

ROSE VALLEY PHASE 1B

SAN ANTONIO, TEXAS

STREET, DRAINAGE, WATER, SANITARY SEWER, AND UTILITY IMPROVEMENTS

Sheet List Table

Sheet Title	Sheet Number
COVER SHEET	0.0
OVERALL UTILITY PLAN (1 OF 2)	1.0
OVERALL UTILITY PLAN (2 OF 2)	1.1
MASTER DRAINAGE PLAN	2.0
OVERALL GRADING PLAN	3.0
OVERALL GRADING PLAN	3.1
DRAIN "A" PLAN & PROFILE	4.0
DRAIN "B" PLAN & PROFILE	4.1
DRAIN "C" PLAN & PROFILE (1 OF 2)	4.2
DRAIN "C" PLAN & PROFILE (2 OF 2)	4.3
DRAIN "D" PLAN & PROFILE	4.4
EX. DRAIN "A" REVISION PLAN & PROFILE (1 OF 2)	4.5
EX. DRAIN "A" REVISION PLAN & PROFILE (2 OF 2)	4.6
EX. DRAIN "A" REVISION DETAILS	4.7
PIPE BEDDING AND CONCRETE WINGWALLS	4.8
MISCELLANEOUS BOX CULVERT DETAILS AND CONCRETE COLLAR DETAILS	4.9
STREET PLAN AND PROFILE	5.0
STREET PLAN AND PROFILE	5.1
STREET PLAN AND PROFILE	5.2
STREET PLAN AND PROFILE	5.3
STREET PLAN AND PROFILE	5.4
STREET PLAN AND PROFILE	5.5
STREET DETAIL SHEET	5.6
WHEELCHAIR RAMP DETAIL SHEET	5.7
MISCELLANEOUS DETAL SHEET (1 OF 2)	5.8
MISCELLANEOUS DETAL SHEET (2 OF 2)	5.9
TRAFFIC SIGNAGE & SIDEWALK PLAN (1 OF 2)	5.10
TRAFFIC SIGNAGE & SIDEWALK PLAN (2 OF 2)	5.11
TRAFFIC SIGNAGE DETAILS	5.12
TRAFFIC SIGNAGE NOTES & DETAIL SHEET	5.13
SANITARY SEWER COVER SHEET	6.0
SANITARY SEWER GENERAL NOTES	6.1
SANITARY SEWER GENERAL NOTES	6.2
OVERALL SANITARY SEWER PLAN (1 OF 2)	6.3
OVERALL SANITARY SEWER PLAN (2 OF 2)	6.4
SEWER LINE "H" STA 1+00.00 - 8+00.00	6.5
SEWER LINE "H" STA 8+00.00 - END	6.6
SEWER LINE "J" STA 1+00.00 - 7+50.00	6.7
SEWER LINE "J" STA 7+50.00 - END	6.8
SEWER LINE "J1" STA 1+00.00 - END	6.9
SEWER EX. LINE "A" STA 13+50.00 - 24+50.00	6.10
SANITARY SEWER DETAIL SHEET	6.11
WATER IMPROVEMENT COVER SHEET	7.0
OVERALL WATER PLAN (1 OF 2)	7.1
OVERALL WATER PLAN (2 OF 2)	7.2
WATER IMPROVEMENT DETAIL SHEET	7.3
STORM WATER POLLUTION PREVENTION PLAN	8.0
STORM WATER POLLUTION PREVENTION PLAN	8.1
STORM WATER POLLUTION PREVENTION PLAN DETAILS	8.2

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.
- NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY ITEM TO WHICH IT RELATES.
- THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE. 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SIGNS AND BARRICADES ARE PROPERLY INSTALLED AND MAINTAINED. ALL LOCATIONS AND DISTANCES WILL BE DECIDED UPON IN THE FIELD BY THE CONTRACTOR, USING THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE CITY'S CONSTRUCTION INSPECTOR AND TRAFFIC ENGINEERING REPRESENTATIVE WILL ONLY BE RESPONSIBLE TO INSPECT BARRICADES AND SIGNS, IF, IN THE OPINION OF THE TRAFFIC ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC. THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED.
- IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.171 C.F.R., 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.
- CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY UTILITY TRENCHES TO SCHEDULE FOR DENSITY TEST AS REQUIRED.
- CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION:

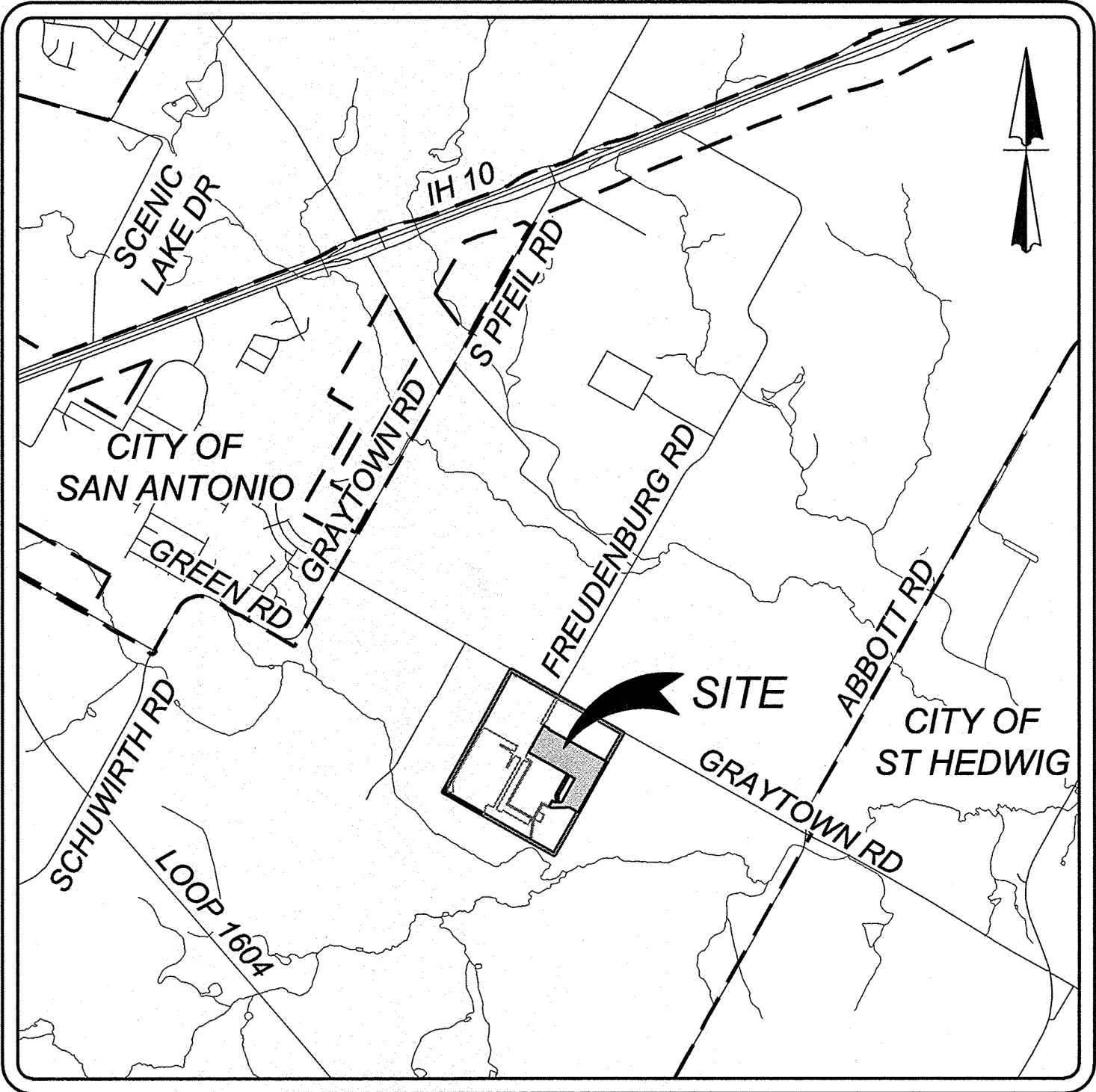
SAN ANTONIO WATER SYSTEM (SAWS)	233-2010
BEXAR METROPOLITAN WATER DISTRICT (BEXAR MET)	354-6538 / 357-5741
COSA DRAINAGE	207-8948
COSA SIGNAL OPERATIONS	207-7720 / 207-7765
TEXAS STATE WIDE ONE CALL LOCATOR	1-800-344-8377
CITY PUBLIC SERVICE ENERGY - TIME WARNER - AT&T - MCI	
- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
- ALL WASTE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE.
- THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
- THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND / OR TRACKED CONSTRUCTION MATERIALS AND / OR DEBRIS.
- IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE CITY HISTORIC PRESERVATION OFFICE AT 207-7308 OR 207-3327 FOR AN ARCHAEOLOGICAL INVESTIGATION. THE CONTRACTOR CANNOT BEGIN EXCAVATION AGAIN WITHOUT WRITTEN PERMISSION FROM THE CITY. IF MORE THAN THREE (3) DAYS ARE REQUIRED FOR INVESTIGATION (NOT INCLUDING HOLIDAY AND WEEKENDS) AND IF THE CONTRACTOR IS UNABLE TO WORK IN OTHER AREAS, THEN THE CONTRACTOR WILL BE ALLOWED TO NEGOTIATE FOR ADDITIONAL CONSTRUCTION TIME UPON WRITTEN REQUEST WITHIN TEN (10) DAYS AFTER THE FIRST NOTICE TO THE CITY OF ARCHAEOLOGICAL INVESTIGATION FOR EACH EVENT. IF THE TIME REQUIRED FOR INVESTIGATION IS LESS THAN OR EQUAL TO THREE (3) DAYS FOR EACH EVENT, CONTRACT DURATION WILL NOT BE EXTENDED.
- IF SUSPECTED CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION OPERATIONS, C.O.S.A. SHALL BE NOTIFIED IMMEDIATELY WHEN CONTAMINATED SOILS AND / OR GROUNDWATER ARE ENCOUNTERED AT LOCATIONS NOT IDENTIFIED IN THE PLANS. THE NOTIFICATION SHOULD INCLUDE THE STATION NUMBER, TYPE OF CONTAMINATED MEDIA, EVIDENCE OF CONTAMINATION AND MEASURES TAKEN TO CONTAIN THE CONTAMINATED MEDIA AND PREVENT PUBLIC ACCESS. THE CONTAMINATED SOIL AND / OR GROUNDWATER SHALL NOT BE REMOVED FROM THE LOCATION WITHOUT PRIOR C.O.S.A. APPROVAL. THE CONTRACTOR MUST STOP THE EXCAVATION IMMEDIATELY AND CONTACT THE C.O.S.A. INSPECTOR. THE CONTRACTOR CANNOT BEGIN EXCAVATION ACTIVITIES WITHOUT WRITTEN PERMISSION FROM THE CITY.
- CONTRACTOR IS TO INCLUDE A MAILBOX POST BLOCKOUT FOR VACANT LOTS AND ALL RESIDENCES WHICH DO NOT HAVE MAILBOXES AT THE CURB. BLOCKOUTS ARE PROVIDED FOR FUTURE USE BY THE POST OFFICE.
- CONTRACTOR SHALL NOT REMOVE OR ADJUST ANY VIA FACILITIES. THE CONTRACTOR MUST CONTACT VIA FOURTEEN DAYS PRIOR, FOR THE REMOVAL OF BENCHES, STOP POLES OR ANY OTHER VIA FACILITIES THAT MAY BE PRESENT. PLEASE PROVIDE THIRTY DAYS PRIOR NOTICE FOR SHELTER REMOVAL (TELEPHONE NOS: (210) 362-2155 OR (210) 362-2096). THE CONTRACTOR WILL BE LIABLE FOR ANY DAMAGES TO VIA FACILITIES NOT REMOVED BY VIA. THE CONTRACTOR IS REQUIRED TO REPLACE ALL FLATWORK REMOVED OR DAMAGED IN THE COURSE OF EXECUTING THE CONTRACT UNLESS OTHERWISE NOTED BY VIA. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING VIA FACILITIES IF ADJACENT TO WORK AREA.

TREE PROTECTION AND PRESERVATION GENERAL NOTES

- NO UTILITY OR STREET EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
- TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION. DURING CONSTRUCTION ACTIVITY, AT LEAST A SIX-INCH LAYER OF COARSE MULCH SHALL BE PLACED AND MAINTAINED OVER THE ROOT PROTECTION ZONE (NO SEPARATE PAY ITEM).
- THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
- ROOTS WILL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.
- ALL CURB AND SIDEWALK WORK SHALL USE ALTERNATIVE CONSTRUCTION METHODS TO MINIMIZE EXTENSIVE ROOT DAMAGE TO TREES (REFER TO DETAILS).
- EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH, OR WET BURLAP.
- NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS 1 FOOT OF RADIUS PER INCH OF TREE'S DIAMETER. A 10-INCH DIAMETER TREE WOULD HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. OAK WOUNDS SHALL BE PAINTED OVER WITHIN 30 MINUTES TO PREVENT OAK WILT.
- SAPLINGS, SHRUBS OR BUSHES TO BE CLEARED FROM THE PROTECTED ROOT ZONE AREA OF A LARGE TREE SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR.
- NO WIRES, NAILS OR OTHER MATERIAL MAY BE ATTACHED TO PROTECTED TREES.
- TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE CITY STREET OR ALLEY RIGHT-OF-WAY OR PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES SHALL BE PROPERLY PRUNED FOLLOWING THE ANSI A-300 STANDARDS FOR PRUNING. ALL TREE PRUNING SHALL BE COMPLETED BY A CITY OF SAN ANTONIO TREE MAINTENANCE LICENSED CONTRACTOR (ARTICLE 21-171, CITY CODE) ONLY AFTER APPROVAL FROM THE CAPITAL PROJECTS MANAGEMENT THROUGH THE INSPECTOR.
- NO EXCESSIVE TREE TRIMMING WILL BE PERMITTED.
- ALL DEBRIS GENERATED BY THE PRUNING AND TRIMMING OF THE TREES AND / OR BUSHES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY (NO SEPARATE PAY ITEM).
- TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE, BUT NOT LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
- ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST. (207-0278).
- TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
- TREE PLANTING FOR MITIGATION OR ENHANCEMENT: ALL PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATION, FERTILIZING, PRUNING AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT. TREES THAT DIE WITHIN TWELVE (12) MONTHS SHALL BE REPLACED WITH A TREE OF EQUAL SIZE AND SPECIES.

ACCESSIBILITY REQUIREMENTS

- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN VEHICULAR AND PEDESTRIAN ACCESS AT ALL TIMES TO LOCAL RESIDENCES AND BUSINESSES.
- WHEN THE WORK REQUIRES THE EXCAVATION OF THE STREET AND THE REMOVAL OF THE EXISTING DRIVEWAY APPROACHES AND SIDEWALKS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY ALL-WEATHER ACCESS TO THE BUSINESSES AND RESIDENCES. THE TEMPORARY DRIVEWAY APPROACHES SHALL BE CONSTRUCTED WITH FLEXIBLE BASE OR GRAVEL MATERIAL AT NO SEPARATE COST TO THE CITY.
- PRIOR TO INITIATING THE CONSTRUCTION OF NEW DRIVEWAY APPROACHES, THE CONTRACTOR SHALL GIVE ADVANCE WARNING IN PERSON, OR IN WRITING, OF AT LEAST 48 HOURS TO EACH RESIDENCE THAT WILL BE IMMEDIATELY AFFECTED, SO THAT ALTERNATE PLANS MAY BE MADE BY THE RESIDENTS.
- FOR BUSINESSES WITH MORE THAN ONE DRIVEWAY, AT LEAST ONE DRIVEWAY SHALL REMAIN OPEN WHILE THE OTHER NEW DRIVEWAY APPROACHES ARE CONSTRUCTED. FOR BUSINESSES WITH ONLY ONE DRIVEWAY, THE NEW DRIVEWAY APPROACH SHALL BE CONSTRUCTED IN HALF WIDTHS, UNLESS A TEMPORARY ASPHALT DRIVEWAY IS FIRST INSTALLED AT NO SEPARATE COST TO THE CITY.



LOCATION MAP
N.T.S.

OWNER/DEVELOPER:
LENNAR HOMES
1922 DRY CREEK WAY, SUITE 101
SAN ANTONIO, TEXAS 78259
PHONE: (210) 403-6282

DECEMBER 2009			
CITY OF SAN ANTONIO			
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT			
CITY OF SAN ANTONIO			
GENERAL NOTES			
1/5 SUBMITTAL PROJECT NO.		DATE:	
DRAWN BY:	DESIGN BY:	CHECK BY:	SHEET NO. OF

KFW
ENGINEERS + SURVEYING
3921 Paesanos Pkwy., Suite 200, San Antonio, TX 78232
Phone #: (210) 979-8444 • Fax #: (210) 979-8441
TBPE Firm #: 9515 • TBPLS Firm #: 10122300

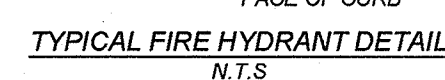


CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, UTILITIES AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, UTILITIES AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES 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 CONTRACTORS SHALL BE RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING A TRENCH AND TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

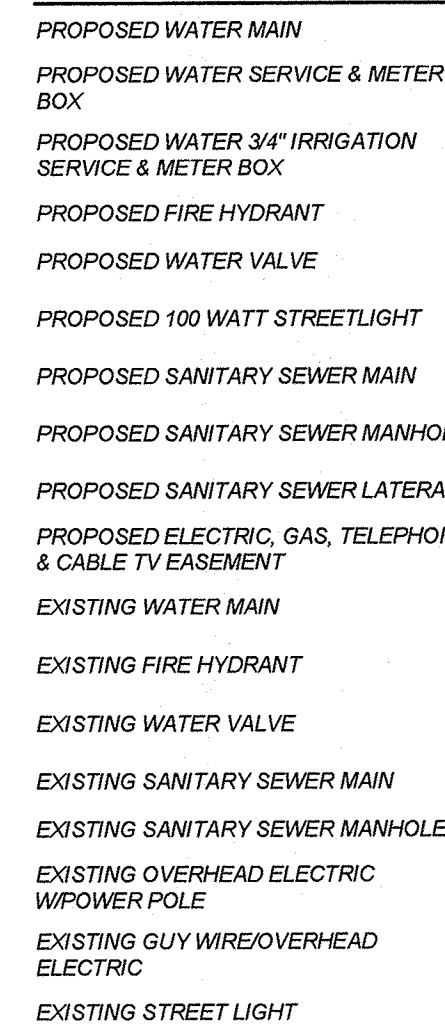
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL. ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM, PERMITS AND/OR SIGHTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL. BY PROVIDING ALL NECESSARY DOCUMENT TEST RESULTS.

DRY UTILITY CONDUIT NOTE:
CONDUIT LOCATIONS SHOWN ON PLAN ARE FOR GEOGRAPHICAL PURPOSES ONLY AND ARE APPROXIMATE. CONTRACTOR TO INSTALL PROPOSED CONDUITS IN ACCORDANCE WITH DRY UTILITY PURVEYOR'S SIGHTS. CONTRACTOR TO VERIFY THE CONDUIT LOCATIONS AND DEPTHS BASED ON THE DRY UTILITY PURVEYOR'S PLAN.

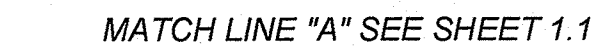
A BEXAR COUNTY PERMIT MUST BE
OBTAINED BEFORE WORKING IN
BEXAR COUNTY R.O.W.



NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR
PLACING CONDUIT SLEEVES FOR EACH CPS
FACILITY AT ALL STREETS AND DRAIN CROSSING
IF BUILT AHEAD OF CPS CONSTRUCTION.
SLEEVES MUST ALSO BE LOCATED FOR CPS
CREWS DURING CONSTRUCTION. (SEPERATE
ITEM) SEE THIS SHEET FOR CONDUIT CROSSING
DETAIL AND SCHEDULE.



N.T.S.



UNPLATTED
REMAINING PORTION OF 153.26 ACRE TRACT
OWNER: LENNAR HOMES OF TEXAS
LAND AND CONSTRUCTION LTD.
(DOC #20210240677 O.P.R.)

SEWER / WATER CROSSING
REFERENCE THIS SHEET FOR DETAILS

10' E.G.T.T.

OFF-LOT 50' ELECTRIC, GAS,
TELEPHONE, CABLE TV, WATER,
SANITARY SEWER, DRAINAGE
EASEMENT (ENTIRE EASEMENT TO
EXPIRE UPON INCORPORATION INTO
PLATTED STREET RIGHT-OF-WAY)

OWNER: FLORIANO CISNEROS, RENE CISNEROS AND VICENTE CISNEROS
(VOLUME 17082, PAGE 2237 O.P.R.)

E
 F
 S

7

ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
OVERALL UTILITY PLAN (1 OF 2)

PLAT NO.
22-11800056

NO. 314-51-01

E:--

1.0

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THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY SUBMITTALS AND APPROVE THEM FOR CONSTRUCTION OF THE TRENCH EXCAVATION PROJECT IN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTORS' TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. CONTRACTORS' PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH EXCAVATION SAFETY PROTECTION PROGRAM THAT INCLUDES MONITORING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL, AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. PERMITS AND/OR WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

CONDUIT LOCATIONS SHOWN ON PLAN ARE FOR GEOGRAPHICAL PURPOSES ONLY AND ARE APPROXIMATE. CONTRACTOR TO INSTALL PROPOSED CONDUITS IN ACCORDANCE WITH DRY UTILITY PURVEYOR'S SPECIFICATIONS. CONTRACTOR TO VERIFY THE CONDUIT LOCATIONS AND SIZES BASED ON THE DRY UTILITY PURVEYOR'S PLAN.



WHERE SEWER PIPE CROSSES A WATER LINE, THE SEWER SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT THE WATER CROSSING.



PROPOSED WATER SERVICE & METER

PROPOSED WATER 2/41/11

SERVICE & METER BOX

PROPOSED FIRE HYDRANT

PROPOSED WATER VALVE

PROPOSED 100 WATT ST

PROPOSED SANITARY SEWER

PROPOSED SANITARY SL

PROPOSED SANITARY S

PROPOSED ELECTRIC, G

& CABLE TV EASEMENT

EXISTING WATERWAY

EXISTING FIRE HYDRANT

EXISTING WATER VALVE

EXISTING SANITARY SEW

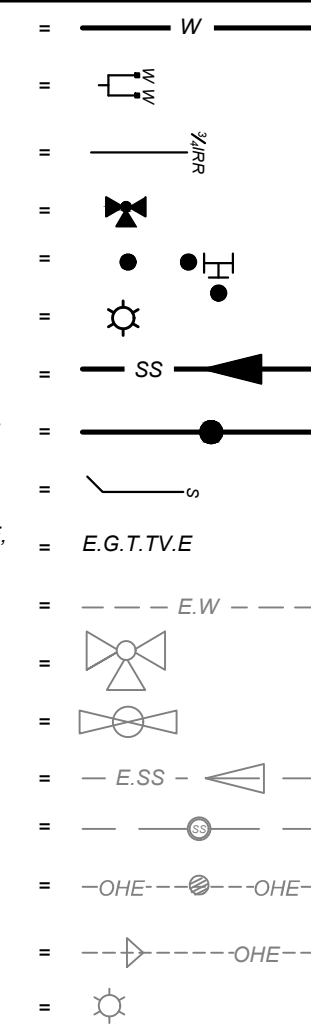
EXISTING SANITARY SEW

EXISTING OVERHEAD EL
W/POWER POLE

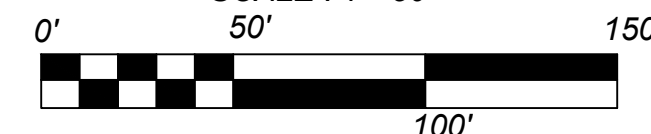
EXISTING GUY WIRE/OVER

ELECTRIC

EXISTING STREET LIGHT



SCALE : 1"=50'



ROSE VALLEY PHASE 1B

SAN ANTONIO, TEXAS

OVERALL UTILITY PLAN (2 OF 2)

PLAT NO.
22-11800056

JOB NO. 314-51-0

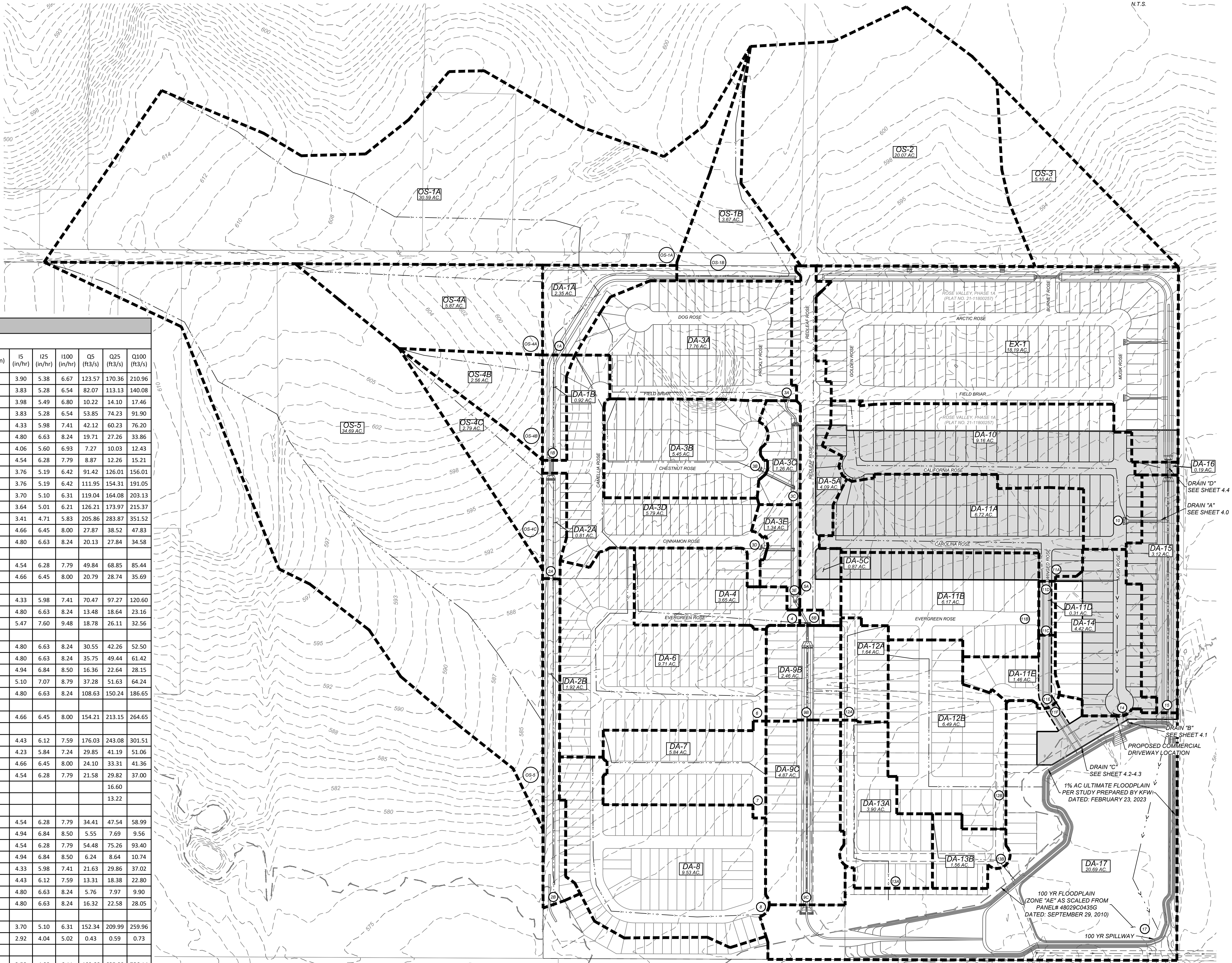
DATE: ---

SHEET NUMBER

1.1

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File: N:\314\314\Vol\Design\CD\WD314310.dwg

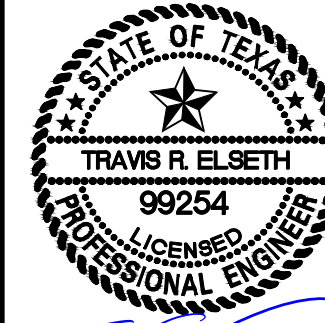
PROPOSED/ULTIMATE CONDITIONS															
HYDROLOGY SUMMARY - RATIONAL METHOD															
Study Point	Drainage Area	(Acres)	C	Tcarryover (min)	Tovr1 (min)	Tsc (min)	Tch (min)	Ttot (min)	I5 (in/hr)	I25 (in/hr)	I100 (ft3/s)	Q5 (ft3/s)	Q25 (ft3/s)	Q100 (ft3/s)	
EX-1	EX-1+DA-OS-2+DA-OS-3	43.36	Reference Unit 1-A SWMP Drainage Map for detailed breakdown (See SWMP)		27	3.90	5.38	6.67	123.57	170.36	210.96				
OS-1A	DA-OS-1A	30.59	0.70		16	10	2	28	3.83	5.28	6.54	82.07	113.13	140.08	
OS-1B	DA-OS-1B	3.67	0.70		16	9	1	26	3.98	5.49	6.80	10.22	14.10	17.46	
OS-2	DA-OS-2	20.07	0.70		16	10	2	28	3.83	5.28	6.54	53.85	74.23	91.90	
OS-3	DA-OS-3	5.10	0.70		16	5	1	22	4.33	5.98	7.41	42.12	60.23	76.20	
OS-4A	DA-OS-4A	5.87	0.70		12	5	1	18	4.80	6.63	8.24	19.71	27.26	33.86	
OS-4B	DA-OS-4B	2.56	0.70		16	4	5	25	4.06	5.60	6.93	7.27	10.03	12.43	
OS-4C	DA-OS-4C	2.79	0.70		16	4	0	20	4.54	6.28	7.79	8.87	12.26	15.21	
OS-5	DA-OS-5	34.69	0.70		16	8	5	29	3.76	5.19	6.42	91.42	126.01	156.01	
1A	DA-1+DA-OS-1A+DA-OS-1B+DA-OS-4A	42.48	0.70	FROM DA-OS-1A	28	0	1	29	3.76	5.19	6.42	111.95	154.31	191.05	
1B	PT.1A + DA-OS-4B + DA-1B	45.96	0.70	FROM DA-1A	29	0	1	30	3.70	5.10	6.31	119.04	164.08	203.13	
2A	PT.1B + DA-OS-4C + DA-2A	49.56	0.70	FROM DA-1B	30	0	1	31	3.64	5.01	6.21	126.21	173.97	215.37	
2B	PT.2A + DA-OS-5 + DA-2B	86.16	0.70	FROM DA-2A	31	0	4	35	3.41	4.71	5.83	205.86	283.87	351.52	
3A	DA-3A	7.76	0.77		15	2	2	19	4.66	6.45	8.00	27.87	38.52	47.83	
3B	DA-3B	5.45	0.77		15	1	2	18	4.80	6.63	8.24	20.13	27.84	34.58	
	DA-3C	1.26	0.63												
3C	PT.3A + PT.3B + DA-3C	14.47	0.76		19	0	1	20	4.54	6.28	7.79	49.84	68.85	85.44	
3D	DA-3D	5.79	0.77		15	1	3	19	4.66	6.45	8.00	20.79	28.74	35.69	
	DA-3E	1.34	0.64												
3E	PT.3C + PT.3D + DA-3E	21.60	0.75		20	0	2	22	4.33	5.98	7.41	70.47	97.27	120.60	
4	DA-4	3.65	0.77		15	1	2	18	4.80	6.63	8.24	13.48	18.64	23.16	
5A	DA-5A	4.09	0.84		11	0	3	14	5.47	7.60	9.48	18.78	26.11	32.56	
	DA-5B	0.13	0.96												
5B	PT.4 + PT.5A + DA-5B	7.87	0.81	FROM DA-5A	18	0	0	18	4.80	6.63	8.24	30.55	42.26	52.50	
6	DA-6	9.68	0.77					18	4.80	6.63	8.24	35.75	49.44	61.42	
7	DA-7	4.30	0.77		10	7	0	17	4.94	6.84	8.50	16.36	22.64	28.15	
8	DA-8	9.49	0.77		13	0	3	16	5.10	7.07	8.79	37.28	51.63	64.24	
9A	RUNOFF CAPTURED ON GRADE + 5B	29.47	0.77	FROM DA-5B	18	0	0	18	4.80	6.63	8.24	108.63	150.24	186.65	
	9B	2.46	0.69												
9B	PT.6 + PT.9A + PT.12A + DA-9B	43.25	0.76	FROM DA-5C	18	0	1	19	4.66	6.45	8.00	154.21	213.15	264.65	
	9C	4.87	0.69												
9C	PT.7 + PT.9B + DA-9C	52.42	0.76	FROM DA-9B	19	0	2	21	4.43	6.12	7.59	176.03	243.08	301.51	
10	DA-10	9.16	0.77		16	4	3	23	4.23	5.84	7.24	29.85	41.19	51.06	
11A	DA-11A	6.71	0.77		15	1	3	19	4.66	6.45	8.00	24.10	33.31	41.36	
11B	DA-11B	6.17	0.77		15	3	2	20	4.54	6.28	7.79	21.58	29.82	37.00	
		3.43	0.96	RUNOFF CAPTURED FROM CURB 2 - 10' CURB INLET ON GRADE											
11C	DA-11C	2.74	0.77	REMAINING RUNOFF FROM CURB INLET ON GRADE										13.22	
	DA-11D	0.31	0.96												
11D	PT.11A + PT.11C + DA-11D	9.76	0.78	FROM DA-11B	20	0	0	20	4.54	6.28	7.79	34.41	47.54	58.99	
11E	DA-11E	1.46	0.77		15	1	1	17	4.94	6.84	8.50	5.55	7.69	9.56	
11F	RUNOFF CAPTURED + PT. 11D + PT.11E	14.65	0.82	FROM DA-11D	20	0	0	20	4.54	6.28	7.79	54.48	75.26	93.40	
12A	DA-12A	1.64	0.77		15	2	0	17	4.94	6.84	8.50	6.24	8.64	10.74	
12B	DA-12B	6.49	0.77		15	6	1	22	4.33	5.98	7.41	21.63	29.86	37.02	
13A	DA-13A	3.90	0.77		15	5	1	21	4.43	6.12	7.59	13.31	18.38	22.80	
13B	DA-13B	1.56	0.77		15	3	0	18	4.80	6.63	8.24	5.76	7.97	9.90	
14	DA-14	4.42	0.77		15	1	2	18	4.80	6.63	8.24	16.32	22.58	28.05	
	DA-15	3.12	0.77												
15	EX-1+DA-OS-2+DA-OS-3+DA-10+DA-15	55.64	0.74	FROM EX-1	27		3	30	3.70	5.10	6.31	152.34	209.99	259.96	
16	DA-16	0.19	0.77		16	0	0	46	2.92	4.04	5.02	0.43	0.59	0.73	
	DA-17	20.69	0.77												
17	PT. 8+PT.9C+PT.11F+PT.12B+PT.13A+PT.13B+PT.14+PT.15+DA-17	169.26	0.76		0	30	2	32	3.58	4.93	6.11	460.66	635.00	786.14	



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
MASTER DRAINAGE PLAN

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN:SD CHECKED:JM
SHEET NUMBER:

2.0



4/3/23

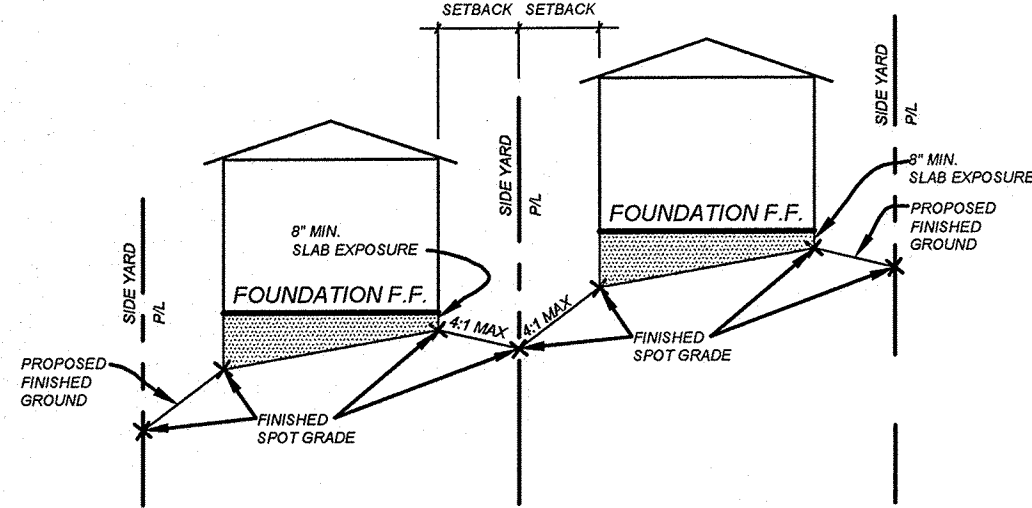
ISSUE DATE

REVISIONS

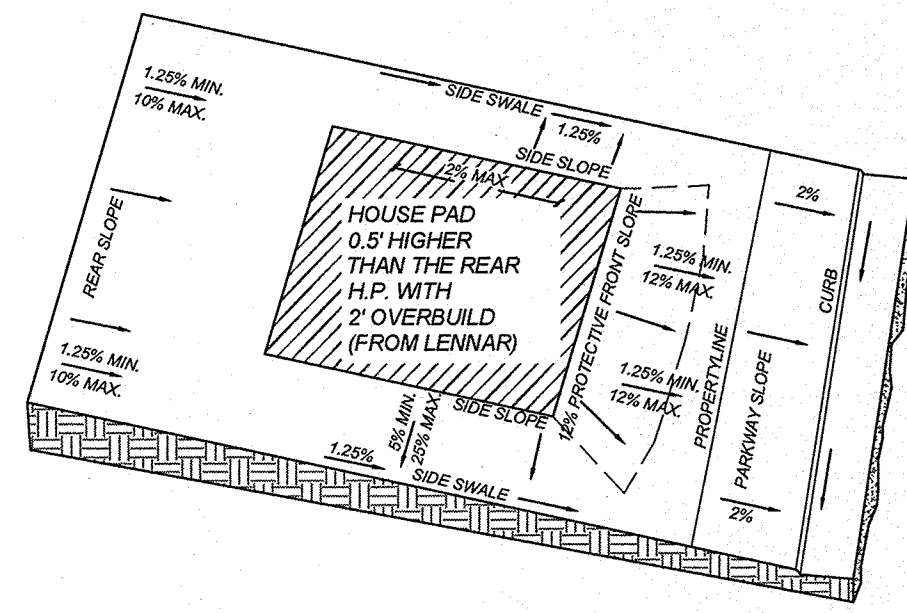
KPM
ENGINEERS + SURVEYING
10000 North Loop West, Suite 1000
Dallas, Texas 75244
Phone # (214) 979-8444 • Fax # (214) 979-8441
TBE Firm # 9513 • TBE S Firm # 1012300

- GENERAL NOTES:
- ELEVATION SHOWN ON FOUNDATION IS FOR FINISHED FLOOR.
 - CONTRACTOR SHALL PROVIDE OWNER ALL NECESSARY DENSITY TESTS FOR FILL LOTS AS REQUIRED BY HUD SPECIFICATIONS.
 - HOME BUILDER SHALL REFER TO THE APPROVED SUBDIVISION PLAT TO CONFIRM ALL BUILDING SETBACKS PRIOR TO ANY FOUNDATION WORK.
 - AS SOON AS PRACTICAL HOME BUILDER SHALL ESTABLISH VEGETATION (HYDROMULCH, SEEDING, SODDING, ETC.) TO PREVENT EROSION FROM OCCURRING.
 - CONTRACTOR SHALL CONTACT ENGINEER REGARDING ANY QUESTIONS ON THE INTENT OF THIS PLAN.
 - POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS AND TOWARDS THE PROPER DRAINAGE EASEMENT OR STREET RIGHT OF WAY ACCORDING TO THE MASTER DRAINAGE PLAN FOR THE PROJECT. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW PONDING OF WATER.
 - ALL ELEVATIONS AND CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVEMENT, CURBS, AND SIDEWALKS MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.
 - GRADING PLAN IS INTENDED FOR USE IN LOT GRADING ONLY. CONTRACTOR SHOULD REFER TO CONSTRUCTION DRAWINGS FOR ALL OTHER GRADES, INCLUDING, BUT NOT LIMITED TO, CHANNELS, ROADS, AND DETENTION PONDS.
 - CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ALL SWALES.

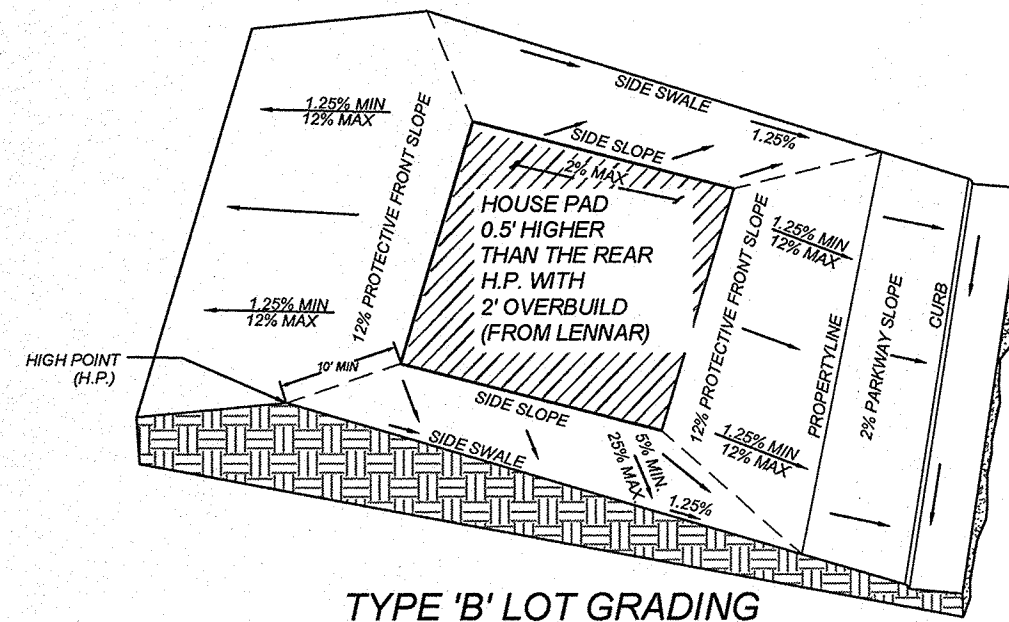
COUNTY FINISHED FLOOR ELEVATION - RELATIVE TO FLOOD PLAIN:
FINISHED FLOOR ELEVATIONS FOR STRUCTURES ON LOTS CONTAINING FLOOD PLAIN OR ADJACENT TO THE FLOOD PLAIN SHALL BE IN COMPLIANCE WITH THE FLOOD PLAIN REGULATION IN EFFECT AT THE TIME OF CONSTRUCTION. CONTACT BEXAR COUNTY PUBLIC WORKS FOR MORE INFORMATION. (F-142(a) & (b)(1))



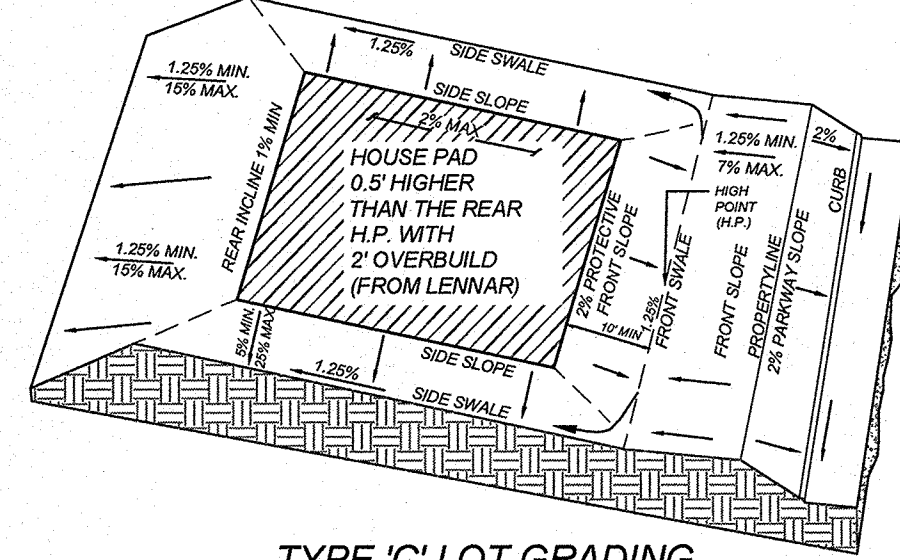
TYPICAL SIDE YARD GRADING
N.T.S.



TYPE 'A' LOT GRADING



TYPE 'B' LOT GRADING

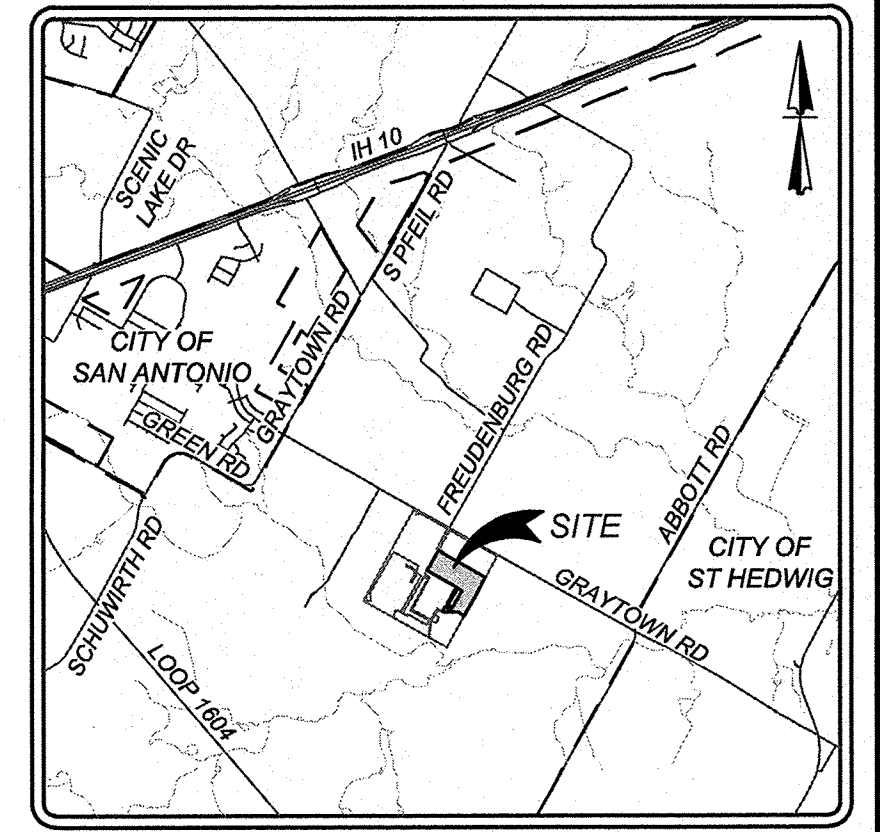


TYPE 'C' LOT GRADING

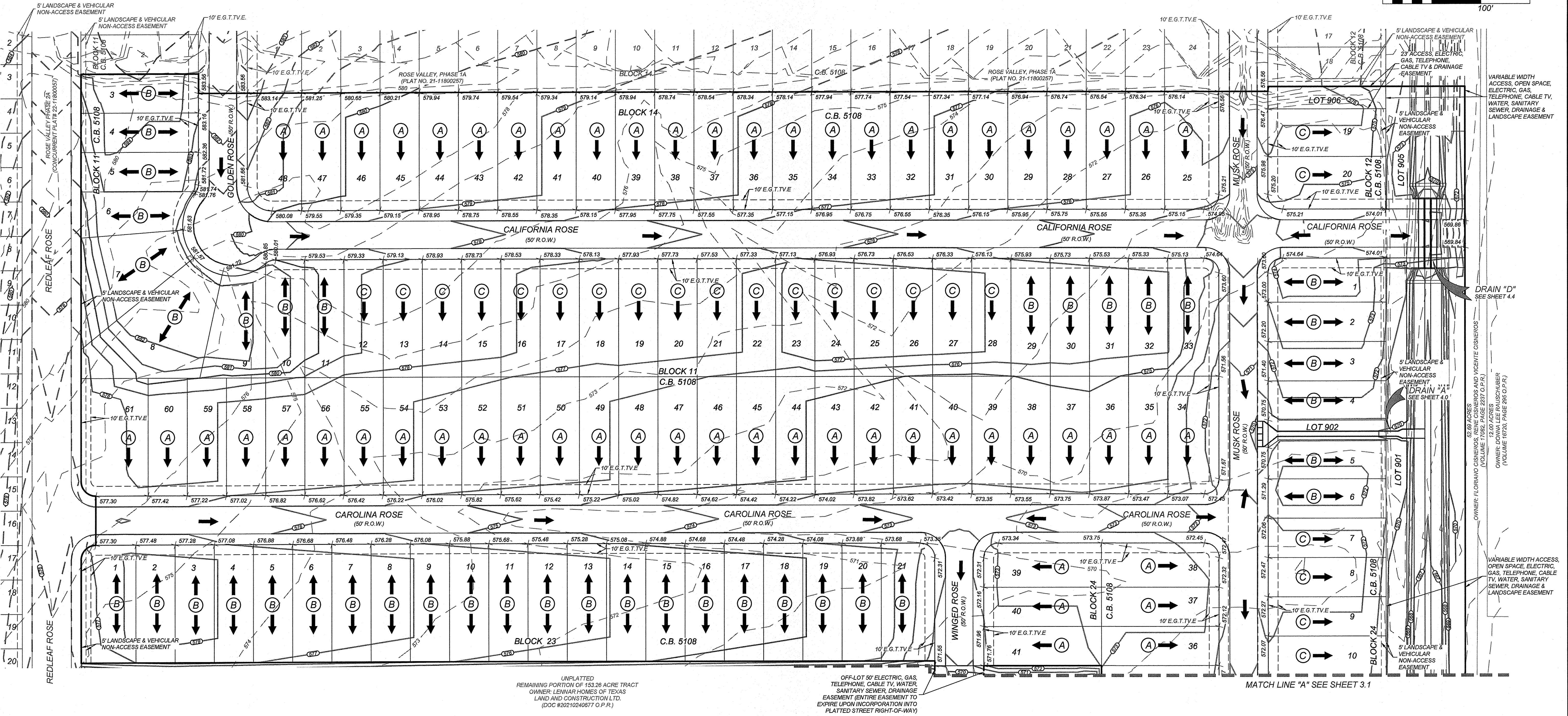
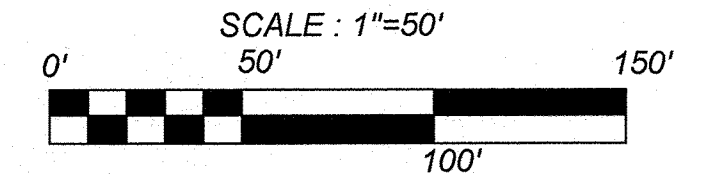
LEGEND

- ELEC, GAS, TELE & CATV EASEMENT = ELECTRIC, GAS, TELEPHONE, CABLE T.V. EASEMENT
- = FLOW ARROW
- (A) = LOT GRADE TYPE
- H.P. = HIGH POINT
- F.F. MIN = 598.0' = FINISHED FLOOR MINIMUM ELEVATION AS REQUIRED PER FLOODPLAIN (SEE NOTE THIS SHEET)
- 735 --- = EXISTING CONTOUR
- 735 --- = PROPOSED CONTOUR
- 735 --- = EXISTING CONTOUR
- + 731.69 = SPOT ELEVATION

BEXAR COUNTY R.O.W. NOTE
A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY R.O.W.



LOCATION MAP
N.T.S.



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
OVERALL GRADING PLAN

PLAT NO. 22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN:SD CHECKED:JM
SHEET NUMBER:

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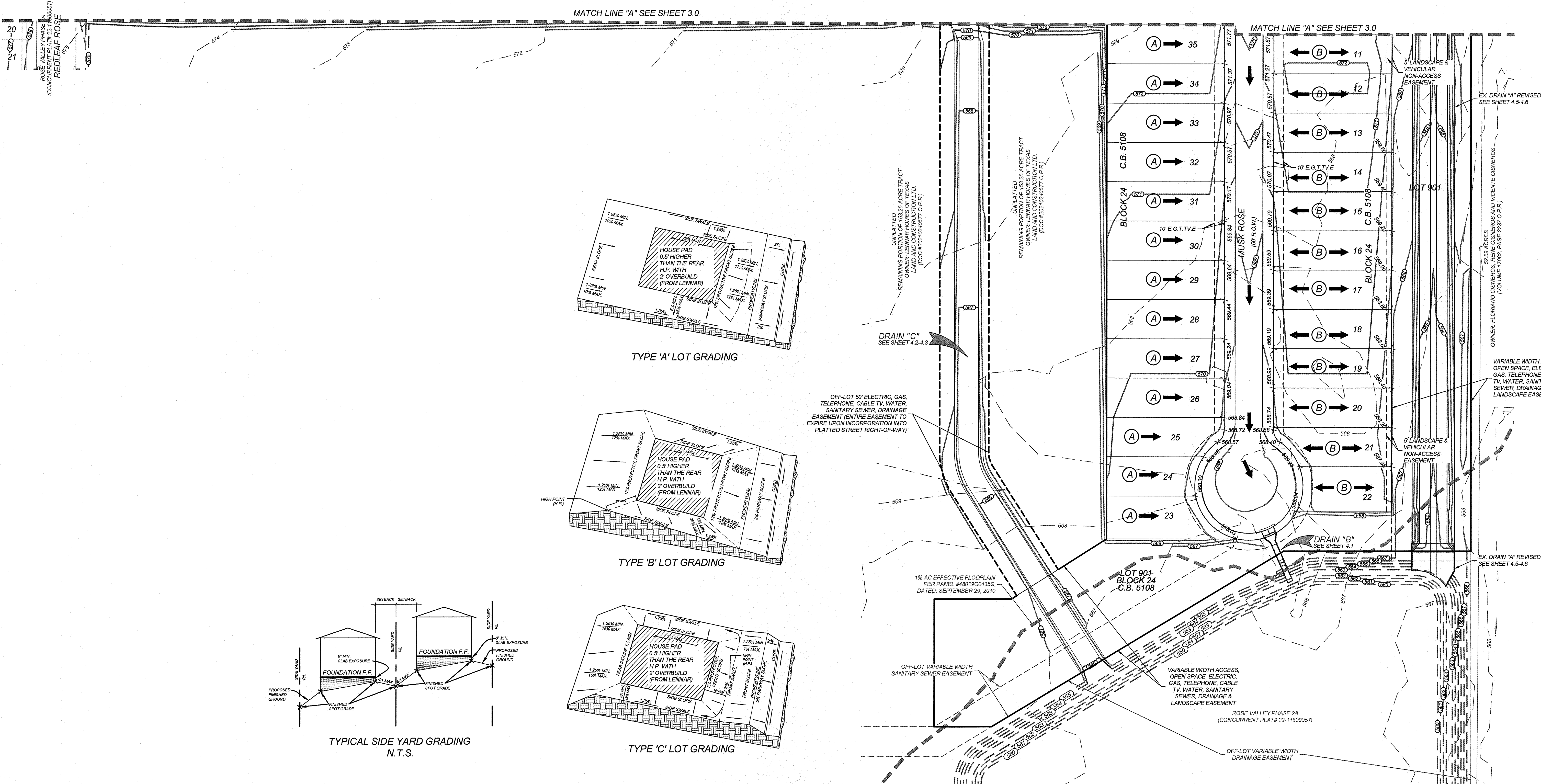
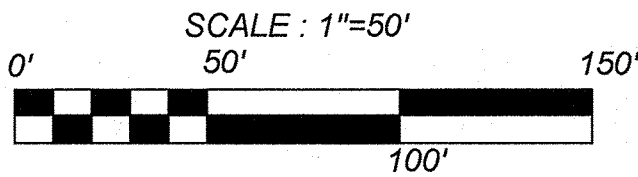
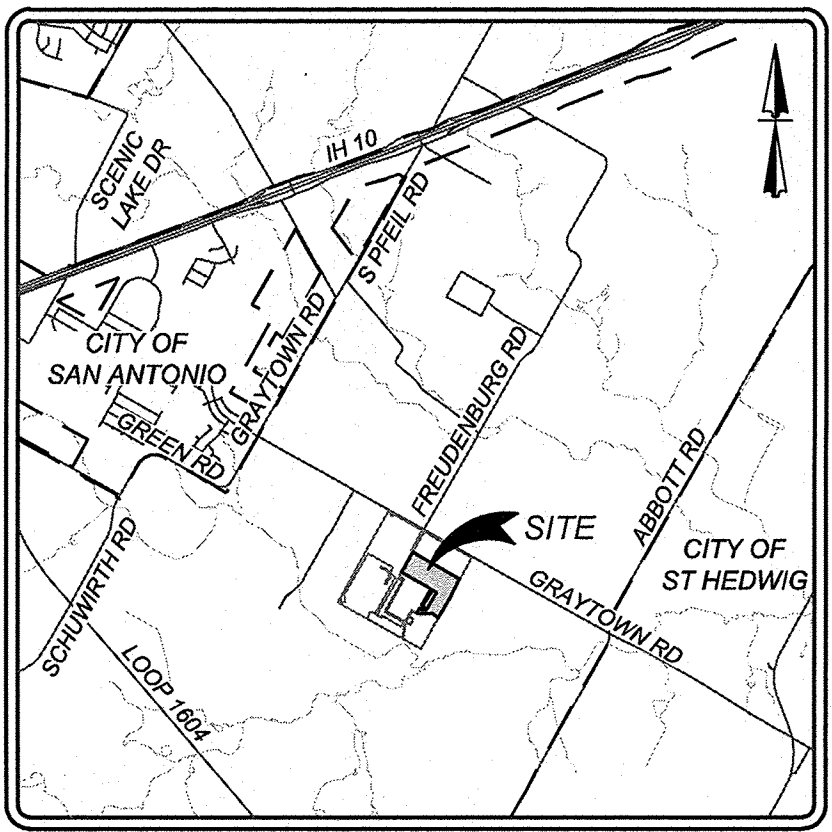
BEXAR COUNTY R.O.W. NOTE

A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY R.O.W.

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ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

OVERALL GRADING PLAN

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ---

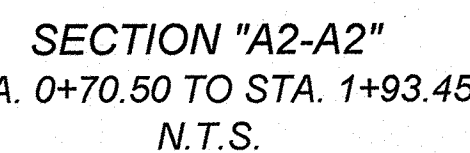
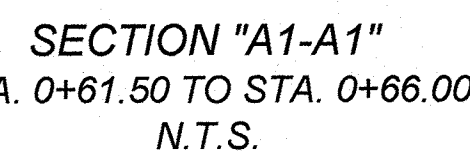
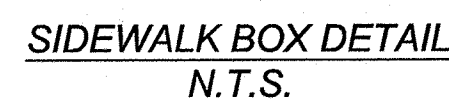
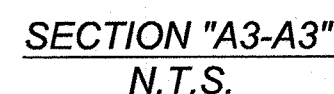
DRAWN:SD CHECKED:JM

SHEET NUMBER:

3.1

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 SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT THE PREVENTION OF COLLAPSE OF EXISTING SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS; SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL PROVIDE ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

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



NOTE: THE MINIMUM DISTANCE FROM FACE OF CONCRETE TO NEAREST REINFORCING BAR IS TO BE 1 INCH.



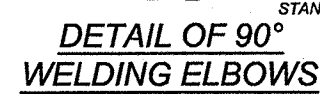
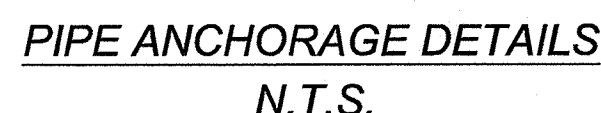
NOTE: THE MINIMUM DISTANCE FROM FACE OF CONCRETE TO NEAREST REINFORCING BAR IS TO BE 1 INCH.



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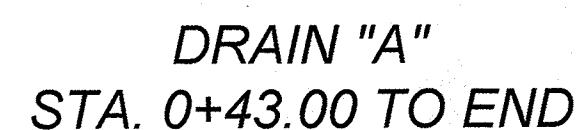
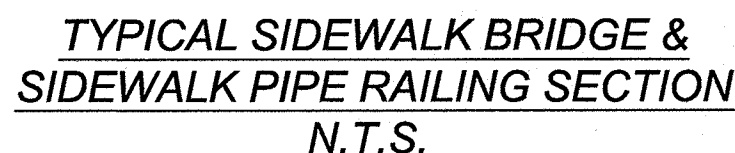


DRAIN "A" REBAR DETAIL "D"



N.T.S.

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



HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'

NOTE:

1. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI IN 28 DAYS.
2. ANY DISTURBED AREAS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE DISTURBED SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT.

CURB OPENING
HYDRAULIC CALCULATION

$$L = \frac{Q_{25}}{Ch^{3/2}}$$

$$L = \frac{41.19}{(3.087)(0.79)^{3/2}}$$

$$L = 19.00 \text{ L.F.}$$

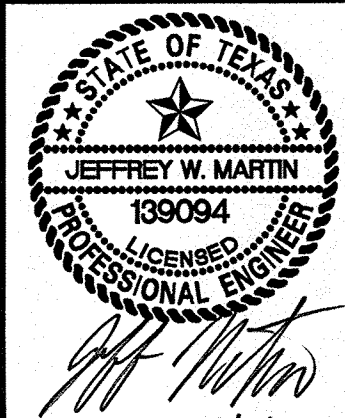
USE 24 L.F. CURB OPENING

USE 24 L.F. CURB OPENING



ISSUE DATE

REVISIONS



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

DRAIN "A" PLAN & PROFILE

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE:---

DRAWN:SD CHECKED:JM

SHEET NUMBER:

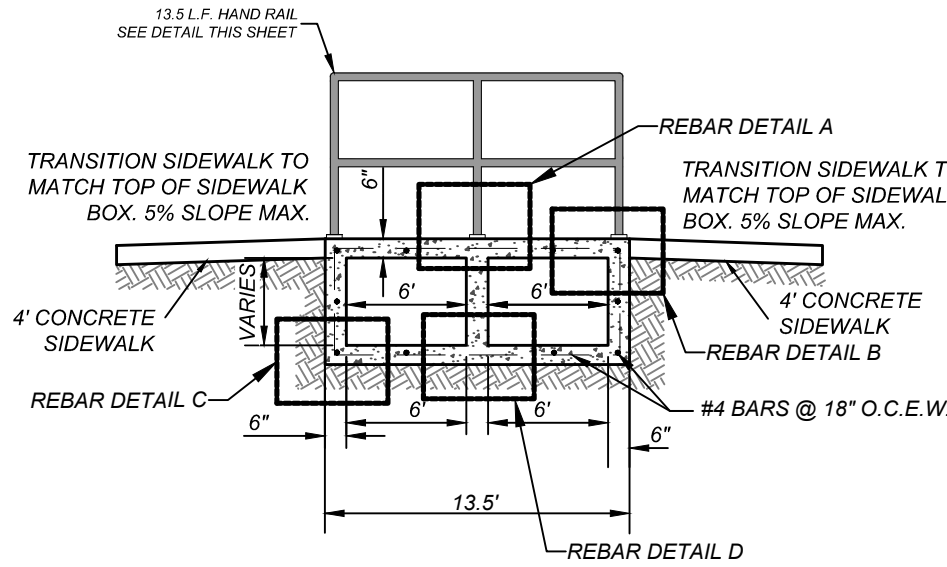
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TRENCH EXCAVATION SAFETY PROTECTION

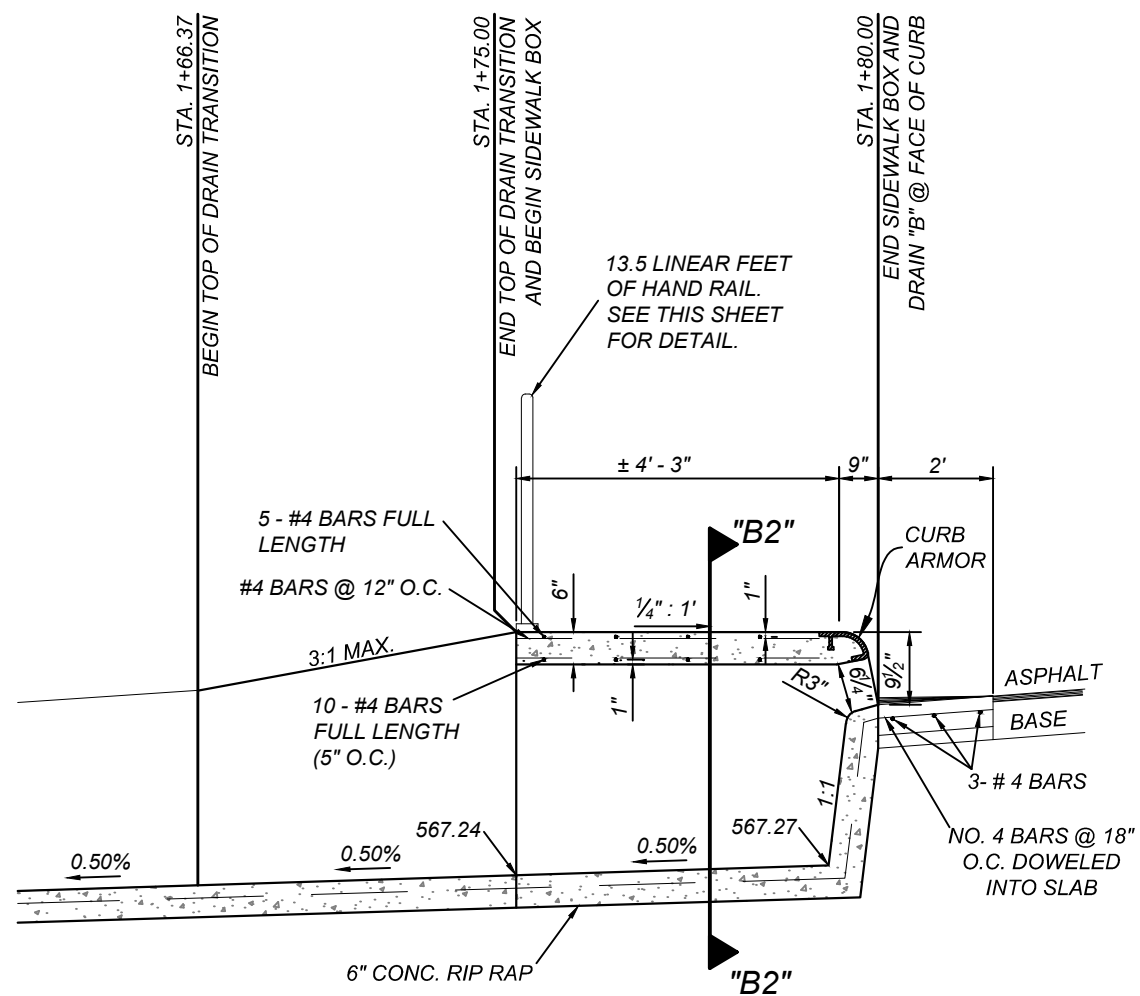
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CAUTION!!!

