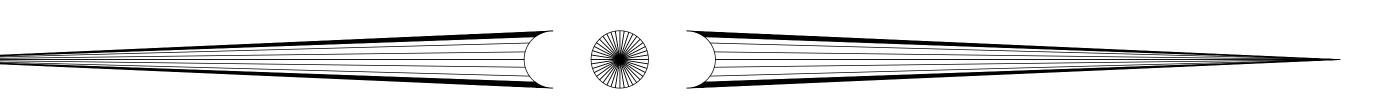
CONSTRUCTION PLANS FOR

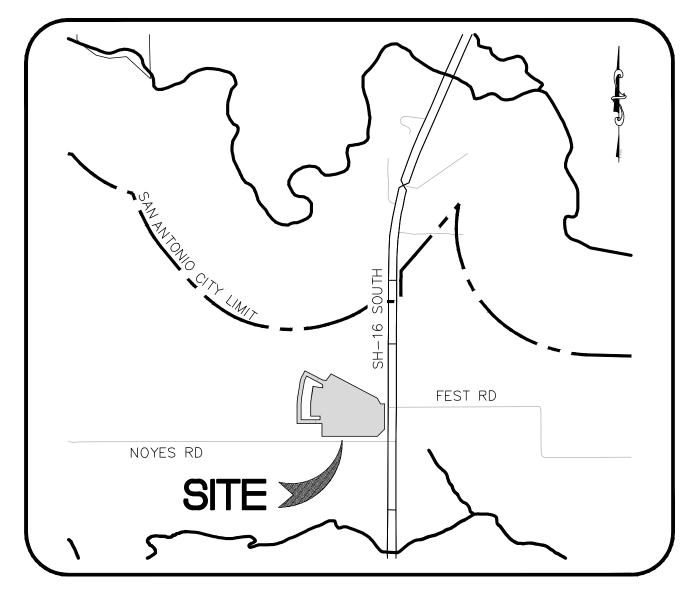


VERDIN SUBDIVISION, UNIT 2

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

KINGFISH DEVELOPMENT, LLC 2722 W. BITTERS RD. SUITE 106 SAN ANTONIO, TX 78248 (210) 882-6800



VICINITY MAP

SUBMITTAL DATE: SEPTEMBER 2022



LEGAL DESCRIPTION:

BEING A 13.578 ACRE TRACT OF LAND BEING SITUATED IN THE RUFENO RODRIGUEZ SURVEY NO. 49, ABSTRACT NO. 613, COUNTY BLOCK NO. 4202, AS CONVEYED TO KING FISH DEVELOPMENT, LLC BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN DOCUMENT NUMBER 20220169411, BEXAR COUNTY TEXAS.

SHEET INDEX

SHEET NO. TITLE

COVER SHEET

OVERALL COVER

UTILITY PLANS

UTILITY COVER UTILITY OVERALL

SEWER PLANS

SEWER COVER

SEWER OVERALL

LINE J AND LINE L PLAN AND PROFILE

LINE K PLAN AND PROFILE LINE M PLAN AND PROFILE

LINE N PLAN AND PROFILE

LINE P PLAN AND PROFILE

SEWER DETAILS

WATER PLANS

WATER COVER & NOTES

OVERALL WATER PLAN

C3.2 WATER DETAILS

WATER DETAILS

STREET & DRAIN PLANS

STREET COVER TRAFFIC PLAN C4.1

TRAFFIC DETAILS

C4.3 TRAFFIC DETAILS

FLYCATCHER WAY PLAN AND PROFILE

PINTAIL PLACE PLAN AND PROFILE

WREN WAY PLAN AND PROFILE

C4.7 TERN TRACE & STILT STREET PLAN AND PROFILE

DRAIN "A" PLAN AND PROFILE C4.8

DRAIN "B" PLAN AND PROFILE C4.10 TEMPORARY INTERCEPTOR DRAIN "C" PLAN AND PROFILE

C4.11 STANDARD DETAILS

C4.12 STANDARD DETAILS

C4.13 STANDARD STREET SECTIONS

GRADING PLANS

C5.0 **GRADING PLAN**

SW3P PLANS

SW3P PLAN SW3P DETAILS

 Engineers Surveyors Planners Moy Tarin Ramirez Engineers, LLC

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.

LEGEND

EXISTING WATER MAIN

PROPOSED WATER MAIN

EXISTING FIRE HYDRANT

PROPOSED GATE VALVE

PROPOSED SANITARY SEWER MAIN

EXISTING UNDERGROUND ELECTRIC

EXISTING UNDERGROUND TELEPHONE

OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS

OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS

PROPOSED STREET LIGHT UG, 100W AND SINGLE ARM

PROPOSED STREET LIGHT UG, 250W AND SINGLE ARM

PROPOSED SERVICE LATERAL WITH ONE-WAY CLEANOUT

EXISTING SANITARY SEWER MAIN

EXISTING OVERHEAD ELECTRIC

EXISTING GATE VALVE

EXISTING STREET LIGHT

EXISTING POWER POLE

PROPOSED POWER POLE PROPOSED TRANSFORMER PROPOSED WATER SERVICE

EXISTING TRANSFORMER

EXISTING WATER METER

EXISTING SECONDARY ENCLOSURE PROPOSED SECONDARY ENCLOSURE

EXISTING IRRIGATION CONTROL VALVE

PROPOSED FIRE HYDRANT

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.
- 2. ALL EXCAVATION IS UNCLASSIFIED. THERE IS NO ADDITIONAL PAYMENT
- 3. ALL SPOIL AND UNUSABLE MATERIAL FROM THIS PROJECT SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT NO ADDITIONAL
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THE PROJECT.
- 5. CONSTRUCTION STAKING TO BE PROVIDED BY CONSULTANT IS AS
- A. STREET CENTERLINE STAKING FOR CLEARING. B. STREET STAKING (ONE SIDE) FOR STREET EXCAVATION AND WATER
- SEWER STAKING AT 100-FT INTERVALS.
- STAKING FOR WATER SERVICES. STAKING FOR DRAINAGE CHANNELS.
- FINAL STREET STAKING.
- G. METER BOX STAKING. H. CPS STAKING. I. SETTING OF LOT CORNERS.

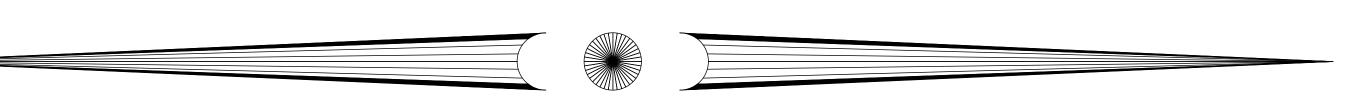
CPS NOTES:

1. 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. 3. 4" P.V.C. SCHEDULE 40 WILL BE REQUIRED FOR UNDERGROUND TELEPHONE AND CABLE T.V. IF ABOVE APPLIES.
- 4. P.V.C. CONDUIT WITH 90° SWEEPS TO 6" ABOVE GRADE WITH CAP.

TELEPHONE AND CABLE LINES TO GO IN JOINT TRENCH WITH CITY

CONSTRUCTION PLANS FOR



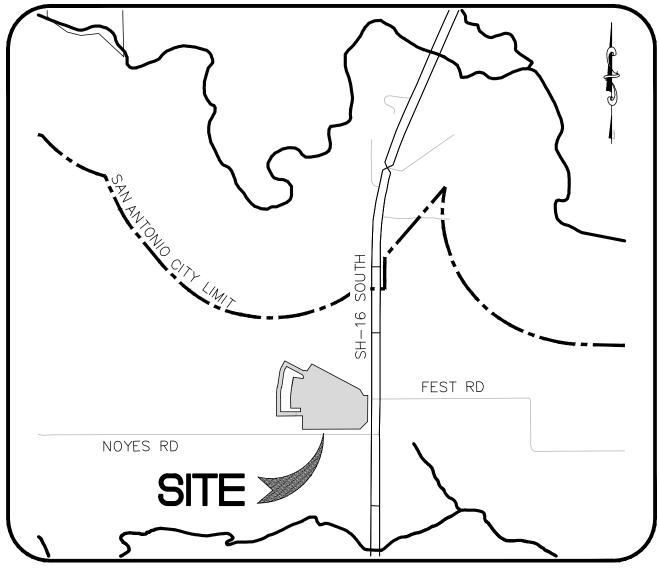
VERDIN SUBDIVISION, UNIT 2

UTILITY IMPROVEMENTS

FEST RD NOYES RD SITE

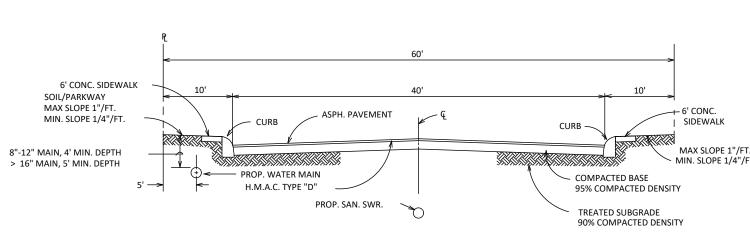
SHEET INDEX

Sheet Number Sheet Title C1.0 **UTILITY COVER** C1.1 UTILITY OVERALL

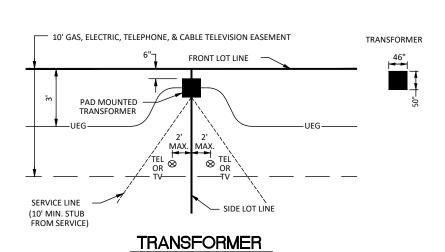


4' CONC. SIDEWALK SOIL/PARKWAY MAX SLOPE 1"/FT. MIN. SLOPE 1/4"/FT 8"-12" MAIN. 4' MIN. DEPTH > 16" MAIN, 5' MIN. DEPTH PROP. WATER MAIN COMPACTED BASE H.M.A.C. TYPE "D" 95% COMPACTED DENSIT PROP. SAN. SWR. TREATED SUBGRADE

TYPICAL STREET CROSS-SECTION (28' PAVEMENT)



TYPICAL STREET CROSS-SECTION (40' PAVEMENT)

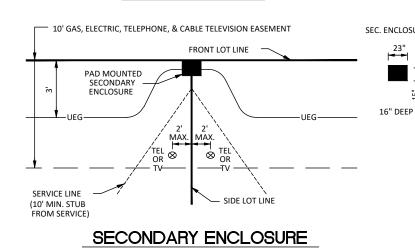


---- E8"W -----

----- E8"SS -----

D.P.R.B.C.T.

0.P.R.M.C.T.



FRONT LOADED

SUBMITTAL DATE: MARCH 2021

LEGAL DESCRIPTION:

BEING A 13.578 ACRE TRACT OF LAND BEING SITUATED IN THE RUFENO RODRIGUEZ SURVEY NO. 49, ABSTRACT NO. 613, COUNTY BLOCK NO. 4202, AS CONVEYED TO KING FISH DEVELOPMENT, LLC BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN DOCUMENT NUMBER 20220169411, BEXAR COUNTY TEXAS.

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 ÁSSISTANCE 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.



12770 CIMARRON PATH, SUITE 100

SAN ANTONIO, TEXAS 78249

Moy Tarin Ramirez Engineers, LLC FIRM TBPELS ENG F-5297 SVY F-10131500

 Engineers Surveyors • Planners

TEL: (210) 698-5051

FAX: (210) 698-5085

PAUL LANDA, JR.

100182

6" sand cover Foot of Separation i CPS Energy Gas Main required at any Water & Sewer Crossing 1 Foot of Separation i CPS Energy Gas Main required at any Water & Sewer Crossing Depth of 48" Conduits will be random lay Standards for Electric Trench Standards for Gas and Electric Trench

or Electric Trench with Joint Utilities

or Electric Trench with Joint Utilities

TRENCH DETAILS

TEXAS C1.0

LAND-PLAT- 22-11800352

SAN ANTONIO, TEXAS 78249

MOY TARIN RAMIREZ ENGINEERS, LLC.

12770 CIMARRON PATH, SUITE 100

OWNER/DEVELOPER

2722 W. BITTERS RD. SUITE 106

KINGFISH DEVELOPMENT, LLC

SAN ANTONIO, TX 78248

(210) 882-6800

SUBMITTED BY:

TEL: (210) 698-5051

FAX: (210) 698-5085

PAUL LANDA, JR. 100182

> EMENT ROV

> > SHEET

SUBMITTAL SET





VERDIN SUBDIVISION, UNIT 2 SANITARY SEWER IMPROVEMENTS

SAWS CONSTRUCTION NOTES **COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT**

- 1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable: A. Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1
- B. Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage". C. Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction".
- D. Current City of San Antonio "Standard Specifications for Public Works Construction".
- E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
- 2. The contractor shall not proceed with any pipe installation work until they obtain a copy of the approved Counter Permit or General Construction Permit (GCP) from the consultant and has been notified by SAWS Construction Inspection Division to proceed with the work and has arranged a meeting with the inspector and consultant for the work requirements. Work completed by the contractor without an approved Counter Permit and/or a GCP will be subject to removal and replacement at the expense of the contractors and/or the developer.
- 3. The Contractor shall obtain the SAWS Standard Details from the SAWS website,
- http://www.saws.org/business_center/specs. Unless otherwise noted within the design plans.
- 4. The Contractor is to make arrangements with the SAWS Construction Inspection Division at (210) 233-2973, on notification procedures that will be used to notify affected home residents and/or property owners 48 hours prior to beginning any work.
- 5. Location and depth of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor at least 1 week prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction
- 6. The Contractor shall verify the exact location of underground utilities and drainage structures at least 1-2 weeks prior to construction whether shown on plans or not. Please allow up to 7 business days for locates requesting pipe location markers on SAWS facilities. The following contact information are supplied for verification purposes:
- SAWS Utility Locates: http://www.saws.org/Service/Locates
- COSA Drainage (210) 207-0724 or (210) 207-6026
- COSA Traffic Signal Operations (210) 206-8480 COSA Traffic Signal Damages (210) 207-3951
- Texas State Wide One Call Locator 1-800-545-6005 or 811
- 7. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways, sidewalks, landscaping and
- structures to its original or better condition if damages are made as a result of the project's construction. 8. All work in Texas Department of Transportation (TxDOT) and/or Bexar County right-of-way shall be done in accordance with respective construction specifications and permit requirements.
- 9. The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating
- 10. The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood 11. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be
- 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 constworkreg@saws.org. Any and all SAWS utility work installed without holiday/weekend approval will be subject to be uncovered for proper
- 12. Compaction note (Item 804): The contractor shall be responsible for meeting the compaction requirements on all trench backfill and for paying for the tests performed by a third party. Compaction tests will be done at one location point randomly selected, or as indicated by the SAWS Inspector and/or the test administrator, per each 12-inch loose lift per 400 linear feet at a minimum. This project will not be accepted and finalized by SAWS without this requirement being met and
- verified by providing all necessary documented test results. 13. A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division.

- 1. The Contractor is responsible for ensuring that no Sanitary Sewer Overflow (SSO) occurs as a result of their work. All contractor personnel responsible for SSO prevention and control shall be trained on proper response. Should an SSO
- Identify the source of the SSO and notify SAWS Emergency Operations Center (EOC) immediately at (210) 233-2014. Provide the address of the spill and an estimated volume or flow. Attempt to eliminate the source of the SSO.
- Contain sewage from the SSO to the extent of preventing a possible contamination of waterways.
- Clean up spill site (return contained sewage to the collection system if possible) and properly dispose of
- contaminated soil/materials. Clean the affected sewer mains and remove any debris.
- Meet all post-SSO requirements as per the EPA Consent Decree, including line cleaning and televising the affected sewer mains (at SAWS direction) within 24 hours.
- Should the Contractor fail to address an SSO immediately and to SAWS satisfaction, they will be responsible for all costs incurred by SAWS, including any fines from EPA, TCEQ and/or any other Federal, State or Local Agencies.
- No separate measurement or payment shall be made for this work. All work shall be done according to guidelines set by the
- 2. If bypass pumping is required, the Contractor shall perform such work in accordance with SAWS Standard Specification for Water and Sanitary Sewer Construction, Item No. 864, "Bypass Pumping".
- 3. Prior to tie-ins, any shutdowns of existing force mains of any size must be coordinated with the SAWS Construction Inspection Division at (210) 233-2973 at least one week in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly.
- 4. Sewer pipe where water line crosses shall be 160 psi and meet the requirements of ASTM D2241, TAC 217.53 and TCEQ 290.44(e)(4)(B). Contractor shall center a 20' joint of 160 psi pressure rated PVC at the proposed water crossing. 5. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: It shall be the responsibility of the Contractor to make allowances and adjustments for top of manholes to match the finished grade of the project's improvements. (NSPI) 6. Spills, Overflows, or Discharges of Wastewater: All spills, overflows, or discharges of wastewater, recycled water, petroleum products, or chemicals must be reported immediately to the SAWS Inspector assigned to the Counter Permit or General

Construction Permit (GCP). This requirement applies to every spill, overflow, or discharge regardless of size.

ADDITIONAL SEWER NOTES

98% COMPACTION NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS

WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL

1. SANITARY SEWER LATERALS TO BE LOCATED AS SHOWN ON THE SANITARY SEWER PLANS.

NECESSARY DOCUMENTED TEST RESULTS.

- 2. PAY CUTS FOR SANITARY SEWERS LOCATED IN STREETS ARE ESTIMATED TO THE FINISHED SUBGRADE ELEVATION. PAY CUTS ARE TO EXISTING GROUND IN UNPAVED AREAS.
- 3. EXTEND ALL SANITARY SEWER LATERALS TO THE PROPERTY LINE OR TO THE EASEMENT LINE AS INDICATED. ALL LATERALS ARE 35' LONG
- 4. SANITARY SEWER LINES AND LATERALS WILL BE PVC SDR 26 ASTM D 3034 UNLESS OTHERWISE NOTED ON PLAN AND PROFILE SHEETS.
- 5. SDR FITTINGS WILL MATCH SDR SEWER MAIN, NO SEPARATE PAY ITEM.
- 6. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPGRADIENT SIDE OF THE SEWER TRENCH THUS ALLOWING THE TRENCH TO INTERCEPT ANY SILT CONTAMINATED RUNOFF.
- 7. QUANTITIES ARE BASED ON CURRENT SAWS SPECIFICATIONS.
- 8. ALL MANHOLES TO HAVE WATERTIGHT RING AND COVERS.
- 9. ALL MANHOLES TO BE CONCRETE RING ENCASED.
- 10. MANHOLES TO BE VENTED AS SHOWN ON THE SANITARY SEWER PLANS.
- 11. AN "*" DENOTES AN EXISTING TEE.
- 12. ALL SANITARY SEWER LATERALS SHALL HAVE A MIN. 2.0
- 13. MINIMUM COVER FROM TOP OF SANITARY SEWER LATERALS TO TOP OF
 - A. IF LATERALS DO NOT CROSS WATER MAINS, 5' COVER
 - B. IF LATERALS CROSS WATER MAIN, WATER MAIN COVER
 - 6" 5.5' 5.7' 12" 6.0'
- 14. ALL MANHOLE OPENINGS SHALL BE 30".

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 FACH INDIVIDUAL LITILITY. 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.

CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS

- I. WHERE A SEWER MAIN CROSSES OVER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE (9) FEET, ALL PORTIONS OF THE SEWER MAIN WITHIN NINE FEET (9) OF THE WATER LINE SHALL BE CONSTRUCTED USING 150 PSI PRESSURE RATED DUCTILE IRON, CAST IRON OR PVC PIPE AND JOINED WITH EQUALLY PRESSURE RATED PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL. A SECTION OF 150 PSI PRESSURE RATED PIPE AT LEAST EIGHTEEN (18) FEET IN LENGTH MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION REQUIREMENTS. (NO SEPARATE PAY ITEM)
- II. WHERE A SEMI-RIGID OR RIGID SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET BUT GREATER THAN TWO FEET, THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF THE SEWER WITHIN NINE FEET OF THE WATER MAIN.
- III. WHERE A SEWER MAIN CROSSES UNDER A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN TWO FEET, THE SEWER MAIN SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI WITHIN NINE FEET OF THE WATER MAIN, SHALL HAVE A SEGMENT OF SEWER PIPE CENTERED ON THE WATER MAIN, SHALL BE PLACED NO CLOSER THAN SIX INCHES BETWEEN OUTER DIAMETERS, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL. A SECTION OF 150 PSI PRESSURE RATED PIPE OF A LENGTH GREATER THAN EIGHTEEN (18) FEET MAY BE CENTERED ON THE WATER MAIN IN LIEU OF PIPE CONNECTION REQUIREMENTS. (NO
- IV. WHERE A SEWER MAIN PARALLELS A WATER MAIN AND THE SEPARATION DISTANCE IS LESS THAN NINE FEET, THE SEWER MAIN SHALL BE BELOW THE WATER MAIN, SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI FOR BOTH PIPE AND JOINTS FOR A DISTANCE OF NINE FEET BEYOND THE POINT OF CONFLICT, SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE BETWEEN OUTER DIAMETERS OF TWO FEET VERTICALLY AND FOUR FEET HORIZONTALLY, AND SHALL BE JOINED WITH PRESSURE RING GASKET CONNECTIONS OR CORROSION PROTECTED MECHANICAL COUPLING DEVICES OF A CAST IRON OR DUCTILE IRON MATERIAL.

SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED ANY CLOSER THAN NINE FEET TO WATER MAINS.

FEST RD NOYES RD

VICINITY MAP





Surveyors

REVISION DATE: OCTOBER 2024

LEGAL DESCRIPTION:

ACRE VARIABLE WIDTH RIGHT OF WAY DEDICATION, SITUATED IN THE RUFENO RODRIGUEZ SURVEY NO. 49, ABSTRACT NO. 613, COUNTY BLOCK NO. 4202, BEING A PORTION OF A 131.81 ACRE TRACT AS CONVEYED TO KING FISH DEVELOPMENT, LLC BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN DOCUMENT NUMBER 20220169411, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR

SHEET INDEX

SHEET NO. TITLE

SEWER COVER SEWER OVERALL

LINE J AND LINE L PLAN AND PROFILE

LINE P PLAN AND PROFILE

C2.3 LINE K PLAN AND PROFILE C2.4 LINE M PLAN AND PROFILE LINE N PLAN AND PROFILE

SEWER DETAILS

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

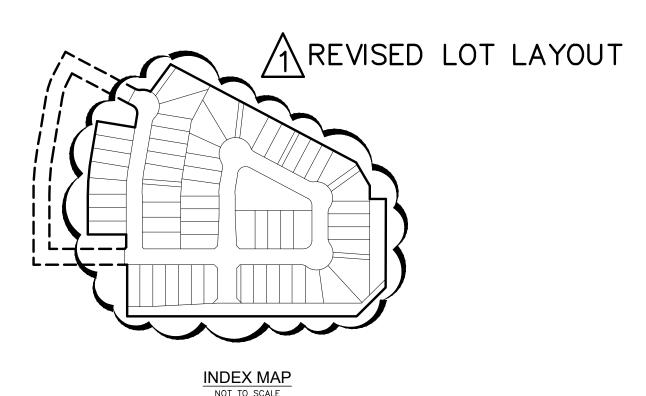
LAND-PLAT- 22-11800352

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

KINGFISH DEVELOPMENT, LLC 2722 W. BITTERS RD. SUITE 106 SAN ANTONIO, TX 78248 (210) 882-6800



ESTIMATED SEWER QUANTITIES

ITEM	DESCRIPTION	UNIT	EST/QTY
1	TIE INTO EXISTING SANITARY SEWER MAIN	E.A.	1
2	TRENCH EXCAVATION SAFETY PROTECTION	L.F.	4,844
3	8" SANITARY SEWER PIPE, SDR-26 (0'-6')	L.F.	10
4	8" SANITARY SEWER PIPE, SDR-26 (6'-10')	L.F.	1,201
5	8" SANITARY SEWER PIPE, SDR-26 (10'-14')	L.F.	1,378
6	STANDARD SANITARY SEWER MANHOLE	EA.	7
7	DROP SANITARY SEWER MANHOLE	EA.	3
8	EXTRA DEPTH MANHOLE	V.F.	33.6
9	VERTICAL STACK	V.F.	108.9
10	6" SANITARY SEWER LATERALS, SDR-26	L.F.	2,255
11	8" SEWER MAIN TELEVISION INSPECTION	L.F.	2,589

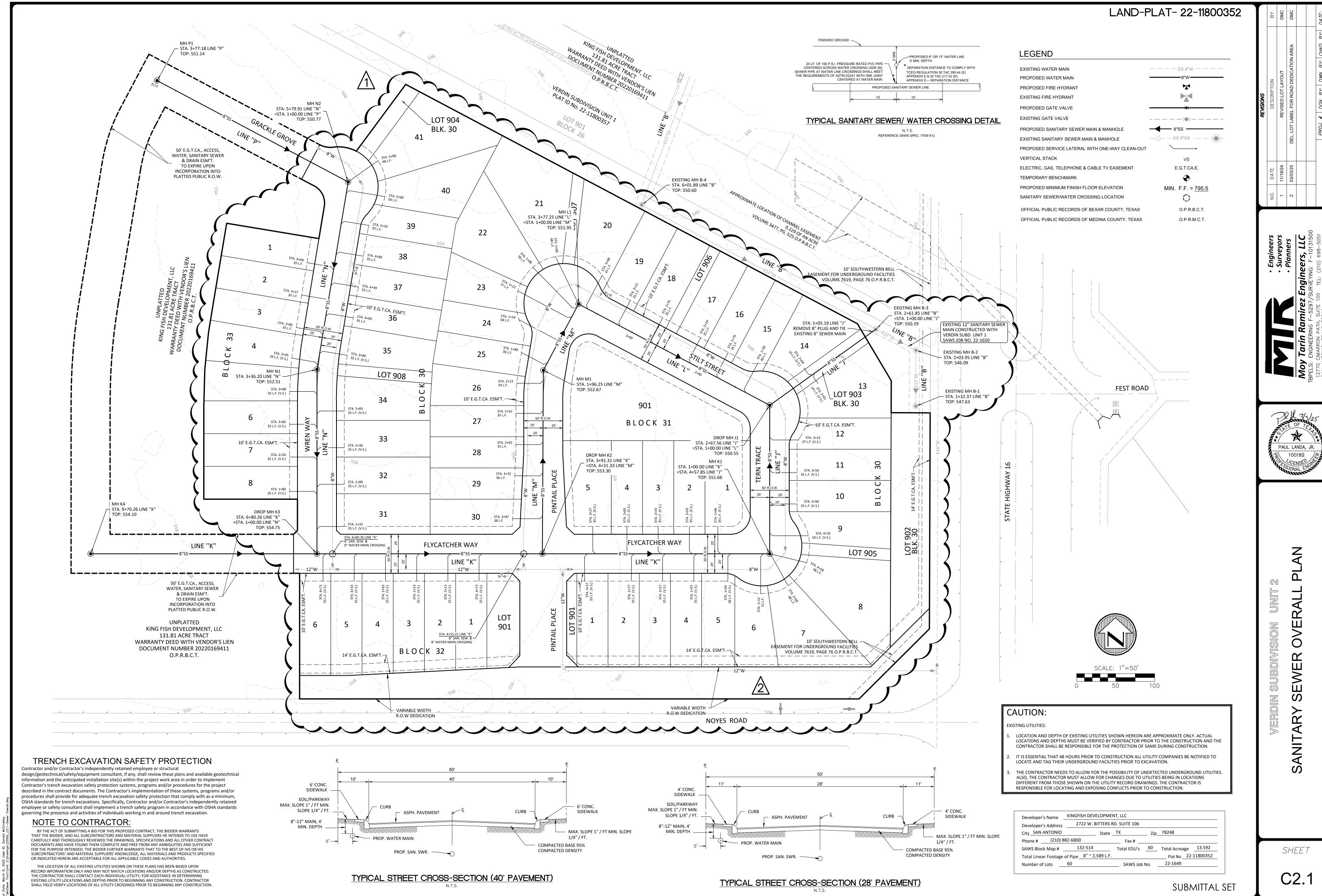
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT 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.

