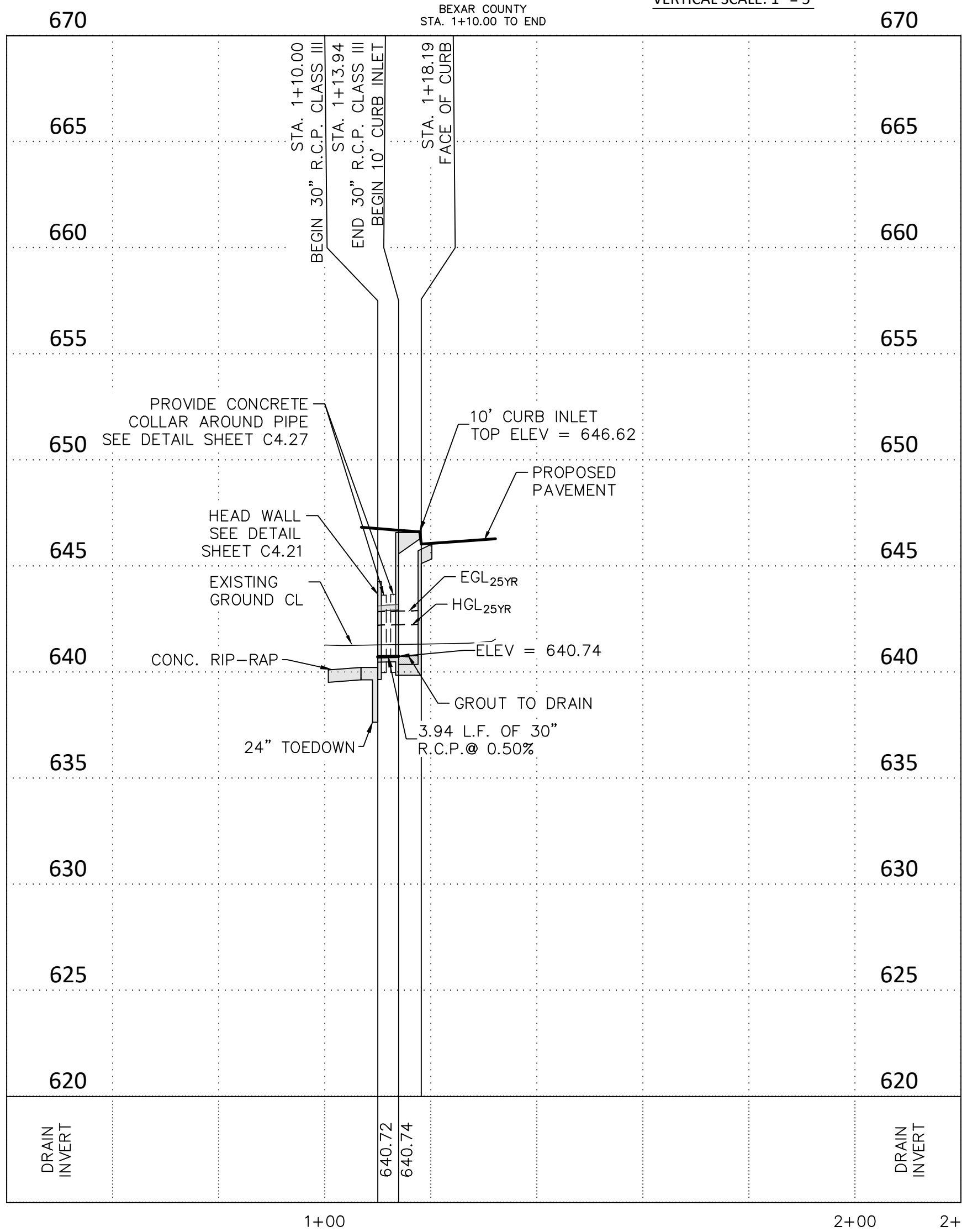
Diagram illustrating a cross-section detail of a manhole structure. The diagram shows a vertical inlet pipe with a concrete collar and gutter. Key elevations and dimensions are provided:

- GUTTER ELEV. 643.03
- TOP OF INLET ELEV. 643.82
- PROPOSED GRADE @ PIPE CL.
- 6" CONCRETE COLLAR SEE DETAIL SHEET C4.27
- 6" CONCRETE COLLAR SEE DETAIL SHEET C4.27
- 29.34 L.F. 24" RCP @ -0.50%
- 24" INV. IN 639.42
- CONCRETE FILL (AS BEFORE)
- 92.77 L.F. 24" RCP @ -0.50%



DRAIN D

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



NOTES:

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REVISIONS		NO.	DATE	DESCRIPTION	BY

Engineers

Surveyors

Planners

MIR

Moy Tarin Ramirez Engineers, LLC

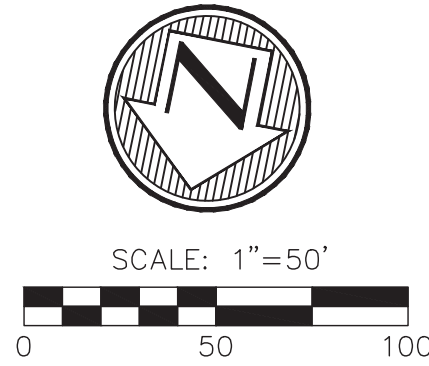
TEPELS: ENGINEERING F-5927/SURVEYING: F-0131500

12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051

SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085



ENCLAVE AT HORIZON POINTE
DRAINAGE PLAN & PROFILE
DRAIN D
BEXAR COUNTY

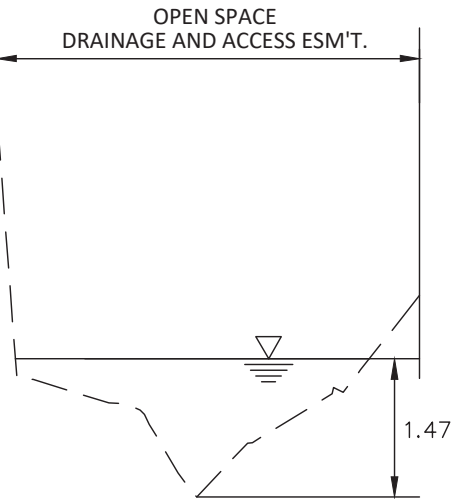


NOTES:

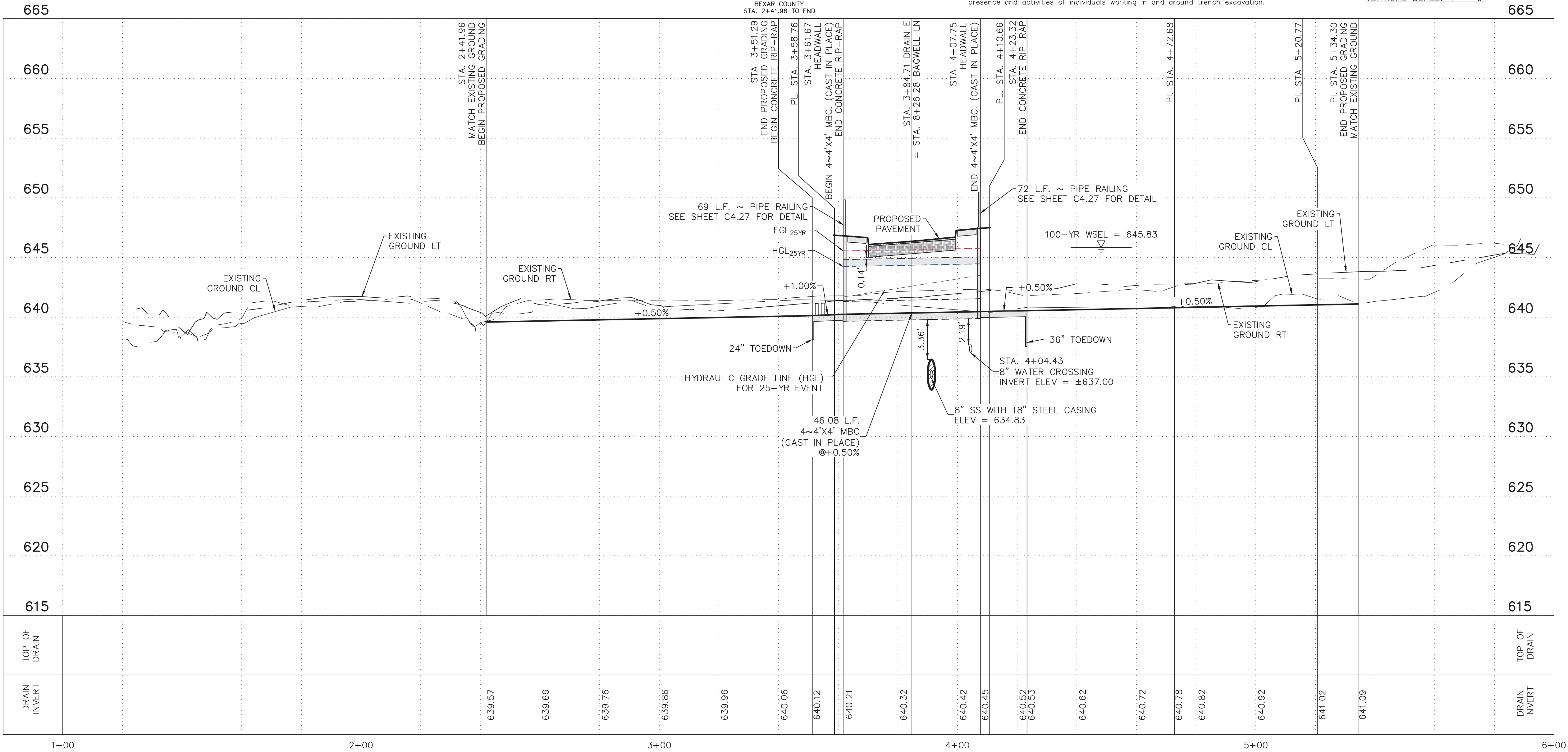
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HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



SECTION "A-A"
(N.T.S.)



REVISIONS

NO.	DATE	DESCRIPTION

• Engineers
• Surveyors
• Planners

Moy Tarin Ramirez Engineers, LLC
TEPERS: ENGINEERING F-5937/SURVEYING: F-10131500
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

ENCLAVE AT HORIZON POINTE

DRAINAGE PLAN & PROFILE

DRAIN E

BEXAR COUNTY

SHEET

C4.20

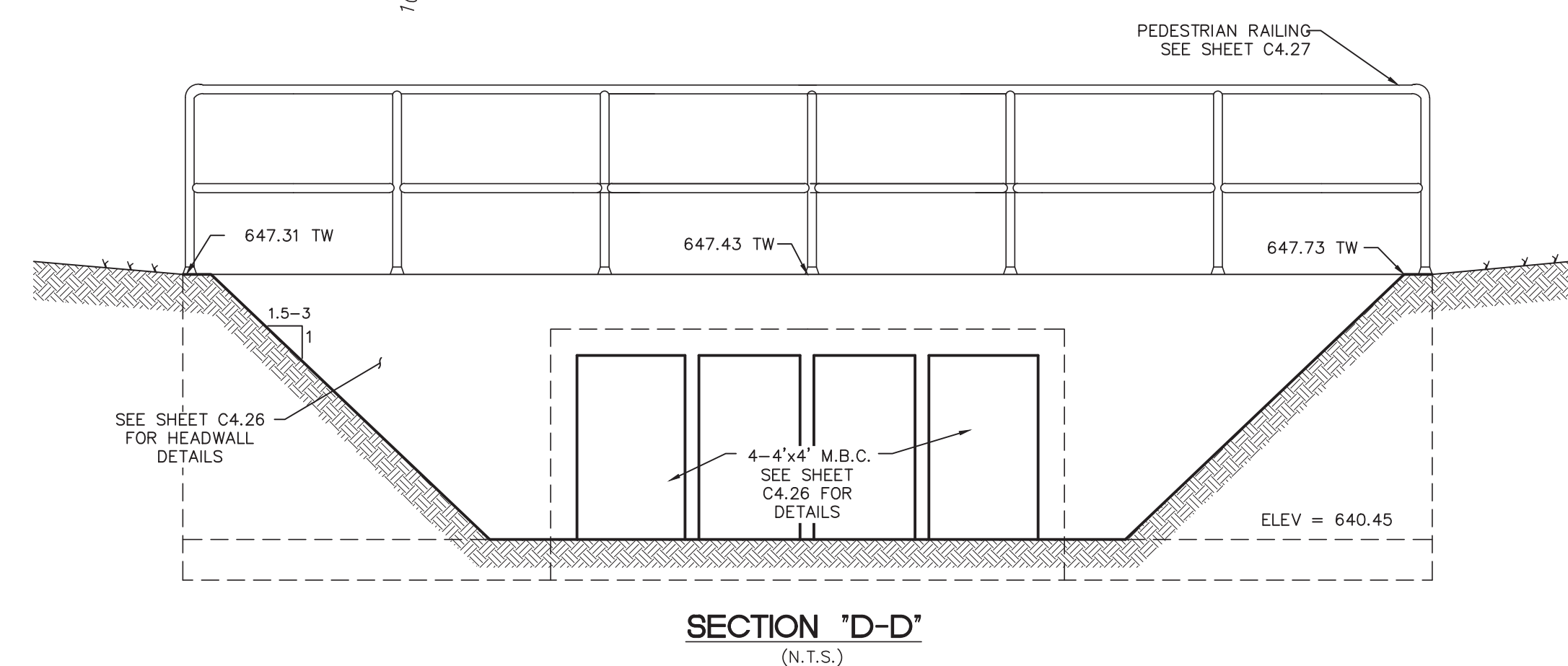
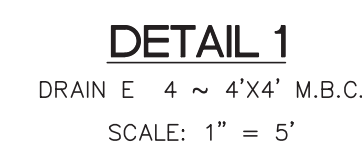
PAID 11/1/23

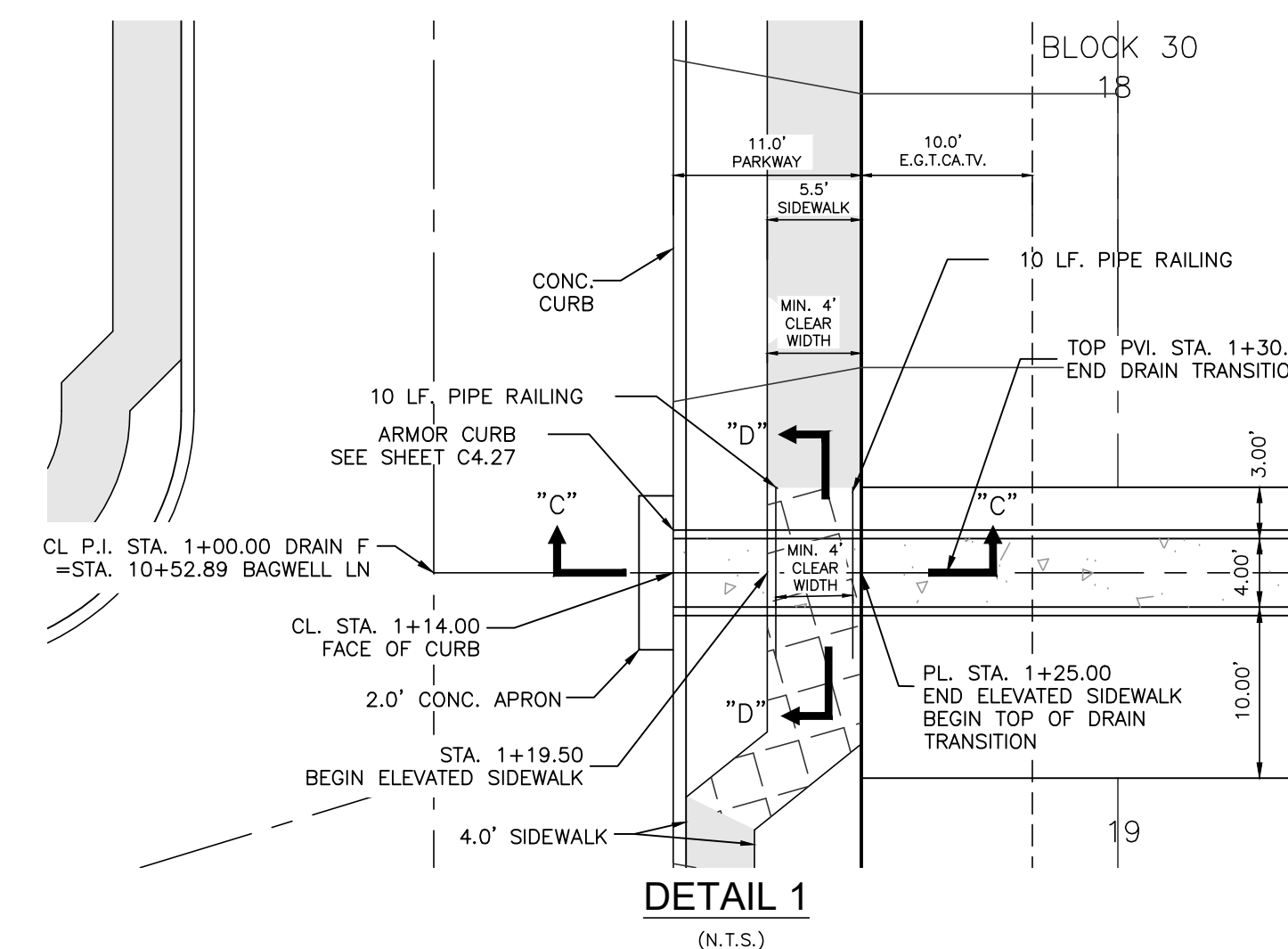


A circular professional engineer seal for the State of Texas. The seal features a five-pointed star in the center. The text "STATE OF TEXAS" is arched over the top of the star, flanked by two small stars. Below the star, the name "PAUL LANDA, JR" is printed. Underneath the name is the number "100182". At the bottom of the seal, the words "LICENSED PROFESSIONAL ENGINEER" are arched. The entire seal is enclosed in a double-lined circular border.