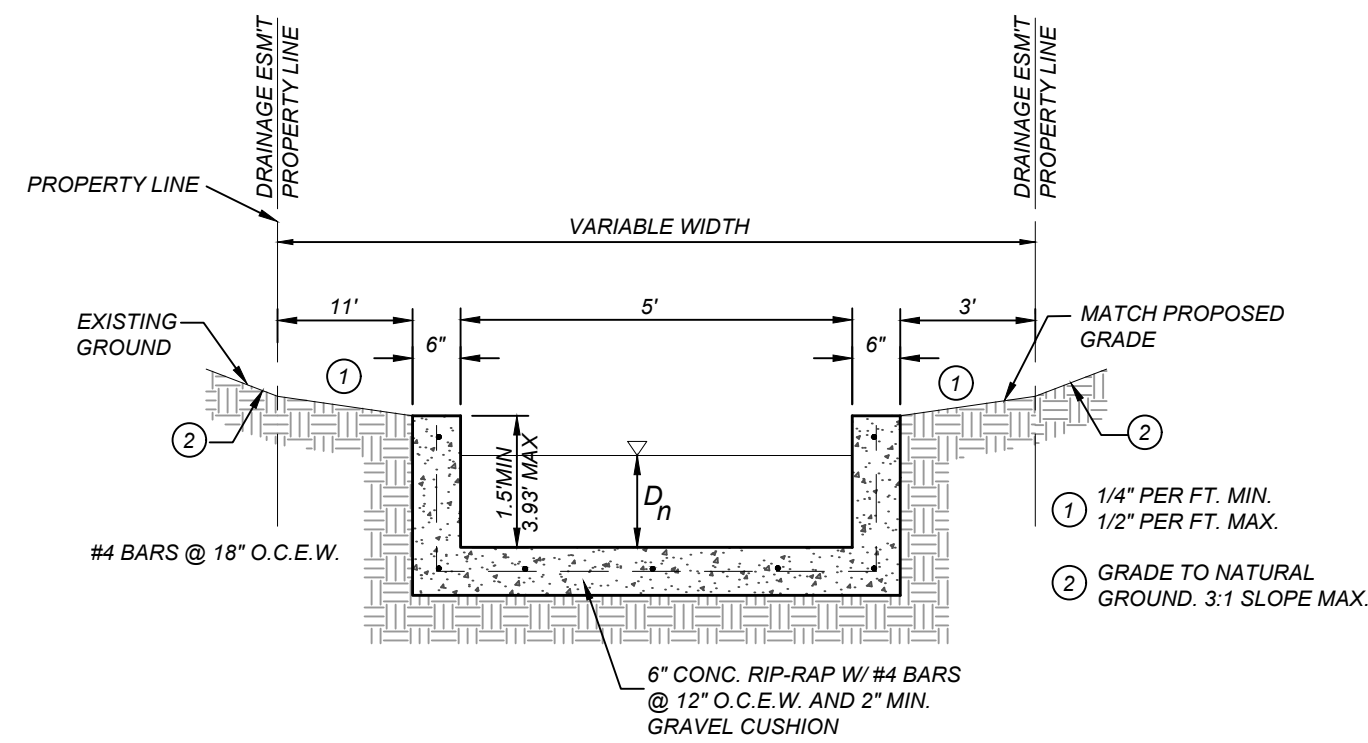
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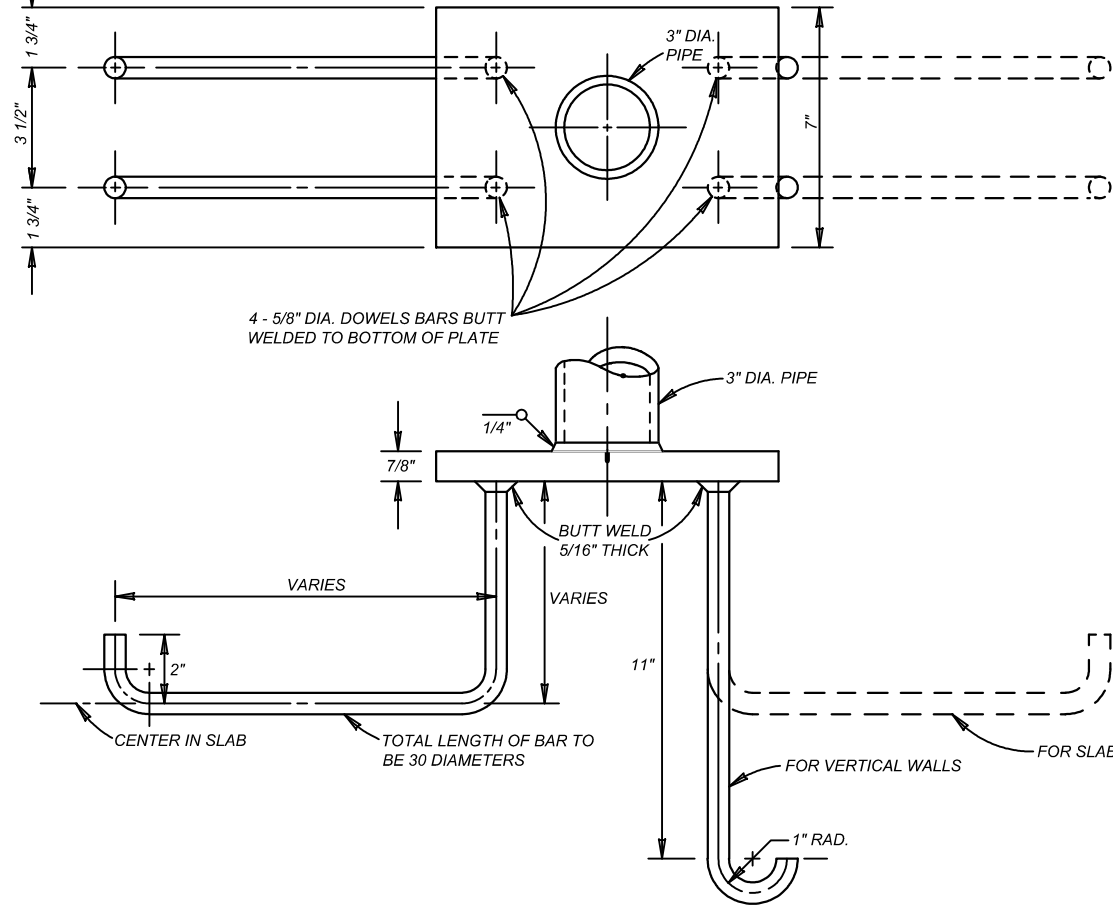
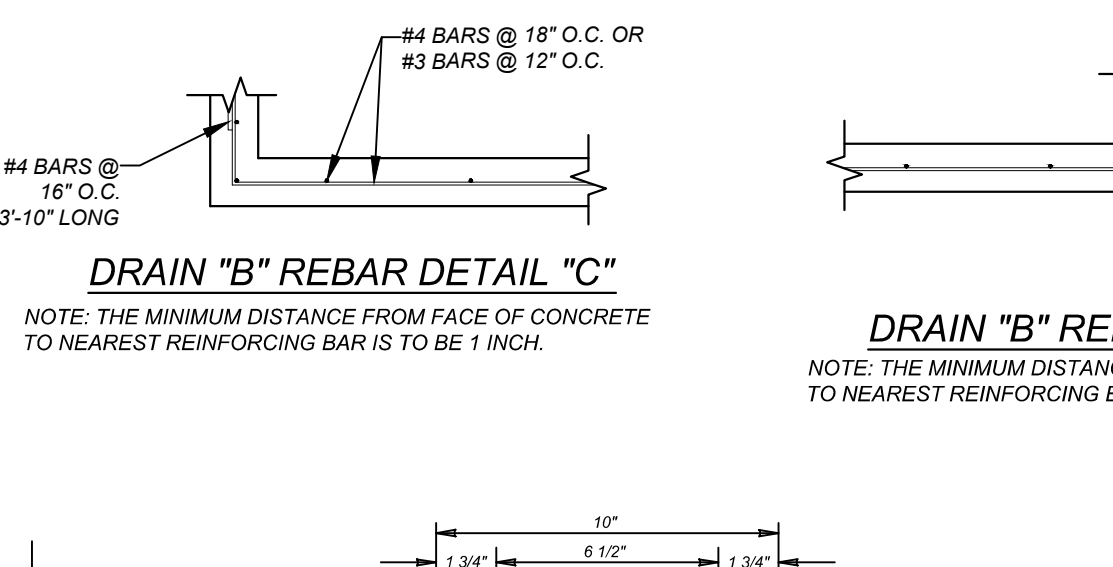
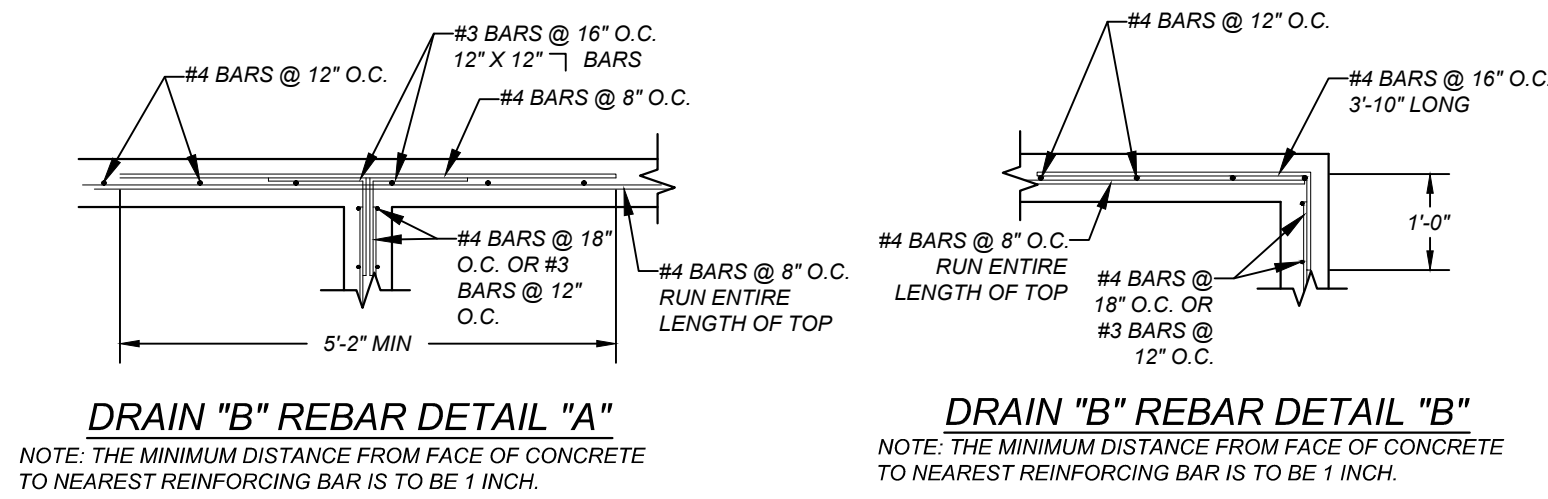
SECTION "B2-B2"
N.T.S.



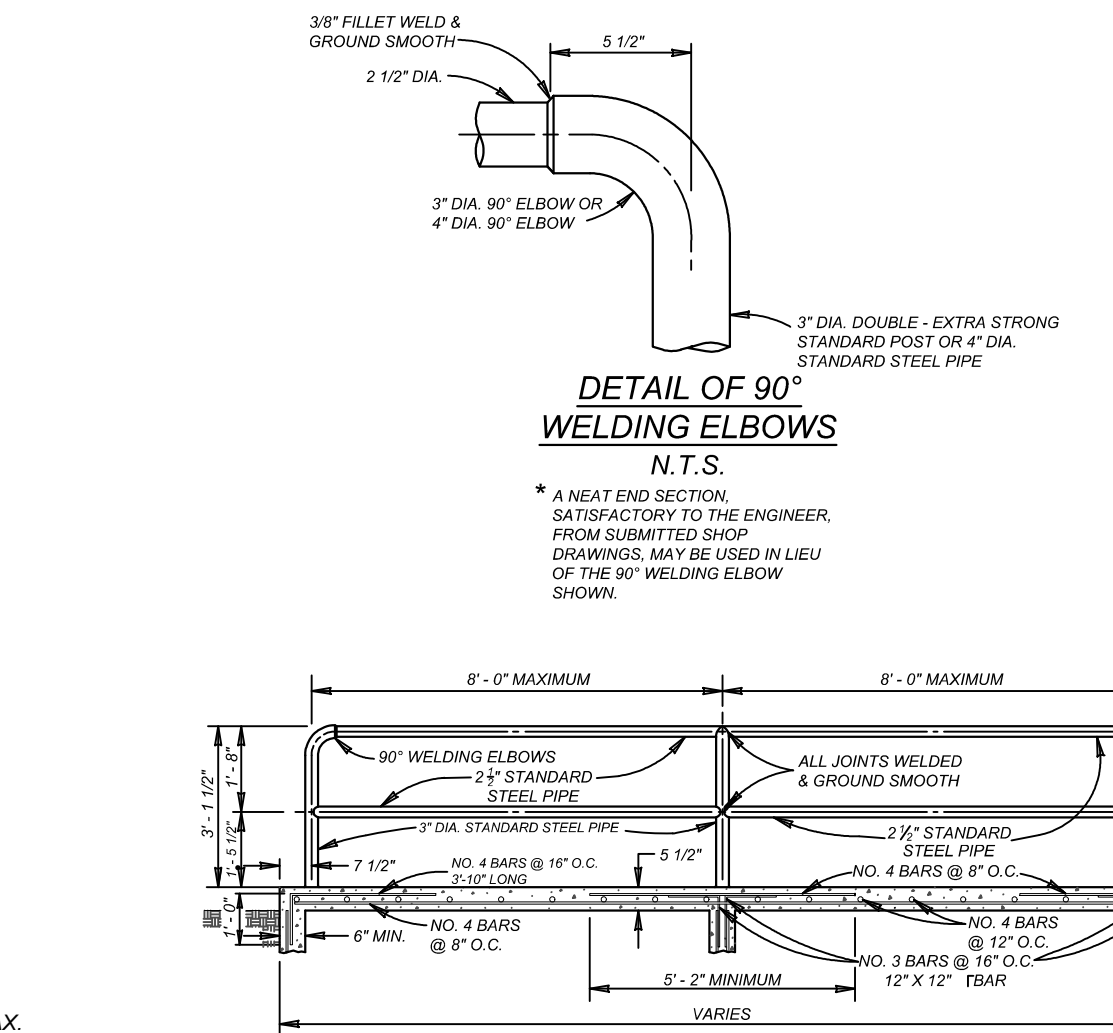
SIDEWALK BOX DETAIL
N.T.S.



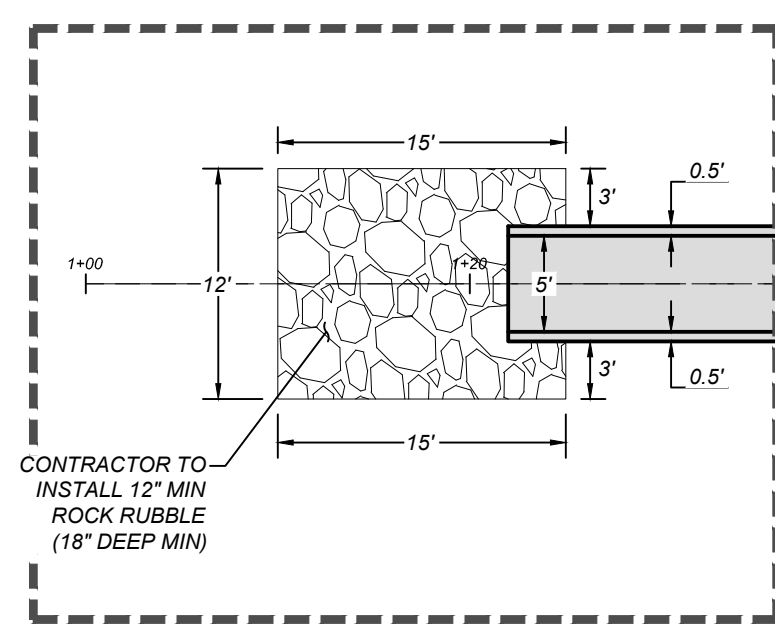
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STA. 1+37.00 TO STA. 1+66.37
N.T.S.



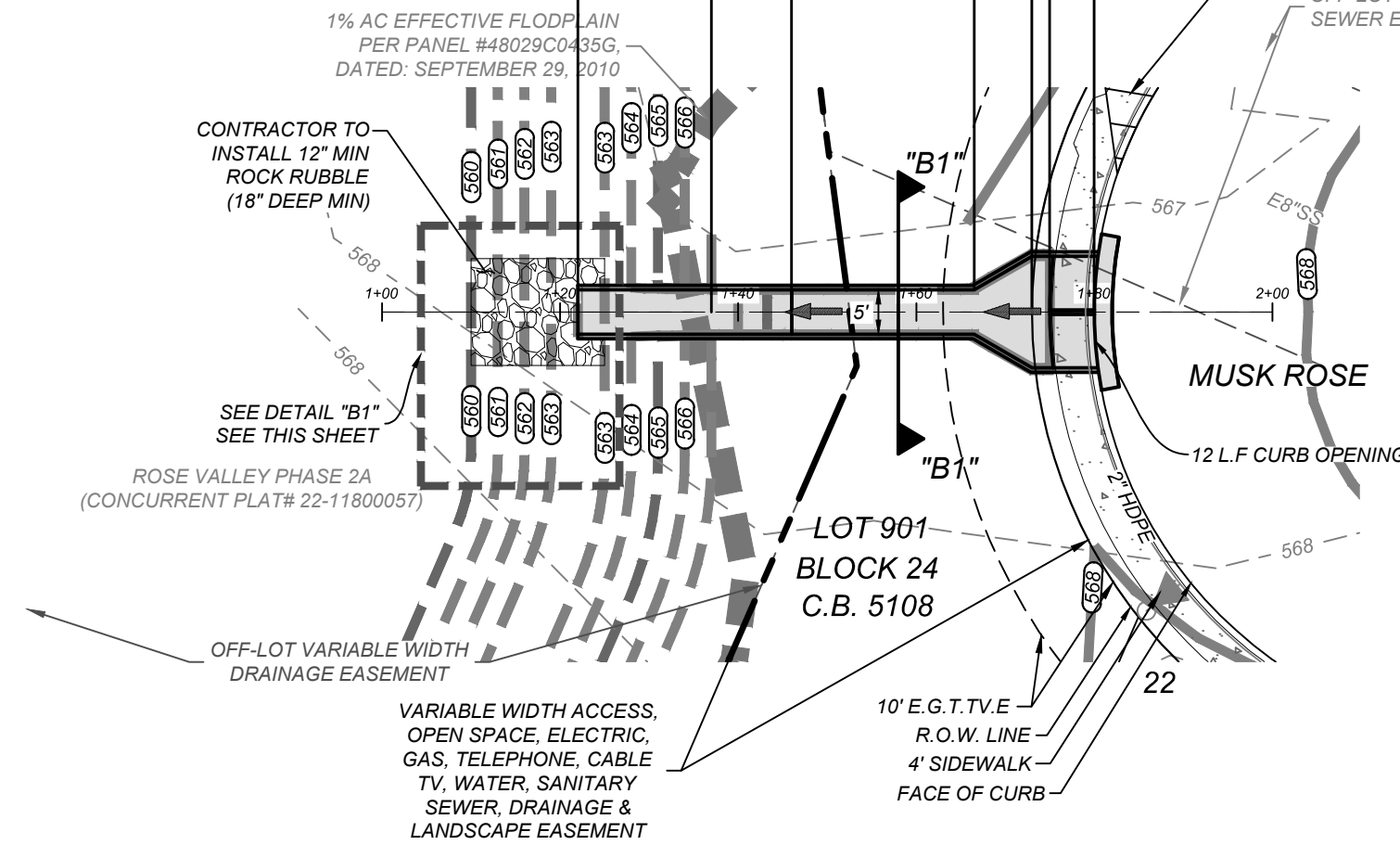
PIPE ANCHORAGE DETAILS
N.T.S.



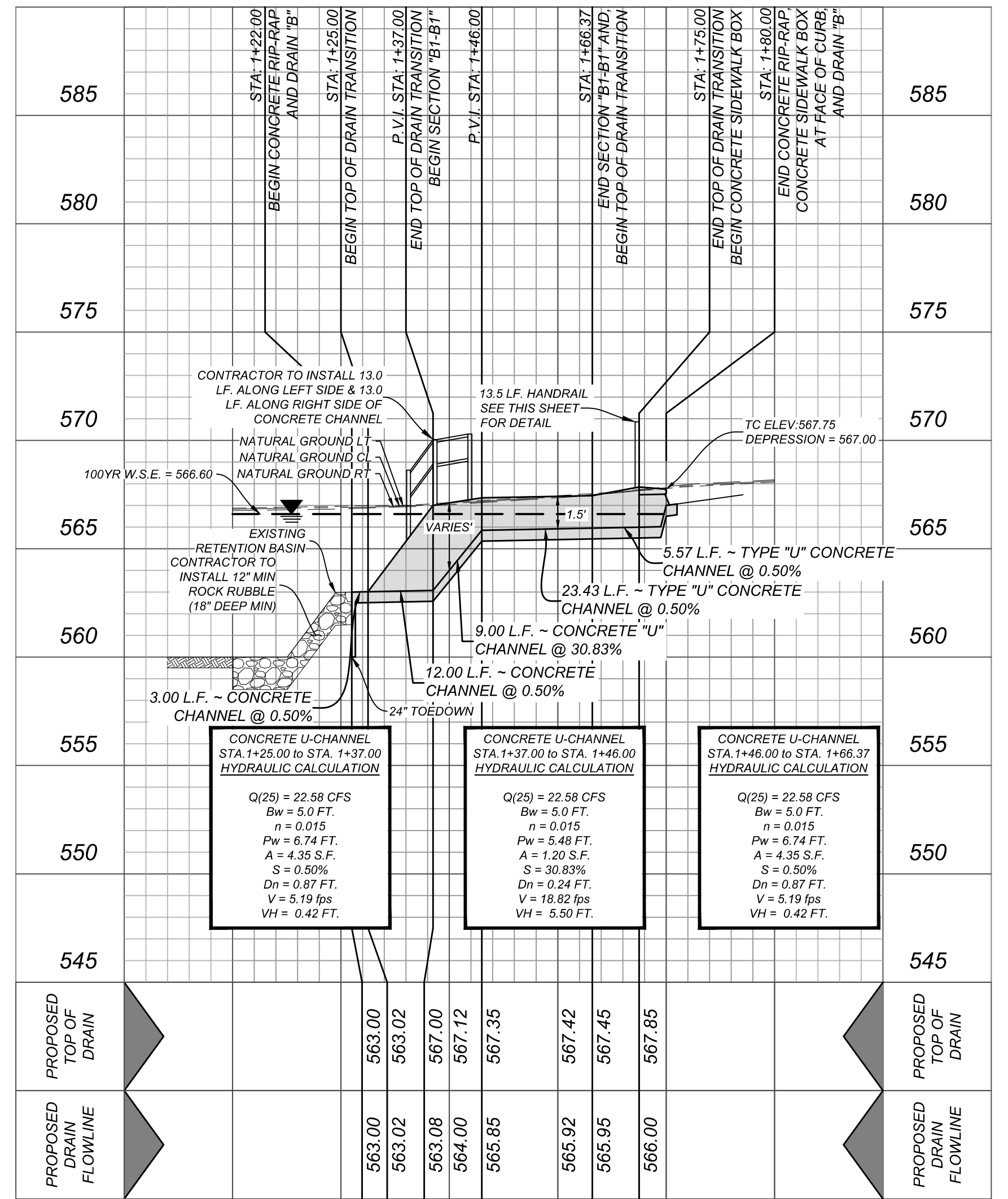
TYPICAL SIDEWALK BRIDGE &
SIDEWALK PIPE RAILING SECTION
N.T.S.



DETAIL "B1"
SCALE: 1"=10'



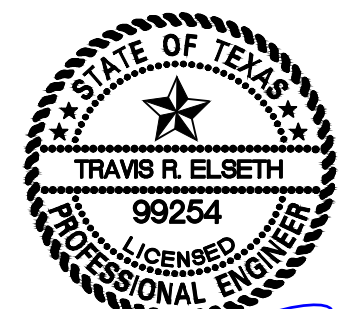
DRAIN "B"
STA. 1+00.00 TO END
HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'



NOTE:
1. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI IN 58 DAYS.
2. ANY DISTURBED AREAS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE DISTURBED SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT.

CURB OPENING
HYDRAULIC CALCULATION
 $L = \frac{Q_{25}}{Cn^{3/2}}$
 $L = \frac{22.58}{(3.087)(0.79)^{3/2}}$
 $L = 10.42 \text{ L.F.}$
USE 12.00 L.F. CURB OPENING

ENGINEERS + SURVEYING
Phone # (210) 978-8444 • Fax # (210) 978-8441
TBPE Firm #: 0515 • TBPE, S Firm #: 10122303

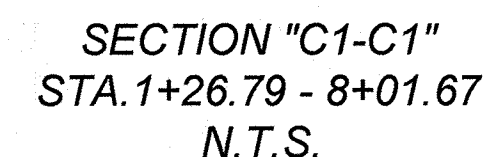


ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
DRAIN "B" PLAN & PROFILE

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN:SD CHECKED:JM
SHEET NUMBER:

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 SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS. CONTRACTOR SHALL PROVIDE ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY, U.S. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL PROVIDE ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITY OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

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



-----735----- = EXISTING CONTOUR
 =====(735)===== = PROPOSED CONTOUR

NOTE:

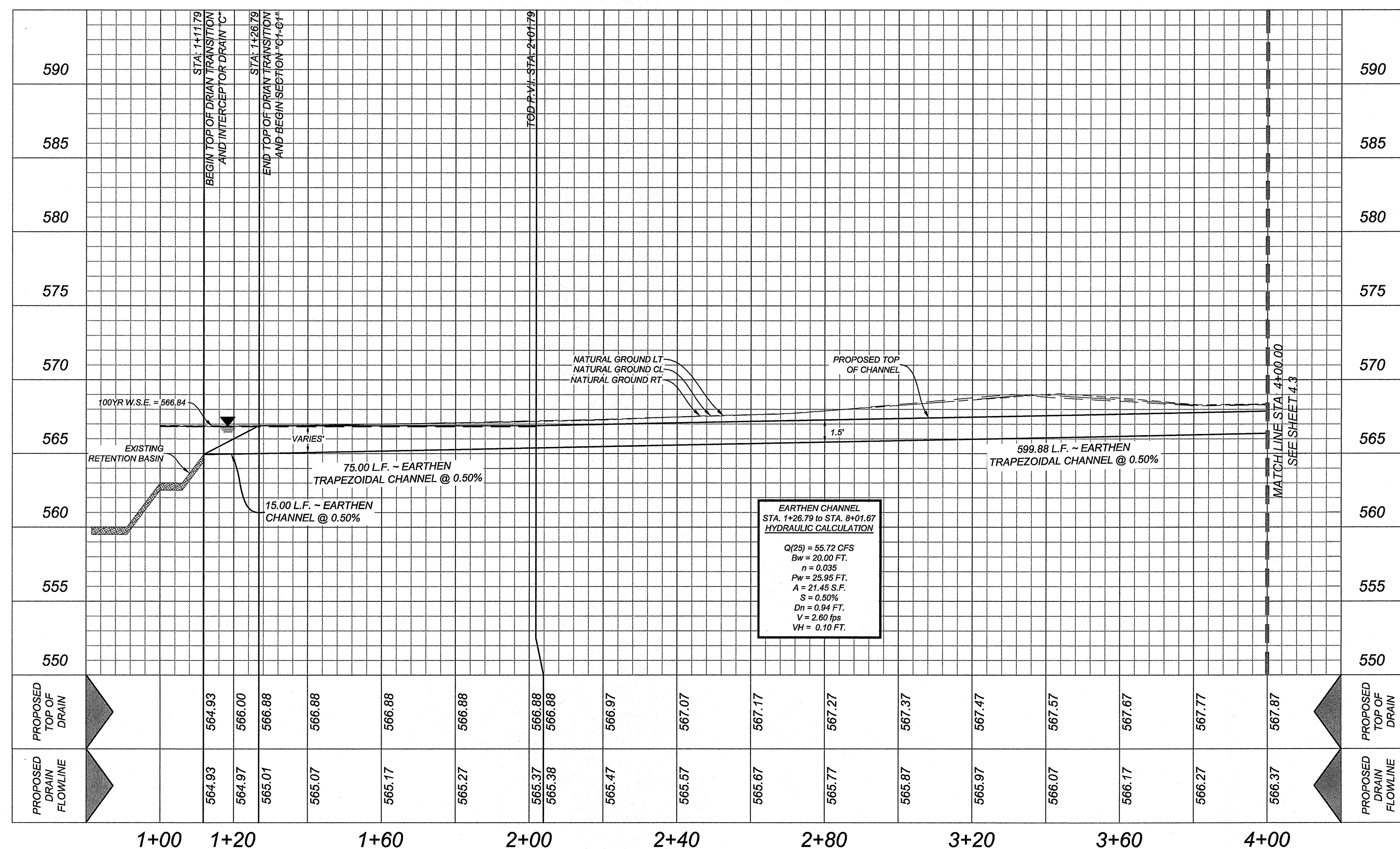
1. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI IN 28 DAYS.
2. ANY DISTURBED AREAS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE DISTURBED SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT.

UNPLATTED
REMAINING PORTION OF 153.26 ACRE TRACT
OWNER: LENNIAR HOMES OF TEXAS
LAND AND CONSTRUCTION LTD.
(DOC #20210240677 O.P.R.)

UNPLATTED
REMAINING PORTION OF 153.26 ACRE TRACT
OWNER: LENNAR HOMES OF TEXAS
LAND AND CONSTRUCTION LTD.
(DOC #20210240677 O.P.R.)

INTERCEPTOR DRAIN "C"
STA. 1+11.79 TO 4+00.00

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'



THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. REFERENCE TO FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL IS REQUIRED.

Date: Aug 07, 2022, 2:57pm User ID: scrz
File: N:\314\51\01\Design\Civil\Drains\SDPP3145101.dwg

ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
INTERCEPTOR DRAIN "C" PLAN &
PROFILE (1 OF 2)

PLAT NO.
22-11800056

JOB NO. 314-51-01
DATE: ---
DRAWN:SD CHECKED:J
SHEET NUMBER

4.2

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

CAUTION!!

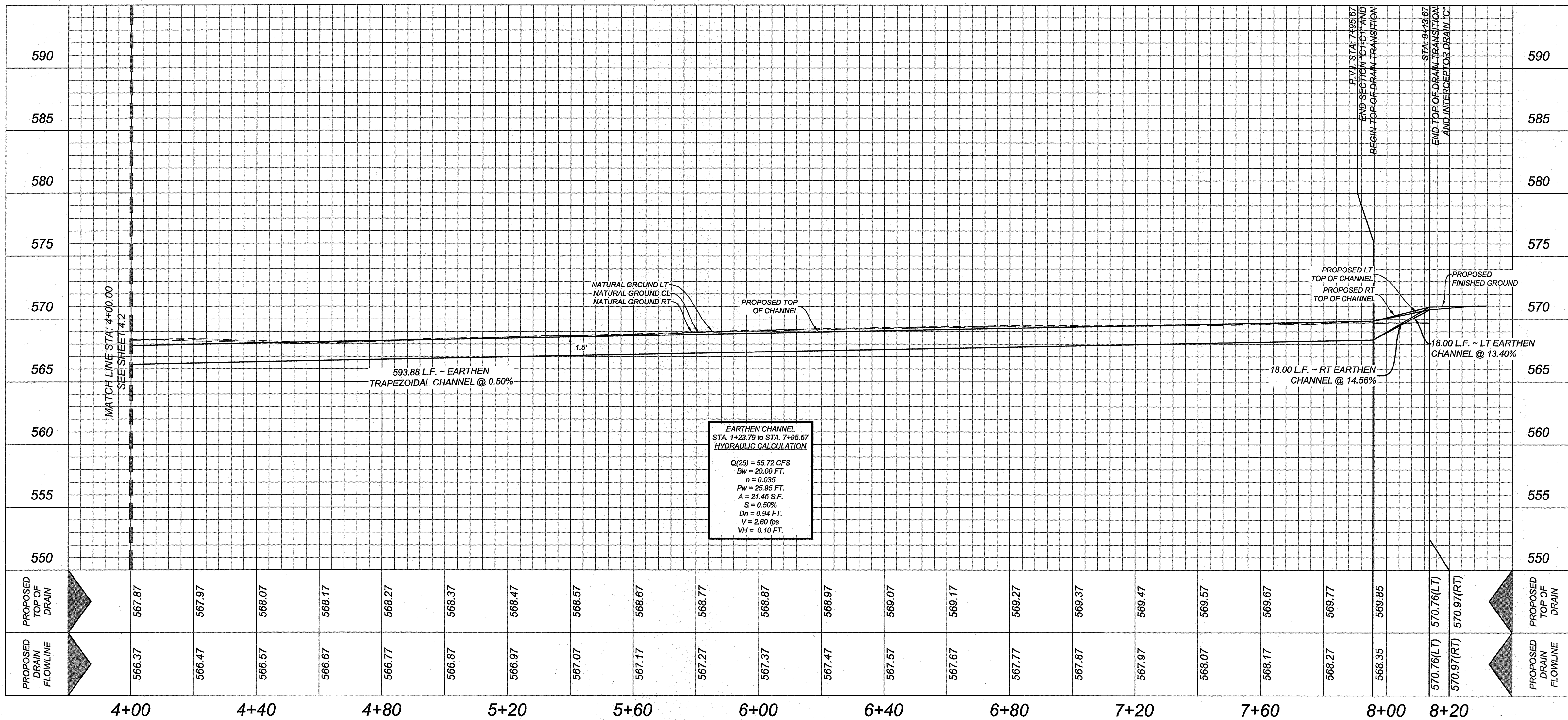
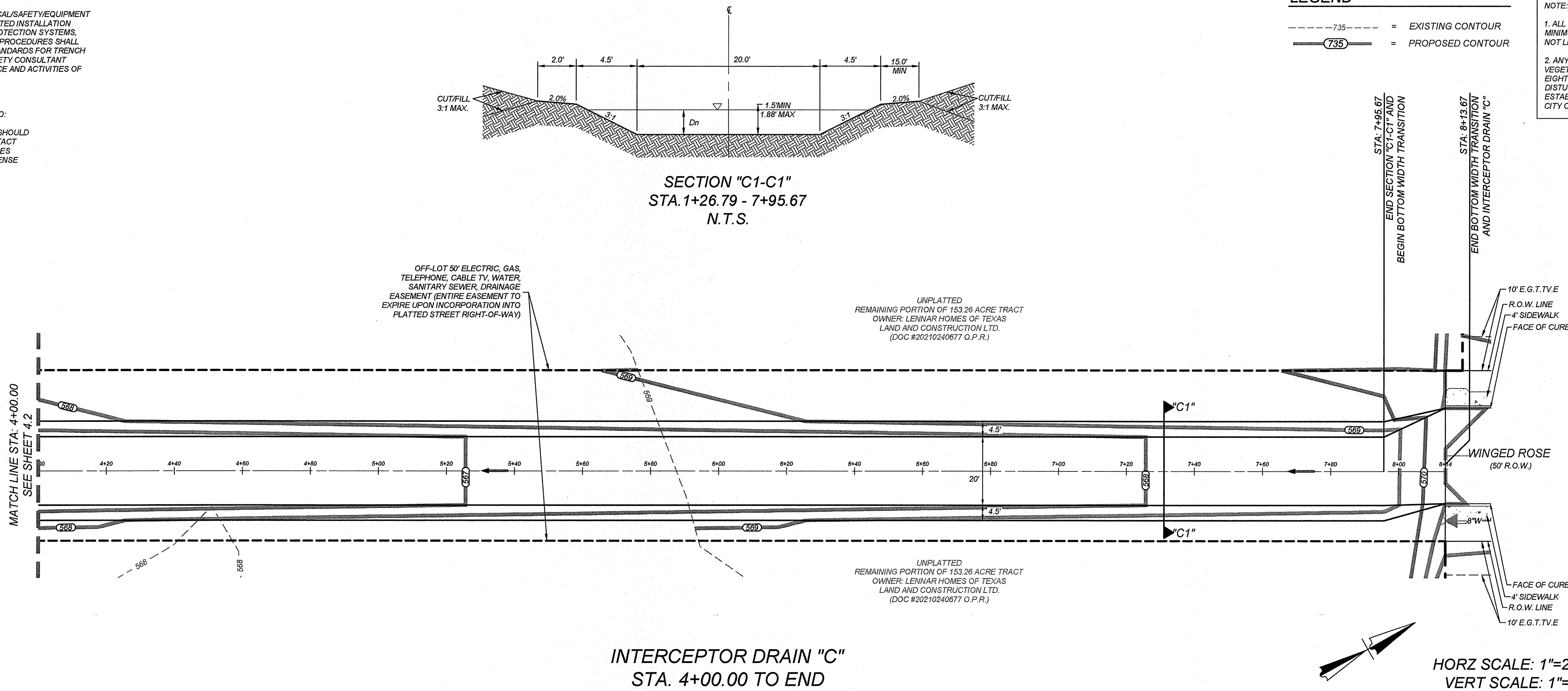
THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT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

LEGEND

---7.35--- = EXISTING CONTOUR
---7.35--- = PROPOSED CONTOUR

NOTE:

1. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI IN 28 DAYS.
2. ANY DISTURBED AREAS WILL BE VEGETATED BY SEEDING OR SOODING. EIGHTY-FIVE PERCENT OF THE DISTURBED SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT.



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

INTERCEPTOR DRAIN "C" PLAN & PROFILE (2 OF 2)

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ---

DRAWN:SD CHECKED:JM

SHEET NUMBER:

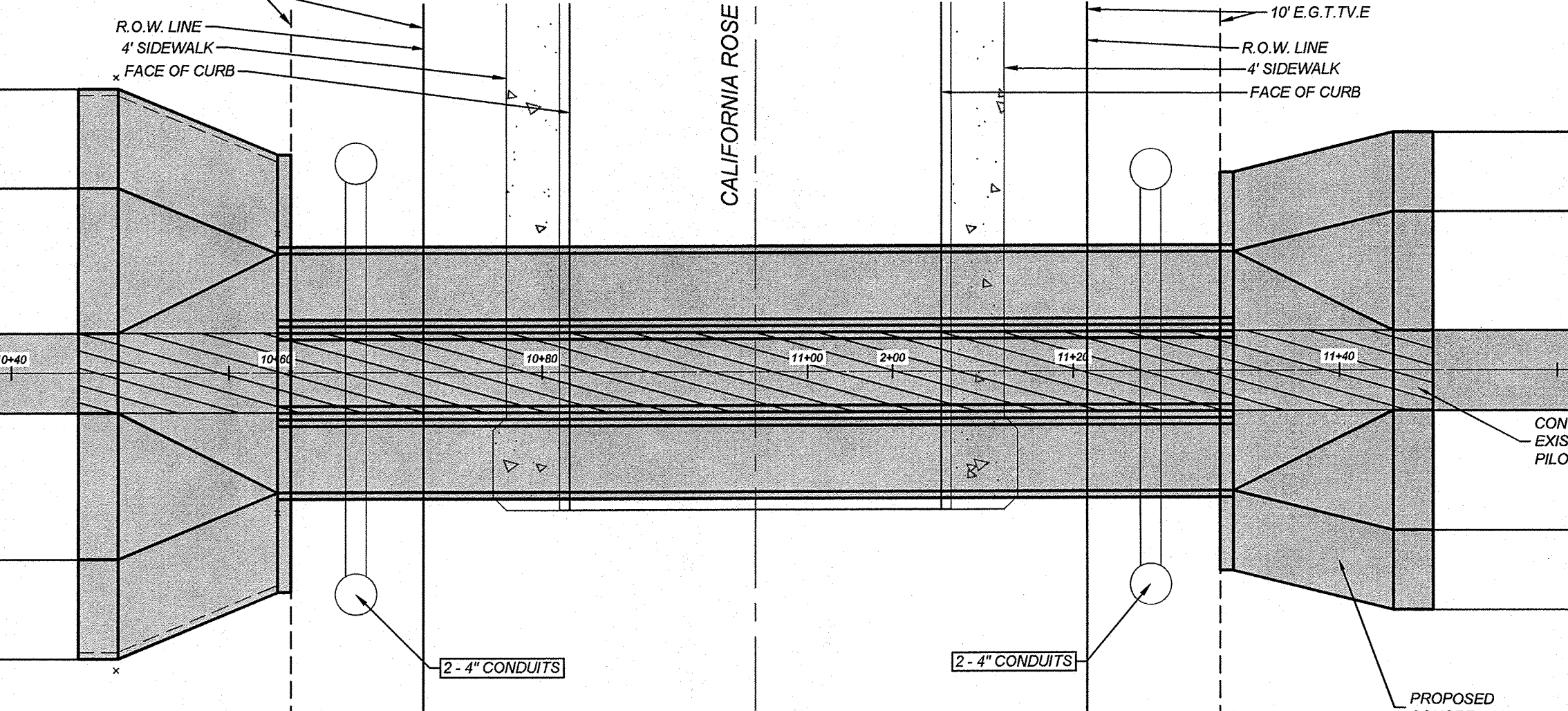
4.3

TRENCH EXCAVATION SAFETY PROTECTION

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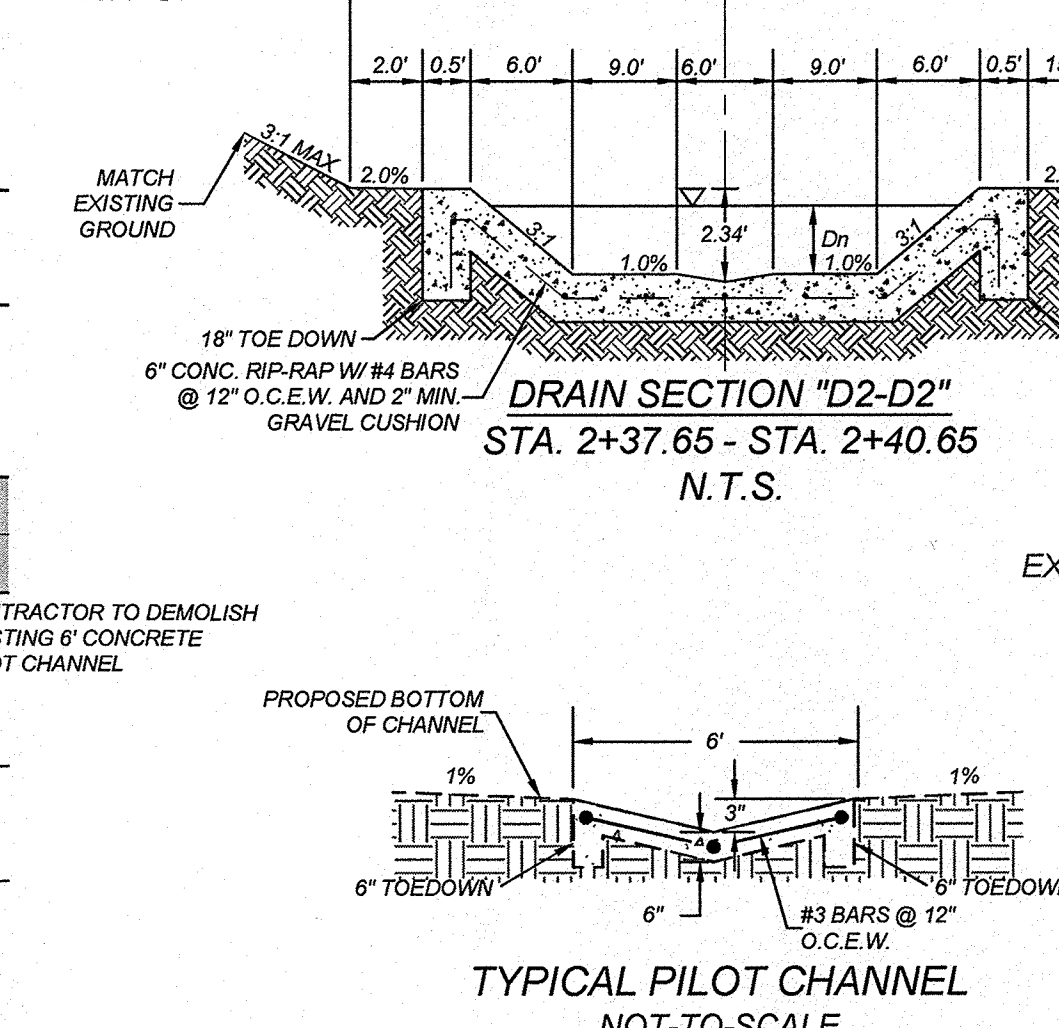
CAUTION:

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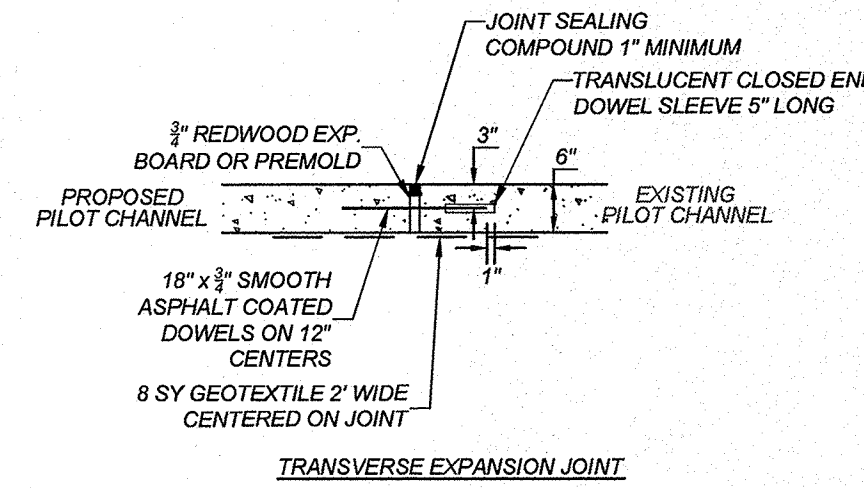


DRAIN "D"
DEMOLITION PLAN
SCALE: 1" = 10'

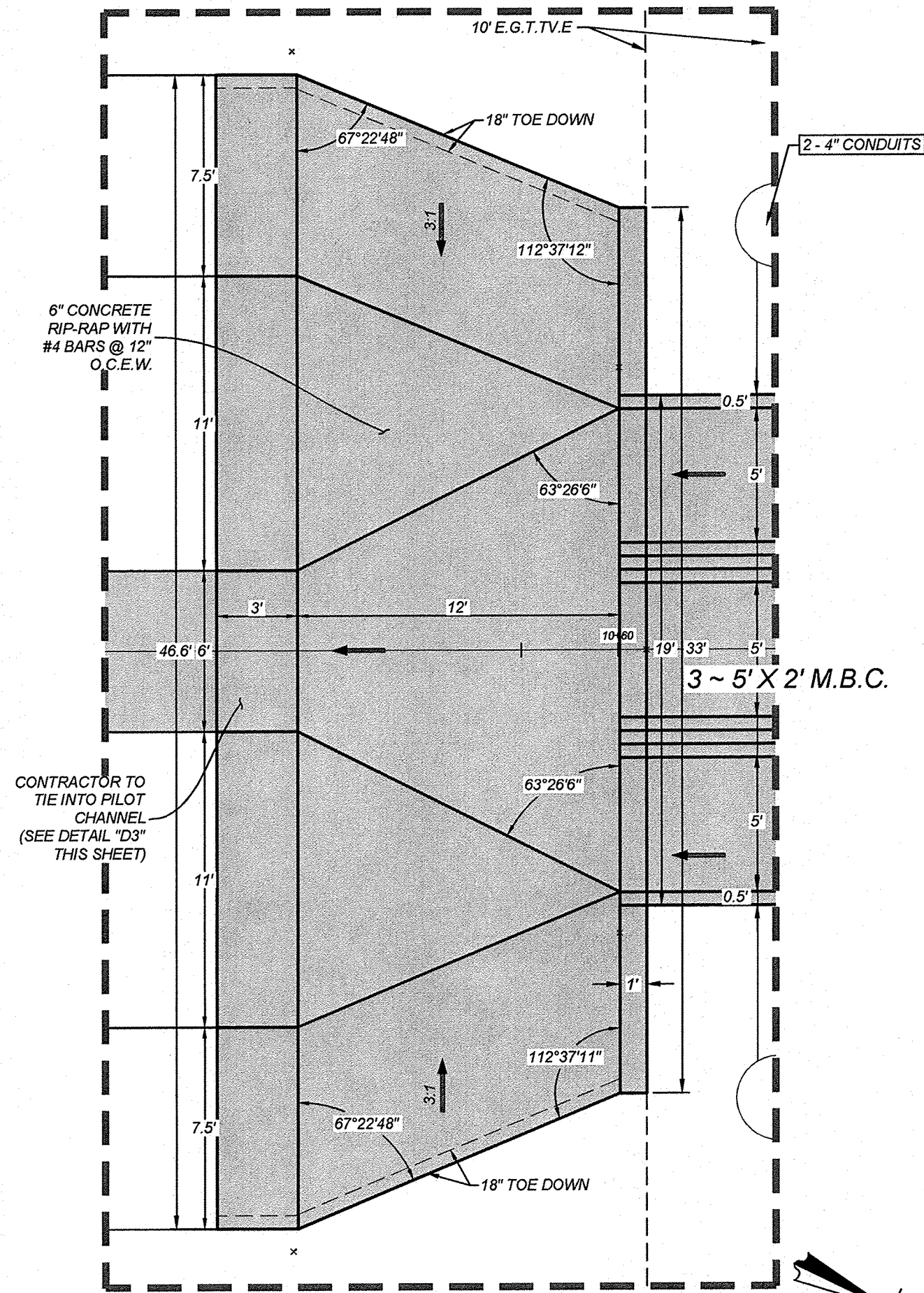
MATERIAL	UNITS	QUANTITIES
6" WIDE CONCRETE PILOT CHANNEL	S.Y.	68



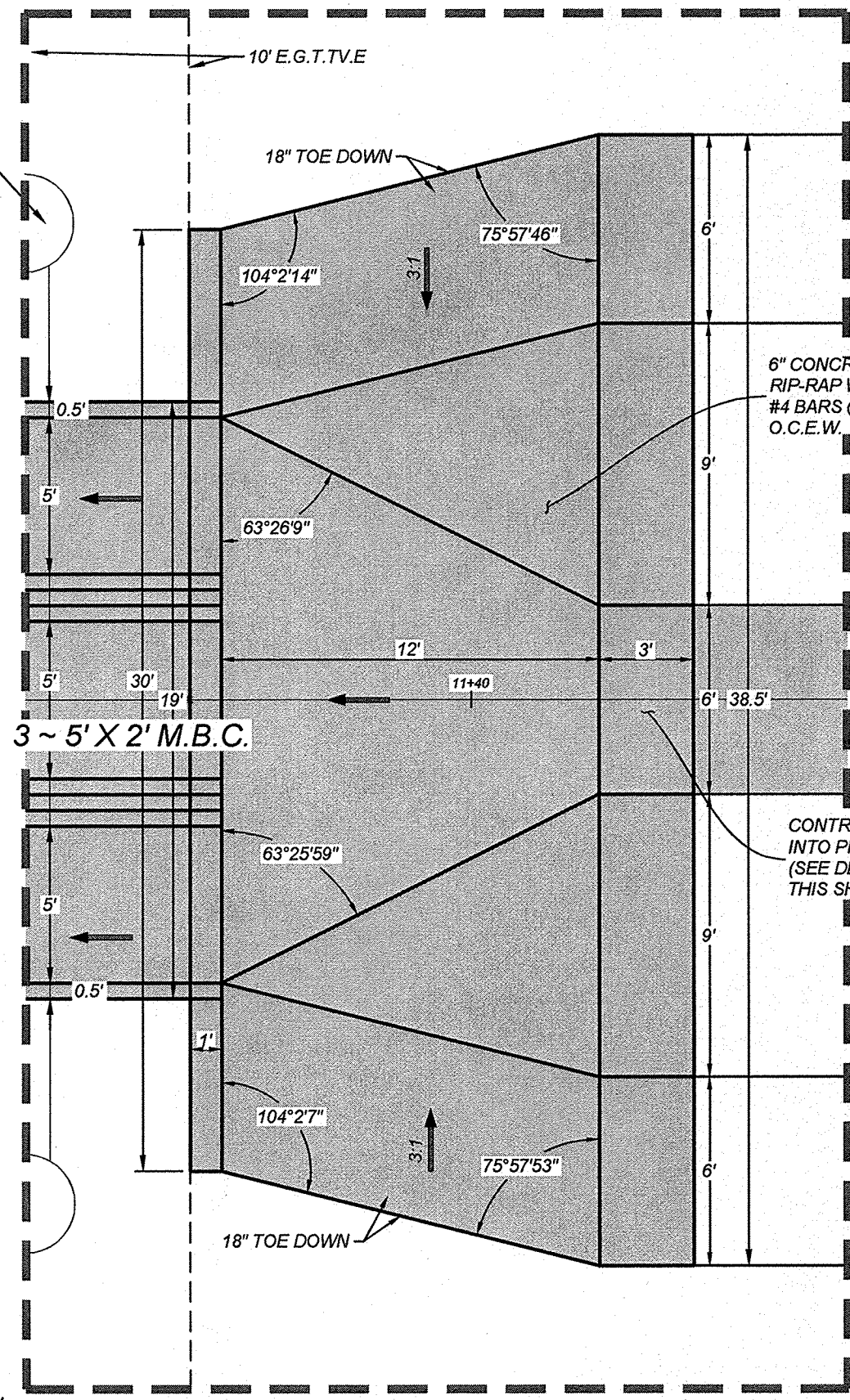
TYPICAL PILOT CHANNEL
NOT-TO-SCALE



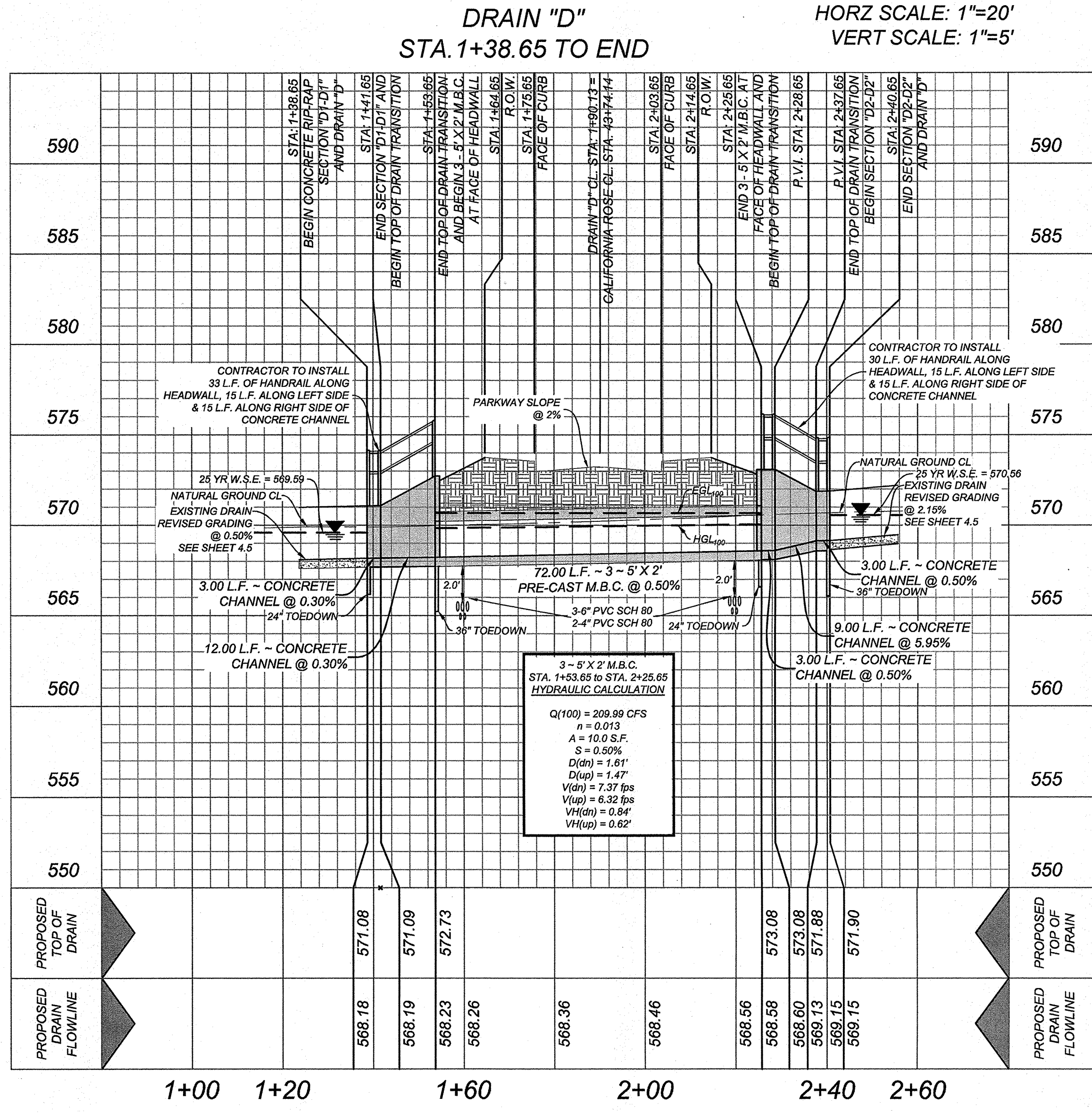
DETAIL "D3"
CONCRETE PILOT CHANNEL TIE-IN DETAIL
N.T.S.



DETAIL "D1"
SCALE: 1" = 5'



DETAIL "D2"
SCALE: 1" = 5'



DRAIN "D"
STA. 1+38.65 TO END

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'

NOTE:
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LEGEND
--- 735 --- = EXISTING CONTOUR
--- 735 --- = PROPOSED CONTOUR

VARIABLE WIDTH ACCESS, OPEN SPACE, ELECTRIC, GAS, TELEPHONE, CABLE, TV, WATER, SANITARY, SEWER, DRAINAGE & LANDSCAPE EASEMENT

K&W
ENGINEERS & SURVEYING
3421 Passmore Pkwy, Suite 200, San Antonio, TX 78231
Phone #: (210) 979-5444 • Fax #: (210) 979-5441
TPE Firm #: 9513 • TPE License #: 1012600

ISSUE DATE: 11/2/22
REVISIONS:
STATE OF TEXAS
TRAVIS R. ELSETH
99254
LICENSED PROFESSIONAL ENGINEER

ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
DRAIN "D" PLAN & PROFILE

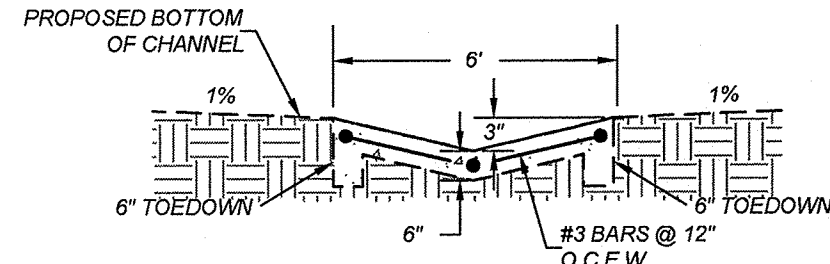
PLAT NO. 22-1180056
JOB NO. 314-51-01
DATE: ---
DRAWN: SD CHECKED: JM
SHEET NUMBER:

TRENCH EXCAVATION SAFETY PROTECTION

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CAUTION!!