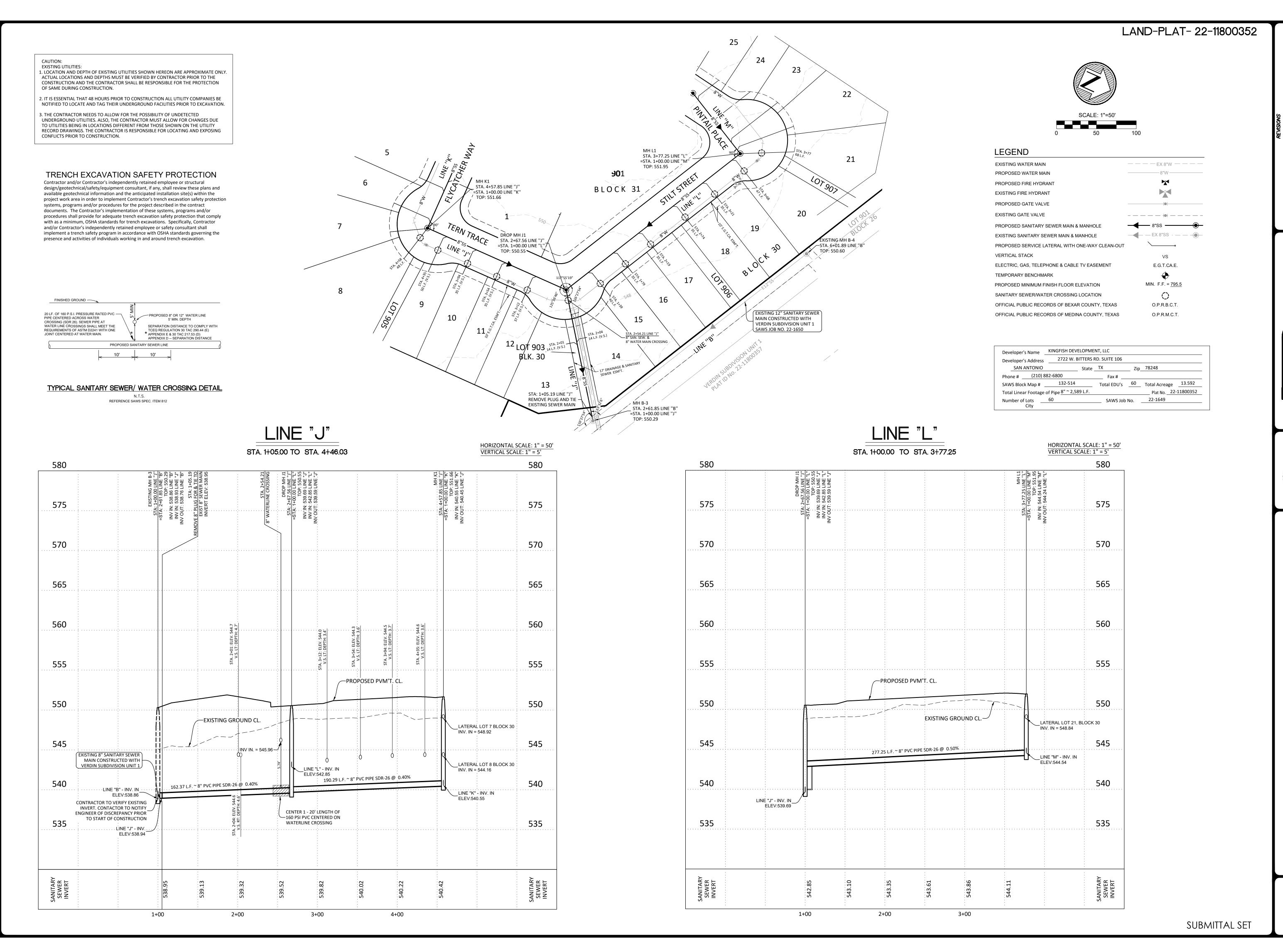
TRENCH EXCAVATION SAFETY PROTECTION Contractor and/or Contractor's independently retained employee or structural

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Developer's Name _	KINGFISH DEVE	LOPME	NT, LLC			
Developer's Address	2722 W. B	ITTERS F	RD. SUITE 106			
City SAN ANTONIO		State	TX	Zip_	78248	
Phone #(210) 8	82-6800		Fax #			
SAWS Block Map # _	132-514		Total EDU's	60	Total Acreage	13.592
Total Linear Footage	of Pipe <u>8" ~ 2</u> ,	,589 L.F.			Plat No. 22-	11800352
Number of Lots	60		SAWS Job	No.	22-1649	

BEXAR COUNTY





NO. DATE

DESCRIPTION

PROJ. # DGN. BY: CHKD. BY: C

22092

Tarin Ramirez Engineers, I ENGINEERING F-5297/SURVEYING: F-101 IMARRON PATH, SUITE 100 TEL: (210) 698-

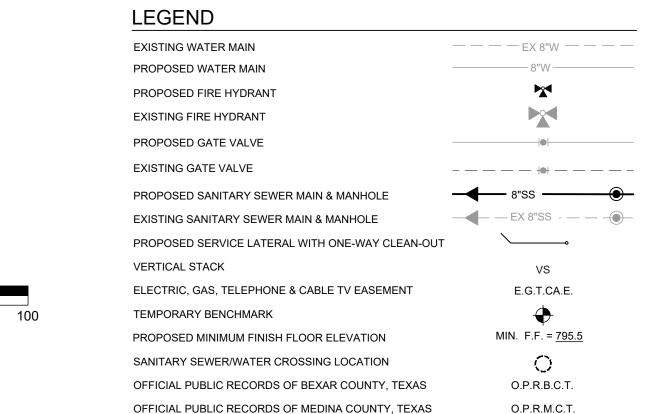
PAUL LANDA, JR.

100182

CENSE
SONAL ENGINE

SANITARY SEWER PLAN & PROFILILINE "J" & LINE "L"

SHEET



UNPLATTED KING FISH DEVELOPMENT, LLC 131.81 ACRE TRACT WARRANTY DEED WITH VENDOR'S LIEN DOCUMENT NUMBER 20220169411 O.P.R.B.C.T. DROP MH K2 50' DRAINAGE, SANITARY SEWER, WATER AND E.G.T.CA. ESM'T. =STA. 4+31.33 LINE "M" (5 1) TOP: 553.30 STA. 1+00.00 LINE "K" =STA. 4+57.85 LINE "J" TOP: 551.66 LINE "K" LINE "K" LINE "K" T01 FLYCATCHER WAY 89°41'36" 90°18'24" STA. 6+60.26 LINE "K"

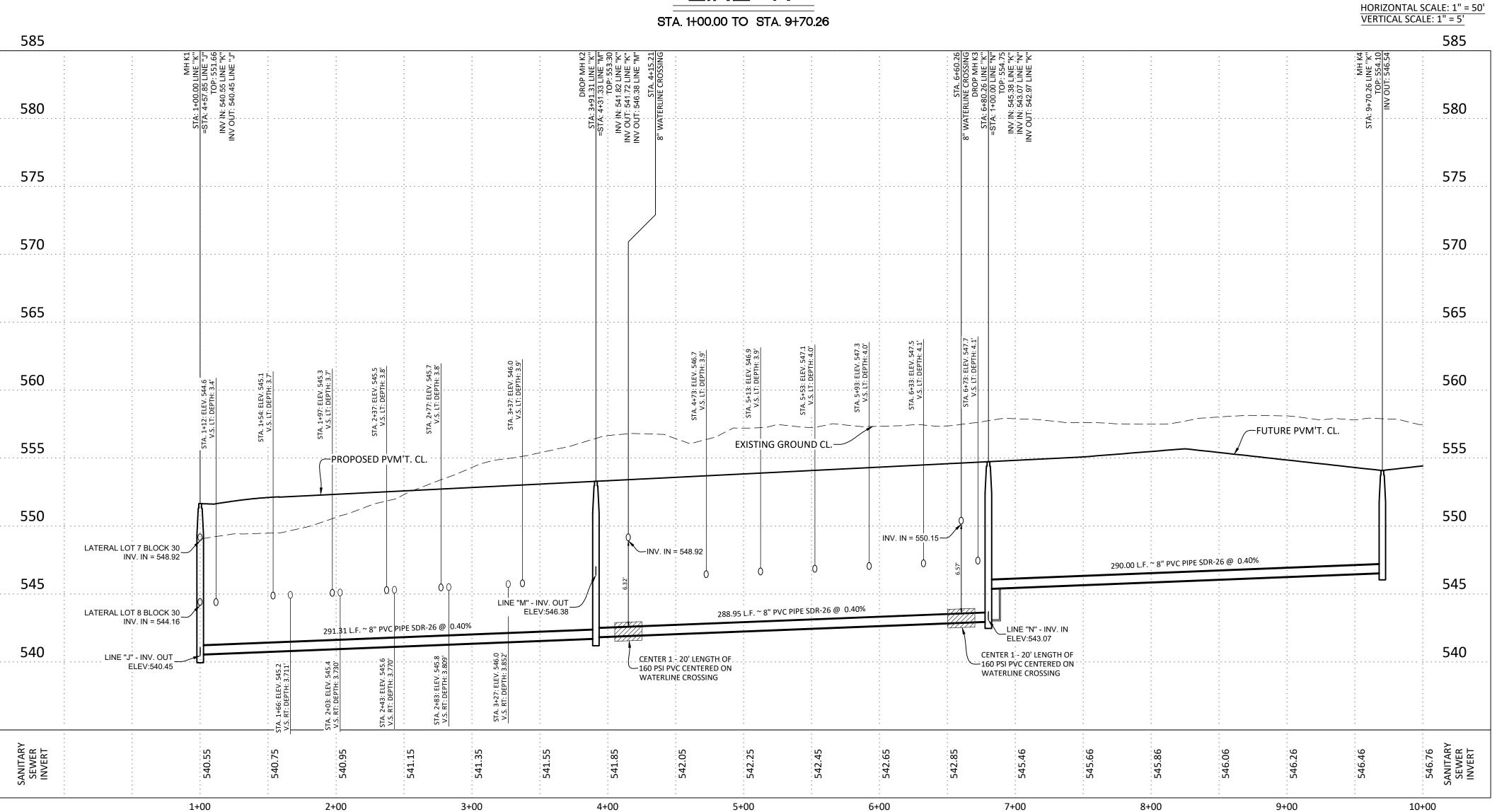
8" SAN. SEW. &

8" WATER MAIN CROSSING STA. 6+80.26 LINE "K" STA. 9+70.26 LINE "K" 31 =STA. 1+00.00 LINE "N" STA. 4+15.21 LINE "K" 8" SAN. SEW. & 8" WATER MAIN CROSSING TOP: 554.10 TOP: 554.75 10

LINE "K"

BLOCK 30

29



EXISTING UTILI

1. LOCATION AN

CONFLICTS PRIOR TO CONSTRUCTION.

UNPLATTED

KING FISH DEVELOPMENT, LLC 131.81 ACRE TRACT | | WARRANTY DEED WITH VENDOR'S LIEN DOCUMENT NUMBER 20220169411

O.P.R.B.C.T.

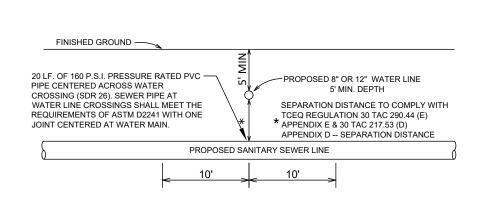
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2. IT IS ESSENTIAL THAT 48 HOURS PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES BE NOTIFIED TO LOCATE AND TAG THEIR UNDERGROUND FACILITIES PRIOR TO EXCAVATION.

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

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.



TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

N.T.S. REFERENCE SAWS SPEC. ITEM 812

Developer's Name	KINGFISH DEVE	LOPME	NT, LLC			
Developer's Address	2722 W. B	ITTERS F	RD. SUITE 106			
SAN ANTONIO		State	TX	Zip_	78248	
Phone #(210) 8	82-6800		Fax #			
SAWS Block Map #	132-514		Total EDU's	60	Total Acreage	13.592
Total Linear Footage	of Pipe <u>8" ~ 2,58</u>	9 L.F.			Plat No. 22-	11800352
Number of Lots	60		SAWS Job	No.	22-1649	

SUBMITTAL SET

NO. DATE DESCRIPTION EYOU. # DGN. BY: DWN. BY: DATE

PAUL LANDA, JR.

100182

CENSE
ONAL ENGINE

EWER PLAN & PROFILE

ANITARY SEWER PLA LINE "K"

SHEET

C2.3

O.P.R.M.C.T.

CAUTION: EXISTING UTILITIES:

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

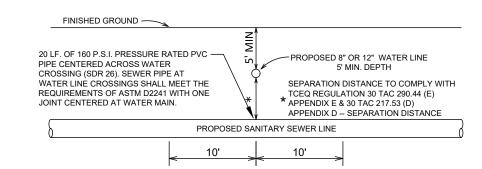
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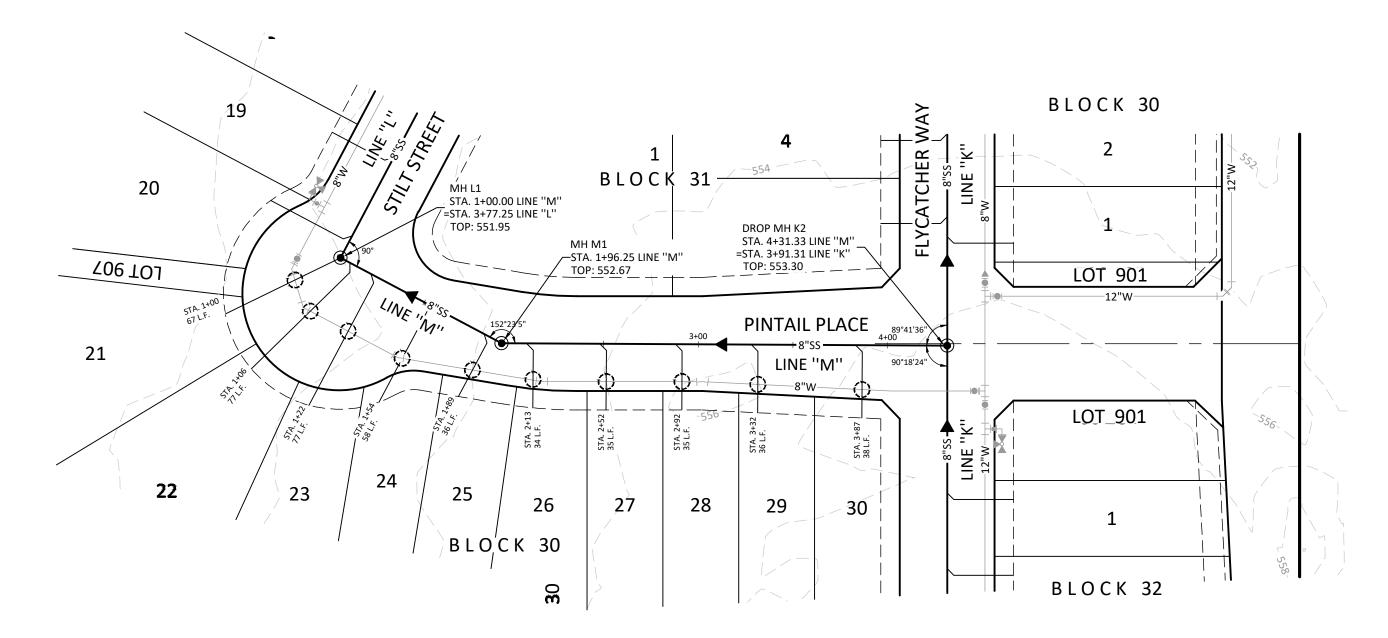
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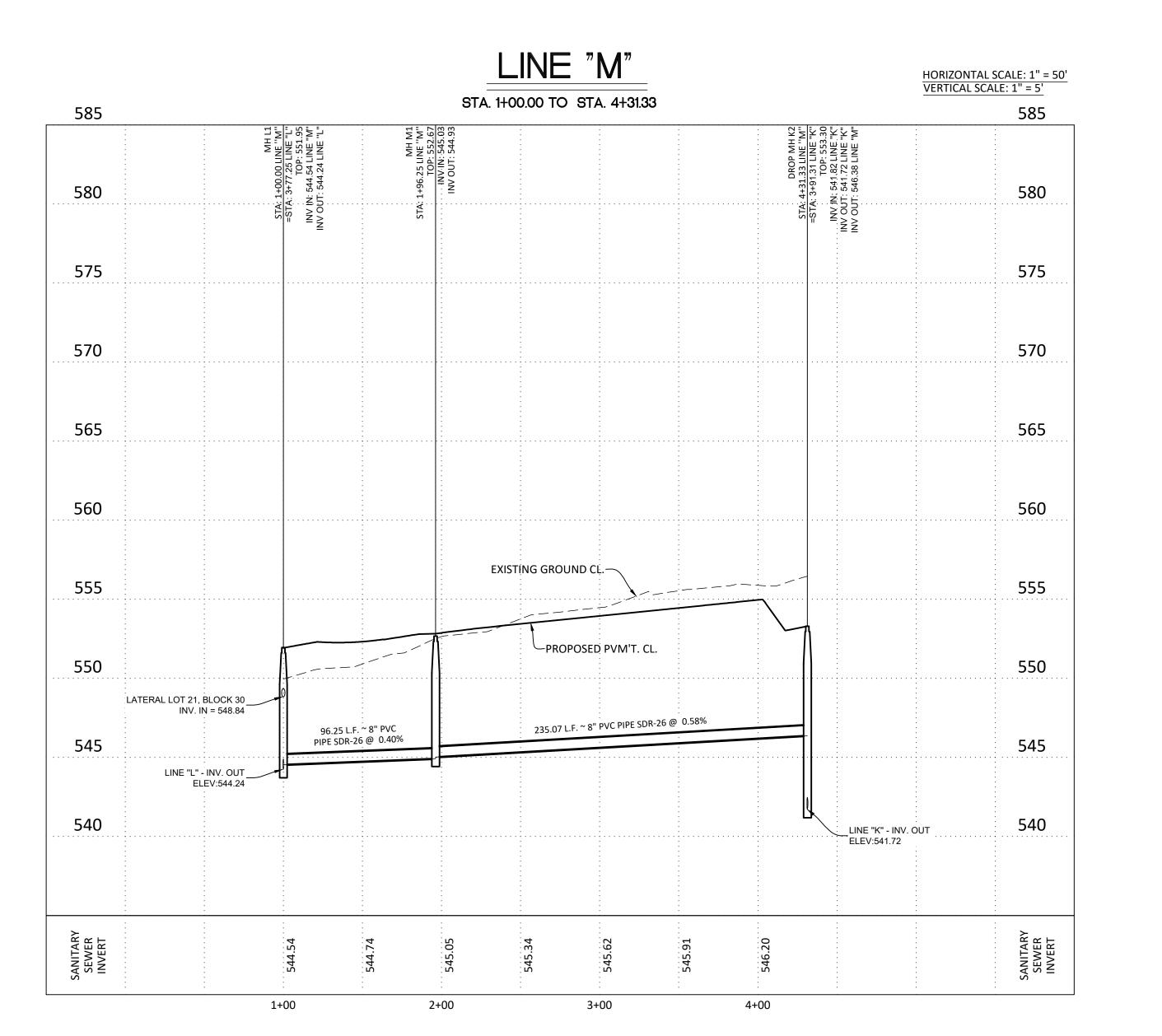
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TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

N.T.S. REFERENCE SAWS SPEC. ITEM 812





LEGEND

EXISTING WATER MAIN — — — EX 8"W — — — — PROPOSED WATER MAIN PROPOSED FIRE HYDRANT EXISTING FIRE HYDRANT PROPOSED GATE VALVE EXISTING GATE VALVE ----8"SS — PROPOSED SANITARY SEWER MAIN & MANHOLE — EX 8"SS - — — — EXISTING SANITARY SEWER MAIN & MANHOLE PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT VERTICAL STACK VS E.G.T.CA.E. ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT

VERTICAL STACK

ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT

TEMPORARY BENCHMARK

PROPOSED MINIMUM FINISH FLOOR ELEVATION

SANITARY SEWER/WATER CROSSING LOCATION

OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS

VS

E.G.T.CA.E.

MIN. F.F. = 795.5

O.P.R.B.C.T.

OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS

Developer's Name KINGFISH DEVELOPMENT, LLC

____ Fax # ____

SAWS Job No. <u>22-1649</u>

SAWS Block Map # 132-514 Total EDU's 60 Total Acreage 13.592

City SAN ANTONIO

Phone # (210) 882-6800

Number of Lots ____60

Total Linear Footage of Pipe 8" ~ 2,589 L.F.

ineers, LLC

YING: F-10131500

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

Moy Tarin Ramirez Eng.
TBPELS: ENGINEERING F-5297/SURVE.
12770 CIMARRON PATH, SUITE 100 TEL.
SAN ANTONIO, TEXAS 78249 FAX



UNIT 2

& PROFILE

SANITARY SEWER PLAN & PRC LINE "M"

SHEET

C2.4

__ Plat No. 22-11800352

O.P.R.M.C.T.

EXISTING UTILITIES:

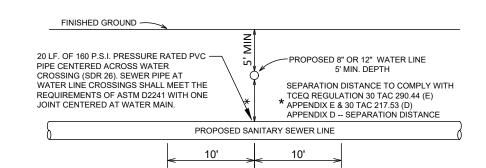
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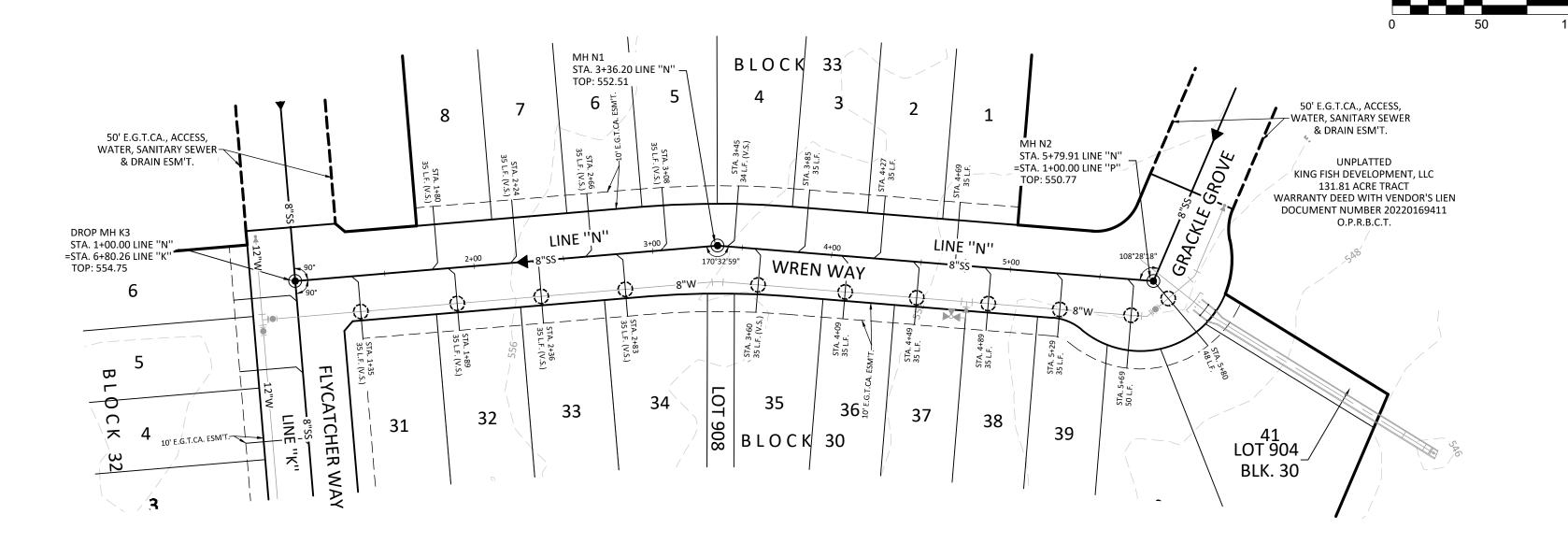
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TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

REFERENCE SAWS SPEC. ITEM 812



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

LEGEND

EXISTING WATER MAIN	— — EX 8"W — — —
PROPOSED WATER MAIN	8"W —
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	
EXISTING GATE VALVE	
PROPOSED SANITARY SEWER MAIN & MANHOLE	8"SS —
EXISTING SANITARY SEWER MAIN & MANHOLE	— EX 8"SS - — — —
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT	~
VERTICAL STACK	VS
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	E.G.T.CA.E.
TEMPORARY BENCHMARK	•
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = <u>795.5</u>
SANITARY SEWER/WATER CROSSING LOCATION	\Diamond
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.

OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS



PROFILE ∞ర

SEWER PLAN 8 SANITARY

C2.5

SHEET

STA. 1+00.00 TO STA. 5+79.91 STA: 1+C =STA: 6+E INV IN: 54 INV IN: 54 NV OUT: 54 575 575 570 570 565 565 560 560 555 555 EXISTING GROUND CL. 550 PROPOSED PVM'T. CL. 550 LATERAL LOT 41 BLOCK 30 INV. IN = 547.40 LINE "K" - INV. IN ELEV:545.38 243.71 L.F. ~ 8" PVC PIPE SDR-26 @ 0.40% 545 545 236.20 L.F. ~ 8" PVC PIPE SDR-26 @ 0.40% LINE "P" - INV. IN ELEV:545.19 LINE "K" - INV. OUT_ ELEV:542.97 540 540 STA. 2+36: ELEV. 546.0 V.S. RT: DEPTH: 1.8' 535 535

3+00

4+00

5+00

1+00

2+00

LINE "N"

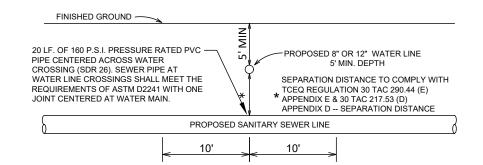
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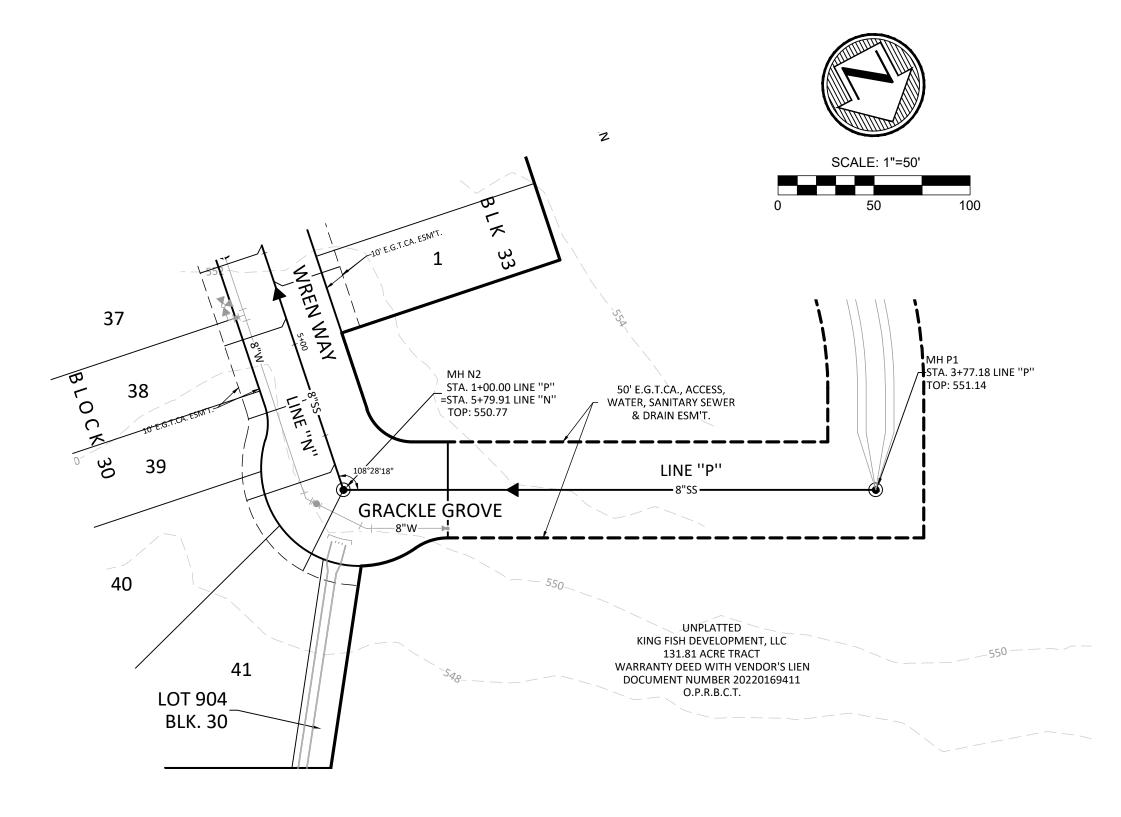
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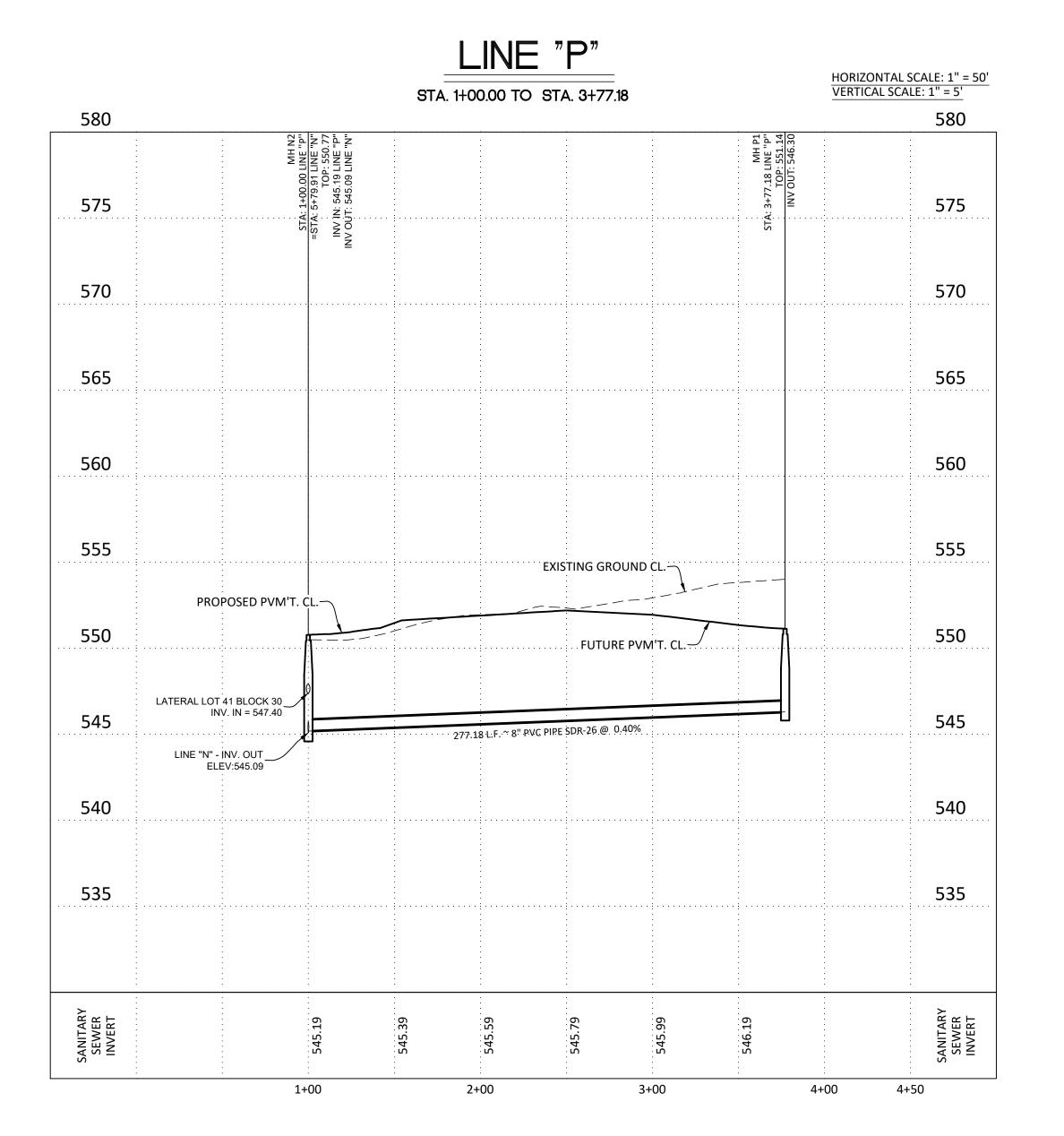
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TYPICAL SANITARY SEWER/ WATER CROSSING DETAIL

REFERENCE SAWS SPEC. ITEM 812





LEGEND

LLOLIND	
EXISTING WATER MAIN	———EX 8"W ———
PROPOSED WATER MAIN	8"W —
PROPOSED FIRE HYDRANT	
EXISTING FIRE HYDRANT	
PROPOSED GATE VALVE	•
EXISTING GATE VALVE	 •
PROPOSED SANITARY SEWER MAIN & MANHOLE	8"SS ————
EXISTING SANITARY SEWER MAIN & MANHOLE	— EX 8"SS - — — —
PROPOSED SERVICE LATERAL WITH ONE-WAY CLEAN-OUT	\
VERTICAL STACK	VS
ELECTRIC, GAS, TELEPHONE & CABLE TV EASEMENT	E.G.T.CA.E.
TEMPORARY BENCHMARK	+
PROPOSED MINIMUM FINISH FLOOR ELEVATION	MIN. F.F. = <u>795.5</u>
SANITARY SEWER/WATER CROSSING LOCATION	\circ
OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS	O.P.R.B.C.T.
OFFICIAL PUBLIC RECORDS OF MEDINA COUNTY, TEXAS	O.P.R.M.C.T.



PROFILE ∞ర SEWER |

SANITARY

SHEET

C2.6

Total EDU's 60 Total Acreage 13.592

SAWS Job No. 22-1649

__ Plat No. __22-11800352

Developer's Name KINGFISH DEVELOPMENT, LLC Developer's Address 2722 W. BITTERS RD. SUITE 106

City_SAN ANTONIO

Phone # ____(210) 882-6800

Number of Lots ____60

SAWS Block Map # 132-514

Total Linear Footage of Pipe 8" ~ 2,589 L.F.

All concrete used for thrust blocking shall have a minimum concrete strength of 3,000 psi

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

TYPICAL THRUST BLOCKS

(SEWER ONLY)

March 2008

DD-839-03

AUG 2019

with TCEQ Capter 217.

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

GO, NO GO DEFLECTION

TESTING MANDREL CHART

March 2008

DD-849-01

December 2019

: January 30, 2025 User ID: Donald McCroskey er Tract\Unit 2\prawings\22092_C2.7~Sewer Details.dwg

Soil

SANITARY SEWER PIPE

LAID IN TRENCH

The Existing Material at the Bearing Level shall be Removed and Replaced to a Minimum Depth of 6-Inches or $\frac{1}{2}$ 6 of the Outside Diameter of the Pipe, whichever is greater, with Bedding Material.

* Sewer Gravel 6" Min. or ½ O.D. of the Pipe, whichever is greater. ** Minimum 2" HMAC Type "D" for Trench Repair in Local/Residential Streets.

Minimum 3" HMAC Type "C" for Trench Repair in Collector/Arterial Streets.

In Areas of over Excavation, Encasement shall extend from Trench Wall. Pay Limits shall not Exceed 12" Max. as shown on Detail. Additional

ncasement shall be incidental.

PROPERTY OF

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

─ Bedding Soil

MARCH 2008

DD-804-01

Base (A.T.B.)

AUG 2019
SHEET

Trim Ends of Angles to Fit

All Mandrels must be Approved by SAWS Construction Inspection

Dept. and Stamped before Use.

PROPERTY OF

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

Weld Together –

END VIEW

GO, NO GO DEFLECTION

TESTING MANDREL

March 2008

DD-849-01

December 2019

SUBMITTAL SET

AL SET C

PAUL LANDA, JR.

100182

TAIL

S

AR

ANIT

SHEET

LAND-PLAT- 22-11800352

(210) 882-6800

SHEET INDEX

SHEET NO. TITLE

WATER COVER & NOTES OVERALL WATER PLAN SAWS WATER DETAILS SAWS WATER DETAILS

ITEM	DESCRIPTION	UNIT	EST/QTY
1	12" WATER MAIN TIE-IN	L.S.	1
2	TRENCH EXCAVATION PROTECTION	L.F.	2,686
3	12" PIPE, C900 DR 18 PVC CLASS 235 (INCL. RESTRAINTS)	L.F.	928
4	8" PIPE, C900 DR 18 PVC CLASS 235 (INCL. RESTRAINTS)	L.F.	1,758
5	12" GATE VALVE, M.J.	EA.	4
6	8" GATE VALVE, M.J.	EA.	6
7	STANDARD FIRE HYDRANT (COMPLETE)	EA.	3
8	2" PERMANENT BLOW-OFF	EA.	2
9	2" TEMPORARY BLOW-OFF	EA.	1
10	3/4" IRRIGATION SERVICE: LONG	EA.	1
11	3/4" SINGLE SERVICE: SHORT	EA.	41
12	3/4" SINGLE SERVICE: LONG	EA.	19
13	D.I. FITTINGS (RESTRAINED)	TON	1.7
14	HYDROSTATIC TESTING	EA.	1
15	12"x16"CUT-IN TEE	EA.	1
16	METER BOXES	EA.	61

THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT

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

TXDOT PERMIT NO. SAT20221017153623

DDECCLIDE ZONE 3

Developer's Name	KINGFISH DEV	ELOPMENT, LLC			
Developer's Address	2722 W. E	BITTERS RD. SUITE 1	06		
City SAN ANTONIO		State TX	Zip_	78248	
Phone #(210) 8	82-6800	Fax #	ŧ		
SAWS Block Map #	132-514	Total ED	U's <u>61</u>	Total Acreage	13.578
Total Linear Footage	of Pipe8" ~	1,758 L.F 12" ~ 9	28 L.F.	Plat No. 22-	11800352
Niconale au a Ciliana	60	C A \ A / C	Lab Na	22-1155	

ESTIMATED WATER QUANTITIES

ITEM	DESCRIPTION	UNIT	EST/QTY
1	12" WATER MAIN TIE-IN	L.S.	1
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15	12"x16"CUT-IN TEE	EA.	1
16	METER BOXES	EA.	61

BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCT BANKS, LANDSCAPE IRRIGATION 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

governing the presence and activities of individuals working in and around trench excavation.

Developer's Name	KINGFISH DEVI	ELOPMEN	T, LLC			
Developer's Address	2722 W. B	ITTERS RE	D. SUITE 106			
City SAN ANTONIO		State	TX	Zip_	78248	
Phone #(210) 8	82-6800		Fax #			
SAWS Block Map #	132-514		Total EDU's	61	Total Acreag	e 13.578
Total Linear Footage	of Pipe8" ~	1,758 L.F.	- 12" ~ 928 L	.F.	Plat No	22-11800352
Number of Lots	60		SAWS Job	No.	22-1155	

SAWS CONSTRUCTION NOTES COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT

General Section

- 1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable: A. Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1
- B. Current TXDOT "Standard Specifications for Construction of Highways, Streets and Drainage".
- C. Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction". D. Current City of San Antonio "Standard Specifications for Public Works Construction".
- E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
- 2. The contractor shall not proceed with any pipe installation work until they obtain a copy of the approved Counter Permit or General Construction Permit (GCP) from the consultant and has been notified by SAWS Construction Inspection Division to proceed with the work and has arranged a meeting with the inspector and consultant for the work requirements. Work completed by the contractor without an approved Counter Permit and/or a GCP will be subject to removal and replacement at the expense of the contractors and/or the developer.
- 3. The Contractor shall obtain the SAWS Standard Details from the SAWS website,
- http://www.saws.org/business center/specs. Unless otherwise noted within the design plans.
- 4. The Contractor is to make arrangements with the SAWS Construction Inspection Division at (210) 233-2973, on notification procedures that will be used to notify affected home residents and/or property owners hours prior to beginning any work.
- 5. Location and depth of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor at least 1 week prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction at no cost to SAWS.
- 6. The Contractor shall verify the exact location of underground utilities and drainage structures at least 1-2 weeks prior to construction whether shown on plans or not. Please allow up to 7 business days for locates requesting pipe location
- markers on SAWS facilities. The following contact information are supplied for verification purposes: SAWS Utility Locates: http://www.saws.org/Service/Locates
- COSA Drainage (210) 207-0724 or (210) 207-6026
- COSA Traffic Signal Operations (210) 206-8480 COSA Traffic Signal Damages (210) 207-3951
- Texas State Wide One Call Locator 1-800-545-6005 or 811
- 7. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways, sidewalks, landscaping and structures to its original or better condition if damages are made as a result of the project's construction.
- 8. All work in Texas Department of Transportation (TxDOT) and/or Bexar County right-of-way shall be done in accordance with respective construction specifications and permit requirements. 9. The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating
- 10. The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood
- Plain Permit. 11. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays. Request should be
- 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
- 12. Compaction note (Item 804): The contractor shall be responsible for meeting the compaction requirements on all trench backfill and for paying for the tests performed by a third party. Compaction tests will be done at one location point randomly selected, or as indicated by the SAWS Inspector and/or the test administrator, per each 12-inch loose lift per 400 linear feet at a minimum. This project will not be accepted and finalized by SAWS without this requirement being met and
- verified by providing all necessary documented test results. 13. A copy of all testing reports shall be forwarded to SAWS Construction Inspection Division.

Water Section

- 1. Prior to tie-ins, any shutdowns of existing mains of any size must be coordinated with the SAWS Construction Inspection Division at least one week in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly.
- For water mains 12" or higher: SAWS Emergency Operations Center (210) 233-2014 2. Asbestos Cement (AC) pipe, also known as transite pipe which is known to contain asbestos- containing material (ACM),
- applicable when removal and/or disturbance of this pipe occurs. Such work is to be made under Special Specification Item No. 3000, "Special Specification for Handling Asbestos Cement Pipe". 3. Valve removal: Where the contractor is to abandon a water main, the control valve located on the abandoning branch will be removed and replaced with a cap/plug. (NSPI)

may be located within the project limits. Special waste management procedures and health and safety requirements will be

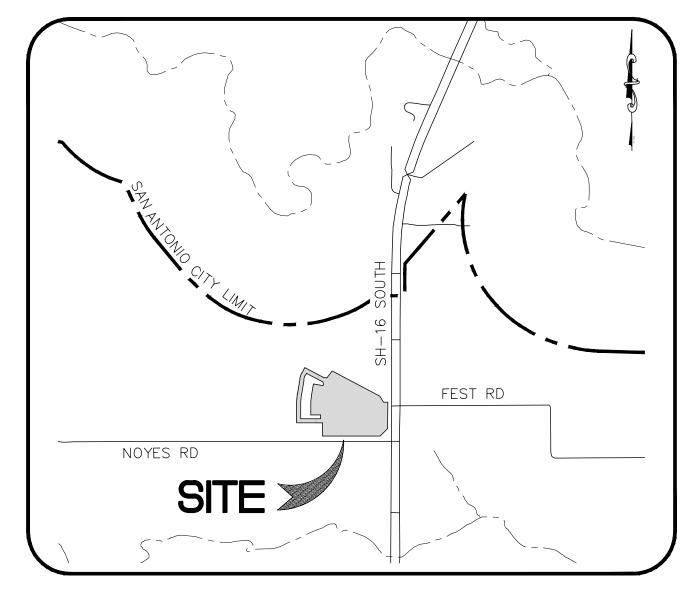
- 4. Suitable anchorage/thrust blocking or joint restraint shall be provided at all of the following main locations: dead ends, plugs, caps, tees, crosses, valves, and bends, in accordance with the Standard Drawings DD-839 Series and Item No. 839, in
- 5. All valves shall read "open right". 6. PRVs Required: Contractor to verify that no portion of the tract is below ground elevation of 565 feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below 565 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.

the SAWS Standard Specifications for Construction.

8. Backflow Prevention Devices:

- *Note: A pressure regulator is also known as a pressure reducing valve (PRV). 7. Pipe Disinfection with Dry HTH for Projects less than 800 linear feet. (Item No. 847.3): Mains shall be disinfected with dry HTH where shown in the contract documents or as directed by the Inspector, and shall not exceed a total length of 800 feet. This method of disinfection will also be followed for main repairs. The Contractor shall utilize all appropriate safety measure to protect his personnel during disinfection operations.
- All irrigation services within residential areas are required to have backflow prevention devices.
- All commercial backflow prevention devices must be approved by SAWS prior to installation. 9. Final connection to the existing water main shall not be made until the water main has been pressure tested, chlorinated, and SAWS has released the main for tie-in and use.
- 10. 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.

VERDIN SUBDIVISION, UNIT 2 WATER IMPROVEMENTS



VICINITY MAP

SUBMITTAL DATE:



LEGAL DESCRIPTION:

BEING A TOTAL OF 13.578 ACRES, INCLUSIVE OF A 0.675 OF AN ACRE VARIABLE WIDTH RIGHT OF WAY DEDICATION, SITUATED IN THE RUFENO RODRIGUEZ SURVEY NO. 49, ABSTRACT NO. 613, COUNTY BLOCK NO. 4202, BEING A PORTION OF A 131.81 ACRE TRACT AS CONVEYED TO KING FISH DEVELOPMENT, LLC BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN DOCUMENT NUMBER 20220169411, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS.

TRAFFIC CONTROL NOTE:

NOTE TO CONTRACTOR:

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 MAINTÁIN 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.

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

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

THE CONTRACTOR SHALL CONTACT EACH INDIVIDUAL UTILITY. FOR ASSISTANCE IN DETERMINING

RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED.

EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.

SUBCONTRACTORS' AND MATERIAL SUPPLIERS' KNOWLEDGE, ALL MATERIALS AND PRODUCTS

MISCELLANEOUS GENERAL NOTES

- 1. 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.
- 2. JUMPER CONNECTIONS TO EXISTING WATER SERVICE TO BE PROVIDED AS REQUIRED OR DIRECTED BY THE SAWS INSPECTOR.
- 3. ALL MAINS ARE ON-SITE.
- 4. FITTINGS WEIGHT IS BASED ON M.J. DUCTILE IRON FITTINGS (COMPACT).
- 5. 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

Moy Tarin Ramirez Engineers, LLC

PAUL LANDA, JR.

100182

FIRM TBPELS ENG F-5297 SVY F-10131500 12770 CIMARRON PATH, SUITE 100 TEL: (210) 698-5051

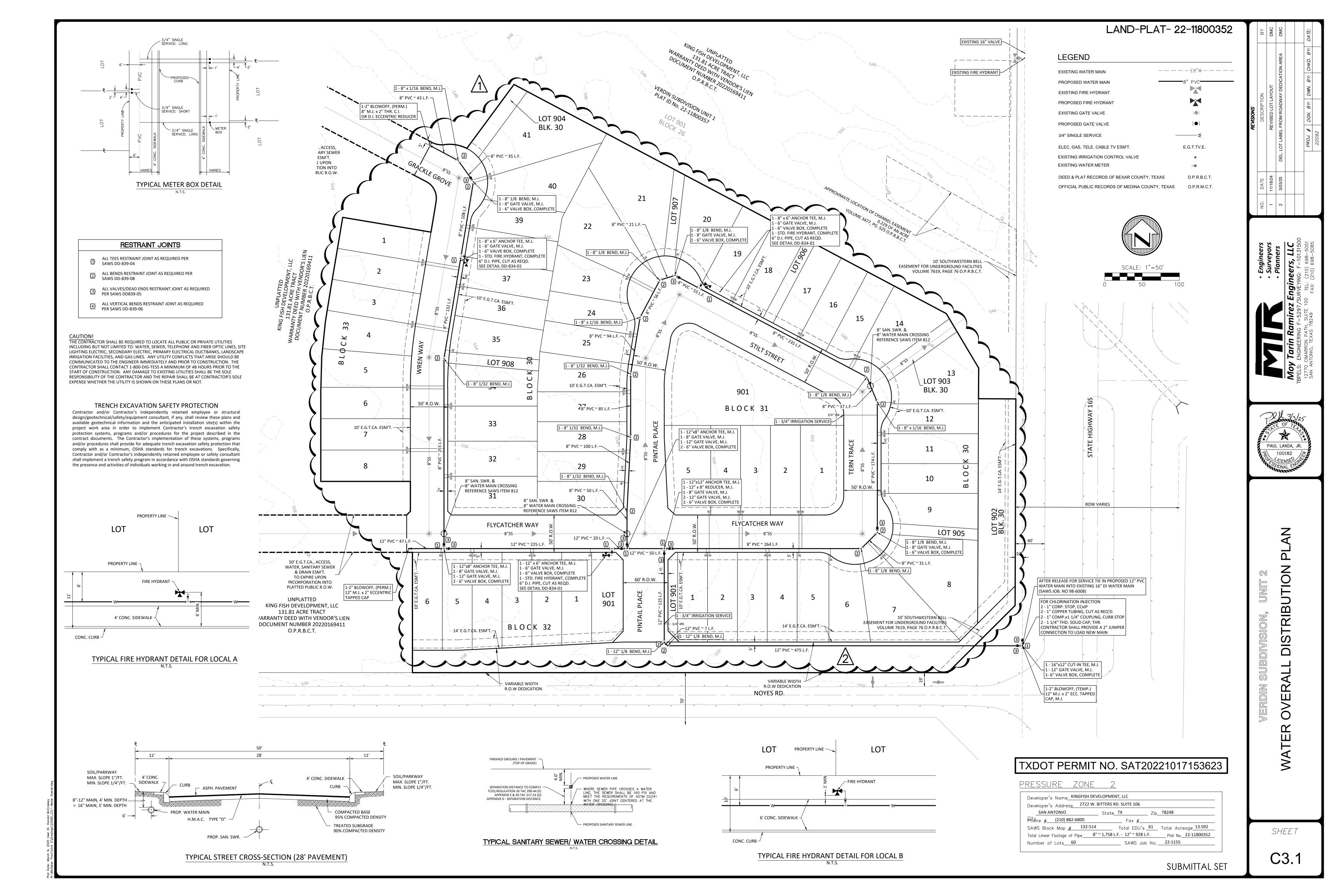
SAN ANTONIO, TEXAS 78249 FAX: (210) 698-5085

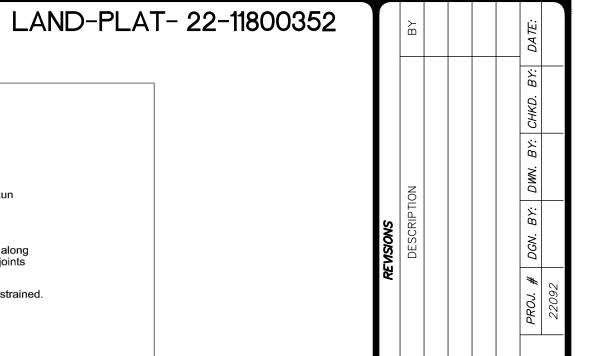
BEXAR COUNTY

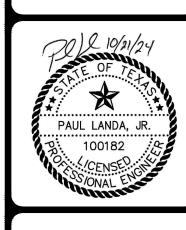
THIS DEVELOPMENT IS ENTIRELY IN PRESSURE ZONE 2

FIRE HYDRANT LEAD FREE NOTE: "SAWS REQUIRES GCPS AND COUNTER PERMITS TO USE LEAD FREE (<25% LEAD) FIRE HYDRANTS."