C4.21

Plot Date: November 8, 2023 User ID: Mayola Aguilera
 P:\Edmison Tract\Unit 1\Drawings\22179_C4.21-Dm E Details.dwg

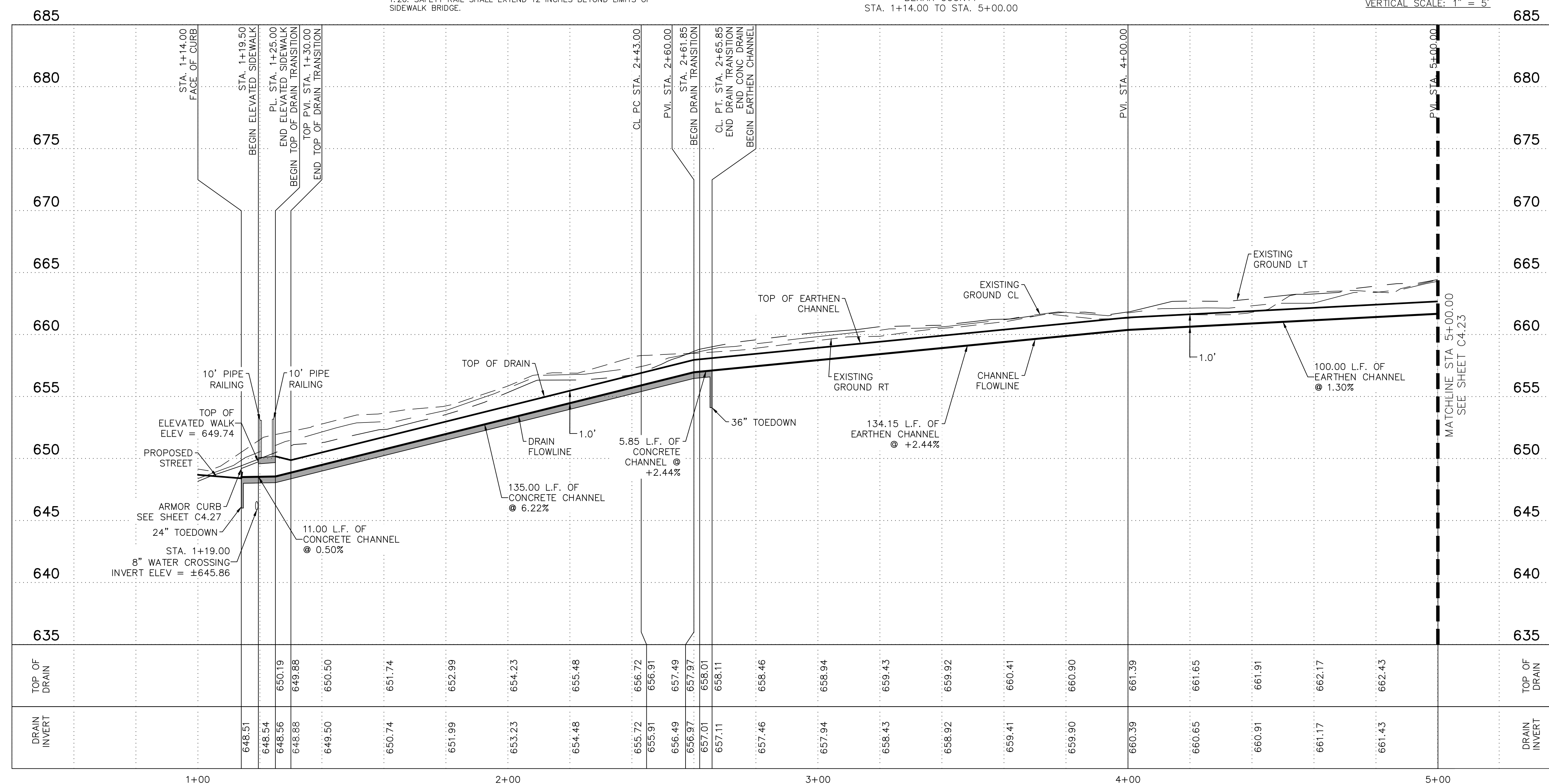




INTERCEPTOR DRAIN F

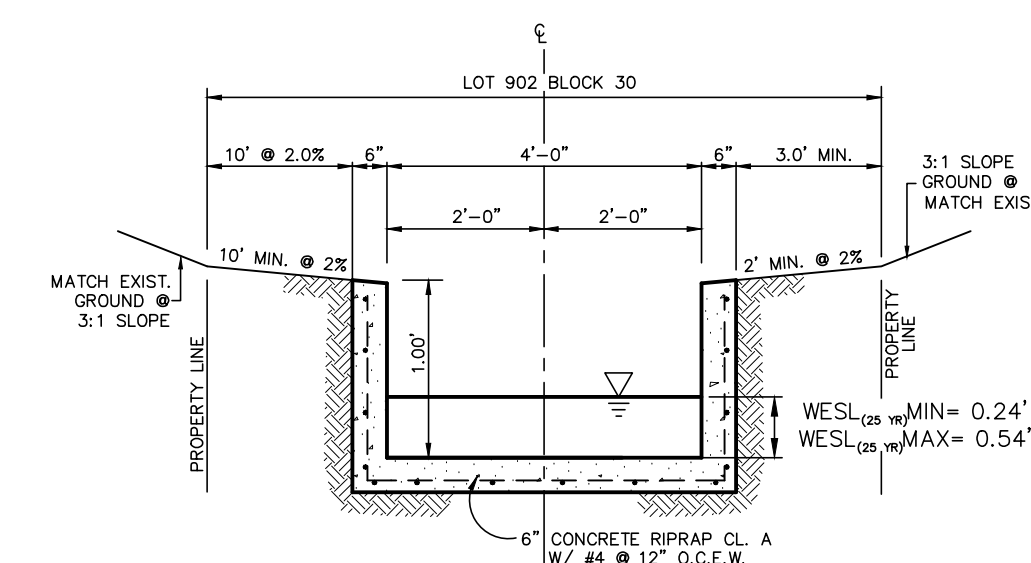
BEXAR COUNTY
STA. 1+14.00 TO STA. 5+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



(N.T.S.)
STA. 2+65.85 TO STA. 6+65.16

NOTE: IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT (85%) OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO OR BEXAR COUNTY WILL ACCEPT THE CHANNEL FOR MAINTENANCE.



(N.T.S.)
"A-A" STA.1+30.00 TO STA. 2+61.83

(N.T.S.)
"D-D" STA. 1+19.50 TO STA. 1+25.00

SUBMITTAL SET

<i>REVISIONS</i>						
N.O.	DATE	DESCRIPTION	BY:			
PROJ. #	DON. BY:	DWN. BY:	CWLD. BY:	DATE:		

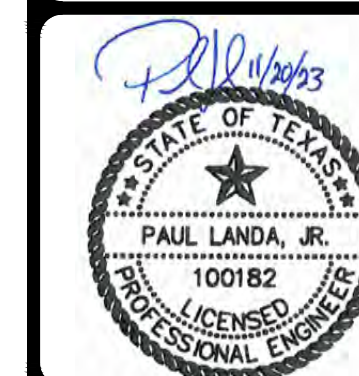
• **Engineers**
• **Surveyors**
• **Planners**

ers, LLC
G: F-10131500
(210) 698-5051
(210) 698-5085



Moy Tarin Ramirez Engineers, LLC

BBP&S: ENGINEERING F-5297/SURVEYING: F-10131500
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78240 FAX: (210) 698-5002



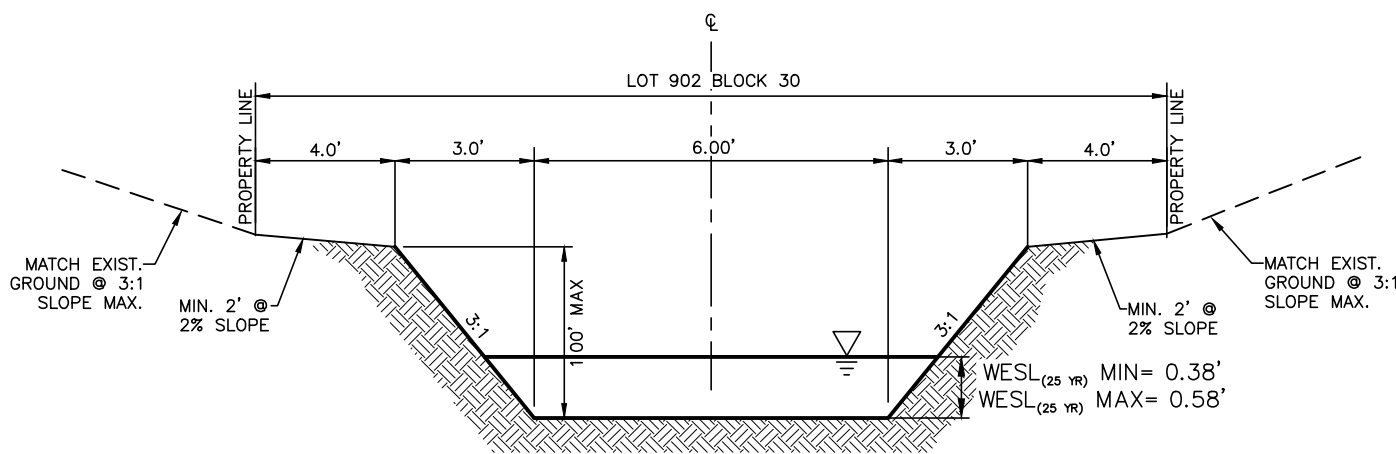
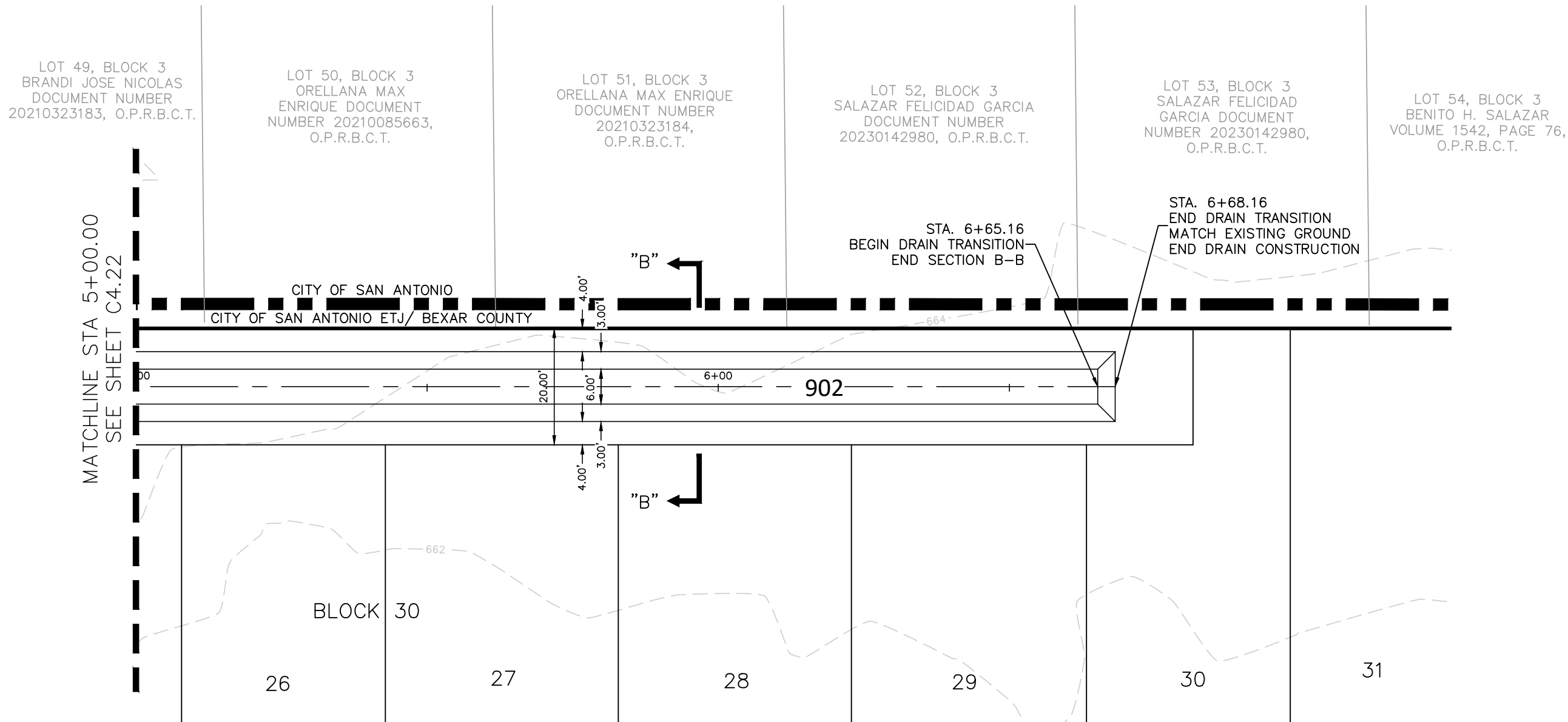
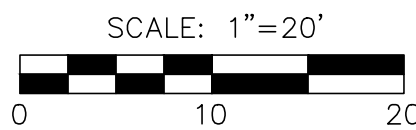
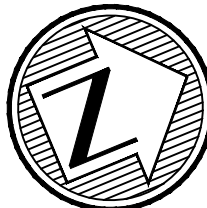
ENCLAVE AT HORIZON POINTE

DRAINAGE PLAN & PROFILE

DRAIN F

SHEET

C4.22



SECTION "B-B"

(N.T.S.)
STA. 2+65.85 TO STA. 6+65.16

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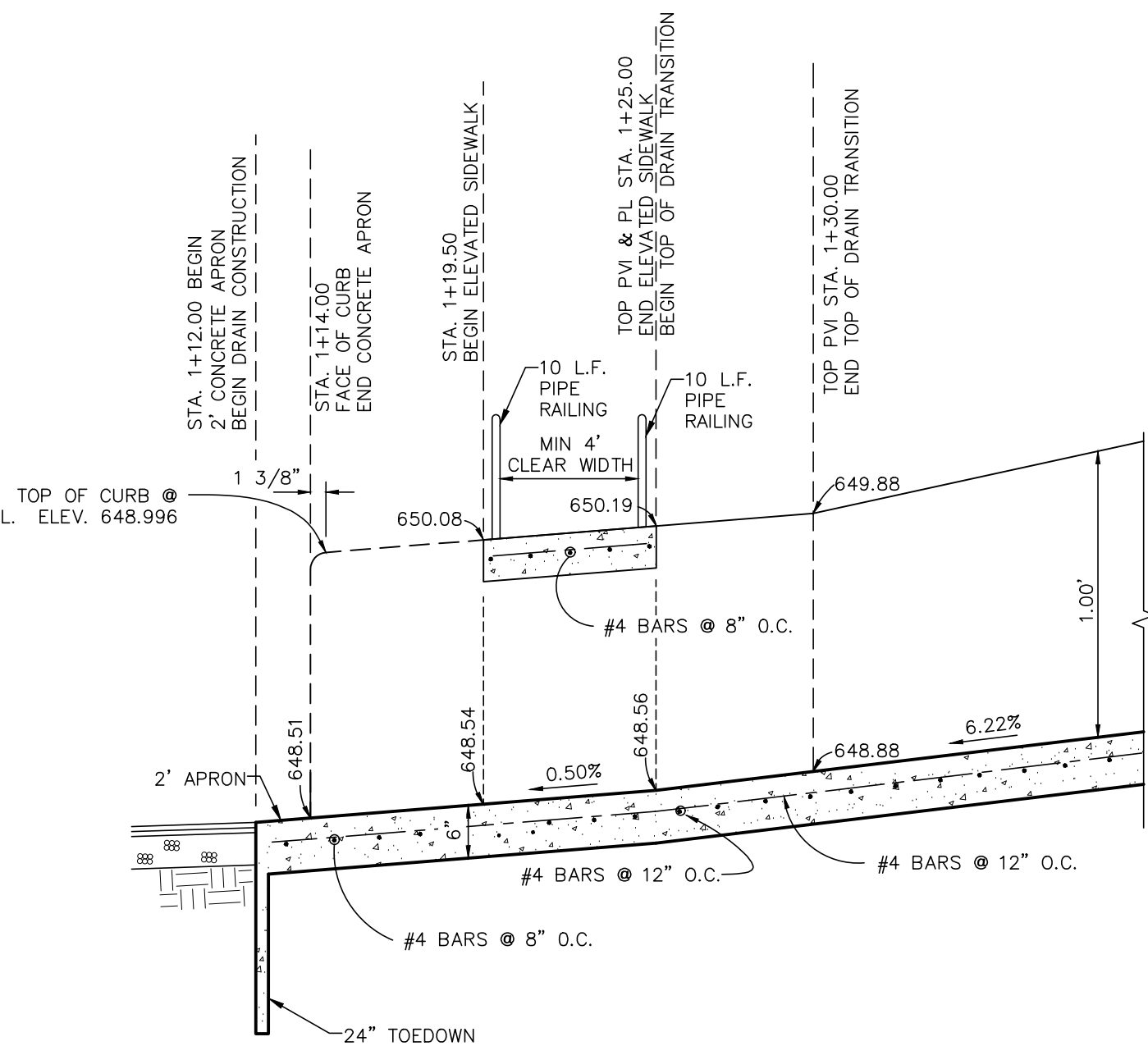
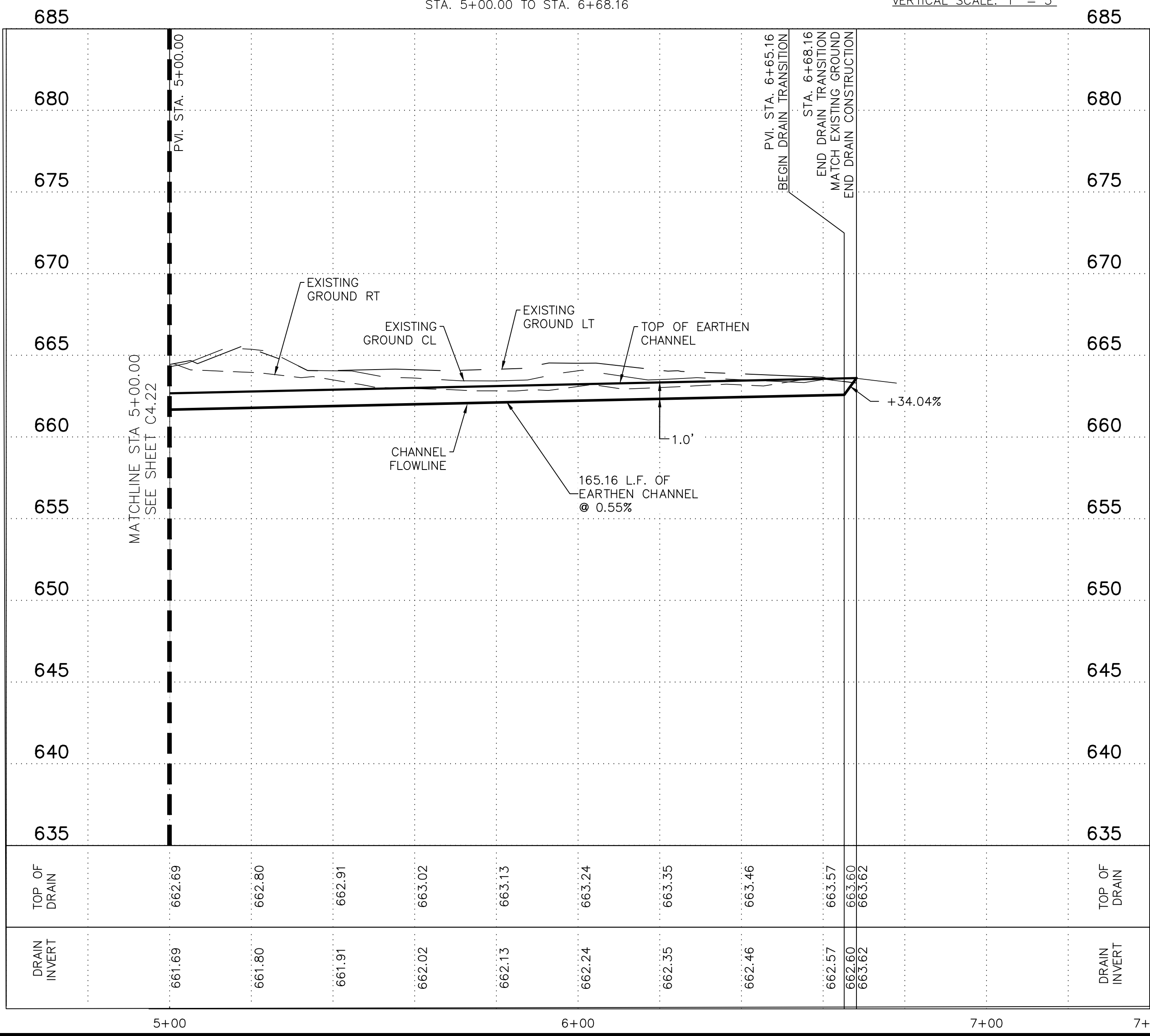
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- 3/4" CHAMFER ON ALL EXPOSED CONCRETE EDGES.
- IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SUBGRADE AREA MUST HAVE ESTABLISHED VEGETATION. NO EXTRA PAY ITEM.
- APPROACH SLOPE FOR PEDESTRIAN SIDEWALKS WHICH TIE INTO SIDEWALK BRIDGE OVER THE DRAINAGE FLUME SHALL NOT EXCEED 1:20. SAFETY RAIL SHALL EXTEND 12 INCHES BEYOND LIMITS OF SIDEWALK BRIDGE.