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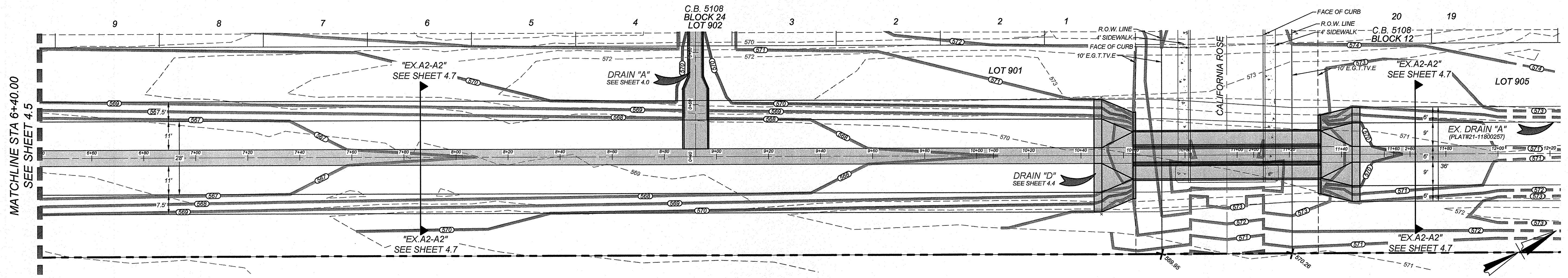
TYPICAL PILOT CHANNEL
NOT-TO-SCALE

NOTE:

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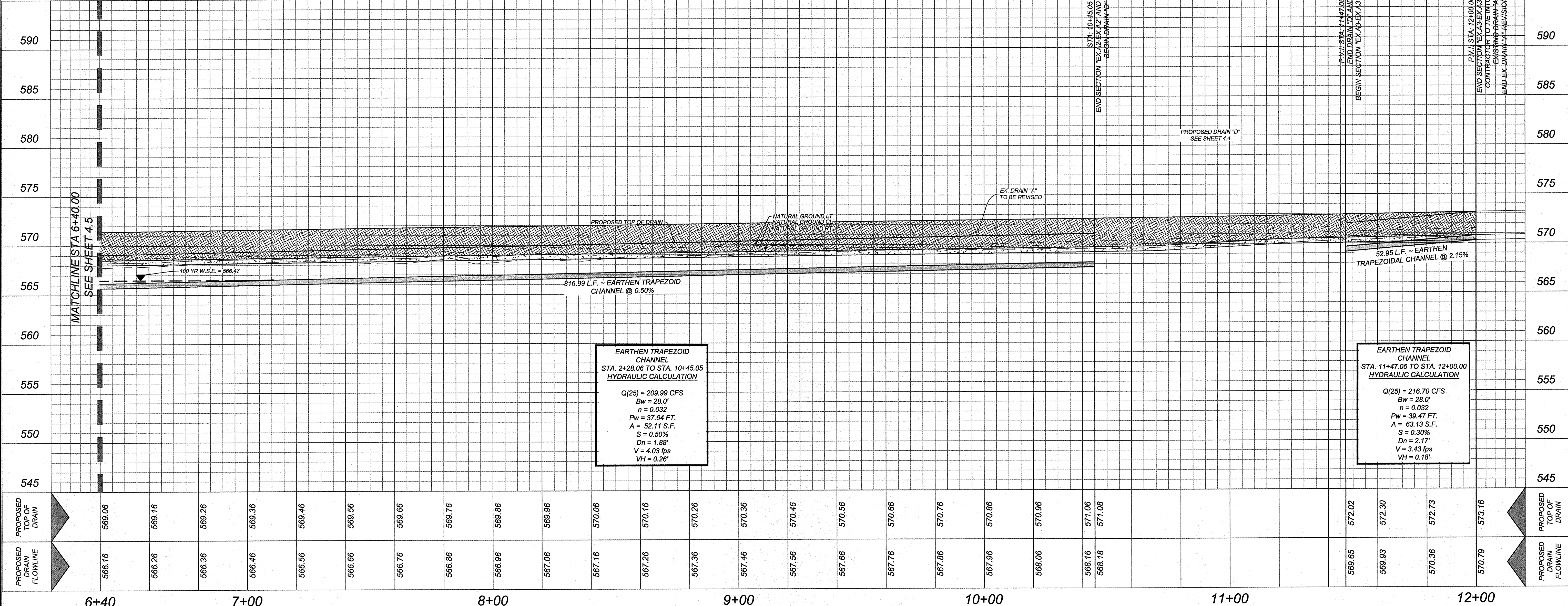
LEGEND

- 735 --- = EXISTING CONTOUR
--- 735 --- = PROPOSED CONTOUR



EX. DRAIN "A" REVISION
STA. 6+40.00 TO END

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'



EARTHEN TRAPEZOID CHANNEL
STA. 2+28.06 TO STA. 10+45.05
HYDRAULIC CALCULATION
Q(25) = 209.99 CFS
Bw = 28.0'
n = 0.032
Pw = 37.64 FT.
A = 52.11 S.F.
S = 0.50%
Dn = 1.88'
V = 4.03 fps
VH = 0.28'

EARTHEN TRAPEZOID CHANNEL
STA. 11+47.06 TO STA. 12+00.00
HYDRAULIC CALCULATION
Q(25) = 216.70 CFS
Bw = 28.0'
n = 0.032
Pw = 39.47 FT.
A = 63.13 S.F.
S = 0.30%
Dn = 2.17'
V = 3.43 fps
VH = 0.18'

ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
EX. DRAIN "A" REVISION
PLAN & PROFILE (2 OF 2)

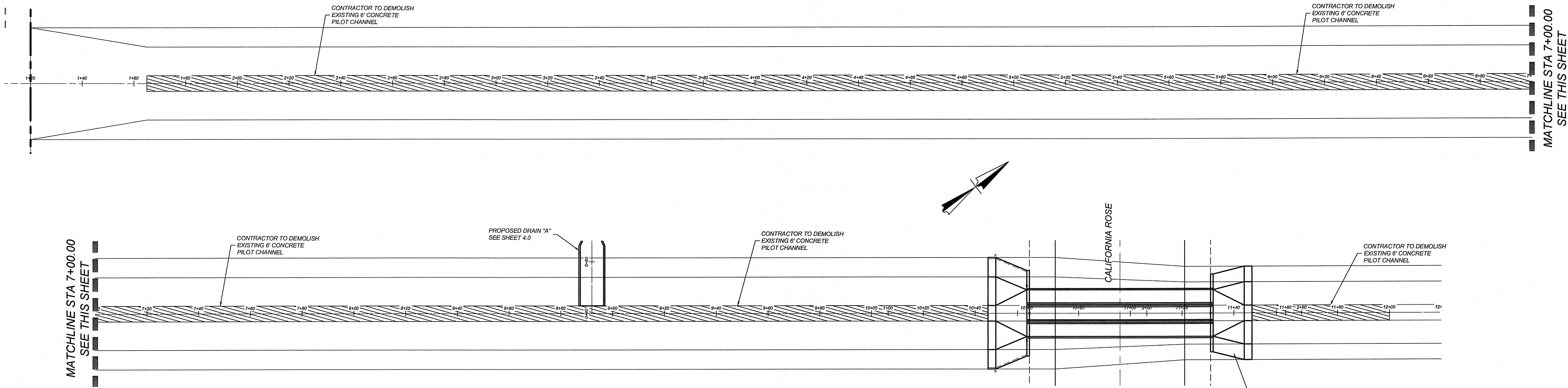
PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ---

DRAWN:SD CHECKED:JM

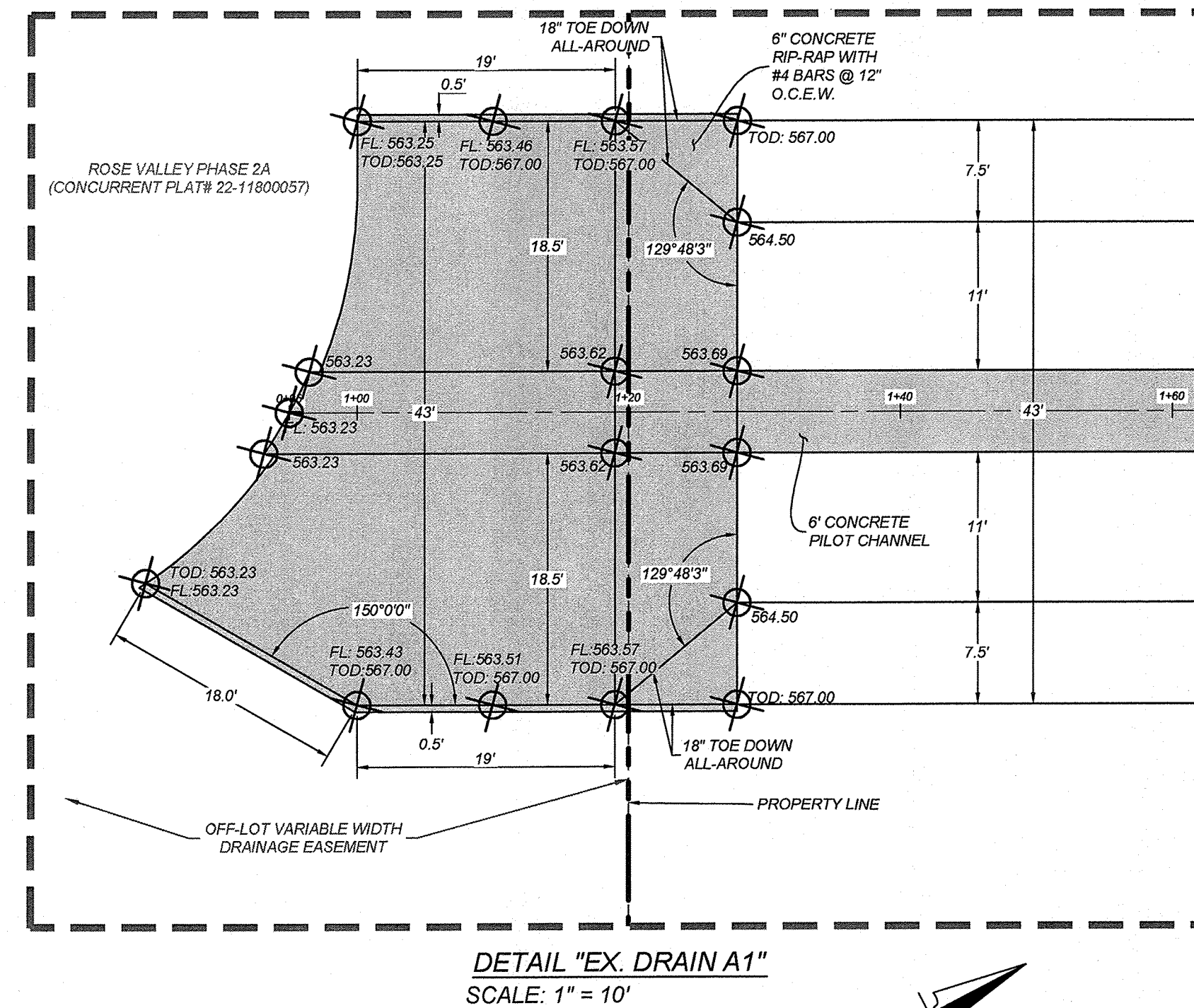
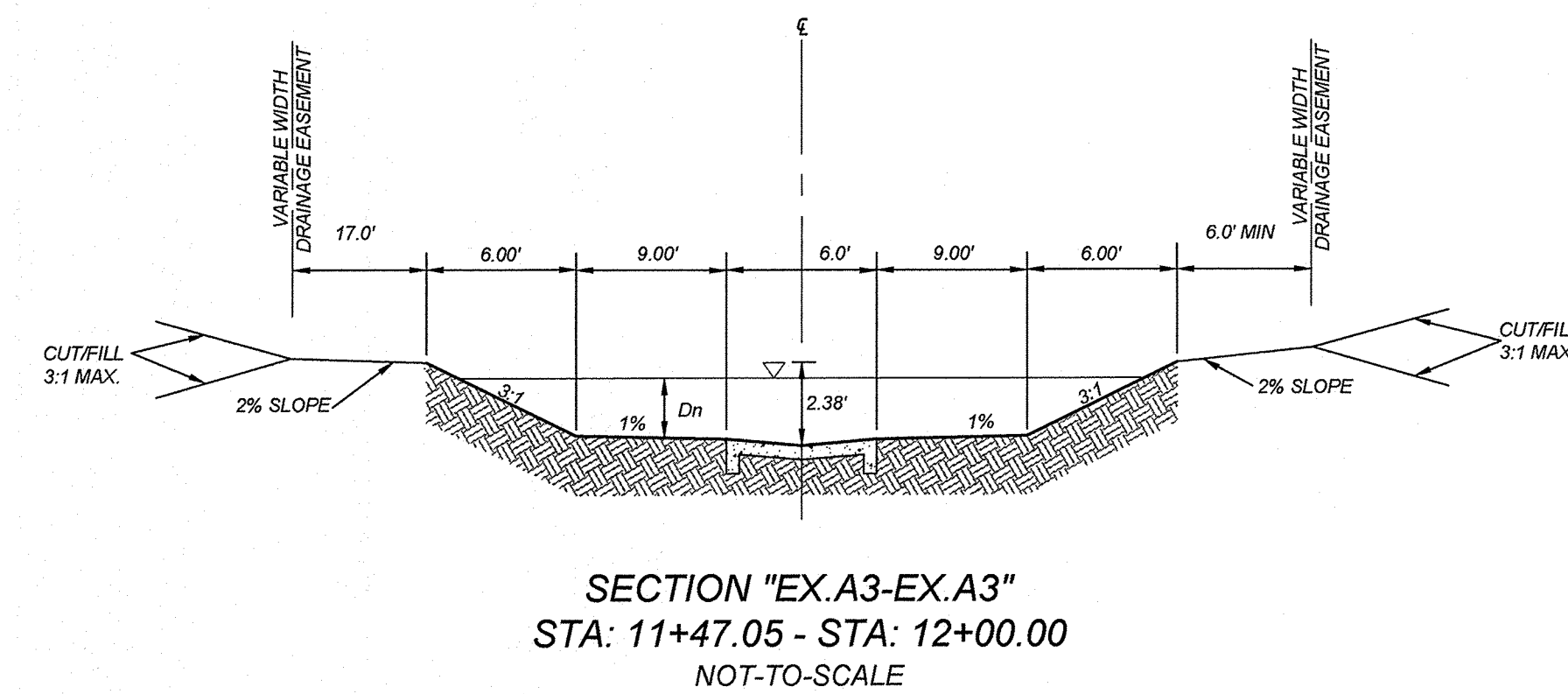
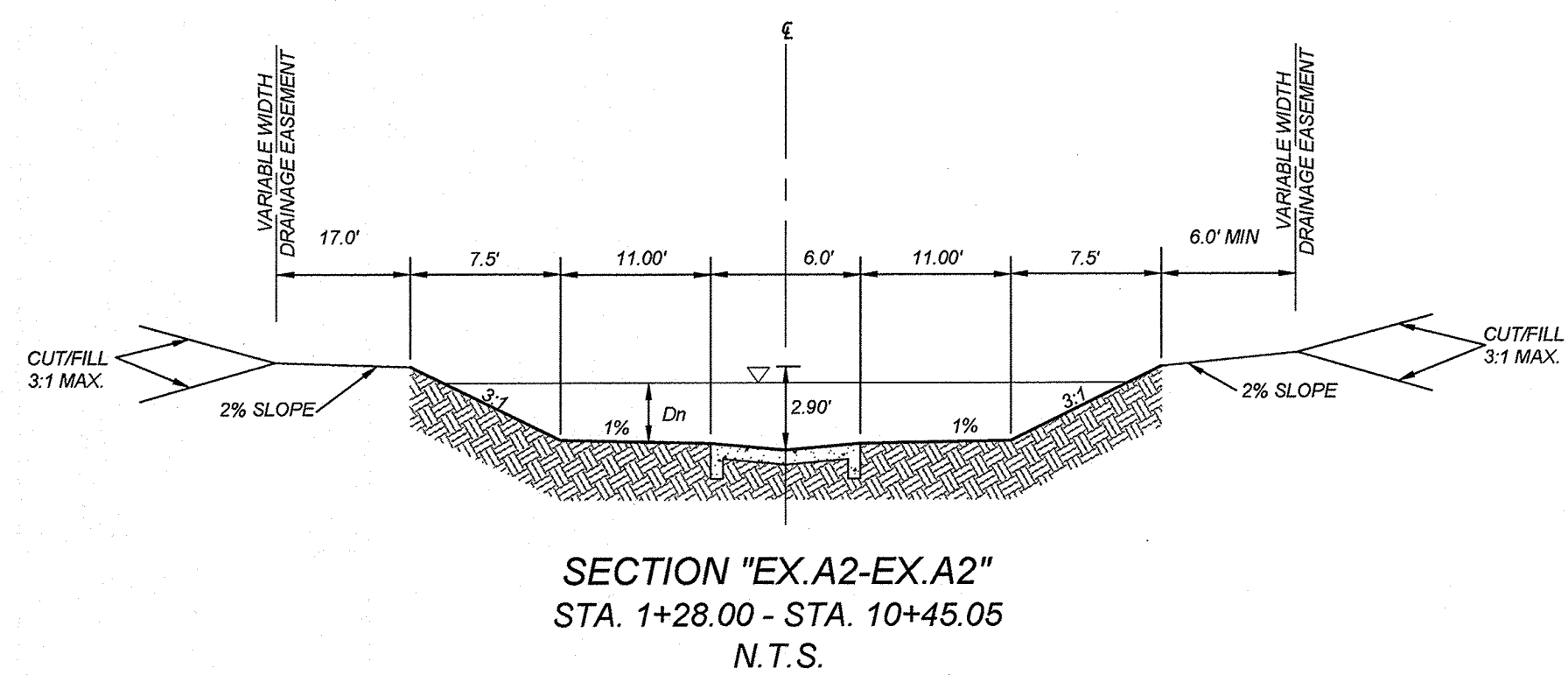
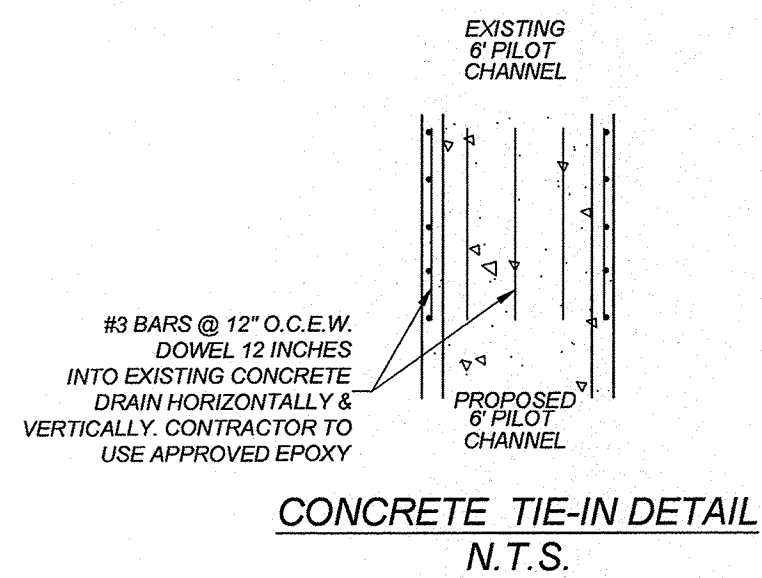
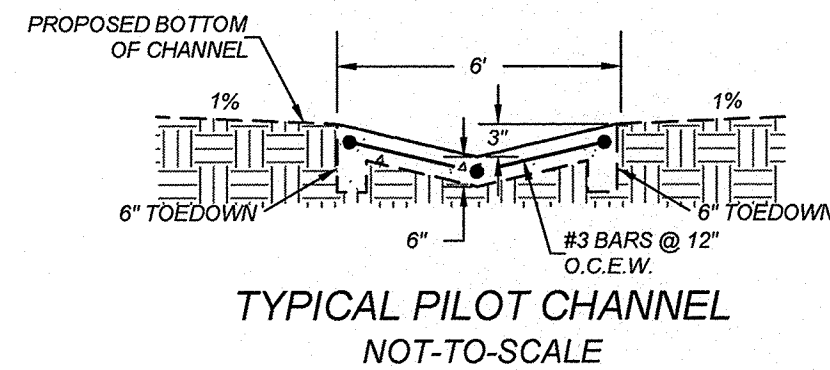
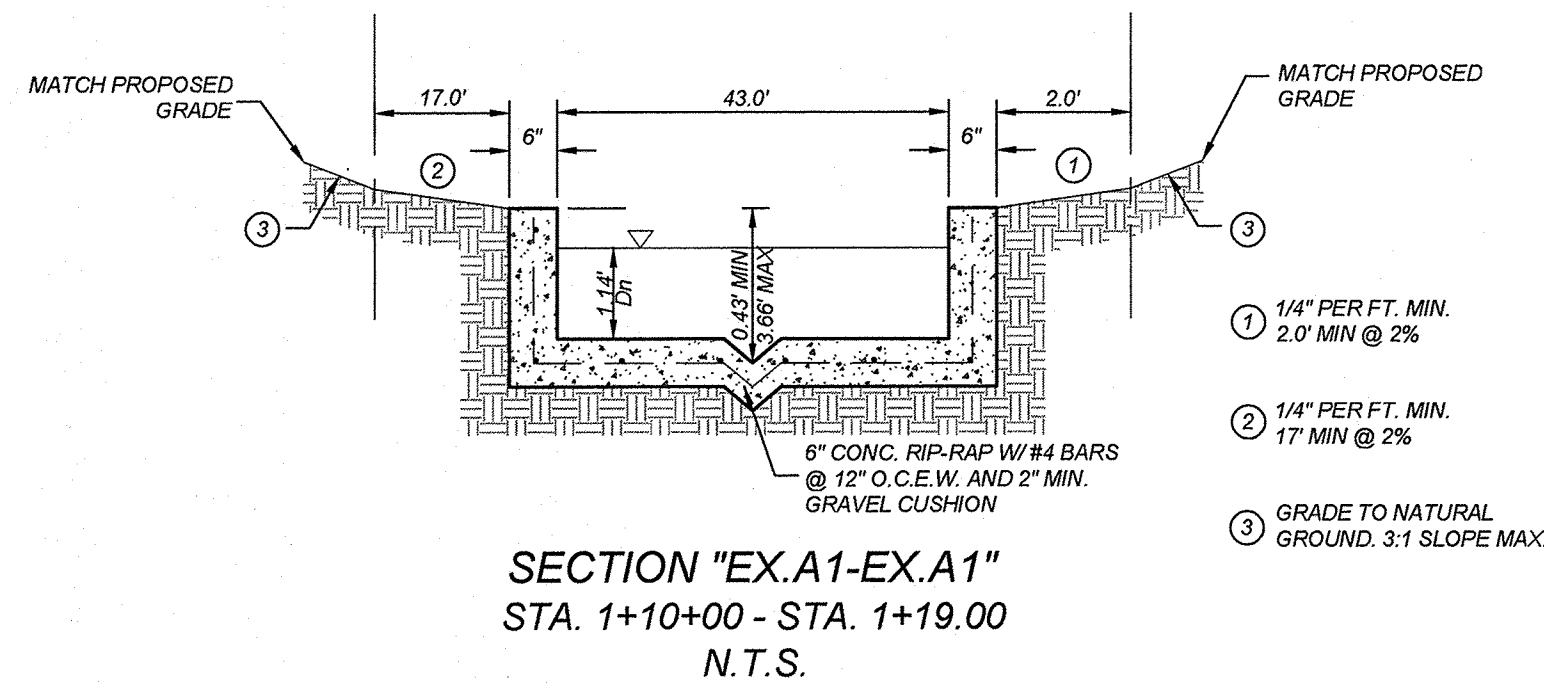
SHEET NUMBER:



EX. DRAIN "A"
DEMOLITION PLAN

SCALE: 1" = 20'

MATERIAL	UNITS	QUANTITIES
6" WIDE CONCRETE PILOT CHANNEL	S.Y.	622



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
EX. DRAIN "A" REVISION DETAILS

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN: SD CHECKED: JM
SHEET NUMBER:

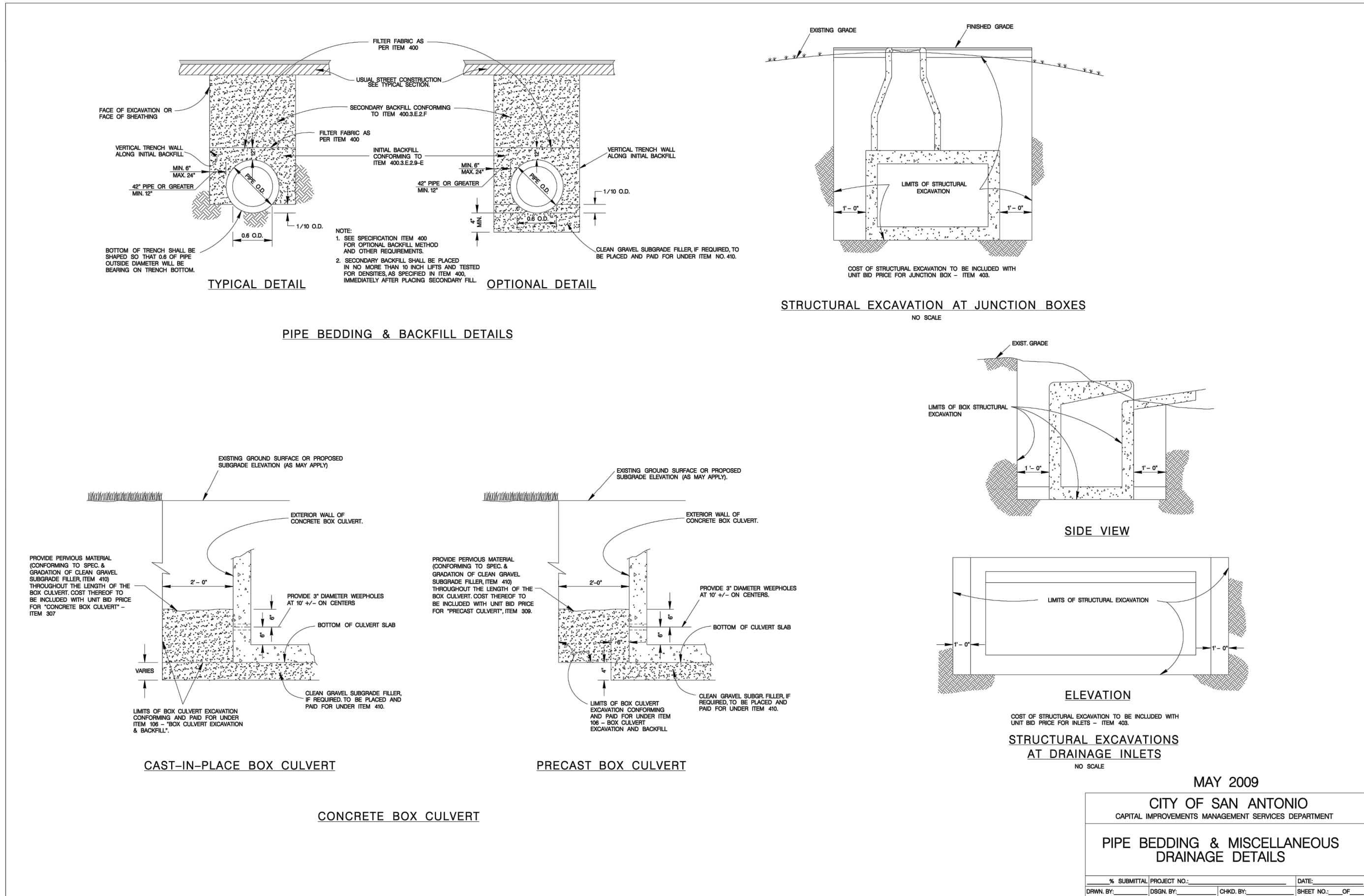
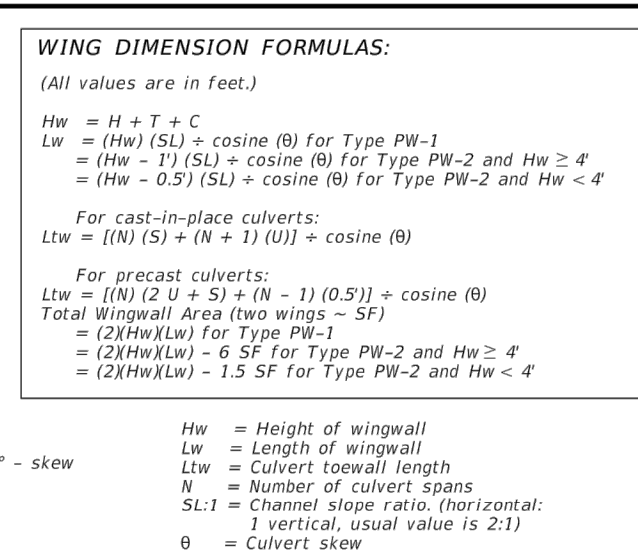
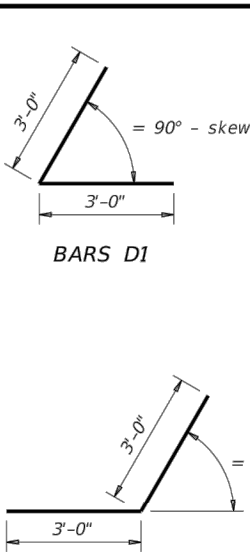


TABLE OF DIMENSIONS AND REINFORCING STEEL (Wings for one structure and)									
Maximum Wingwall Height Hw	Dimensions				Variable Reinforcing			Estimated Quantities per ft. of wing (C-wings)	Estimated Quantities per ft. of Toewall (T-toewall)
	W	X	Y	Z	Bars J1	Bars J2	Reinf. (Lb/Ft)		
2'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	48.64	0.406	6.85
2'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	49.31	0.424	6.85
3'-0"	2'-10"	10"	1'-0"	7"	#4	1'-0"	49.98	0.444	6.85
3'-0"	2'-10"	10"	1'-0"	7"	#4	1'-0"	53.32	0.462	6.85
3'-6"	2'-10"	10"	1'-0"	7"	#4	1'-0"	53.98	0.480	6.85
4'-0"	3'-2"	1'-2"	1'-0"	7"	#4	1'-0"	55.77	0.532	6.85
4'-6"	3'-2"	1'-2"	1'-0"	7"	#4	1'-0"	59.77	0.568	6.85
5'-0"	3'-0"	1'-2"	1'-2"	7"	#4	1'-0"	63.45	0.632	6.96
5'-6"	3'-0"	1'-2"	1'-2"	7"	#4	1'-0"	67.46	0.668	6.96
6'-0"	4'-4"	2'-0"	1'-4"	7"	#5	1'-0"	80.67	0.730	7.07
6'-6"	4'-4"	2'-0"	1'-4"	7"	#5	1'-0"	85.05	0.768	7.07
7'-0"	5'-0"	2'-3"	1'-9"	8"	#5	1'-0"	92.15	0.864	8.07
7'-6"	5'-0"	2'-3"	1'-9"	8"	#5	1'-0"	96.54	0.902	8.07
8'-0"	5'-6"	2'-8"	1'-10"	8"	#5	6"	139.04	0.962	8.13
8'-6"	5'-6"	2'-8"	1'-10"	8"	#5	6"	144.47	1.000	8.13
9'-6"	6'-0"	2'-10"	2'-2"	9"	#5	6"	156.93	1.136	8.41
10'-6"	6'-6"	3'-0"	2'-5"	9"	#6	6"	196.27	1.234	8.57
11'-6"	7'-2"	3'-6"	2'-8"	11"	#6	6"	230.13	1.438	9.52
12'-6"	7'-8"	3'-9"	2'-11"	1'-0"	#7	6"	283.41	1.592	9.74
13'-6"	8'-2"	4'-0"	3'-2"	1'-2"	#8	6"	348.72	1.804	10.02
14'-6"	8'-10"	4'-5"	3'-5"	1'-4"	#9	6"	432.94	2.046	10.30
15'-6"	9'-6"	4'-10"	3'-8"	1'-6"	#9	6"	489.52	2.302	11.24
16'-0"	9'-11"	5'-0"	3'-11"	1'-7"	#9	6"	505.72	2.448	11.47

TABLE OF WINGWALL REINFORCING (2-wings)			
Bar	Size	No.	Spa
D1	#6	~	1'-0"
D2	#6	~	1'-0"
E1	#4	~	1'-0"
F	#4	~	1'-0"
G	#6	~	8"
M1	#4	4	~
P	#4	~	1'-0"
V	#4	~	1'-0"

TABLE OF TOEWALL REINFORCING			
Bar	Size	No.	Spa
J3	#4	~	1'-0"
M2	#4	2	~
E2	#4	~	1'-0"



- 1) Skew = 0°
- 2) At discharge end, chamfer may be 1/2" minimum.
- 3) For 13° skew = 1"
- 4) For 30° skew = 2"
- 5) For 45° skew = 3"
- 6) Quantities shown are for two Type PW-1 wings. Adjust concrete volume for Type PW-2 wings. To determine estimated quantities for two wings, multiply the tabulated values by Lw. Quantities shown do not include weight of Bars D.
- 7) Provide weepholes for Hw = 5'-0" and greater. Fill around weepholes with coarse gravel.
- 8) Extend Bars E2 1'-6" minimum into the wingwall footing.
- 9) Lap Bars M1 1'-6" minimum with Bars M2.
- 10) Place Bars G as shown, equally spaced at 8" maximum. Provide at least two pairs of Bars G per wing.
- 11) 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'-0", refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 or T631LS Rails (T631-CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (BRC) standard sheet for structures with bridge rail other than T631 or T631LS.
- 12) For vehicle safety, the following requirements must be met:
 - For structures without bridge rail, construct curbs no more than 3" above finished grade.
 - For structures with bridge rail, construct curbs flush with finished grade.
 - Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
- 13) 1'-0" typical, 2'-3" when the Box Culvert Rail Mounting Details (BRC) standard sheet is referred to elsewhere in the plans.
- 14) 3'-0" for Hw < 4.
- 15) 6" for Hw < 4.

DESIGNER NOTES:
Type PW-1 can be used for all applications and must be used if railing is to be mounted to the wingwall.
Type PW-2 can only be used for applications without a railing mounted to the wingwall.

MATERIAL NOTES:
Provide Class C concrete (f'c=3,600 psi).
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.

GENERAL NOTES:
Designed in accordance with AASHTO LRFD Bridge Design Specifications.
Depth of toewalls for wingwalls and culverts may be reduced or eliminated when founded on solid rock when directed by the Engineer.
See Box Culvert Supplement (BCS) standard sheet for wingwall type and additional dimensions and information. Quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for the Contractor's information only.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out-to-out of bars.

Texas Department of Transportation
Bridge Division Standard

CONCRETE WINGWALLS WITH PARALLEL WINGS FOR BOX CULVERTS TYPES PW-1 AND PW-2

PW

FILE: pw0601-20.dwg	DATE: February 2020	BY: GAF	CHK: MCT	APP: MCT	REV: T1007
REVISIONS	DATE	DESCRIPTION	BY	CHK	APP
1	02/02/20	REVISED	GAF	MCT	MCT

SHEET NO. _____ OF _____

ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
PIPE BEDDING AND CONCRETE WINGWALLS

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: _____

DRAWN/SD CHECKED/JM

SHEET NUMBER:

DISCLAIMER: This standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by the author or publisher for the use of this standard in other projects or for incorrect results or damages resulting from its use.

DATE
FILE:

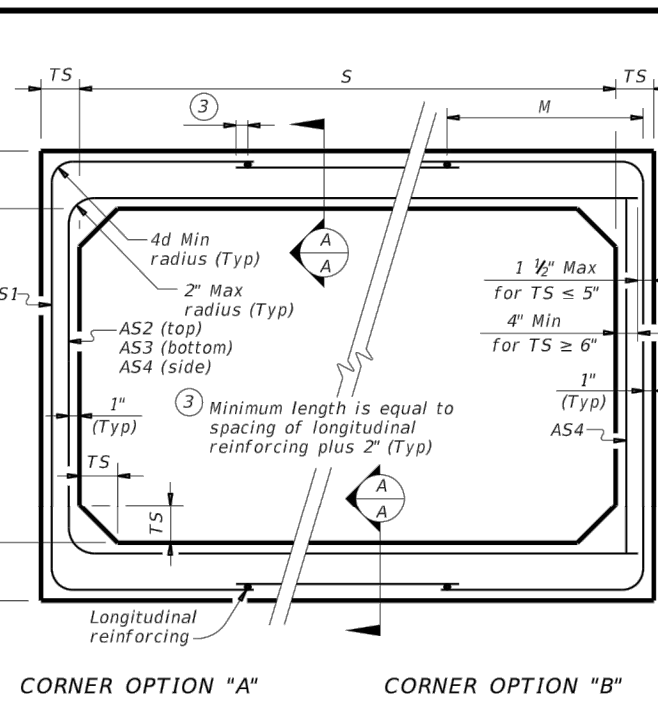
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DATE
FILE:

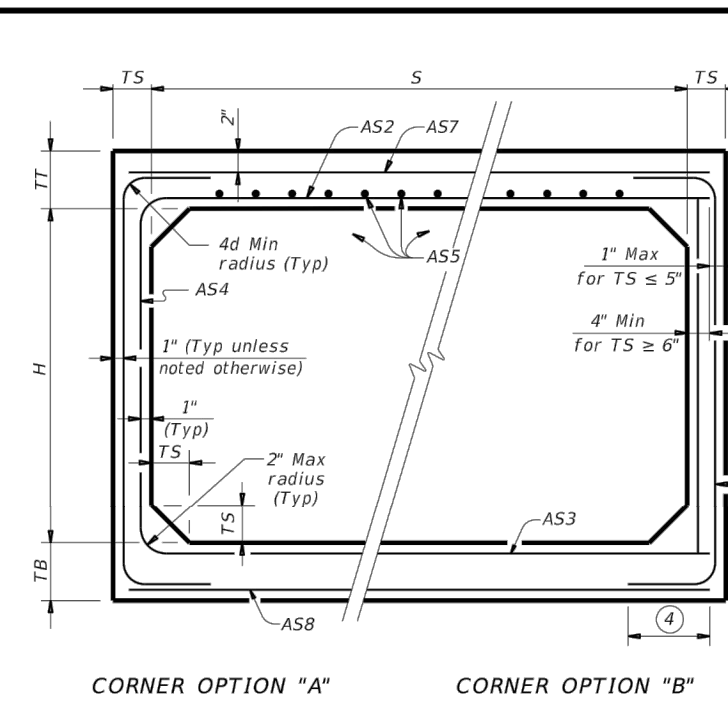
BOX DATA														
SECTION DIMENSIONS						REINFORCING (sq. in. / ft.) ⁽²⁾								(1) Upl Weight (tons)
S (ft.)	H (ft.)	TT (ft.)	TB (ft.)	TS (in.)	Fill Height (ft.)	M (Min) (in.)	AS1	AS2	AS3	AS4	AS5	AS7	AS8	
5	2	8	7	6	< 2	-	0.19	0.27	0.18	0.14	0.19	0.19	0.17	6.0
5	2	6	6	6	2 < 3	44	0.22	0.20	0.16	0.14	-	-	-	5.1
5	2	6	6	6	3 - 5	44	0.16	0.14	0.14	0.14	-	-	-	5.1
5	2	6	6	6	10	36	0.15	0.14	0.14	0.14	-	-	-	5.1
5	2	6	6	6	15	36	0.20	0.18	0.18	0.14	-	-	-	5.1
5	2	6	6	6	20	36	0.26	0.23	0.24	0.14	-	-	-	5.1
5	2	6	6	6	25	36	0.33	0.29	0.29	0.14	-	-	-	5.1
5	2	6	6	6	30	36	0.39	0.34	0.35	0.14	-	-	-	5.1
5	3	8	7	6	< 2	-	0.19	0.31	0.21	0.14	0.19	0.19	0.17	6.6
5	3	6	6	6	2 < 3	45	0.18	0.24	0.19	0.14	-	-	-	5.7
5	3	6	6	6	3 - 5	36	0.14	0.17	0.16	0.14	-	-	-	5.7
5	3	6	6	6	10	36	0.14	0.16	0.17	0.14	-	-	-	5.7
5	3	6	6	6	15	35	0.16	0.21	0.22	0.14	-	-	-	5.7
5	3	6	6	6	20	35	0.21	0.27	0.28	0.14	-	-	-	5.7
5	3	6	6	6	25	35	0.26	0.34	0.34	0.14	-	-	-	5.7
5	3	6	6	6	30	35	0.31	0.41	0.41	0.14	-	-	-	5.7
5	4	8	7	6	< 2	-	0.19	0.33	0.24	0.14	0.19	0.19	0.17	7.2
5	4	6	6	6	2 < 3	45	0.16	0.27	0.22	0.14	-	-	-	6.3
5	4	6	6	6	3 - 5	45	0.14	0.19	0.18	0.14	-	-	-	6.3
5	4	6	6	6	10	36	0.14	0.18	0.18	0.14	-	-	-	6.3
5	4	6	6	6	15	35	0.14	0.22	0.24	0.14	-	-	-	6.3
5	4	6	6	6	20	35	0.17	0.30	0.31	0.14	-	-	-	6.3
5	4	6	6	6	25	35	0.21	0.37	0.38	0.14	-	-	-	6.3
5	4	6	6	6	30	35	0.25	0.44	0.45	0.14	-	-	-	6.3
5	5	8	7	6	< 2	-	0.19	0.35	0.26	0.14	0.19	0.19	0.17	7.8
5	5	6	6	6	2 < 3	45	0.14	0.29	0.24	0.14	-	-	-	6.9
5	5	6	6	6	3 - 5	45	0.14	0.21	0.20	0.14	-	-	-	6.9
5	5	6	6	6	10	45	0.14	0.19	0.20	0.14	-	-	-	6.9
5	5	6	6	6	15	36	0.14	0.24	0.25	0.14	-	-	-	6.9
5	5	6	6	6	20	35	0.15	0.31	0.32	0.14	-	-	-	6.9
5	5	6	6	6	25	35	0.18	0.38	0.39	0.14	-	-	-	6.9
5	5	6	6	6	30	35	0.21	0.46	0.47	0.14	-	-	-	6.9

1 For box length = 8'-0"

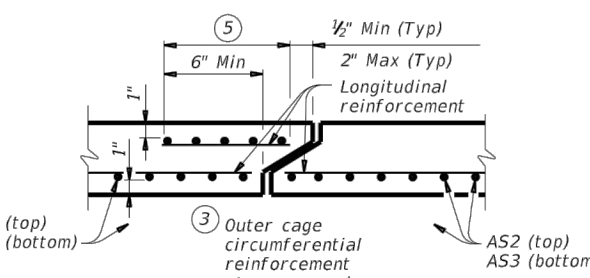
2 AS1 thru AS4, AS7 and AS8 are minimum required areas of reinforcement per linear foot of box length. AS5 is minimum required area of reinforcement per linear foot of box width.



FILL HEIGHT 2 FT AND GREATER




FILL HEIGHT LESS THAN 2 FT



SECTION A-A
(Showing top and bottom slab joint reinforcement.)

MATERIAL NOTES:
Provide 0.03 sq. in./ft. minimum longitudinal reinforcement at each face in slabs and walls. This minimum requirement may be met by the transverse wires when wire mesh reinforcement is used.
Provide Class H concrete (f'c = 5,000 psi).

GENERAL NOTES:
Designs shown conform to ASTM C1577. Refer to ASTM C1577 for information or details not shown.
See Box Culverts Precast Miscellaneous Details (SCP-MD) standard sheet for details and notes not shown.
In lieu of furnishing the designs shown on this sheet, the contractor may furnish an alternate design that is equal to or exceeds the box design for the design fill height in the table. Submit shop plans for alternate designs in accordance with Item "Precast Concrete Structural Members (Fabrication)".

HL93 LOADING											
 Texas Department of Transportation						Bridge Division Standard					
SINGLE BOX CULVERTS											
PRECAST											
5'-0" SPAN											
SCP-5											
FILE#	sc05ets-26.dgn					DATE	TxDOT	DATE	TxDOT	DATE	TxDOT
CD	February 2020					CON	SEC	JOB	HIGHWAY		
REVISED											
DIST						COUNTY			SHEET NO.		

TRENCH EXCAVATION SAFETY PROTECTION

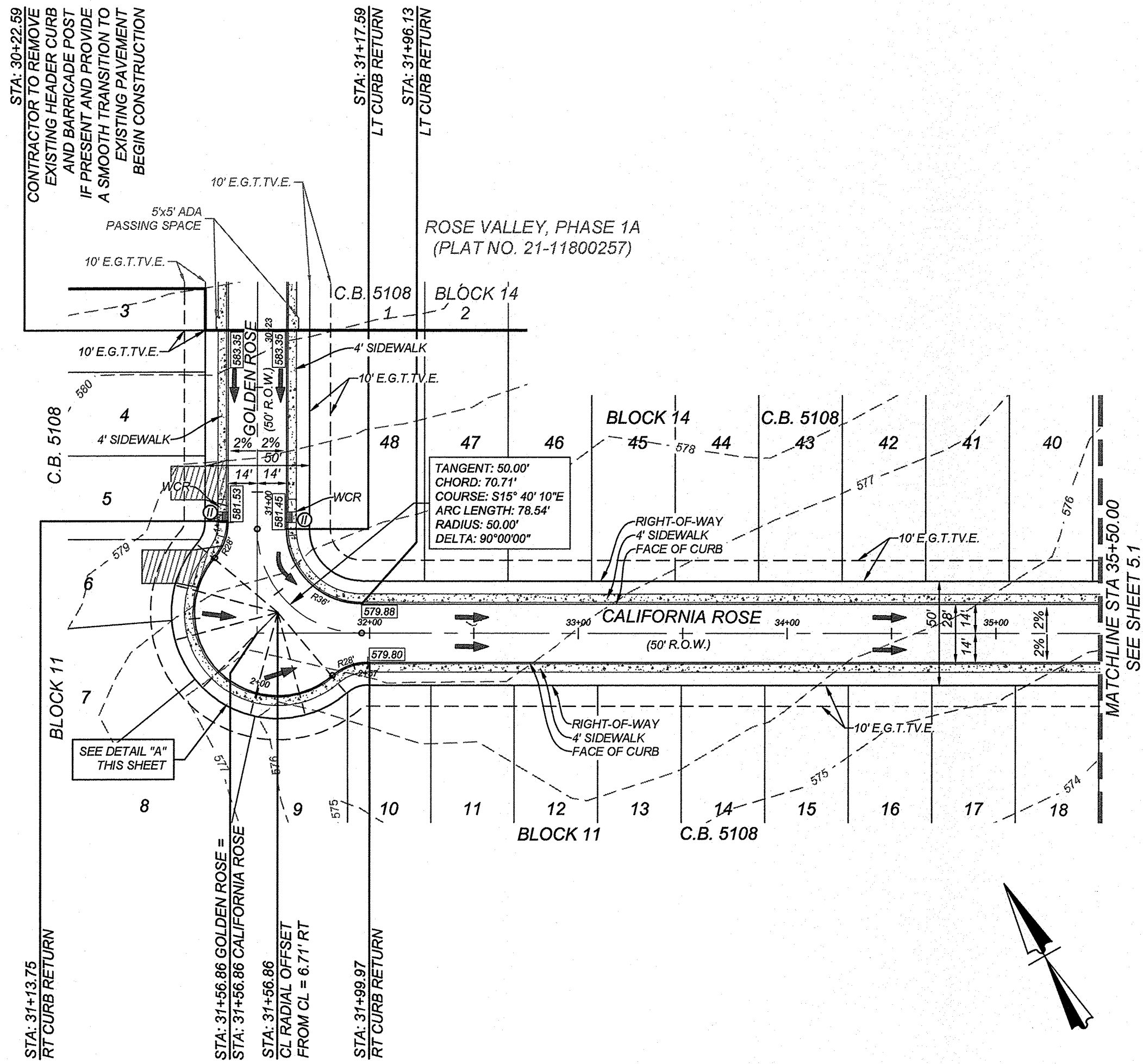
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CAUTION!!

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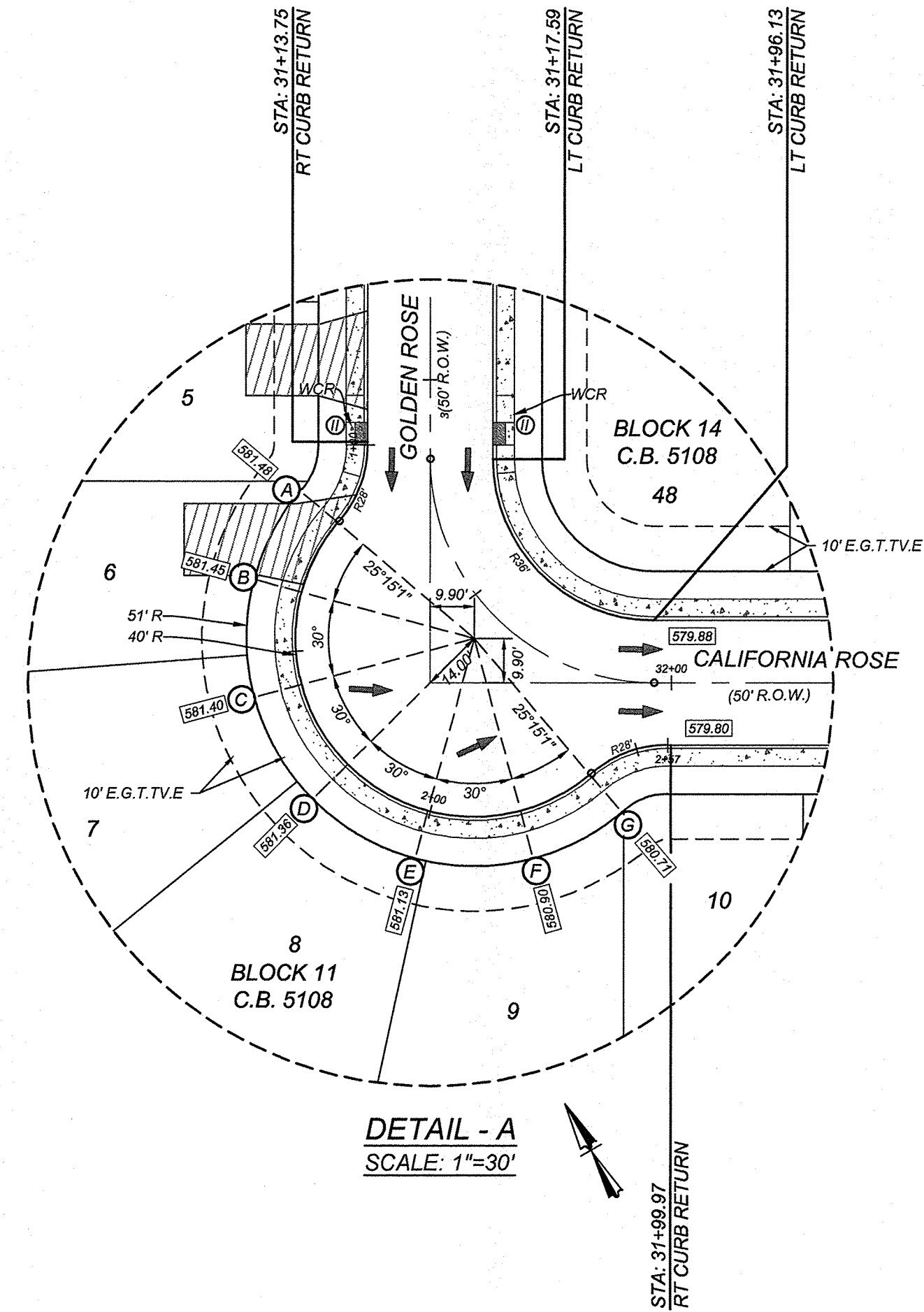
BEXAR COUNTY R.O.W. NOTE

A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY R.O.W.



GOLDEN ROSE / CALIFORNIA ROSE
STA: 30+22.59 - 35+50.00

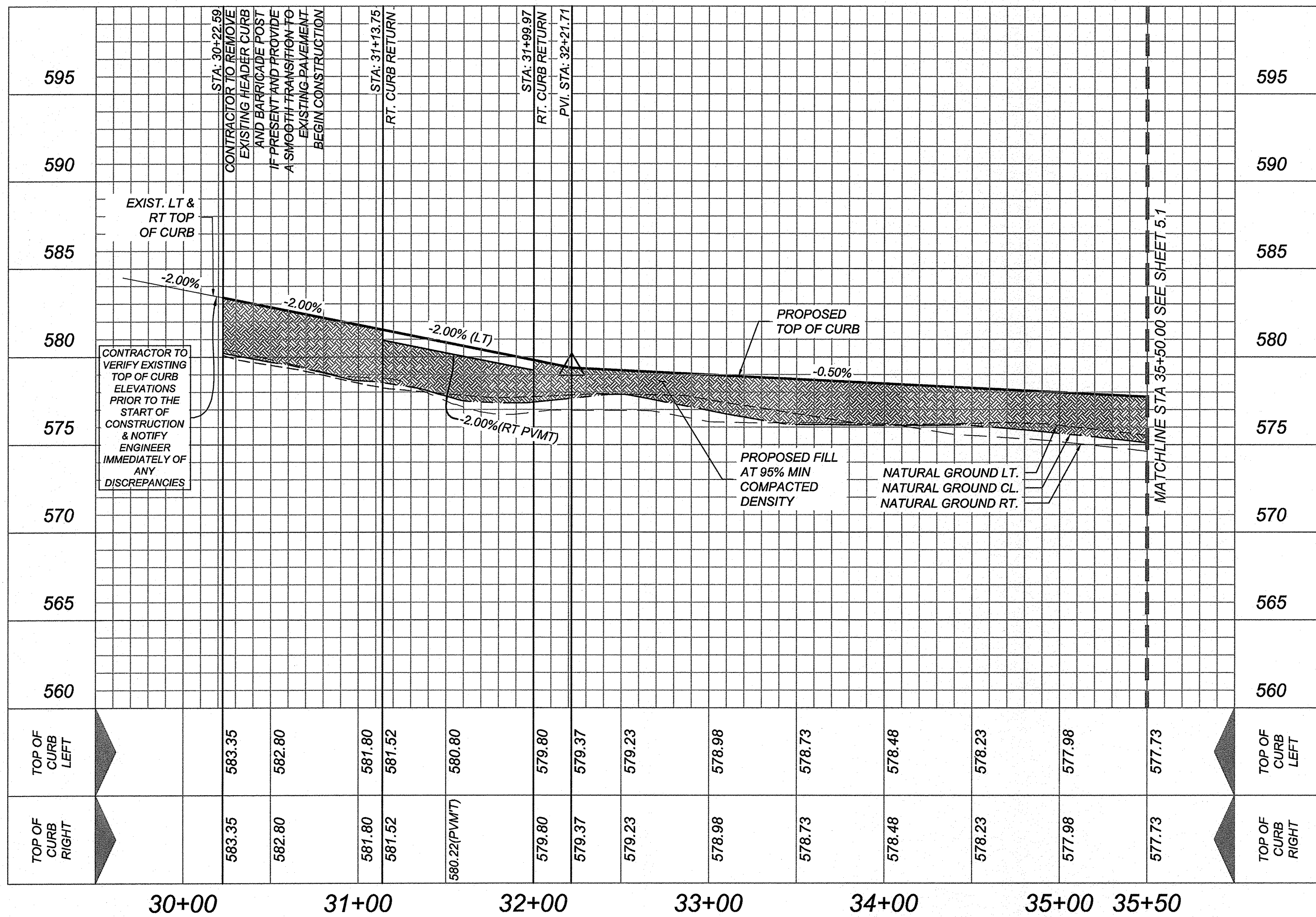
HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



DETAIL - A
SCALE: 1"=30'

LEGEND

- = FLOW ARROW
- = WASHOUT CROWN
- = ELECTRIC, GAS, TELEPHONE & CABLE EASEMENT
- = VEHICULAR NON-ACCESS EASEMENT
- = WHEELCHAIR RAMP SEE SHEET 5.7
- = WHEELCHAIR RAMP TYPE II SEE SHEET 5.7
- = SINGLE DIRECTIONAL WHEEL CHAIR RAMP SEE SHEET 5.7
- = DOUBLE DIRECTIONAL WHEEL CHAIR RAMP SEE SHEET 5.7
- = SIDEWALK TO BE CONSTRUCTED BY DEVELOPER
- = SIDEWALK TO BE BUILT AT THE TIME OF HOME CONSTRUCTION
- = TOP OF CURB ELEVATIONS
- = PROPOSED DRIVEWAY LOCATIONS



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

GOLDEN ROSE STA: 30+22.59 - 31+56.86
CALIFORNIA ROSE STA: 31+56.86 - 35+50.00

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN: SD CHECKED: JM
SHEET NUMBER:

5.0

K&W
ENGINEERS + SURVEYING
3421 Presencia Pkwy, Suite 200, San Antonio, TX 78231
Phone #: (210) 978-6444 • Fax #: (210) 978-6441
Toll Free #: 855-115-1515 • Email: info@kandw.com

ISSUE DATE
REVISIONS

Jeffrey W. Martin
9/13/22

TRENCH EXCAVATION SAFETY PROTECTION

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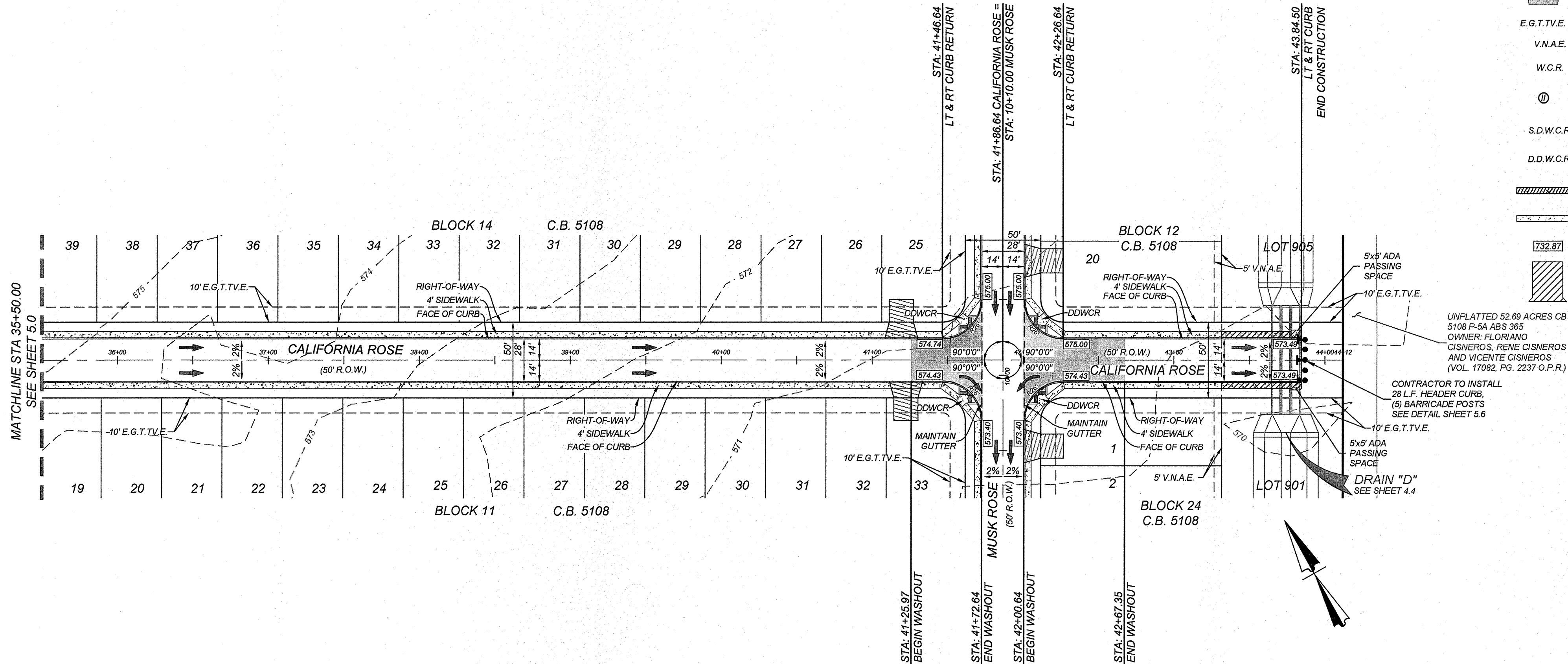
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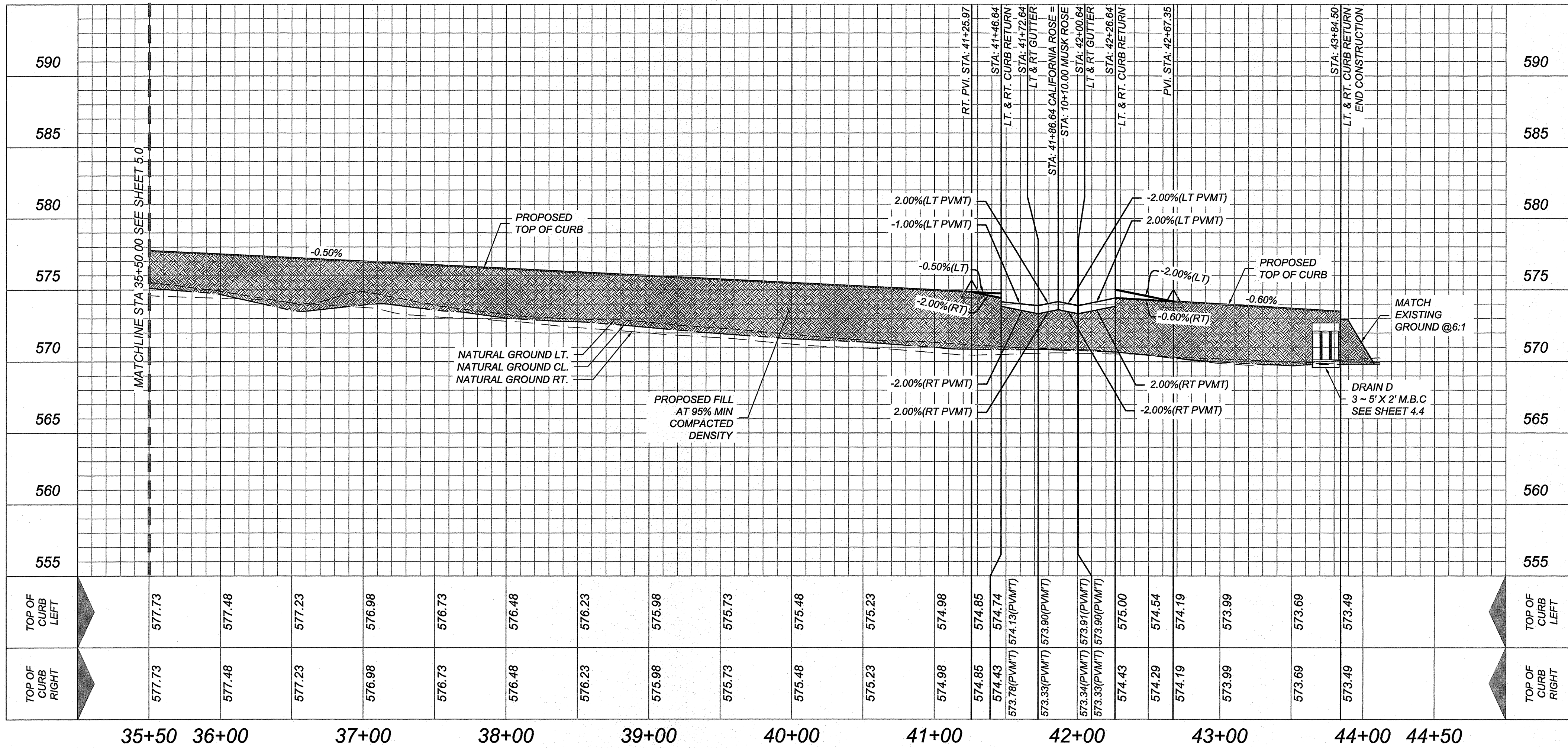
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- TOP OF CURB ELEVATIONS
- PROPOSED DRIVEWAY LOCATIONS



**CALIFORNIA ROSE
STA: 35+50.00 - END**

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

CALIFORNIA ROSE STA: 35+50.00 - END

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN:SD CHECKED:JM
SHEET NUMBER:

TRENCH EXCAVATION SAFETY PROTECTION

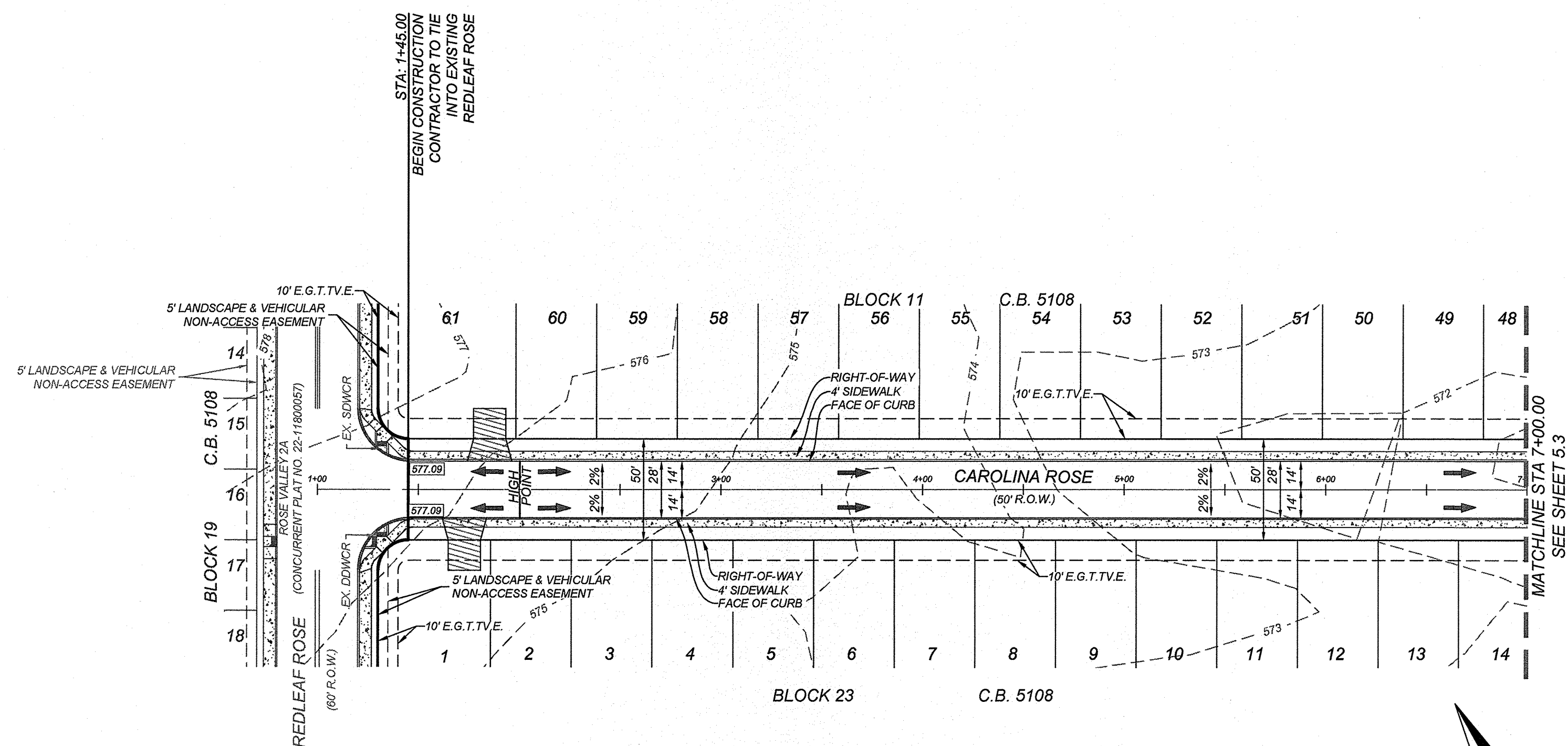
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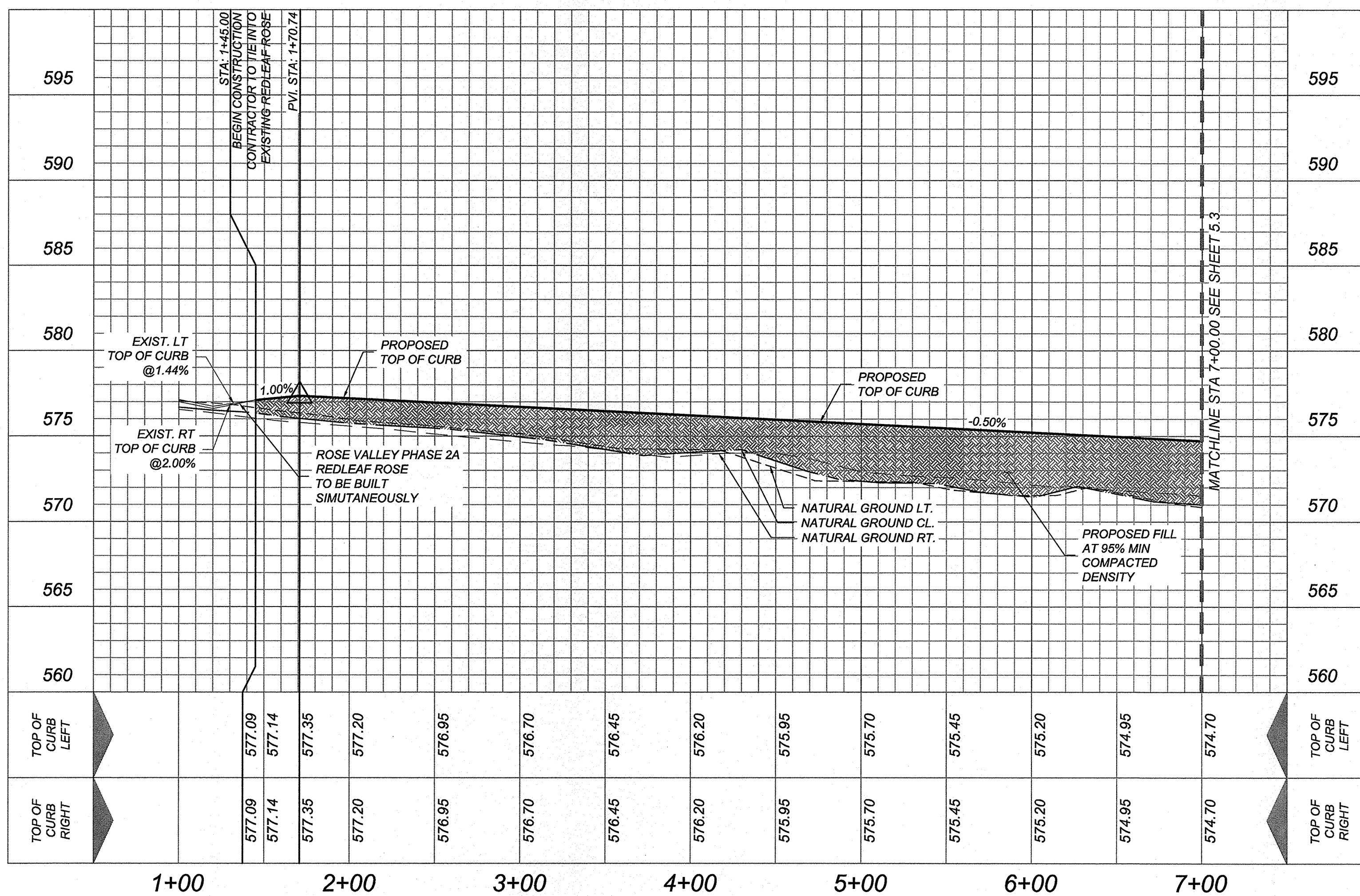


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- PROPOSED DRIVEWAY LOCATIONS

CAROLINA ROSE
STA: 1+00.00 - STA: 7+00.00

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
CAROLINA ROSE STA: 1+00.00 - 7+00.00

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN: SD CHECKED: JM
SHEET NUMBER:

TRENCH EXCAVATION SAFETY PROTECTION

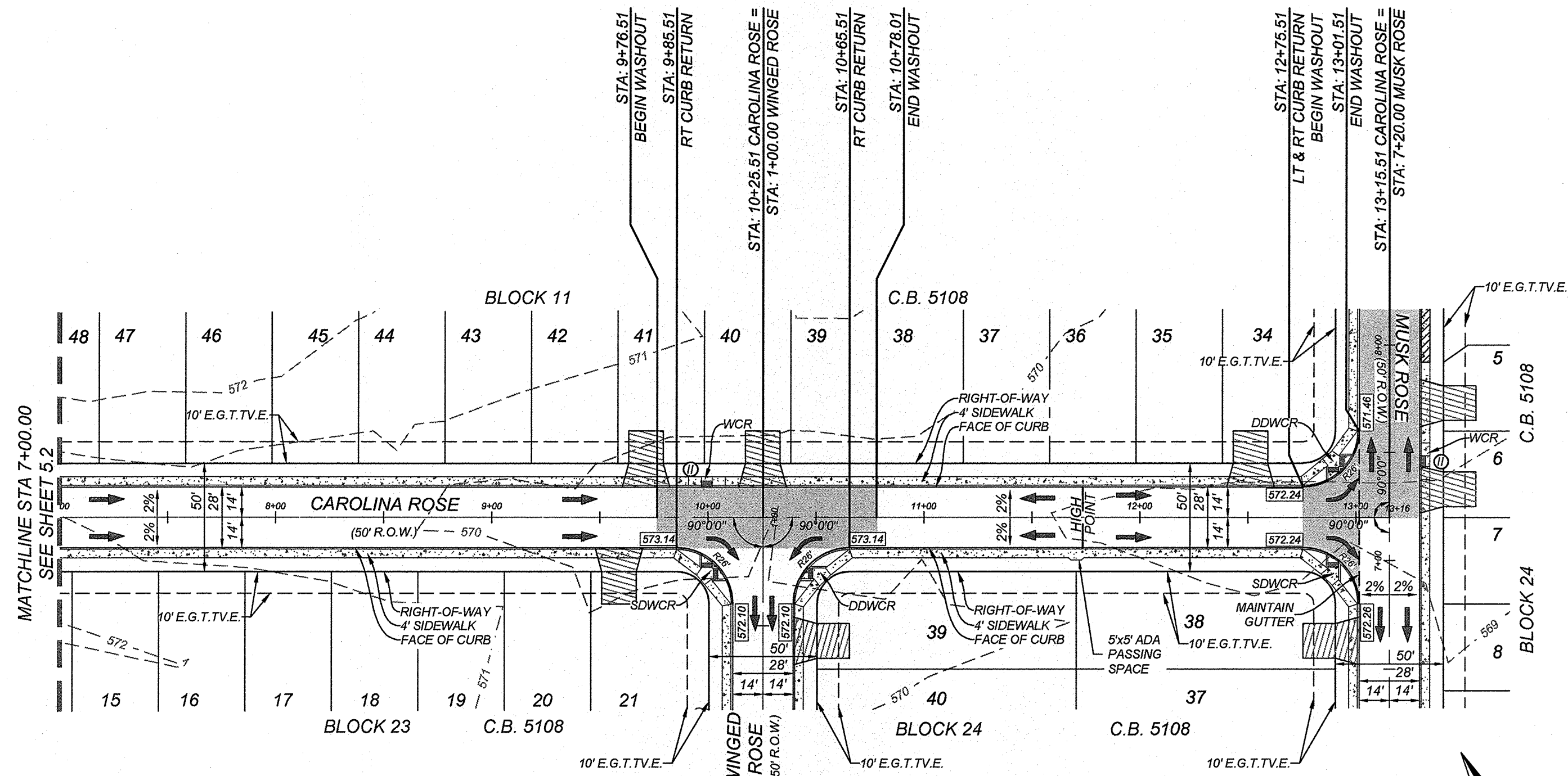
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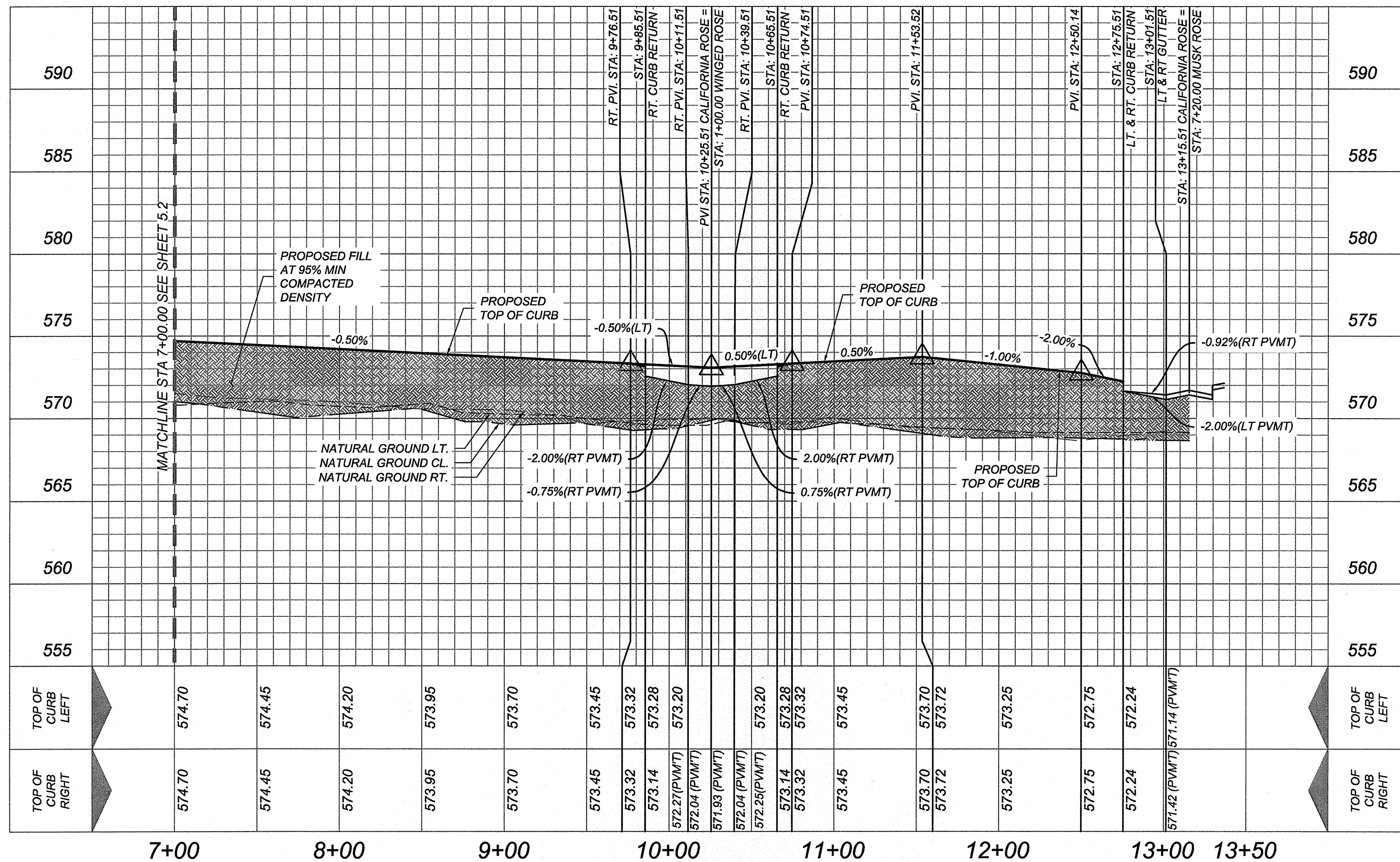


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- 732.67 = TOP OF CURB ELEVATIONS
- PROPOSED DRIVEWAY LOCATIONS

**CAROLINA ROSE
STA: 7+00.00 - END**

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

CAROLINA ROSE STA: 7+00.00 - END

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN: SD CHECKED: JM
SHEET NUMBER:

5.3

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CAUTION!!