SUBMITTAL SET TEXAS C3.0



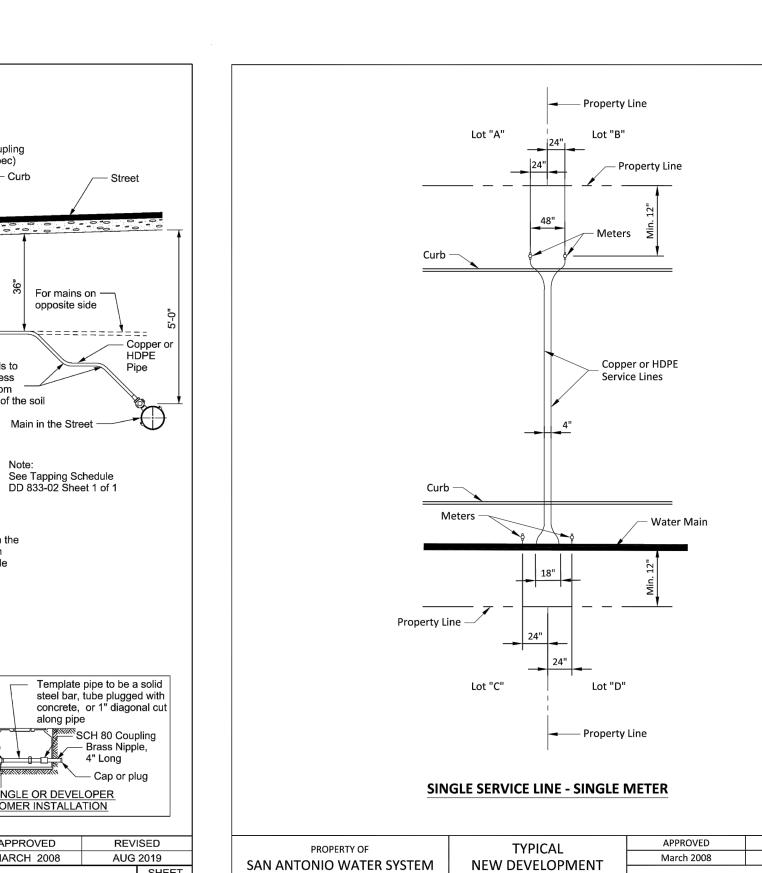




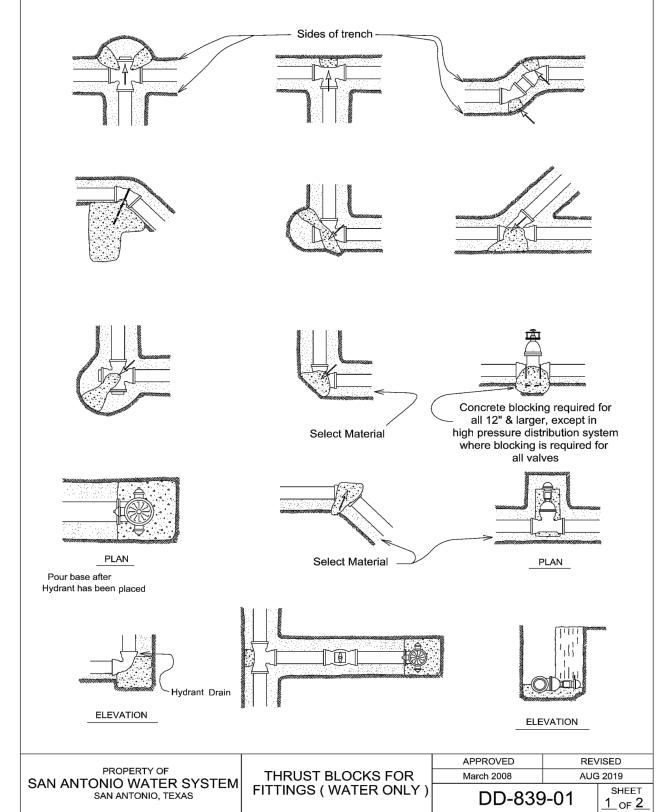


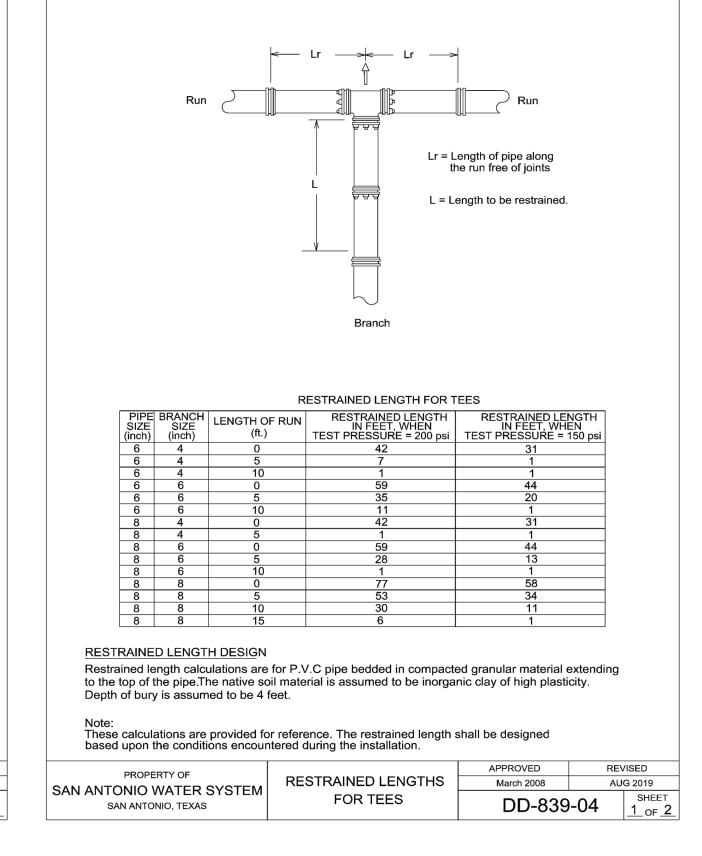
SHEET

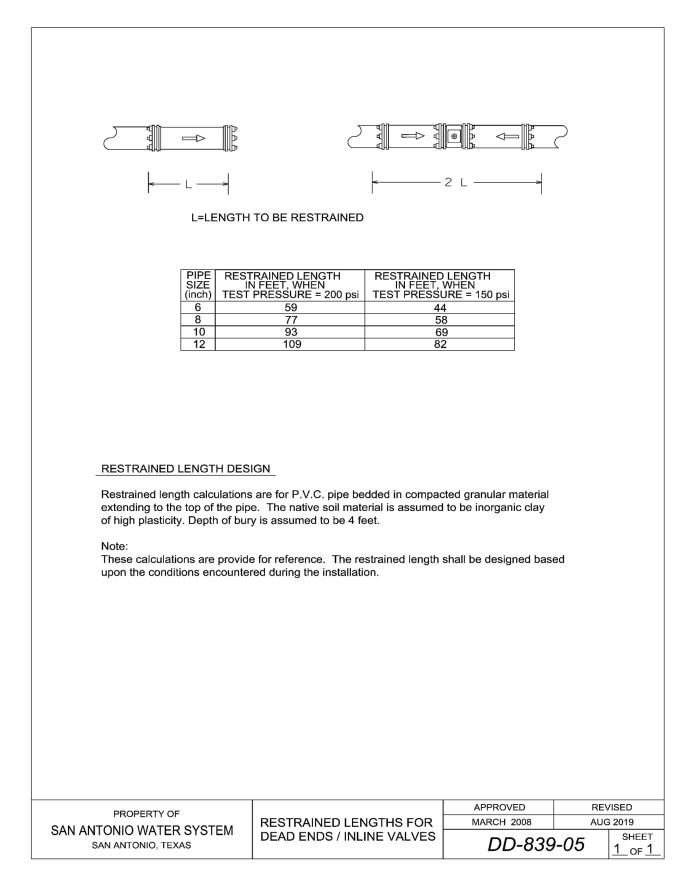




SAN ANTONIO, TEXAS







Sch 80 PVC Coupling (See Material Spec)

Insert bends to

movement of the soil

prevent stress resulting from

— For main in the

street or on oppisite side

METER / METER BOX SCHEDULE

Meter Size Meter Box
Sul 3/10 41 Plastic Oval, SAWS Material

Specification 10-30

Specification 10-30 #2 Cast Iron, SAWS Material

Angle Stop

COPPER or HDPE

SERVICE INSTALLATION

MAIN in TERRACE

or IMPROVED STREET

(Ball-Type Only)

Cut-Off Valve

%", **¾**" & 1"

1½" & 2"

Main in Terrace —

Improved Street

Cut-Off Valve

IMPROVED STREET 5/8" THRU 1" SERVICE

Insulation Coupling Component 579 - 3/4" 1580 - 1"

PROPERTY OF

SAN ANTONIO WATER SYSTEM

SAN ANTONIO, TEXAS

For mains on ─┐ opposite side

Main in the Street -

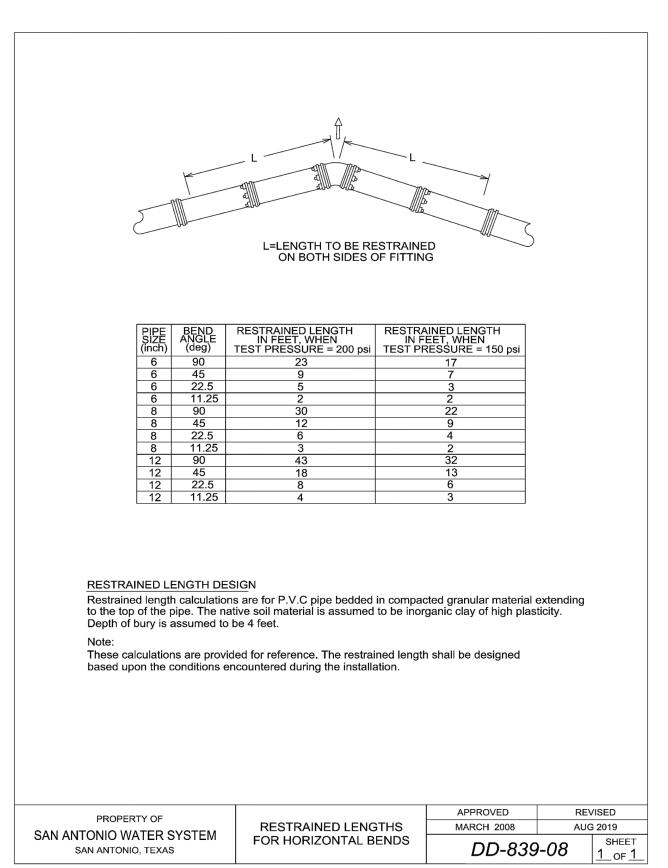
See Tapping Schedule DD 833-02 Sheet 1 of 1

along pipe

NEW SINGLE OR DEVELOPER
CUSTOMER INSTALLATION

MARCH 2008

DD-824-01



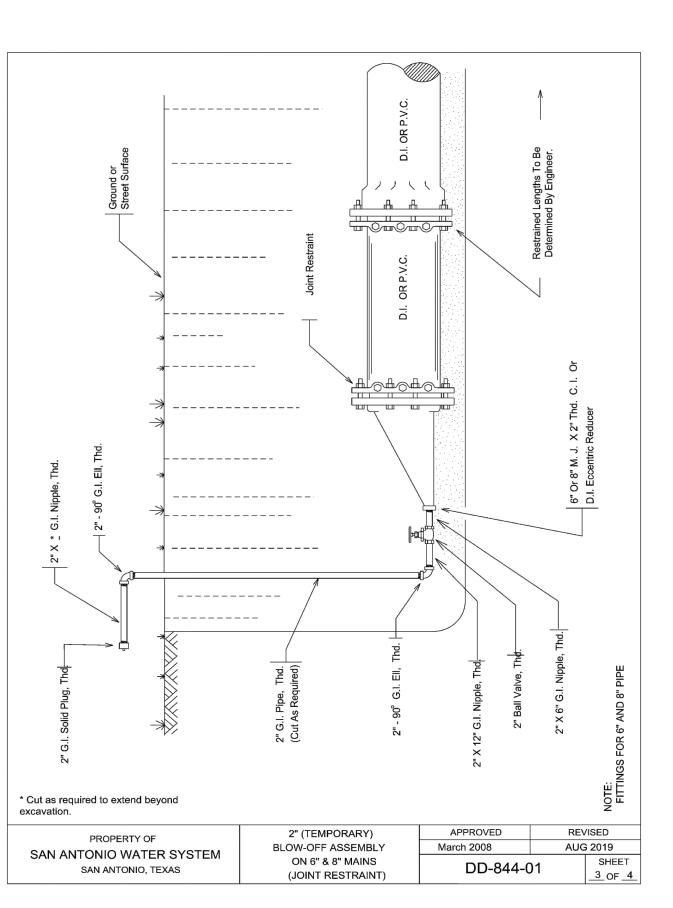
SERVICE ARRANGEMENT

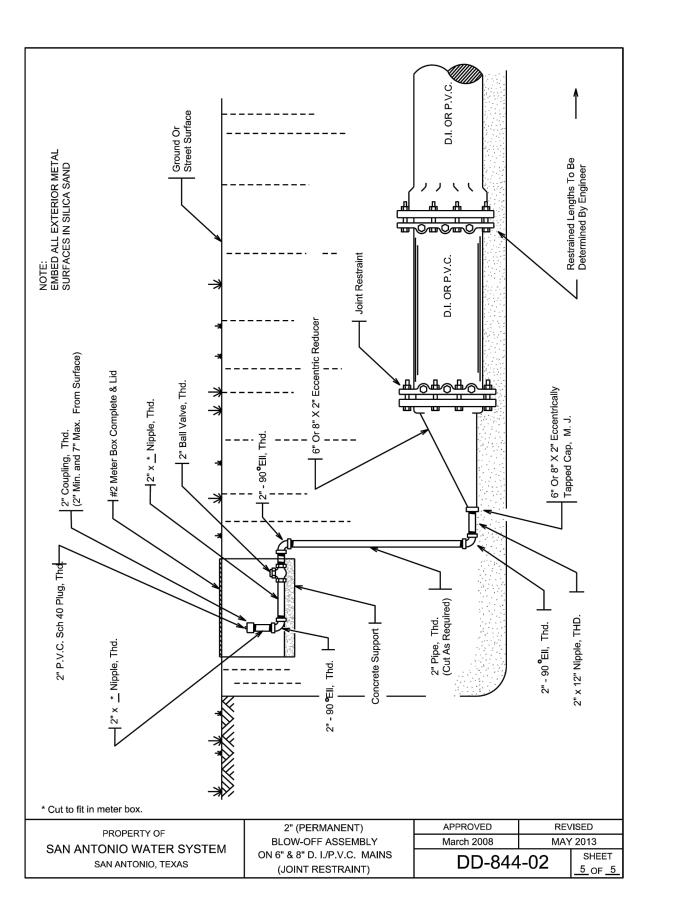
REVISED

December 2018

<u>1</u> OF <u>3</u>

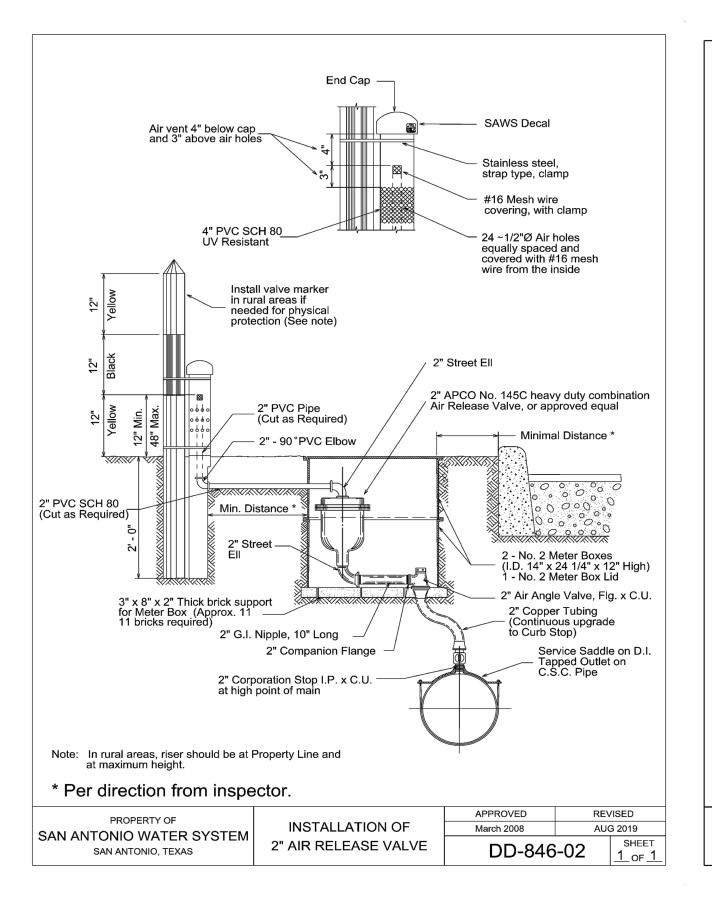
DD-824-05

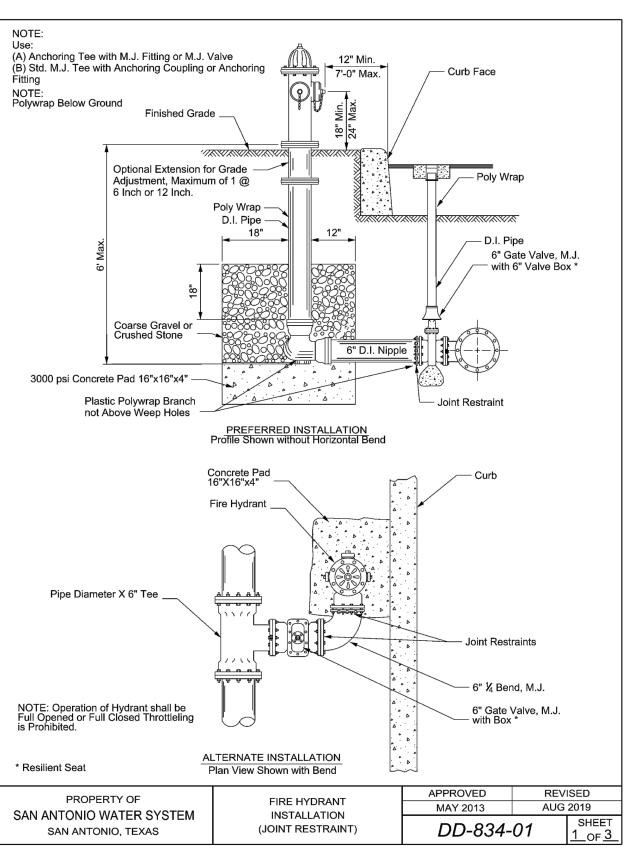


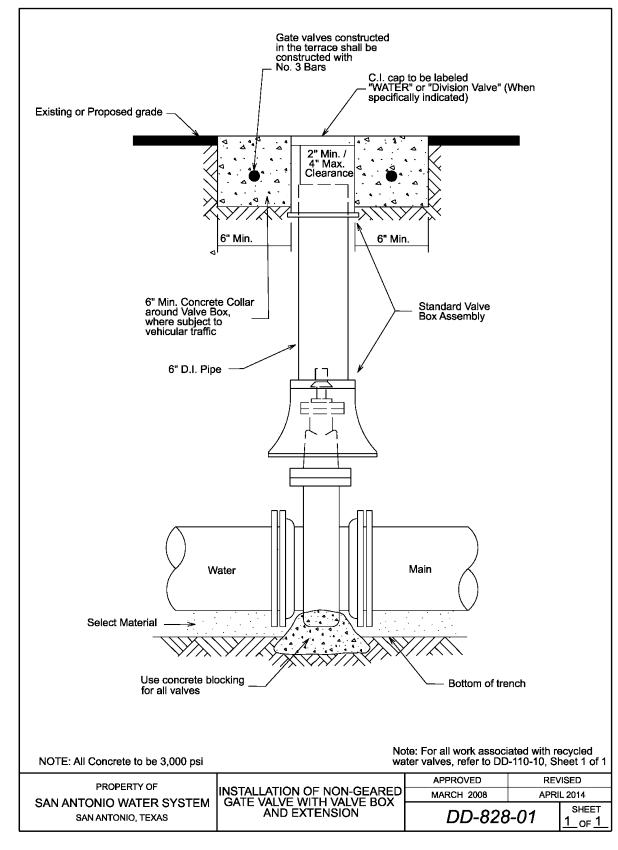


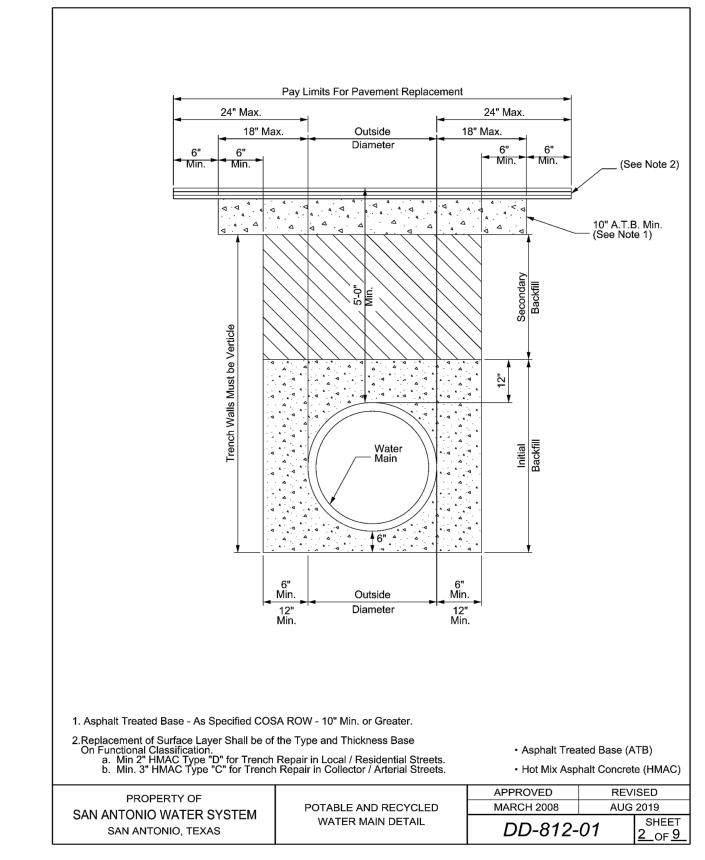
TXDOT PERMIT NO. SAT20221017153623

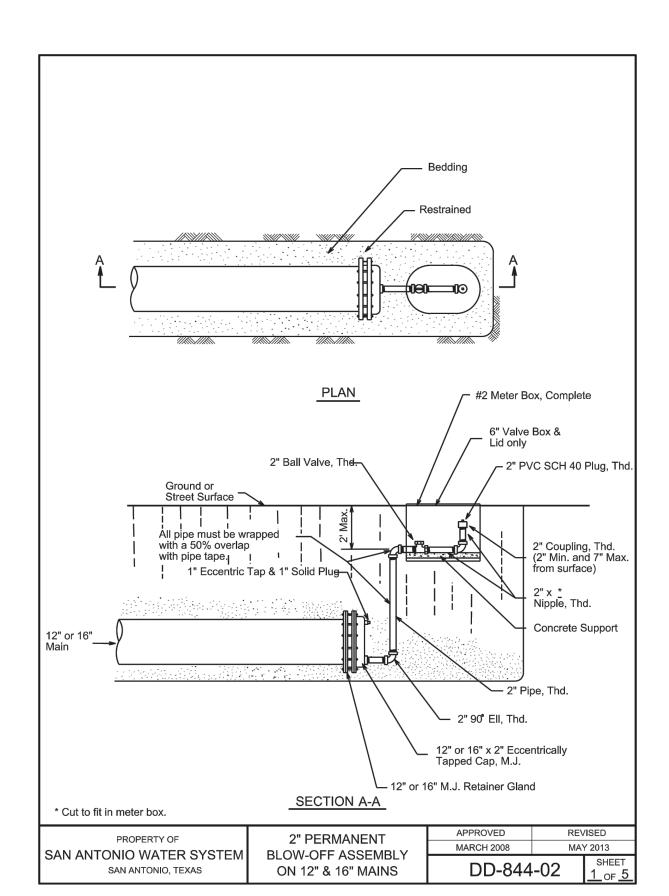
Developer's Name_KINGFISH	H DEVELOPME	NT, LLC			
Developer's Address 272)6		
City SAN ANTONIO				78248	
Phone # (210) 882-6800		Fax	#		
SAWS Block Map # 132	-514	Total ED	oU's 61	Total Acr	eage_13.578
Total Linear Footage of Pipe	8" ~ 1,758 l	L.F 12" ~ 9	928 L.F.	Plat No	22-11800352
Number of Lots 60		SAWS	Job No.	22-1155	

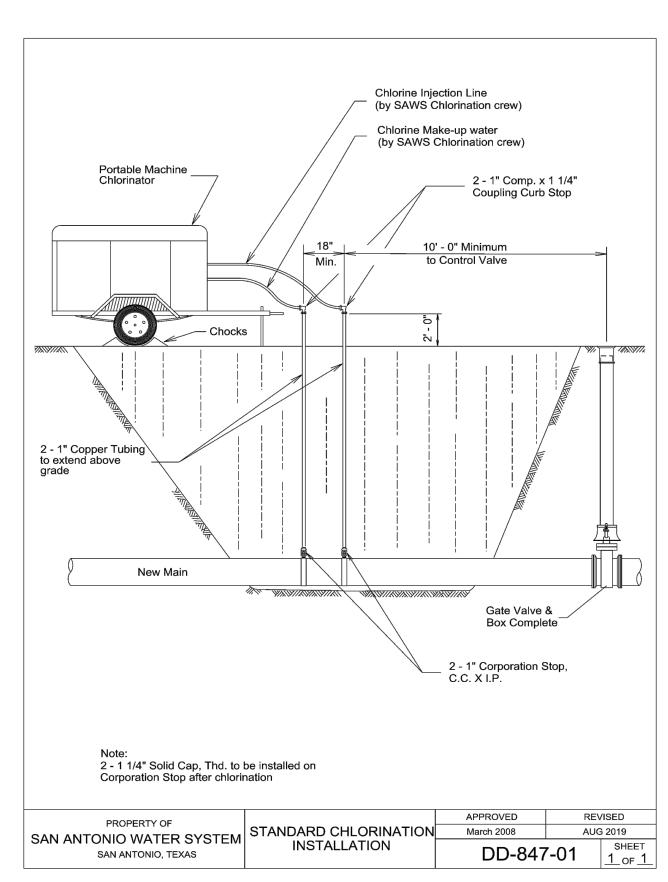


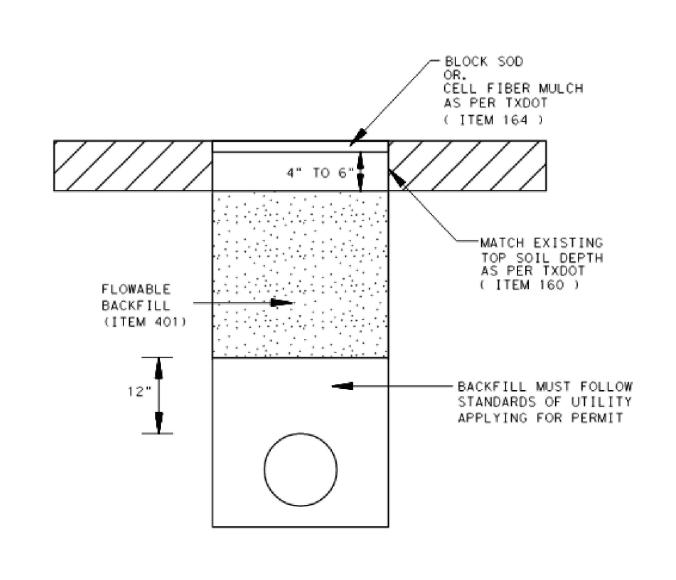












TRENCH DETAIL (NON PAVEMENT) LESS THAN OR EQUAL TO 10' FROM CURB/OR EDGE OF PAVEMENT TRENCH DETAIL (NON PAVEMENT)

MORE THAN 10' FROM

CURB/OR EDGE OF PAVEMENT

4" TO 6"

EMBANKMENT

(ORD COMP)

ITEM 132 ---

(TY B) (FINAL)

12"

NOTES:

• PIPE 24" OR LESS USE 1' FROM O/D OF PIPE TO EXCAVATED WALLS
• PIPE 24" OR GREATER USE 2' FROM O/D OF PIPE TO EXCAVATED WALLS

TX-DOT SAN ANTONIO DISTRICT
TRENCH BACKFILL DETAIL
NON PAVEMENT

TXDOT PERMIT NO. SAT20221017153623

Developer's Name KINGFISH DEVELOPMENT, LLC

Developer's Address 2722 W. BITTERS RD. SUITE 106

City SAN ANTONIO State TX Zip 782

Phone # (210) 882-6800 Fax #

- BLOCK SOD

CELL FIBER MULCH

-MATCH EXISTING

TOP SOIL DEPTH AS PER TXDOT

BACKFILL MUST FOLLOW

STANDARDS OF UTILITY

APPLYING FOR PERMIT

(ITEM 160)

AS PER TXDOT

(ITEM 164)

 Developer's Address
 2722 W. BITTERS RD. SUITE 106

 City SAN ANTONIO
 State
 TX
 Zip
 78248

 Phone #
 (210) 882-6800
 Fax #

 SAWS Block Map #
 132-514
 Total EDU's 61
 Total Acreage 13.578

 Total Linear Footage of Pipe
 8" ~ 1,758 L.F. - 12" ~ 928 L.F.
 Plat No. 22-11800352

 Number of Lots
 60
 SAWS Job No.
 22-1155

SUBMITTAL SET

NO. DATE DESCRIPTION B

NO. DATE

NO. DATE

DESCRIPTION

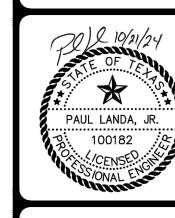
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22092

DESCRIPTION

DES

* Surve * Surve * Surve * Surve * Flann * Plann * Flann * Flan



WATER DETAILS

SHEET

C3.3

MOY TARIN RAMIREZ ENGINEERS, LLC. 12770 CIMARRON PATH, SUITE 100

OWNER/DEVELOPER

SUBMITTED BY:

SAN ANTONIO, TEXAS 78249

KINGFISH DEVELOPMENT, LLC

SAN ANTONIO, TX 78248

(210) 882-6800

2722 W. BITTERS RD. SUITE 106

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

CONSTRUCTION PLANS FOR

NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE TO THE CITY OF SAN ANTONIO SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- 2. ALL CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF SAN ANTONIO.
- 3. 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, 7100

SAN ANTONIO WATER SYSTEM
TELE. NO.: 210-704-7109
TEXAS STATE WIDE ONE CALL LOCATOR
CITY PUBLIC SERVICE

AT&T TIME WARNER CABLE

- 4. 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.
- 5. THE CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT THE TELEPHONE COMPANY DURING CONSTRUCTION.
- 6. 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).
- 7. 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
- 8. CONTRACTOR TO COORDINATE CONCRETE CURB DEPRESSIONS WITH THE DEVELOPER (NO SEPARATE PAY ITEM).