INTERCEPTOR DRAIN F

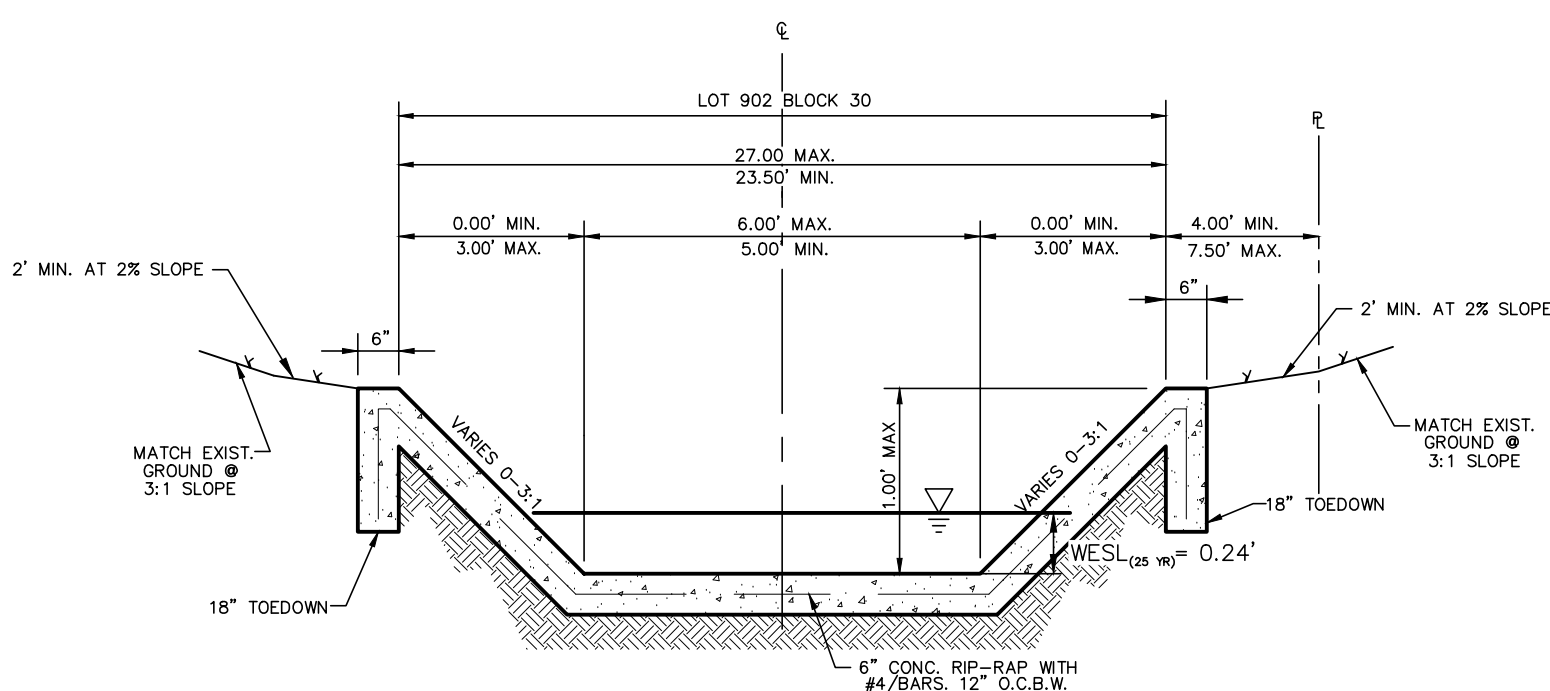
BEXAR COUNTY
STA. 5+00.00 TO STA. 6+68.16

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



SECTION "C-C"

(N.T.S.)



SECTION "E-E"

(N.T.S.)
STA. 2+61.85 TO STA. 2+65.85

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 for the project described in the contract documents. The Contractor's implementation of these systems, programs and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

REVISIONS		BY	DATE	DESCRIPTION
NO.				

Engineers
Surveyors
Planners

MIR

Moy Tarin Ramirez Engineers, LLC

TEPERS: ENGINEERING F-5927/SURVEYING: F-10131500
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SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

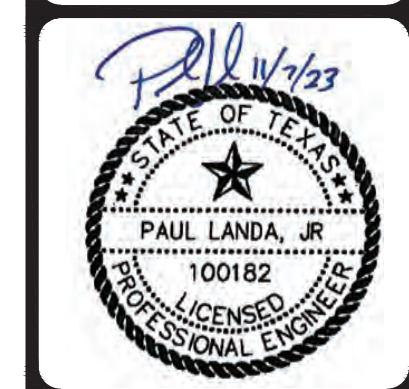


ENCLAVE AT HORIZON POINTE

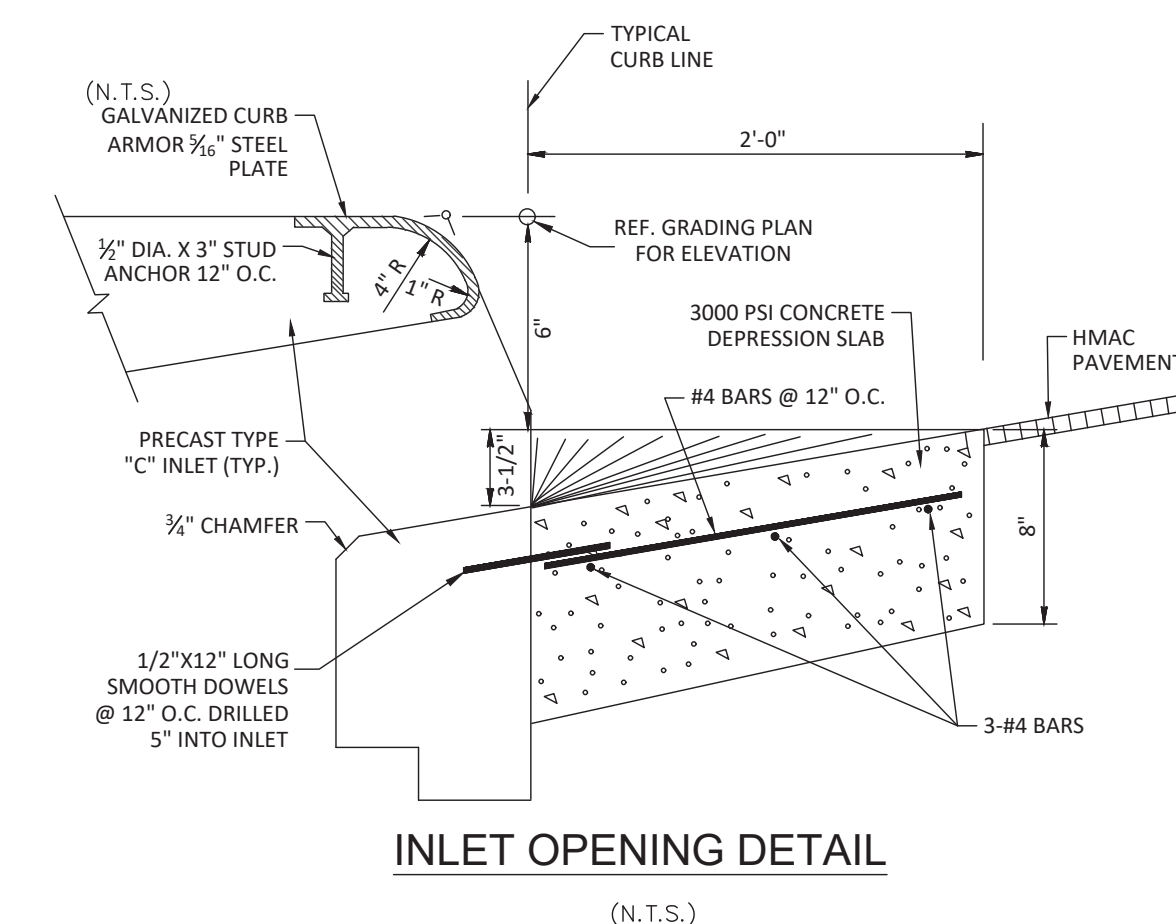
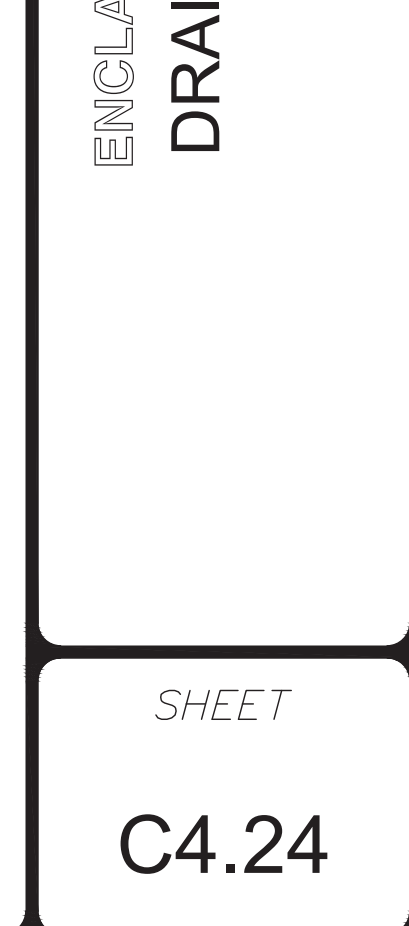
DRAINAGE PLAN & PROFILE