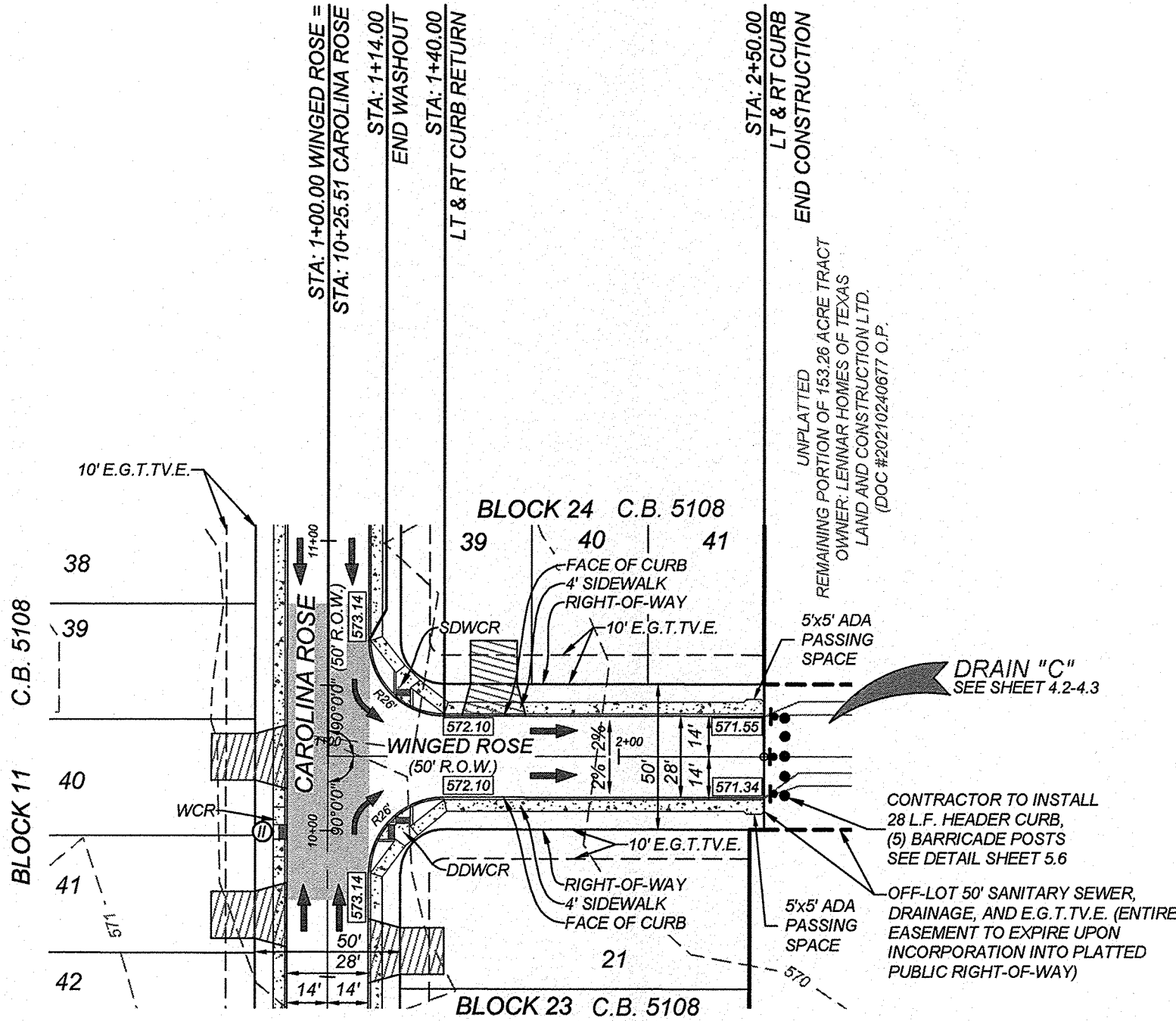
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BEXAR COUNTY R.O.W. NOTE

A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY R.O.W.

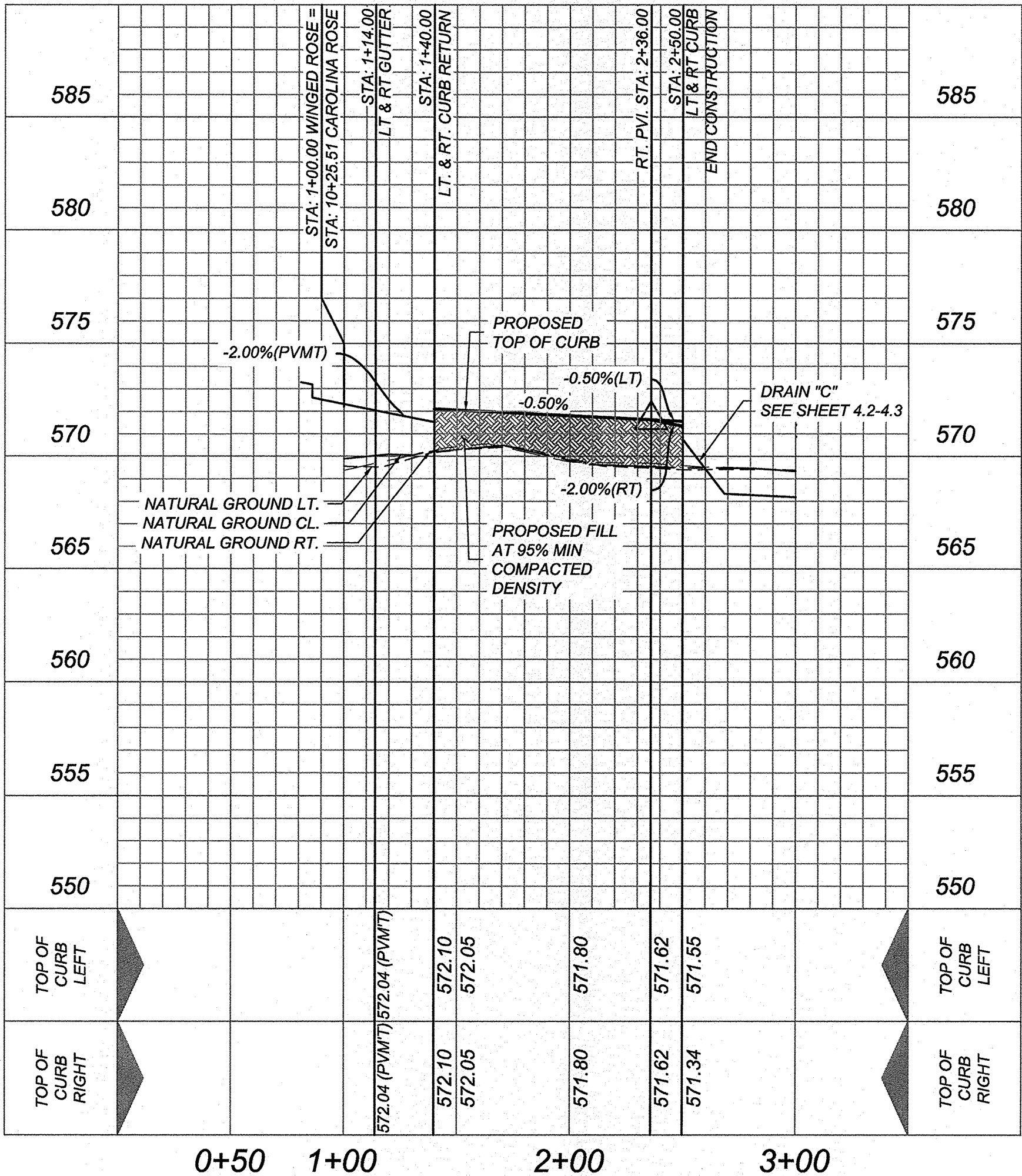
LEGEND

- = FLOW ARROW
- = WASHOUT CROWN
- E.G.T.T.V.E. = ELECTRIC, GAS, TELEPHONE & CABLE EASEMENT
- V.N.A.E. = VEHICULAR NON-ACCESS EASEMENT
- W.C.R. = WHEEL CHAIR RAMPS SEE SHEET 5.7
- = WHEEL CHAIR RAMP TYPE II SEE SHEET 5.7
- S.D.W.C.R. = SINGLE DIRECTIONAL WHEEL CHAIR RAMP SEE SHEET 5.7
- D.D.W.C.R. = DOUBLE DIRECTIONAL WHEEL CHAIR RAMP SEE SHEET 5.7
- = SIDEWALK TO BE CONSTRUCTED BY DEVELOPER
- = SIDEWALK TO BE BUILT AT THE TIME OF HOME CONSTRUCTION
- = TOP OF CURB ELEVATIONS
- = PROPOSED DRIVEWAY LOCATIONS



WINGED ROSE
STA: 1+00.00 - END

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
WINGED ROSE STA: 1+00.00 - END

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN: SD CHECKED: JM
SHEET NUMBER:
5.4

KFW
ENGINEERS + SURVEYING
3421 Presencia Pkwy, Suite 200, San Antonio, TX 78231
Phone #: (210) 979-5444 • Fax #: (210) 979-5441
TSP EIT # 8510 • TSP ES # 8687 C/P

STATE OF TEXAS
JEFFREY W. MARTIN
139094
LICENSED PROFESSIONAL ENGINEER
9/15/22

Date: Apr 03, 2023, 8:31am User ID: orodriguez
File: N:\314\Valley\Design\Civil\STREET\5\STPP_3145101.dwg

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

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

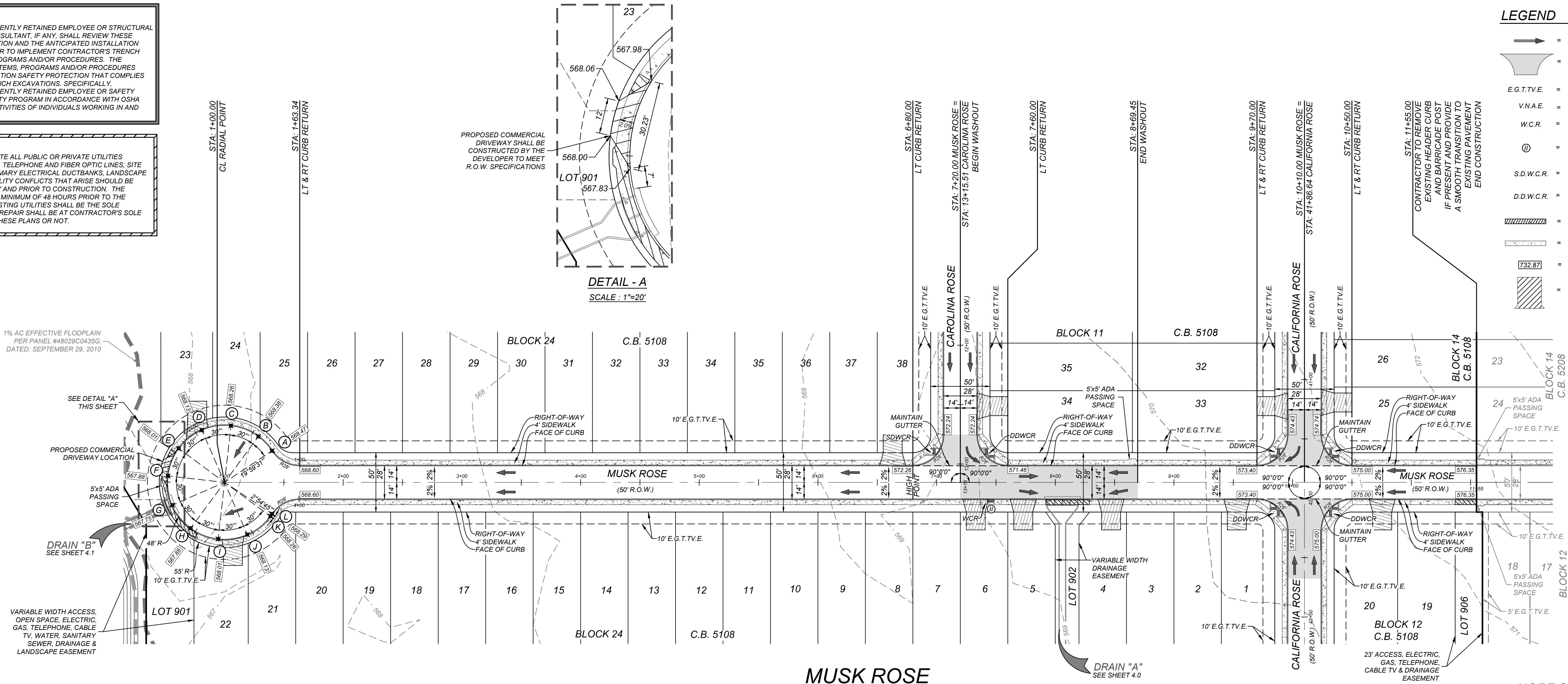
BEXAR COUNTY R.O.W. NOTE

A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY R.O.W.

PROPOSED COMMERCIAL DRIVEWAY SHALL BE CONSTRUCTED BY THE DEVELOPER TO MEET R.O.W. SPECIFICATIONS

DETAIL - A
SCALE: 1"=20'

1% AC EFFECTIVE FLOODPLAIN
PER PANEL #48029C0435G,
DATED: SEPTEMBER 29, 2010

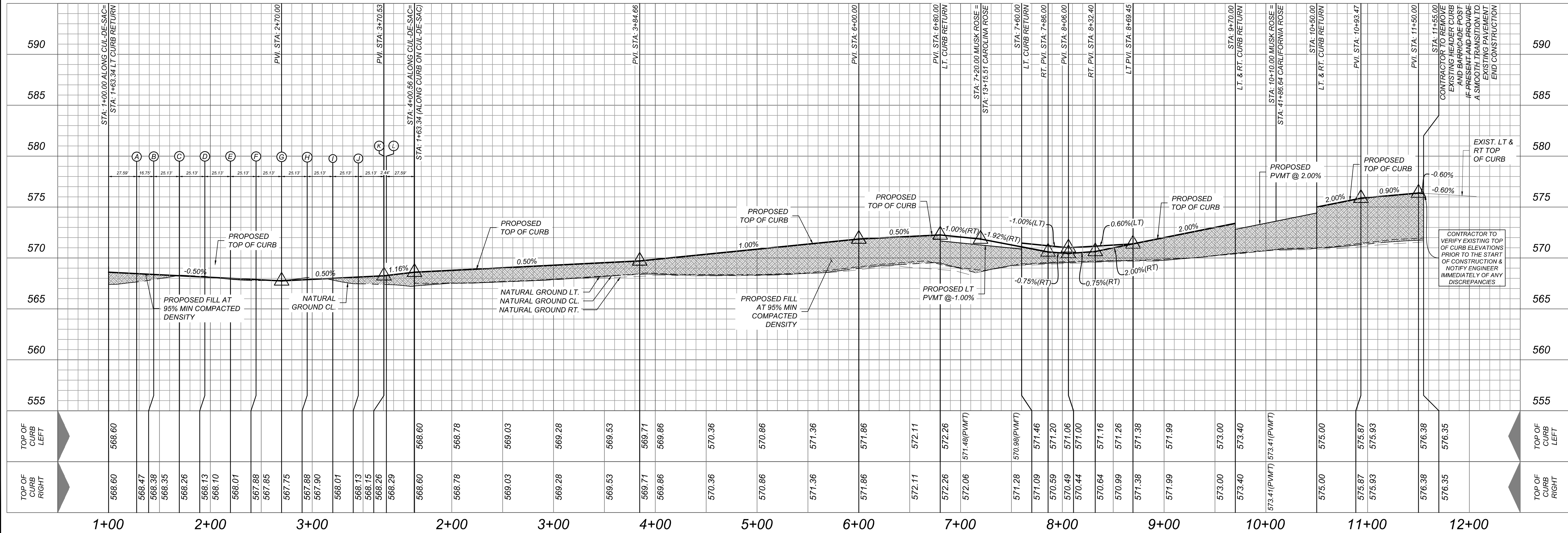


LEGEND

- = FLOW ARROW
- WASHOUT CROWN
- E.G.T.V.E. = ELECTRIC, GAS, TELEPHONE & CABLE EASEMENT
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- SIDEWALK TO BE CONSTRUCTED BY DEVELOPER.
- SIDEWALK TO BE BUILT AT THE TIME OF HOME CONSTRUCTION
- TOP OF CURB ELEVATIONS
- PROPOSED DRIVEWAY LOCATIONS

MUSK ROSE
STA: 1+00.00 - END

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



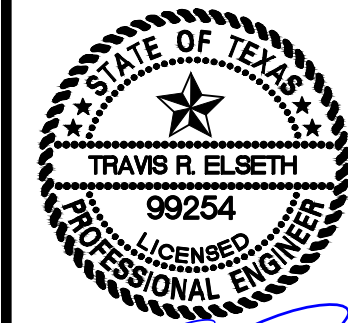
ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

MUSK ROSE STA: 1+00.00 - END

PLAT NO.
22-11800056

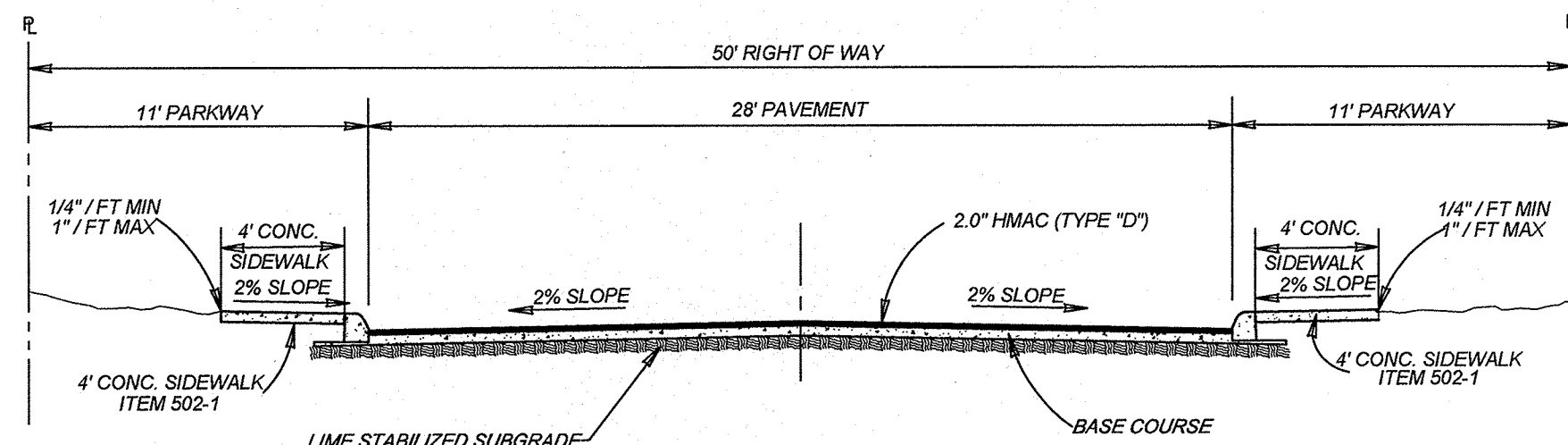
JOB NO. 314-51-01
DATE: ---
DRAWN/SD CHECKED/JM
SHEET NUMBER:

K&W
ENGINEERS + SURVEYING
99254
Phone # (210) 878-8444 • Fax # (210) 878-8441
TBPE Firm #: 0513 • TBPE S Firm #: 1012300



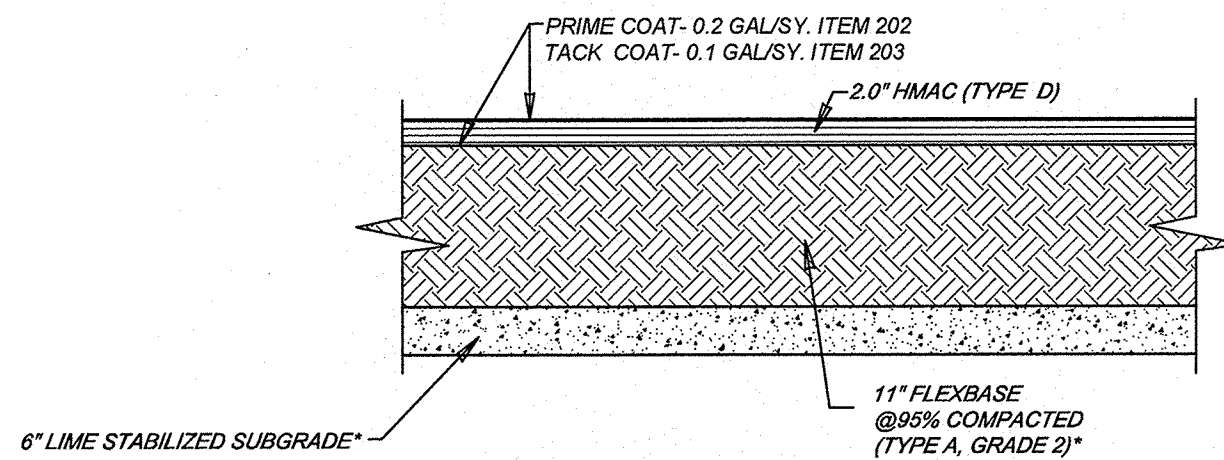
4/3/23

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TYPICAL LOCAL "A" STREET SECTION

NOT TO SCALE
GOLDEN ROSE: STA. 30+22.59 - 31+56.86
CALIFORNIA ROSE: STA. 31+56.86 - END
CAROLINA ROSE: STA. 1+00.00 - END
WINGED ROSE: STA. 1+00.00 - END
MUSK ROSE: STA. 1+00.00 - END



ASPHALT PAVEMENT DETAIL

NOT-TO-SCALE

DETAIL FOR ALL LOCAL TYPE A

FLEXIBLE PAVEMENT SYSTEM (DARK BROWN CLAY SUBGRADE)

Pavement Section
2.0' HMA (Type 'D')
11' FLEXBASE COURSE (Type 'A' GRADE 2)
6.0' LIME STABILIZED SUBGRADE (33 LBS/SY)
Total: 19'
Structural No: 2.90
C.B.R = 2.0

InTEC PROJECT NO. S211189-2-P JUNE 21, 2021

- NOTES:
- PAVEMENT DESIGN THICKNESS BASED ON GEOTECHNICAL REPORT BY InTEC REPORT NO. S211189-2-P DATED JUNE 21, 2021
 - REFERENCE PROJECT GEOTECHNICAL REPORT AND PROJECT SPECIFICATION FOR ADDITIONAL REQUIREMENTS AND ALTERNATE PAVEMENT SECTIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING MATERIAL TESTING. TESTING TO BE PAID BY OWNER.
 - THERE SHALL BE NO SUBSTITUTION OF LIME.

*NOTE: LIME OR CEMENT CONTENT OF 8.0 PERCENT OF THE DRY WEIGHT OF THE SOIL TO BE TREATED SHOULD BE USED. SUBGRADE STABILIZATION SHALL BE APPLIED AT A RATE OF 33 LBS/SY, AS PER GEOTECHNICAL REPORT BY INTEC, DATED JUNE 21, 2021.

**NOTE: ASPHALT PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION, ITEMS NO. 200, 202, 203, 204, AND 205 (PRIME COAT APPLIED AT A RATE NOT TO EXCEED 0.20 GAL/SY, AND TACK COAT APPLIED AT A RATE NOT TO EXCEED 0.10 GAL/SY).

***NOTE: GEOTECHNICAL ENGINEER TO BE ON SITE TO MAKE FINAL SUBGRADE DETERMINATION. CHANGES TO THIS PAVEMENT DESIGN SHALL BE SUBMITTED TO COSA-DSD PRIOR TO PLACEMENT OF BASE MATERIAL.

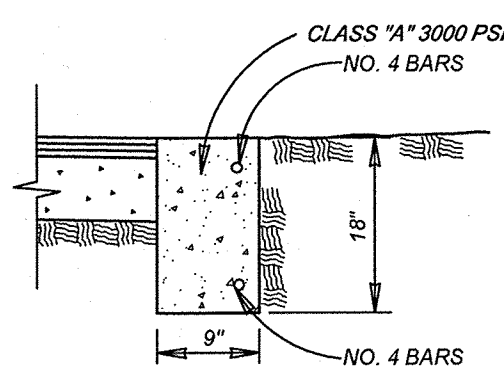
GENERAL NOTES:

- THE SUBGRADE SOILS SHOULD BE TESTED FOR SOLUBLE SULPHATE CONTENT PRIOR TO INSTALLATION OF THE LIME OR CEMENT.
- 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;

MINIMUM PASSING 1 1/4" SIEVE	100
MINIMUM PASSING 3/4" SIEVE	85
MINIMUM PASSING NO. 4 SIEVE	60
 - SAMPLE SOIL-LIME MIXTURE FOR DETERMINATION OF MAXIMUM DRY DENSITY (MDD), IN THE LABORATORY, MOLD SPECIMENS TO 95% OF MDD AT OPTIMUM MOISTURE CONTENT AND VERIFY UCS TO BE AT LEAST 180 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.

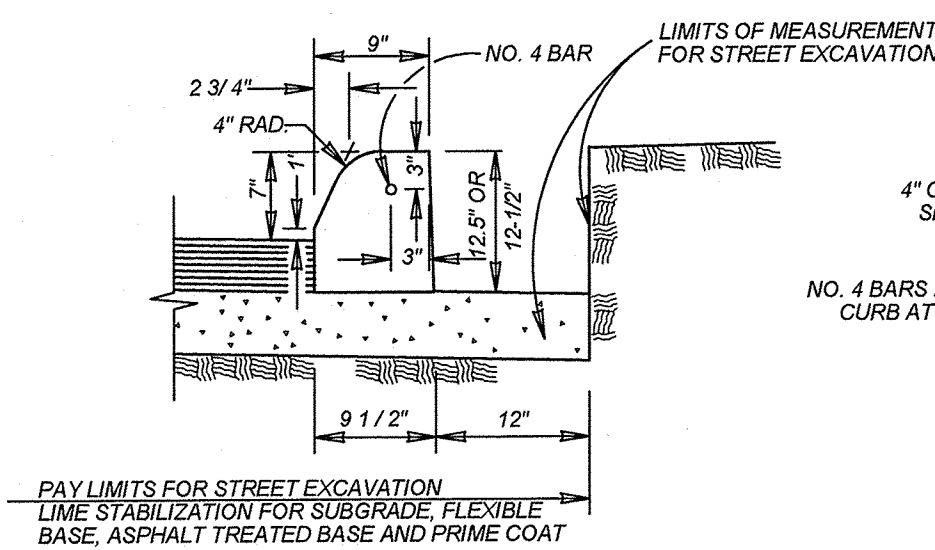
NOTES:

- ANY FILL USED TO RAISE THE SUBGRADE:
- SHOULD NOT CONTAIN ANY DELETERIOUS MATERIAL.
 - SHOULD HAVE A CBR VALUE OF 2.0 OR GREATER
 - SHOULD NOT HAVE GRAVELS LARGER THAN 3 INCH IN SIZE
 - SHOULD HAVE THE "LIME PERCENTAGE/APPLICATION RATE" RE-RUN
 - PRIOR TO INSTALLATION
 - PI SHOULD BE LESS THAN 70



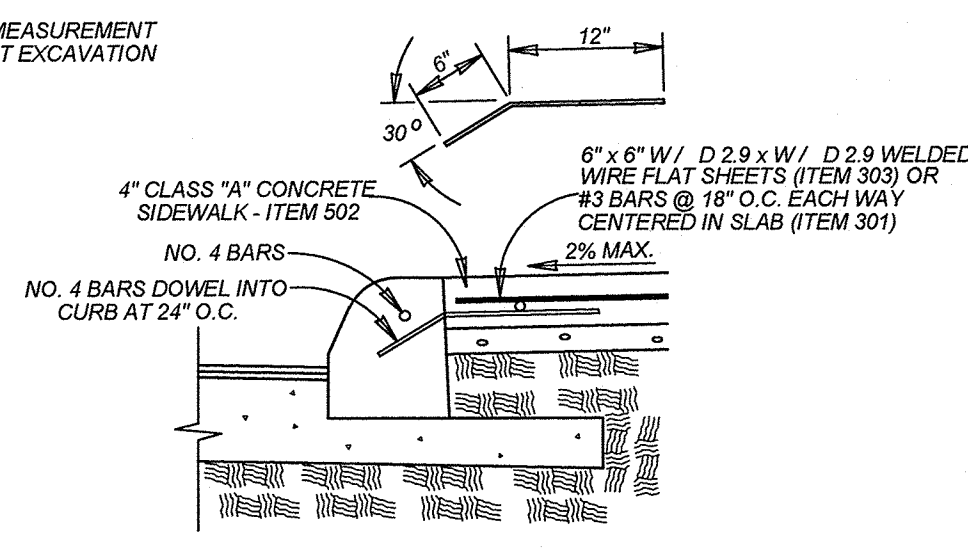
HEADER CURB

ITEM 500 ON SAND OR GRAVEL
NOT TO SCALE



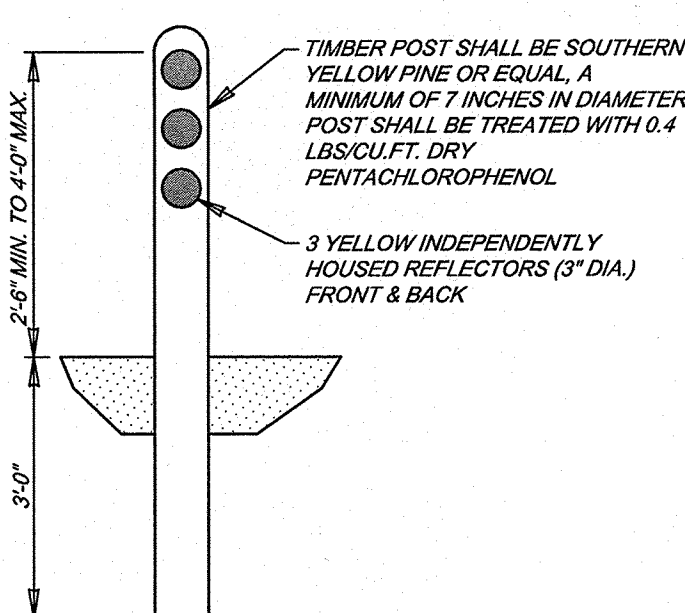
CONCRETE CURB

ITEM 500 ON FLEXIBLE BASE MATERIAL
NOT TO SCALE



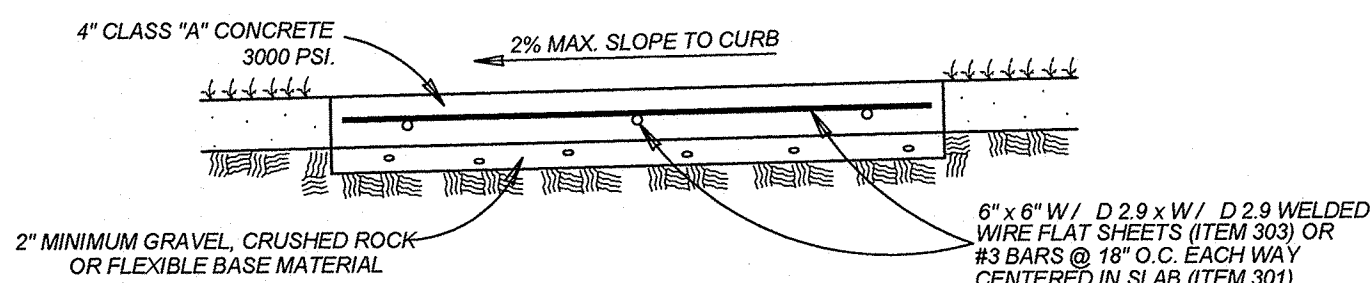
CONCRETE SIDEWALK ABUTTING CURB SECTION

ITEM 502
NOT TO SCALE



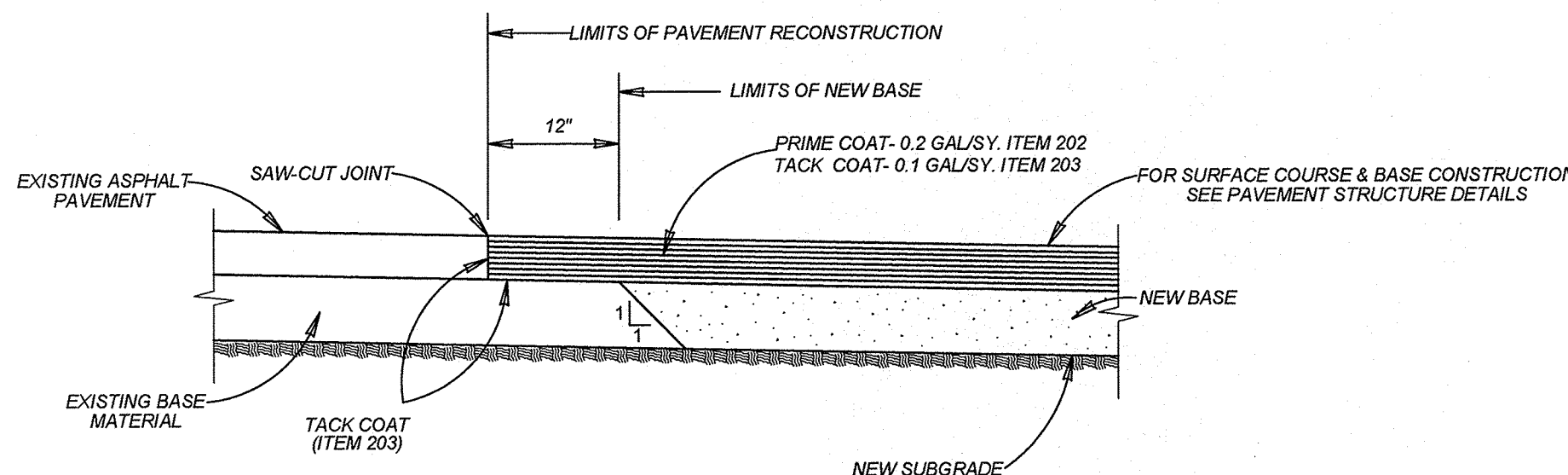
TIMBER GUARD POST DETAIL

NOT-TO-SCALE



CONCRETE SIDEWALK SECTION

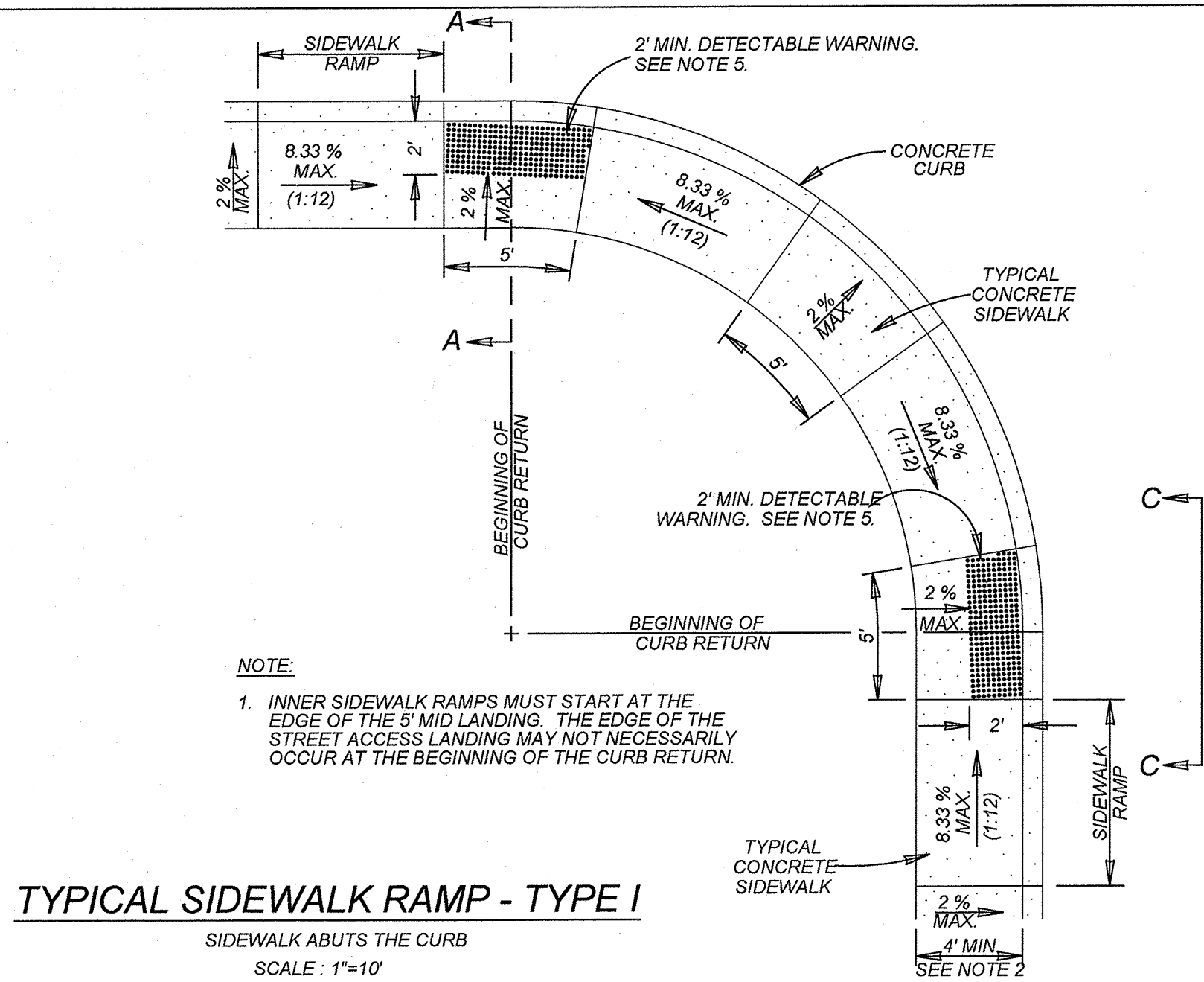
ITEM 502
NOT TO SCALE



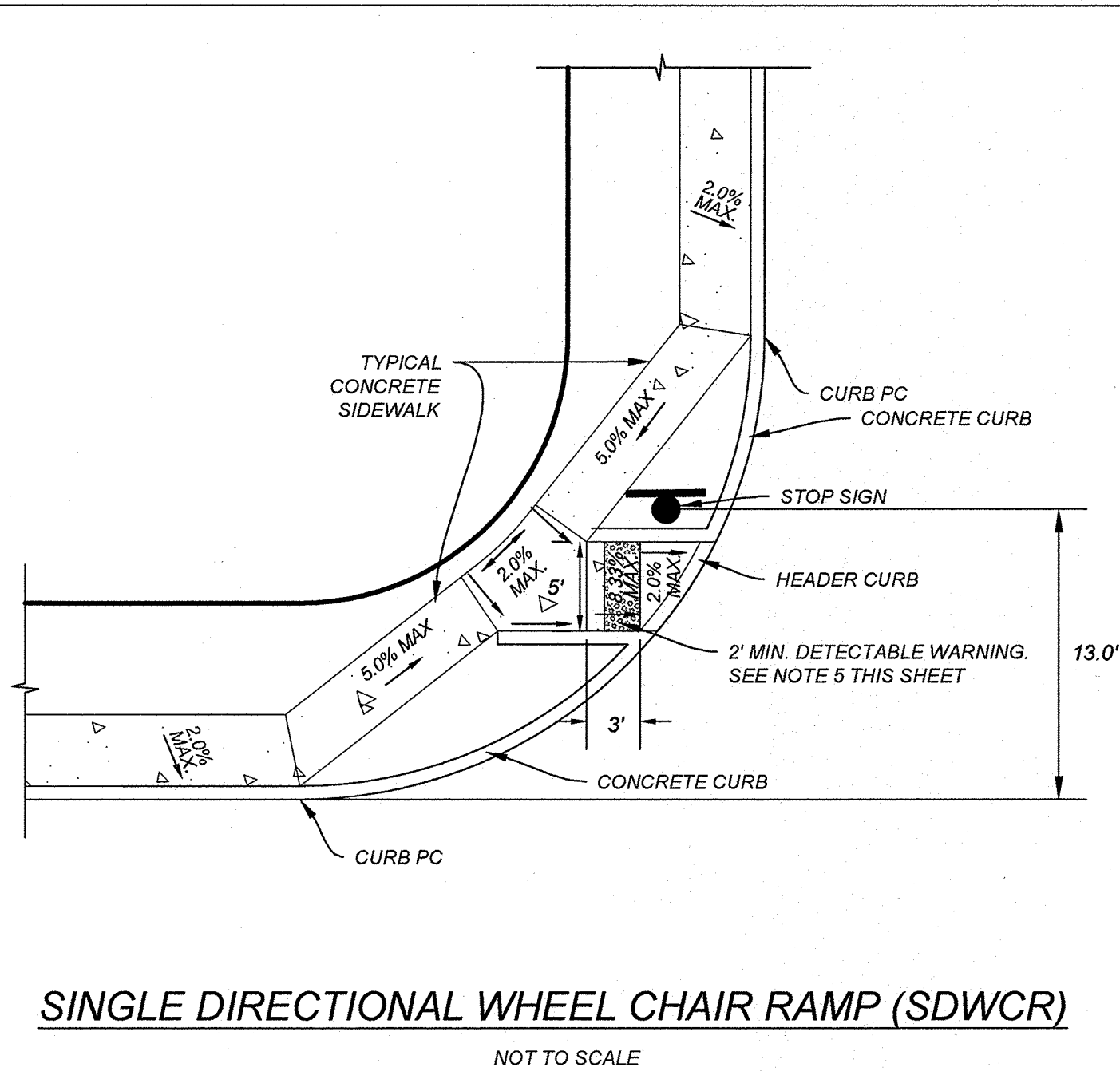
ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
STREET DETAIL SHEET

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN: SD CHECKED: JM
SHEET NUMBER:

5.6

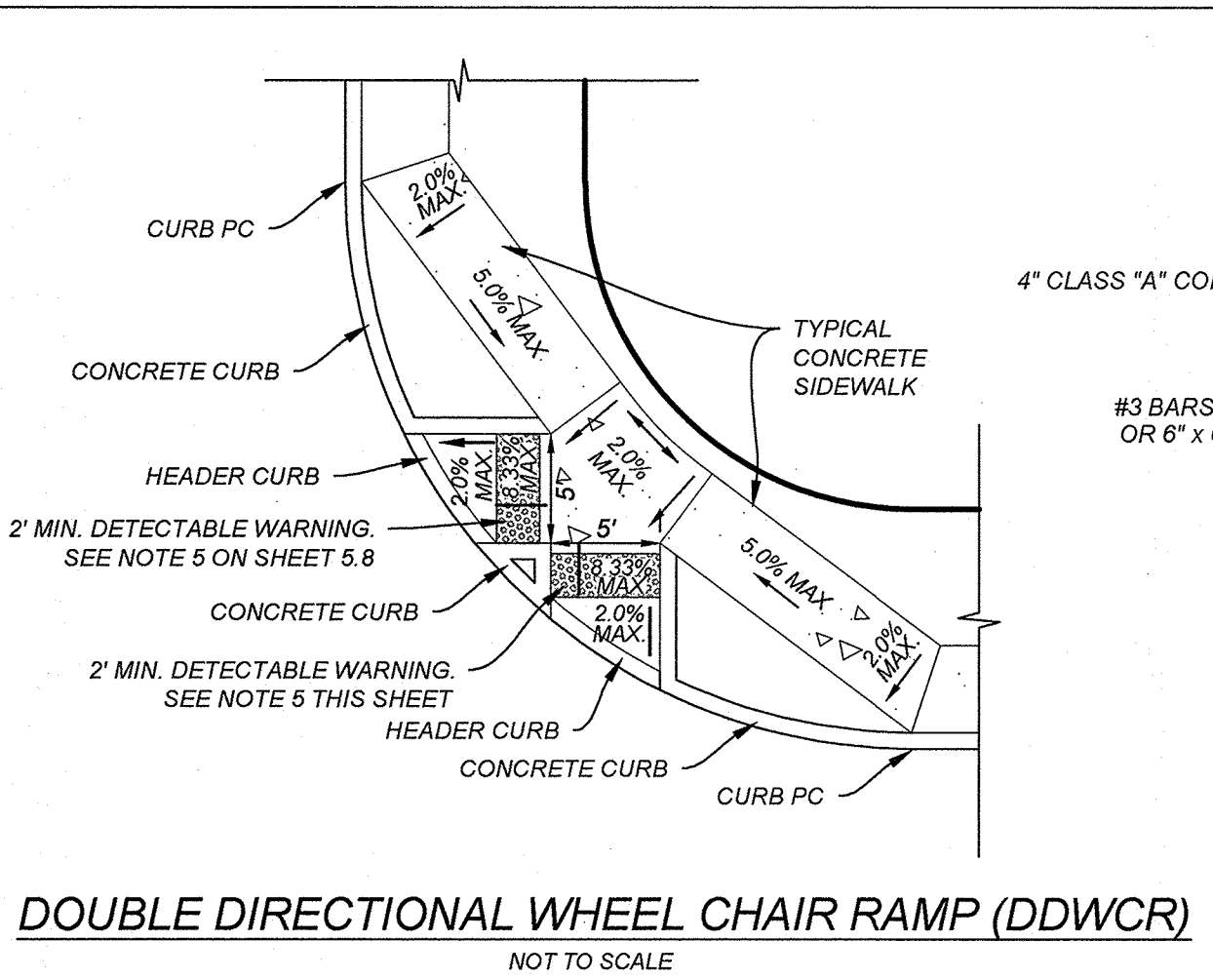


TYPICAL SIDEWALK RAMP - TYPE I
SIDEWALK ABUTS THE CURB
SCALE: 1"=10'

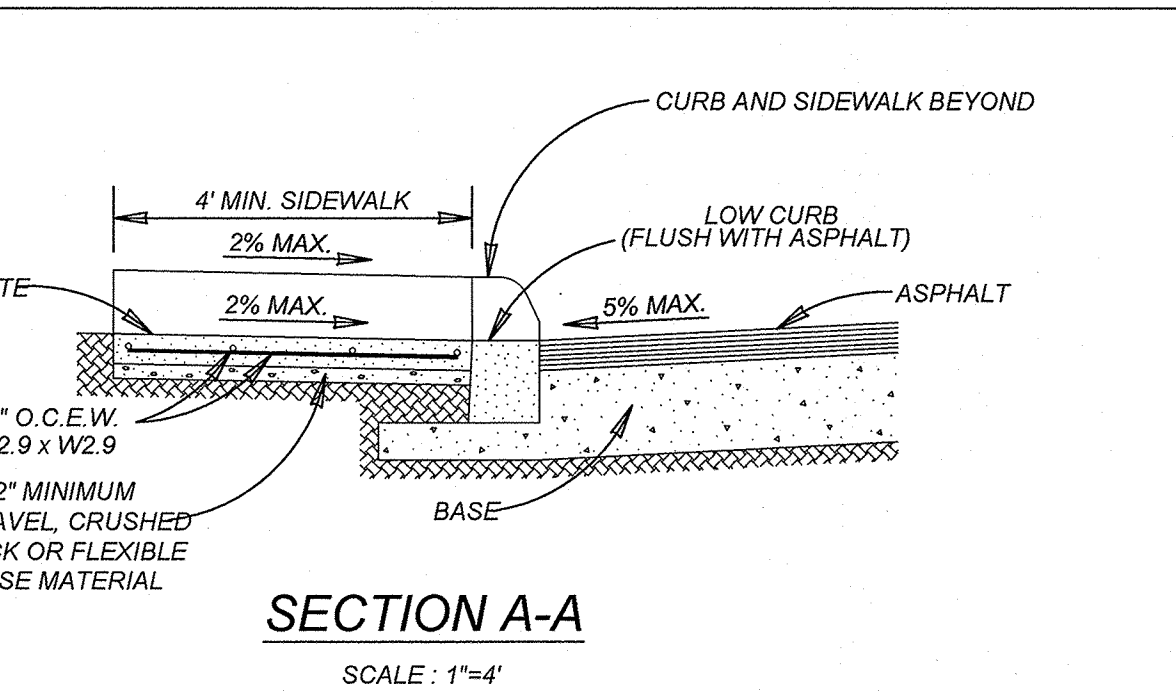


SINGLE DIRECTIONAL WHEEL CHAIR RAMP (SDWCR)
NOT TO SCALE

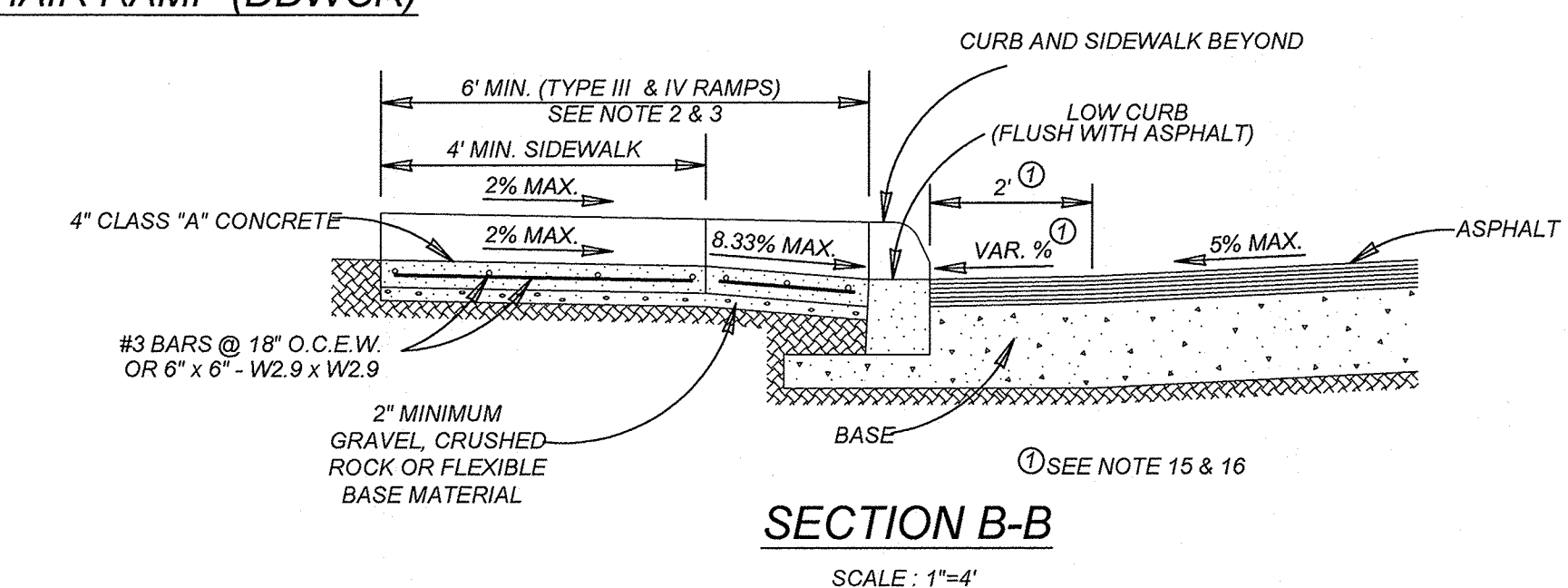
*** REFERENCE TxDOT PEDESTRIAN DETAILS.
SEE SHEET 5.12**



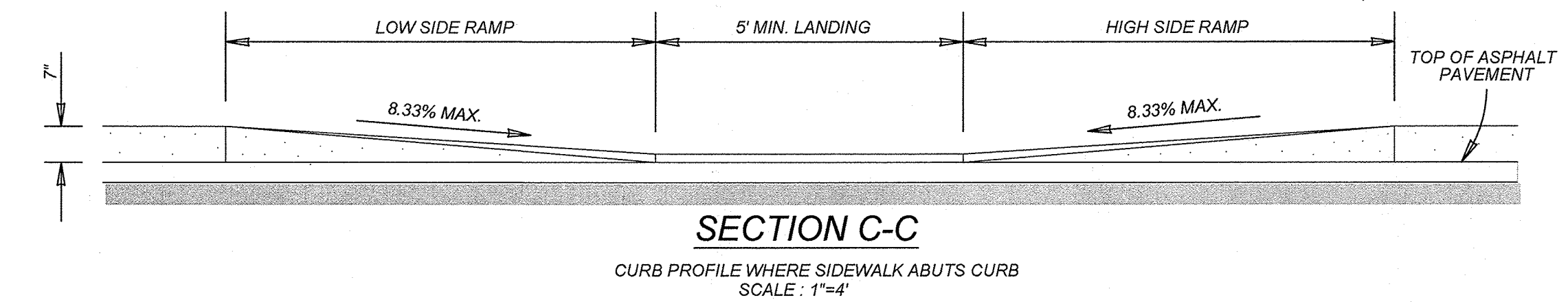
DOUBLE DIRECTIONAL WHEEL CHAIR RAMP (DDWCR)
NOT TO SCALE



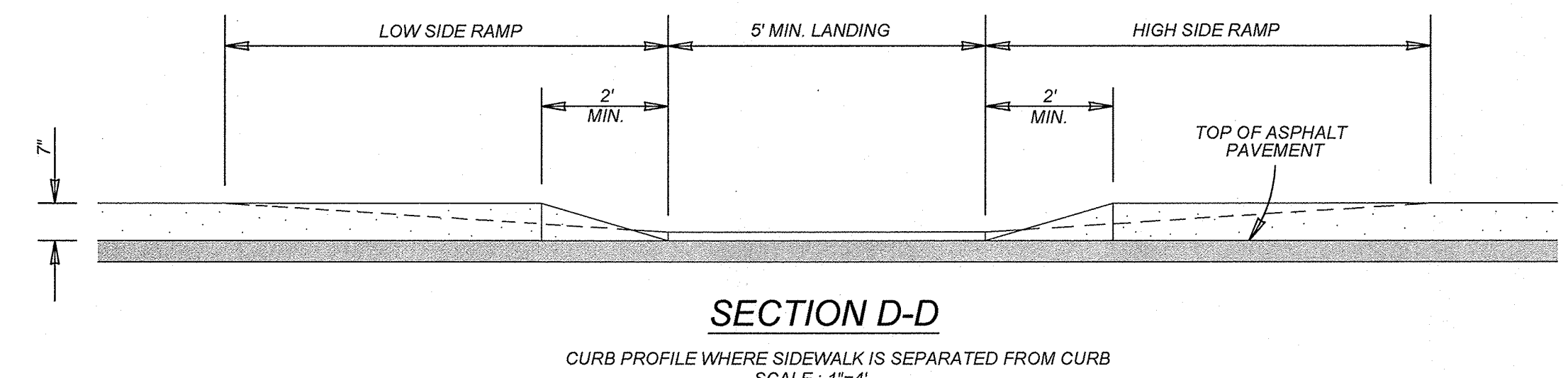
SECTION A-A
SCALE: 1"=4'



SECTION B-B
SCALE: 1"=4'



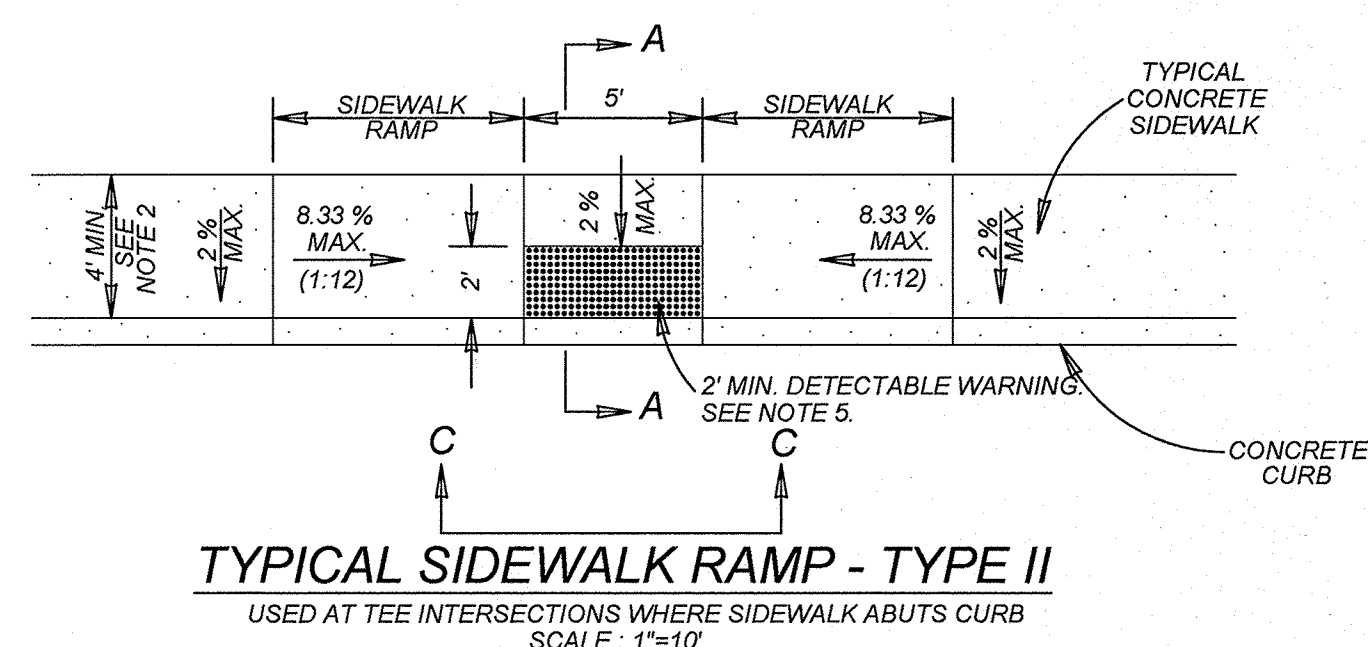
SECTION C-C
CURB PROFILE WHERE SIDEWALK ABUTS CURB
SCALE: 1"=4'



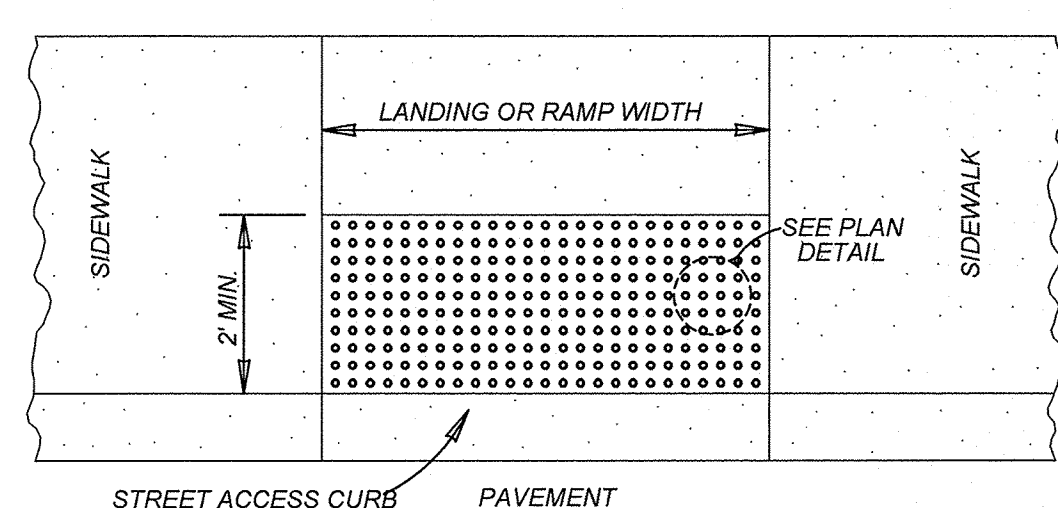
SECTION D-D
CURB PROFILE WHERE SIDEWALK IS SEPARATED FROM CURB
SCALE: 1"=4'

GENERAL NOTES

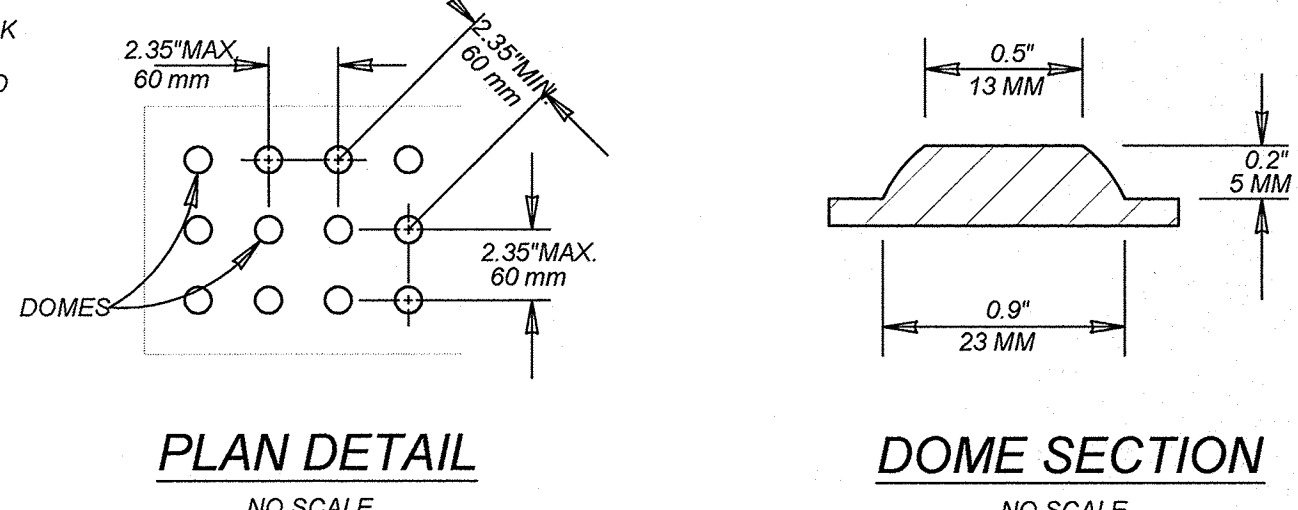
1. WHEN POSSIBLE SIDEWALKS SHOULD BE PLACED NEXT TO THE PROPERTY LINE, ALLOWING A MINIMUM OF 1 FOOT BUFFER. DEVIATION OF THE PATHWAY FROM A STRAIGHT LINE IS ENCOURAGED TO AVOID TREES OR OTHER OBSTRUCTIONS.
2. FOR LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4' AND IF SEPARATED 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, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 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. 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.
5. ALL CURB-RAMPS OR LANDINGS ABUTTING THE CROSSWALK SHALL HAVE A DETECTABLE WARNING 24 INCHES DEEP (IN THE DIRECTION OF PEDESTRIAN TRAVEL) AND EXTENDING THE FULL WIDTH OF THE CURB RAMP OR LANDING. THE DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES, ALIGNED IN A GRID PATTERN WITH A NOMINAL 0.9 INCHES (23 MM), A HEIGHT OF NOMINAL 0.2 INCHES (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES (60 MM). THE DETECTABLE WARNING SURFACE SHALL BE PAVERS CONFORMING TO TxDOT STANDARD PED-05, PEDESTRIAN FACILITIES.
6. 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.
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.
8. 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 FINISHED.
9. 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.
10. SIDEWALKS LESS THAN 5 FEET IN WIDTH SHALL BE PROVIDED WITH A PASSING SPACE AT A MAXIMUM SPACING OF 200 FEET.
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.
13. SIDEWALK GRADES SHALL NOT EXCEED THE GRADE ESTABLISHED FOR THE ADJACENT ROADWAY, ANY SIDEWALK CONSTRUCTION THAT DEVIATES FROM THE NATURAL GRADE OF THE ROADWAY TO CREATE A GRADE STEEPER THAN THE EXISTING ROADWAY WILL REQUIRE RAMPS, 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 2.67% (I.E. 8.33-(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.