STRUCTURAL STEEL: CONFORM TO A.S.T.M. A-36

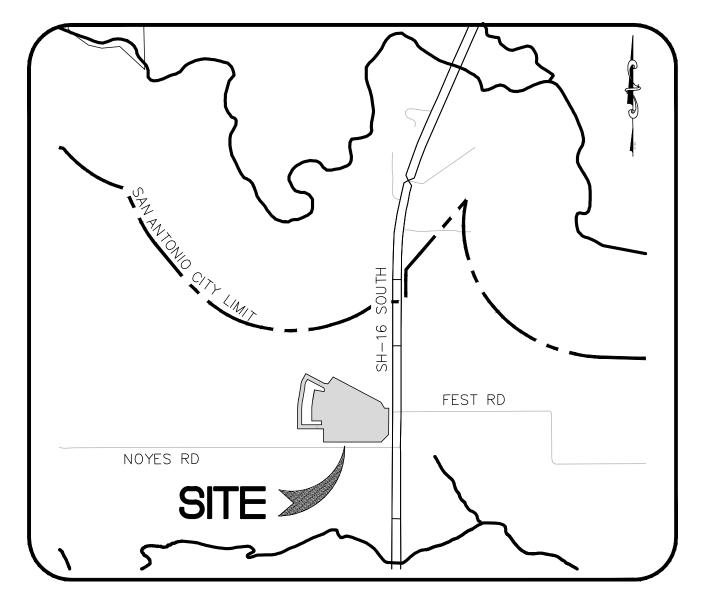
- 9. TRANSITION TO/FROM WASHOUT CROWNS IN TWENTY-FIVE FEET (25').
- 10. IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SUBGRADE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CHANNEL IS ACCEPTED FOR MAINTENANCE. REFER TO THE CITY OF SAN ANTONIO UDC, APPENDIX H- STORM WATER DESIGN CRITERIA MANUAL, CHAPTER 16.2.1 -GRASSES. NO EXTRA PAY ITEM.

LEGEND

FLOW ARROW

LEGEND	
CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWAL PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS.	к. 1
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE)	A
SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL)	B
SIDEWALK WHEELCHAIR RAMP - TYPE II	©
EXISTING TOP OF CURB ELEVATION	805.81TC
PROPOSED TOP OF CURB ELEVATION	805.81
HOME BUILDER INSTALLED 4' SIDEWALK	
DEVELOPER INSTALLED 4' SIDEWALK	
EXISTING SIDEWALK	
SIDEWALK WHEEL CHAIR RAMP	10000000000000000000000000000000000000
WASH-OUT CROWN	
FILL @ 95% COMPACTION	
POSSIBLE DRIVEWAY LOCATION	
PROPERTY LINE -	
EXISTING CONTOUR	
PROPOSED CONTOUR -	1120
PROPOSED CONCRETE CURB =	

VERDIN SUBDIVISION, UNIT 2 STREET AND DRAINAGE IMPROVEMENTS





SUBMITTAL DATE:
OCTOBER 2022

PAUL LANDA, JR 3 100182 CENSED

LEGAL DESCRIPTION:

BEING A 13.578 ACRE TRACT OF LAND BEING SITUATED IN THE RUFENO RODRIGUEZ SURVEY NO. 49, ABSTRACT NO. 613, COUNTY BLOCK NO. 4202, AS CONVEYED TO KING FISH DEVELOPMENT, LLC BY WARRANTY DEED WITH VENDOR'S LIEN AS RECORDED IN DOCUMENT NUMBER 20220169411, BEXAR COUNTY TEXAS.

SHEET INDEX

SHEET NO. TITLE

C4.0 STREET COVER
C4.1 TRAFFIC PLAN
C4.2 TRAFFIC DETAILS
C4.3 TRAFFIC DETAILS

C4.4 FLYCATCHER WAY PLAN AND PROFILEC4.5 PINTAIL PLACE PLAN AND PROFILE

C4.6 WREN WAY PLAN AND PROFILE

C4.7 TERN TRACE & STILT STREET PLAN AND PROFILE

C4.8 DRAIN "A" PLAN AND PROFILE

C4.9 DRAIN "B" PLAN AND PROFILE

C4.10 TEMPORARY INTERCEPTOR DRAIN "C" PLAN AND PROFILE

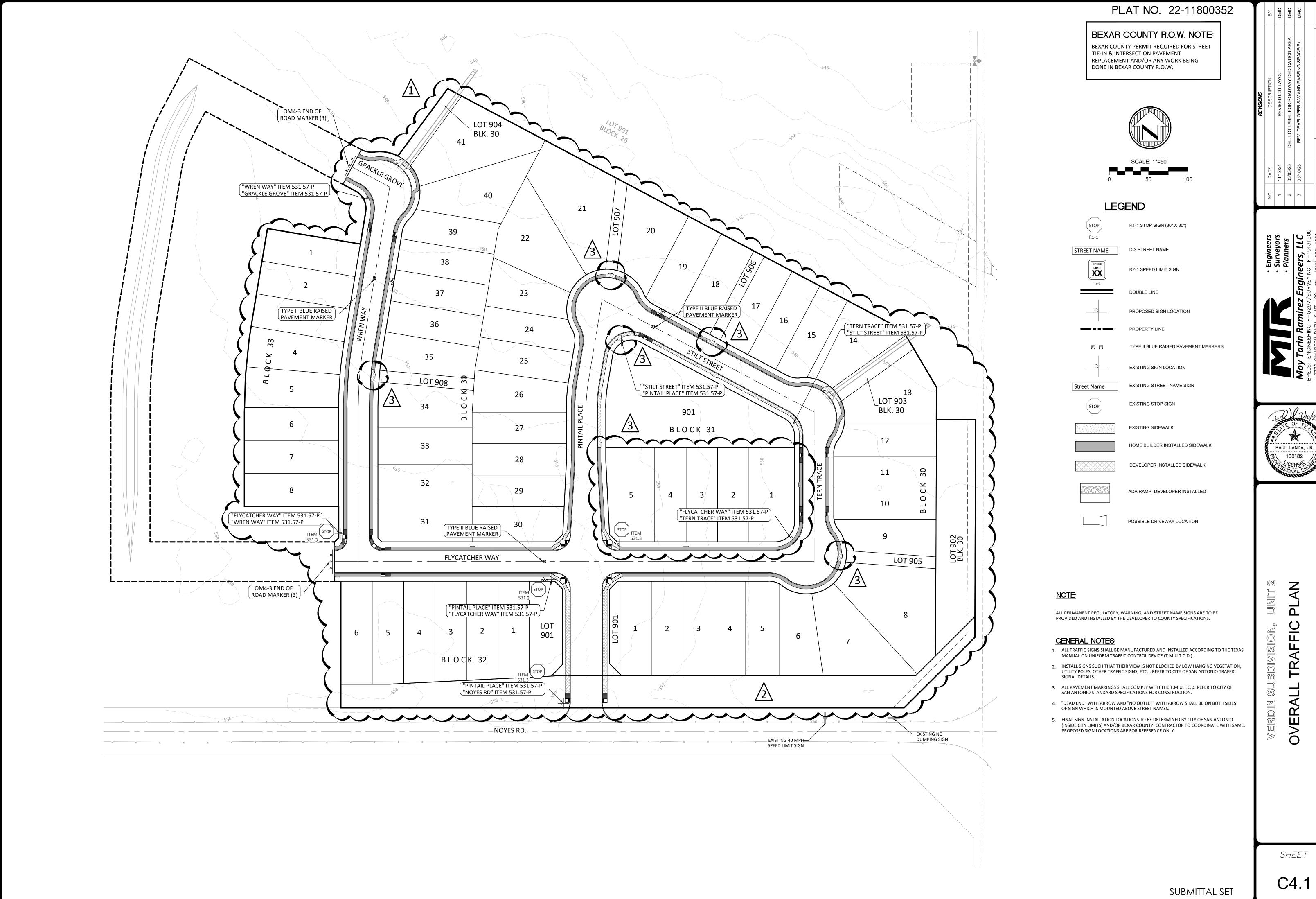
C4.11 STANDARD DETAILS

C4.12 STANDARD DETAILS

C4.13 STANDARD STREET SECTIONS



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



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FIC

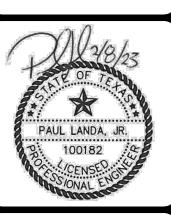
TRAF

OVERA

SHEET

Sign clamps may be either the specific size clamp

or the universal clamp.





L

1

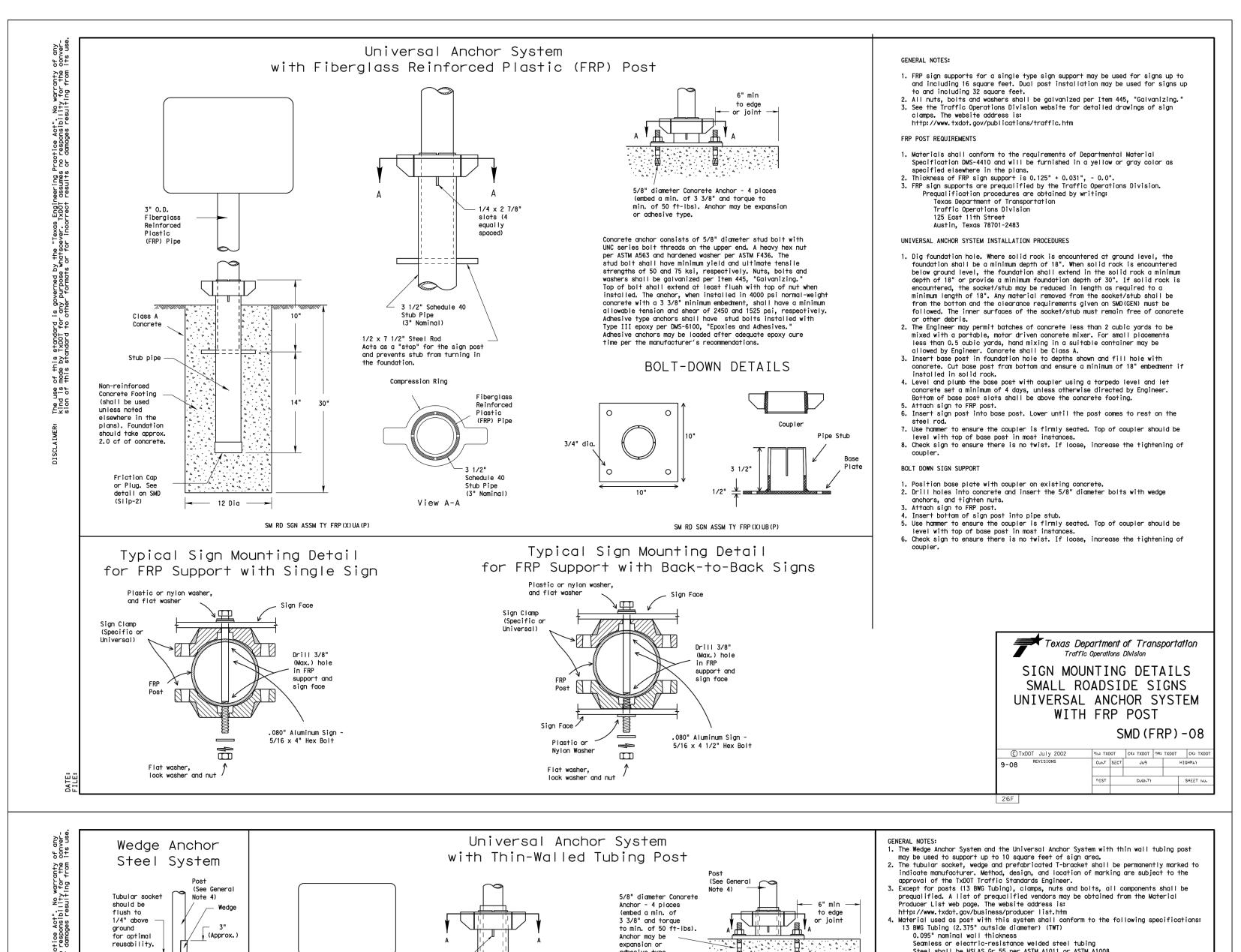
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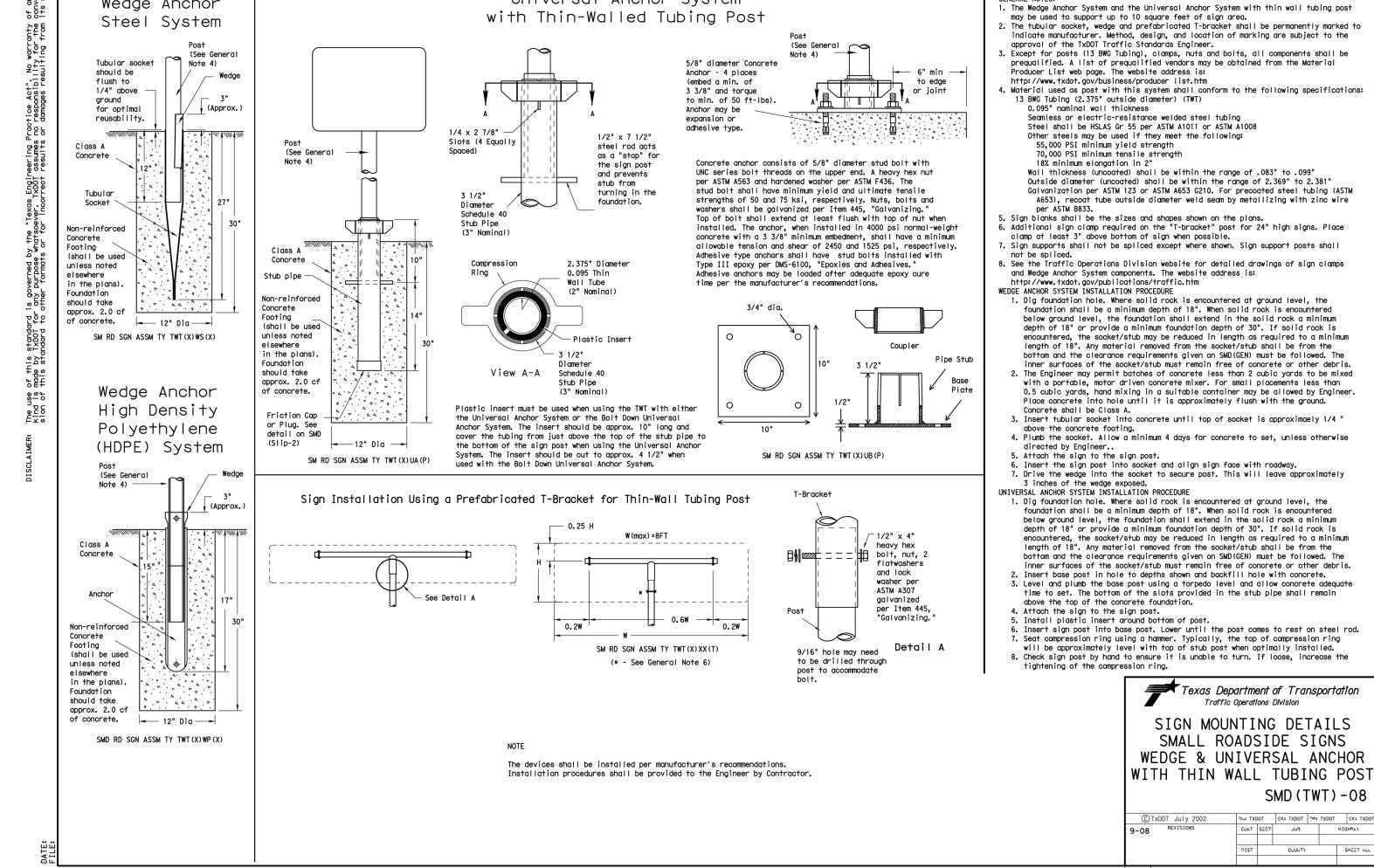
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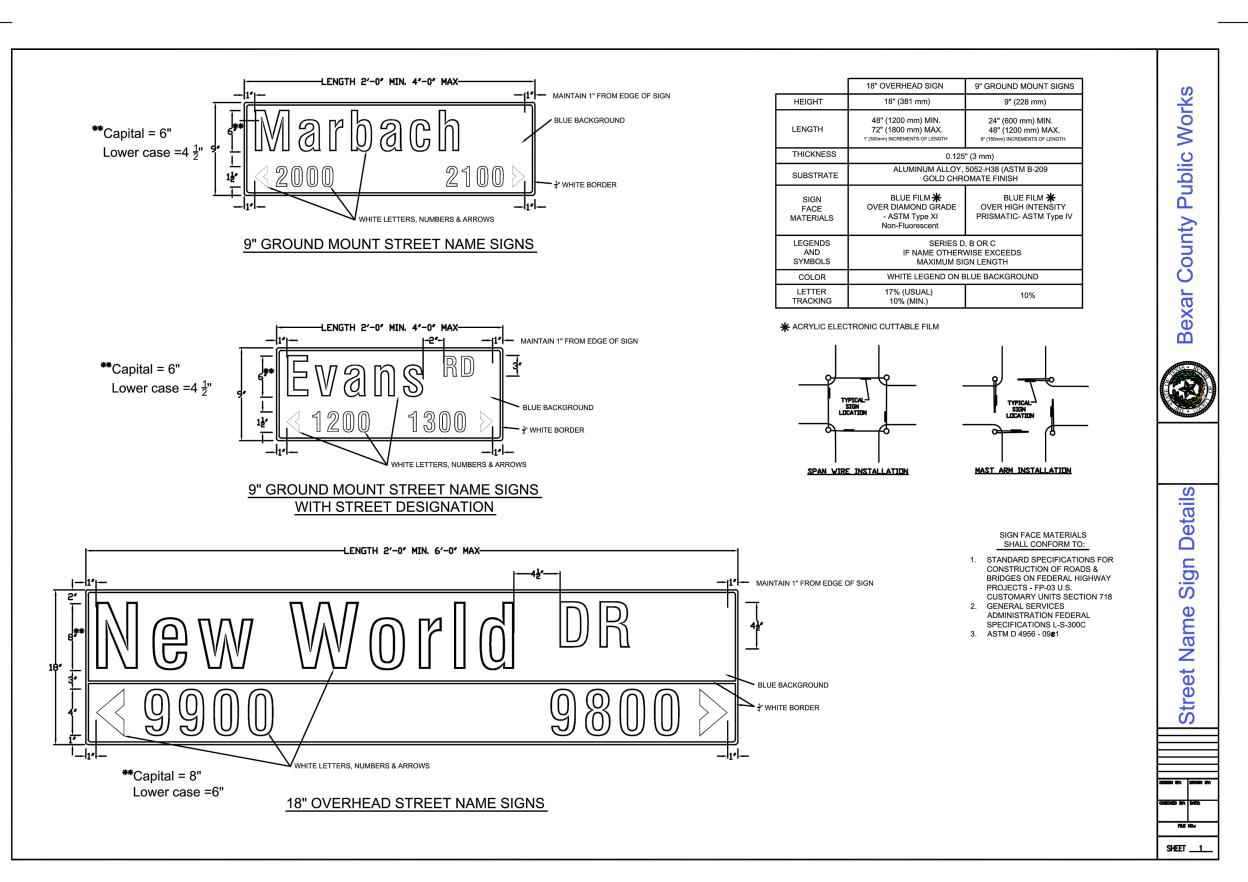
PIST COUNTY SHEET NO.

zinc in accordance with the requirements of ASTM

+.025"<u>+</u>.010"

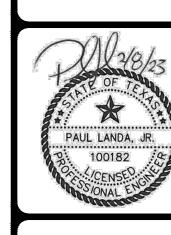






NO. DATE
DESCRIPTION
BY: CHKD. BY: DATE

- Engineering F-5297/SURVEYING: FINARRON PATH, SUITE 100 TELE (210)



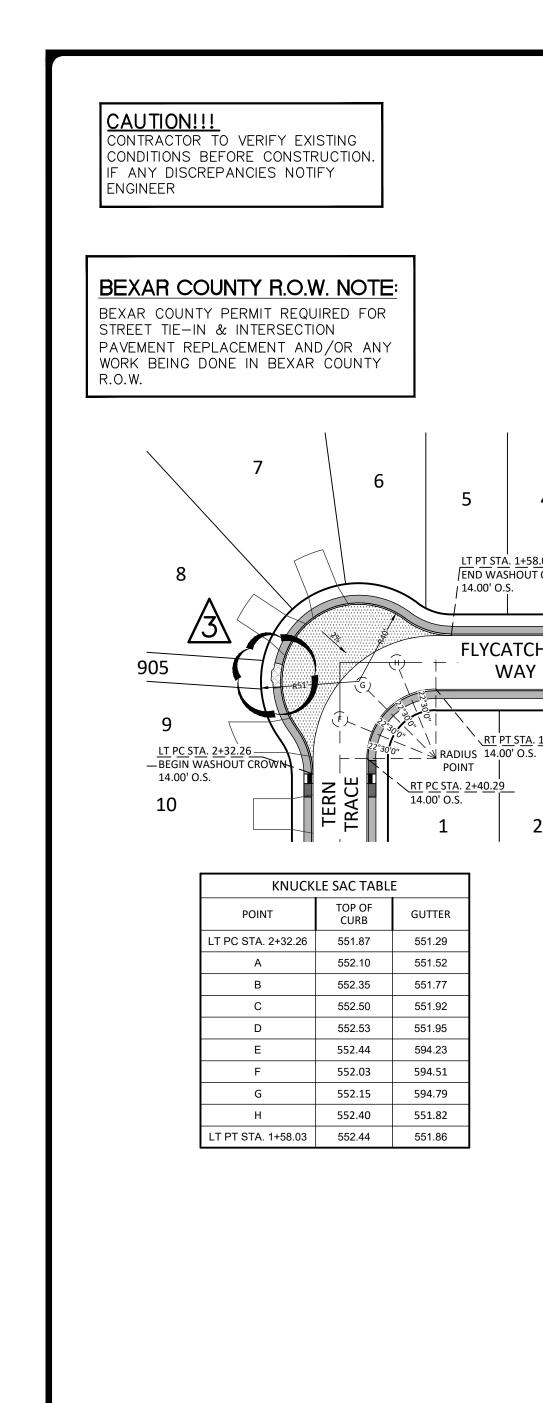
VERDIN SUBDIVISION, UNIT TRAFFIC PLAN DETAILS