DRAIN F

BEXAR COUNTY



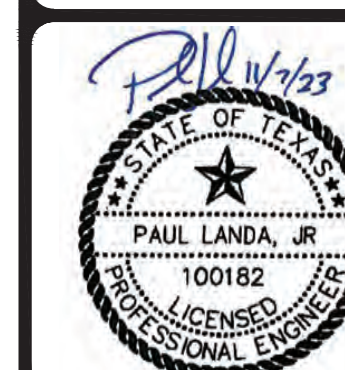
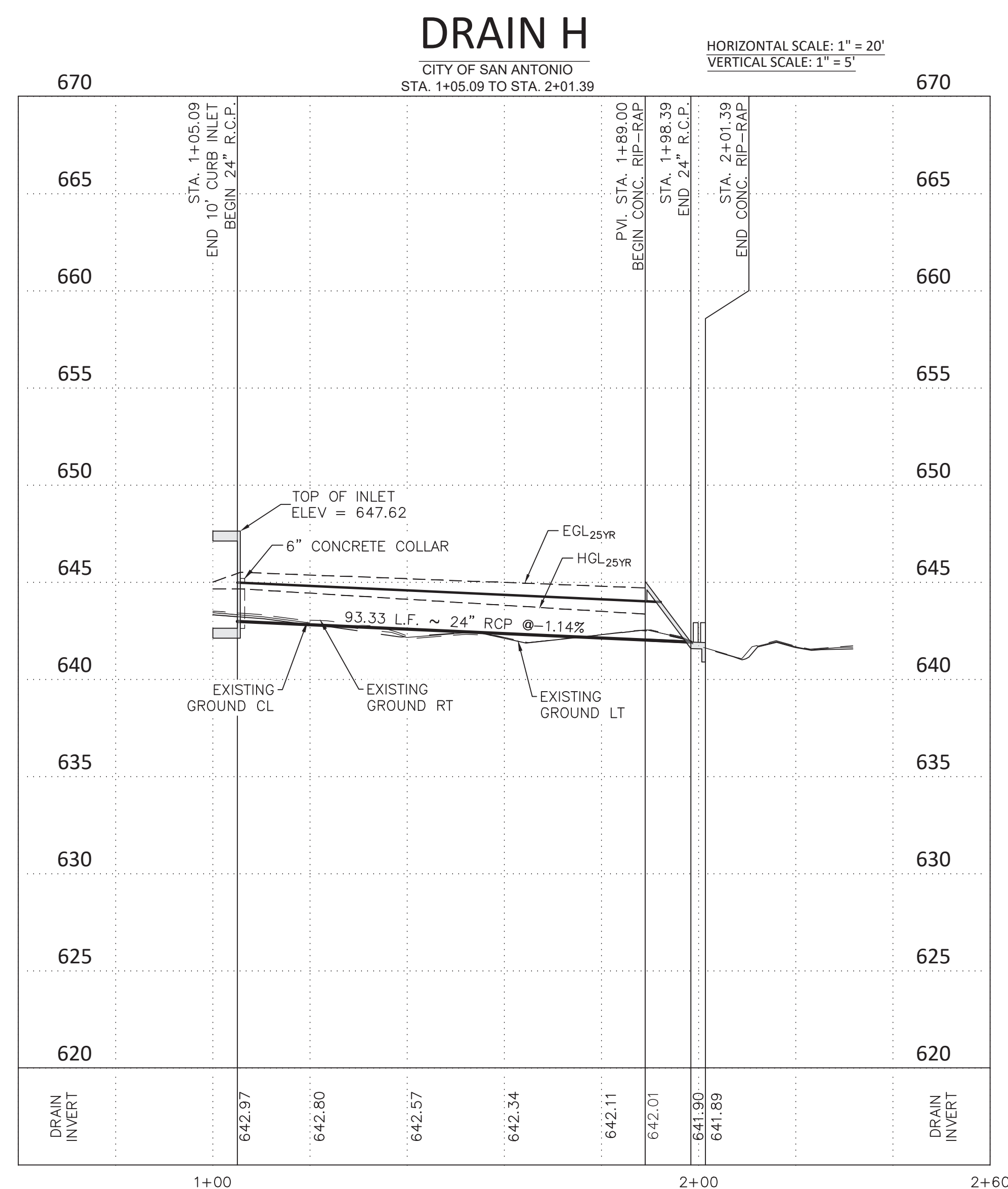
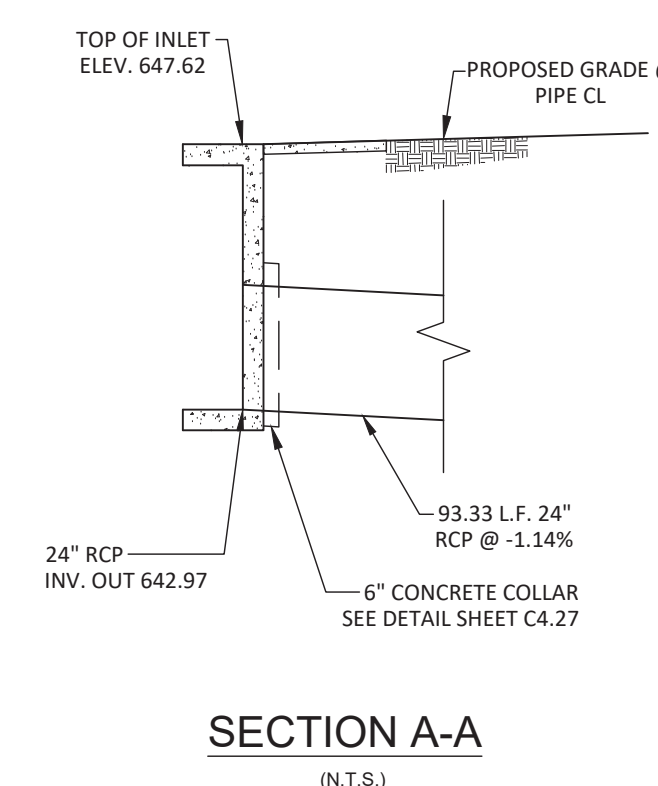
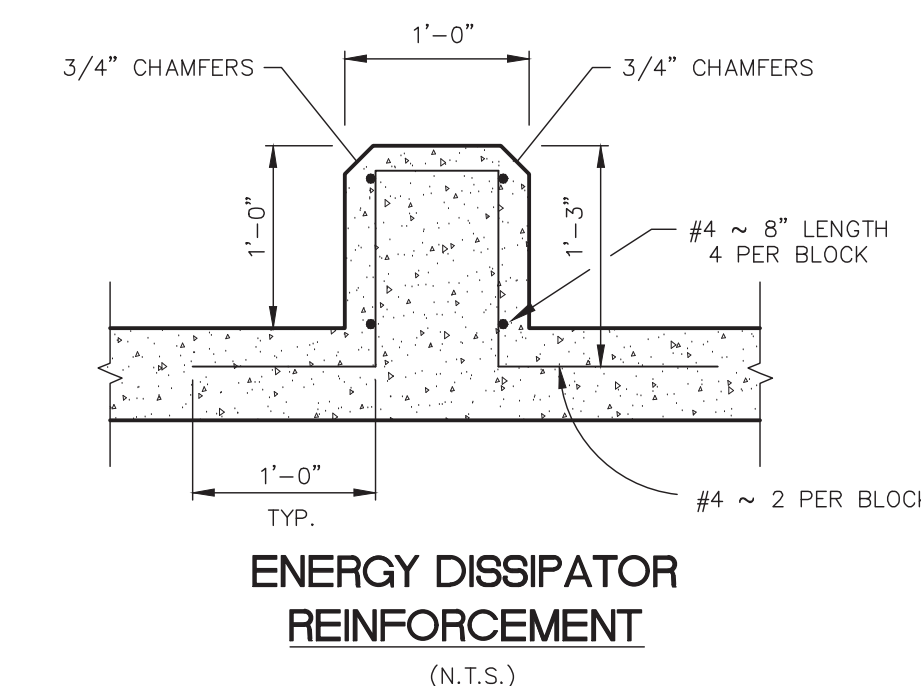
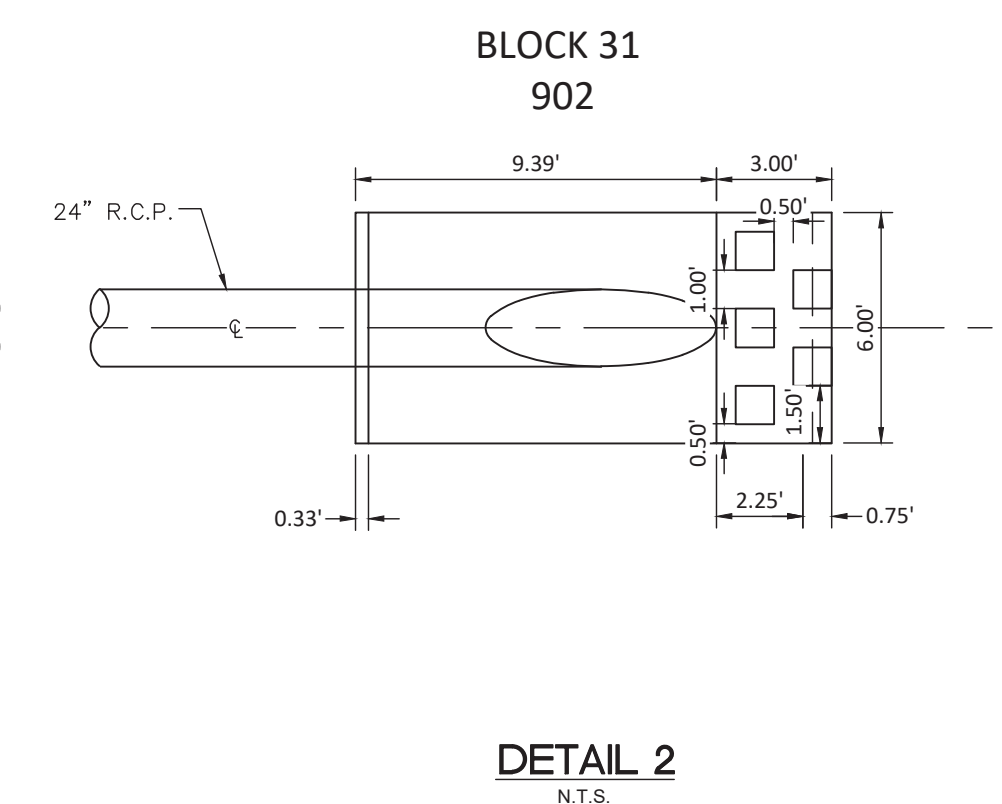
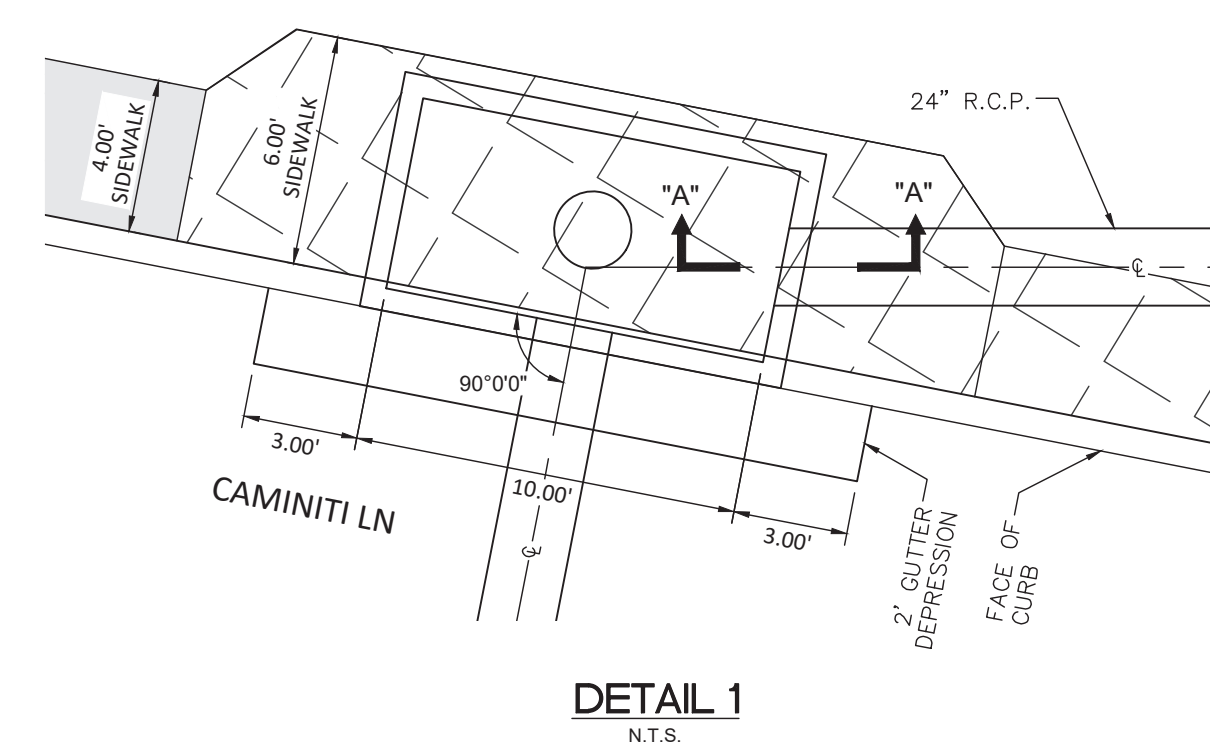
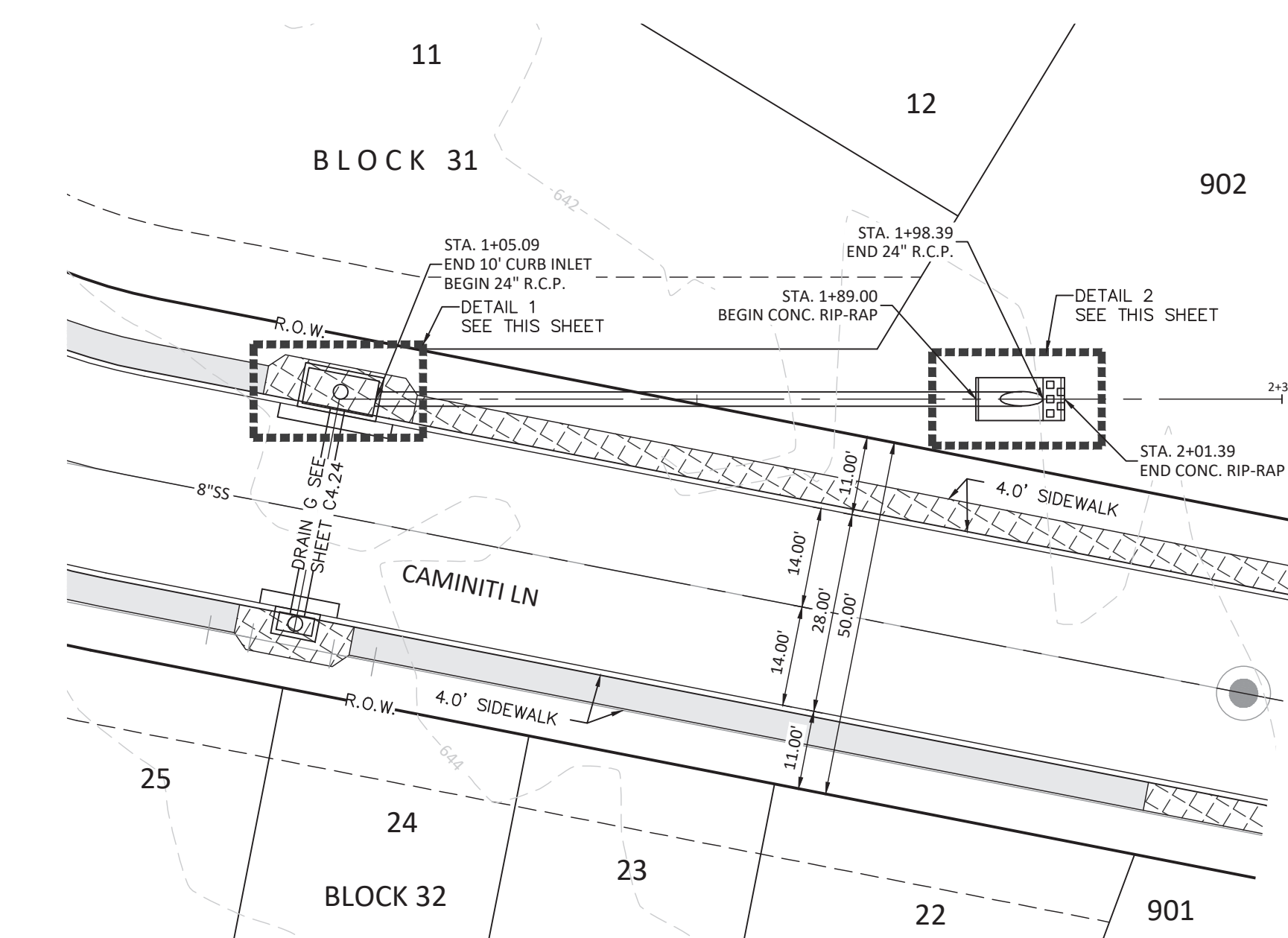
- AVE AT HORIZON POINTE
N PLAN & PROFILE
DRAIN G
CITY OF SAN ANTONIO

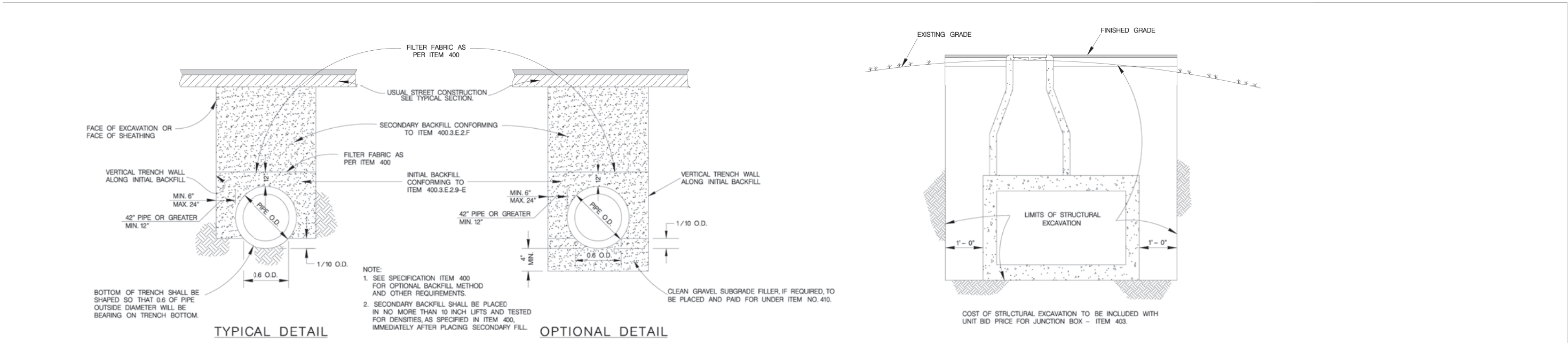


A horizontal bar chart with five bars. The x-axis is labeled with '0' at the start and '20' at the end of the first two bars. The bars are composed of black and white segments. The first bar is 10 units long (0 to 10), the second is 10 units long (10 to 20), the third is 10 units long (20 to 30), the fourth is 10 units long (30 to 40), and the fifth is 10 units long (40 to 50). The segments are black and white, alternating in a specific pattern.

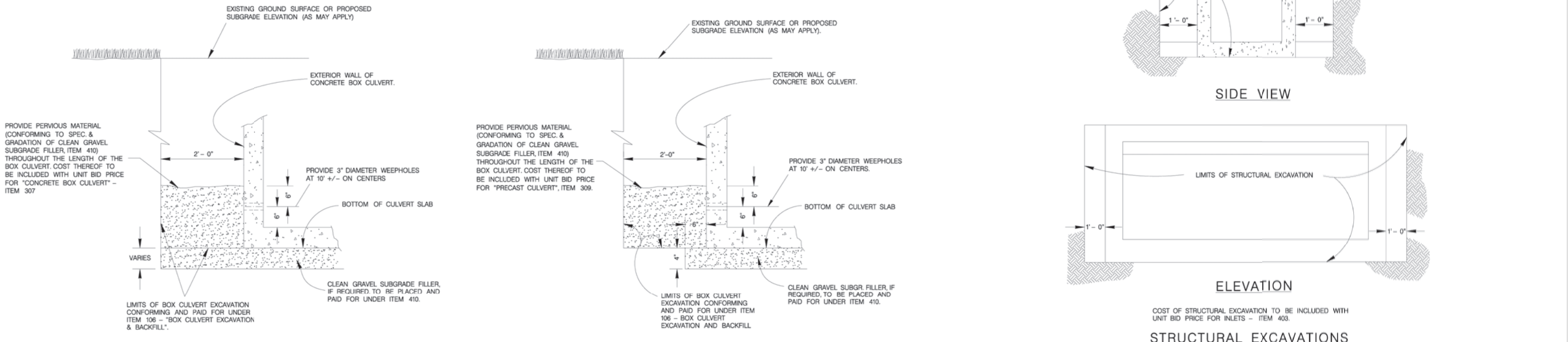
NOTES:

1. COVER FOR REINFORCING STEEL IS 2" UNLESS OTHERWISE NOTED.
2. SEE GENERAL NOTES ON SHEET C4.0 FOR MATERIAL SPECIFICATIONS.
3. MINIMUM BAR DEVELOPMENT LENGTH FOR SPLICE AND BENDS AT WALL AND FLOOR CONNECTIONS SHALL BE 30 INCHES.
4. ALL CONCRETE SHALL RESIST A MINIMUM 3000 PSI 28 DAY BREAK, UNLESS OTHERWISE NOTED.
5. 3/4" CHAMFER ON ALL EXPOSED CONCRETE EDGES.
6. IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SUBGRADE AREA MUST HAVE ESTABLISHED VEGETATION. NO EXTRA PAY ITEM.
7. APPROACH SLOPE FOR PEDESTRIAN SIDEWALKS WHICH TIE INTO SIDEWALK BRIDGE OVER THE DRAINAGE FLUME SHALL NOT EXCEED 1:20. SAFETY RAIL SHALL EXTEND 12 INCHES BEYOND LIMITS OF SIDEWALK BRIDGE.



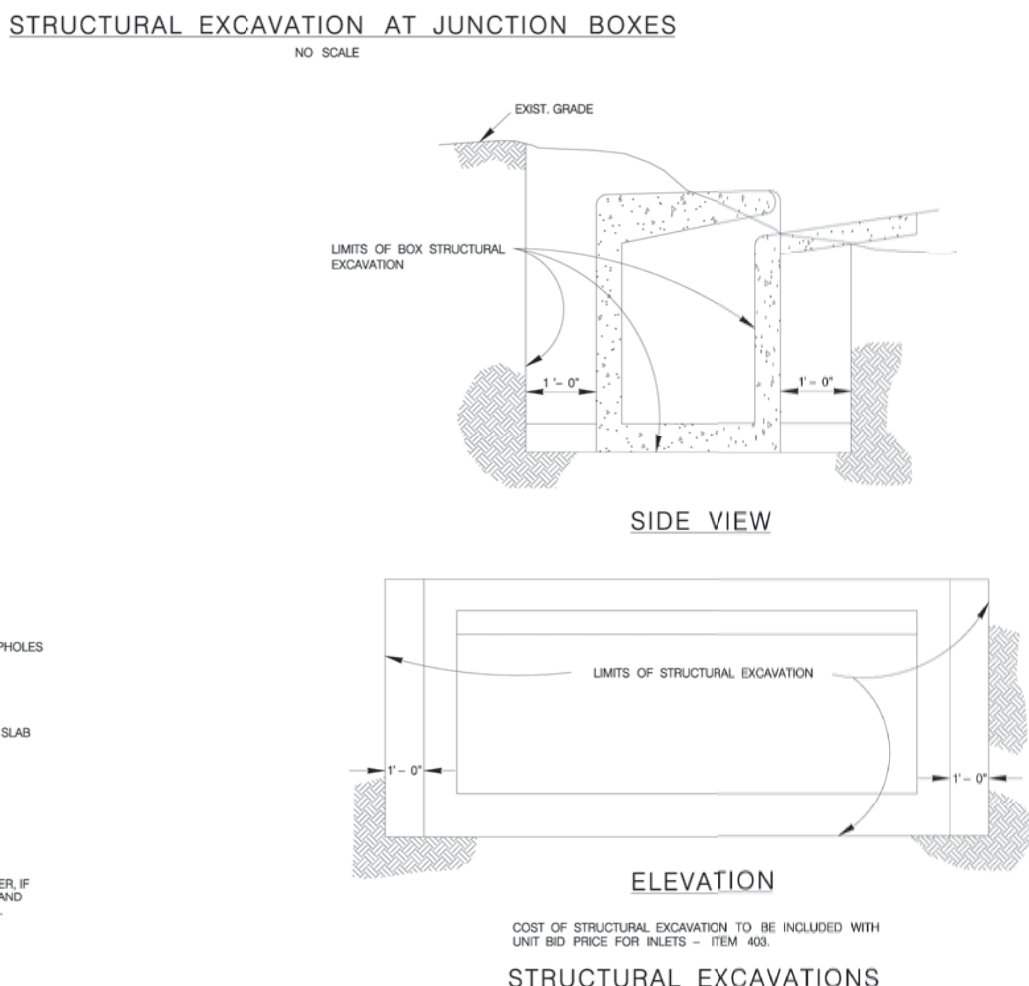


PIPE BEDDING & BACKFILL DETAILS



CONCRETE BOX CULVERT

PRECAST BOX CULVERT



STRUCTURAL EXCAVATION AT JUNCTION BOXES

SIDE VIEW

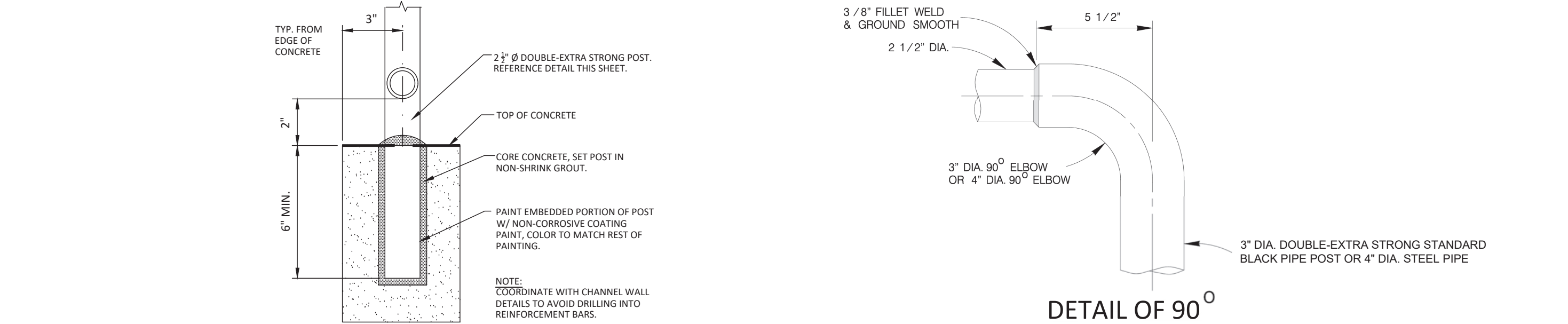
ELEVATION

STRUCTURAL EXCAVATIONS AT DRAINAGE INLETS

MAY 2009

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
PIPE BEDDING & MISCELLANEOUS DRAINAGE DETAILS

NO. SUBMITTAL PROJECT NO. DATE: DRAWN BY: DESIGN BY: CHECKED BY: SHEET NO. OF:

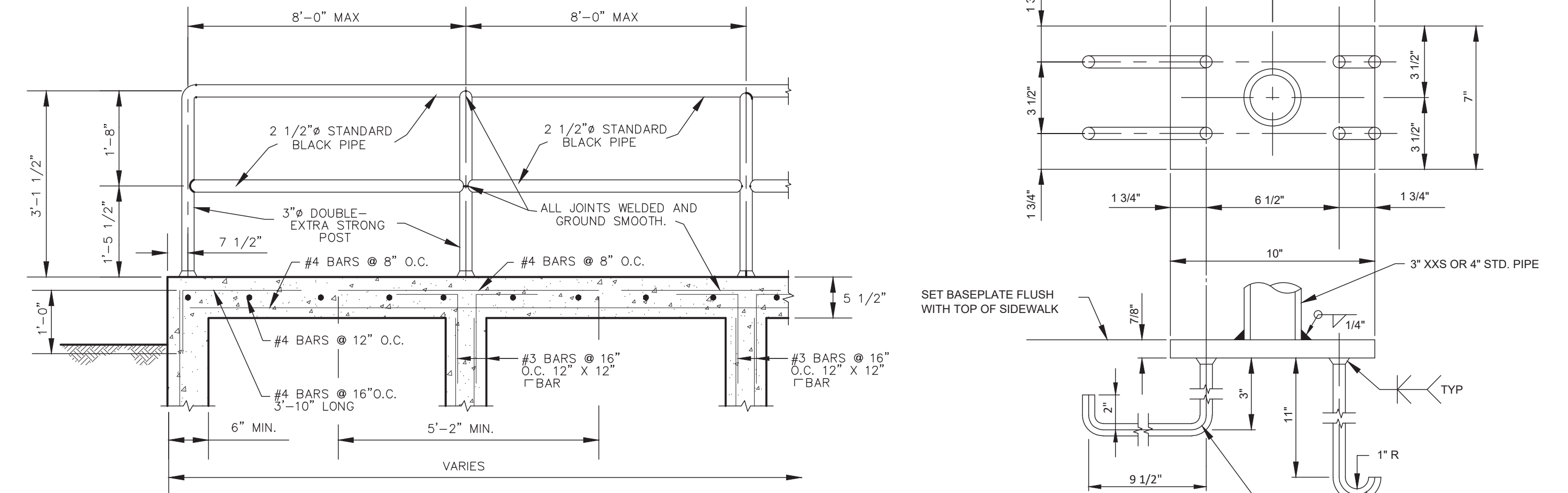


STEEL POST CORE DETAIL
N.T.S.

DETAIL OF 90° WELDING ELBOWS

* A NEAT END SECTION, SATISFACTORY TO THE ENGINEER, FROM SUBMITTED SHOP DRAWINGS MAY BE USED IN LIEU OF THE 90° WELDING ELBOW SHOWN.

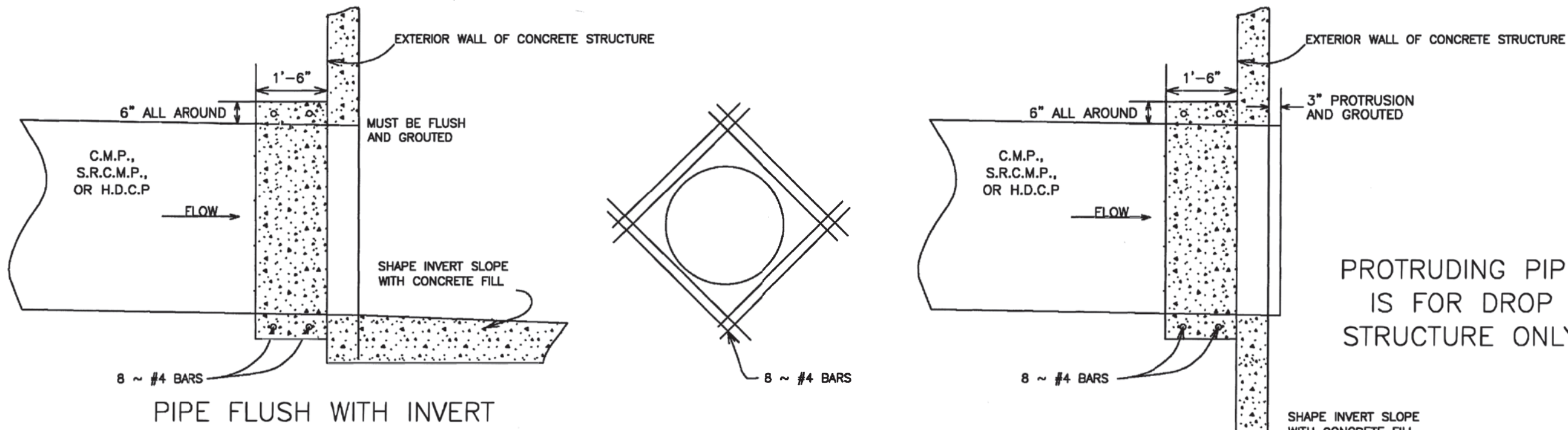
SCALE: 1" = 8"



TYPICAL SIDEWALK BRIDGE SECTION AND SIDEWALK PIPE RAILING

PIPE ANCHORAGE DETAILS
N.T.S.

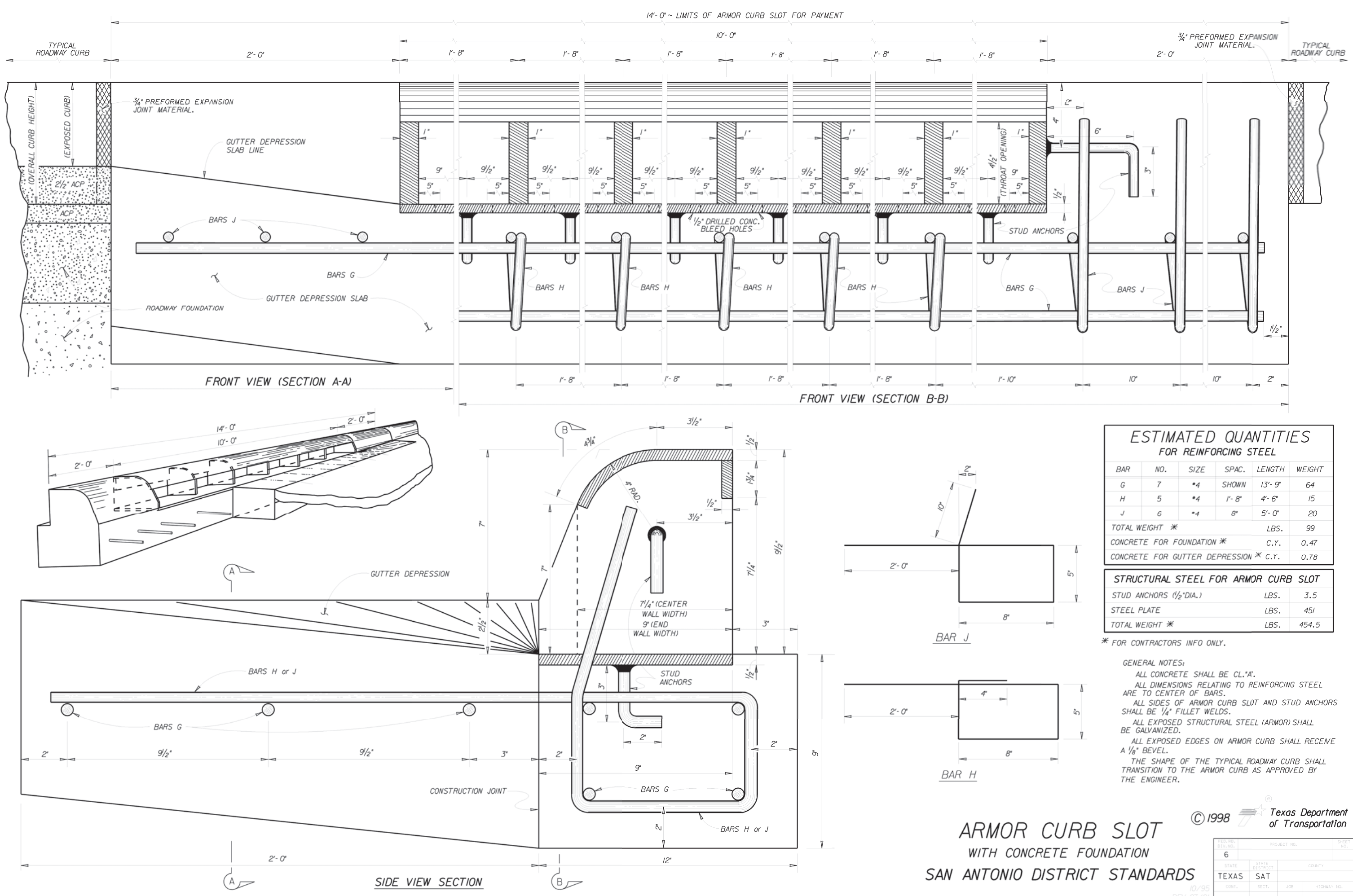
1. CONCRETE FOR STRUCTURE SHALL BE CLASS "A," 3,000 P.S.I. AT 28 DAYS.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4".
3. REINFORCING STEEL SHALL BE NEW BILLET STEEL, INTERMEDIATE GRADE, ASTM. A-15. THE DEFORMATION SHALL CONFORM TO ASTM. A-305.
4. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
5. ALL BARS INTERCEPTING MANHOLE OPENING AND REINFORCED CONCRETE PIPE SHALL BE FIELD-CUT.
6. WHERE LAPPING OF BARS IS REQUIRED, A MINIMUM LAP OF 33 DIAMETERS SHALL BE USED.
7. INVERT OF JUNCTION BOX TO BE SHAPED WITH CONCRETE FILL (3,000 P.S.I. MIN.) TO EFFECT DRAINAGE TO OUTLET PIPE. COST SUBSIDIARY TO CLASS "A" CONCRETE (JUNCTION BOXES).



CONCRETE COLLAR DETAIL
(NOT TO SCALE)

JANUARY 2006
STANDARD PLANS
CITY OF SAN ANTONIO, TEXAS
DEVELOPMENT SERVICES
CONCRETE COLLAR DETAIL

DRAWN BY: ANDREW VINTER, P.E. DATE: REVISIONS: SCALE: SEE ABOVE
CHECKED BY: SM. BENT, P.E. DATE: 19 JANUARY 2006 SHEET: 1 OF 1



ESTIMATED QUANTITIES FOR REINFORCING STEEL

BAR	NO.	SIZE	SPAC.	LENGTH	WEIGHT
G	7	1/4"	SHOWN	13'-9"	64
H	5	1/4"	1'-8"	4'-8"	15
J	4	1/4"	8"	5'-0"	20
TOTAL WEIGHT					99
CONCRETE FOR FOUNDATION					C.Y. 0.47
CONCRETE FOR GUTTER DEPRESSION					C.Y. 0.18

STRUCTURAL STEEL FOR ARMOR CURB SLOT		
STUD ANCHORS 1/2" DIA.	1	3.5
STEEL PLATE	1	40
TOTAL WEIGHT		43.5

* FOR CONTRACTORS INFO ONLY.

GENERAL NOTES:
ALL CONCRETE SHALL BE CLASS "A."
ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
ALL SIZES OF ARMOR CURB SLOT AND STUD ANCHORS SHALL BE 1/4" FILLET WELDS.
ALL EXPOSED STRUCTURAL STEEL (ARMOR CURB) SHALL BE GALVANIZED.
ALL EXPOSED EDGES ON ARMOR CURB SHALL RECEIVE A 1/4" BEVEL.
THE SHAPE OF THE TYPICAL ROADWAY CURB SHALL TRANSITION TO THE ARMOR CURB AS APPROVED BY THE ENGINEER.

ARMOR CURB SLOT
WITH CONCRETE FOUNDATION
SAN ANTONIO DISTRICT STANDARDS

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SUBMITTAL SET

REVISIONS

NO.	DATE	DESCRIPTION

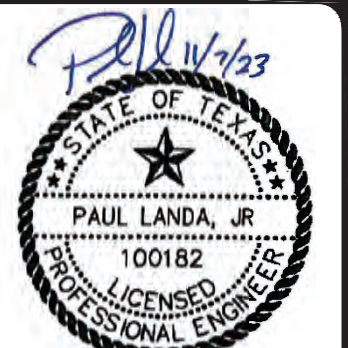
BY: _____

PROJ. # _____ DGN. BY: _____ CHKD. BY: _____ DATE: _____

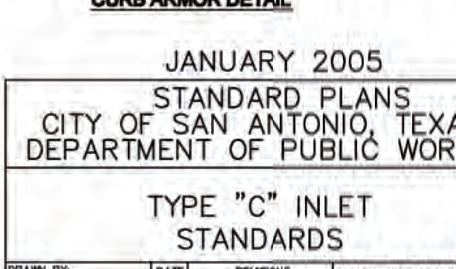
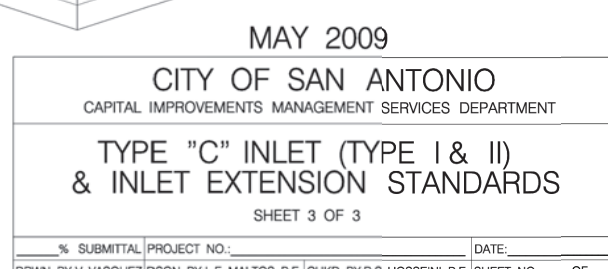
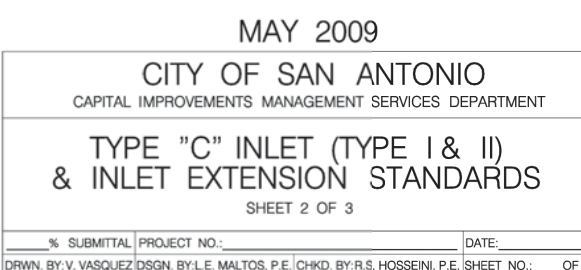
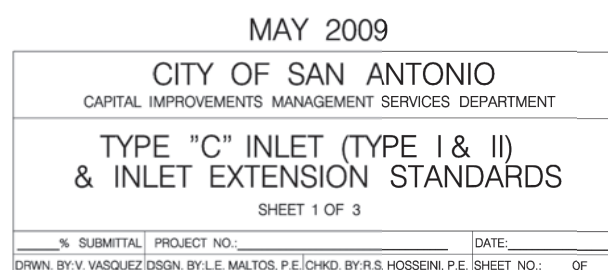
Engineers
Surveyors
Planners