TYPICAL SIDEWALK RAMP - TYPE II
USED AT TEE INTERSECTIONS WHERE SIDEWALK ABUTS CURB
SCALE: 1"=10'

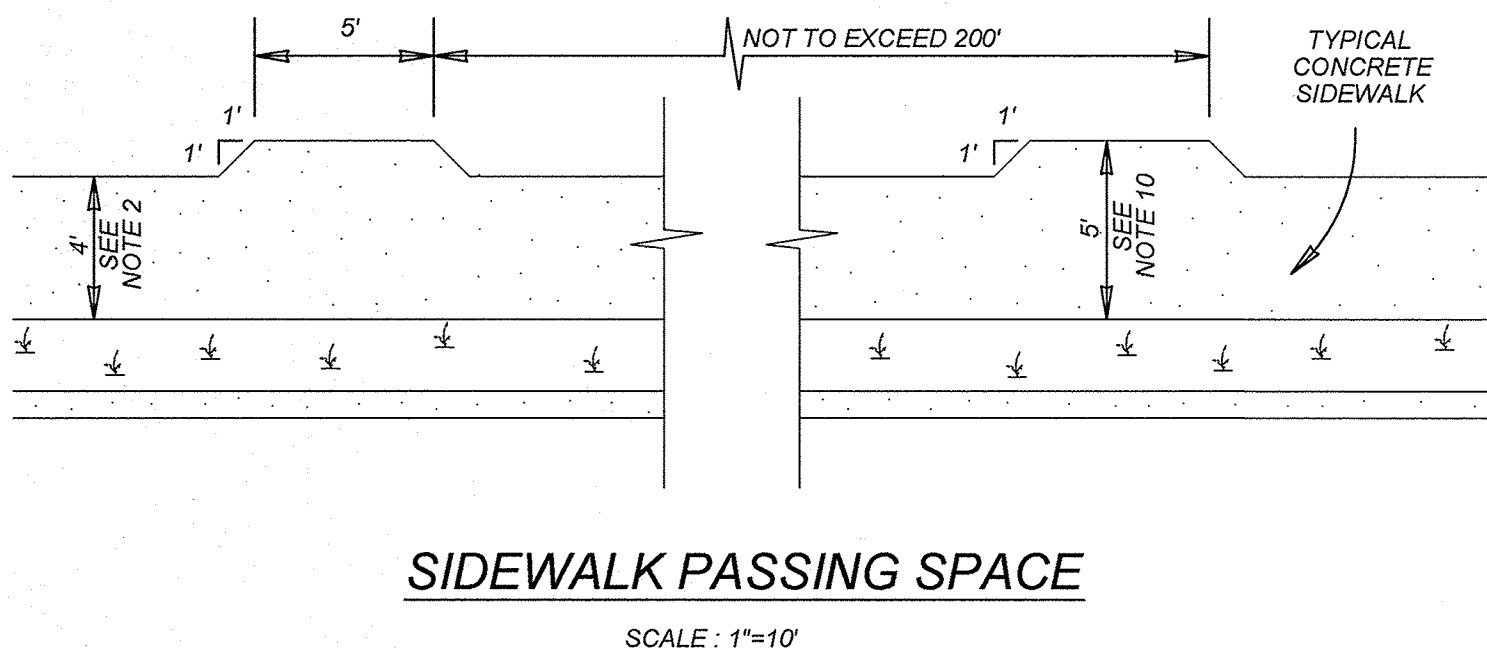


DETECTABLE WARNING SURFACE
SCALE: 1"=4'



PLAN DETAIL
NO SCALE

DOMES SECTION
NO SCALE



SIDEWALK PASSING SPACE
SCALE: 1"=10'

GUTTER SLOPE	TABLE 1 (SEE NOTE 4) SIDEWALK RAMP LENGTH (1:12)	
	LOW SIDE	HIGH SIDE
1%	5'-6"	7'-2"
2%	5'-0"	8'-4"
3%	4'-6"	10'-0"
4%	4'-2"	12'-6"
5%	3'-10"	16'-8"

WHEELCHAIR RAMP STANDARDS

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the maintenance of this standard or for any damages resulting from its use.

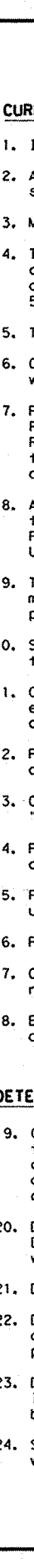


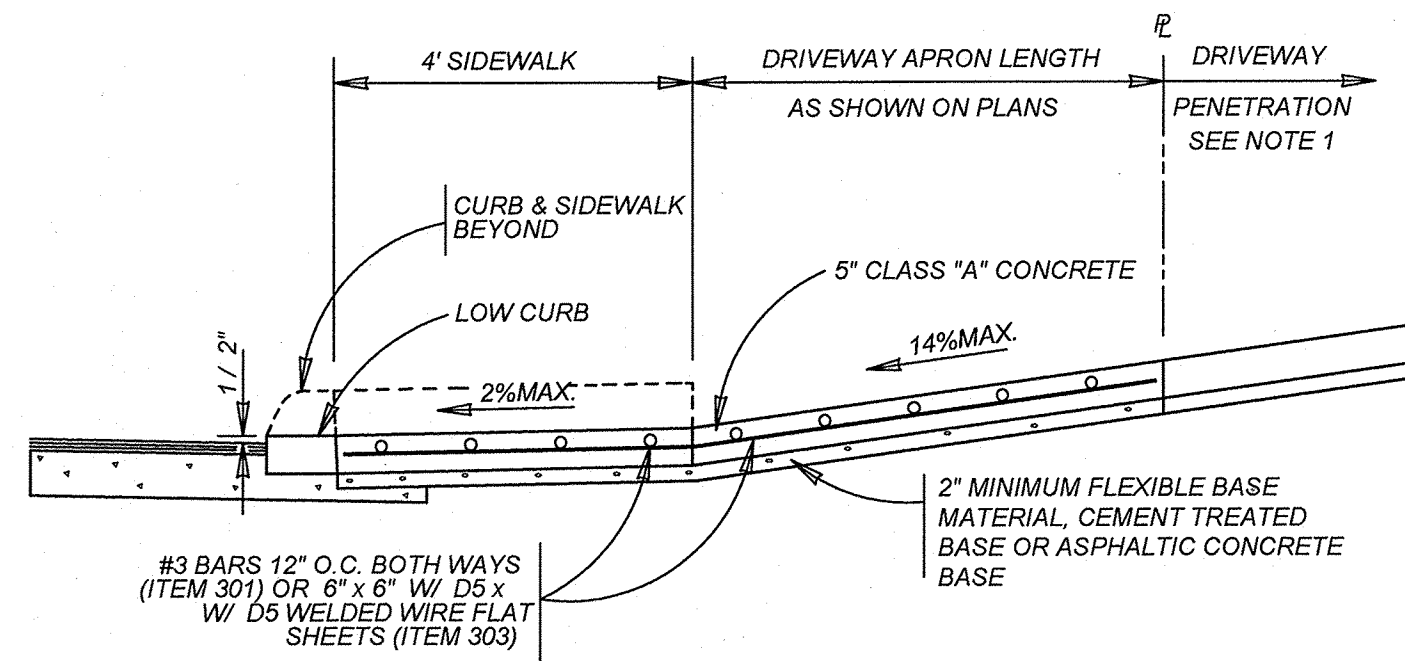
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TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.



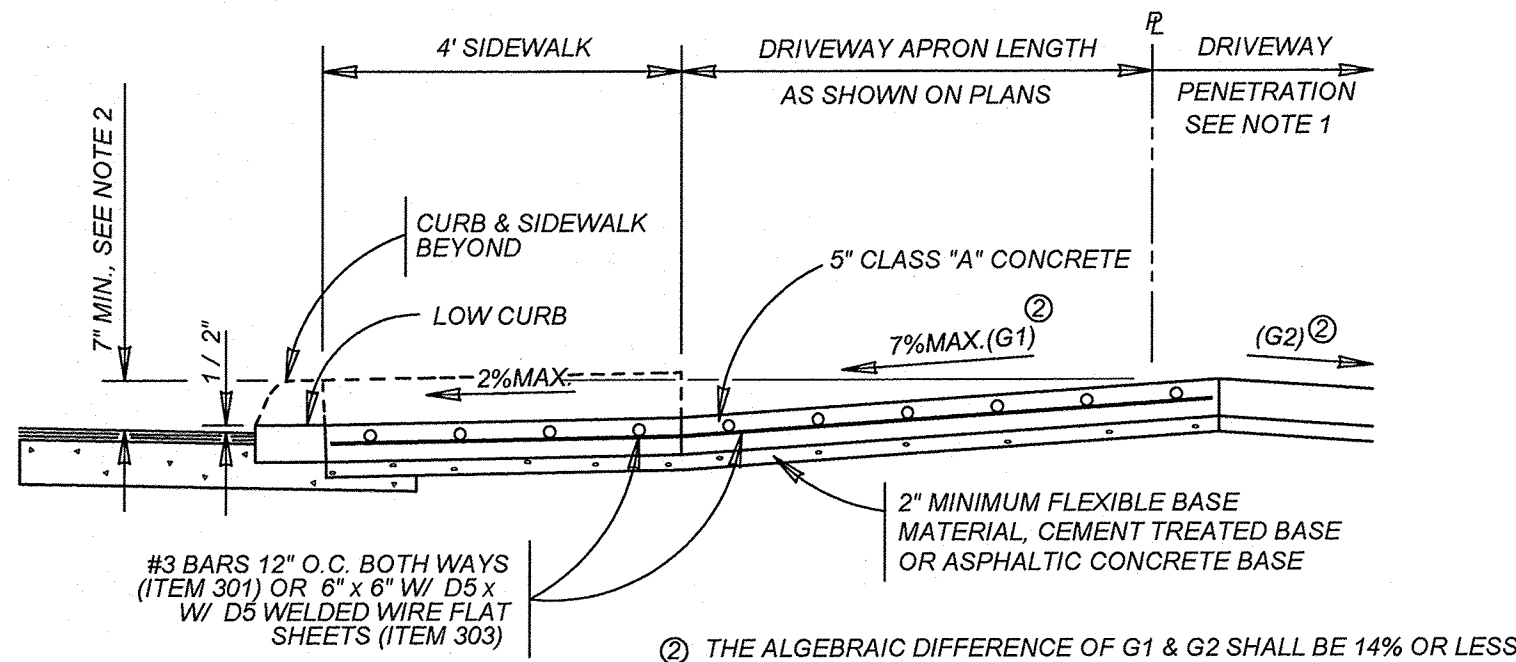
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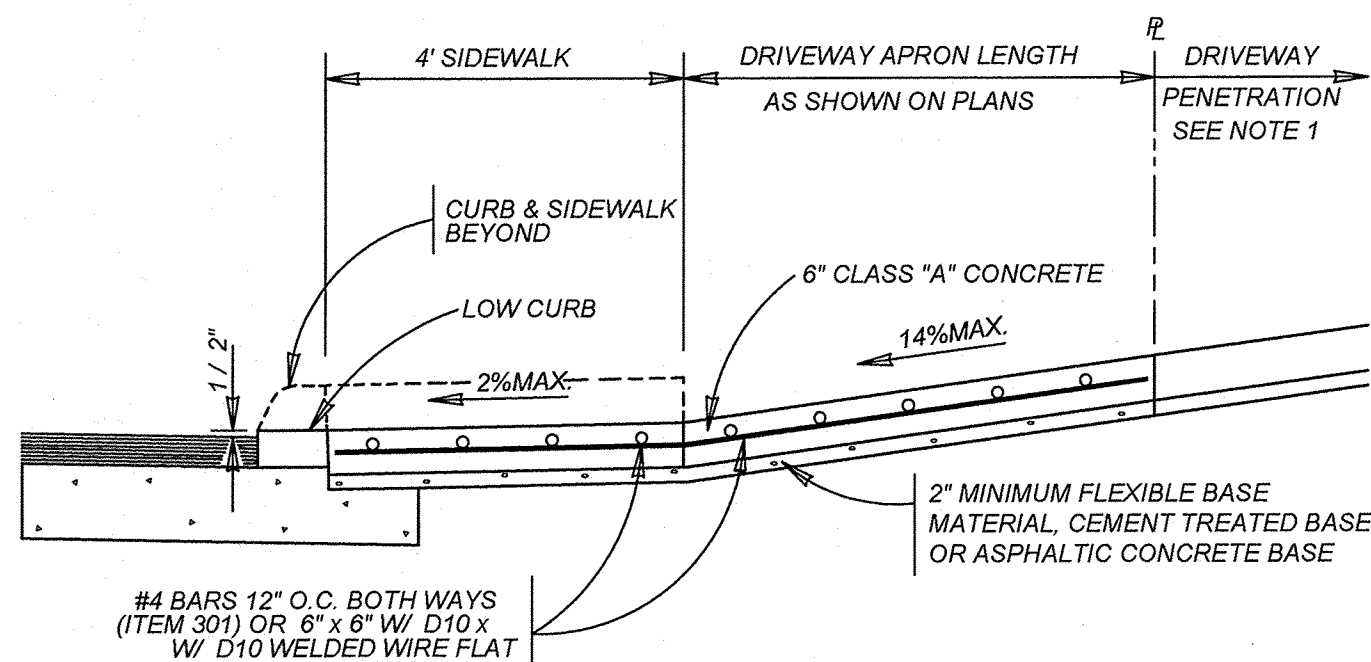
TYPICAL RESIDENTIAL DRIVEWAY SECTION

WITH SIDEWALK ABUTTING CURB
ITEM 503.1



TYPICAL RESIDENTIAL DRIVEWAY SECTION

WHERE PROPERTY IS LOWER THAN STREET & SIDEWALK IS ABUTTING CURB
ITEM 503.1



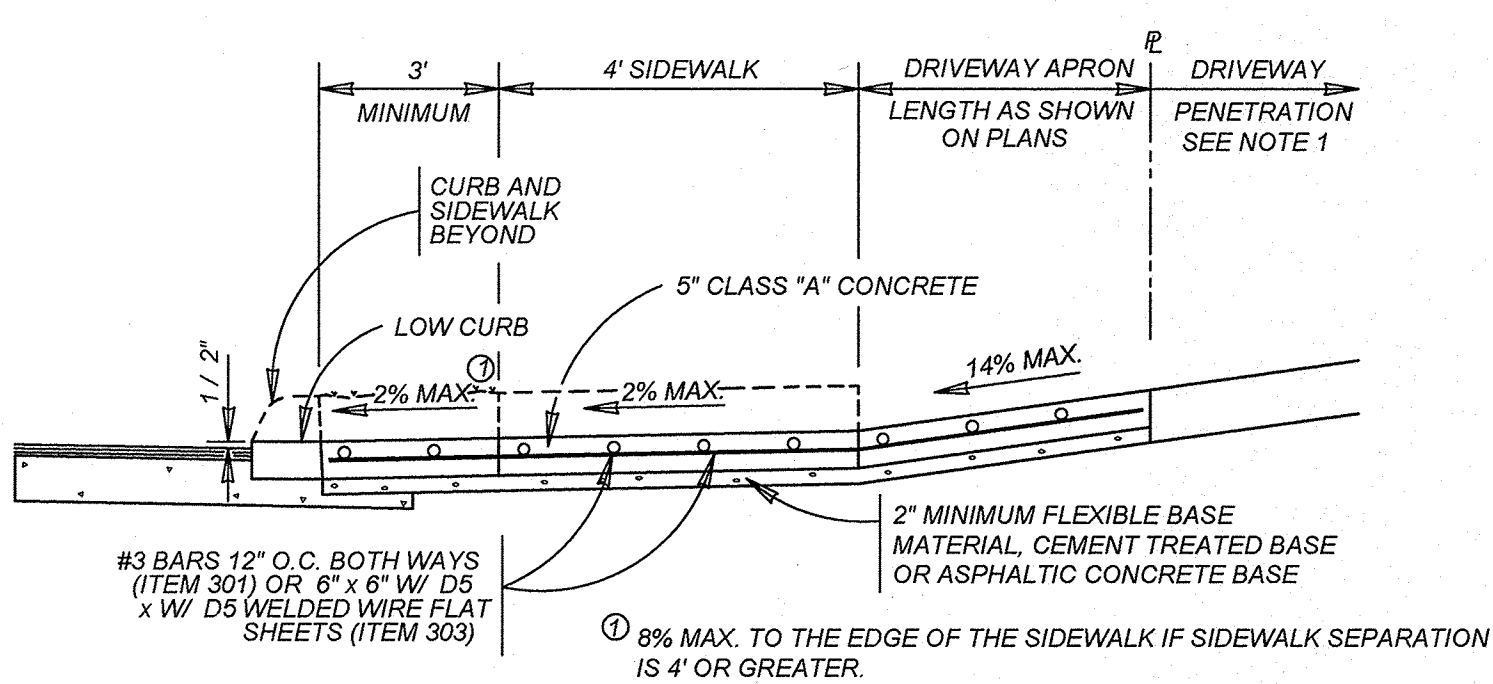
TYPICAL COMMERCIAL DRIVEWAY SECTION

WITH SIDEWALK ABUTTING CURB
ITEM 503.2

CONCRETE DRIVEWAY NOTES

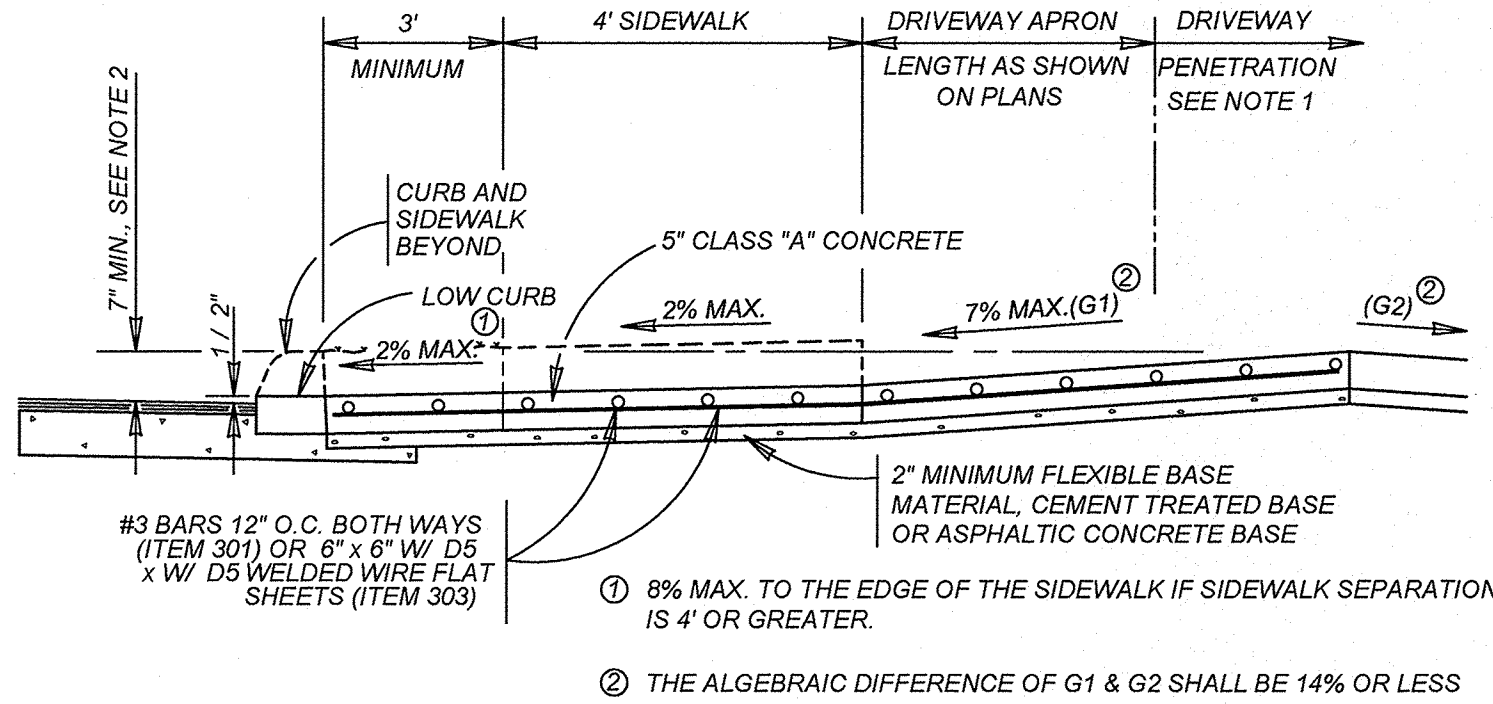
- DRIVEWAY PENETRATION REFERS TO A PORTION OF THE DRIVEWAY THAT MAY BE NECESSARY TO RECONSTRUCT WITHIN PRIVATE PROPERTY TO COMPLY WITH A MAXIMUM DRIVEWAY SLOPE. THIS PORTION OF THE DRIVEWAY SHALL BE PAID FOR UNDER THE FOLLOWING ITEMS AS MAY APPLY:
A) CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.1 OR 503.2
B) ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503.4 AND SHALL INCLUDE A MINIMUM OF 1" ASPHALT TYPE 'D' & 6" FLEXIBLE BASE
C) GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO. 503.5 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE
- 7" MINIMUM HEIGHT WILL NOT NECESSARILY OCCUR AT THE PROPERTY LINE. IT MAY OCCUR WITHIN THE RIGHT OF WAY OR WITHIN THE DRIVEWAY PENETRATION ON PRIVATE PROPERTY.
- 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'
- 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.
- FOR OTHER THAN LOCAL TYPE "A" STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 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.
- 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.
- 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.
- 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%.
- SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.



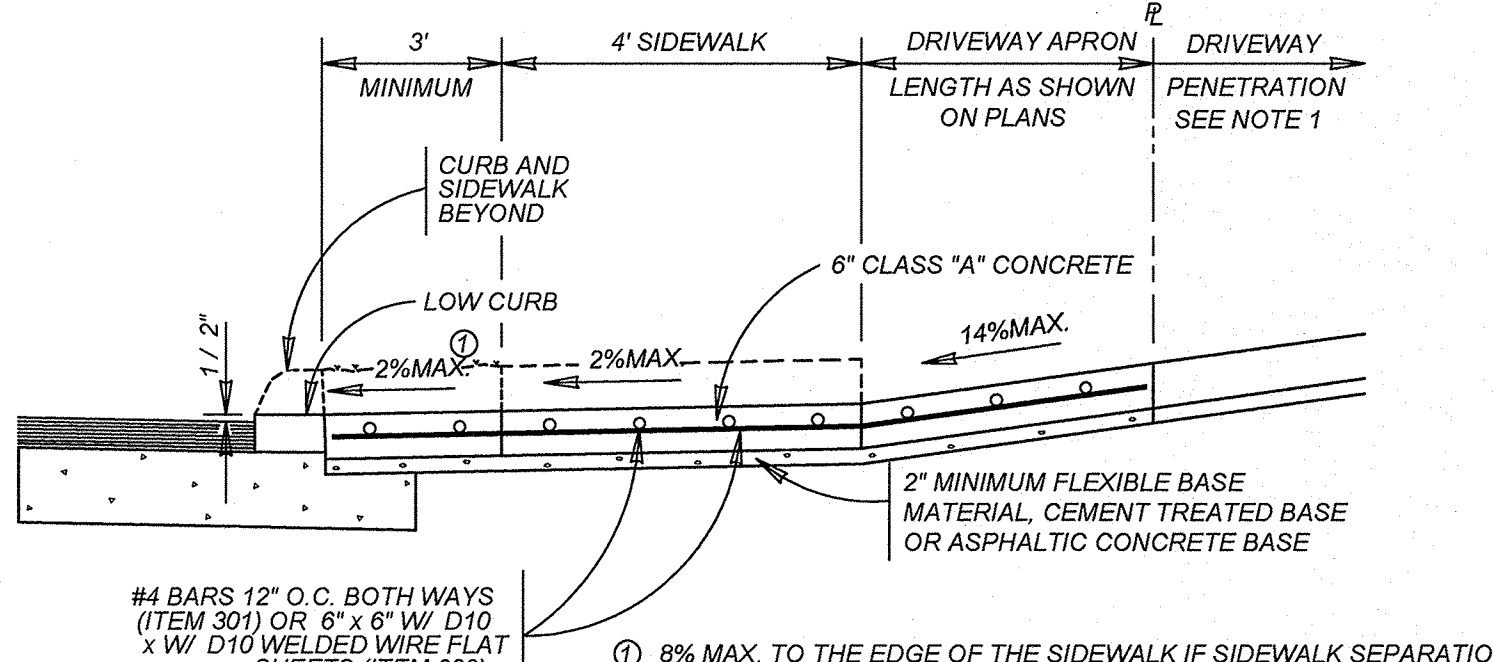
TYPICAL RESIDENTIAL DRIVEWAY SECTION

WITH SIDEWALK SEPARATED FROM CURB
ITEM 503.1



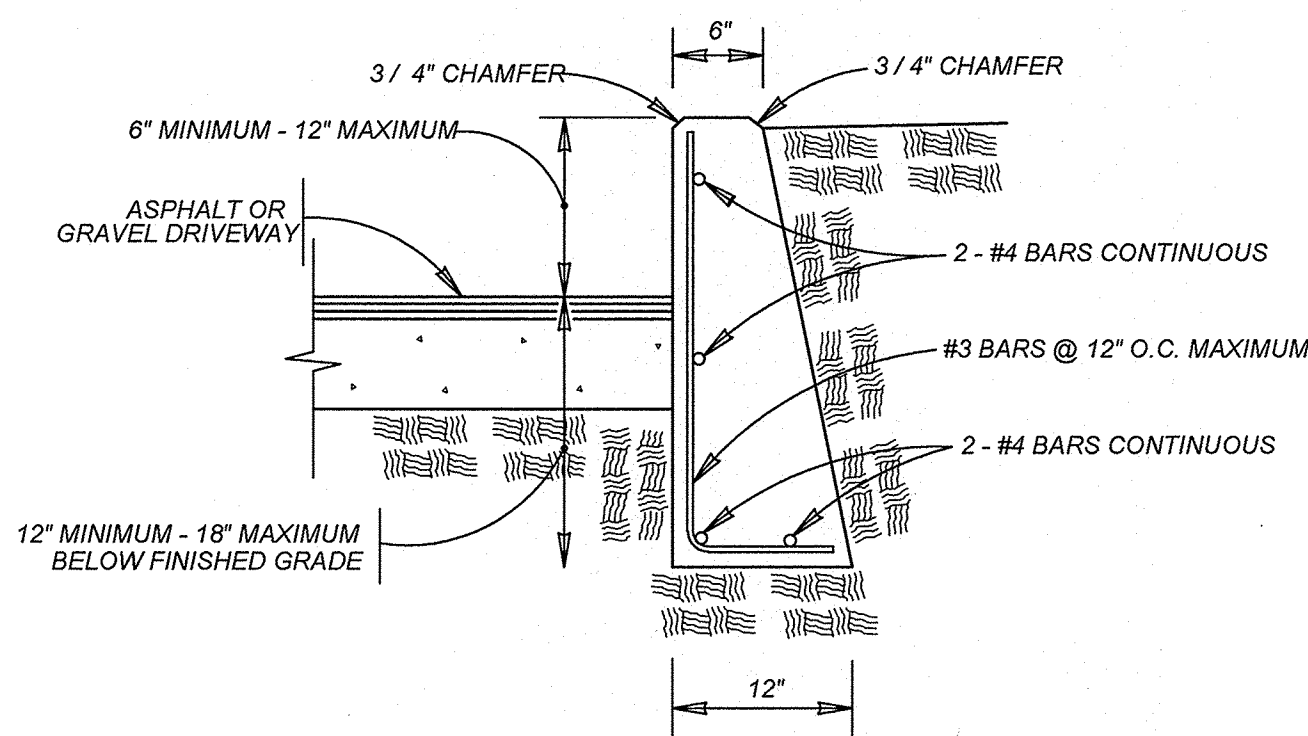
TYPICAL RESIDENTIAL DRIVEWAY SECTION

WHERE PROPERTY IS LOWER THAN STREET & SIDEWALK IS SEPARATED FROM CURB
ITEM 503.1



TYPICAL COMMERCIAL DRIVEWAY SECTION

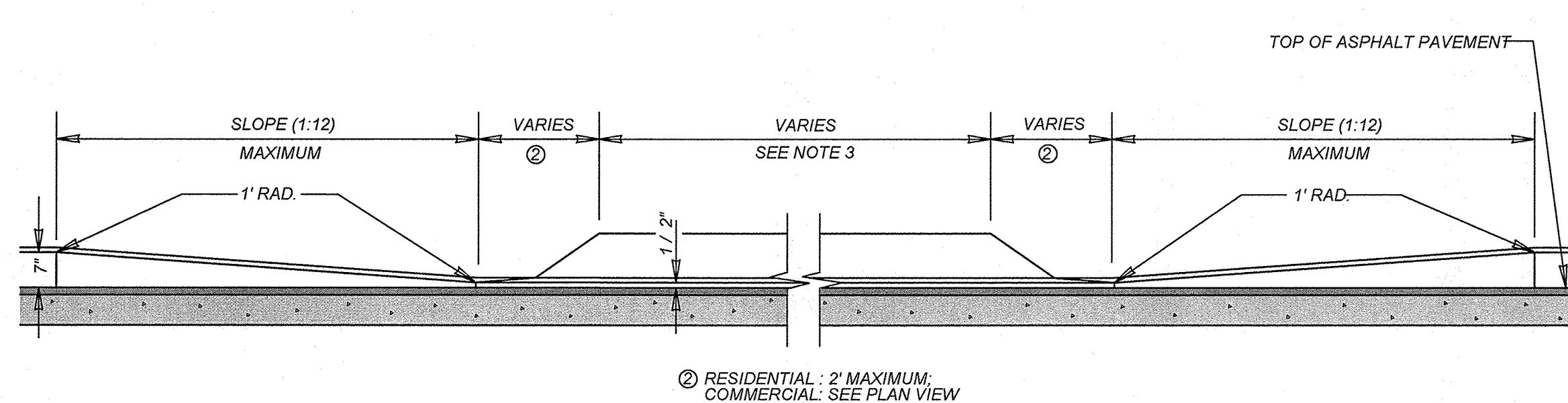
WITH SIDEWALK SEPARATED FROM CURB
ITEM 503.2



- NOTE:
- COST OF REINFORCEMENT TO BE INCLUDED IN UNIT COST OF ITEM 307.1.
 - CONCRETE RETAINING WALL COMBINATION TYPE SHALL BE USED FOR CONCRETE DRIVEWAYS.

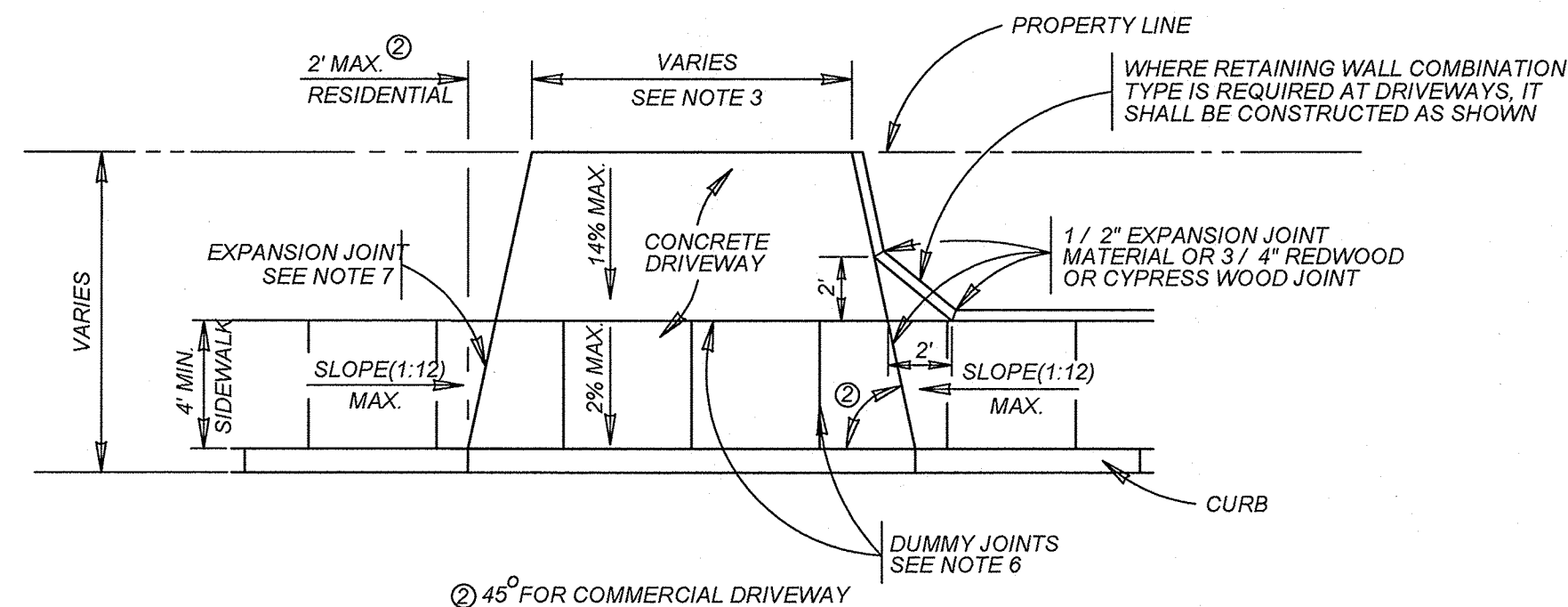
DRIVEWAY - CONCRETE RETAINING WALL

ON COMPACTED SUBGRADE
ITEM 307.1



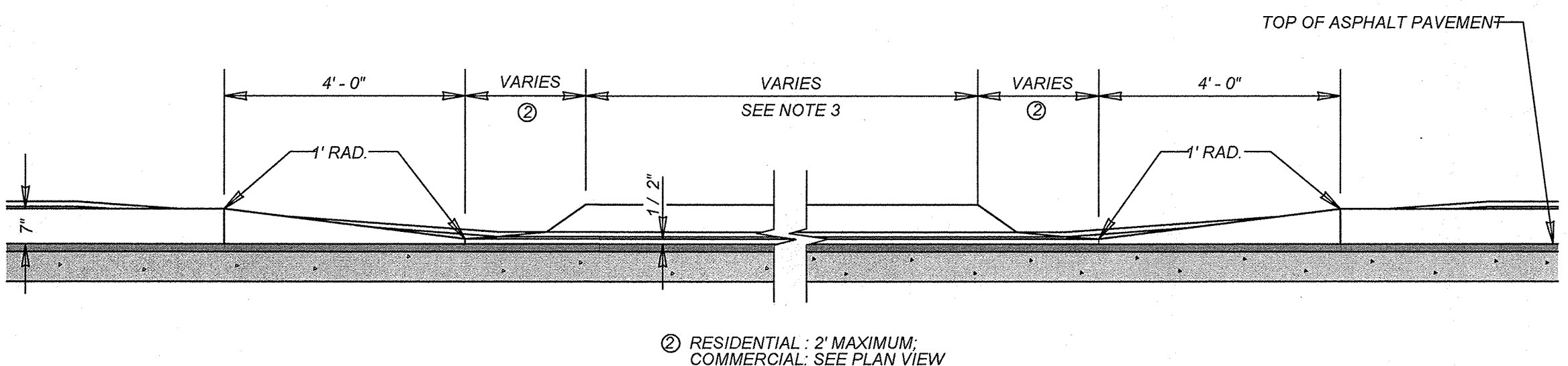
CURB PROFILE AT DRIVEWAY

WITH SIDEWALK ABUTTING CURB



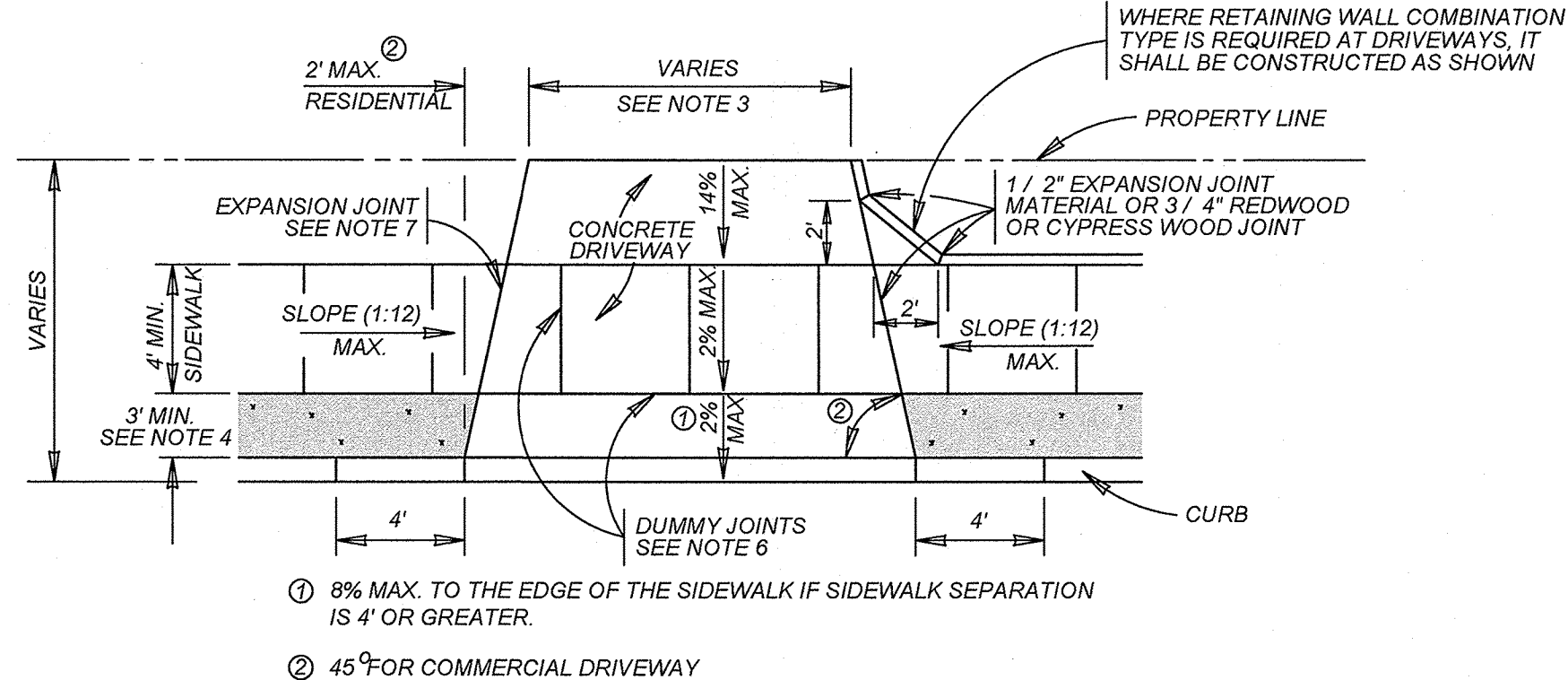
TYPICAL DRIVEWAY PLAN VIEW

WITH SIDEWALK ABUTTING CURB



CURB PROFILE AT DRIVEWAY

WITH SIDEWALK SEPARATED FROM CURB



TYPICAL DRIVEWAY PLAN VIEW

WITH SIDEWALK SEPARATED FROM CURB

MAY 2009

CITY OF SAN ANTONIO

CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

CONCRETE DRIVEWAY STANDARDS

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

PLAT NO.
22-11800056

JOB NO. 314-51-01

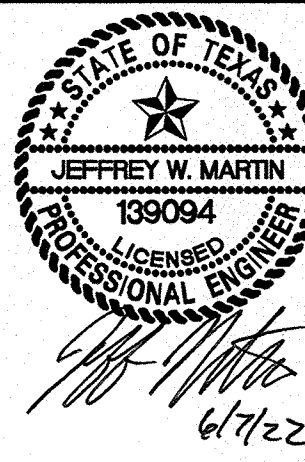
DATE: ---

DRAWN/SD CHECKED/JM

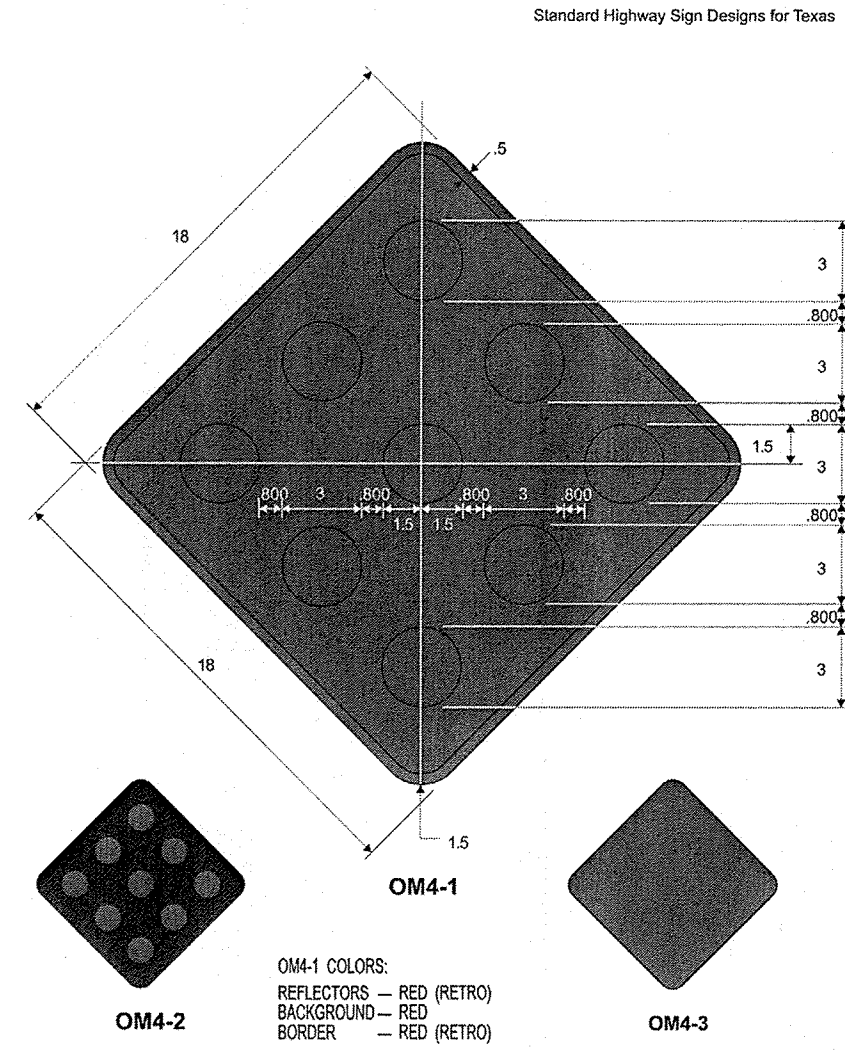
SHEET NUMBER:

5.9

ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
MISCELLANEOUS DETAIL SHEET (2 OF 2)



ISSUE DATE
REVISIONS

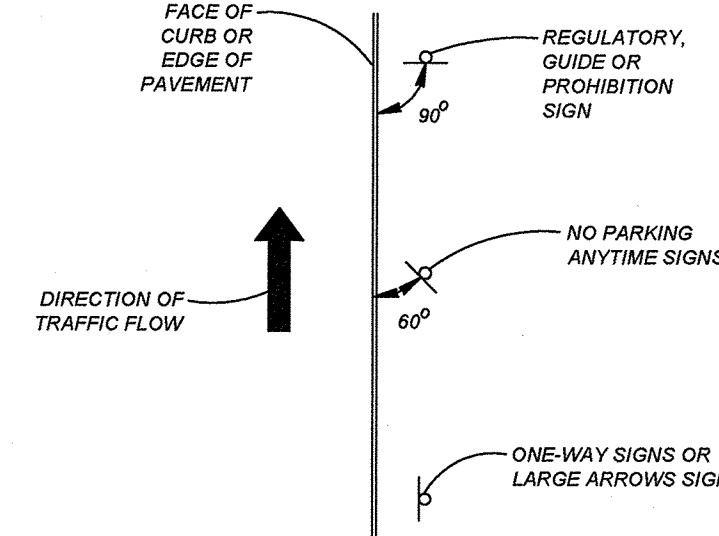


TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/TECHNICAL SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

NOTES:
1) WITHIN THE CITY'S EXTRATERRITORIAL JURISDICTION, STREET NAME SIGNS SHALL BE INSTALLED AT ALL INTERSECTIONS WITHIN AND ABUTTING THE SUBDIVISION. SUCH SIGNS SHALL BE MANUFACTURED AND INSTALLED BY THE SUBDIVIDER IN ACCORDANCE TO SPECIFICATIONS OF, AND SUBJECT TO PLAN REVIEWS AND INSPECTIONS BY THE COUNTY DEPARTMENT OF PUBLIC WORKS.
2) REGULATORY AND WARNING TRAFFIC SIGNS SHALL BE INSTALLED WITHIN AND ABUTTING THE SUBDIVISION IN ACCORDANCE WITH THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)," AS REQUIRED BY THE CITY'S DEVELOPMENT SERVICES DEPARTMENT OR COUNTY'S DEPARTMENT OF PUBLIC WORKS. SUCH SIGNS SHALL BE MANUFACTURED AND INSTALLED BY THE SUBDIVIDER IN ACCORDANCE TO SPECIFICATIONS OF, AND SUBJECT TO PLAN REVIEWS AND INSPECTIONS BY THE CITY'S DEVELOPMENT SERVICES DEPARTMENT OR COUNTY'S DEPARTMENT OF PUBLIC WORKS. WARNING AND REGULATORY SIGNS SHALL NOT BE ACCEPTED BY THE CITY UNTIL THE STREET HAS BEEN ACCEPTED FOR MAINTENANCE BY THE CITY.

BEXAR COUNTY R.O.W. NOTE
A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY R.O.W.

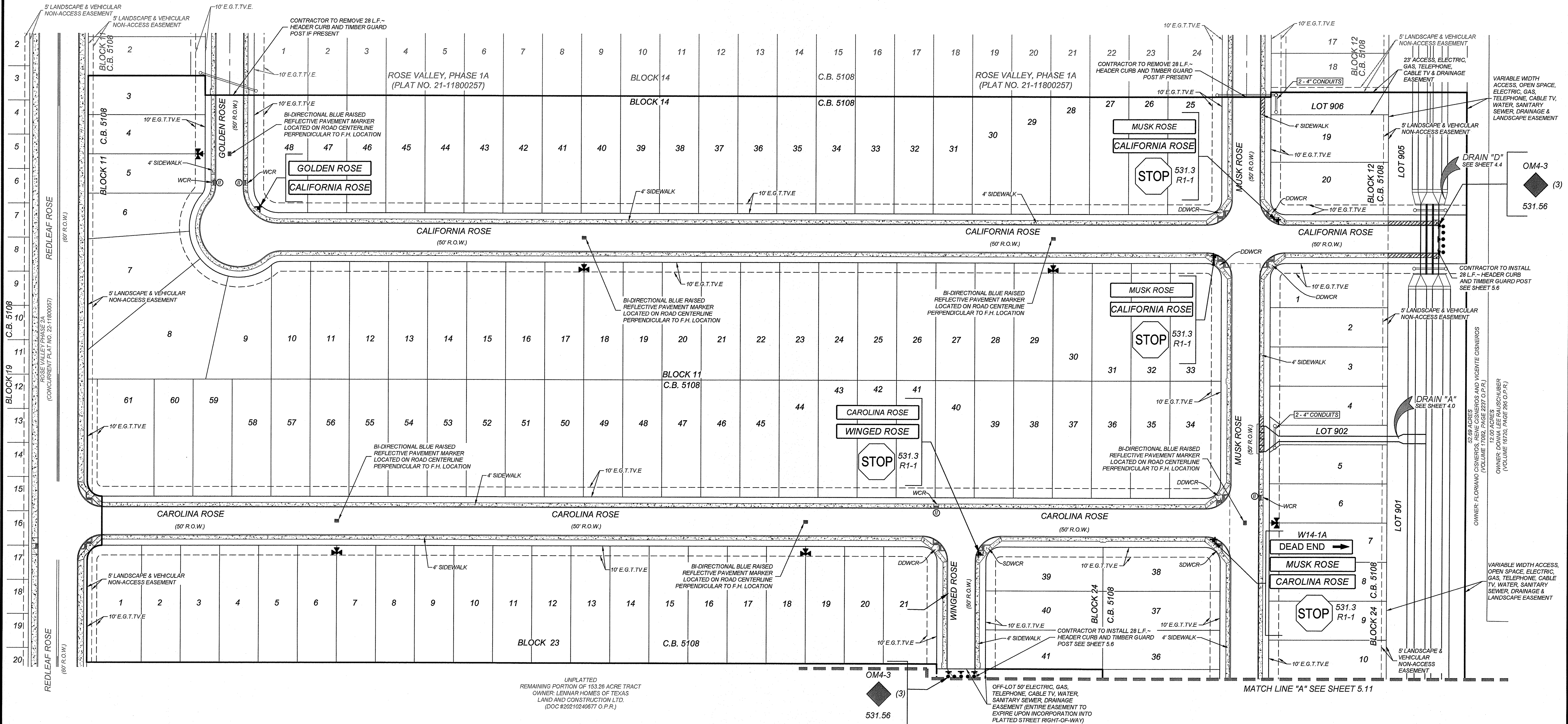
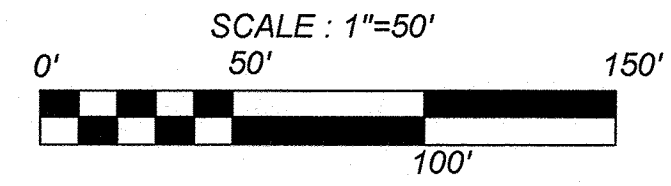
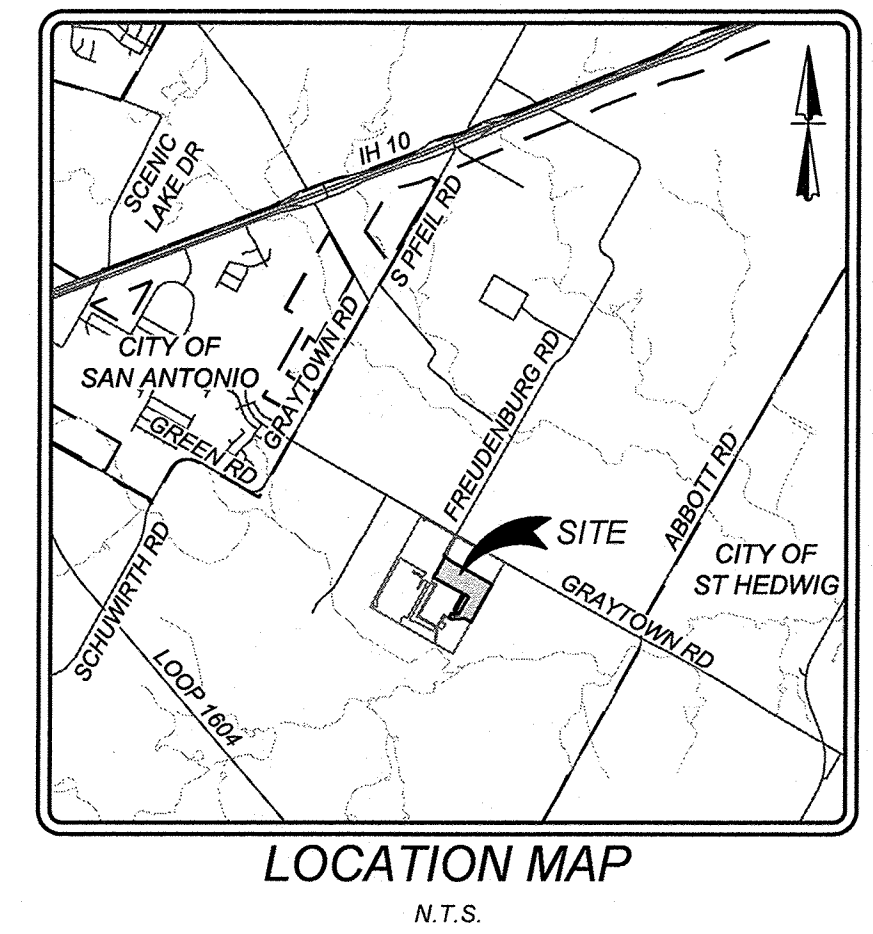
	15" OVERHEAD SIGN	9" GROUND MOUNT SIGNS
HEIGHT	9" (228 mm)	9" (228 mm)
LENGTH	48" (1200 MM) MIN. 72" (1800 MM) MAX. 1" (30 MM) INCREMENTS OF LENGTH	24" (600 MM) MIN. 48" (1200 MM) MAX. 6" (150 MM) INCREMENTS OF LENGTH
THICKNESS	0.125" (3MM)	
SUBSTRATE	ALUMINUM ALLOY, 5052-H38 (ASTM B-209) GOLD CHROMATE FINISH	
SIGN FACE MATERIALS	BLUE FILM* OVER DIAMOND GRADE - ASTM TYPE XI	BLUE FILM* OVER HIGH INTENSITY PRISMATIC - ASTM TYPE IV
LEGENDS AND SYMBOLS	SERIES D, B OR C IF NAME OTHERWISE EXCEEDS MAXIMUM SIGN LENGTH	
COLOR	WHITE LEGEND ON BLUE BACKGROUND	
LETTER TRACKING	17% (USUAL) 10% (MIN)	10%



TYPICAL GROUND MOUNTED SIGN PLACEMENT

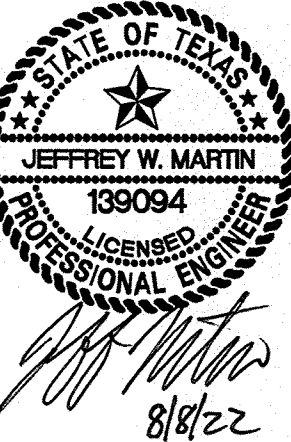
LEGEND

- FLOW ARROW
- WASHOUT CROWN
- E.G.T.V.E. = ELECTRIC, GAS, TELEPHONE & CABLE EASEMENT
- V.N.A.E. = VEHICULAR NON-ACCESS EASEMENT
- W.C.R. = WHEELCHAIR RAMPS SEE SHEET 5.7
- WHEELCHAIR RAMP TYPE III SEE SHEET 5.7
- WHEELCHAIR RAMP TYPE IV SEE SHEET 5.7
- SIDWALK TO BE CONSTRUCTED BY DEVELOPER
- SIDWALK TO BE BUILT AT THE TIME OF HOME CONSTRUCTION
- TOP OF CURB ELEVATIONS
- PROPOSED DRIVEWAY LOCATIONS



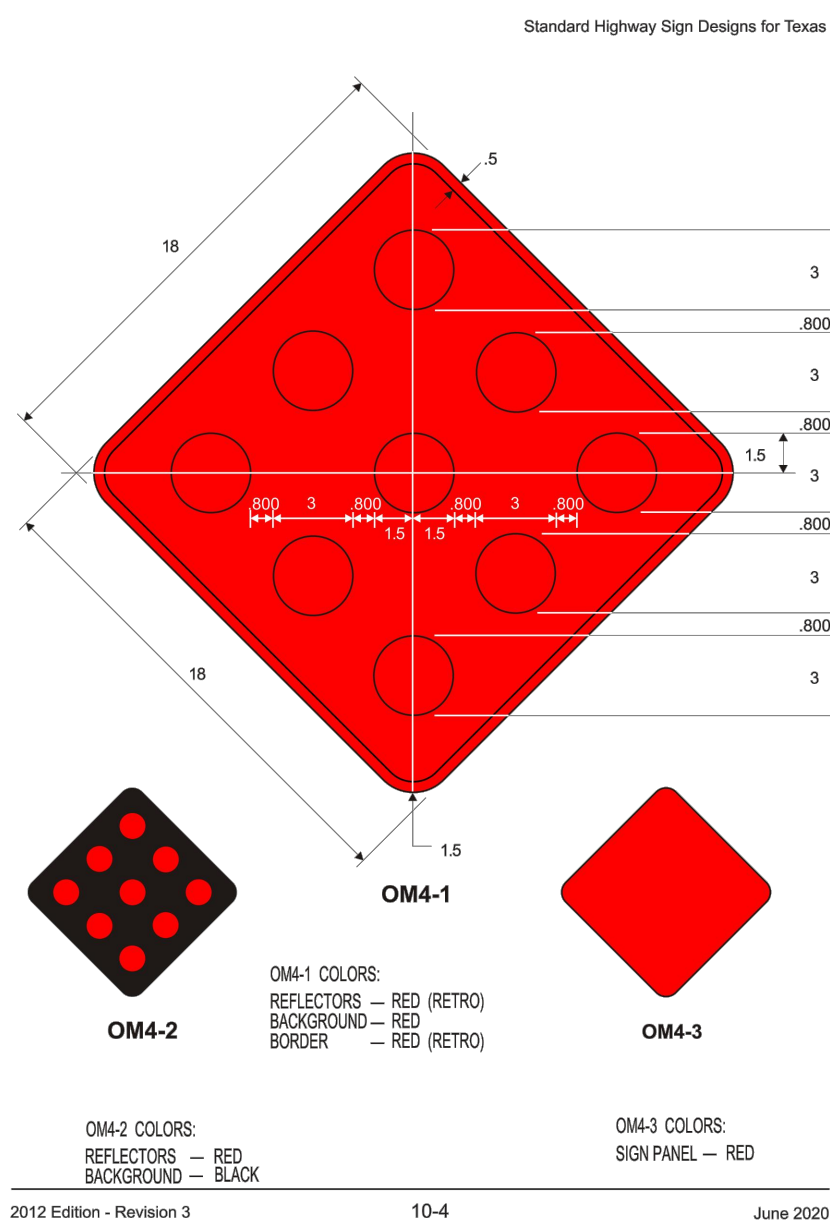
ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

TRAFFIC SIGNAGE & SIDEWALK PLAN (1 OF 2)



PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN/SD CHECKED/JM
SHEET NUMBER:

Date: Mar 31, 2023, 2:30pm User ID: ardriguez
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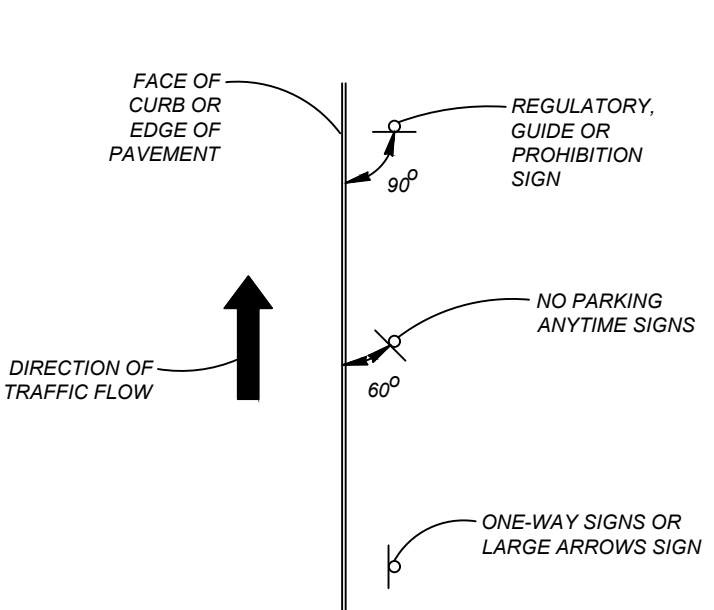


TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK 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.