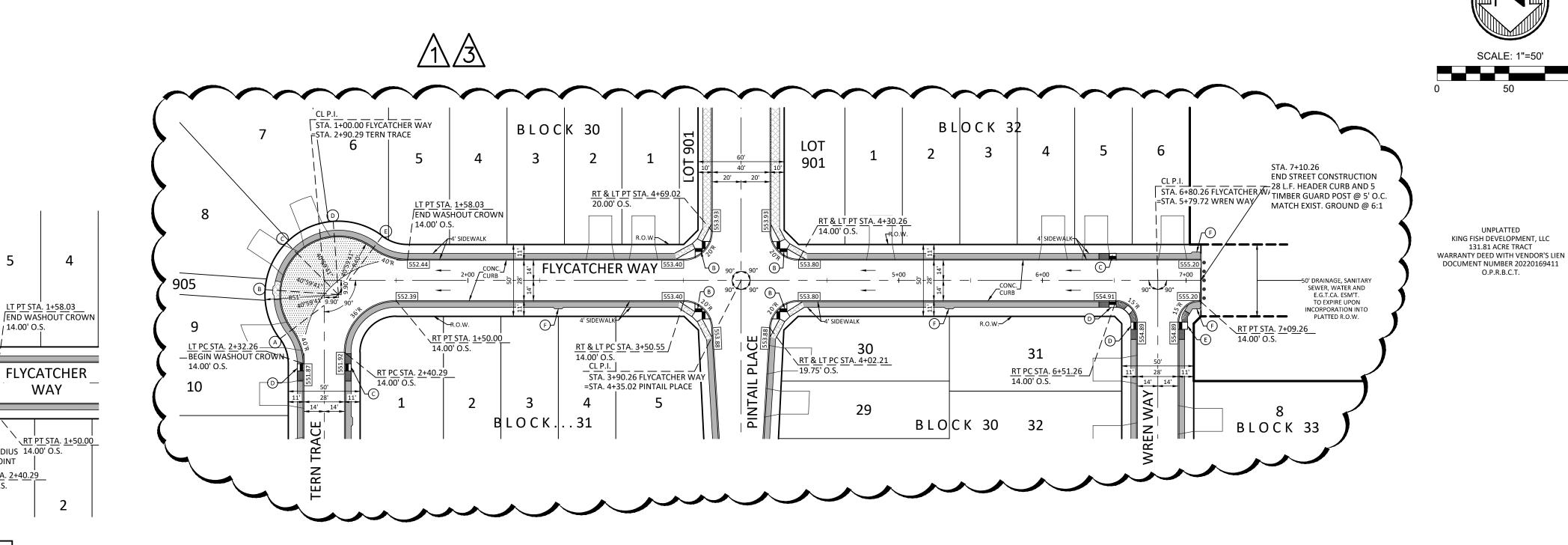
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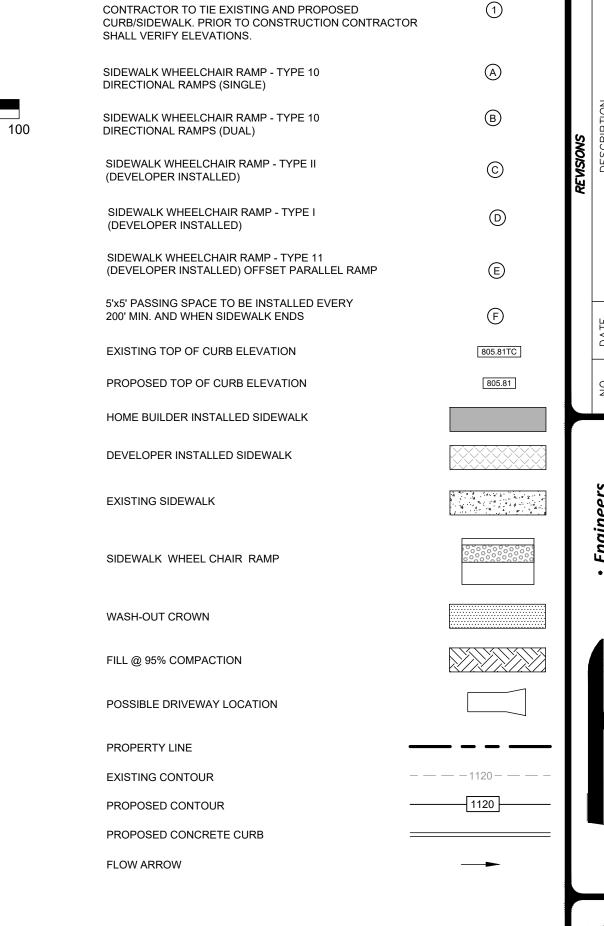
C4.3

ebruary 9, 2023 User ID: LJ Ra

SUBMITTAL SET

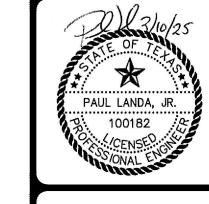


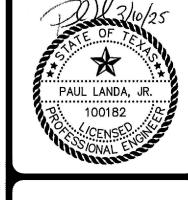




PLAT NO. 22-11800352

LEGEND





PROFILI ATCHER

SHEET

C4.4

FLYCATCHER WAY STA. 1+00.00 TO STA. 7+10.26

HORIZONTAL SCALE: 1" = 50' VERTICAL SCALE: 1" = 5' 580 CL. P.I. STA. 3+90.26 FLYCATCHER V =STA. 4+35.02 PINTAIL PLACE CL. P.I. STA. 1+00.00 FLYCATCHER V =STA. 2+90.29 TERN TRACE CL. P.I. STA. 6+80.26 FLYCATCHER =STA. 5+79.72 WREN WAY 575 575 570 570 565 565 560 560 EXISTING GROUND LT. EXISTING GROUND RT. 555 555 -EXISTING GROUND CL. PROPOSED _ GUTTER RT. ─PROPOSED TOP OF CURB RT. & LT. _PROPOSED GUTTER 550 550 __FILL @ 95% COMPACTION 545 545 540 540 TOP OF CURB LT TOP OF CURB RT

4+00

5+00

6+00

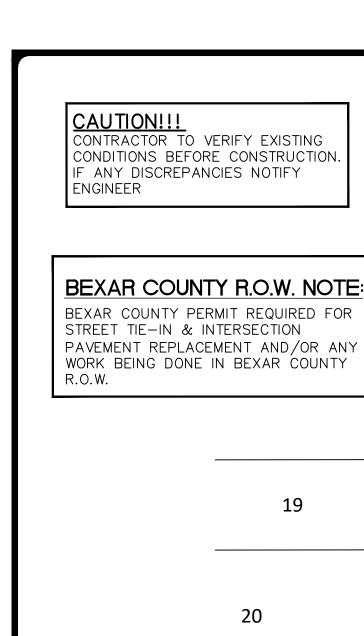
7+00

1+00

2+00

3+00

SUBMITTAL SET

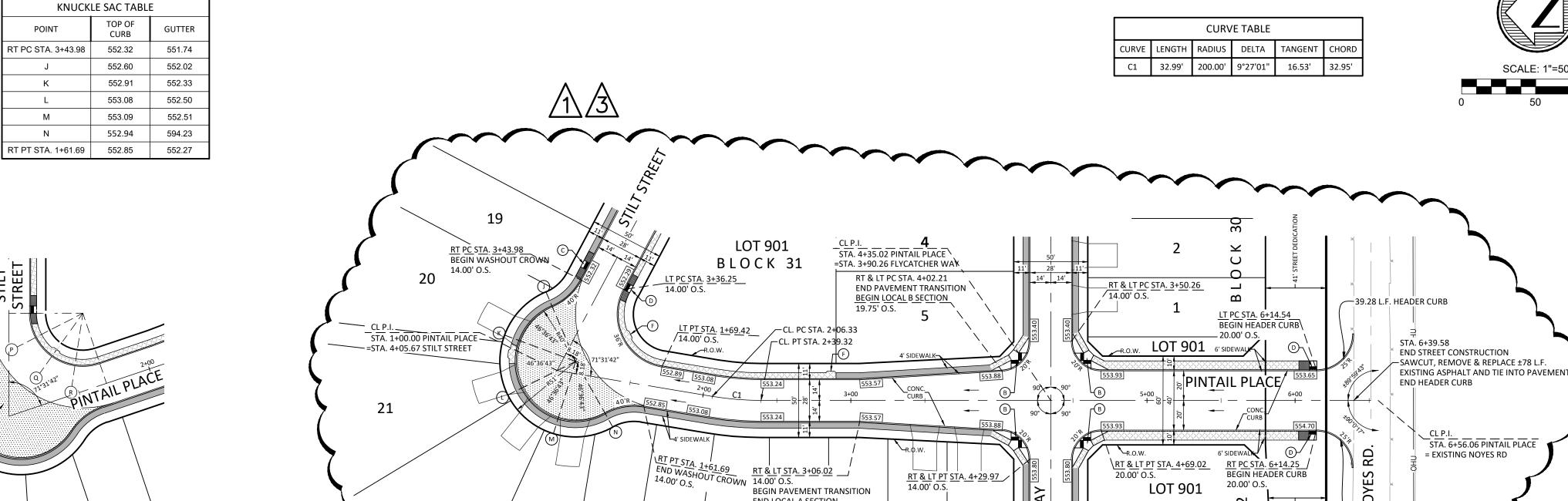


21

24

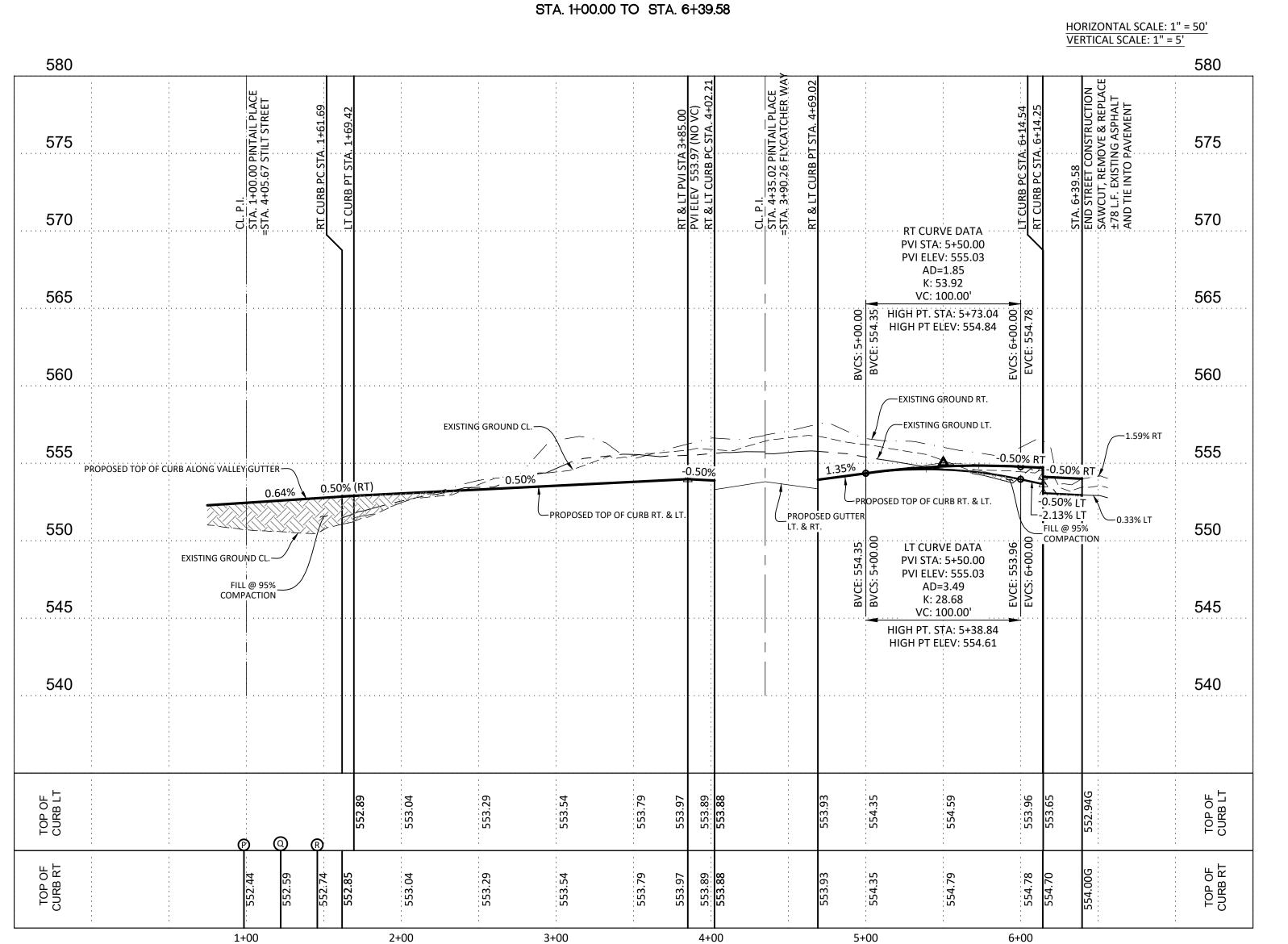
23

22



EXISTING ASPHALT AND TIE INTO PAVEMENT END LOCAL A SECTION 28 30 39.63 L.F. HEADER CURB

PINTAIL PLACE



PLAT NO. 22-11800352 **LEGEND** CONTRACTOR TO TIE EXISTING AND PROPOSED 1 CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY ELEVATIONS. SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE) SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL) SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED) SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED) SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP 5'x5' PASSING SPACE TO BE INSTALLED EVERY 200' MIN. AND WHEN SIDEWALK ENDS EXISTING TOP OF CURB ELEVATION 805.81TC 805.81 PROPOSED TOP OF CURB ELEVATION HOME BUILDER INSTALLED SIDEWALK DEVELOPER INSTALLED SIDEWALK EXISTING SIDEWALK

1120

SIDEWALK WHEEL CHAIR RAMP

POSSIBLE DRIVEWAY LOCATION

WASH-OUT CROWN

PROPERTY LINE

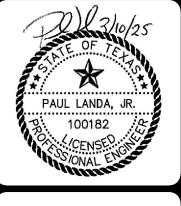
FLOW ARROW

EXISTING CONTOUR

PROPOSED CONTOUR

PROPOSED CONCRETE CURB

FILL @ 95% COMPACTION



ROFII **PINTAIL** TR

SHEET

C4.5 SUBMITTAL SET

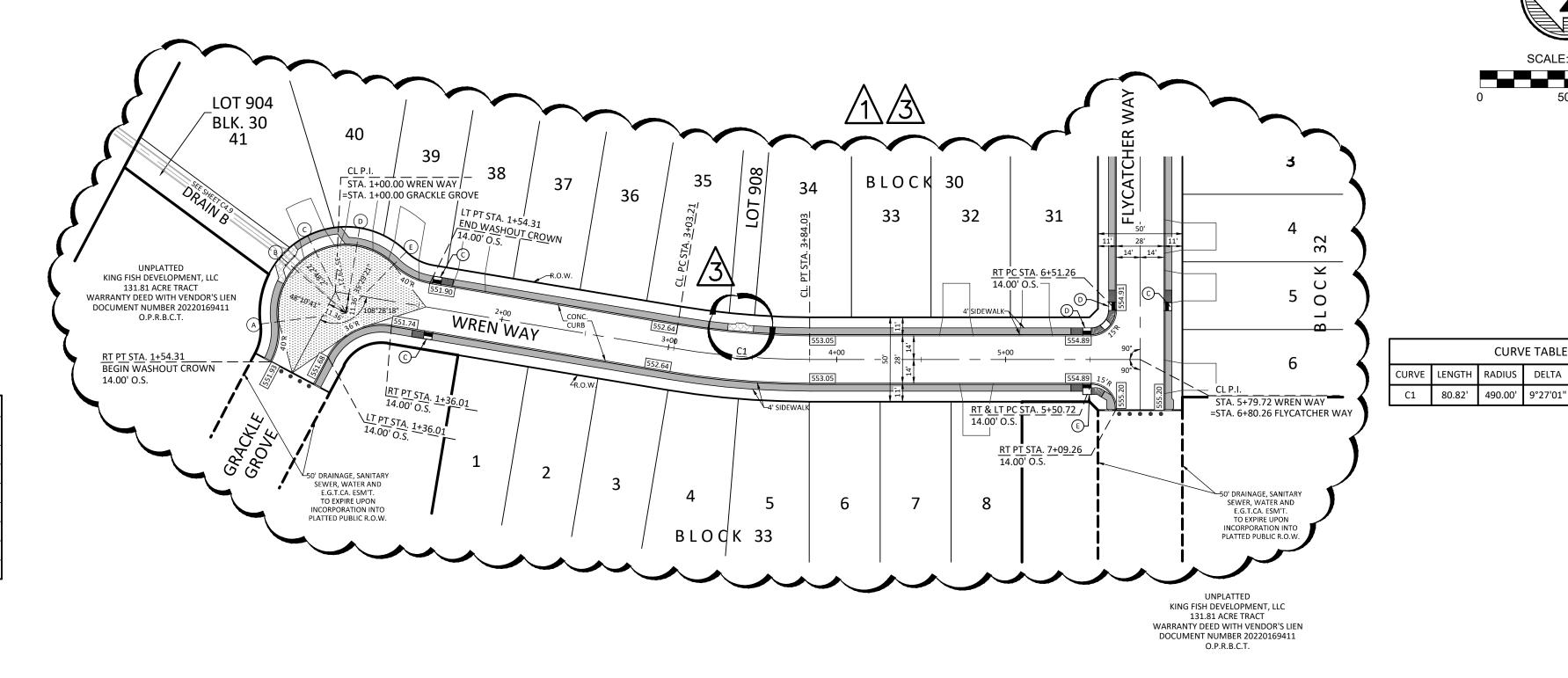
CAUTION!!!

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

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.

KNUCKLE SAC TABLE						
POINT	TOP OF CURB	GUTTER				
RT PT STA. 1+54.31	551.93	551.35				
А	551.34	550.76				
В	550.90	550.32				
С	550.99	550.41				
D	551.14	550.56				
E	551.52	594.23				
LT PT STA. 1+54.31	551.90	551.32				



LEGEND CONTRACTOR TO TIE EXISTING AND PROPOSED CURB/SIDEWALK. PRIOR TO CONSTRUCTION CONTRACTOR 1 SHALL VERIFY ELEVATIONS. SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (SINGLE) SIDEWALK WHEELCHAIR RAMP - TYPE 10 DIRECTIONAL RAMPS (DUAL) SIDEWALK WHEELCHAIR RAMP - TYPE II (DEVELOPER INSTALLED) SIDEWALK WHEELCHAIR RAMP - TYPE I (DEVELOPER INSTALLED) SIDEWALK WHEELCHAIR RAMP - TYPE 11 (DEVELOPER INSTALLED) OFFSET PARALLEL RAMP 5'x5' PASSING SPACE TO BE INSTALLED EVERY 200' MIN. AND WHEN SIDEWALK ENDS EXISTING TOP OF CURB ELEVATION 805.81TC PROPOSED TOP OF CURB ELEVATION 805.81 HOME BUILDER INSTALLED SIDEWALK DEVELOPER INSTALLED SIDEWALK EXISTING SIDEWALK SIDEWALK WHEEL CHAIR RAMP WASH-OUT CROWN FILL @ 95% COMPACTION POSSIBLE DRIVEWAY LOCATION PROPERTY LINE **EXISTING CONTOUR** PROPOSED CONTOUR PROPOSED CONCRETE CURB

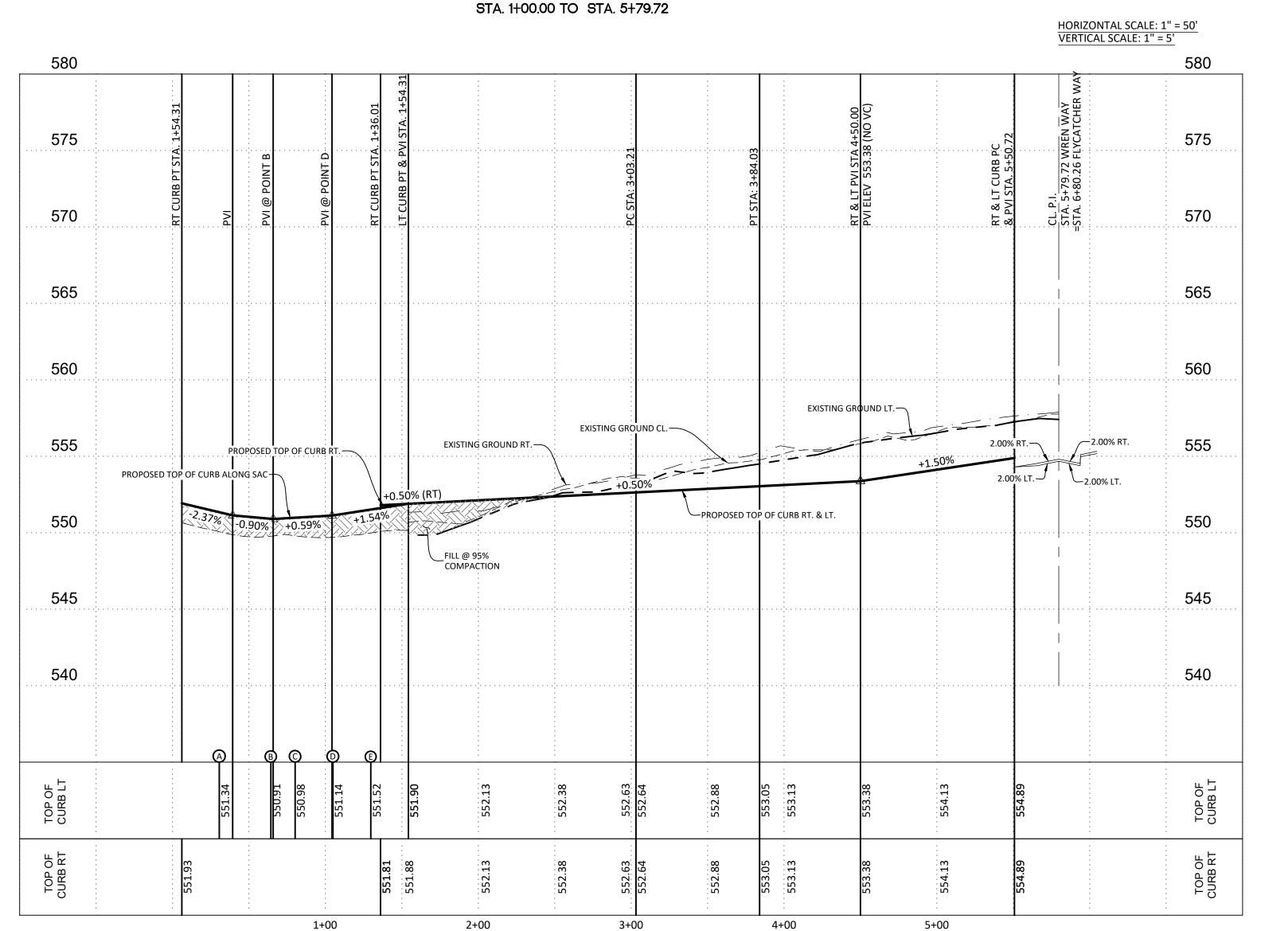
FLOW ARROW

CURVE TABLE

80.82' 490.00' 9°27'01"