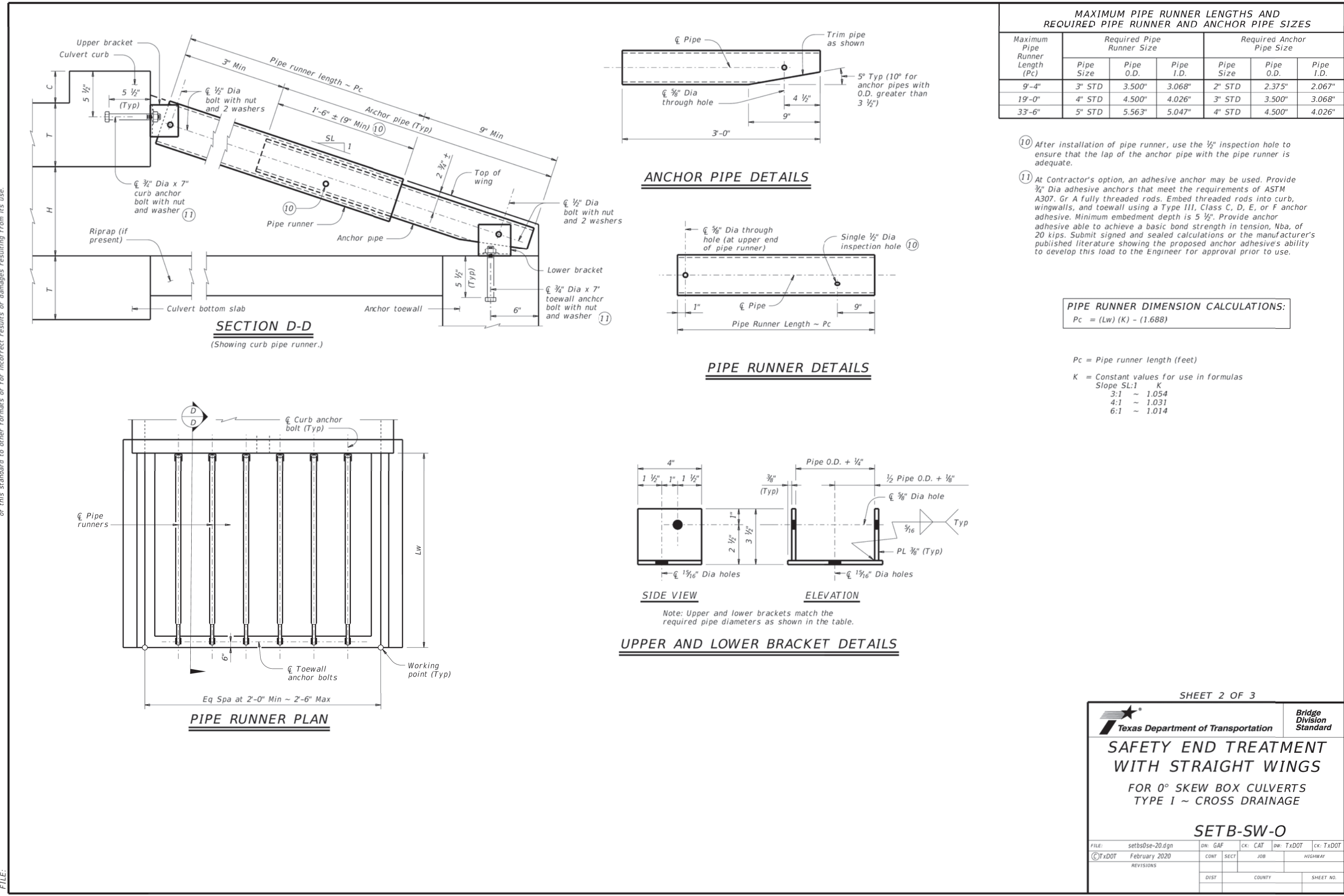
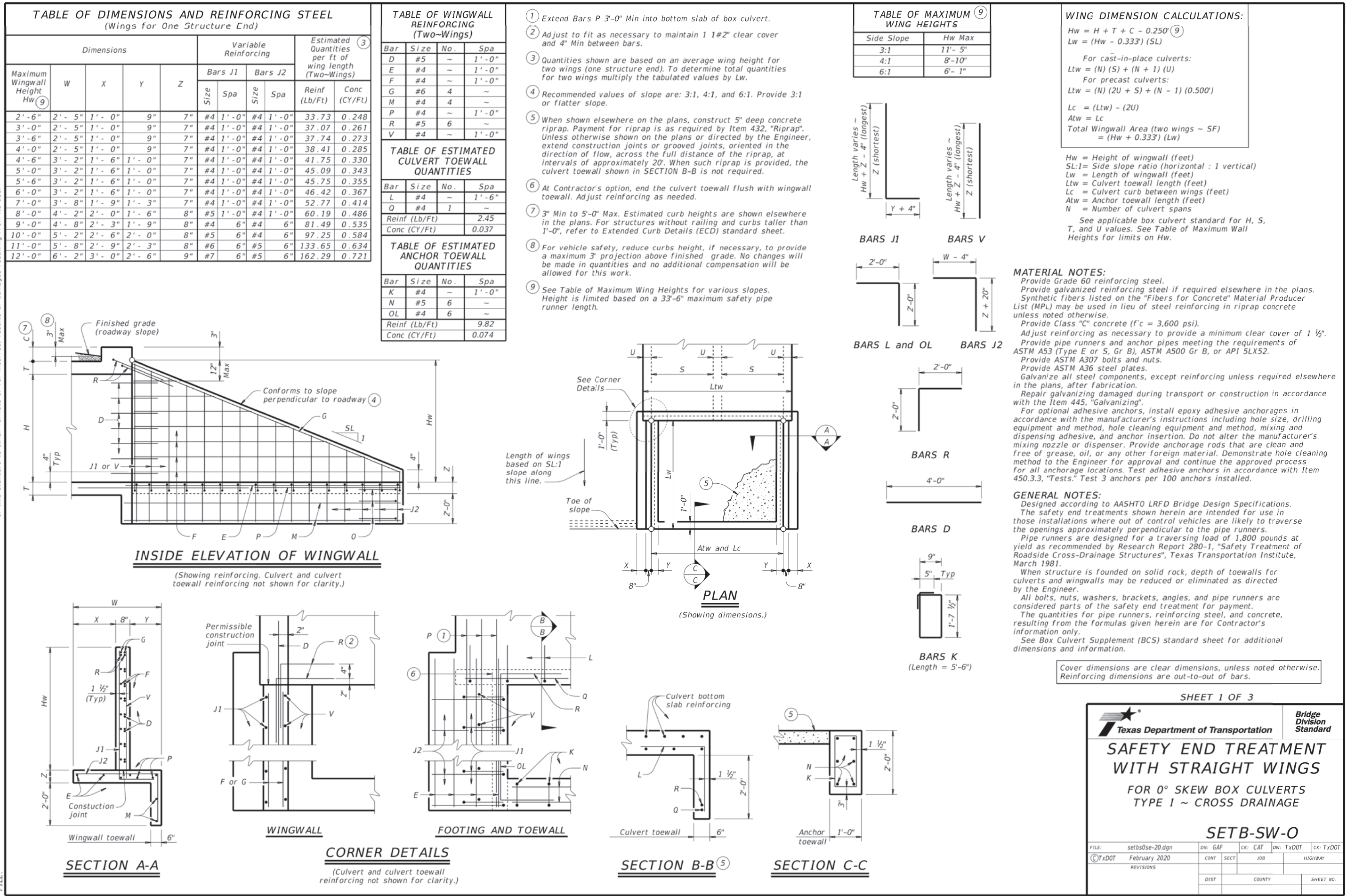
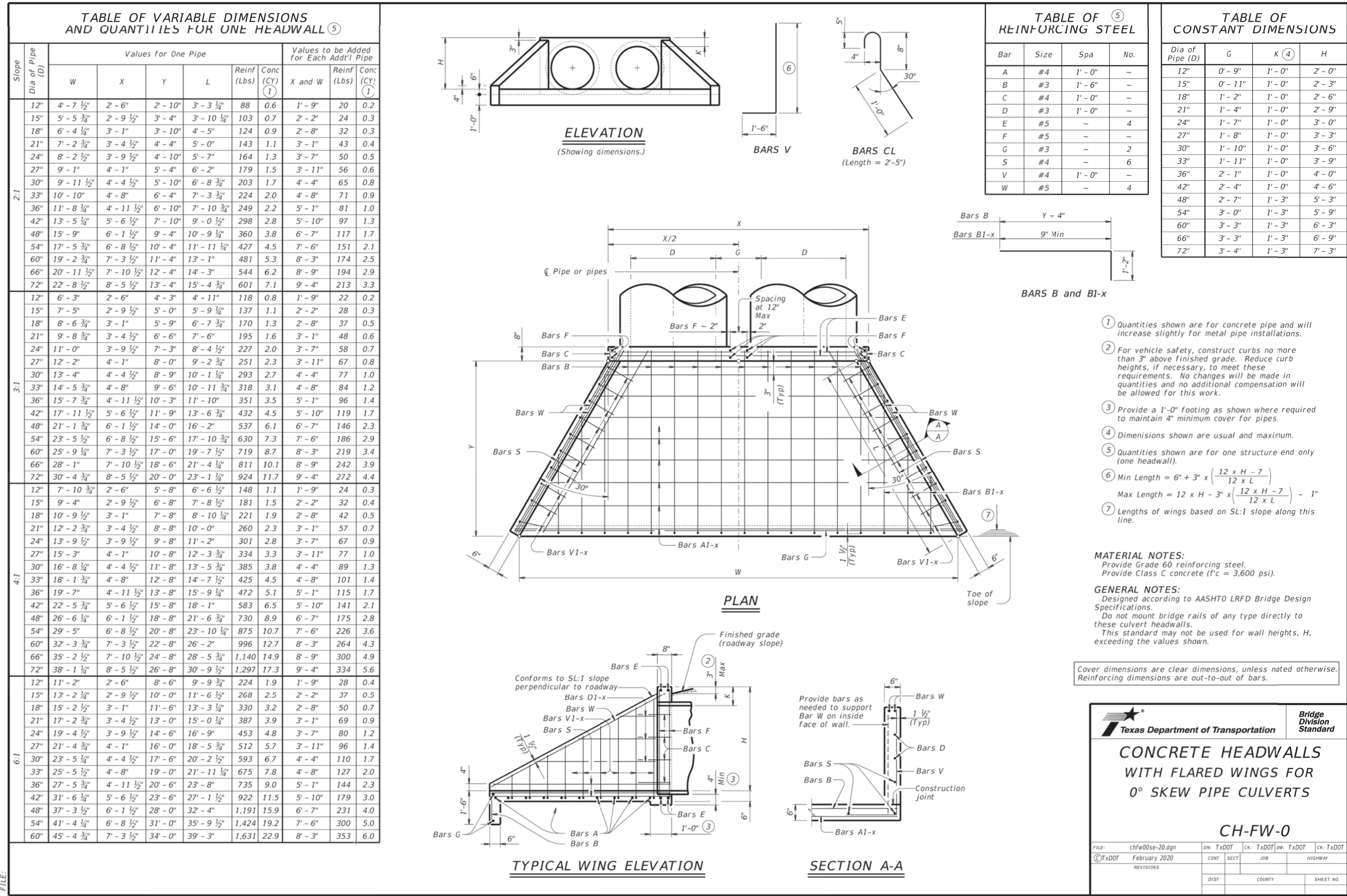
MIR

May Tarin Ramirez Engineers, LLC
TPELCS: ENGINEERING F-5297/SURVEYING: F-10131500
12770 CHARRON PATH, SUITE 100 TEL: (210) 698-5051
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



ENCLAVE AT HORIZON POINTE
STANDARD DRAINAGE DETAILS





REVISIONS

NO. DATE DESCRIPTION

BY

DATE

CHKD. BY

DATE

PROJ. #

ENCLAVE AT HORIZON POINT

STANDARD DRAINAGE DETAILS

SHEET

C4.29

SUBMITTAL SET

Moey Tarin Ramirez Engineers, LLC

ENGINEERING F-5297/SURVEYING F-10131500

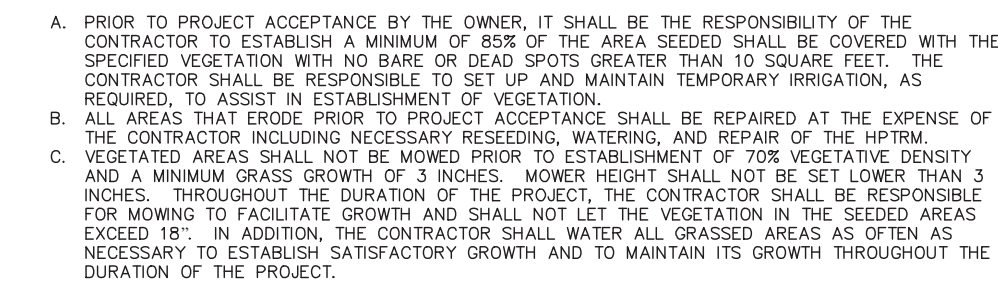
12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051

SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055

PAUL LANDA, JR.

100182

LICENSED PROFESSIONAL ENGINEER



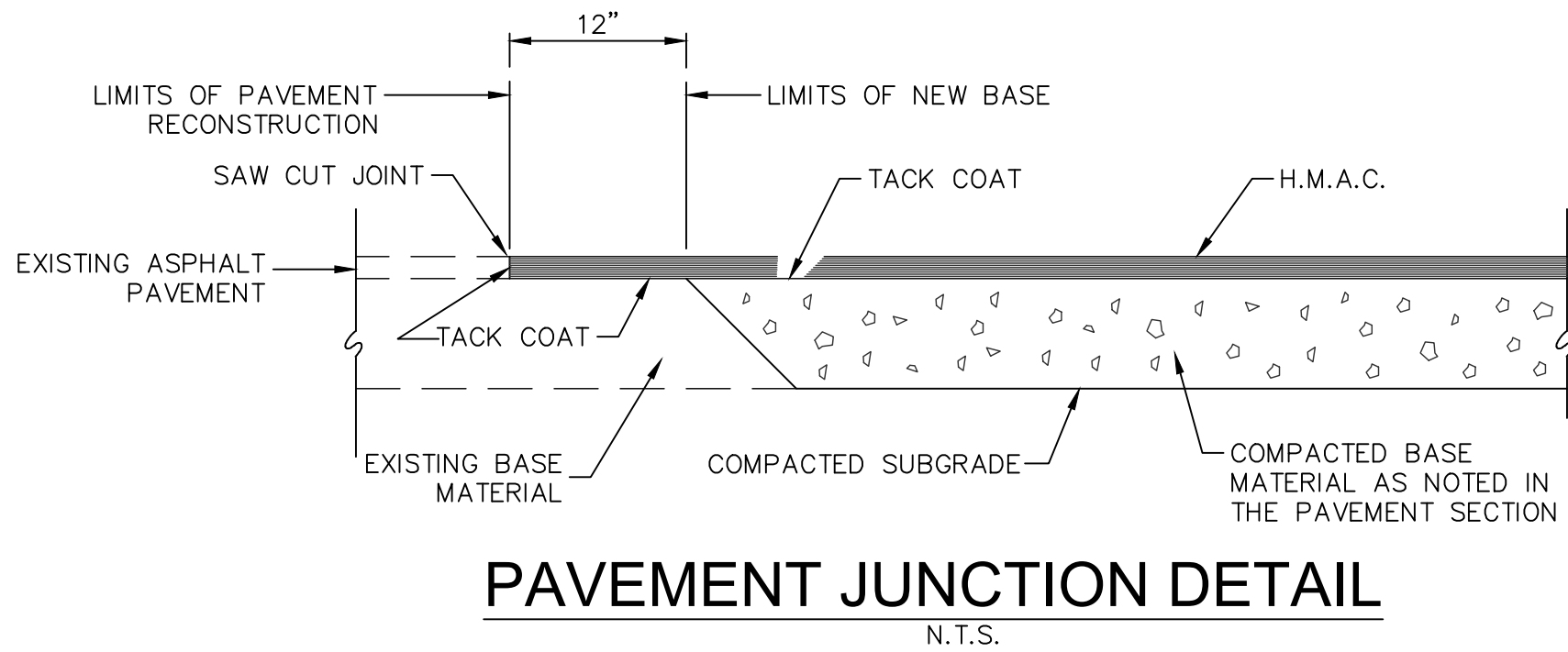
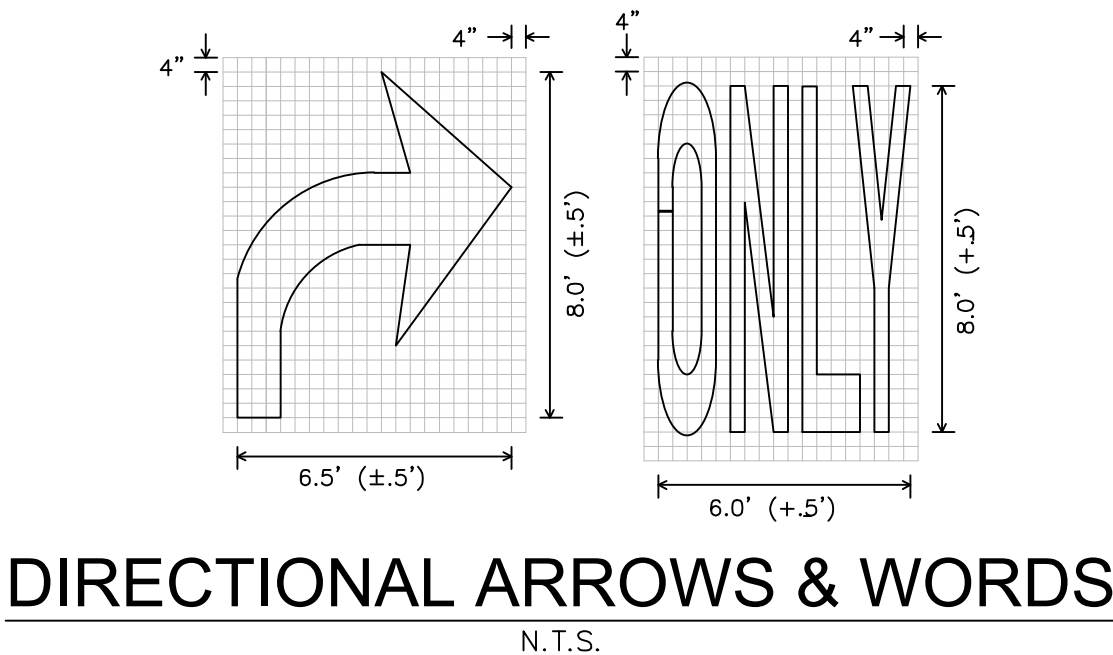
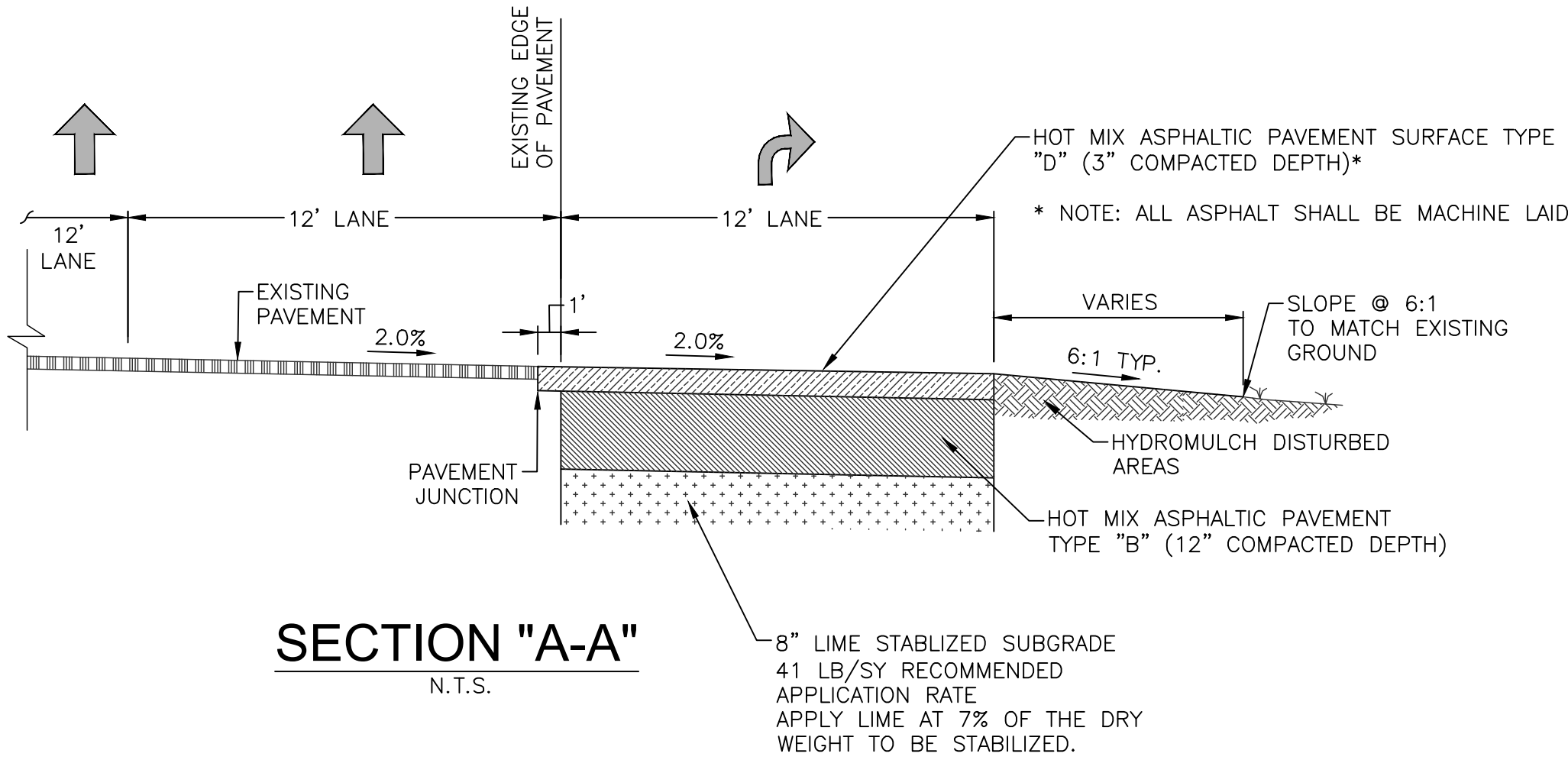
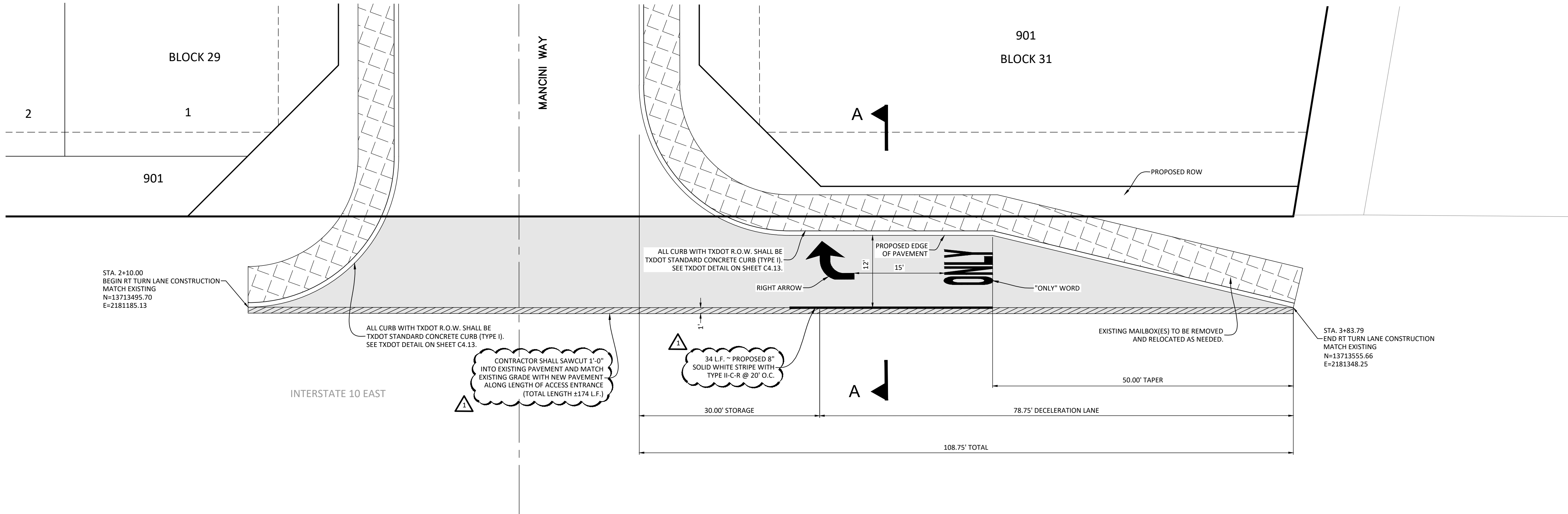
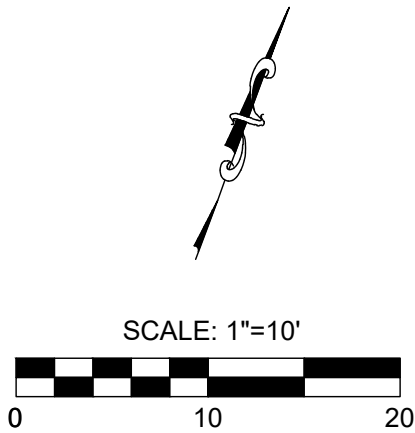
CAUTION!!!
CONTRACTOR TO VERIFY EXISTING
CONDITIONS BEFORE CONSTRUCTION.
IF ANY DISCREPANCIES NOTIFY
ENGINEER