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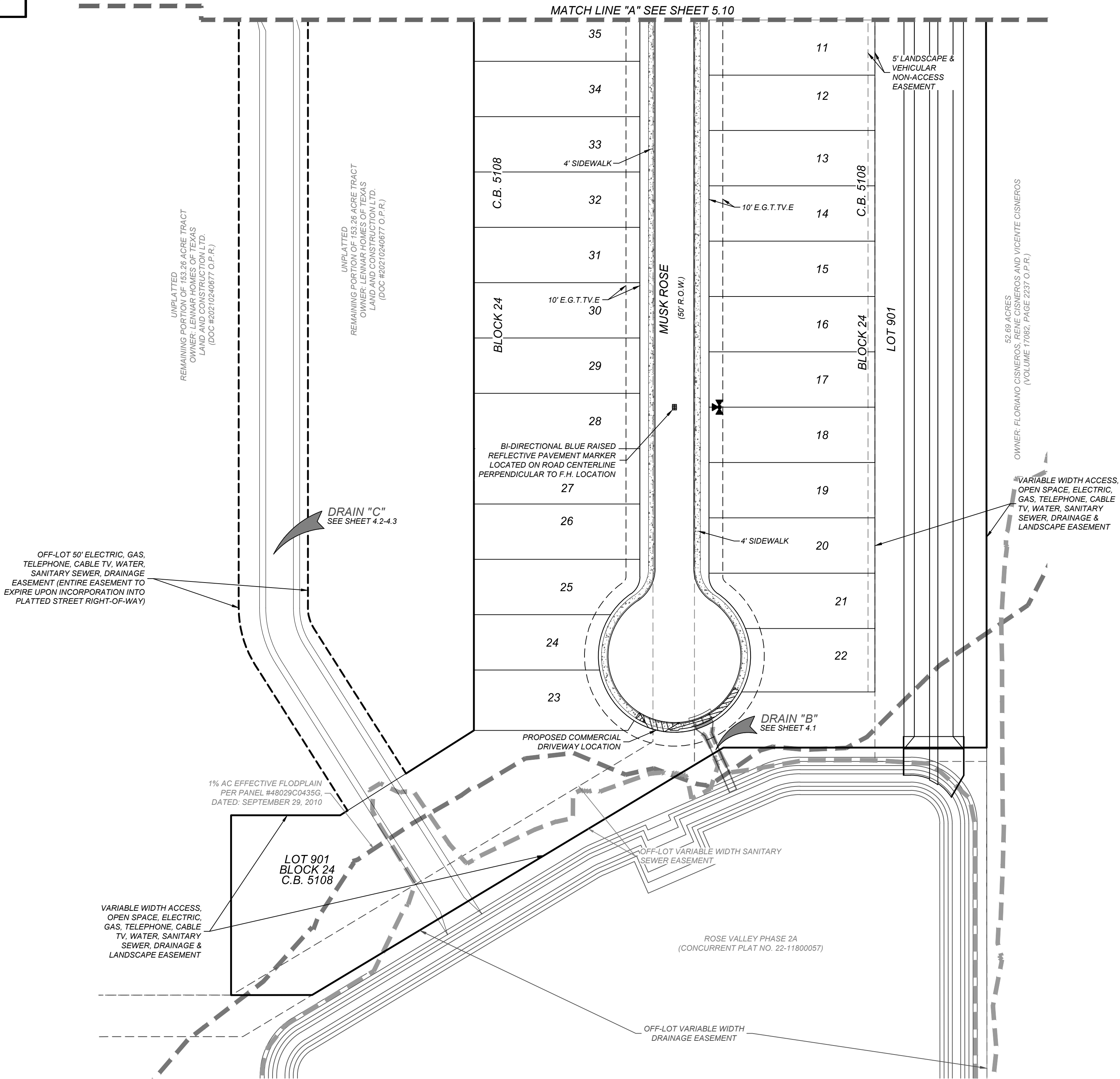
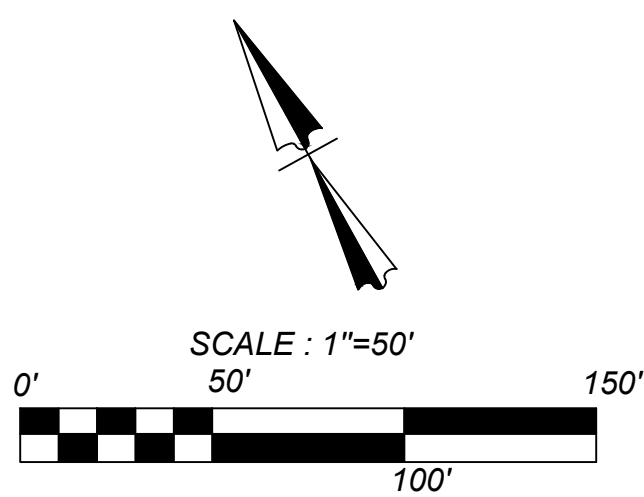
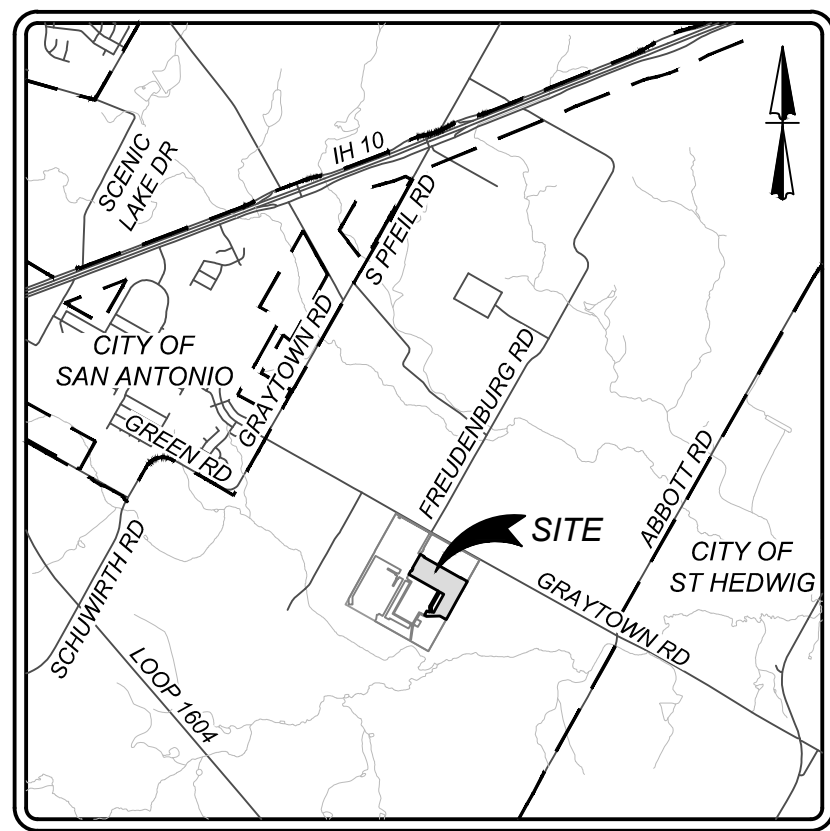
BEXAR COUNTY R.O.W. NOTE
A BEXAR COUNTY PERMIT MUST BE OBTAINED BEFORE WORKING IN BEXAR COUNTY R.O.W.

	15" OVERHEAD SIGN	9" GROUND MOUNT SIGNS
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THICKNESS	0.125" (3MM)	
SUBSTRATE	ALUMINUM ALLOY, 5052-H38 (ASTM B-209) GOLD CHROMATE FINISH	
SIGN FACE MATERIALS	BLUE FILM* OVER DIAMOND GRADE - ASTM TYPE XI	BLUE FILM* OVER HIGH INTENSITY PRISMATIC - ASTM TYPE IV
LEGENDS AND SYMBOLS	SERIES D, B OR C IF NAME OTHERWISE EXCEEDS MAXIMUM SIGN LENGTH	
COLOR	WHITE LEGEND ON BLUE BACKGROUND	
LETTER TRACKING	17% (USUAL) 10% (MIN)	10%



TYPICAL GROUND MOUNTED SIGN PLACEMENT

- LEGEND**
- FLOW ARROW
 - WASHOUT CROWN
 - E.G.T.T.V.E. = ELECTRIC, GAS, TELEPHONE & CABLE EASEMENT
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 - SIDEWALK TO BE CONSTRUCTED BY DEVELOPER
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 - TOP OF CURB ELEVATIONS
 - PROPOSED DRIVEWAY LOCATIONS



K&W
ENGINEERS + SURVEYING
10000 North Loop West, Suite 1000
Houston, Texas 77057-2231
Phone # (281) 978-8444 • Fax # (281) 978-8441
TBE# Firm #: 9513 • TBE# S Firm #: 10122003

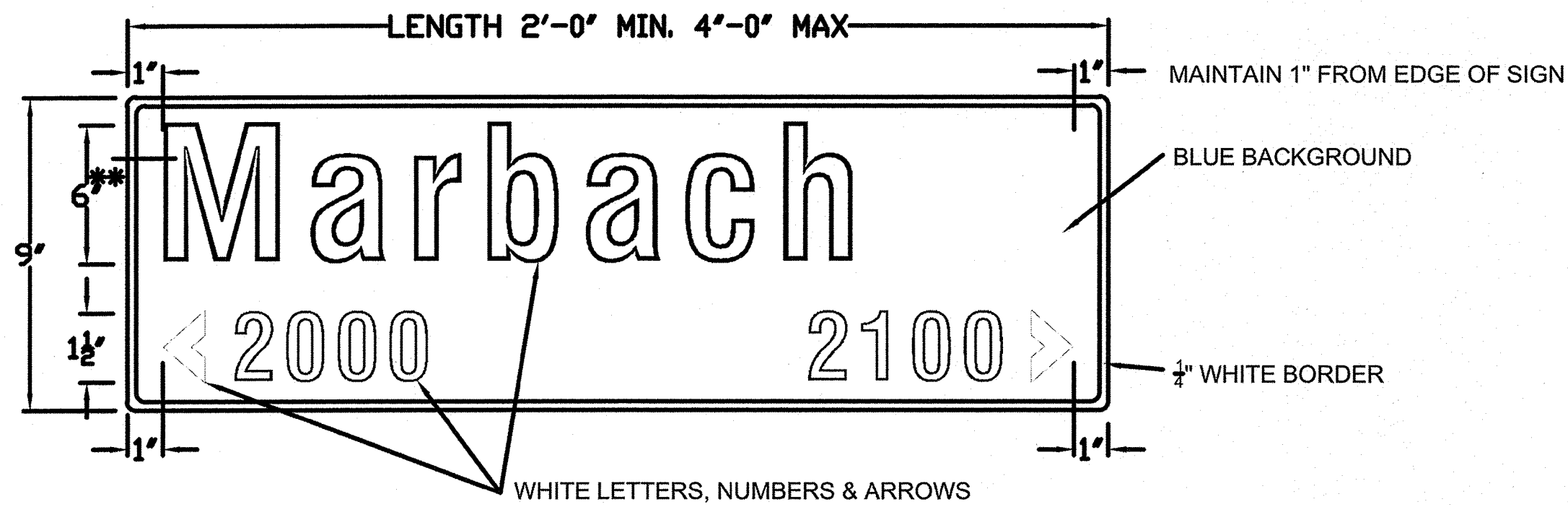
STATE OF TEXAS
TRAVIS R. ELSETH
99254
LICENSED PROFESSIONAL ENGINEER
4/3/23

ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
TRAFFIC SIGNAGE & SIDEWALK PLAN (2 OF 2)

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN:SD CHECKED:JM
SHEET NUMBER:
5.11

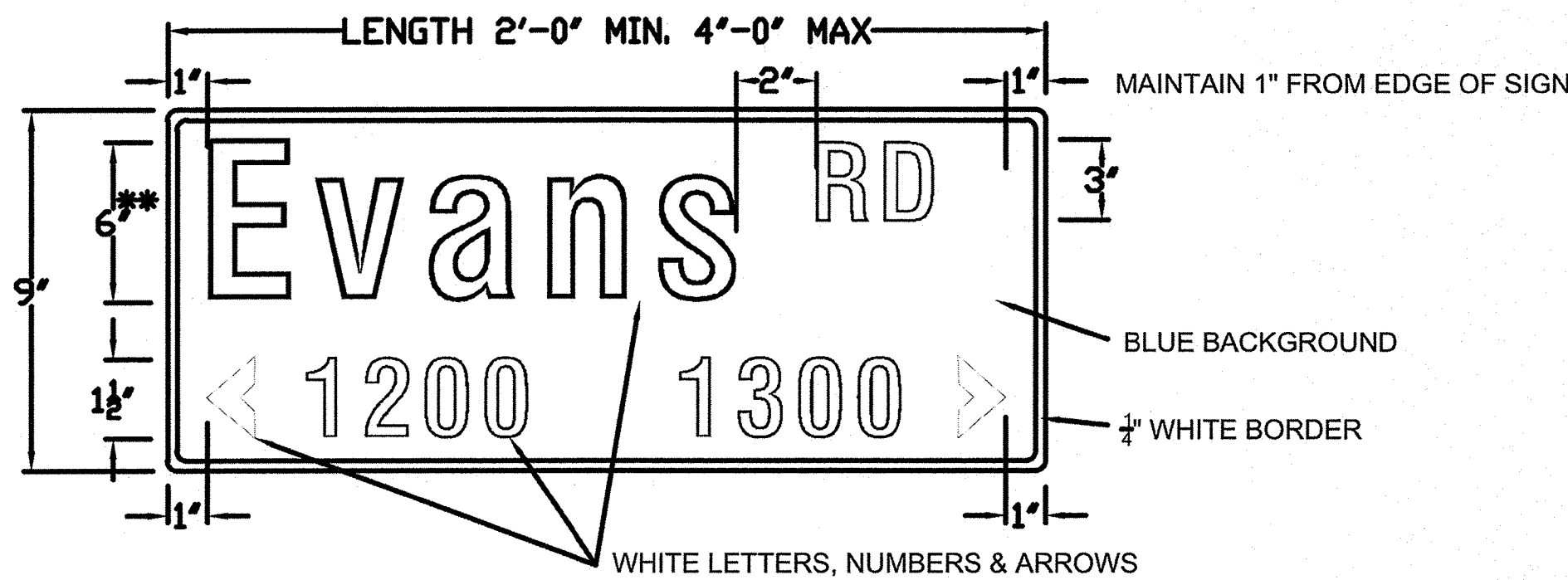
Date: Jun 08, 2022, 6:46pm User: ID: crodriguez
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**Capital = 6"
Lower case = 4 1/2"

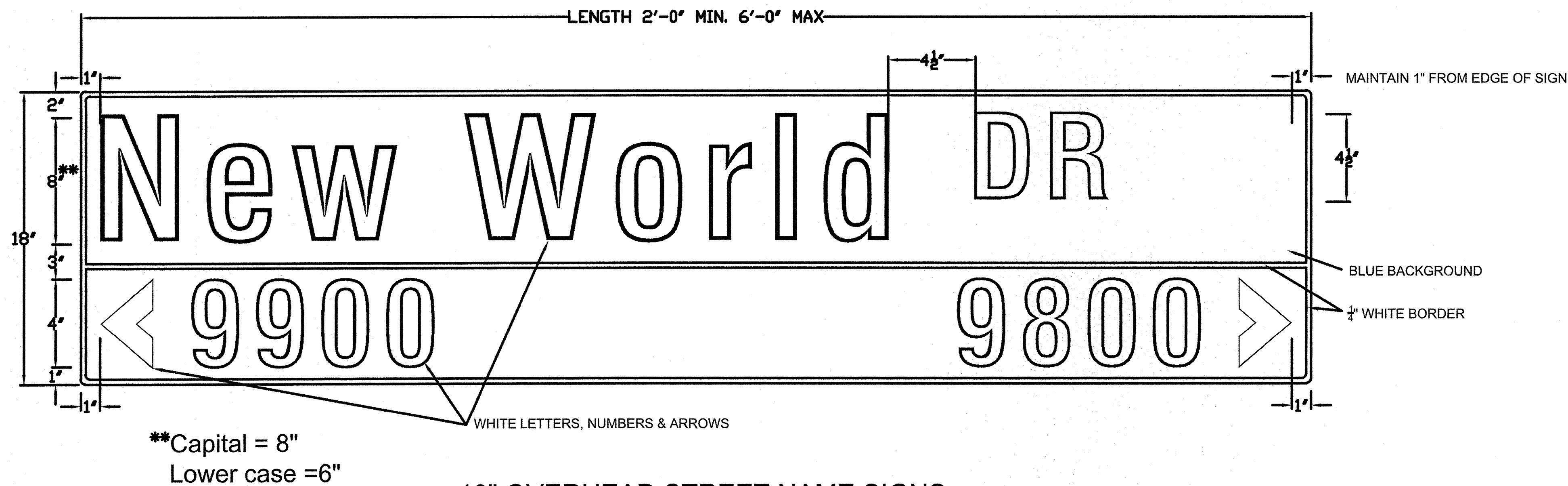


9" GROUND MOUNT STREET NAME SIGNS

**Capital = 6"
Lower case = 4 1/2"



9" GROUND MOUNT STREET NAME SIGNS
WITH STREET DESIGNATION

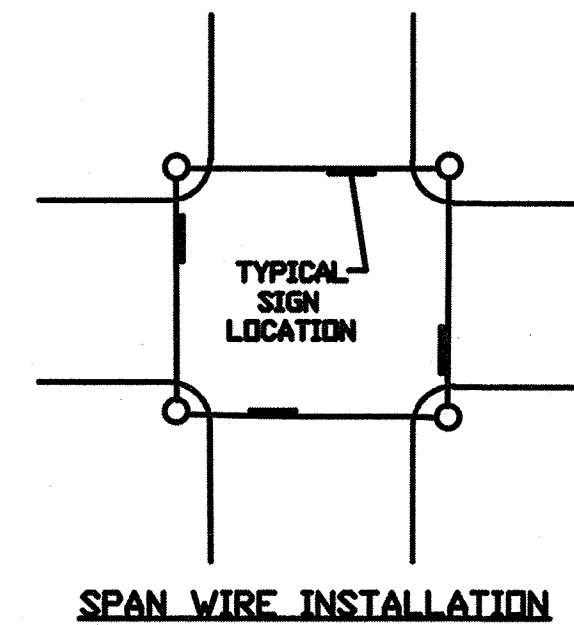


**Capital = 8"
Lower case = 6"

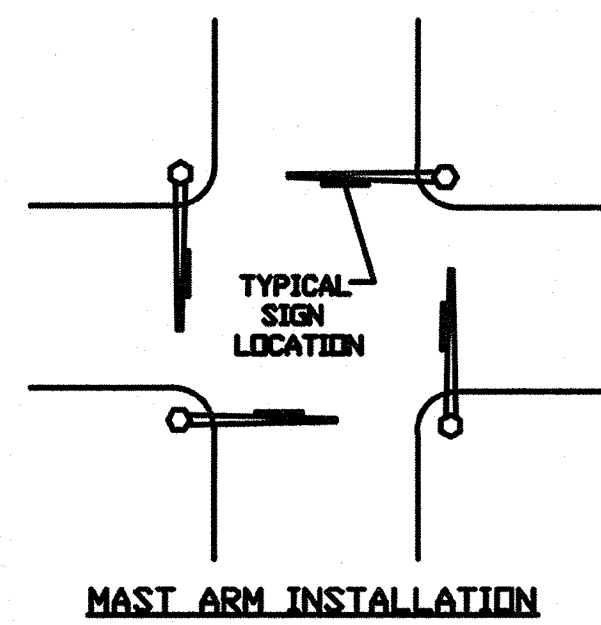
18" OVERHEAD STREET NAME SIGNS

	18" OVERHEAD SIGN	9" GROUND MOUNT SIGNS
HEIGHT	18" (381 mm)	9" (228 mm)
LENGTH	48" (1200 mm) MIN. 72" (1800 mm) MAX. 1" (300mm) INCREMENTS OF LENGTH	24" (600 mm) MIN. 48" (1200 mm) MAX. 6" (150mm) INCREMENTS OF LENGTH
THICKNESS	0.125" (3 mm)	
SUBSTRATE	ALUMINUM ALLOY, 5052-H38 (ASTM B-209) GOLD CHROMATE FINISH	
SIGN FACE MATERIALS	BLUE FILM * OVER DIAMOND GRADE - ASTM Type XI Non-Fluorescent	BLUE FILM * OVER HIGH INTENSITY PRISMATIC- ASTM Type IV
LEGENDS AND SYMBOLS	SERIES D, B OR C IF NAME OTHERWISE EXCEEDS MAXIMUM SIGN LENGTH	
COLOR	WHITE LEGEND ON BLUE BACKGROUND	
LETTER TRACKING	17% (USUAL) 10% (MIN.)	10%

* ACRYLIC ELECTRONIC CUTTABLE FILM



SPAN WIRE INSTALLATION

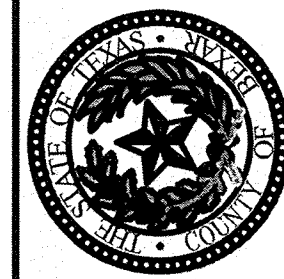


MAST ARM INSTALLATION

SIGN FACE MATERIALS
SHALL CONFORM TO:

1. STANDARD SPECIFICATIONS FOR
CONSTRUCTION OF ROADS &
BRIDGES ON FEDERAL HIGHWAY
PROJECTS - FP-03 U.S.
CUSTOMARY UNITS SECTION 718
2. GENERAL SERVICES
ADMINISTRATION FEDERAL
SPECIFICATIONS L-S-300C
3. ASTM D 4956 - 09e1

Bexar County Public Works



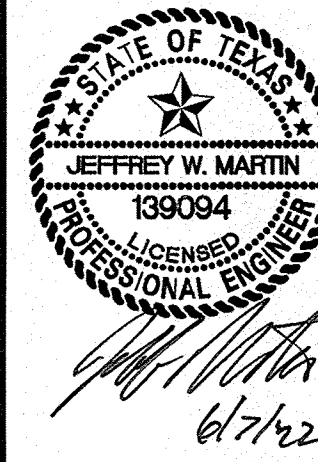
Street Name Sign Details

DESIGN BY	DIVISION BY
CHECKED BY	DATE
FILE NO.	
SHEET	1

ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
TRAFFIC SIGNAGE DETAILS

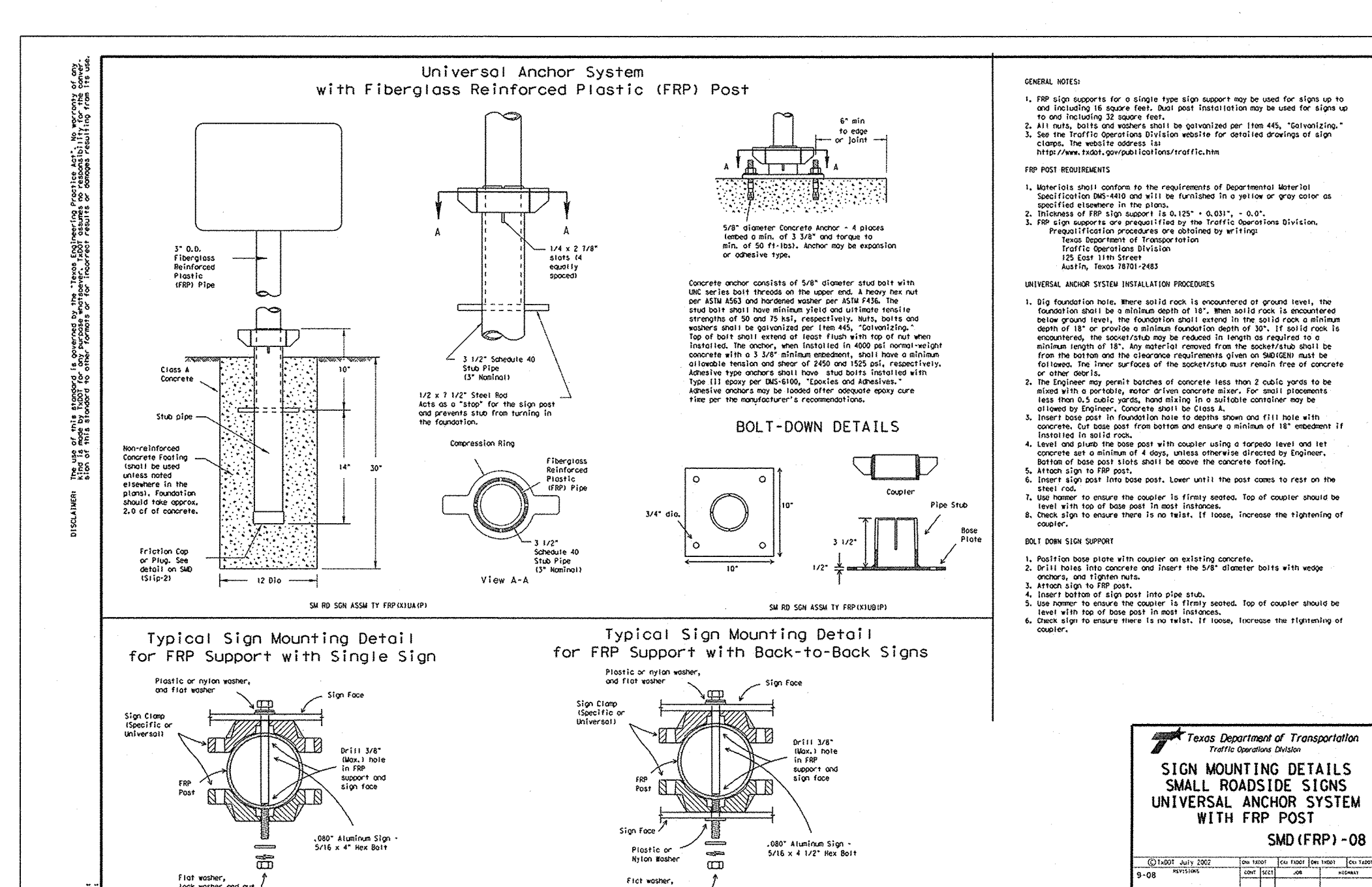
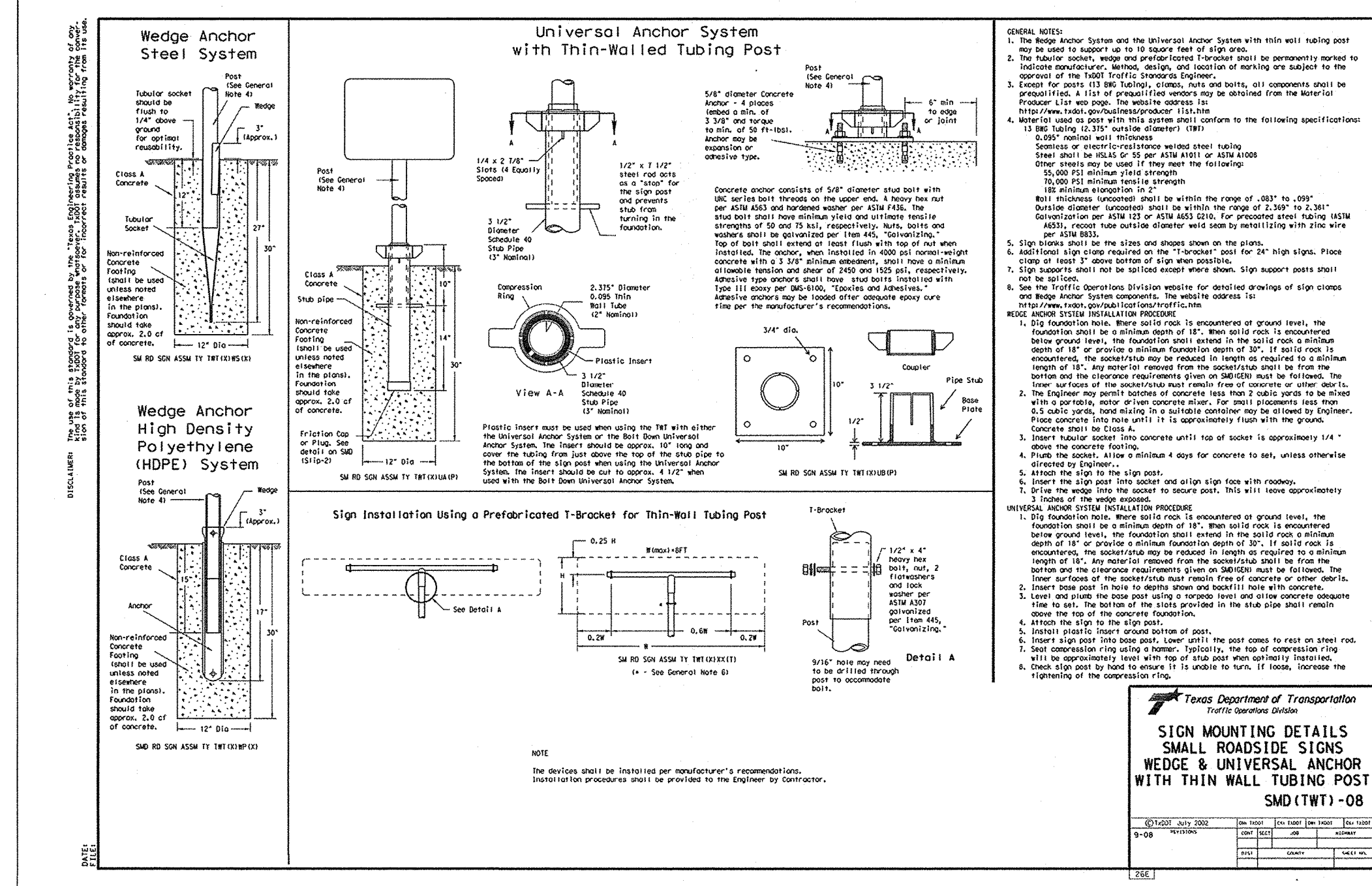
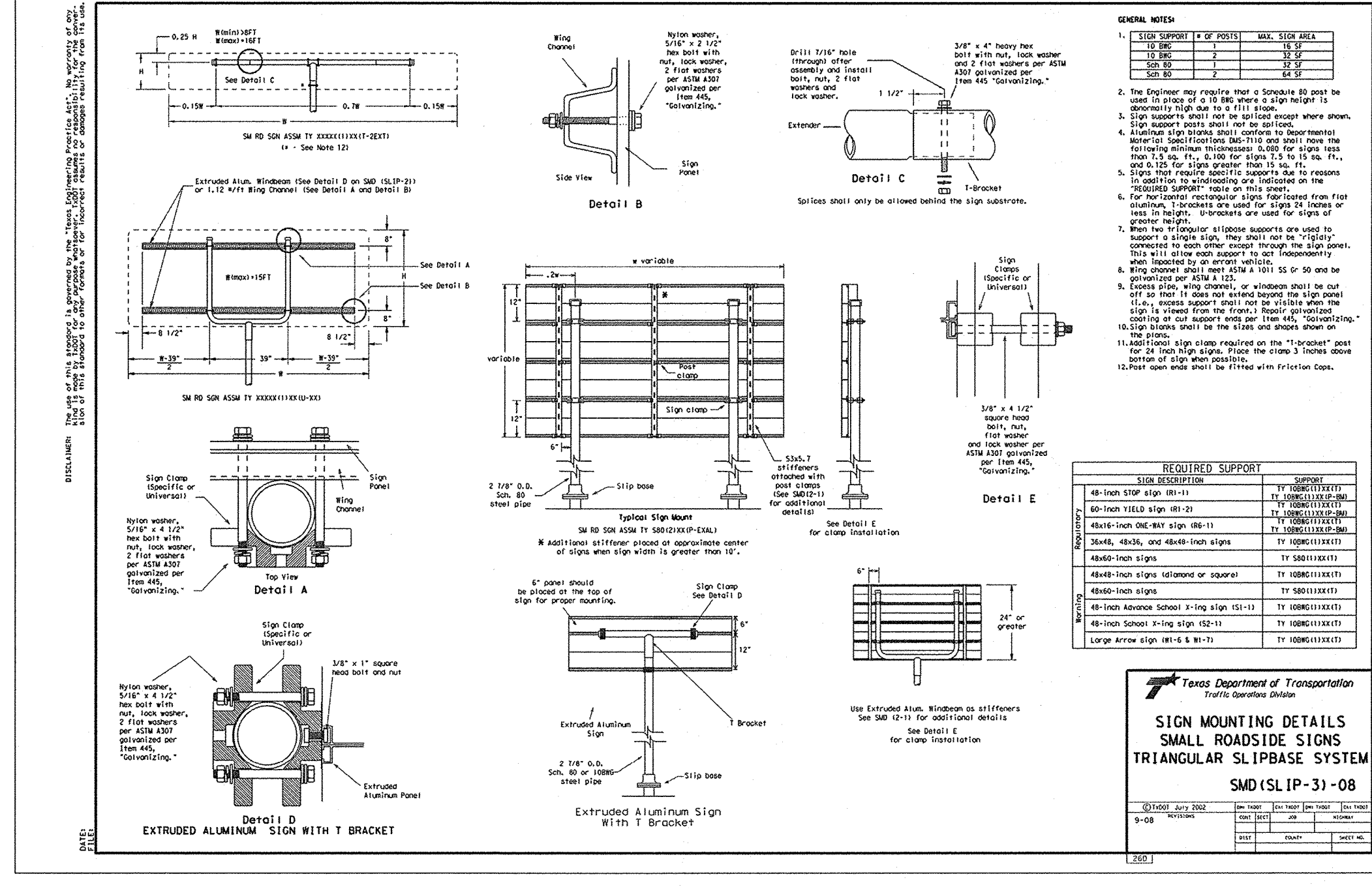
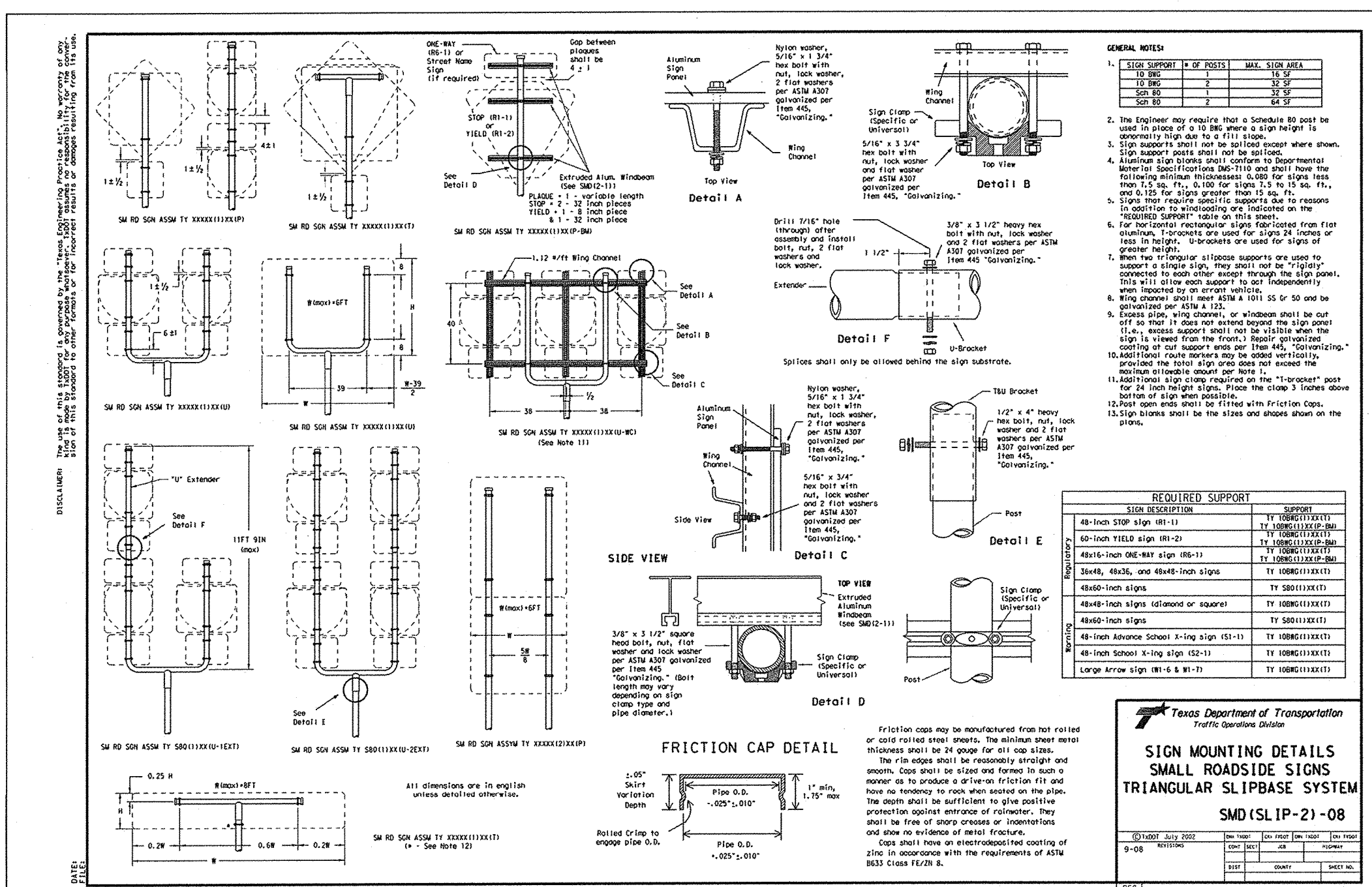
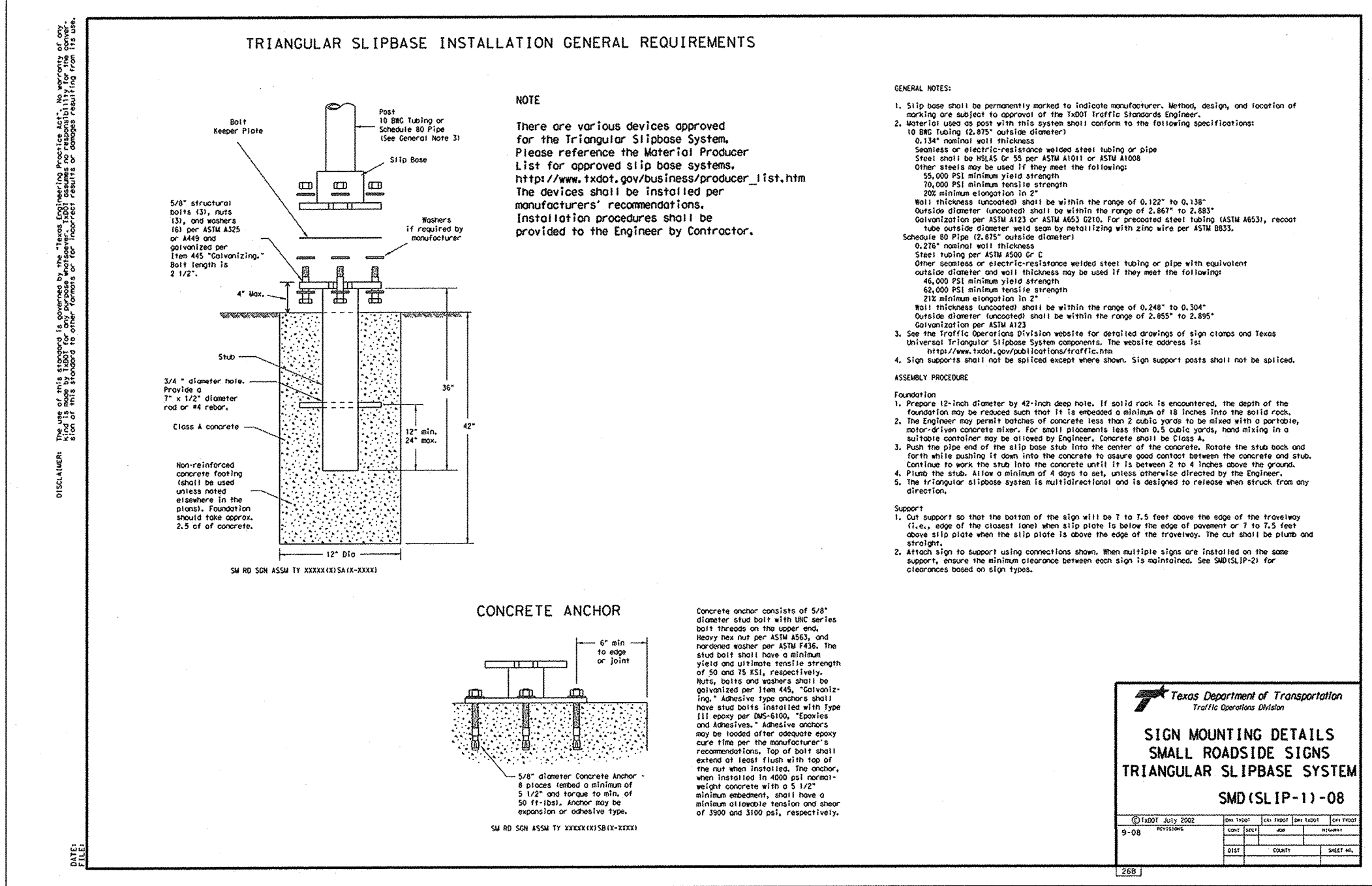
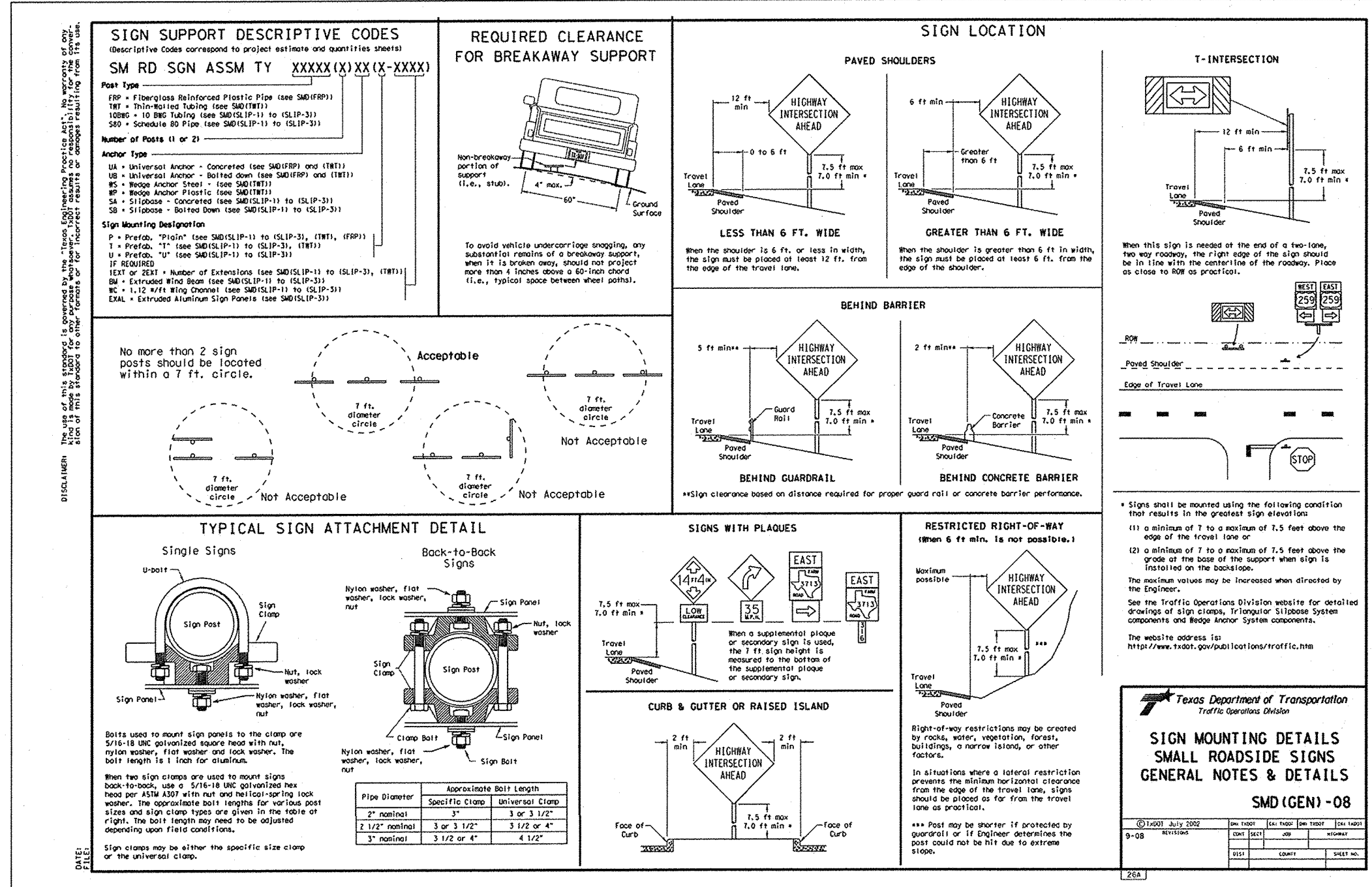
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22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN: SD
CHECKED: JM
SHEET NUMBER:

5.12

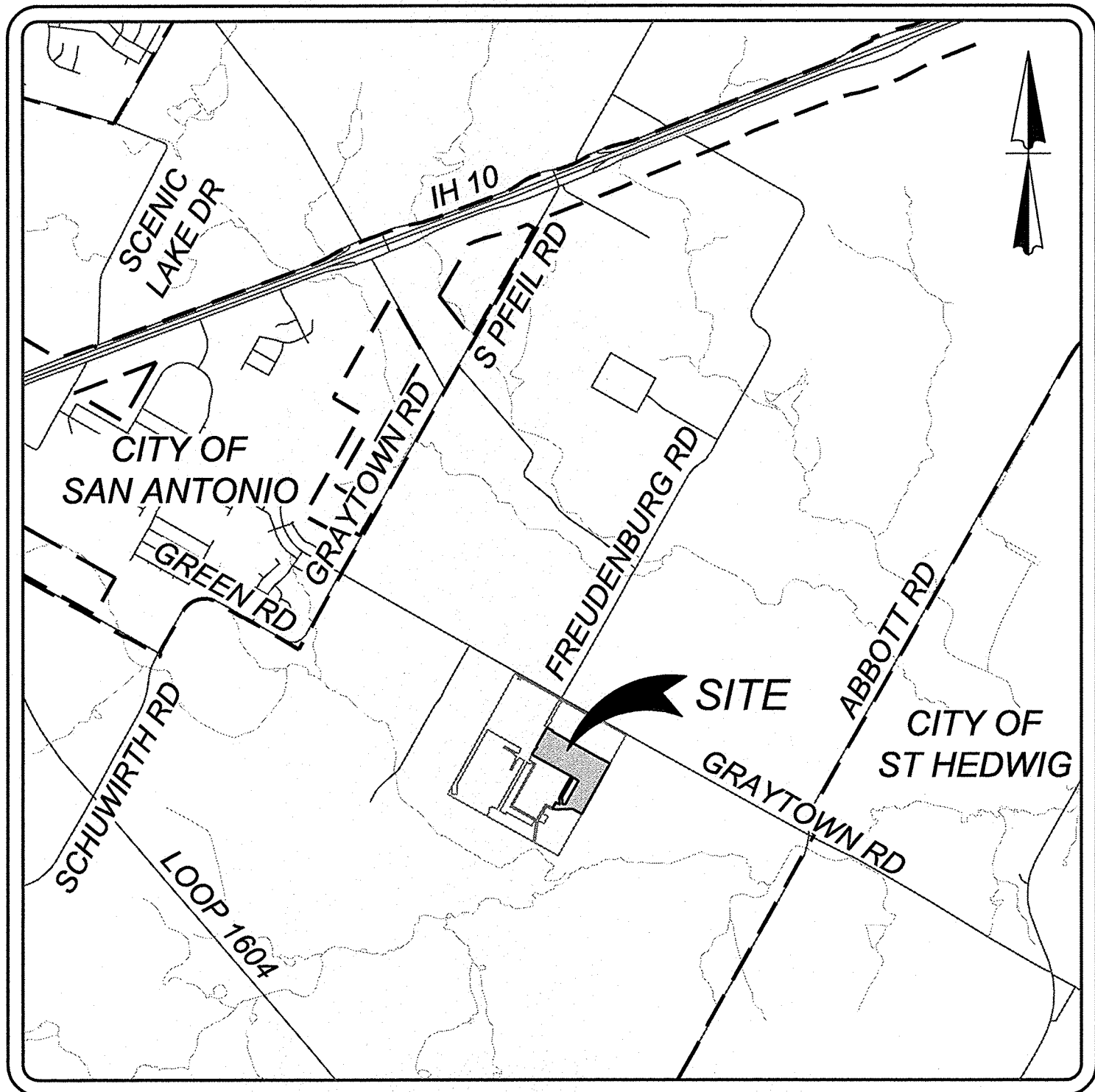


ISSUE DATE

REVISIONS



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
SANITARY SEWER IMPROVEMENTS



LOCATION MAP

N.T.S.

OWNER/DEVELOPER:
LENNAR HOMES OF TEXAS LAND & CONSTRUCTION LTD.
1922 DRY CREEK WAY, STE. 101
SAN ANTONIO, TX 78259
PHONE: (210) 403-6282



SAN ANTONIO RIVER AUTHORITY

100 E. GUENTHER STREET
P.O. BOX 839980
SAN ANTONIO, TEXAS 78283-9980



INDEX

DESCRIPTION	SHEET NO.
SANITARY SEWER COVER SHEET	6.0
SANITARY SEWER GENERAL NOTES	6.1
SANITARY SEWER GENERAL NOTES	6.2
OVERALL SANITARY SEWER PLAN (1 OF 2)	6.3
OVERALL SANITARY SEWER PLAN (2 OF 2)	6.4
SEWER LINE H STA 1+00.00 - 8+00.00	6.5
SEWER LINE H STA 8+00.00 - END	6.6
SEWER LINE J STA 1+00.00 - 7+50.00	6.7
SEWER LINE J STA 7+50.00 - END	6.8
SEWER LINE J1 STA 1+00.00 - END	6.9
SEWER EX. LINE A STA 13+50.00 - 24+50.00	6.10
SANITARY SEWER DETAIL SHEET	6.11

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.

Date: Jun 06, 2022, 6:47pm User: dr_crofiguez
File: N:\314\51\01\Design\Civil\SEWER_SS_NOTES_3145101.dwg

LINT TRAPS

PUBLIC AND PRIVATE WASHATERIAS AND COMMERCIAL LAUNDRIES SHALL INSTALL A LINT TRAP EQUIPPED WITH A CONVENIENTLY LOCATED AND EASILY REMOVABLE WIRE BASKET OR OTHER SIMILAR DEVICE THAT WILL PREVENT THE STRINGS, RAGS, BUTTONS, OR OTHER PROHIBITED MATERIAL FROM ENTERING THE SANITARY SEWER SYSTEM. THE BASKET OR OTHER SIMILAR DEVICE SHALL PREVENT PASSAGE TO THE SANITARY SEWER SYSTEM OF SOLIDS GREATER THAN ¼" INCH IN DIAMETER. THE LINT TRAP SIZE SHALL BE BASED ON THE TOTAL G.P.M. OF ALL FIXTURES, APPLIANCES AND APPURTENANCES DRAINING TO IT IN LIEU OF A LINT TRAP.A LINT INTERCEPTOR MAY BE INSTALLED.THE INTERCEPTOR SHALL BE SIZED AND DESIGNED BY A TEXAS REGISTERED ENGINEER WITH HIS SEAL AND SIGNATURE ON THE DRAWINGS.

SILVER RECOVERY UNITS

SILVER RECOVERY UNITS SHALL BE INSTALLED IN WASTE LINE(S) LEADING FROM X- RAY PROCESSING, PHOTOGRAPHIC PROCESSING, AND /OR ANY PROCEDURES IN ESTABLISHMENT SUCH AS MEDICAL LABS, DENTAL LABS, PHOTO FINISHERS, PRINTERS, GRAPHIC ARTS PRODUCTION FACILITIES, HOSPITAL, FACILITIES, VETERINARY HOSPITALS, OR OTHER ESTABLISHMENTS WHERE SILVER MAY BE INTRODUCED INTO THE SANITARY SEWER SYSTEM.

SOLIDS INTERCEPTORS

SOLIDS INTERCEPTORS SHALL BE INSTALLED WHEN PRE-TREATMENT OF WASTE STREAMS IS NECESSARY TO PREVENT SOLIDS GREATER THAN ½" IN DIAMTER, WHICH MAY CAUSE LINE STOPPAGE FROM ENTERING THE SANITARY SEWER SYSTEM.

INTERCEPTORS

- a. INTERCEPTORS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN APPROVED BY THE SAN ANTONIO RIVER AUTHORITY CONSISTING OF A MINIMUM OF TWO COMPARTMENTS WITH FITTINGS DESIGNED FOR GREASE RETENTION AND PROVIDE FOR A MINIMUM OF TWELVE (12) MINUTES RETENTION.
- b. THERE SHALL BE AN ADEQUATE NUMBER OF MANHOLES TO PROVIDE ACCESS FOR CLEANING ALL AREAS OF AN INTERCEPTOR, ONE MANHOLE PER TRAP COMPARTMENT. MANHOLE COVERS SHALL BE GAS TIGHT IN CONSTRUCTION HAVING A MINIMUM OPENING DIMENSION OF 20 INCH INCHES (0.5 M).
- c. IN AREAS WHERE TRAFFIC MAY EXIST THE INTERCEPTOR SHALL BE DESIGNED TO HAVE ADEQUATE REINFORCEMENT AND COVER.
- d. ALL INTERCEPTORS SHALL HAVE THE SIZE OF THE INTERCEPTOR (IN GALLON PER MINUTE OR GALLON CAPACITY) PERMANENTLY AFFIXED TO THE DEVICE.
- e. ALL CONCRETE UTILIZED IN THE CONSTRUCTION OF INTERCEPTOR SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI.
- f. AN EFFLUENT SAMPLING WELL ON ALL INTERCEPTORS SHALL BE REQUIRED. THE SAMPLE WELL SHALL HAVE A RISER A MINIMUM OF 6" INCHES IN DIAMETER AND SHALL BE INSTALLED AFTER THE CONFLUENCE OF ALL WASTE STREAMS FROM THE FACILITY AND PRIOR TO DISCHARGING INTO SANITARY SEWER COLLECTION SYSTEM. THE WELL SHALL BE PERPENDICULAR TO THE EFFLUENT LATERAL TO ALLOW VISUAL OBSERVATION OF THE FLOW STREAM AND PROVIDE FOR SAMPLING OF WASTE WATER.

WATER TIGHT TESTING (24 HOURS)

- g. ALL INTERCEPTORS SHALL BE WATER TESTED OUT AT JOB SITE AFTER BEING INSTALLED (PLUG BOTH ENDS AND FILL TO TOP OF INTERCEPTOR). INTERCEPTOR SHALL SHOW NO LEAKAGE FROM SECTION SEAMS, PINHOLES, OR OTHER IMPERFECTIONS. ANY LEAKAGE IS CAUSE FOR REJECTION. WHEN LEAKAGE OCCURS, ADDITIONAL WATER TESTING SHALL BE MADE. AFTER CORRECTING MEASURE TEST, REPORTS SHALL SHOW TOTAL NUMBER OF INTERCEPTERS TESTED. WHEN LEAKAGE OCCURS CORRECTIVE MEASURES TAKEN SHALL BE REPORTED BY THE SARA INSPECTORS. SARA INSPECTORS SHALL RECORD IN DAILY LOG WITH PROJECT NAME, DATE IT WAS TESTED AND COMPLETED.

B. MANHOLES WILL BE REQUIRED ON SIX (6) INCH AND LARGER LATERALS WHERE THEY CONNECT TO THE MAIN.

A. LATERALS WILL NOT BE ATTACHED TO SEWER MAINS THAT ARE DEEPER THAN TWELVE (12) FEET.

B. FITTINGS ARE NOT PERMITTED ON LATERALS BETWEEN THE WYE AND THE PROPERTY LINE.

C. DEEP CUT OR DROP CONNECTIONS SHALL NOT BE PERMITTED.

F. A MINIMUM OF ONE (1) LATERAL PER BUILDING SHALL BE REQUIRED. ALSO, A MINIMUM OF ONE (1) LATERAL PER RESIDENTIAL LOT SHALL BE REQUIRED. DUPLEXES SHALL HAVE TWO (2) LATERALS THAT SHALL BE INDEPENDENTLY ATTACHED TO THE MAIN.

G. ALL SEWER LATERAL CROSSING WATER MAINS SHALL CONFORM TO THE REQUIREMENTS OF THE TCEQ CHAPTER 317 (DESIGN CRITERIA FOR SEWERAGE SYSTEMS) LATEST REVISION, SDR 26 150 PSI, OR DUCT IRON PIPE, CONCRETE ENCASMENT.

24. WHERE REQUIRED CONCRETE ENCASMENT SHALL BE PLACED FOR FULL WIDTH OF THE TRENCH TO A PLAIN SIX (6) INCHES ABOVE THE TOP OF THE PIPE WITH PAY UNITS AS SHOWN ON THE STANDARD DETAIL SHEET.

25. A MINIMUM OF FOUR (4) FEET OF COVER IS TO BE MAINTAINED OVER THE SANITARY SEWER MAIN AND LATERALS AT GRADE, OTHERWISE CONCRETE ENCASEMENT IS REQUIRED.

26. WHERE POROUS MATERIAL INCLUDING "SUBGRADE FILLER" IS USED FOR BACKFLL IN THE BEDDING AND INITIAL BACKFILL ZONES, SEEPAGE RETAINERS ARE REQUIRED AT AN APPROXIMATE OF 180 FEET. RETAINERS SHALL CONSIST OF CLASS "D" CONCRETE ENCASEMENT OR FIRMLY COMPACTED. CONSOLIDATED CLAY ENCASEMENT, THE RETAINERS SHALL EXTEND FROM THE BOTTOM OF THE TRENCH TO THE TOP OF THE GRANULAR MATERIAL FOR THE ENTIRE TRENCH WIDTH. ENCASEMENT SHALL BE 24 INCHES LONG. NO EXTRA PAY ITEM.

BLASTING

27. WHEN ALLOWABLE, BLASTING SHALL BE PERFORMED IN ACCORDANCE WITH THE ABOVE CRITERIA ESTABLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION 312 TAC 313.5(C) (6).

28. BLASTING SEWER LINE EXCAVATION MUST BE DONE IN SUCH A MANNER AS TO MINIMIZE THE FRACTURING OF ROCK BEYOND THE REQUIRED EXCAVATION. THE CONTRACTOR SHALL CONSIDER THE ELEVATION OF THE EXISTING SANITARY SEWER MAIN IN RELATION TO THE BLASTING CHARGE AND RELATIVE DIRECTION OF EXISTING AND PROPOSED TRENCHES. BLASTING WITHIN SUCH AREAS SHALL BE ACCOMPLISHED ONLY BY QUALIFIED BLASTING CONTRACTORS WHO HOLD BLASTING LICENSES FROM A QUALIFIED AGENCY SUCH AS THE SAN ANTONIO FIRE DEPARTMENT IN BEXAR COUNTY. ANY DAMAGE TO EXISTING SANITARY SEWERS RESULTING FROM BLASTING SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE.

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

TESTING

30. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH THE FOLLOWING:

- A. 317.2(A)(5)(B); DEFLECTION TEST FOR FLEXIBLE AND SEMI-RIGID PIPE CONDUCTED AFTER FINAL BACKFILL HAS BEEN IN PLACED AT LEAST 30 DAYS.
- B. 317.2(A)(4)(A) & (B) OR SARA SPECIFICATIONS INFILTRATION AND OR EXFILTRATION AND OR LOW-PRESSURE AIR TEST.
- C. 313.5(C)(10)(C) OR SARA SPECIFICATIONS: ALL MANHOLES AND WET WELLS MUST BE TESTED SEPARATELY AND INDEPENDENTLY OF THE COLLECTION LINES.
- D. IN THE EVENT THAT TESTING REQUIREMENTS CONFLICT, THE LATEST TCEQ DESIGN CRITERIA SHALL BE USED.

31. SEWER LINES SHALL BE TESTED FROM MANHOLE TO MANHOLE.

32. SANITARY SEWER CONNECTIONS MADE DIRECTLY TO EXISTING MANHOLES WHICH REQUIRE PENETRATION INTO THE MANHOLE WILL BE CORE DRILLED. ANY DAMAGE TO EXISTING MANHOLE WILL BE REPLACED AT CONTRACTOR'S EXPENSE AND WILL REQUIRE SUCCESSFUL TESTING OF THE EXISTING MANHOLE IN ACCORDANCE WITH THE SARA SPECIFICATIONS. THEY MUST HAVE A PROTECTIVE COATING WITH SEWPERCOAT, RAVEN 405, SAUERREISEN 210, SPRAY WALL, OR APPROVED EQUIVALENT BY THE ENGINEER. COATING WILL BE MINIMUM OF 200 MILS THICKNESS DEPENDING ON EXISTING CONDITIONS, TO PREVENT INFRASTRUCTURE INFILTRATION, FOLLOW MANUFACTURERS RECOMMENDATION ON PROTECTIVE COATING.

33. AFTER CONSTRUCTION, TESTING WILL BE DONE BY PAN/TILT TV CAMERA BY THE CONTRACTOR AND OBSERVED BY THE INSPECTOR, WASTEWATER ENGINEERING PERSONNEL AND CONTRACTOR AS CAMERA IS RUN THROUGH THE LINES. PAN/TILT ALL 6" SERVICE LATERALS TO 6"x6" STUB-OUT. VIDEOS MUST INCLUDE SUBDIVISION NAME, MANHOLE NUMBER, SERVICE LATERAL STATION NUMBER, FLOW DIRECTION, LOCATION ANY ABNORMALITIES, SUCH AS BROKEN PIPE OR MISALIGNED, JOINT, GRAVEL, DIRT, MUST BE CLEANED OUT, REPLACE AT CONTRACTOR'S EXPENSE. NEW SEWER SYSTEM WILL BE FLOODED WITH H2O BEFORE BEING TV. ALL SEWER LINES MUST BE PRESSURE CLEANED TO INCLUDE SERVICE LATERALS 6" INCH TO STUB-OUT. ALL VIDEOS SHALL BE SUBMITTED IN DVD FORMAT WITH WRITTEN REPORTS.

34. A COPY OF ALL TESTING REPORTS INCLUDING BACKFILL COMPACTION TESTS SHALL BE FORWARDED TO THE SARA.

- A. DENSITY TEST WILL BE REQUIRED ON ALL SANITARY SEWER TRENCHES INCLUDING SERVICE LATERALS. SERVICE LATERALS TO BE CHOSEN RANDOMLY BY FIELD INSPECTOR. DENSITIES ON SERVICE LATERAL SHALL NOT EXCEED 25% OF TOTAL NUMBER OF SERVICE.

EXCAVATION

35. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTORS IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIALLY, CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITHIN OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

36. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PERMANENTLY PLACE ANY WASTE MATERIALS IN THE 100 YEAR FLOODPLAIN WITHOUT AN APPROVED FLOODPLAIN PERMIT.

37. WATER JETTING THE BACKFILL WITHIN A STREET WILL NOT BE PERMITTED. SANITARY SEWER TRENCHES SUBJECT TO TRAFFIC SHALL CONFORM TO SARA SPECIFICATIONS.

WATERLINE CROSSING

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

EROSION AND SEDIMENTATION

39. THE TCEQ AND THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTED ON THE PROJECTS PLAN AND PROFILE SHEETS.

40. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE SARA.

SUPPLEMENTING

41. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER PAY ITEM 10 WHICH IT RELATES TO.

42. UNLESS THE DEVELOPMENT IS PRIVATELY OWNED, THE DEVELOPER DEDICATES THE SANITARY SEWER MAIN AND MANHOLES TO THE SARA, UPON COMPLETION BY THE DEVELOPER AND FINAL ACCEPTANCE BY THE SARA. SARA WILL OWN AND MAINTAIN SAID SANITARY SEWER MAINS AND MANHOLES WHICH ARE LOCATED WITHIN THIS PARTICULAR SUBDIVISION.

43. WORK COMPLETED BY CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE CONSENT OF THE SARA CONSTRUCTION INSPECTION DIVISION WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.

44. SARA IS NOT TO BE RESPONSIBLE FOR ANY ABNORMALITIES ON STUB OUT, INVERT, GRADE OR SLOPE FOR ANY EXISTING MANHOLE TIE IN OR SERVICE LATERAL TIE IN.

45. ENGINEER, DEVELOPER AND BUILDER, WILL HAVE PLUMBER AND CONTRACTOR WITH BID PRICE ON NEW INSTALLATION OF ALL 4" INCH SEWER SERVICE LATERALS TO COMPLY WITH TRENCH SAFETY (OSHA) SHORING PROTECTION ON ALL NEW INSTALLATION OF 4" INCH SEWER SERVICE LATERALS. SARA WILL NOT BE HELD RESPONSIBLE FOR ANY INJURIES OR DEATH CAUSED BY TRENCH FAILURE, OR A WRONG OR DAMAGE DONE TO A PERSON OR TO HIS PROPERTY. OSHA GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

46. ALL 4" INCH SEWER SERVICE LATERALS WILL BE HYDRAULIC TESTED AND OR LOW AIR PRESSURE TESTED. ALL 4" INCH SEWER SERVICE LATERALS WILL BE TELEVISED (TV) FROM 4" INCH CLEAN OUT AT OUTSIDE EACH RESIDENCE TO 6" X 6" CLEAN OUT. CONTRACTOR AND PLUMBER WILL SUBMIT REPORTS AND/OR VIDEOS TO SARA, WITH THE FOLLOWING INFORMATION: SUBDIVISION NAME, LOT NUMBER, BLOCK NUMBER, STATION NUMBER, STREET NAME AND ADDRESS OF EACH SEWER SERVICE LATERAL.