PLAT NO. 22-11800352

WREN WAY



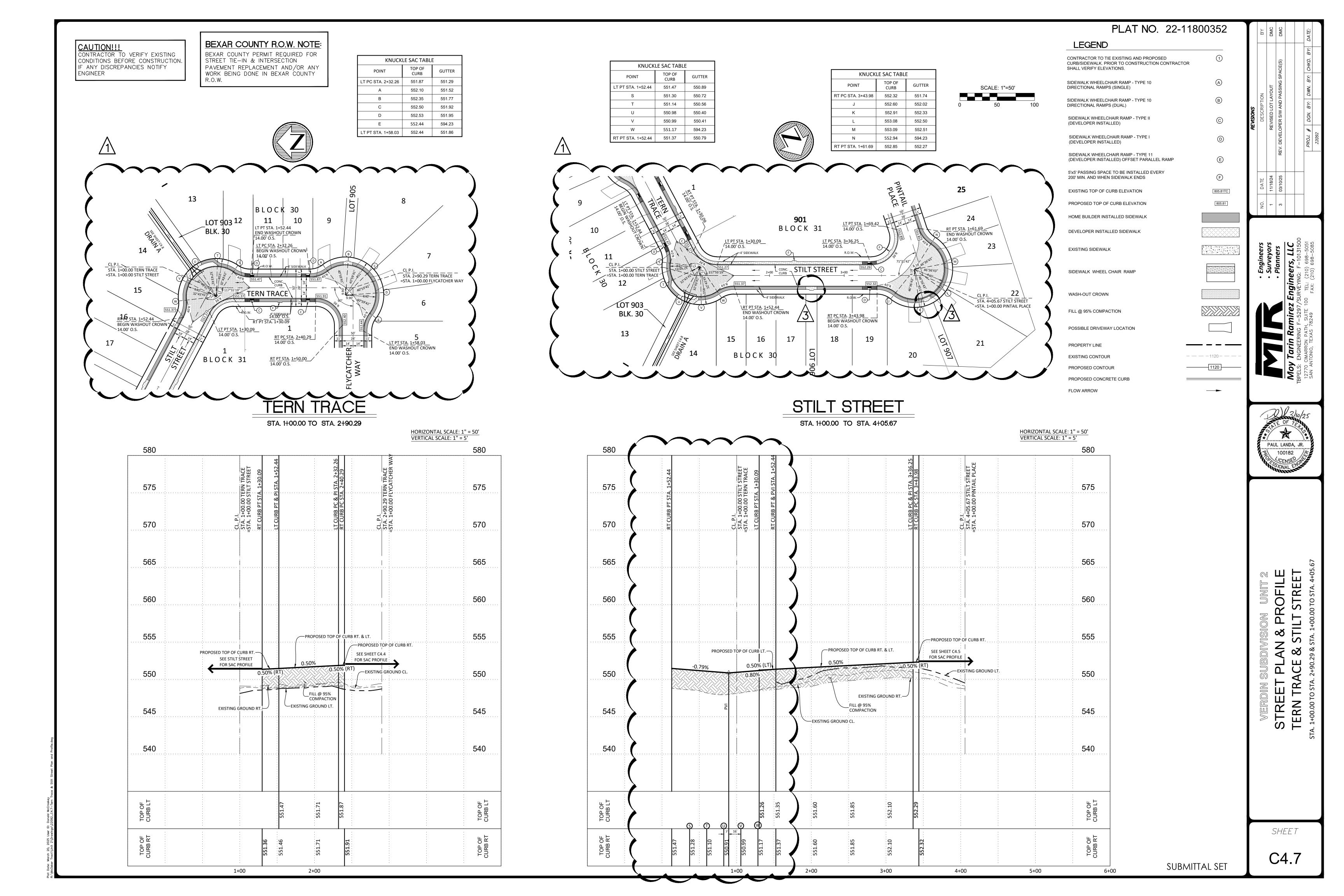
PAUL LANDA, JR. 100182

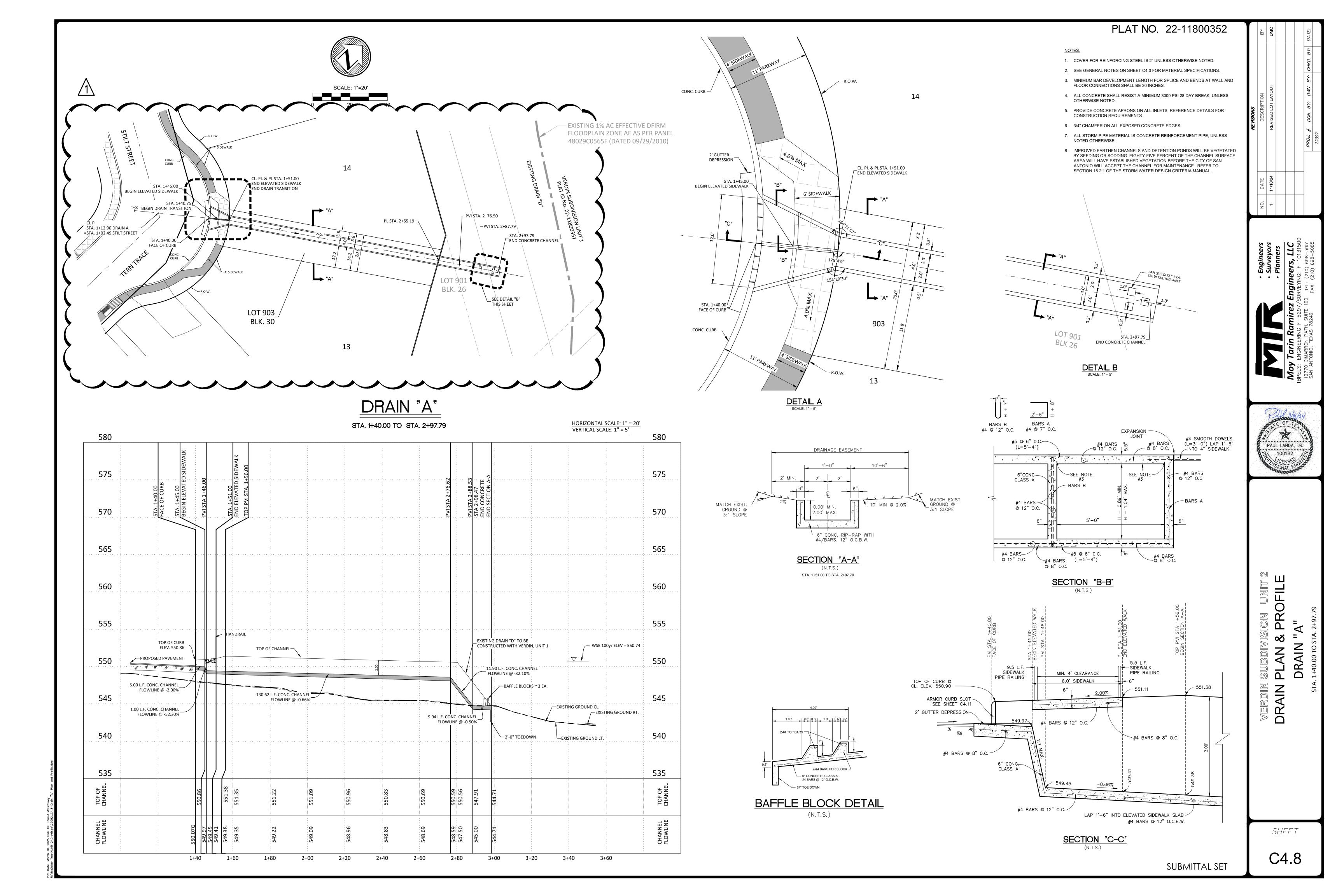
> N UNIT 2 ROFILE WREN STREE

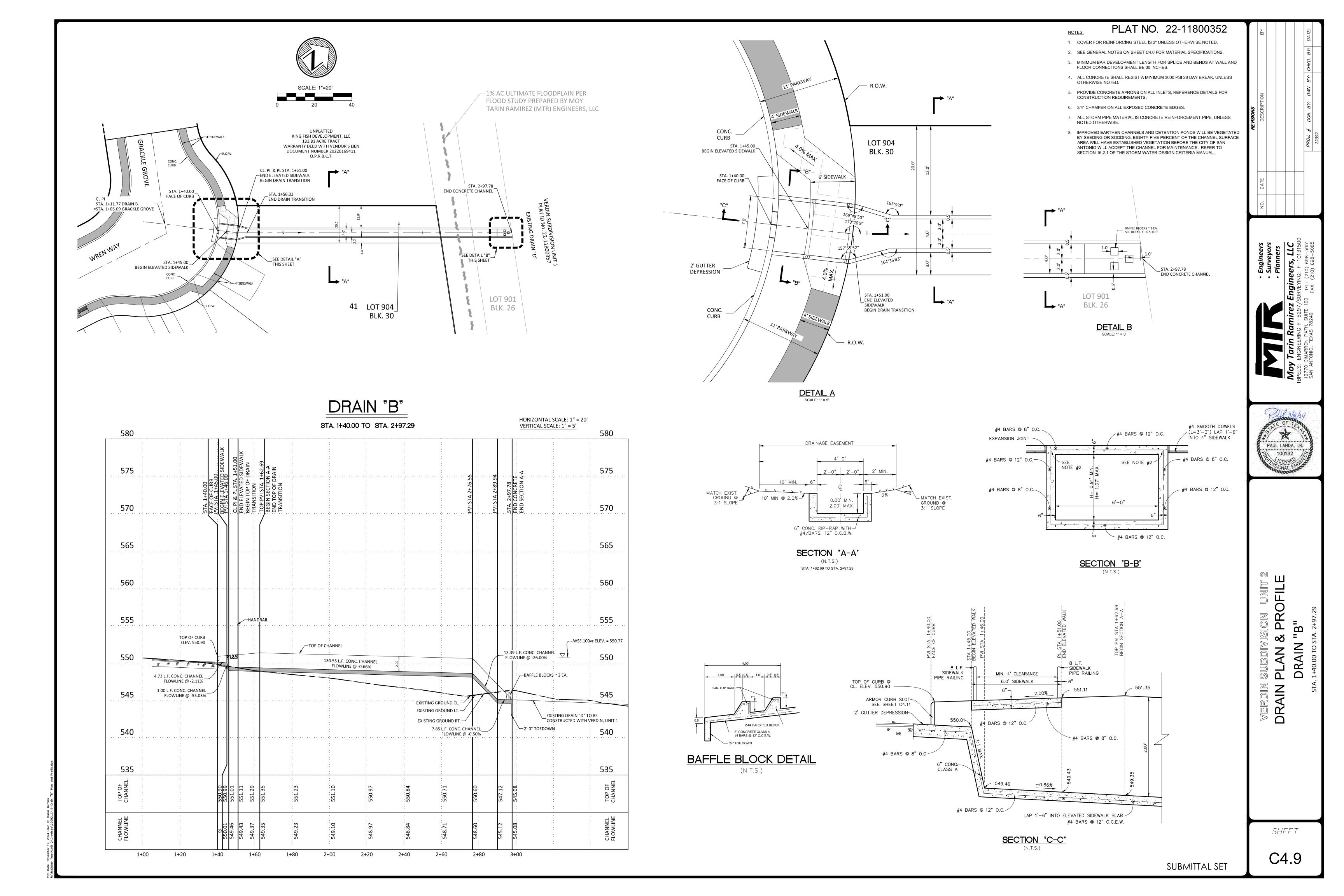
> > SHEET

C4.6

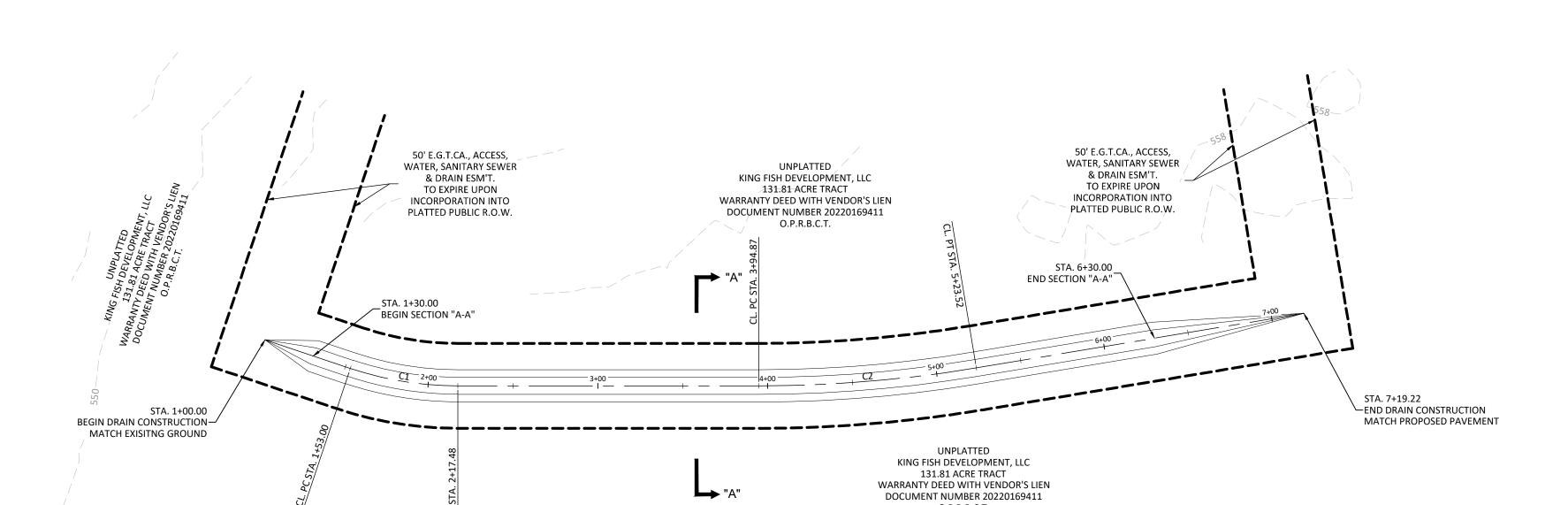
SUBMITTAL SET

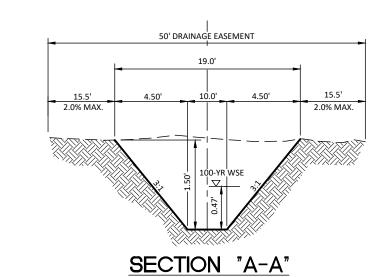










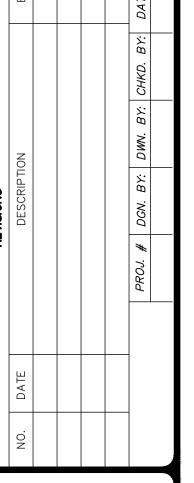


STA. 1+30.00 TO STA. 6+30.00

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. PROVIDE CONCRETE APRONS ON ALL INLETS, REFERENCE DETAILS FOR CONSTRUCTION REQUIREMENTS.
- 6. 3/4" CHAMFER ON ALL EXPOSED CONCRETE EDGES.
- 7. ALL STORM PIPE MATERIAL IS CONCRETE REINFORCEMENT PIPE, UNLESS NOTED OTHERWISE.
- 8. IMPROVED EARTHEN CHANNELS AND DETENTION PONDS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SURFACE AREA WILL HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE. REFER TO SECTION 16.2.1 OF THE STORM WATER DESIGN CRITERIA MANUAL.

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD
C1	64.48'	200.00'	18°28'18"	32.52'	64.20'
C2	128.65'	780.00'	9°27'01"	64.47'	128.51'





SONAL ENGINEER

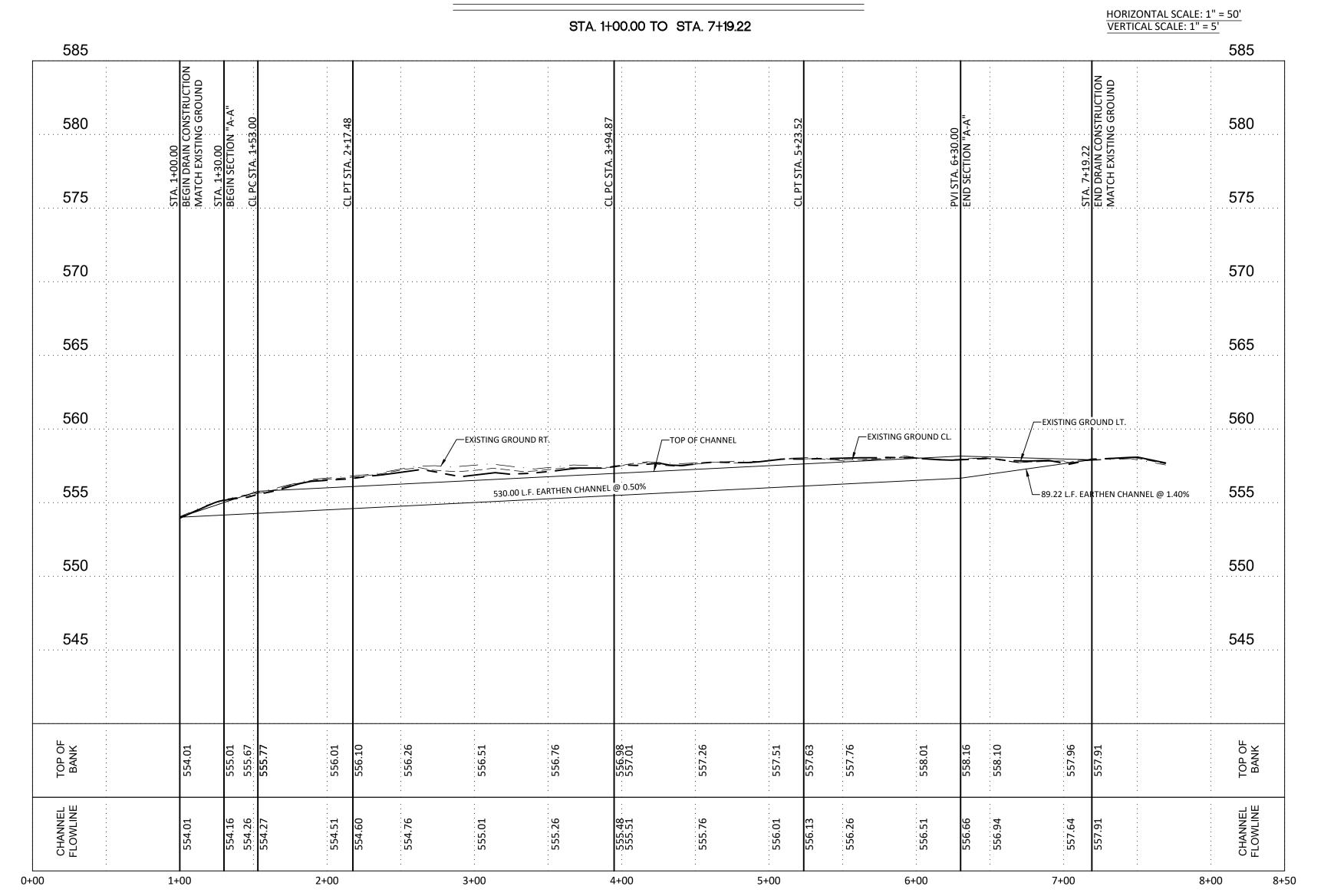
INTERCEPTOR DRAIN & PROFILE DRAIN PLAN 8 TEMPORARY INTERC

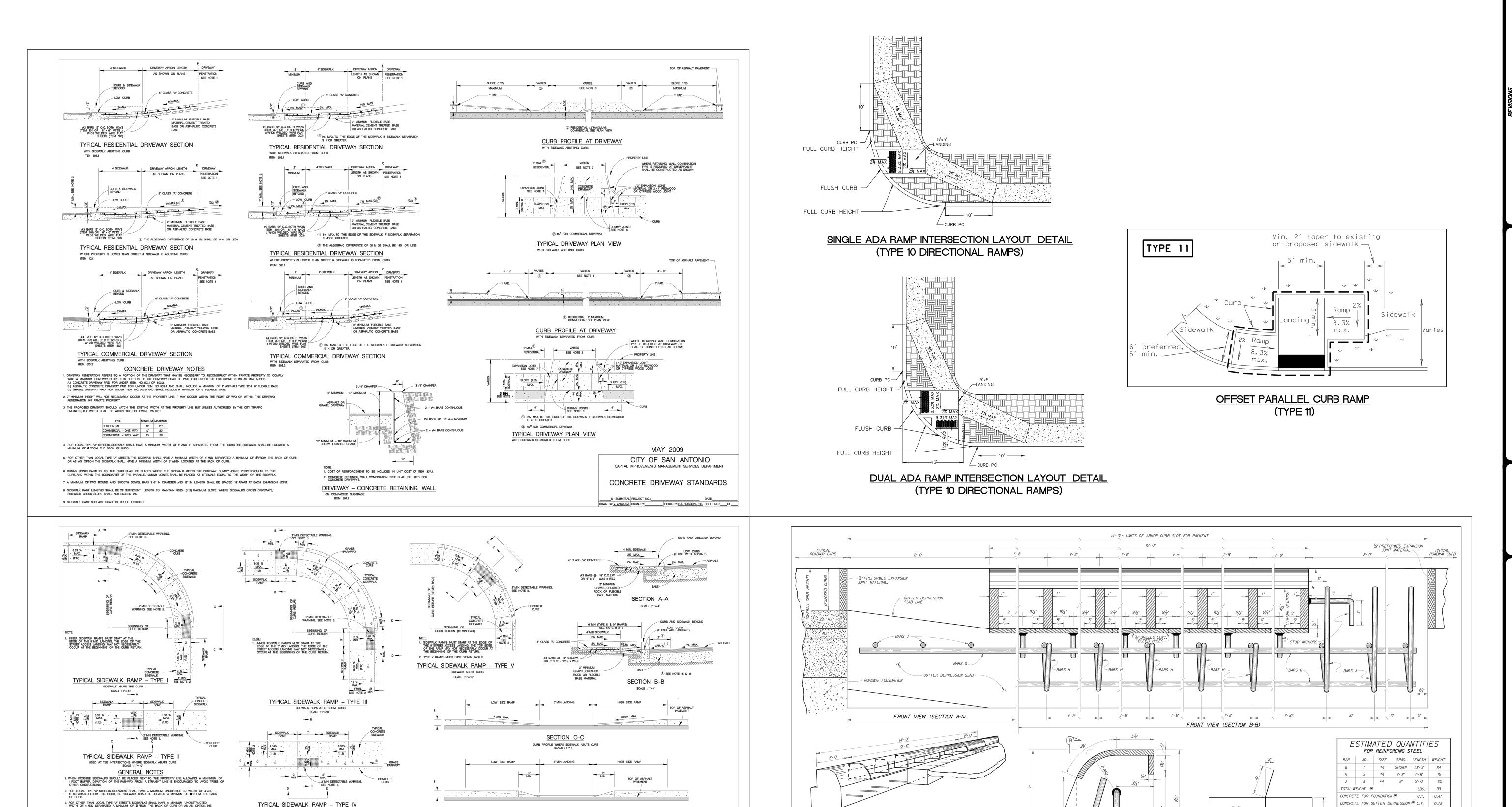
SHEET

C4.10

TEMPORARY INTERCEPTOR DRAIN "C"

O.P.R.B.C.T.





SECTION D-D

SIDEWALK PASSING SPACE

CURB PROFILE WHERE SIDEWALK IS SEPARATED FROM CURB SCALE: 1"=4"

GUTTER SLOPE

_____% SUBMITTAL PROJECT NO.:____

LOW SIDE HIGH SIDE

5'-6" 7'-2"

5'-0" 8'-4"

4'-6" 10'-0"

MAY 2009

CITY OF SAN ANTONIO

WHEELCHAIR RAMP STANDARDS

DRWN. BY: V. VASQUEZ DSGN. BY: CHKD. BY: R.S. HOSSEINI, P.E. SHEET NO.: OF

USED AT TEE INTERSECTIONS WHERE SIDEWALK IS SEPARATED FROM CURB

LANDING OR RAMP WIDTH

DETECTABLE WARNING SURFACE

0.5" 13 MM

23 MM

DOME SECTION

STREET ACCESS CURB PAVEMENT

PLAN DETAIL

4. SIDEWALK RAMP LENGTHS PRESENTED IN TABLE 1 ARE GUIDELINES ONLY. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE.

DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.

THESE DETAILS ARE FOR REFERENCE ONLY, ACTUAL LOCATIONS OF WHEELCHAIR RAMPS TO BE SHOWN ON CONSTRUCTION PLANS. CITY CONSTRUCTION INSPECTOR CAN ADJUST LOCATIONS FOR SAFETY OR UTILITY CLEARANCE.

11. WHEELCHAIR RAMP SHALL BE CONSTRUCTED WITH 4" CLASS "A" CONCRETE AND 2" MINIMUM GRAVEL, CRUSHED ROCK OR FLEXIBLE BASE MATERIAL.

12. REINFORCING STEEL SHALL BE #3 BARS AT 18" O.C.E.W. OR 6" x 6" - W2.9 x W2.9 WIRE MESH.

10. SIDEWALKS LESS THAN 5 FEET IN WIDTH SHALL BE PROVIDED WITH A PASSING SPACE AT A MAXIMUM SPACING OF 200 FEET.

CONSTRUCTION OF ALL WHEELCHAIR RAMPS TO BE INCLUDED UNDER ITEMS "500 - CONCRETE CURB, GUTTER, AND CONCRETE CURB AND GUTTER" AND /OR "502 - CONCRETE SIDEWALKS", RAMP SURFACE SHALL BE BRUSH ENISHED.

13. SIDEWALK GRADES SHALL NOT EXCEED THE GRADE ESTABLISHED FOR THE ADJACENT ROADWAY, ANY SIDEWALK CONSTRUCTION THAT DEWATES FROM THE NATURAL GRADE OF THE ROADWAY TO CREATE A GRADE STEEPER THAN THE EXISTING ROADWAY WILL REQUIRE RAWIPS, HANDRAILS AND RESTING PLATFORMS TO BE CONSTRUCTED IN ACCORDANCE WITH ADA AND TAS STANDARDS.

14. SIDEWALK CROSS GRADE SHALL HAVE A MAXIMUM SLOPE OF 2%. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.

15. THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES SHALL BE LESS THAN 11%. THE CHANGE OF GRADE SHALL BE DEFINED AS THE ALGEBRAIC DIFFERENCE OF THE ADJACENT SURFACE SLOPES. IN THE CASE OF A STREET ACCESS RAMP DESIGNED AT THE 8.33% MAXIMUM SLOPE, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN 267% (JE. 83.2-2.67)=11). IN ADDITION, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 5%.

16. IF THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES IS GREATER THAN OR EQUAL TO 11%, A LEVELING STRIP, 2 FEET IN LENGTH, SHALL BE PROVIDED TO TRANSITION THE ADJACENT SURFACES.

17. ADA COMPLIANCE IN ALTERATIONS INCLUDE ONLY THAT WORK WITHIN THE LIMITS, BOUNDARIES OR SCOPE OF A PLANNED PROJECT.

7. SIDEWALK RAMP TYPE V SHALL BE USED ONLY WHERE THERE IS SIGNIFICANT RESTRICTION WITHIN THE PARKWAY TO CONSTRUCT TYPE I OR TYPE III RAMPS.

 \propto

PAUL LANDA, JR. 100182

SHEET

STRUCTURAL STEEL FOR ARMOR CURB SLOT

ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.

ALL EXPOSED EDGES ON ARMOR CURB SHALL RECENE A 1/8" BEVEL.

THE SHAPE OF THE TYPICAL ROADWAY CURB SHALL TRANSITION TO THE ARMOR CURB AS APPROVED BY

© 1998 Texas Department

of Transportation

ALL EXPOSED STRUCTURAL STEEL (ARMOR) SHALL BE GALVANIZED.

ALL SIDES OF ARMOR CURB SLOT AND STUD ANCHORS SHALL BE 1/4" FILLET WELDS.

LBS. 454.5

TUD ANCHORS (1/2"DIA.)

* FOR CONTRACTORS INFO ONLY.

ALL CONCRETE SHALL BE CL."A".

TEEL PLATE

TOTAL WEIGHT *

THE ENGINEER.

ARMOR CURB SLOT

WITH CONCRETE FOUNDATION

SAN ANTONIO DISTRICT STANDARDS

2'- 0"

2'- 0"

BAR J

BAR H

7¹/₄" (CENTER WALL WIDTH)

BARS H or J

9" (END WALL WIDTH)

- GUTTER DEPRESSION

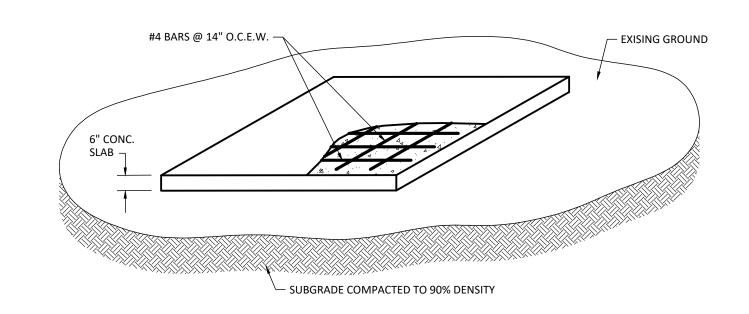
CONSTRUCTION JOINT-

SIDE VIEW SECTION



18" x 24"
White Prismatic Background
Green Overlay Film
Hwy C lettering

BEXAR COUNTY MAINTENANCE SIGNAGE



NOTES:

- 1) THE CONTRACTOR WILL CONSTRUCT CONCRETE SLABS FOR "TEMPORARY MAIL BOX COLLECTION PAD" FOR THE UNITED STATES POSTAL SERVICE AT THE LOCATIONS AND SIZES SPECIFIED BY THE CITY ENGINEER DURING CONSTRUCTION.
- 2) THE CONSTRUCTION OF SLABS SHALL CONFORM TO ITEM NO. 502 "CONCRETE SIDEWALKS AND DRIVEWAYS"
- 3) PAYMENT WILL BE MADE UNDER ITEM NO. 502-2 DRIVEWAYS PER SQUARE YARD.
- 4) UNIT PRICE WILL INCLUDE REMOVAL OF "TEMPORARY MAIL BOX COLLECTION PAD" SLABS AT THE END OF THE PROJECT.

 NO SEPARATE PAY ITEM.