LEGEND

HOT MIX ASPHALT PAVEMENT
SECTION FOR ENTRY DRIVEWAY &
DECEL LANE WITHIN TXDOT R.O.W.
(SEE SECTION A-A DETAIL BELOW)

CAUTION!!!
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT.

- NOTES:**
- CONTRACTOR TO PROVIDE TRAFFIC CONTROL PLAN.
 - USE THERMO-PLASTIC PAVEMENT MARKINGS FOR ALL PAVEMENT MARKINGS.
 - ALL ASPHALT SHALL BE MACHINE LAID.



REVISIONS		NO.	DATE	DESCRIPTION	BY
		1	02/07/24	UPDATED CALLOUTS	DWC

Engineers
Surveyors
Planners

MTR

Moy Tarin Ramirez Engineers, LLC
TBPELS: ENGINEERING F-5297/SURVEYING: F-10131500
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SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5055



ENCLAVE AT HORIZON POINTE
GRADING AND PAVEMENT WIDENING
CONCEPTUAL TURN LANE IMPROVEMENTS

NOTES

- ALL UTILITY EASEMENTS ARE TO BE CLEARED OF ALL UNDERBRUSH AND TREES LESS THAN 4" DIAMETER. CONTACT OWNER FOR TREES GREATER THAN 4" DIAMETER.
- UTILITY EASEMENTS HAVE A MAXIMUM CROSS SLOPE OF 10%. A LETTER CERTIFYING THAT ALL UTILITY EASEMENTS ARE CLEARED AND TO FINAL GRADE WILL BE REQUIRED FROM THE CONTRACTOR PRIOR TO STAKING FOR UTILITY SERVICES AND/OR FINAL LOT PINS.
- CONTRACTOR TO INSURE THAT ALL LOTS WILL HAVE POSITIVE DRAINAGE TO PREVENT ANY PONDING OF WATER. CONTRACTOR WILL PROVIDE A MINIMUM FINAL GRADE OF 2.0 % WITHIN ALL LOTS.
- PRIOR TO ANY LOT GRADING, CONTRACTOR WILL CONTACT OWNER TO DETERMINE IF ANY TREES IN AREAS OF FILL/EXCAVATION CAN BE SAVED.
- EMBANKMENT MATERIAL TO HAVE A PLASTICITY INDEX (P.I.) OF 20 OR LESS.
- THE PROPOSED FINISHED GRADE WITHIN THE ROOT PROTECTION ZONE OF ANY TREE TO BE PRESERVED SHALL NOT BE RAISED OR LOWERED MORE THAN THREE (3) INCHES. THE CONTRACTOR IS TO PROVIDE A TREE DAM IF THE PROPOSED GRADE WILL BE RAISED OR LOWERED MORE THAN THREE (3) INCHES IN THE ROOT PROTECTION ZONE.

GENERAL SPECIFICATIONS FOR SITE PREPARATION

1. GENERAL DESCRIPTION

THIS ITEM SHALL CONSIST OF ALL CLEARING AND GRUBBING, DEMOLITION, PREPARATION OF LAND TO BE FILLED, FILLING OF THE LAND, SPREADING, COMPACTION TESTING AND INSPECTION OF THE FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING OF THE CUT AND FILL AREAS TO CONFORM WITH THE LINES, GRADES AND SLOPES AS SHOWN ON THE APPROVED PLANS.

ALL LOT GRADING MUST MEET REQUIREMENTS OF FHWA/HUD HANDBOOK 4140.3, SPECIFICATIONS FOR LAND DEVELOPMENTS ON CONTROLLED EARTHWORK, DATASHEET 79g. HUD 79g REQUIREMENTS FOR FILL MATERIAL OF 6 INCHES AND MORE WILL BE CONDUCTED. ALL CUT AREAS WILL ALSO MEET THE REQUIREMENTS FOR HUD 79g COMPACTION TESTING. IN ADDITION, ENGINEERS MUST PROVIDE VERIFICATION OF ALL AREAS WHICH DO NOT REQUIRE HUD 79g.

2. CLEARING THE AREA TO BE FILLED

ALL TIMBER, LOGS, TREES, BRUSH AND RUBBISH SHALL BE REMOVED FROM THE SITE.

3. SCARIFYING THE AREA TO BE FILLED

ALL ORGANIC MATTER SHALL BE REMOVED FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED, AND THE SURFACE SHALL THEN BE DISKED OR SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES (6"). ALL SURFACE RUTS OR OTHER UNEVEN FEATURES WILL BE LEVELED PRIOR TO FIELD DENSITY TESTING.

WHERE FILLS ARE MADE ON HILLSIDES OR SLOPES, THE SLOPE OF THE ORIGINAL GROUND UPON WHICH THE FILL IS TO BE PLACED SHALL BE DISKED OR SCARIFIED. WHERE THE SLOPE RATIO OF THE ORIGINAL GROUND IS STEEPER THAN 5 HORIZONTAL TO 1 VERTICAL, THE BANK SHALL BE STEPPED OR BENCHED. GROUND SLOPES WHICH ARE FLATTER THAN 5 TO 1 SHALL BE BENCHED WHEN CONSIDERED NECESSARY BY THE GEOTECHNICAL ENGINEER.

4. COMPACTING THE AREA TO BE FILLED

FOLLOWING THE CLEARING AND DISKING OR SCARIFYING OF THE FILL AREA, IT SHALL BE BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS. THE AREA SHALL BE BROUGHT TO THE ADEQUATE MOISTURE CONTENT AND COMPACTED (TYPICALLY) TO NOT LESS THAN NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT ASTM D 1557 COMPACTION PROCEDURE, OR 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT THD--TEX--113--E COMPACTION PROCEDURE.

5. FILL MATERIALS

THE MATERIALS USED SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES, SUCH AS TREES, BRUSH AND RUBBISH, AND SHALL NOT CONTAIN ROCKS OR LUMPS HAVING A DIAMETER OF MORE THAN SIX INCHES (6").

6. DEPTH AND MIXING OF FILL LAYERS

THE SELECTED FILL MATERIAL SHALL BE PLACED IN LEVEL, UNIFORM LAYERS WHICH, WHEN COMPACTED, SHALL HAVE A DENSITY CONFORMING TO THAT STIPULATED ABOVE. EACH LAYER SHALL BE THOROUGHLY MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. COMPACTED LAYER THICKNESS MAY VARY DEPENDING ON THE COMPACTION EQUIPMENT OF DEMONSTRATED CAPABILITY. THE MAXIMUM LOOSE DEPTH FOR ANY MATERIAL SHALL NOT EXCEED TWELVE INCHES (12"). FOR TESTING REQUIREMENTS OF FILL MATERIAL, SEE DENSITY TESTING.

7. ROCK

WHEN FILL MATERIAL INCLUDES ROCK, THE MAXIMUM ROCK SIZE SHALL BE AS APPROVED BY THE GEOTECHNICAL ENGINEER. NO LARGE ROCKS SHALL BE ALLOWED TO NEST AND ALL VOIDS MUST BE FILLED WITH SMALL STONES OR SOIL AND ADEQUATELY COMPACTED. NO LARGE ROCKS WILL BE PERMITTED WITHIN EIGHTEEN INCHES (18") OF THE FINISHED GRADE.

8. COMPACTION OF FILL LAYER

COMPACTION EQUIPMENT SHALL BE CAPABLE OF COMPACTING THE FILL TO THE SPECIFIED DENSITY. COMPACTION SHALL BE ACCOMPLISHED WHILE THE FILL MATERIAL IS AT OR NEAR THE APPROPRIATE MOISTURE CONTENT. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER THE ENTIRE STRUCTURAL AREA (BENEATH PROPOSED STRUCTURES).

9. COMPACTION OF SLOPES

THE FACES OF FILL SLOPES SHALL BE COMPACTED. COMPACTION OPERATIONS SHALL BE CONTINUED UNTIL THE SLOPE FACES ARE STABLE BUT NOT TOO DENSE FOR PLANTING ON THE SLOPES. COMPACTION OF THE SLOPE FACES MAY BE DONE PROGRESSIVELY IN INCREMENTS OF THREE TO FIVE FEET (3' TO 5') IN FILL HEIGHT AS THIS FILL PROGRESSES OR AFTER THE FILL HAS BEEN BROUGHT TO ITS TOTAL HEIGHT.

10. MOISTURE CONTENT

THE FILL MATERIAL SHALL BE COMPACTED AT THE APPROPRIATE MOISTURE CONTENT SPECIFIED FOR THE SOILS BEING USED. APPROPRIATE MOISTURE CONTENT IS DEFINED, TYPICALLY, AS OPTIMUM MOISTURE CONTENT; HOWEVER, FOR EXPANSIVE SOILS IT MAY BE GREATER THAN OPTIMUM MOISTURE CONTENT, AND OTHER MOISTURE CONTENTS MAY BE NECESSARY TO PRODUCE THE DESIRED RESULTS WITH CERTAIN SOILS.

11. DENSITY TESTS

FIELD DENSITY TESTS SHALL BE PERFORMED ON LAYERS OF FILL WHEN THE FILL IS BEING PLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE MAXIMUM FILL HEIGHT BETWEEN DENSITY TESTING SHALL BE TWELVE INCHES (12") AND AS SPECIFIED BY GEOTECHNICAL ENGINEER. ALL TESTING SHALL BE REQUESTED BY THE CONTRACTOR TO MEET THE CONTRACTOR'S CONSTRUCTION SCHEDULE. NOTIFICATION BY THE CONTRACTOR FOR GEOTECHNICAL ENGINEER TO CONDUCT TESTS SHALL BE AT LEAST THE DAY BEFORE. THIS NOTIFICATION SHALL INCLUDE THE FILL AREA LOCATION (LOT AND BLOCK), THE LIFT OR HEIGHT OF FILL AND APPROXIMATE DESIRED TIME OF TESTING. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED AND RETESTED AT THE EXPENSE OF THE CONTRACTOR UNLESS THE CONTRACTOR CAN SHOW EVIDENCE THAT CIRCUMSTANCES BEYOND HIS CONTROL REQUIRED THE RETESTING. GENERALLY, THE SPECIFIC TESTING WILL BE AS FOLLOWS AND CONDUCTED BY GEOTECHNICAL ENGINEER.

- THE LAND TO BE FILLED (PREPARED SUBGRADE) SHALL BE PREPARED AND TESTED AT A FREQUENCY AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
- THE FIRST LIFT OF COMPACTED FILL (GENERALLY 8 TO 12-IN.) SHALL BE TESTED AS DETERMINED BY THE GEOTECHNICAL ENGINEER. ANY AREAS SUPPORTING THE PROPOSED STRUCTURES REQUIRING FILL SHALL BE TESTED FOR DENSITY COMPLIANCE.
- FILLS SHALL BE TESTED A MAXIMUM OF EACH TWELVE INCHES (12") AND AS SPECIFIED BY GEOTECHNICAL ENGINEER, OF FILL.
- TEST RESULTS WILL BE PROVIDED BY THE FIELD TECHNICIAN TO THE CONTRACTOR WHEN POSSIBLE; HOWEVER, ALL TEST RESULTS ARE TO BE REVIEWED BY THE GEOTECHNICAL ENGINEER FOR COMPLIANCE. THE ENGINEER WILL NOTIFY THE CONTRACTOR OF ALL TEST RESULTS.

12. CUT/FILL LOTS

AREAS INVOLVING CUT ON ONE PORTION AND FILL ON ANOTHER PORTION OF A SPECIFIC LOT SHALL BE PREPARED TO A MINIMUM DEPTH OF 6-IN. AND WILL BE THE SAME MATERIAL CLASSIFICATION AT THE SAME COMPACTION AND MOISTURE CONTENT. A MINIMUM OF TWO (2) FIELD DENSITY TESTS SHALL BE REQUIRED ON EACH CUT/FILL LOT FOR THE PURPOSE OF DETERMINING UNIFORMITY OF THE AREA SUPPORTING THE PROPOSED STRUCTURES.

NOTES:

MINIMUM SLAB EXPOSURE IS 10'.

ALL ELEVATIONS AT FRONT PROPERTY LINE ARE 0.18' ABOVE CURB ELEVATION.