PLUMBER WILL BE PROVIDED PLAN/PROFILE BY ENGINEER/BUILDER. PLUMBER WILL WORK CLOSELY WITH THE SARA PROJECT INSPECTOR ON DAILY TESTING AND TELEVISION BY MAKING ARRANGEMENTS 48 HOURS IN ADVANCE. SEWER SERVICE LATERALS THAT HAVE NOT BEEN INSPECTED OR APPROVED AND/OR COVERED UP, WILL HAVE TO BE RE-DUG AT CONTRACTOR/PLUMBER EXPENSE AND RE-INSPECTED.

- A. A PROPERTY LINE CLEANOUT (6"x 6") SHALL BE INSTALLED FOR RESIDENTIAL SERVICES. CLEANOUTS IN THE SIDEWALK OR DRIVEWAY SHALL HAVE A CAST IRON BOOT. CLEANOUT NOT LOCATED IN A SIDEWALK OR DRIVEWAY SHALL BE LOCATED ON A REINFORCED CONCRETE PAD A MINIMUM OF TWELVE (12") INCHES BY TWELVE (12"). INCHES BY SIX (6") INCHES THICK. ALL PROPERTY LINE CLEANOUTS SHALL INCLUDE A LID WITH SEWER IN GREEN COLOR.

47. N1 FENCING: ANY AND ALL FENCING, INCLUDING ELECTRIC FENCE, WHETHER OR NOT IDENTIFIED ON THE PLANS, MUST BE MAINTAINED AT ALL TIMES. ANY AND ALL DAMAGES DIRECTLY ATTRIBUTED TO THE CONTRACTOR MUST BE REPLACED TO EQUAL OR BETTER CONDITIONS AT THE CONTRACTORS EXPENSE AND AS APPROVED BY THE PROJECT MANAGER. GAPS IN THE FENCING MUST BE PROVIDED AT ALL LOCATIONS WHERE THE SEWER LINE EASEMENT CROSSES FENCING. FENCING REQUIRED TO MAINTAIN LIVESTOCK MUST BE MAINTAINED AT ALL TIMES.

48. N2 DAMAGE TO ADJACENT LAND: THE CONTRACTOR MUST AVOID DAMAGE TO ADJACENT LAND OUTSIDE THE IDENTIFIED CONSTRUCTION LIMITS. ANY AND ALL CLAIMS DIRECTLY ATTRIBUTED TO THE CONTRACTOR RESULTING FROM HIS STRAYING BEYOND THE CONSTRUCTION LIMITS MUST BE SETTLED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE APPROPRIATE LANDOWNER

49. N3 PROPERTY OWNER ACCESS: THE CONTRACTOR MUST MAINTAIN ACCESS FOR PRIVATE INDIVIDUALS AT ALL TIMES. IF NORMAL ACCESS IS DAMAGED DURING CONSTRUCTION THE CONTRACTOR MUST REPLACE THE ACCESS TO EQUAL OR BETTER CONDITIONS AT THE CONTRACTORS EXPENSE, AS APPROVED BY THE ENGINEER.

50. N4 CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES WHETHER OR NOT SHOWN ON THE PLANS. SHOULD THE CONTRACTOR DAMAGE ANY UTILITIES THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS TO REPAIR THE UTILITIES TO THEIR ORIGINAL CONDITION. CONTRACTOR IS SOLELY RESPONSIBLE FOR LOST REVENUE, LOSSES ETC. CLAIMED BY UTILITY COMPANIES DUE TO CONTRACTORS WORK. CONTRACTOR SHALL NOTIFY SARA AND IMPACTED UTILITY COMPANIES 48 HRS. PRIOR TO BEGINNING WORK. CONTRACTOR SHALL VERIFY THE LOCATION OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

51. N5 CLEARING PERMANENT EASEMENTS: THE LIMITS OF BOTH THE EXISTING AND PARALLEL SEWER LINES PERMANENT EASEMENTS, AS DELINEATED IN THESE PLANS, MUST BE CLEARED IN ACCORDANCE WITH THE SPECIFICATION. THE CONTRACTOR MAY BE DIRECTED BY THE ENGINEER TO PROTECT AND AVOID CERTAIN TREES WITHIN THE LIMITS OF THE PERMANENT AND TEMPORARY CONSTRUCTION EASEMENTS. ALL BRUSH MUST BE REMOVED FROM SITE, NO BRUSH PILES TO REMAIN AFTER CONSTRUCTION. BURNING OF BRUSH OR TRASH WILL NOT BE ACCEPTABLE.

52. N7 CONTRACTOR SHALL PROVIDE APPROPRIATE SAFE ACCESS AND BARRICADE WORK AT ALL TIMES TO PROTECT THE PUBLIC. THIS INCLUDES SUBSTANTIAL BARRICADES AROUND ALL TRENCHES, BORE PITS, OPEN EXCAVATIONS, EQUIPMENT ETC. THE SITE MUST BE LEFT IN A SECURE SAFE CONDITION AT NIGHT. IT IS THE CONTRACTORS RESPONSIBILITY TO TAKE NECESSARY PRECAUTIONS TO PROTECT THE PUBLIC THROUGHOUT THE DURATION OF THE PROJECT.

53. N14 SHOULD CONTRACTOR SELECT A TRENCH EXCAVATION PROCEDURE THAT EXTENDS THE LIMITS OF SEEDING OR PAVING AND FINAL SITE PREPARATION (I.E. SLOPE BACK PROTECTION SYSTEM) HE WILL BE RESPONSIBLE FOR MEETING PLAN AND SPECIFICATION REQUIREMENTS TO THE NEW LIMITS AT NO ADDITIONAL COST TO SARA.

54. N16 WARNING: NOTE THAT CERTAIN PORTIONS OF THE PROJECT MAY PARALLEL AND /OR CROSS EXISTING UTILITIES. THE CONTRACTORS WILL BE REQUIRED TO PROTECT EXISTING UTILITIES. ADDITIONAL SUPPORTIVE SHORING MAY BE REQUIRED. IT IS SPECIFICALLY THE CONTRACTORS RESPONSIBILITY TO PROTECT HIS WORKERS, EXISTING UTILITIES, AND FINISHED WORK THROUGHOUT THE JOB.

55. N 17 OVERHEAD ELECTRIC, CITY PUBLIC SERVICE (CPS) AN APPROPRIATELY SAFE OVERHEAD CLEARANCE MUST BE MAINTAINED BETWEEN ALL EQUIPMENT AND PERSONNEL. THE CONTRACTOR SHALL NOTIFY CITY PUBLIC SERVICE AT 353-2700 AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION IN THE VICINITY OF THE CPS OVERHEAD ELECTRIC LINE CONTRACTOR SHALL MAINTAIN CPS RECOMMENDED CLEARANCE REQUIREMENTS.

56. N 23 BYPASS PUMPING: THE CONTRACTOR IS RESPONSIBLE FOR ALL BYPASS PUMPING REQUIRED TO COMPLETE THE WORK. BYPASS PUMPS SHALL BE ADEQUATE TO HANDLE PEAK FLOW EVENTS DURING STORM EVENTS. CONTRACTOR SHALL HAVE STANDBY PUMPS AVAILABLE TO BYPASS FLOW IN CASE PRIMARY PUMP FAILS, CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL COSTS FOR CLEANUP OF AN UNAUTHORIZED DISCHARGE AND ANY ASSOCIATED FINES.

57. N26 CONTRACTOR SHALL BACKFILL ALL OPEN TRENCHES AT THE END OF THE DAY. CONTRACTOR SHALL NOT INSTALL MORE PIPE THAN CAN BE COVERED. NO OPEN TRENCHES WILL BE PERMITTED OVERNIGHT ALL END OF OPEN PIPE WILL BE PLUGGED OVER NIGHT.

58. N33 THE PROJECT AREA MAY BE SUBJECT TO ARCHEOLOGICAL MONITORING. SHOULD THE CONTRACTOR ENCOUNTER ANY ARCHEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL STOP ALL WORK IN THE AREA OF THE DEPOSITS AND IMMEDIATELY CALL THE PROJECT MANAGER.

59. N37 CONTRACTOR TO NOTE THAT PORTIONS OF THE CONSTRUCTION ARE WITHIN THE LIMITS OF THE 100 YEAR FLOODPLAIN. THE CONTRACTOR IS REQUIRED TO KEEP THE CHANNEL CLEAR OF POTENTIAL OBSTRUCTIONS TO FLOOD FLOWS. POTENTIAL OBSTRUCTIONS INCLUDE HEAVY CONSTRUCTION EQUIPMENT, TEMPORARY ROADS ACROSS CHANNEL, EXCAVATED MATERIAL, STOCKPILED DEBRIS, ETC. UNDER THREATENING WEATHER CONDITIONS WHERE FLOODING IS LIKELY, OBSTRUCTIONS SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR AT NO ADDITIONAL COST TO SARA. THE CONTRACTOR ASSUMES ALL RISK FOR UNFINISHED WORK.

				DESIGNED BY: INIT			
				DRAWN BY: INIT			
				CHECKED BY: INIT			
				APPROVED BY: INIT			
				DATE: MONTH, YEAR	FILE: NAME		
NO.	REVISION	DATE	BY				



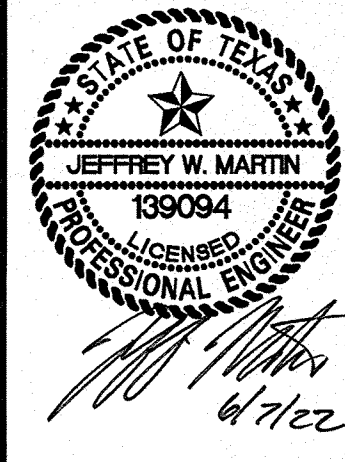
SAN ANTONIO RIVER AUTHORITY

100 E. GUENTHER STREET
P.O. BOX 839980
SAN ANTONIO, TEXAS 78283-9980



ISSUE DATE

REVISIONS



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
SANITARY SEWER GENERAL NOTES

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ---

DRAWN/SD CHECKED/JM

SHEET NUMBER:

6.2

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL.

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 ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES 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.

COMPACTION NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. PERMITS AND/OR WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

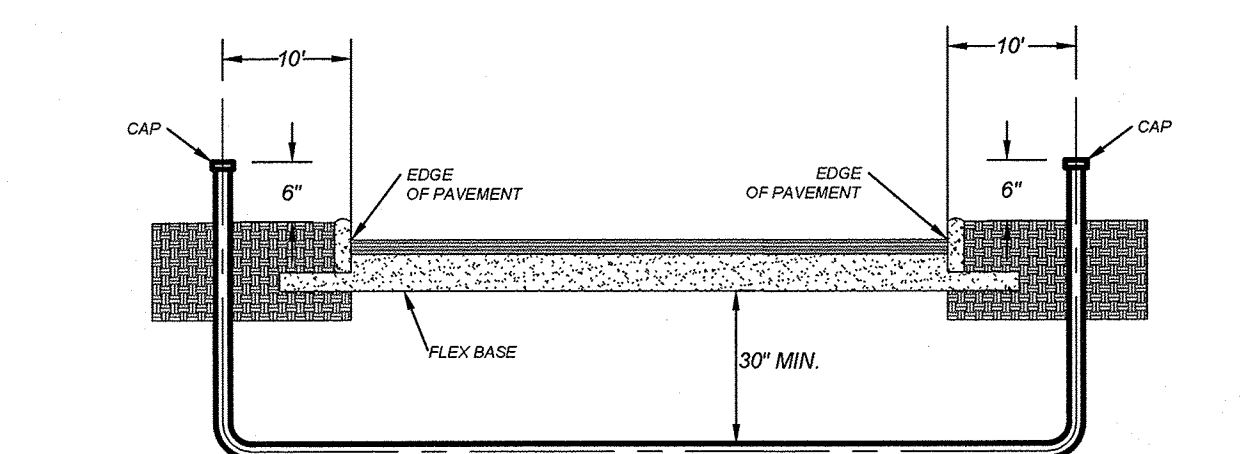
NOTE:

- SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). REFERENCE SHEET 6.0, SANITARY SEWER GENERAL NOTES.
- SEE THIS SHEET FOR BENCHMARK INFORMATION.
- PIPE TYPE DESIGNATIONS ARE SDR 26.
- ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING AND COVER. SEE STANDARD SPECIFICATIONS.

WATER/SEWER CROSSING NOTE:

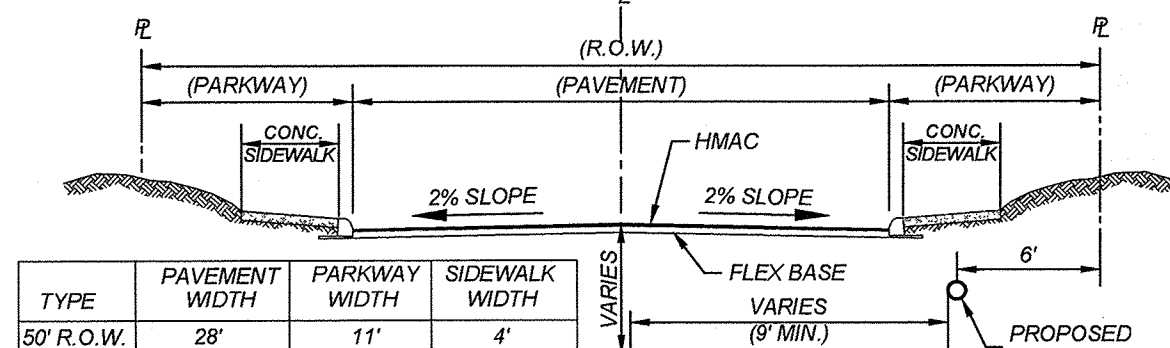
ALL WATER/SEWER CROSSINGS SHALL COMPLY WITH SAWS SPECIFICATION ITEM 812 SANITARY SEWER/WATER DETAIL.

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

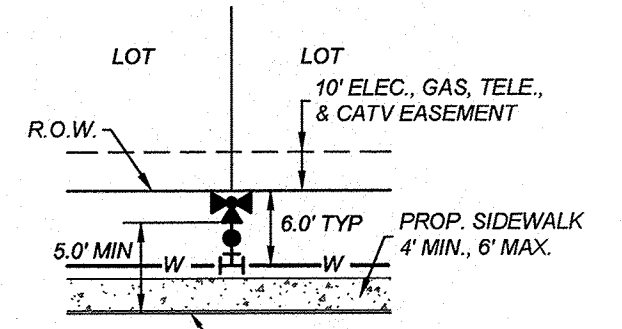


TYPICAL CONDUIT DETAIL
N.T.S.

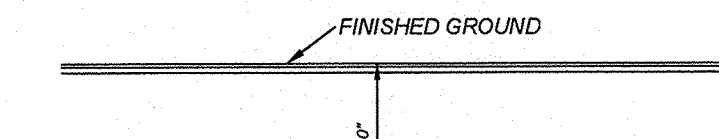
NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING CONDUIT SLEEVES FOR EACH C/S FACILITY AT ALL STREETS AND DRAIN CROSSING IF BUILT AHEAD OF C/S CONSTRUCTION. SLEEVES MUST ALSO BE LOCATED FOR C/S CREWS DURING CONSTRUCTION. (SEPARATE ITEM) SEE THIS SHEET FOR CONDUIT CROSSING DETAIL AND SCHEDULE.



TYPICAL STREET SECTION
N.T.S.



TYPICAL FIRE HYDRANT DETAIL
N.T.S.



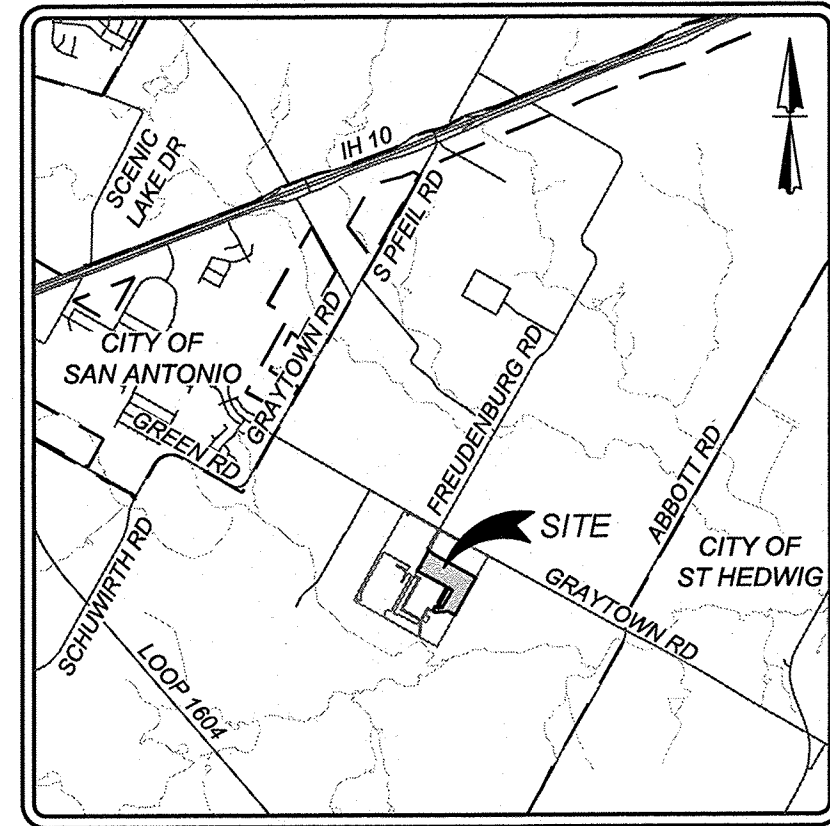
TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
N.T.S.

WHERE SEWER PIPE CROSSES A WATER LINE, THE SEWER SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT THE WATER CROSSING.

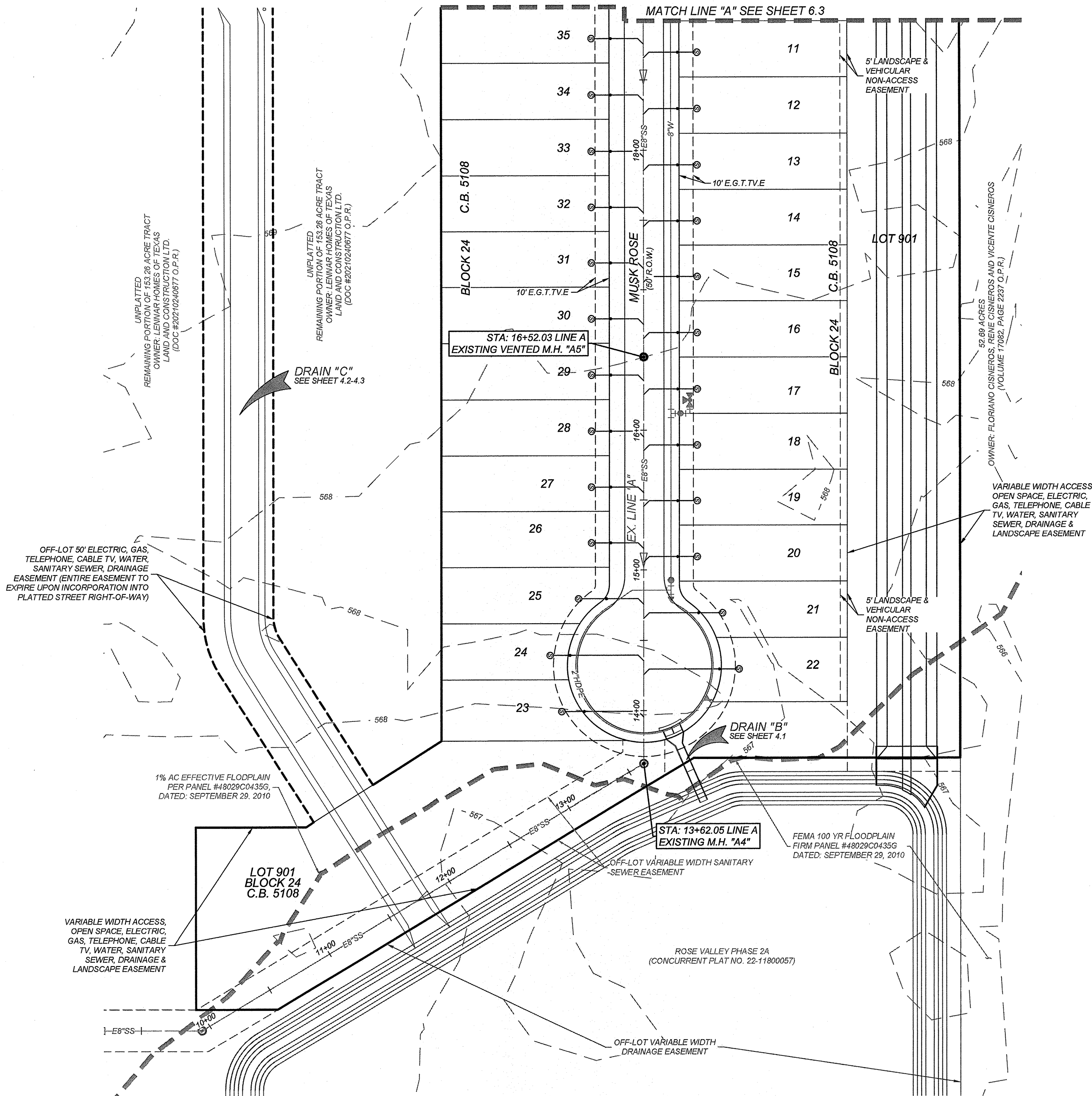
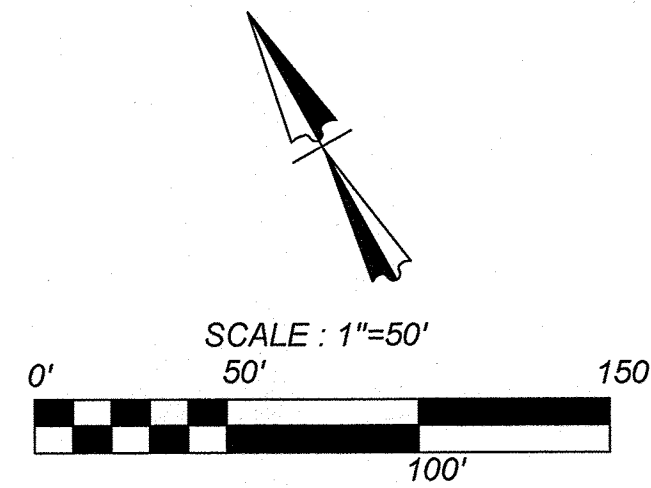
* SEPARATION DISTANCE TO COMPLY WITH '30 TAC 217.53(d) AND 290.44(e)

LEGEND

- PROPOSED WATER MAIN = 8" W
- PROPOSED WATER SERVICE & METER BOX = 8" W
- PROPOSED WATER SERVICE & METER BOX WITH PRESSURE REDUCING VALVE = 8" W
- PROPOSED WATER 3/4" IRRIGATION SERVICE & 5/8" METER BOX = 1/4" R
- PROPOSED FIRE HYDRANT = 8" SS
- PROPOSED WATER VALVE = 8" SS
- PROPOSED SANITARY SEWER MAIN = 8" SS
- PROPOSED SANITARY SEWER MANHOLE = 8" SS
- PROPOSED SANITARY SEWER LATERAL = 8" SS
- PROPOSED SANITARY SEWER LATERAL WITH VERTICAL STACK = 8" SS
- ELECTRIC, GAS, TELE. & CABLE TV EASEMENT = E.G.T.V.E.
- VEHICULAR NON-ACCESS EASEMENT = V.N.A.E.
- EXISTING WATER MAIN = 8" W
- EXISTING FIRE HYDRANT = 8" SS
- EXISTING WATER VALVE = 8" SS
- EXISTING SANITARY SEWER MAIN = 8" SS
- EXISTING SANITARY SEWER MANHOLE = 8" SS
- EXISTING STREETLIGHT (UG, 250 WATT) = 8" W



LOCATION MAP
N.T.S.



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
OVERALL SANITARY SEWER PLAN (2 OF 2)

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ---

DRAWN: SD CHECKED: JM

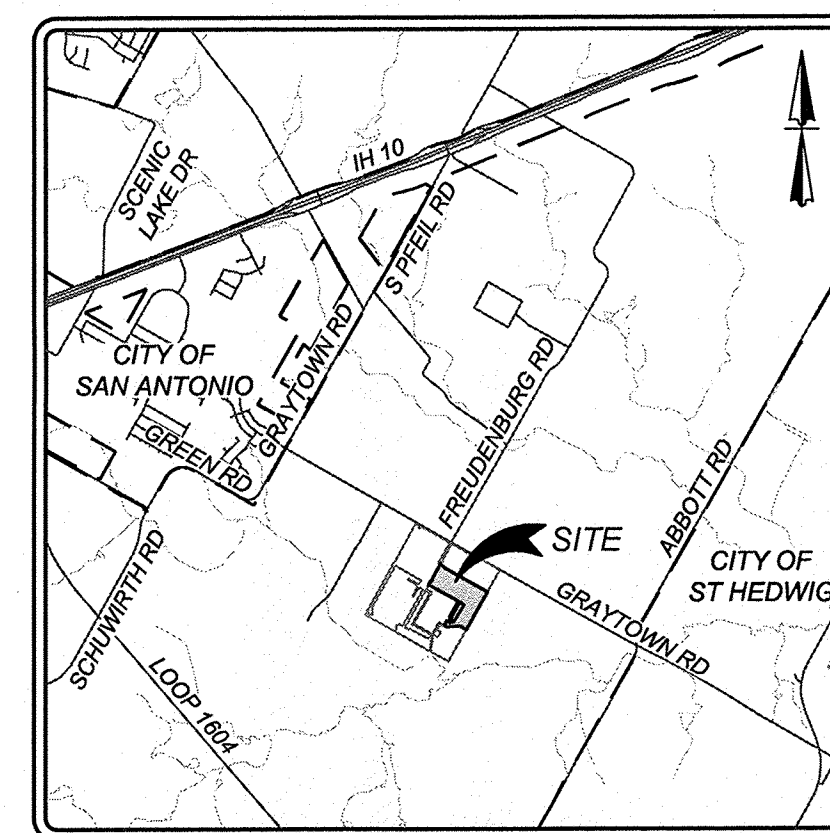
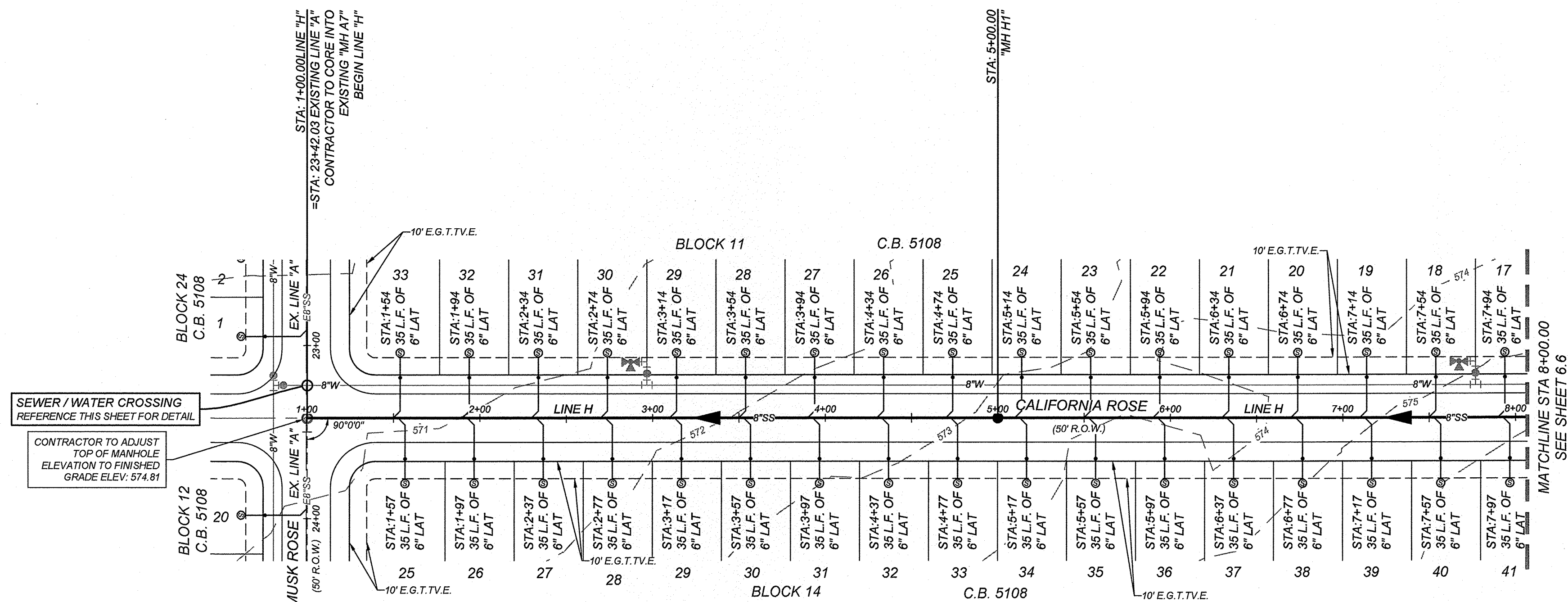
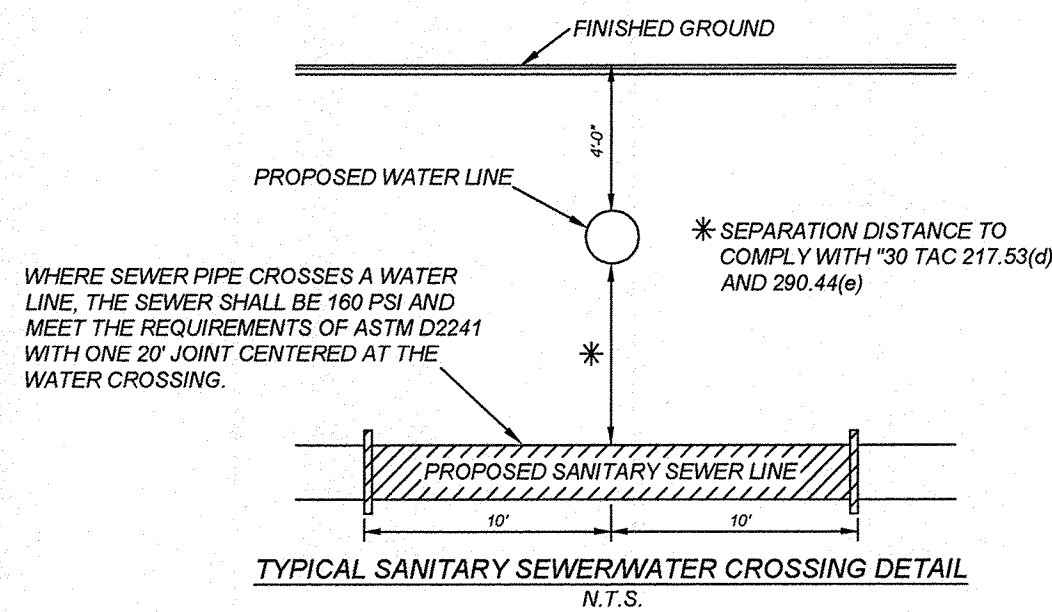
SHEET NUMBER:

6.4

TRENCH EXCAVATION SAFETY PROTECTION

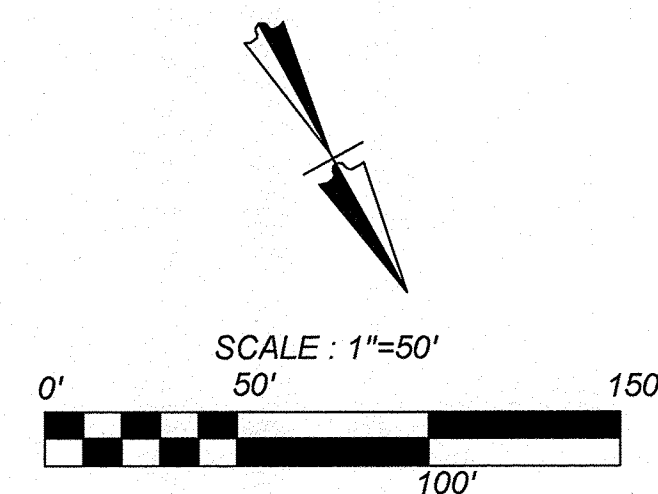
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, AND FOR PROVIDING ALL AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS. CONTRACTOR AND INDEPENDENTLY RETAINED EMPLOYEE SHALL REVIEW ALL CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, AND REGULATIONS. CONTRACTOR SHALL PROVIDE FOR THE CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND

1. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JUMP OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). REFERENCE SHEET **6.1 & 6.2**.
2. SANITARY SEWER GENERAL NOTES, SARA CIRCA FOR SEWER MAIN CONSTRUCTION IN THE CITY OF ST. LOUIS MAINS.
3. PIPE TYPE DESIGNATIONS ARE SDR 26.
3. SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL.
4. ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING AND COVER. SEE SHEET **6.11** FOR DETAILS.
5. ALL CLEANOUTS SHALL BE LOCATED UNDER DRIVEWAYS OR SIDEWALKS.
6. LATERAL CONNECTIONS MADE TO EXISTING INFRASTRUCTURE WILL NEED TO BE COMPLETED USING AN INSERT TEE OR APPROVED EQUAL.



LOCATION MAP

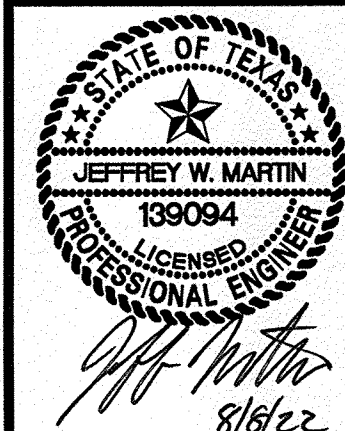
N.T.S



NEW
ENGINEERS + SURVEYING
3421 Passano Pkwy, Suite 200, San Antonio, TX 78241
Phone #: (210) 979-8444 • Fax #: (210) 979-8441

SSN IF DATE

PROVISIONS



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
SEWER LINE "H" STA 1+00.00 - 8+00.00

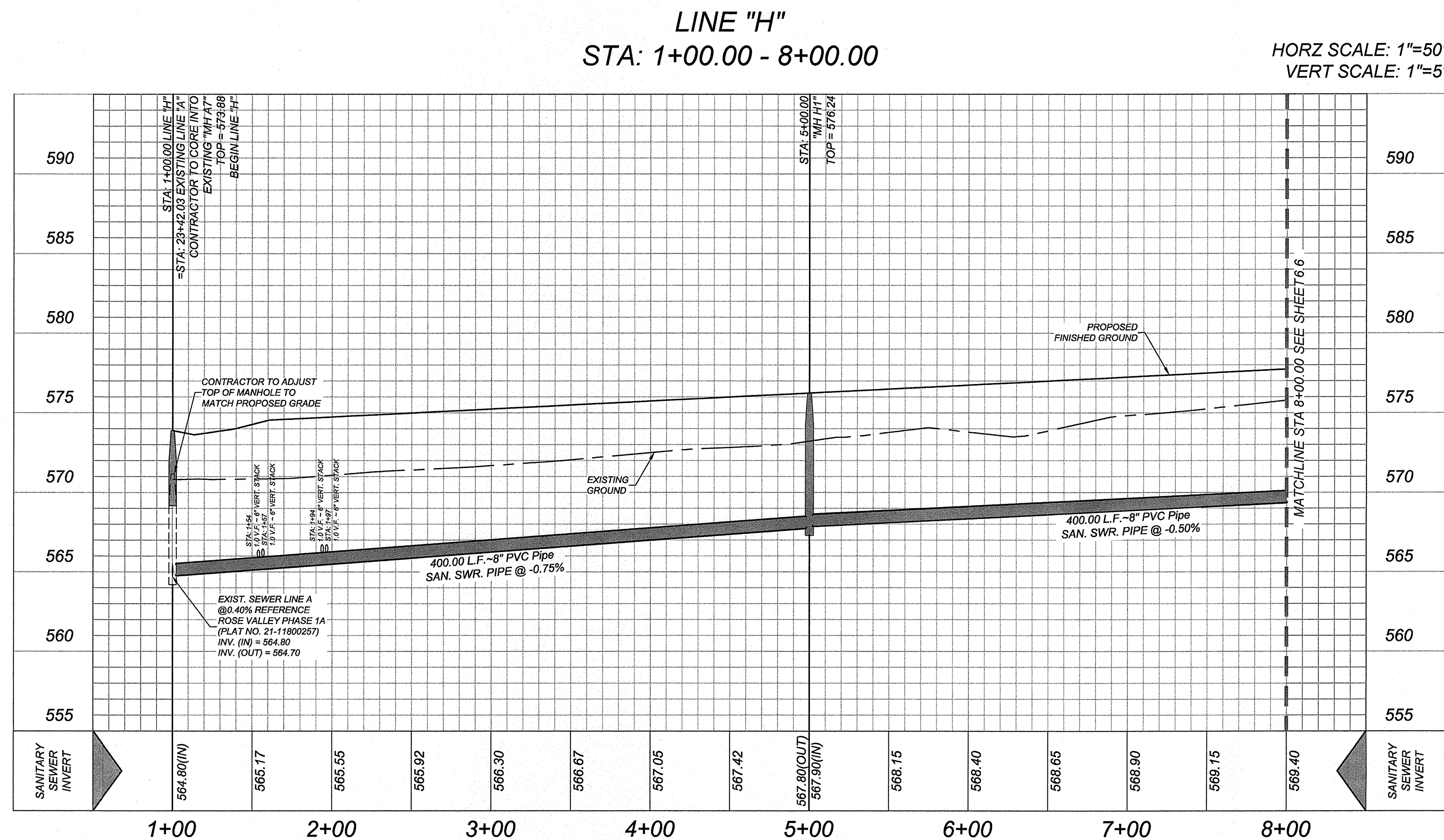
PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ---

SHEET NUMBER:

6.5



HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'

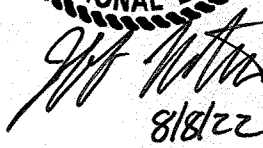
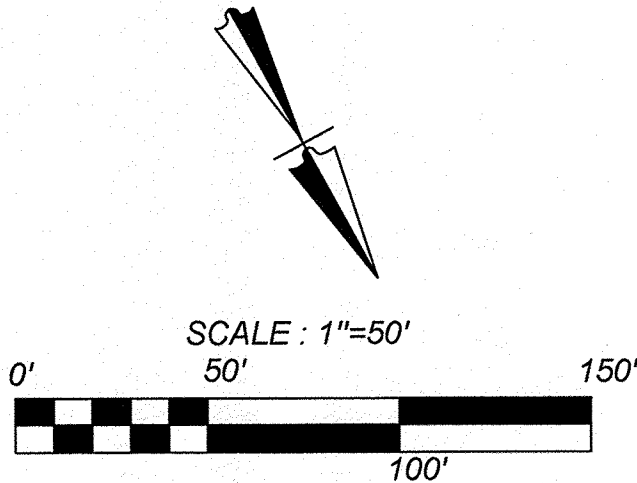
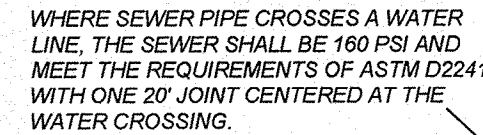
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THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. REFERENCE TO FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL IS REQUIRED.

TRENCH EXCAVATION SAFETY PROTECTION

THE CONTRACTOR AND/OR CONTRACTORS INDENTENTIONALLY RETAINED EMPLOYEE OR STRUCTURAL ENGINEER/DESIGNER/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY OTHER INFORMATION PROVIDED BY THE CONTRACTOR AND/OR CONTRACTORS TO IDENTIFY ANY LOCATION SITES 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, AT A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS, SPECIFICALLY CONTRACTOR AND/OR CONTRACTORS SHALL CONSULT WITH THE OSHA 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.

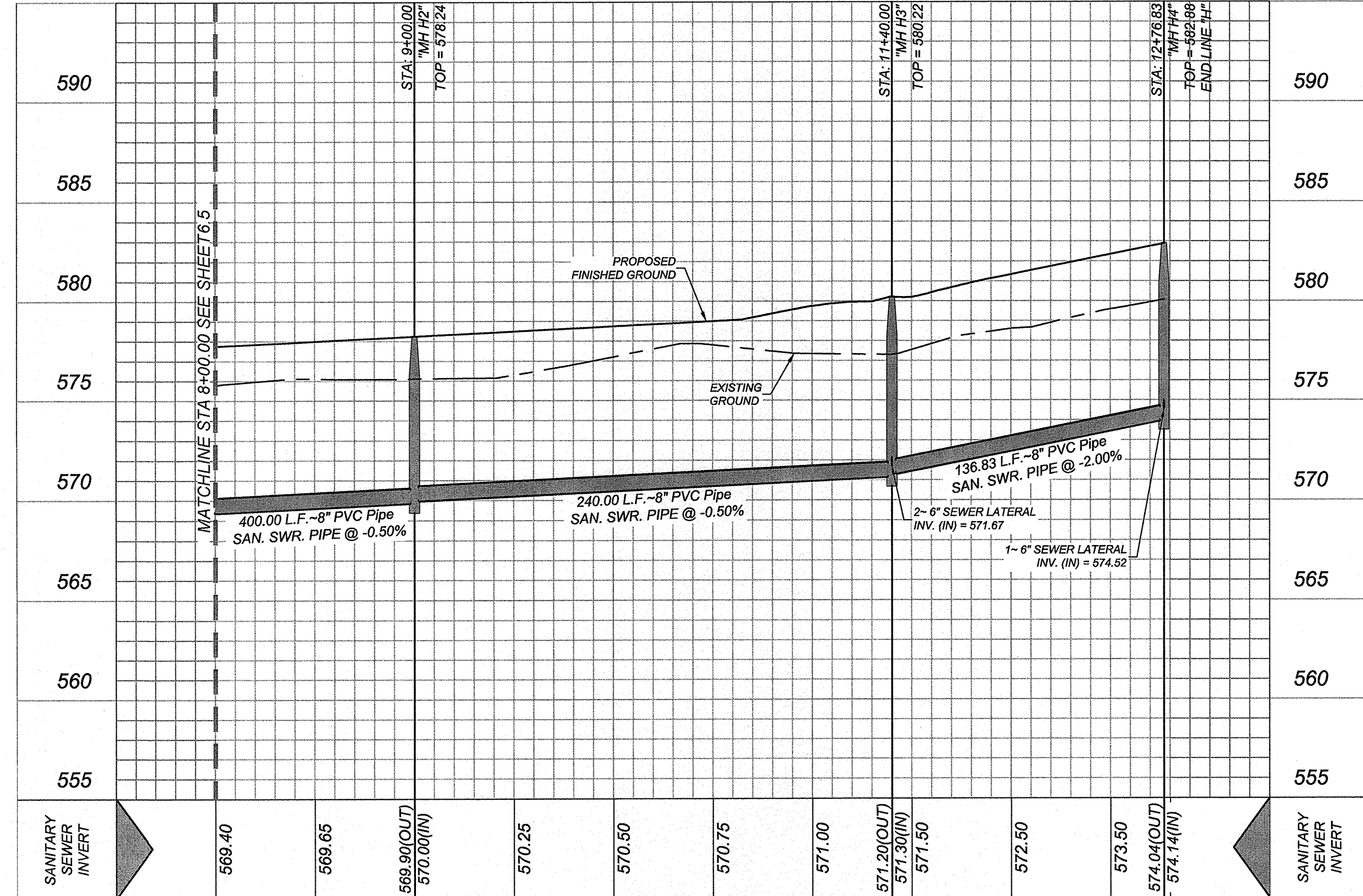
1. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JUNCTION OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEWER PAY ITEM). SEE SHEET 1.1-1.8.2.
2. ALL SEWER MAINS SHALL BE 12" DIA. NOTES, S.A. CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS.
3. PIPE TYPE DESIGNATIONS ARE SDR 26.
3. SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL.
4. ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING AND COVER. SEE SHEET 6.11 FOR DETAILS.
5. NO 6" CLEANOUTS SHALL BE LOCATED UNDER DRIVEWAYS OR SIDEWALKS.
6. LATERAL CONNECTIONS MADE TO EXISTING INFRASTRUCTURE WILL NEED TO BE COMPLETED USING AN INSERTA TIE OR APPROVED EQUAL.



SEWER LINE "H" STA 8+00.00 - END

AWN:SD CHECKED:JI

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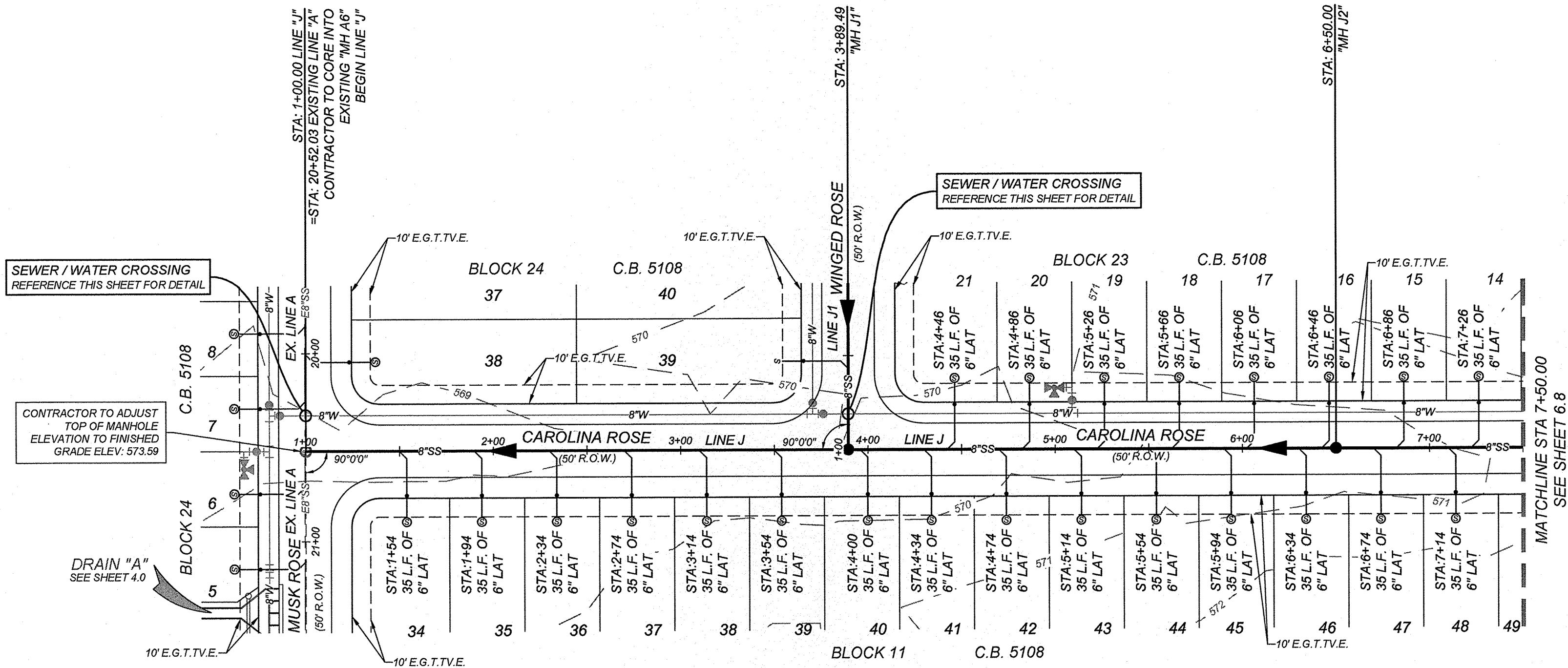
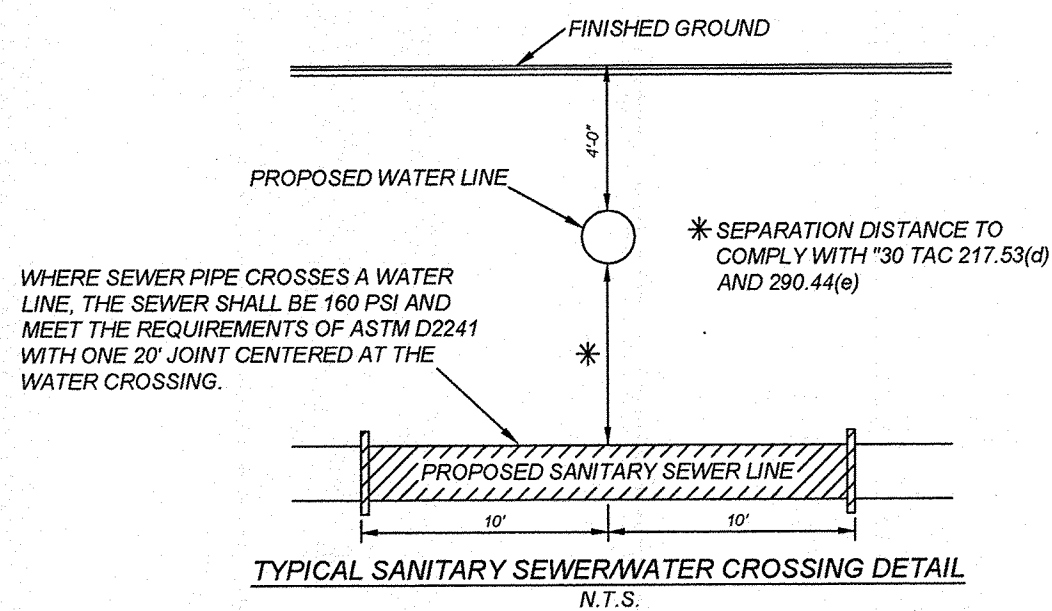
Date: Aug 07, 2022, 2:41pm User ID: arodriguez
File: N:\314\51\01\Design\Civil\SEWER\SSPP3145101.dwg

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

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 ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES 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.

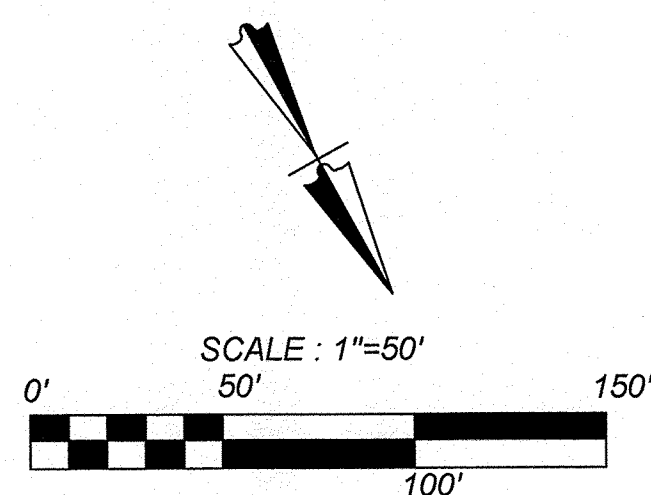
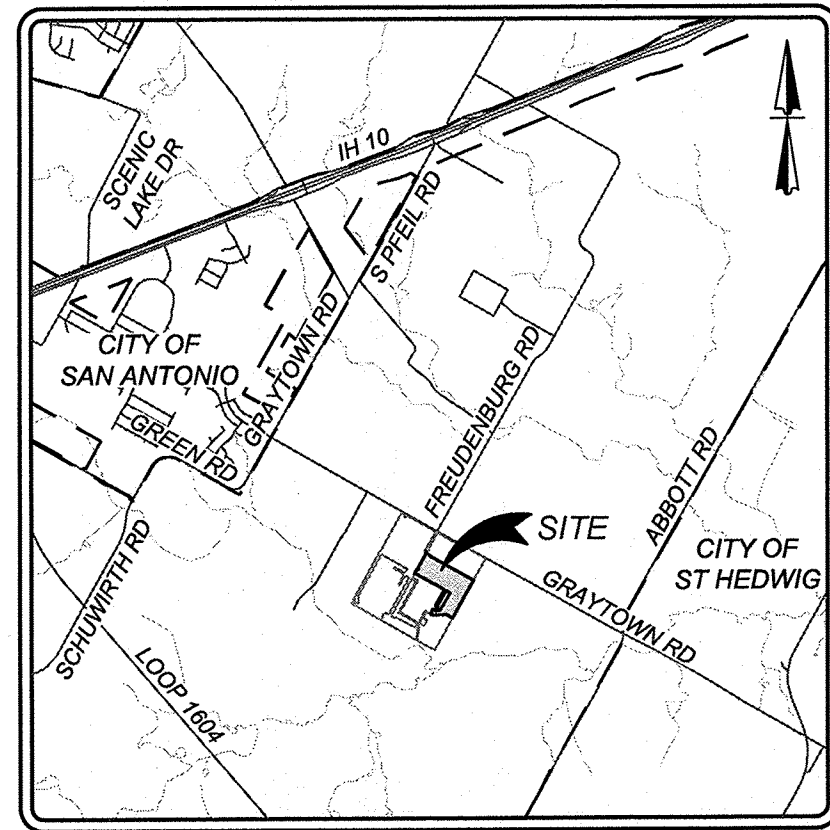
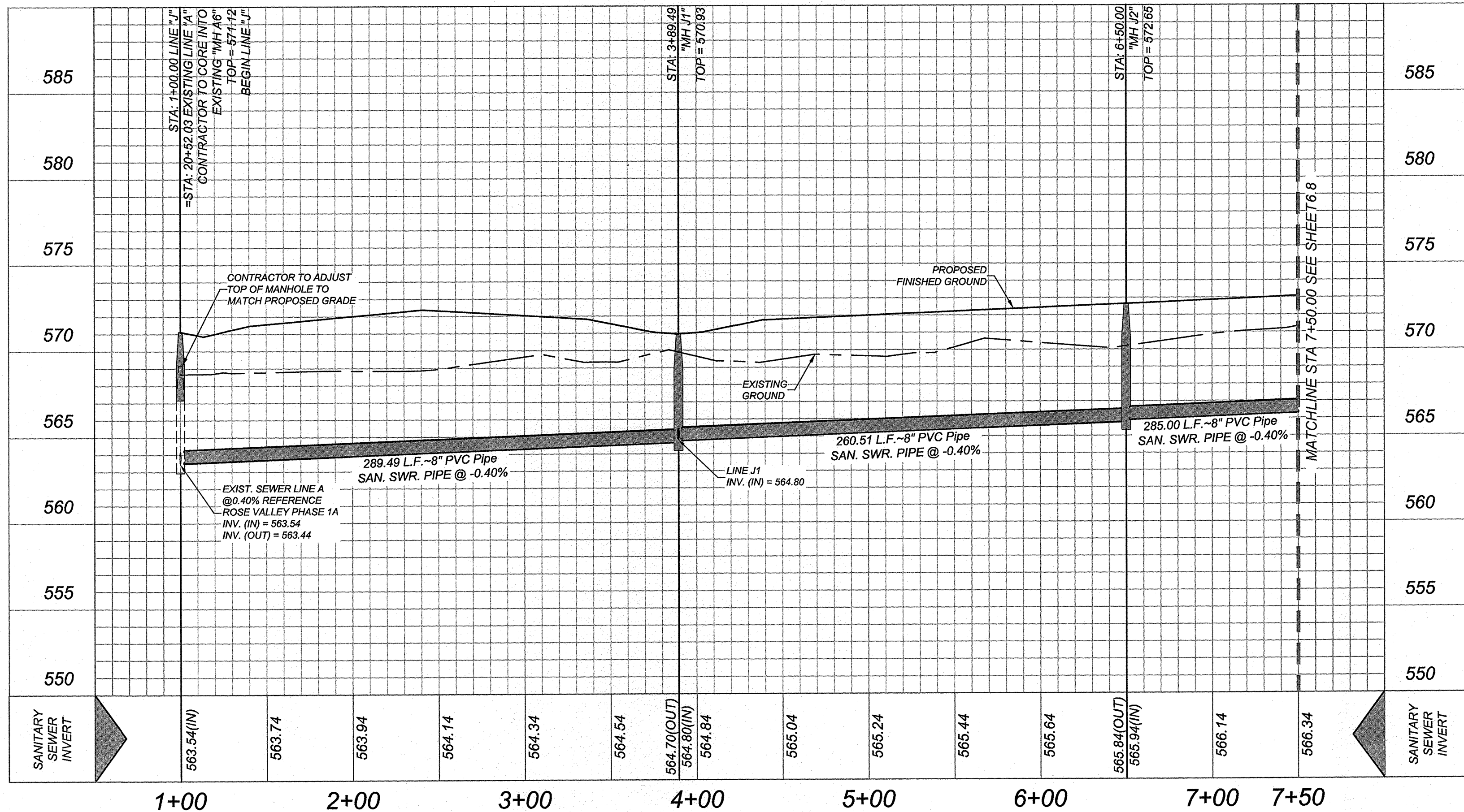
NOTE:

- SEWER PIPE WHERE WATER LINE CROSSES SHALL MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). REFERENCE SHEET 6.1-6.2, SANITARY SEWER GENERAL NOTES, SARA CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS.
- PIPE TYPE DESIGNATIONS ARE SDR 26.
- SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL.
- ALL MANHOLES SHALL HAVE CONCRETE RING ENCASMENT AND A WATER TIGHT RING AND COVER. SEE SHEET 6.11 FOR DETAILS.
- NO 6" CLEANOUTS SHALL BE LOCATED UNDER DRIVEWAYS OR SIDEWALKS.
- LATERAL CONNECTIONS MADE TO EXISTING INFRASTRUCTURE WILL NEED TO BE COMPLETED USING AN INSERTA TEE OR APPROVED EQUAL.