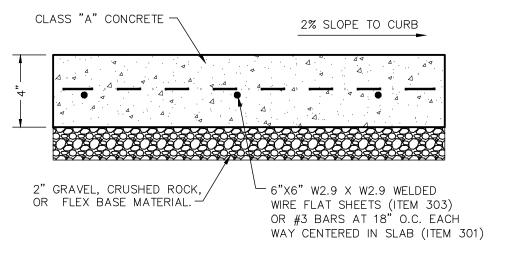
TEMPORARY MAIL BOX COLLECTION PAD

CONCRETE DRIVEWAY NOTES:

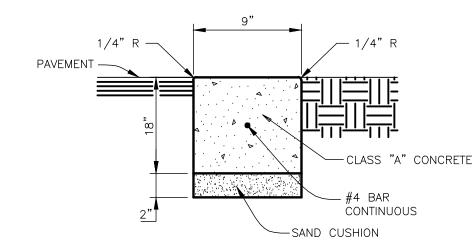
1. THE PROPOSED DRIVEWAY SHOULD MATCH THE EXISTING WIDTH AT THE PROPERTY LINE BUT UNLESS AUTHORIZED BY THE CITY TRAFFIC ENGINEER, THE WIDTH SHALL BE WITHIN THE FOLLOWING VALUES:

TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL - ONE WAY	12'	20'
COMMERCIAL - TWO WAY	24'	30'

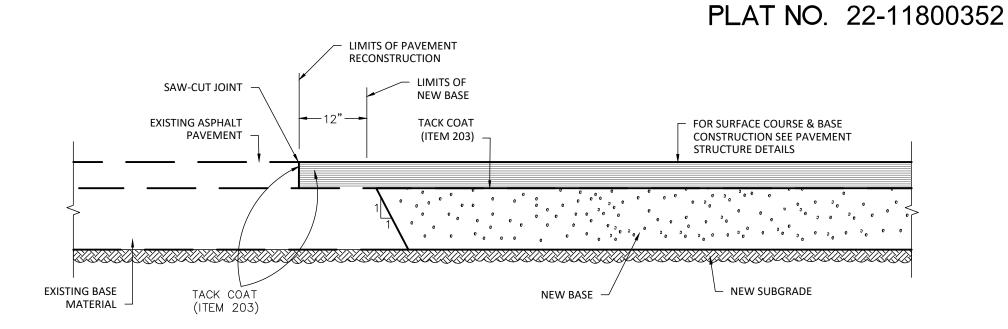
- 2. FOR LOCAL TYPE "A" STREETS, SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 3' FROM THE BACK OF CURB.
- 3. FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH 4' AND SEPARATED A MINIMUM OF 3' FROM THE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



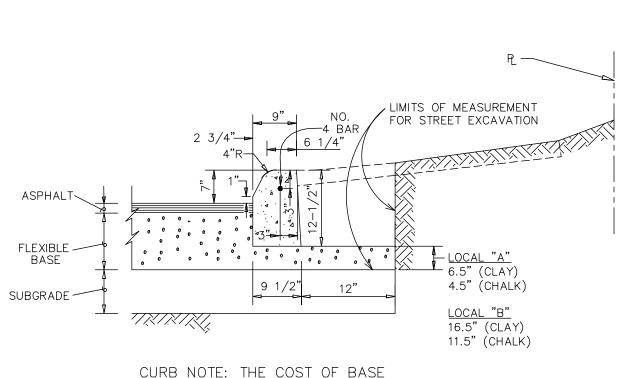
CONCRETE SIDEWALK DETAIL



HEADER CURB



PAVEMENT JUNCTION DETAILS

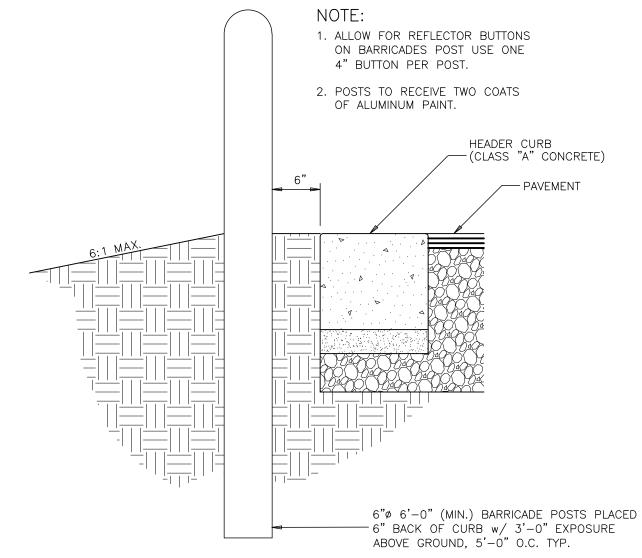


CURB NOTE: THE COST OF BASE MATERIAL UNDER & BEHIND THE CURB SHALL BE INCLUDED IN THE COST OF THE CURB.

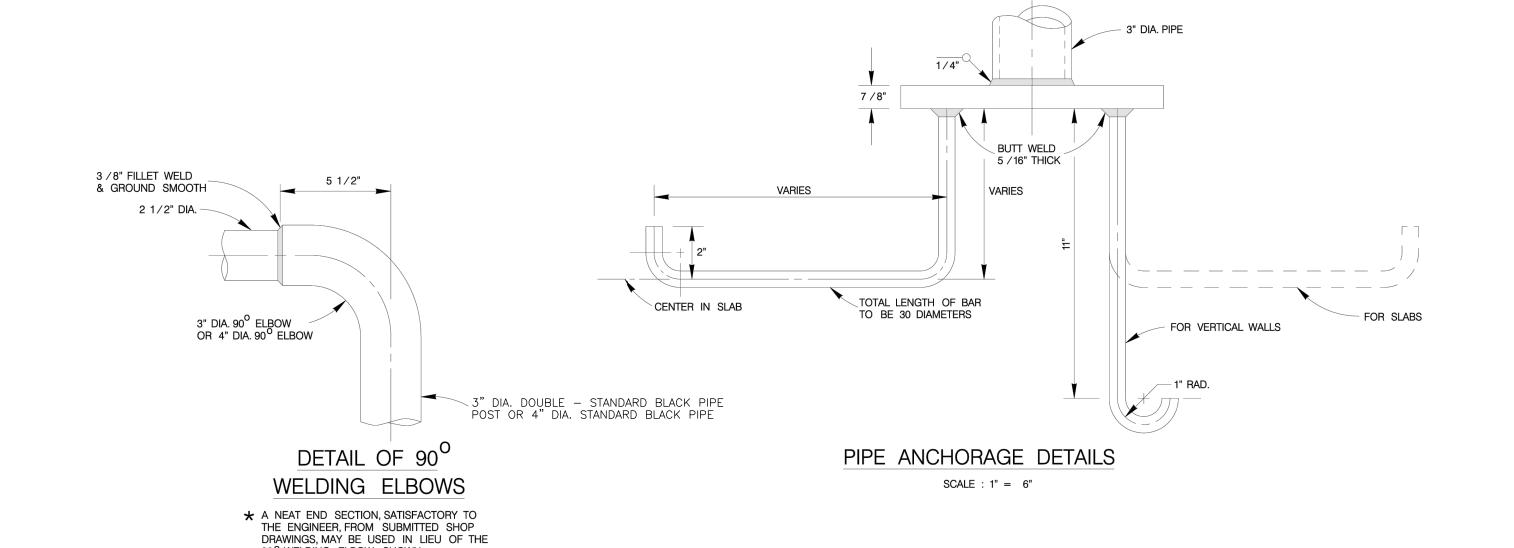
90° WELDING ELBOW SHOWN.

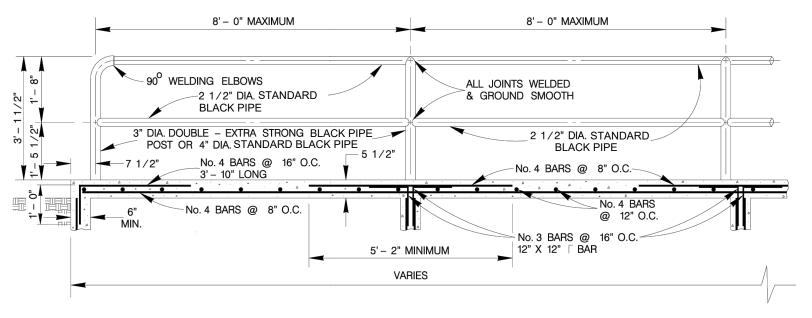
SCALE : 1" = 8"

MACHINE LAID CURB
N.T.S. ITEM 500



GUARD POST





TYPICAL SIDEWALK BRIDGE &
SIDEWALK PIPE RAILING SECTION

SCALE: 1" = 4'

SUBMITTAL SET

* Eng.

* Sur

* Sur

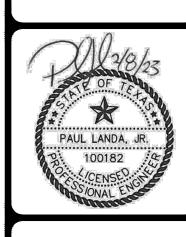
* Sur

* Plai

* Plai

* Tarin Ramirez Engineers

* TBPELS: ENGINEERING F-5297/SURVEYING: F
* 12770 CIMARRON PATH, SUITE 100 TEL: (210) (
* SAN ANTONIO, TEXAS 78249 FAX: (210) 6



REET PLAN & PROFILE STANDARD DETAILS

SHEET

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

NOTE: SELECT FILL MATERIAL SHALL HAVE A PLASTICITY INDEX OF LESS THAN 20 AND A CALIFORNIA BEARING RATIO (CBR) OF AT LEAST 3.0 N.T.S. FLYCATCHER WAY \sim STA. 1+00.00 TO 3+50.55 & STA. 4+30.26 STA.

7+10.26

PINTAIL PLACE ~ STA. 1+00.00 TO STA. 3+06.02

WREN WAY ~ STA. 1+00.00 TO STA. 5+79.72

TERN TRACE ~ STA. 1+00.00 TO STA. 2+90.29

STILT STREET ~ STA. 1+00.00 TO STA. 4+05.67

GRACKLE GROVE ~ STA. 1+00.00 TO STA. 1+54.31

PAVEMENT SECTIONS *

PINTAIL PLACE ~ STA. 3+06.02 TO STA. 6+39.58

PAVEMENT MATERIAL	CLAY SUBGRADE LOCAL A	(CBR 3.0 LOCAL E
TYPE D ASPHALTIC CONCRETE	2.0 IN.	3.0 IN
TYPE B ASPHALTIC CONCRETE		6.0 IN
FLEXIBLE BASE (TxDOT ITEM 247 TYPE A GRADE 2)	8.25 IN.	8.0 IN
LIME STABILIZED SUBGRADE (19.0 LBS/SY) (4% BY WEIGHT)	6.0 IN.	6.0 IN

AFTER INSPECTION OF SUBGRADE

GEOTECHNICAL REPORT:: FROST GEOSCIENCES, INC.

VERDIN SUBDIVISION, UNIT 2, BEXAR COUNTY, TEXAS PAVEMENT DESIGN

FROST GEOSCIENCES, INC. PROJECT NO. FGS-G 22122-2 REVISED (DECEMBER 12, 2022)

NOTES:

 APPLICABLE SPECIFICATIONS FROM "CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION" – JUNE 2008 200 – FLEXIBLE BASE 202 – PRIME COAT

DURING CONSTRUCTION.

- 203 TACK COAT 205 - HOT MIX ASPHALT CONCRETE PAVEMENT
- 2. REFER TO INTEC GEOTECHNICAL REPORTS FOR ADDITIONAL PAVEMENT CONSTRUCTION INFORMATION A. "VERDIN SUBDIVISION, UNIT 2, BEXAR COUNTY, TEXAS, PAVEMENT DESIGN, FROST GEOSCIENCES, INC. PROJECT NO.: FGS-G 22122-2, REVISED (DECEMBER 12, 2022)
- 3. CONTRACTOR TO COORDINATE ALL MATERIAL TESTING
- 4. CONTRACTOR SHALL FILL ANY GAPS BETWEEN THE EXISTING LIMESTONE SUBGRADE AND THE BOTTOM OF THE FLEXIBLE BASE WITH EITHER SELECT FILL (ITEM 410.2) GRAVEL, OR WITH LIMESTONE MILLINGS

FOR CONSTRUCTION VERIFICATION THE FOLLOWING SHALL BE CONDUCTED IN THE FIELD:

- 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 ¾ INCH SIEVE FROM THE SAMPLE):

 MINIMUM PASSING 1¾ SIEVE

 MINIMUM PASSING ¾ SIEVE

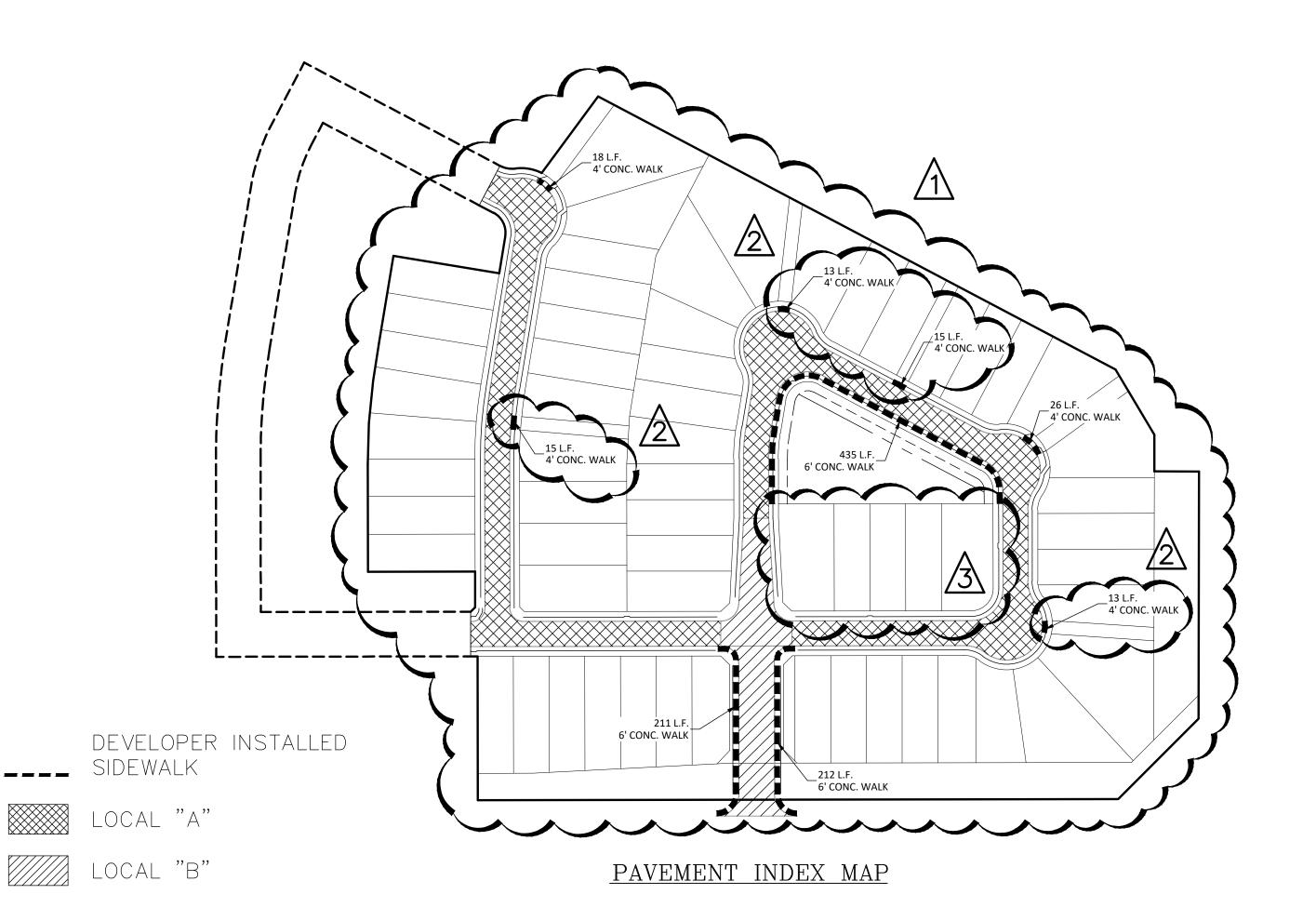
 MINIMUM PASSING NO. 4 SIEVE

 60
- MINIMUM PASSING NO. 4 SIEVE
 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 UCS 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.

 OF THE FLEXIBLE BASE

 AVEL, OR WITH



NO. DATE

1 11/18/24

2 3/03/25

REV. S/W FRONTING NEW 900 LOTS
3 3/10/25 REV. DEVELOPER S/W AND PASSING SPACE(S)

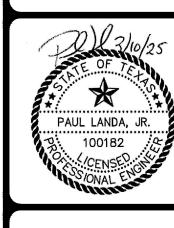
PROJ. # DGN. BY: DWN. BY: CHKD. BY: L

• Surveyors
• Surveyors
• Planners

27 Engineers, LLC

37 / SURVEYING: F-10131500

Moy Tarin Ramirez EI
TBPELS: ENGINEERING F-5297/SUI
1270 CIMARRON PATH, SUITE 100
SAN ANTONIO, TEXAS 78249



STANDARD STREET SECTIONS

SHEET

C4.13

Date: April 9, 2021 User ID: Dallas Gardee

LAND-PLAT- 22-11800352

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

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

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.

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

9. COMPACTION OF SLOPES

THE FACES OF FILL SLOPES SHALL BE COMPACTED. COMPACTING 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 BROÙGHT 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.

1. 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. 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.

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 PURPOSÉ OF DETERMINING UNIFORMITY OF THE AREA SUPPORTING THE PROPOSED STRUCTURES.

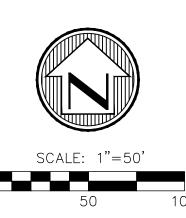
NOTES:

MINIMUM SLAB EXPOSURE IS 1.0'.

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



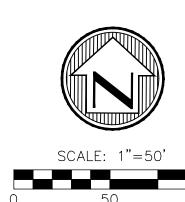
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GENERAL NOTES:

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 WORK IS INCLUDED AS PART OF THE CONSTRUCTION OF THE SUBDIVISION AND HAS BEEN CONSIDERED IN THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

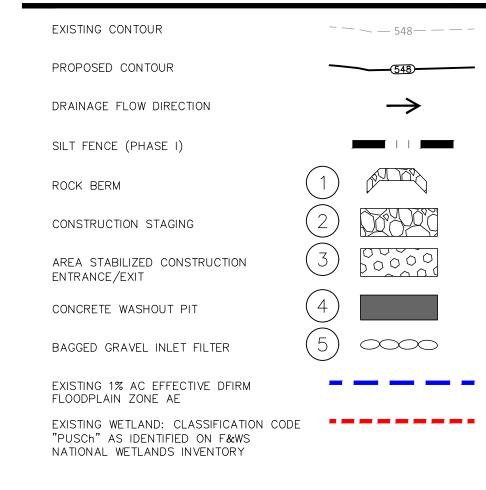
CONTRACTOR TO INSTALL AND MAINTAIN THE EROSION AND SEDIMENTATION CONTROLS AS DESIGNED AND SHALL INSPECT THE CONTROLS BI-WEEKLY (14 DAYS) AND AFTER EVERY SIGNIFICANT RAINFALL (0.5 INCHES OR GREATER) TO ENSURE SIGNIFICANT DISTURBANCE HAS NOT OCCURRED. SEDIMENT DEPOSITED AFTER A SIGNIFICANT RAINFALL SHALL 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

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 UPGRADIENT (HIGH)

ALL SOIL, SAND, GRAVEL, AND EXCAVATED MATERIALS STOCKPILED ON-SITE WILL HAVE APPROPRIATELY SIZED SILT FENCE PLACED UPGRADIENT AND DOWN GRADIENT. FEMA 100-YEAR FLOODPLAIN MUST BE STAKED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

PHASE I LEGEND



PHASE II LEGEND

EXISTING CONTOUR	
PROPOSED CONTOUR	(548)
DRAINAGE FLOW DIRECTION	\rightarrow
SILT FENCE (PHASE II)	
ROCK BERM	
BAGGED GRAVEL INLET FILTER	\bigcirc A \bigcirc

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

L STORM WATER F PREVENTION PLA OVERAI

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BAGGED GRAVEL INLET FILTER (PHASE I)

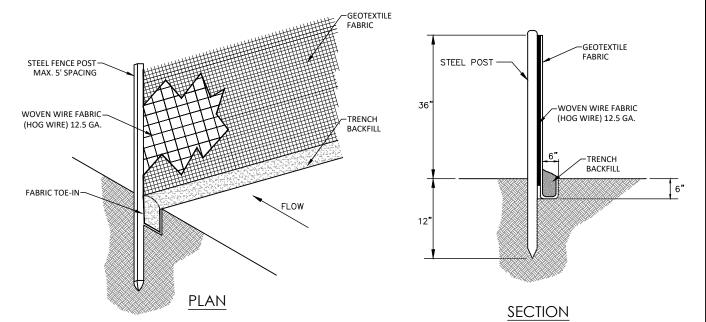
BAGGED GRAVEL INLET FILTER (PHASE II)

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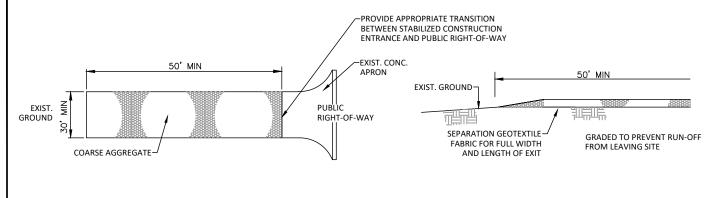
CONSTRUCTION STAGING AREA

CONCRETE WASHOUT PIT



SILT FENCE NOTES

- 1. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC WIDTH SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN 2 , ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NO. 30.
- 2. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM NOMINAL WEIGHT 1.25 LB/FT 2 , AND BRINDELL HARDNESS EXCEEDING 140. 3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12.5 GAUGE MINIMUM.
- 4. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 1 FOOT DEEP AND SPACED NOT MORE THAN 5 FEET ON CENTER. 5. LAY OUT FENCING DOWN-SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO
- THAT THE MAXIMUM DRAINAGE AREA IS 1/4 ACRE/100 FEET OF FENCE.
- 6. THE TOE OF THE SILT FENCE SHOULD BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 INCHES OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
- 7. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND
- 8. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHOULD BE A 3—FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
- 9. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. 10. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES, OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE OLD FENCE. 11. REPLACE ANY TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION.
- 12. REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES. A TRIANGULAR FILTER DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS.

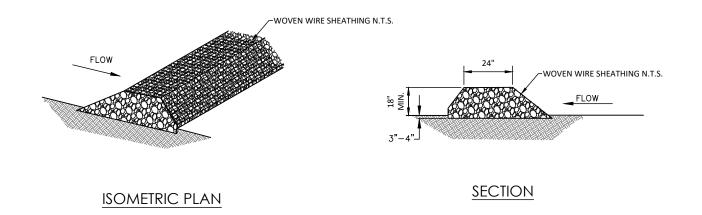


TEMPORARY CONSTRUCTION ENTRANCE/EXIT NOTES

- 1. THE AGGREGATE SHOULD CONSIST OF 4 TO 8 INCH WASHED STONE OVER A STABLE FOUNDATION.
- 2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 8 INCHES.

PLAN VIEW

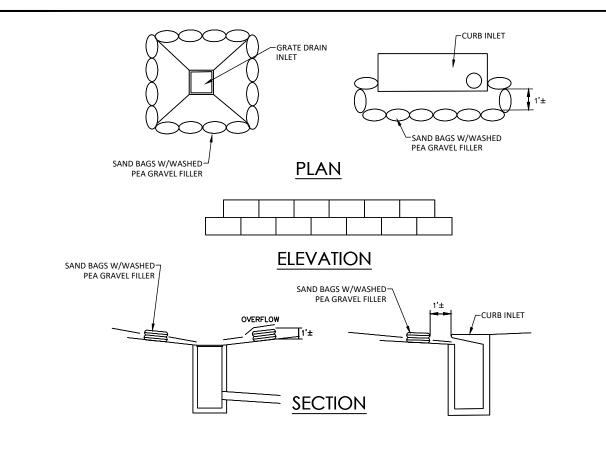
- 3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD 2 , A MULLEN BURST RATING OF 140 LB/IN 2 , AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.
- AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.
- 5. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.
- 6. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG. 7. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.
- 8. PLACE STONE TO DIMENSIONS AND GRADE SHOWN. LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.
- 9. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- 10. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHTS—OF—WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
- 11. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. 12. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED
- 13. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE.



ROCK BERM NOTES

ROCK BERM

- THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOAT RINGS.
- 2. CLEAN, OPEN GRADED 3-TO 5-INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF FLOW ARE EXPECTED, WHERE 5-TO 8-INCH DIAMETER ROCKS MAY BE USED.
- 3. LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE.
- 4. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER.
- 5. PLACE THE ROCK ALONG THE SHEATHING TO A HEIGHT NOT LESS THAN 18".
- 6. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON.
- 7. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE OR AS NEAR AS POSSIBLE.
- 8. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.
- 9. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE. THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.
- 10. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT OF IN AN APPROVED MANNER
- 11. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS,
- 12. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

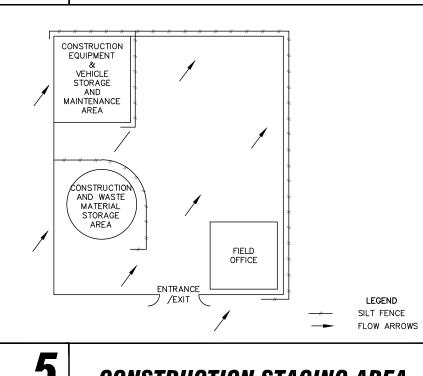


- . THE GRAVEL BAG MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, POLYAMIDE OR COTTON BURLAP WOVEN FABRIC, MINIMUM UNIT WEIGHT 4 OZ/YD 2 , MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70 PERCENT.
- 2. THE BAG LENGTH SHOULD BE 24 INCHES, WIDTH SHOULD BE 18 INCHES AND THICKNESS SHOULD BE 6
- 3. THE GRAVEL BAGS SHOULD BE FILLED WITH $rac{3}{4}$ " GRAVEL .
- 4. WHEN A GRAVEL BAG IS FILLED WITH GRAVEL, THE OPEN END OF THE GRAVEL BAG SHOULD BE STAPLED OR
- 5. THE GRAVEL BAGS SHOULD BE PLACED AS SHOWN ON THE DETAIL. THE GRAVEL BAGS SHALL BE STACKED TO FORM A CONTINUOUS BARRIER AROUND THE INLETS. THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS.
- 6. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE
- MADE PROMPTLY AS NEEDED BY THE CONTRACTOR. 7. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND CURB.
- 8. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- 9. STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SCALE: NONE

BAGGED GRAVEL INLET FILTER

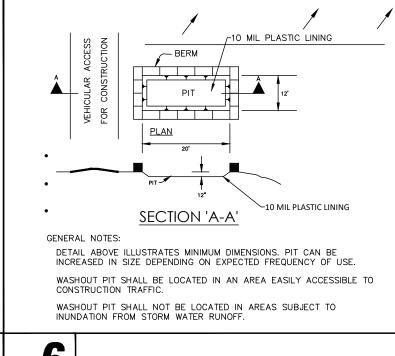
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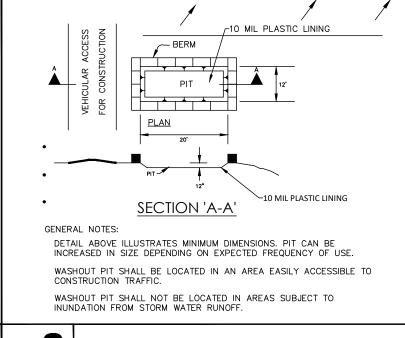
SILT FENCE DETAIL

SCALE: NONE

CONSTRUCTION STAGING AREA SCALE: NONE



STABILIZED CONSTRUCTION ENTRANCE / EXIT



SCALE: NONE

CONCRETE TRUCK WASHOUT PIT SCALE: NONE

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> REVENTION \Box OLLUTION <u>Δ</u>

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STORM WATER

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