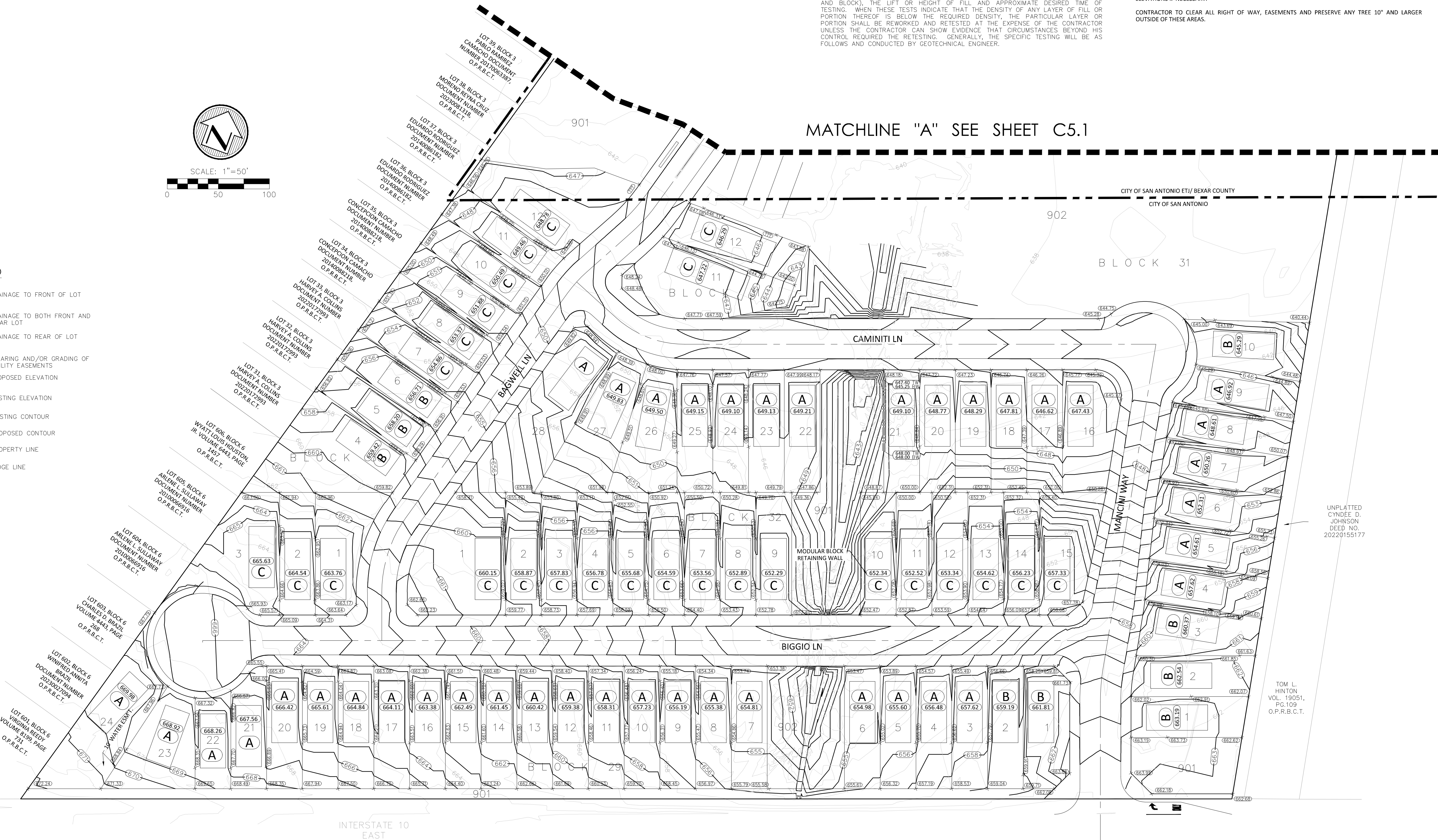
CONTRACTOR TO VERIFY 1.5% MINIMUM SLOPE ON LOTS AND REGRADE TO MEET MINIMUM PROPOSED ELEVATIONS IF NECESSARY.

CONTRACTOR TO CLEAR ALL RIGHT OF WAY, EASEMENTS AND PRESERVE ANY TREE 10" AND LARGER OUTSIDE OF THESE AREAS.



LEGEND

- A** = DRAINAGE TO FRONT OF LOT
- B** = DRAINAGE TO BOTH FRONT AND REAR LOT
- C** = DRAINAGE TO REAR OF LOT
- [Pattern] = CLEARING AND/OR GRADING OF UTILITY EASEMENTS
- × 1024.00 = PROPOSED ELEVATION
- ⊗ 1024.00E = EXISTING ELEVATION
- - - 1024 - - - = EXISTING CONTOUR
- [Line] 1024 [Line] = PROPOSED CONTOUR
- [Dashed Line] = PROPERTY LINE
- [Dashed Line] = RIDGE LINE



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CYNDIE D.
JOHNSON
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TOM L.
HINTON
VOL. 19051,
PG. 109
O.P.R.B.C.T.

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ENCLAVE AT HORIZON POINTE
GRADING PLAN

SHEET

C5.0

SUBMITTAL SET

GENERAL SPECIFICATIONS FOR SITE PREPARATION

1. GENERAL DESCRIPTION

THIS ITEM SHALL CONSIST OF ALL CLEARING AND GRUBBING, DEMOLITION, PREPARATION OF LAND TO BE FILLED, FILLING OF THE LAND, SPREADING, COMPACTION TESTING AND INSPECTION OF THE FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING OF THE CUT AND FILL AREAS TO CONFORM WITH THE LINES, GRADES AND SLOPES AS SHOWN ON THE APPROVED PLANS.

ALL LOT GRADING MUST MEET REQUIREMENTS OF FHA/HUD HANDBOOK 4140.3, SPECIFICATIONS FOR LAND DEVELOPMENTS ON CONTROLLED EARTHWORK, DATASHEET 79g, HUD 79g REQUIREMENTS FOR FILL MATERIAL OF 6 INCHES AND MORE WILL BE CONDUCTED. ALL CUT AREAS WILL ALSO MEET THE REQUIREMENTS FOR HUD 79g COMPACTION TESTING. IN ADDITION, ENGINEERS MUST PROVIDED VERIFICATION OF ALL AREAS WHICH DO NOT REQUIRE HUD 79g.

2. CLEARING THE AREA TO BE FILLED

ALL TIMBER, LOGS, TREES, BRUSH AND RUBBISH SHALL BE REMOVED FROM THE SITE.

3. SCARIFYING THE AREA TO BE FILLED

ALL ORGANIC MATTER SHALL BE REMOVED FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED, AND THE SURFACE SHALL THEN BE DISKED OR SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES (6"). ALL SURFACE RUTS OR OTHER UNEVEN FEATURES WILL BE LEVELED PRIOR TO FIELD DENSITY TESTING.

WHERE FILLS ARE MADE ON HILLSIDES OR SLOPES, THE SLOPE OF THE ORIGINAL GROUND UPON WHICH THE FILL IS TO BE PLACED SHALL BE DISKED OR SCARIFIED. WHERE THE SLOPE RATIO OF THE ORIGINAL GROUND IS STEEPER THAN 5 HORIZONTAL TO 1 VERTICAL, THE BANK SHALL BE STEPPED OR BENCHED. GROUND SLOPES WHICH ARE FLATTER THAN 5 TO 1 SHALL BE BENCHED WHEN CONSIDERED NECESSARY BY THE GEOTECHNICAL ENGINEER.

4. COMPACTING THE AREA TO BE FILLED

FOLLOWING THE CLEARING AND DISKING OR SCARIFYING OF THE FILL AREA, IT SHALL BE BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS. THE AREA SHALL BE BROUGHT TO THE ADEQUATE MOISTURE CONTENT AND COMPACTED (TYPICALLY) TO NOT LESS THAN NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT ASTM D 1557 COMPACTION PROCEDURE, OR 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT THD--TEX--113--E COMPACTION PROCEDURE.

5. FILL MATERIALS

THE MATERIALS USED SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES, SUCH AS TREES, BRUSH AND RUBBISH, AND SHALL NOT CONTAIN ROCKS OR LUMPS HAVING A DIAMETER OF MORE THAN SIX INCHES (6").

6. DEPTH AND MIXING OF FILL LAYERS

THE SELECTED FILL MATERIAL SHALL BE PLACED IN LEVEL, UNIFORM LAYERS WHICH, WHEN COMPACTED, SHALL HAVE A DENSITY CONFORMING TO THAT STIPULATED ABOVE. EACH LAYER SHALL BE THOROUGHLY MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. COMPACTED LAYER THICKNESS MAY VARY DEPENDING ON THE TYPE OF EQUIPMENT OF DEMONSTRATED CAPABILITY. THE MAXIMUM LOOSE DEPTH FOR ANY MATERIAL SHALL NOT EXCEED TWELVE INCHES (12"). FOR TESTING REQUIREMENTS OF FILL MATERIAL, SEE DENSITY TESTING.

7. ROCK

WHEN FILL MATERIAL INCLUDES ROCK, THE MAXIMUM ROCK SIZE SHALL BE AS APPROVED BY THE GEOTECHNICAL ENGINEER. NO LARGE ROCKS SHALL BE ALLOWED TO NEST AND ALL VOIDS MUST BE FILLED WITH SMALL STONES OR SOIL AND ADEQUATELY COMPACTED. NO LARGE ROCKS WILL BE PERMITTED WITHIN EIGHTEEN INCHES (18") OF THE FINISHED GRADE.

8. COMPACTION OF FILL LAYER

COMPACTION EQUIPMENT SHALL BE CAPABLE OF COMPACTING THE FILL TO THE SPECIFIED DENSITY. COMPACTION SHALL BE ACCOMPLISHED WHILE THE FILL MATERIAL IS AT OR NEAR THE APPROPRIATE MOISTURE CONTENT. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER THE ENTIRE STRUCTURAL AREA (BENEATH PROPOSED STRUCTURES).

9. COMPACTION OF SLOPES

THE FACES OF FILL SLOPES SHALL BE COMPACTED. COMPACTION OPERATIONS SHALL BE CONTINUED UNTIL THE SLOPE FACES ARE STABLE BUT NOT TOO DENSE FOR PLANTING ON THE SLOPES. COMPACTION OF THE SLOPE FACES MAY BE DONE PROGRESSIVELY IN INCREMENTS OF THREE TO FIVE FEET (3' TO 5') IN FILL HEIGHT AS THIS FILL PROGRESSES OR AFTER THE FILL HAS BEEN BROUGHT TO ITS TOTAL HEIGHT.

10. MOISTURE CONTENT

THE FILL MATERIAL SHALL BE COMPACTED AT THE APPROPRIATE MOISTURE CONTENT SPECIFIED FOR THE SOIL TYPE. APPROPRIATE MOISTURE CONTENT IS DEFINED, TYPICALLY, AS OPTIMUM MOISTURE CONTENT; HOWEVER, FOR EXPANSIVE SOILS IT MAY BE GREATER THAN OPTIMUM MOISTURE CONTENT, AND OTHER MOISTURE CONTENTS MAY BE NECESSARY TO PRODUCE THE DESIRED RESULTS WITH CERTAIN SOILS.

11. DENSITY TESTS

FIELD DENSITY TESTS SHALL BE PERFORMED ON LAYERS OF FILL WHEN THE FILL IS BEING PLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE MAXIMUM FILL HEIGHT BETWEEN DENSITY TESTING SHALL BE TWELVE INCHES (12") AND AS SPECIFIED BY GEOTECHNICAL ENGINEER. ALL TESTING SHALL BE REQUESTED BY THE CONTRACTOR TO MEET THE CONTRACTOR'S CONSTRUCTION SCHEDULE. NOTIFICATION BY THE CONTRACTOR FOR GEOTECHNICAL ENGINEER TO CONDUCT TESTS SHALL BE AT LEAST THE DAY BEFORE. THIS NOTIFICATION SHALL INCLUDE THE FILL AREA LOCATION (LOT AND BLOCK), THE LIFT OR HEIGHT OF FILL, AND APPROXIMATE DESIRED TIME OF TESTING. WHEN THESE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED AND RETESTED AT THE EXPENSE OF THE CONTRACTOR UNLESS THE CONTRACTOR CAN SHOW EVIDENCE THAT CIRCUMSTANCES BEYOND HIS CONTROL REQUIRED THE RETESTING. GENERALLY, THE SPECIFIC TESTING WILL BE AS FOLLOWS AND CONDUCTED BY GEOTECHNICAL ENGINEER.

1. THE LAND TO BE FILLED (PREPARED SUBGRADE) SHALL BE PREPARED AND TESTED AT A FREQUENCY AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
2. THE FIRST LIFT OF COMPACTED FILL (GENERALLY 8 TO 12-IN.) SHALL BE TESTED AS DETERMINED BY THE GEOTECHNICAL ENGINEER. ANY AREAS SUPPORTING THE PROPOSED STRUCTURES REQUIRING FILL SHALL BE TESTED FOR DENSITY COMPLIANCE.
3. FILLS SHALL BE TESTED A MAXIMUM OF EACH TWELVE INCHES (12") AND AS SPECIFIED BY GEOTECHNICAL ENGINEER, OF FILL.
4. TEST RESULTS WILL BE PROVIDED BY THE FIELD TECHNICIAN TO THE CONTRACTOR. WHEN POSSIBLE, HOWEVER, ALL TEST RESULTS ARE TO BE REVIEWED BY THE GEOTECHNICAL ENGINEER FOR COMPLIANCE. THE ENGINEER WILL NOTIFY THE CONTRACTOR OF ALL TEST RESULTS.

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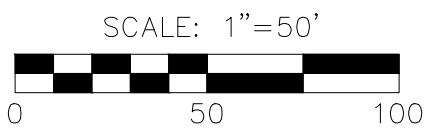
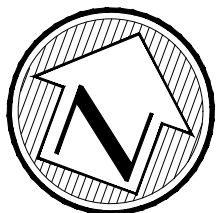
NOTES:

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 - 1024 = PROPOSED CONTOUR
 - = PROPERTY LINE
 - - - - = RIDGE LINE

MATCHLINE "A" SEE SHEET C5.0

NO.	DATE	DESCRIPTION	BY

PROJ. #	LOG. BY:	DRAW. BY:	CHKD. BY:	DATE

Engineers
Surveyors
Planners

MIR

Moy Tarin Ramirez Engineers, LLC
TBP&LS ENGINEERING F-2397/SURVEYING: F-10131500
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ENCLAVE AT HORIZON POINTE

GRADING PLAN

GENERAL NOTES

WASHING – WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED STRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE USING APPROVED METHODS.

MAINTENANCE – THE ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.

DRAINAGE – ENTRANCE/EXIT MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

ALL CPS ENERGY (A.K.A. CITY PUBLIC SERVICE) WORK IS INCLUDED AS PART OF THE CONSTRUCTION OF THE SUBDIVISION AND HAS BEEN CONSIDERED IN THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

CONTRACTOR TO INSTALL AND MAINTAIN THE EROSION AND SEDIMENTATION CONTROLS AS DESIGNED AND SHALL INSPECT THE CONTROLS BI-WEEKLY (14 DAYS) AND AFTER EVERY SIGNIFICANT RAINFALL (0.5 INCHES OR GREATER) TO ENSURE SIGNIFICANT DISTURBANCE HAS NOT OCCURRED. SEDIMENT DEPOSITED AFTER A SIGNIFICANT RAINFALL SHALL BE REMOVED AND PLACED IN A DESIGNATED SOIL DISPOSAL AREA. CONTRACTOR TO ENGAGE A THIRD PARTY FIRM TO PROVIDE A DETAILED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WHICH INCLUDES INSPECTION AND REPORTING PROCEDURES.

CONTRACTOR WILL INSPECT BMP'S AT LEAST TWICE A WEEK (EVERY 14 DAYS) AS WELL AS AFTER EVERY HALF INCH OR MORE OF RAINFALL. CONTROLS WILL BE REPAIRED, REPLACED, AND/OR REVISED AS NECESSARY.

CONTRACTOR TO PLACE TRENCH EXCAVATION MATERIAL ON THE UPGRADE (HIGH) SIDE OF THE TRENCH.

ALL SOIL, SAND, GRAVEL, AND EXCAVATED MATERIALS STOCKPILED ON-SITE WILL HAVE APPROPRIATELY SIZED SILT FENCE PLACED UPGRADE AND DOWN GRADIENT.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
1.	STABILIZED CONSTRUCTION ENT./EXIT	L.S.	1
2.	SILT FENCE (SITEWORK)	L.F.	3,536
3.	SILT FENCE (POST-SITEWORK)	L.F.	3,815
4.	ROCK BERM – TYPE II	L.F.	90
5.	BAGGED GRAVEL INLET FILTER (SITEWORK)	L.F.	800
6.	BAGGED GRAVEL INLET FILTER (POST-SITEWORK)	L.F.	210
7.	CONSTRUCTION STAGING AREA	L.S.	1
8.	CONCRETE WASHOUT PIT	L.S.	1

PHASE I LEGEND

- EXISTING CONTOUR — 548 —
- PROPOSED CONTOUR — 648 —
- DRAINAGE FLOW DIRECTION →
- SILT FENCE (PHASE I) — — — — —
- SILT FENCE (PHASE II) — — — — —
- ROCK BERM ①
- CONSTRUCTION STAGING ②
- AREA STABILIZED CONSTRUCTION ENTRANCE/EXIT ③
- CONCRETE WASHOUT PIT ④
- BAGGED GRAVEL INLET FILTER ⑤

PHASE II LEGEND

- EXISTING CONTOUR — 548 —
- PROPOSED CONTOUR — 648 —
- DRAINAGE FLOW DIRECTION →
- SILT FENCE (PHASE II) — — — — —
- ROCK BERM ①
- BAGGED GRAVEL INLET FILTER ②

BEXAR COUNTY R.O.W. NOTE:
BEXAR COUNTY PERMIT REQUIRED FOR STREET TIE-IN & INTERSECTION PAVEMENT REPLACEMENT AND/OR ANY WORK BEING DONE IN BEXAR COUNTY R.O.W.

MATCHLINE "A" SEE SHEET C6.1

CITY OF SAN ANTONIO ETJ
CITY OF SAN ANTONIO

902
BLOCK 31

APPROX. € TRIBUTARY 58

CAMINITI LN

DRAIN G

DRAIN B

MANCINI WAY

BIGGIO LN

TOM L. HINTON
VOL. 19051,
PG.109
O.P.R.B.C.T.

ENCLAVE AT HORIZON POINTE
OVERALL STORM WATER POLLUTION
PREVENTION PLAN

SHEET

C6.0

SUBMITTAL SET

REVISIONS

NO.	DATE	DESCRIPTION	BY

PROJ. # 22-11800606
CHKD. BY: DMK
DATE:

• Engineers
• Surveyors
• Planners

May Tarin Ramirez Engineers, LLC
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BEXAR COUNTY PERMIT REQUIRED FOR
STREET TIE-IN & INTERSECTION
PAVEMENT REPLACEMENT AND/OR ANY
WORK BEING DONE IN BEXAR COUNTY
R.O.W.



MATCHLINE "A" SEE SHEET C6.1

EXISTING CONTOUR

PROPOSED CONTOUR

DRAINAGE FLOW DIRECTION

SILT FENCE (PHASE I)

SILT FENCE (PHASE II)

ROCK BERM

CONSTRUCTION STAGING

AREA STABILIZED CONSTRUCTION ENTRANCE/EXIT

CONCRETE WASHOUT PIT

BAGGED GRAVEL INLET FILTER

The diagram shows a construction site layout with various features labeled 1 through 5. The features are: 1. Rock Berm, 2. Construction Staging, 3. Area Stabilized Construction Entrance/Exit, 4. Concrete Washout Pit, and 5. Bagged Gravel Inlet Filter. The layout includes a road on the left, a river on the right, and a construction area in the center. The features are numbered 1 through 5, corresponding to the labels on the left. The diagram also shows a proposed contour line, a drainage flow direction arrow, and silt fences for Phase I and Phase II. A scale bar indicates 548 feet.

ITEM	DESCRIPTION	UNIT	QUANTITY
1.	STABILIZED CONSTRUCTION ENT./EXIT	L.S.	1
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