LINE "J"
STA: 1+00.00 - 7+50.00

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
SEWER LINE "J" STA 1+00.00 - 7+50.00

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ---
DRAWN:SD CHECKED:JM
SHEET NUMBER:

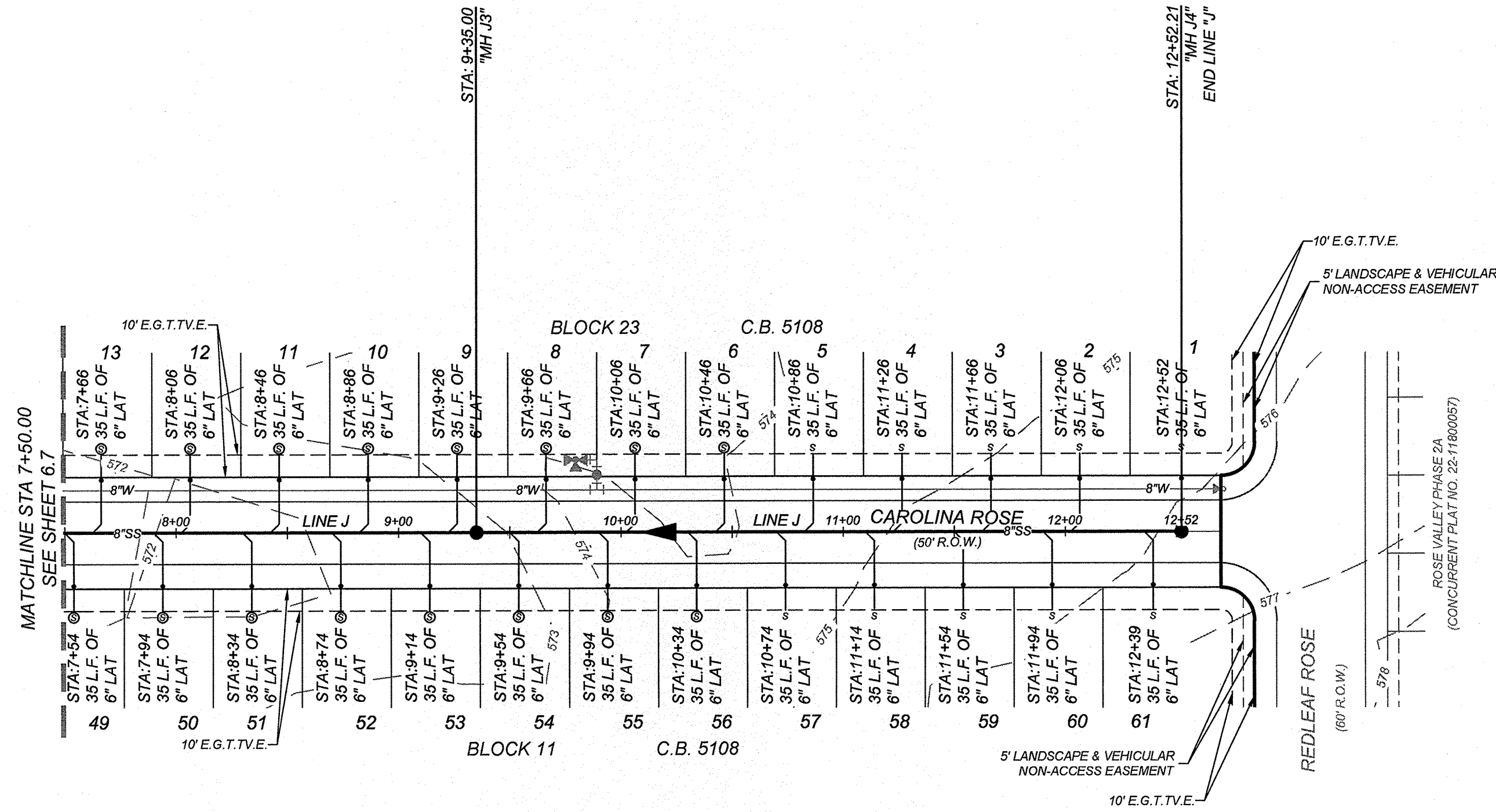
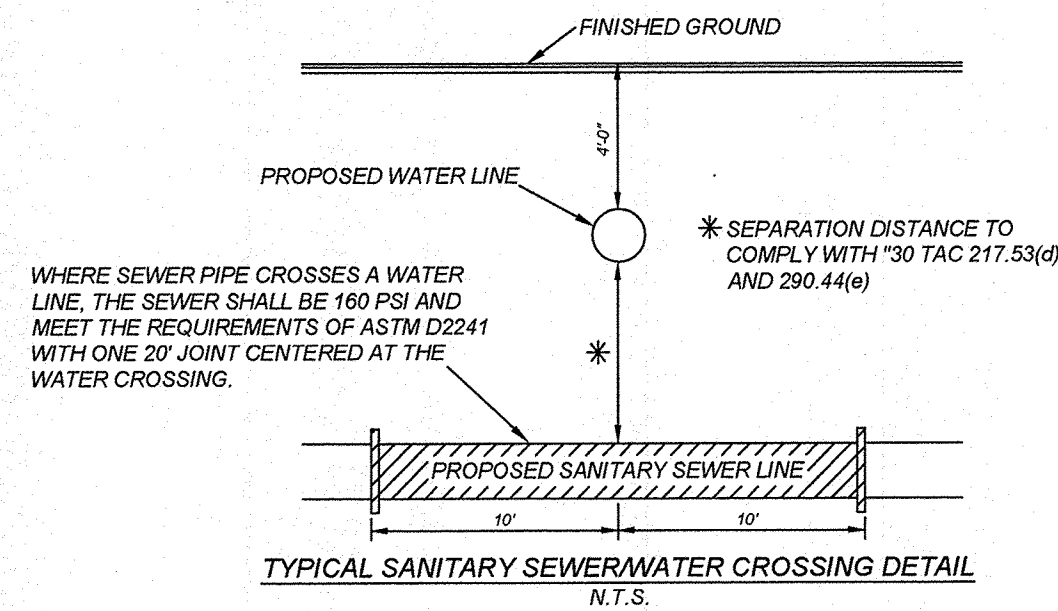
6.7

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

TRENCH EXCAVATION SAFETY PROTECTION
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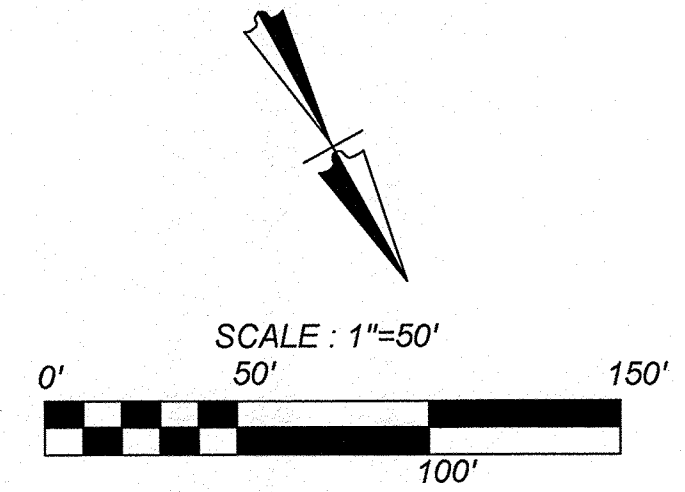
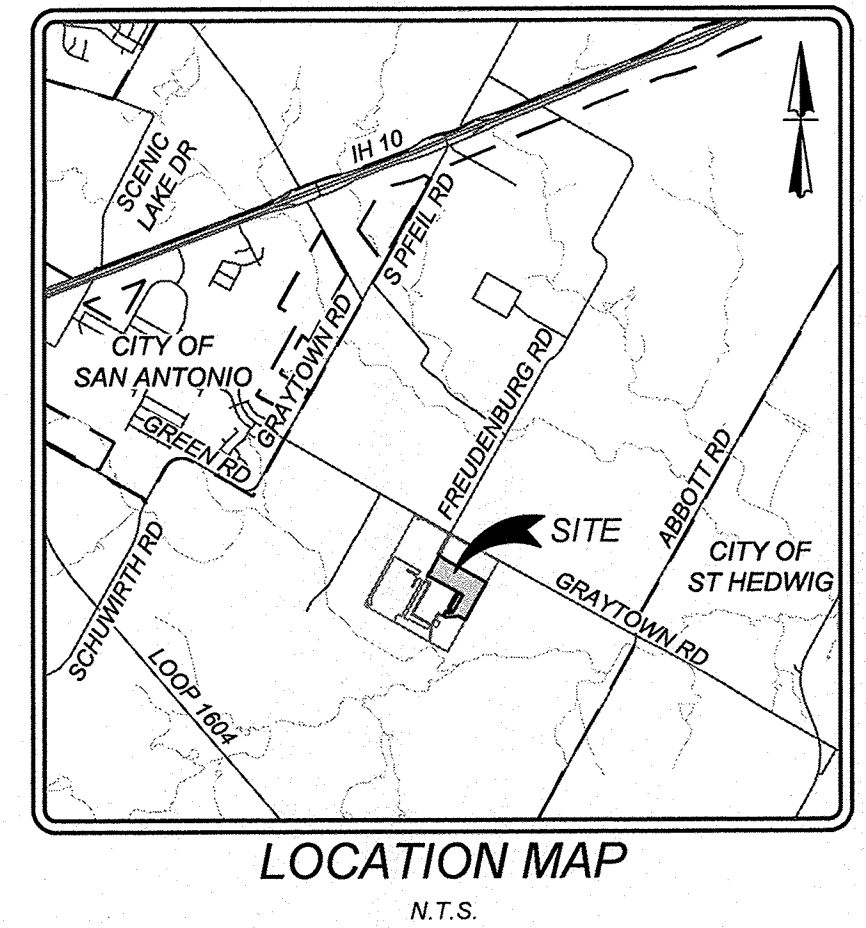
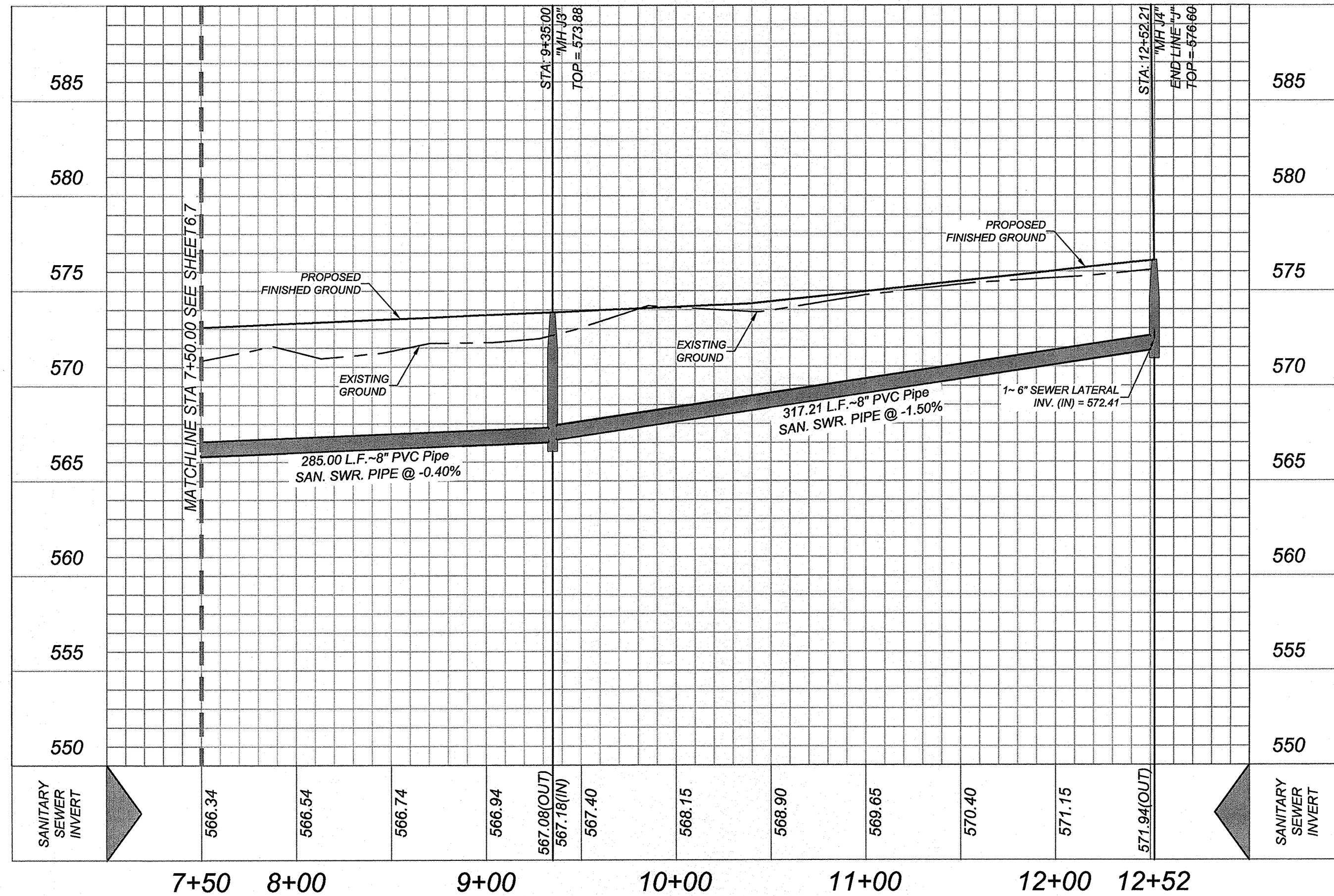
NOTE:

- SEWER PIPE WHERE WATER LINE CROSSES SHALL MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). REFERENCE SHEET 6.1 - 6.2 SANITARY SEWER GENERAL NOTES, SARA CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS.
- PIPE TYPE DESIGNATIONS ARE SDR 26.
- SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL.
- ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING AND COVER. SEE SHEET 6.11 FOR DETAILS.
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LINE "J"
STA: 7+50.00 - END

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
SEWER LINE "J" STA 7+50.00 - END

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ----

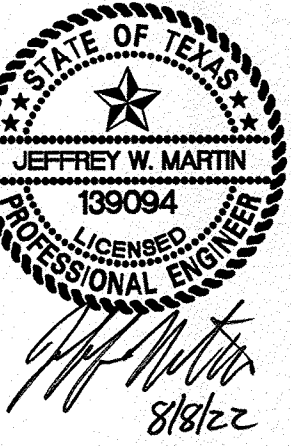
DRAWN:SD CHECKED:JM

SHEET NUMBER:

6.8

ISSUE DATE

REVISIONS



K&W
ENGINEERS & SURVEYING
3421 Pecos Pkwy, Suite 200, San Antonio, TX 78231
(210) 341-1111
TXBLS FIRM # 0813 - TXBLS FIRM # 1022300

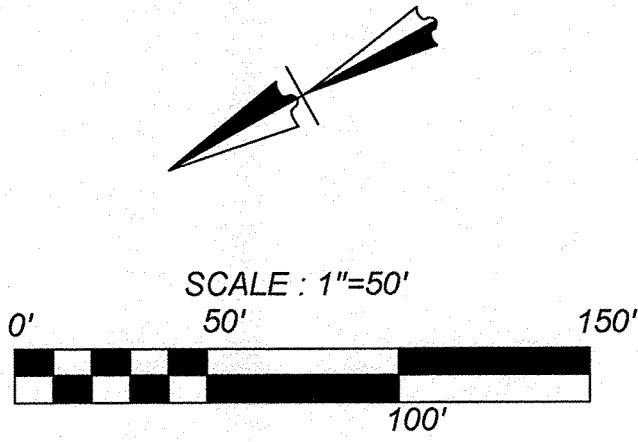
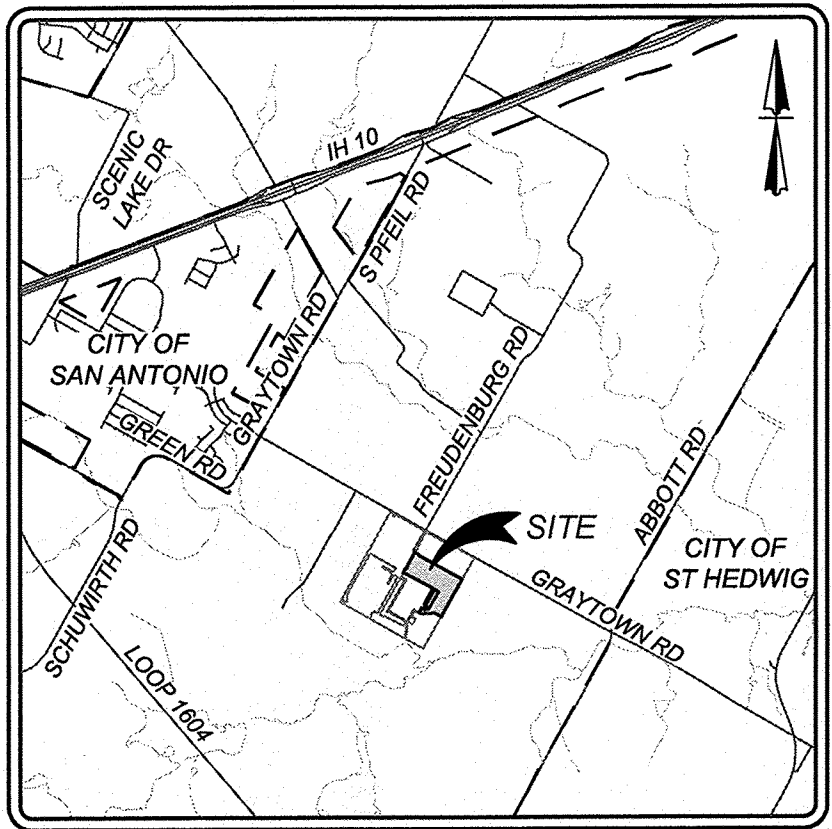
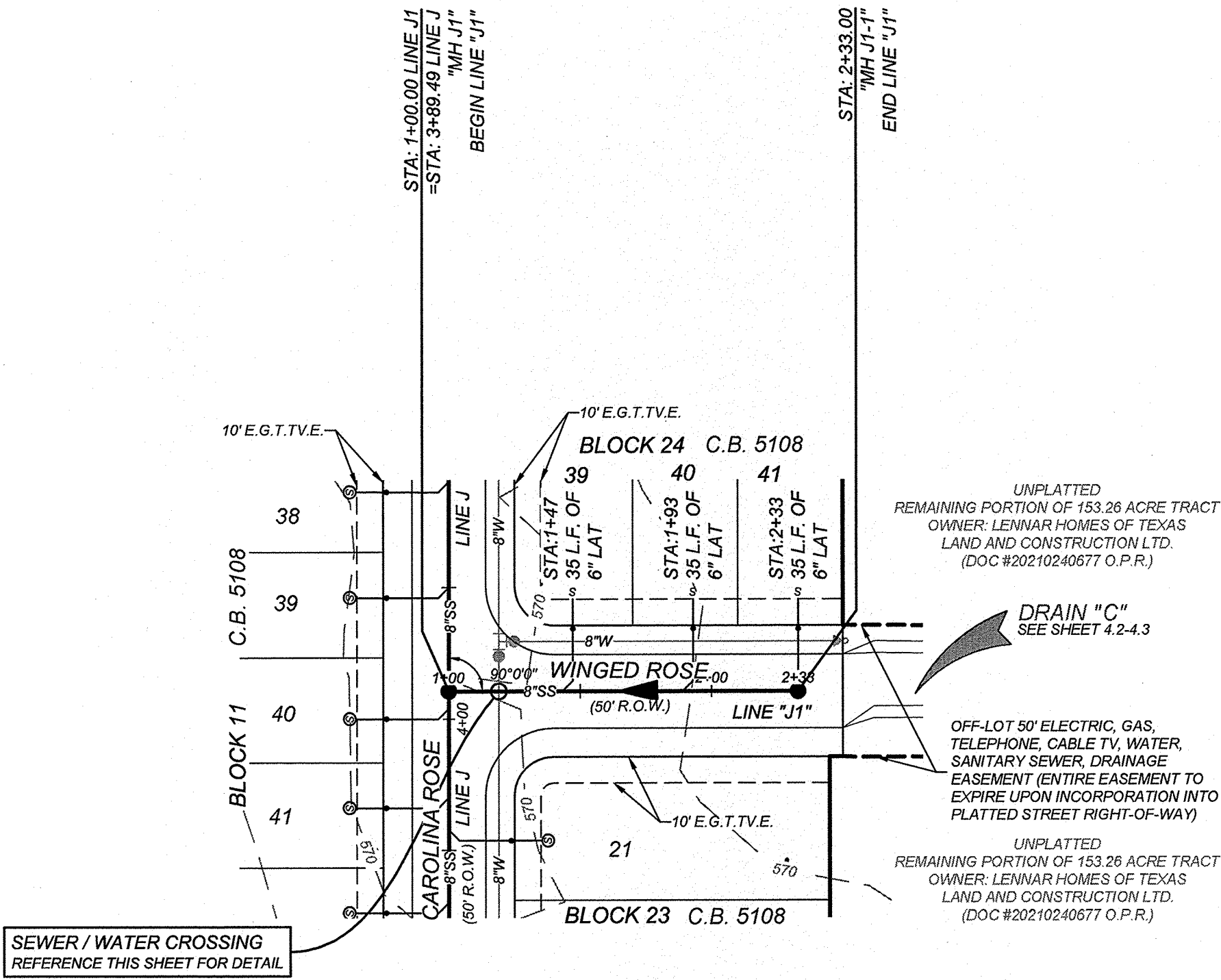
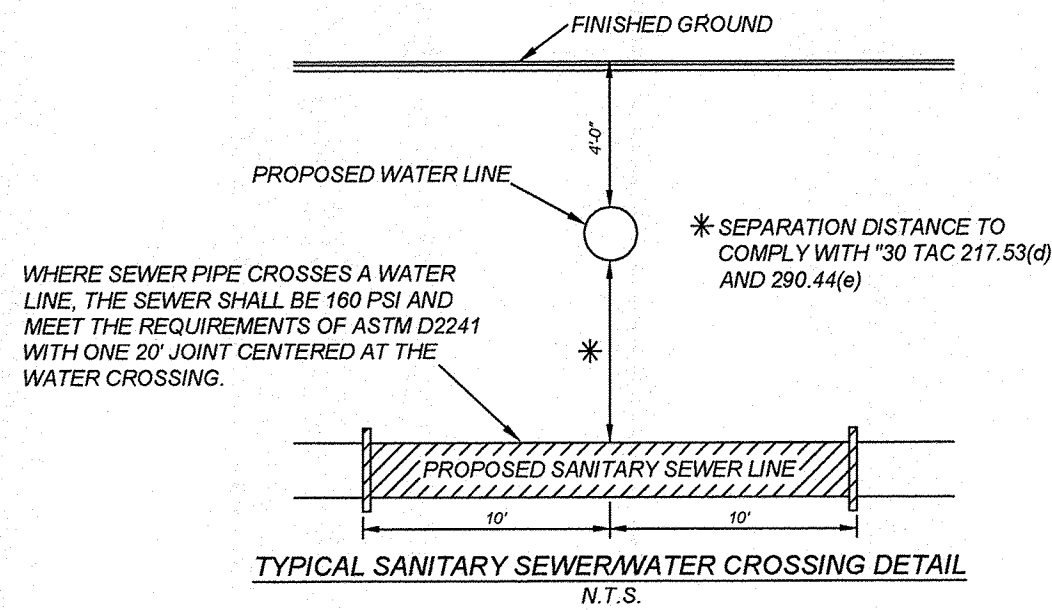
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TRENCH EXCAVATION SAFETY PROTECTION

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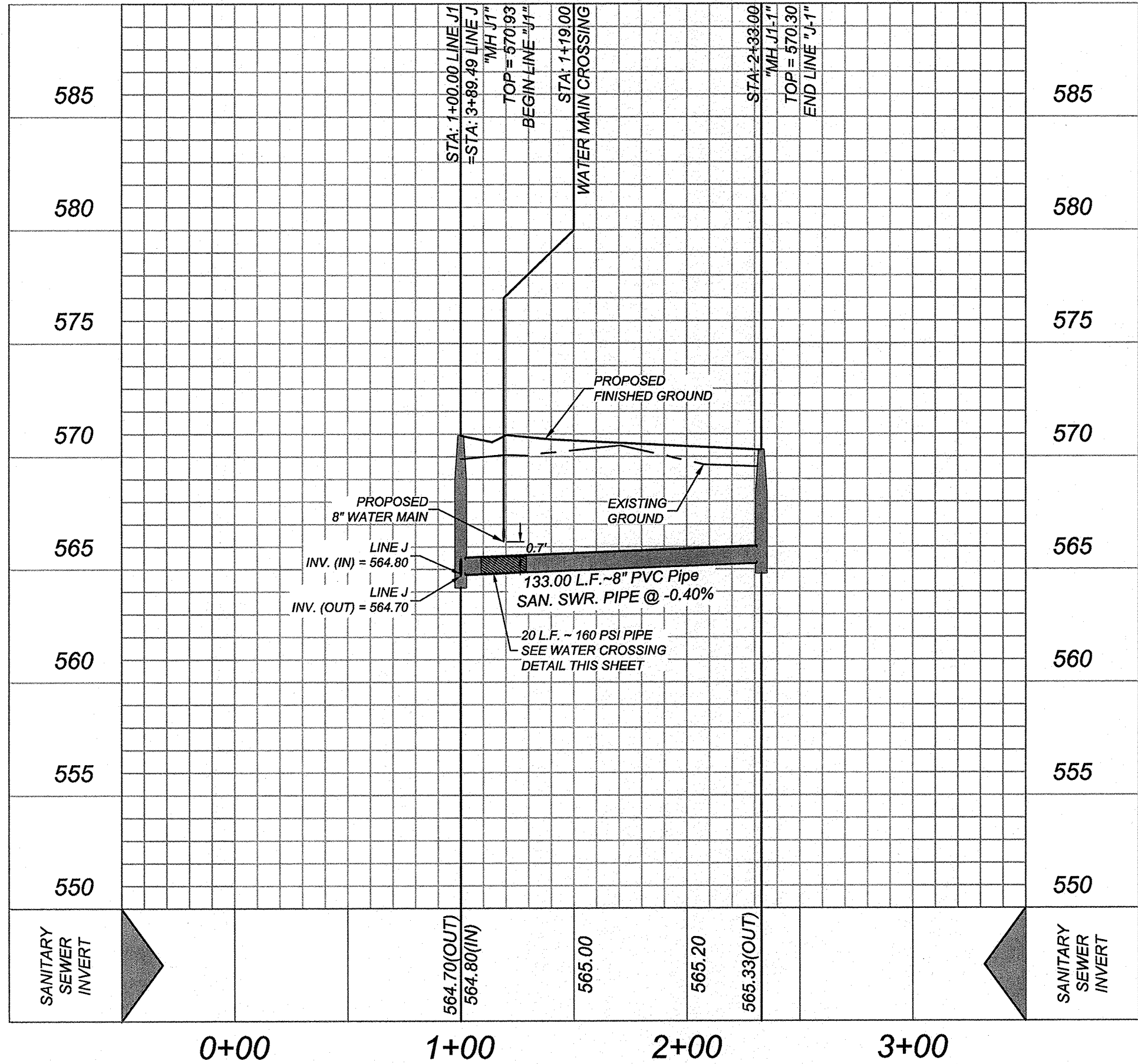
NOTE:

- SEWER PIPE WHERE WATER LINE CROSSES SHALL MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). REFERENCE SHEET 6.1 - 6.2 SANITARY SEWER GENERAL NOTES, SARA CRITERIA FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS.
- PIPE TYPE DESIGNATIONS ARE SDR 26.
- SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL.
- ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING AND COVER. SEE SHEET 6.11 FOR DETAILS.
- NO 6" CLEANOUTS SHALL BE LOCATED UNDER DRIVEWAYS OR SIDEWALKS.
- LATERAL CONNECTIONS MADE TO EXISTING INFRASTRUCTURE WILL NEED TO BE COMPLETED USING AN INSERTA TEE OR APPROVED EQUAL.



LINE "J1"
STA: 1+00.00 - END

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
SEWER LINE "J1" STA 1+00.00 - END

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ---

DRAWN: SD CHECKED: JM

SHEET NUMBER:

6.9

NOTE

1. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). REFERENCE SHEET 6.1-6.2.
2. SANITARY SEWER GENERAL NOTES, WATER MAINS FOR SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER CREEK.
3. PIPE TYPE DESIGNATIONS ARE SDR 35.
4. SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL.
5. ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING AND COVER. SEE SHEET 8.1.1 FOR DETAILS.
6. NO SEWER / WATER SHALL BE LOCATED UNDER DRIVEWAYS OR SIDEWALKS.
7. LATERAL CONNECTIONS MADE TO EXISTING INFRASTRUCTURE WILL NEED TO BE COMPLETED USING AN INSERT TEE OR APPROVED EQUAL.

VARIABLE WIDTH ACCESS
OPEN SPACE, ELECTRIC,
GAS, TELEPHONE, CABLE
TV, WATER, SANITARY
SEWER, DRAINAGE &
LANDSCAPE EASEMENT

CONTRACTOR TO ADJUST
TOP OF MANHOLE
ELEVATION TO FINISHED
GRADE ELEV: 570.34

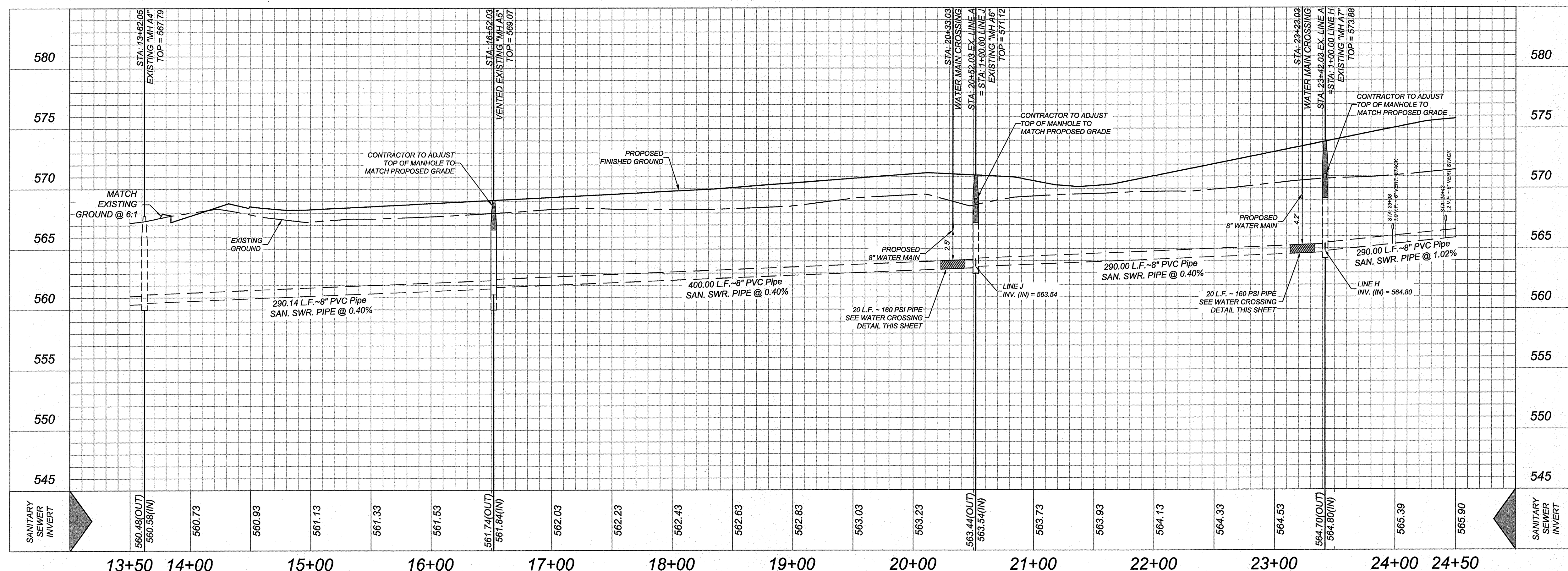
CONTRACTOR TO ADJUST
TOP OF MANHOLE
ELEVATION TO FINISHED
GRADE ELEV: 573.59

SEWER / WATER CROSSING
REFERENCE THIS SHEET FOR DETAILS

CONTRACTOR TO ADJUST
TOP OF MANHOLE
ELEVATION TO FINISHED
GRADE ELEV. 571.01

LINE "EX. LINE A"
STA: 13+50.00 - 24+50.00

HORZ SCALE: 1"=50'
VERT SCALE: 1"=5'



Date: Aug 07, 2022, 2:41pm User ID: arodriguez
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ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

SEWER EX. LINE "A" STA 13+50.00 - 24+50.00

PLAT NO.
22-11800056

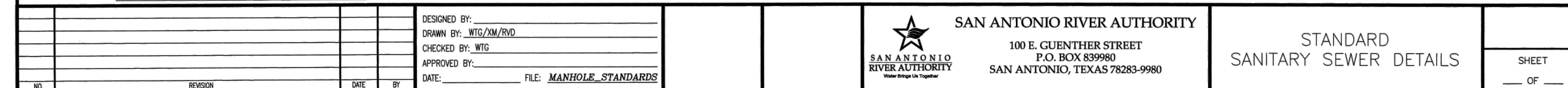
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DATE: ---

DRAWN:SD CHECKED:JM

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THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. REFERENCE TO FINAL HARD COPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL IS REQUIRED.



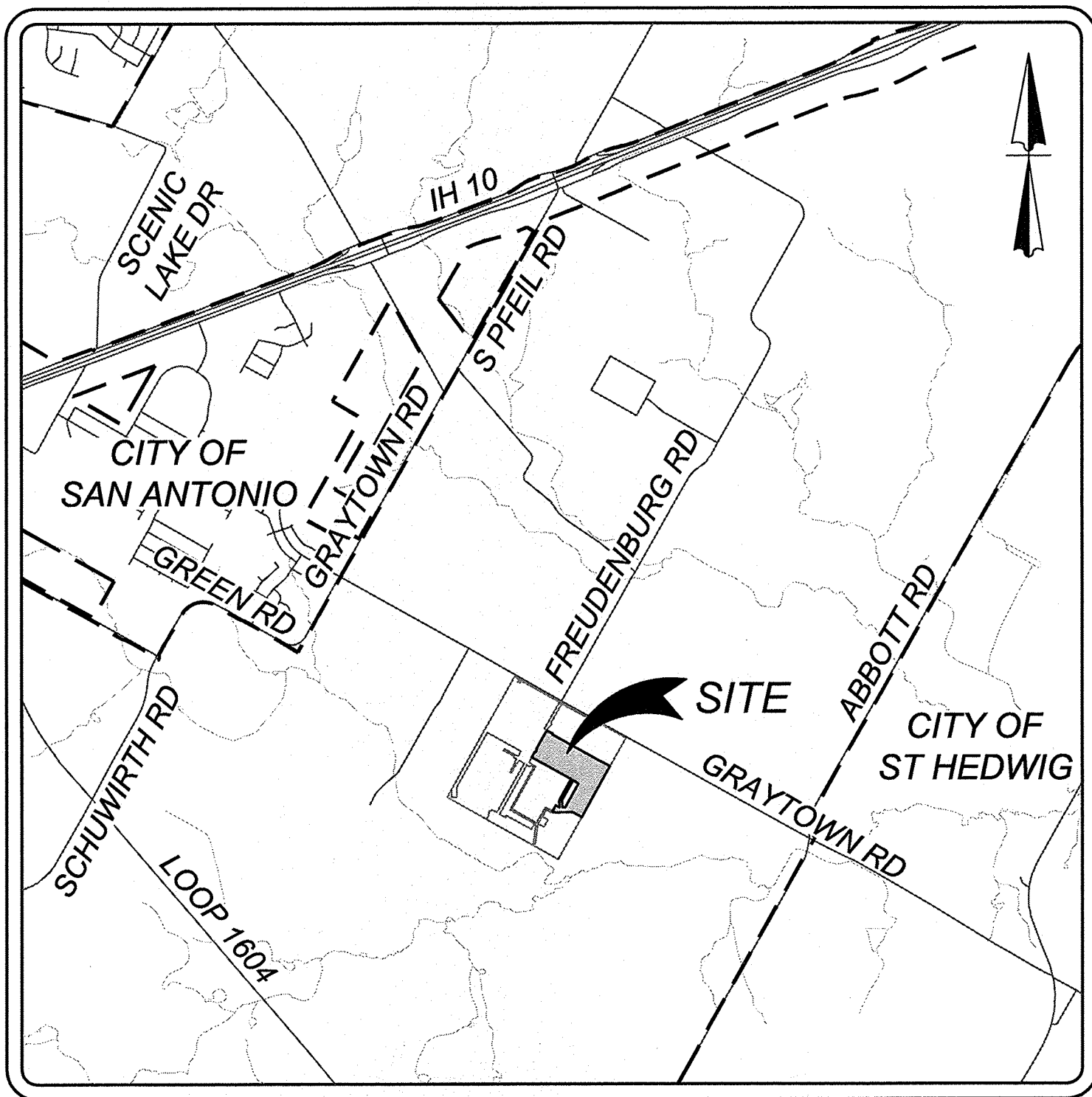
ROSE VALLEY PHASE 1B

SAN ANTONIO, TEXAS

WATER IMPROVEMENTS

GENERAL NOTES

- ALL VALVES SHALL REMAIN CLOSED UNTIL MAINS HAVE BEEN DISINFECTED, FLUSHED, AND RELEASED FOR PUBLIC USE BY THE ENGINEER.
- EXISTING UTILITIES SHOWN ARE TAKEN FROM VARIOUS UTILITY COMPANY RECORDS. CONTRACTORS SHALL VERIFY THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO BEGINNING CONSTRUCTION. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND DRAINAGE STRUCTURES DURING CONSTRUCTION.
- ALL EXCAVATION SHALL BE UNCLASSIFIED REGARDLESS OF MATERIAL ENCOUNTERED.
- BIDDERS ARE NOTIFIED TO MAKE SUBSURFACE INVESTIGATIONS AS THEY DEEM NECESSARY. NO ADDITIONAL PAYMENT WILL BE MADE FOR WATER, SAND, GRAVEL OR OTHER UNSTABLE CONDITIONS ENCOUNTERED IN EXCAVATIONS.
- DETOUR OF TRAFFIC AROUND WORK ACTIVITIES, MAINTENANCE OF TRAFFIC CONTROL SIGNS, AND FLAGMEN ARE THE CONTRACTOR'S RESPONSIBILITY. NO SEPARATE PAYMENT WILL BE MADE.
- THE CONTRACTOR SHALL PROTECT ALL OPEN EXCAVATIONS AND EQUIPMENT FROM CHILDREN, PEDESTRIANS, AND VEHICLES IN THE AREA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ALL FENCES IN THE WORK AREA TO THEIR ORIGINAL CONDITION PRIOR TO COMPLETION OF THE CONTRACT. THIS SHALL APPLY TO ALL FENCES IN THE WORK AREA WHETHER THEY ARE SHOWN ON THE PLANS OR NOT.
- CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. ANY CONSTRUCTION STAKES, MARKS, ETC., DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL CONFER WITH EACH INDIVIDUAL PROPERTY OWNER AS TO THE LOCATION OF EACH INDIVIDUAL METER BOX.
- CONTRACTOR SHALL DISINFECT ALL NEW WATER MAINS BEFORE TYING INTO EXISTING WATER MAINS.
- ALL VALVES SHALL BE PERMANENTLY MARKED BY THE USE OF A VALVE MARKER. NO SEPARATE PAY ITEM.
- 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 SITES(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.
- CONTRACTOR SHALL MAINTAIN FENCING FOR THE CONTAINMENT OF LIVESTOCK DURING CONSTRUCTION. ALL FENCES REMOVED FOR CONSTRUCTION SHALL BE REPLACED. ALL REQUIRED FENCING SHALL BE INCIDENTAL TO CONSTRUCTION AND NOT A SEPARATE PAY ITEM.
- ALL DRIVEWAYS, INCLUDING DRAIN PIPES, CULVERTS AND HEADWALLS, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO EQUAL OR BETTER THAN PRECONSTRUCTION CONDITION. ASPHALT DRIVES ARE NOT ALLOWED TO BE CUT WITHOUT OWNERS PERMISSION. INSTALLATION OF WATER MAINS CROSSING CONCRETE DRIVES WILL BE BORED. ALL DRAIN PIPE, CULVERT AND HEADWALL REPAIR SHALL BE INCIDENTAL TO CONSTRUCTION AND NOT A SEPARATE PAY ITEM. DRIVEWAY PAVEMENT REPAIR SHALL BE PAID FOR AS PER ITEM NO. 02950, "CUTTING AND PATCHING ASPHALT PAVEMENT, ASPHALT DRIVES, CONCRETE DRIVES, OR GRAVEL ROADS AND DRIVES". PAYMENT FOR BORES UNDER CONCRETE DRIVES SHALL BE PAID FOR AS PER ITEM 02445 "BORING AND CASING PIPE UNDER HIGHWAYS, RAILROADS, OR OTHER AREAS".
- LOCATIONS OF COMBINATION AIR VALVES WHERE SHOWN ON PLANS ARE APPROXIMATE. FINAL LOCATIONS TO BE ADJUSTED IN FIELD AT TIME OF CONSTRUCTION AT THE DIRECTION OF THE ENGINEER.
- ALL WORK SHALL BE SCHEDULED TO TAKE PLACE ON MONDAY THROUGH FRIDAY, DURING NORMAL WORK HOURS. CONTRACTOR SHALL NOTIFY ECSUD 48 HOURS PRIOR TO SERVICE SHUT OFF AFFECTING CUSTOMERS. SERVICE SHALL NOT BE SHUT OFF FOR MORE THAN EIGHT (8) HOURS AT A TIME.
- THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PROPERTY, INCLUDING, BUT NOT LIMITED TO, FENCES, PAVEMENT, DRIVEWAYS, LAWNS, CULVERTS, AND TREES, AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL PROVIDE EROSION CONTROL AT ALL CULVERT, STREAM AND DRAINAGE SWALE CROSSINGS. EROSION CONTROL MEASURES SHALL INCLUDE AS A MINIMUM SILT FENCES. SILT FENCES SHALL BE INSTALLED PRIOR TO DISTURBANCE OF THE WORK AREAS AND SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION OF THE DISTURBED AREAS UPSTREAM. EROSION CONTROL SHALL BE COORDINATED WITH THE ENGINEER.
- THE CONTRACTOR SHALL REMOVE AND REPLACE ANY MAILBOXES, TRAFFIC OR ROAD SIGNS ENCOUNTERED. NO SEPARATE PAY ITEM.
- CONTRACTOR SHALL SUBMIT TO ENGINEER PROPOSED CONSTRUCTION SEQUENCE PRIOR TO BEGINNING CONSTRUCTION.
- ALL FITTINGS ARE TO BE DUCTILE IRON, MECHANICAL JOINT TYPE, UNLESS OTHERWISE NOTED ON PLANS.
- ALL THRUST BLOCKS SHALL BE INSPECTED BY OWNER AND/OR ENGINEER PRIOR TO BACKFILLING.
- ALL EXISTING VALVES SHOWN ON PLANS TO BE ABANDONED, SHALL HAVE BOXES REMOVED AND SHALL BE BACKFILLED ACCORDING TO SPECIFICATIONS. NO SEPARATE PAY ITEM.
- CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION AND STAGING WITHIN EXISTING UTILITY EASEMENTS, UNLESS OTHER ARRANGEMENTS ARE MADE WITH OWNER AND/OR TxDOT.
- WHERE THE NEW WATER MAIN SHOWN ON THE PLANS REQUIRES CROSSING AN EXISTING WATER MAIN OR OTHER UTILITY, THE CONTRACTOR SHALL VERTICALLY DEFLECT THE PROPOSED WATER MAIN. DEFLECTION SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS. FITTINGS ARE NOT PERMISSIBLE, UNLESS OTHERWISE SHOWN ON THE PLANS. NO SEPARATE PAY ITEM.
- WATER MAINS SHALL BE INSTALLED WITH 48" MINIMUM COVER OVER THE TOP OF THE PIPE, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.
- CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM ALL CONCRETE FOUNDATIONS, VAULT BOXES AND OVERFLOW BOXES THROUGHOUT THE PROJECT SITE.
- CONTRACTOR TO INSTALL DIRECT BURIAL ELECTRICALLY CONTINUOUS TRACER WIRE WITH ACCESS POINTS, ADJACENT TO ALL WATER MAINS. N.S.P.I.



LOCATION MAP

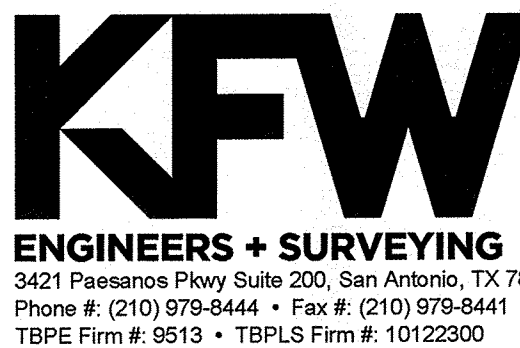
N.T.S.

INDEX

DESCRIPTION	SHEET NO.
WATER IMPROVEMENT COVER SHEET	7.0
OVERALL WATER PLAN (1 OF 2)	7.1
OVERALL WATER PLAN (2 OF 2)	7.2
WATER IMPROVEMENT DETAIL SHEET	7.3



OWNER/DEVELOPER:
LENNAR HOMES OF TEXAS LAND & CONSTRUCTION LTD.
1922 DRY CREEK WAY, STE. 101
SAN ANTONIO, TX 78259
PHONE: (210) 403-6282



COMPACTION NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE ESD&A SARA INSPECTOR/TEST ADMINISTRATOR, PER EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. PERMITS AND/OR WILL NOT BE ACCEPTED AND FINALIZED BY SAWS & SARA WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.

TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES 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 CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

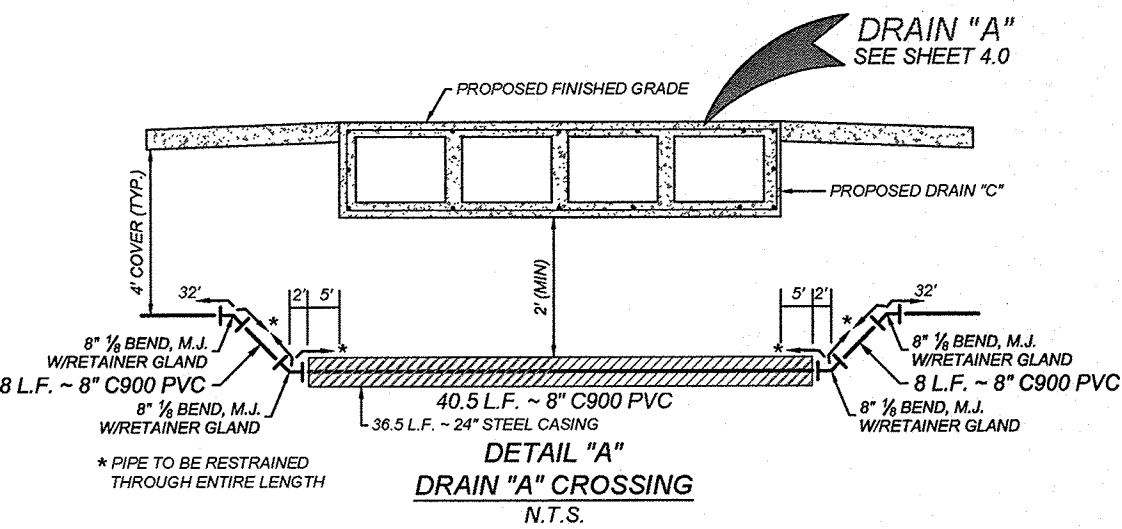
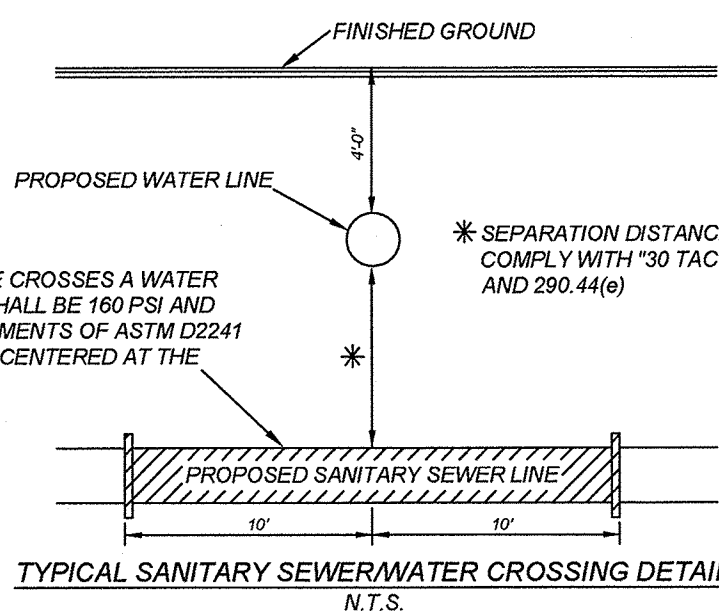
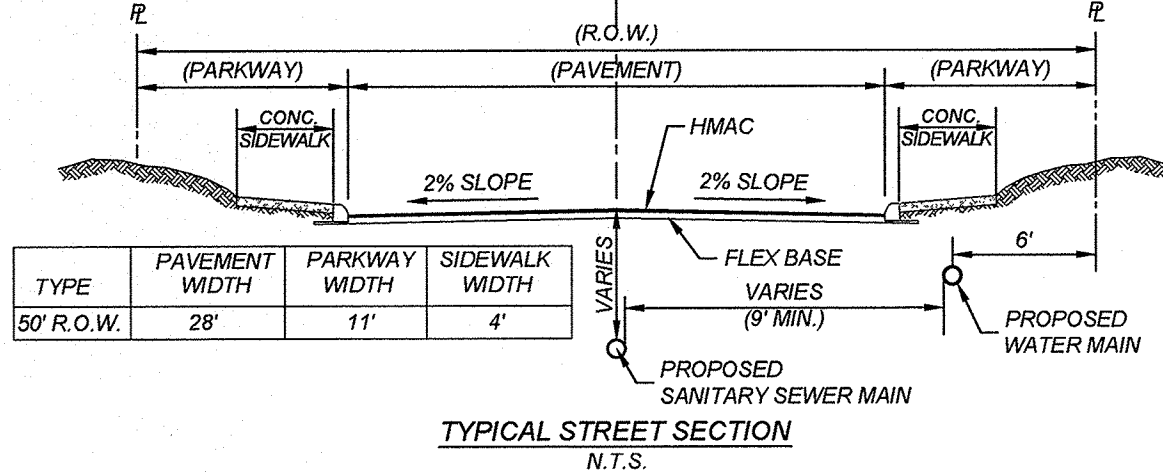
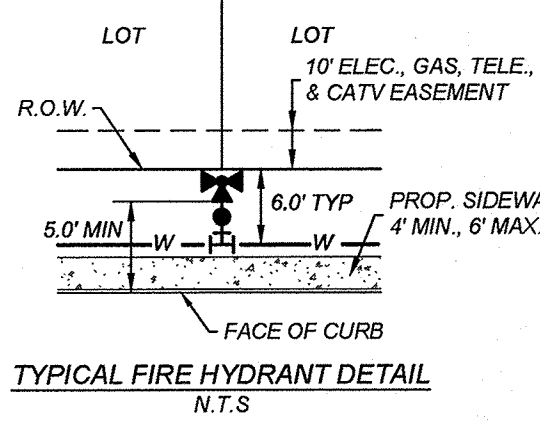
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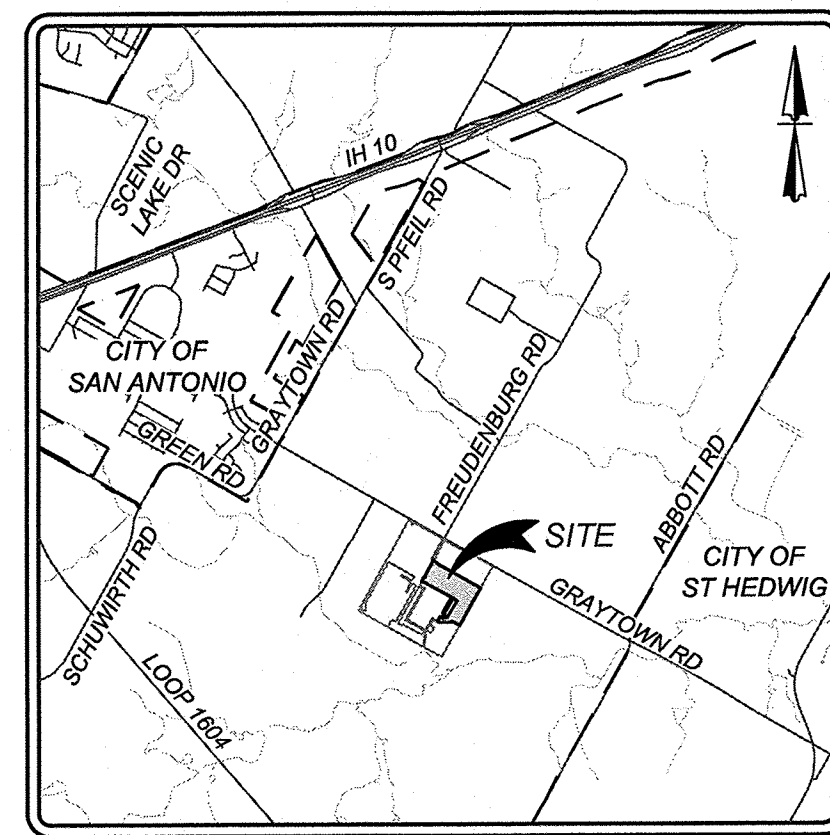
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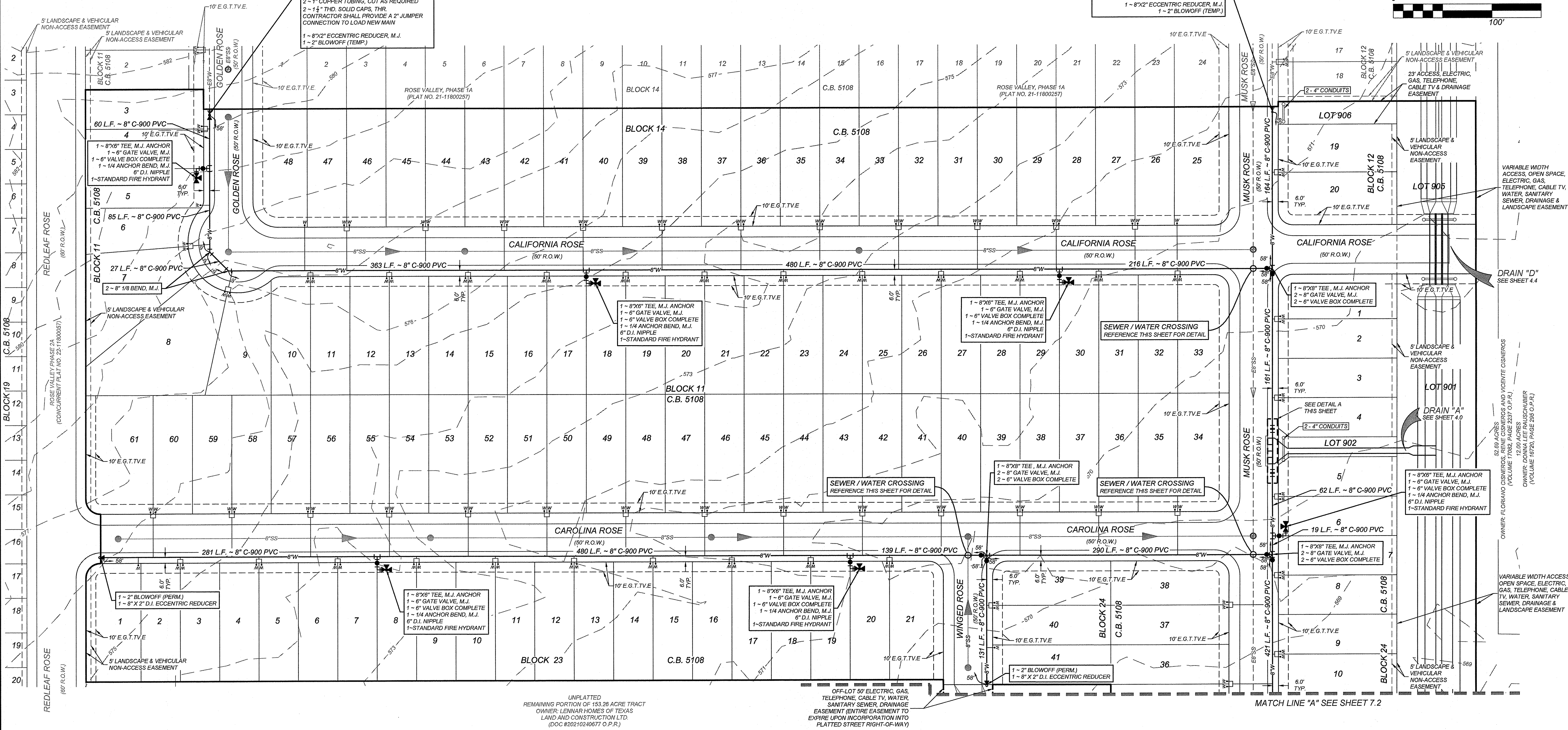
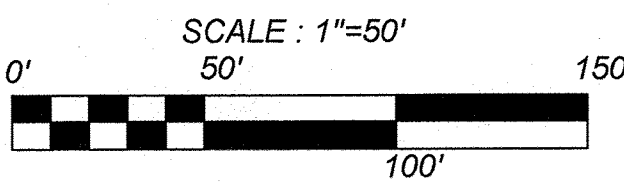


LEGEND

- PROPOSED WATER MAIN
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- PROPOSED WATER 3/4" IRRIGATION SERVICE & METER BOX
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED 100 WATT STREETLIGHT
- PROPOSED SANITARY SEWER MAIN
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- EXISTING OVERHEAD ELECTRIC WIRE/POLE
- EXISTING GUY WIRE/OVERHEAD ELECTRIC
- EXISTING STREET LIGHT



LOCATION MAP N.T.S.



ROSE VALLEY PHASE 1B SAN ANTONIO, TEXAS OVERALL WATER PLAN (1 OF 2)

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ----

DRAWN:SD CHECKED:JM

SHEET NUMBER:

COMPACTION NOTE:
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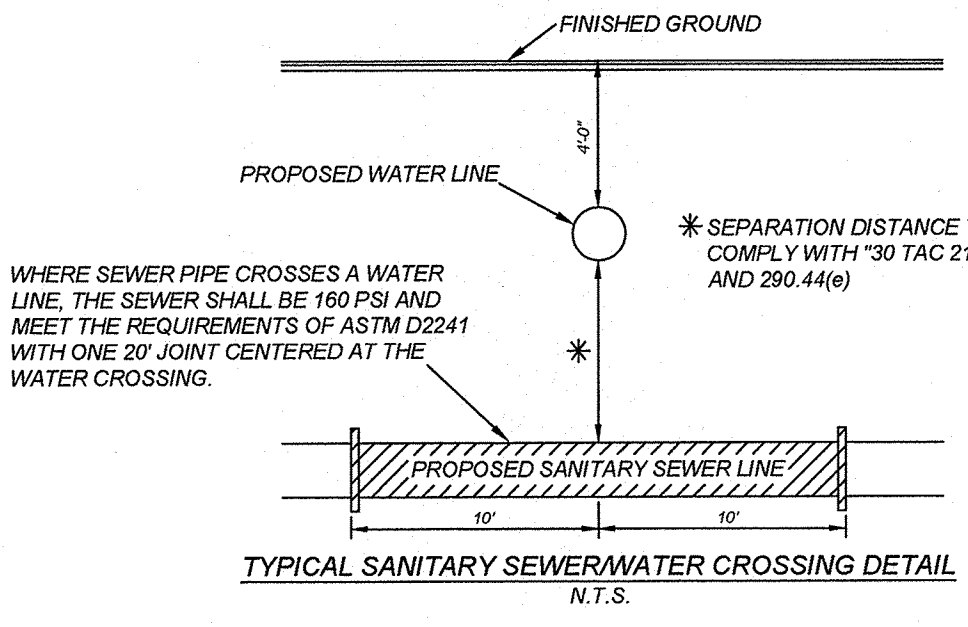
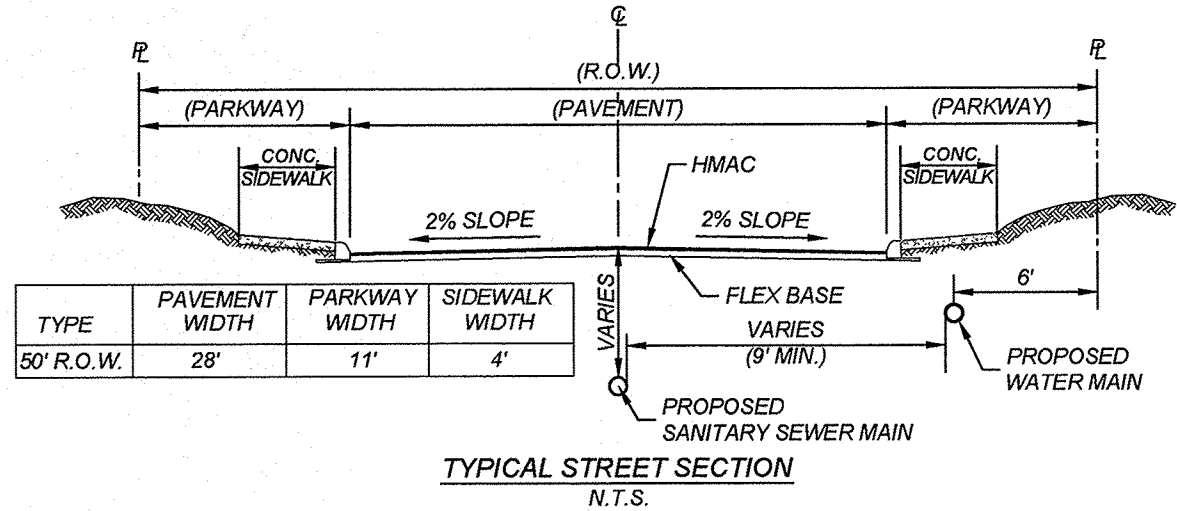
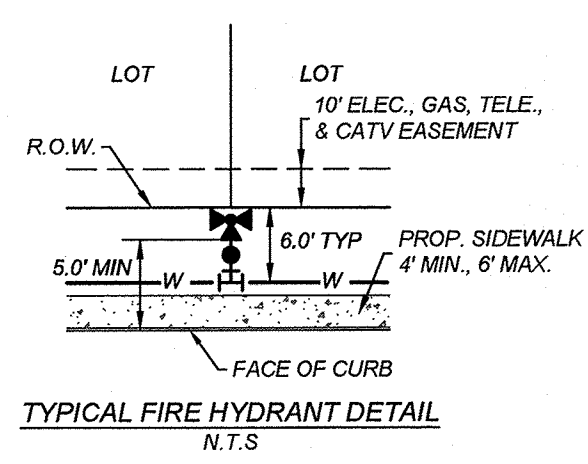
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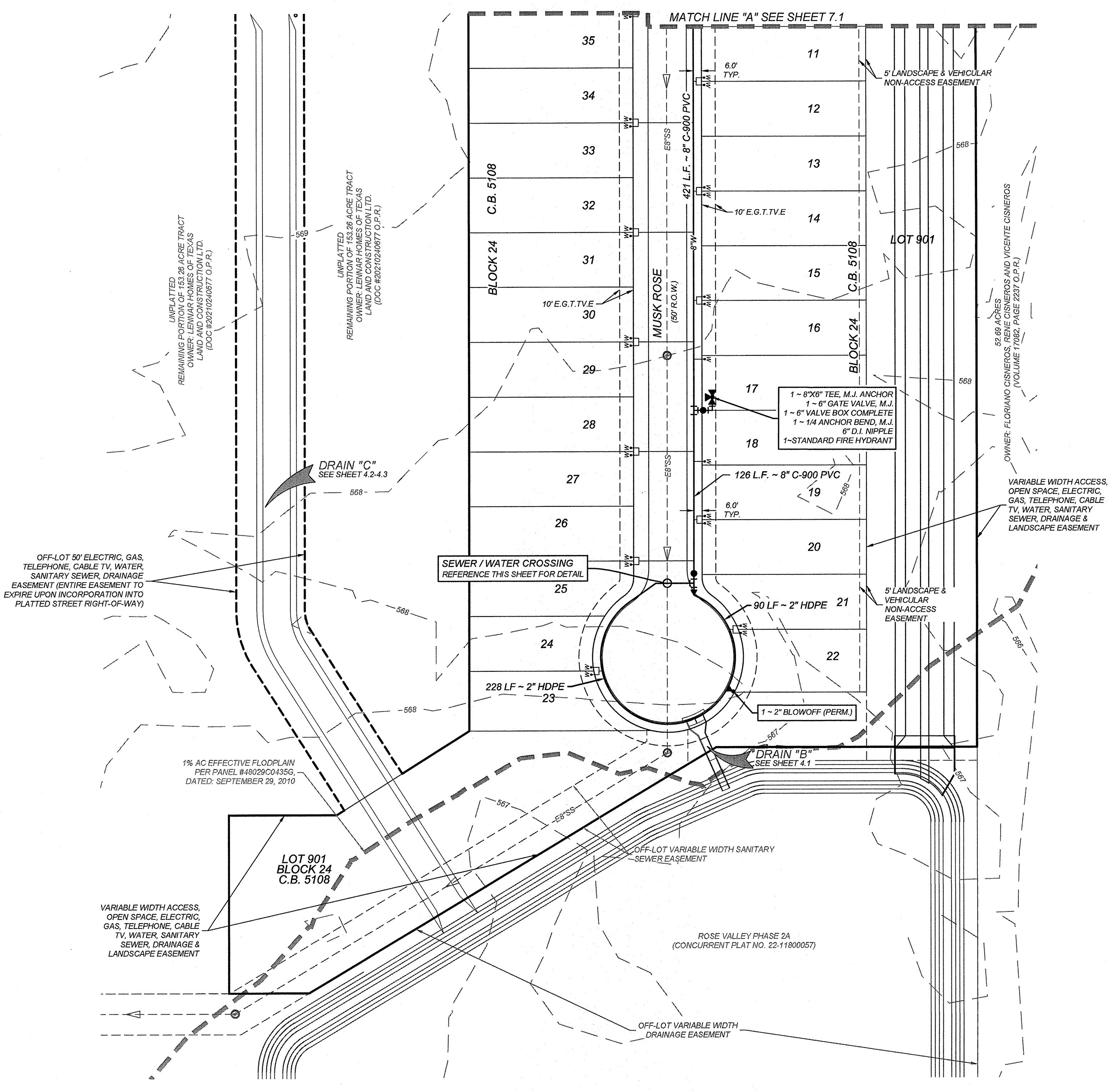
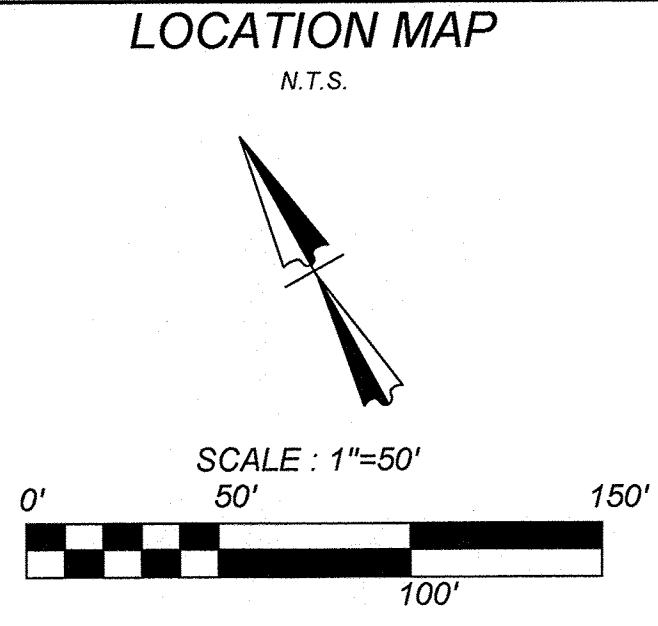
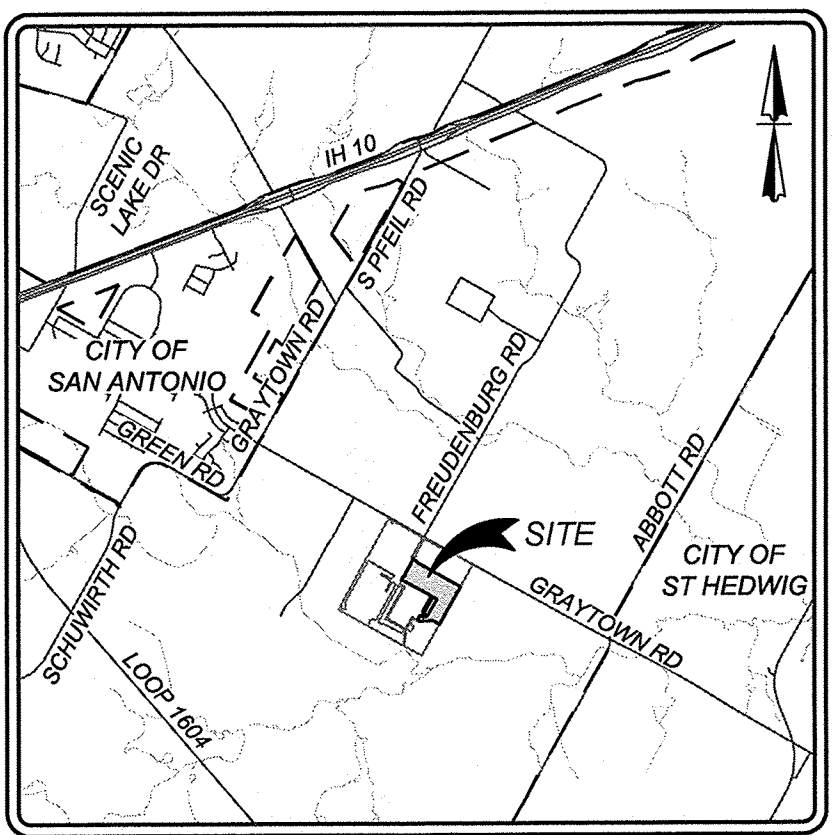
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- PROPOSED WATER SERVICE & METER BOX
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- EXISTING GUY WIRE/OVERHEAD ELECTRIC
- EXISTING STREET LIGHT



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
OVERALL WATER PLAN (2 OF 2)

PLAT NO.
22-11800056

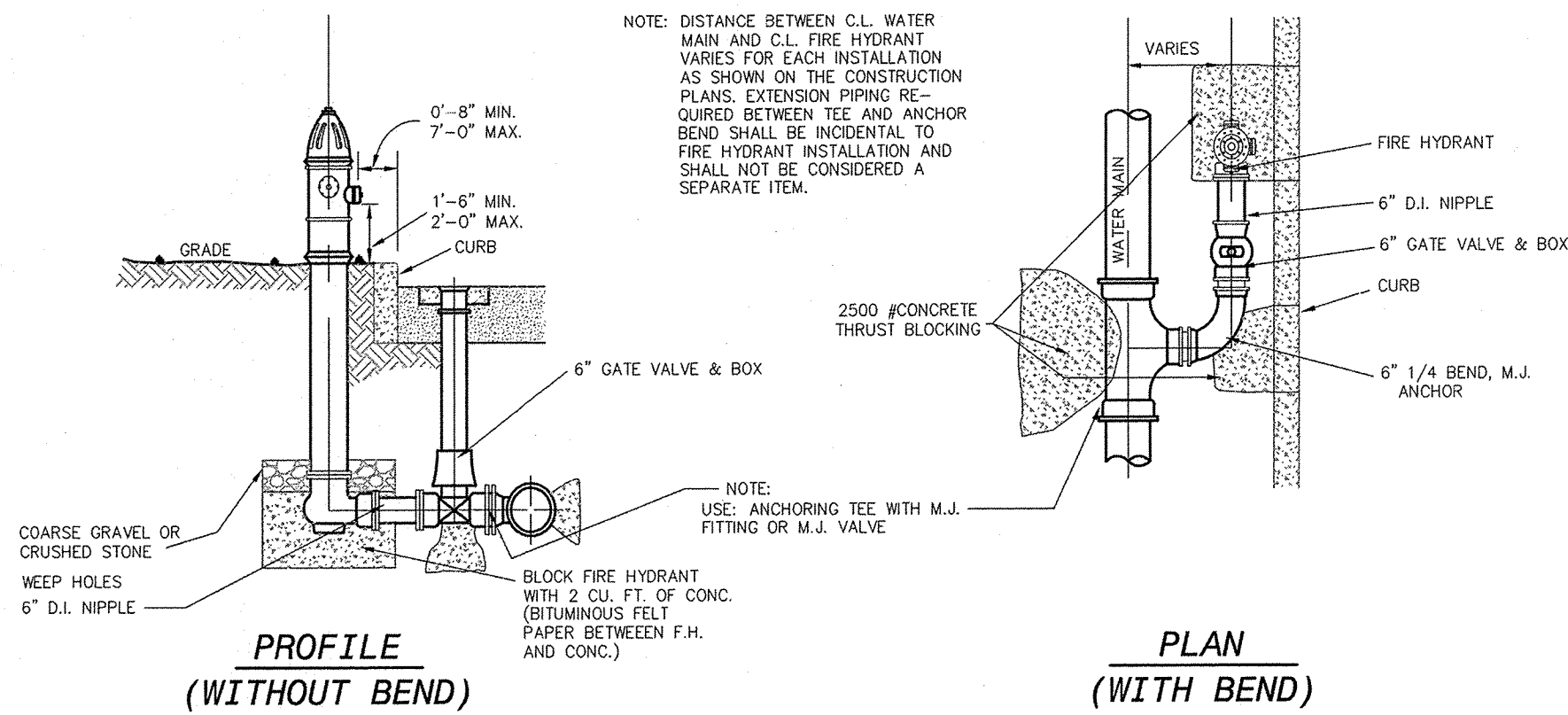
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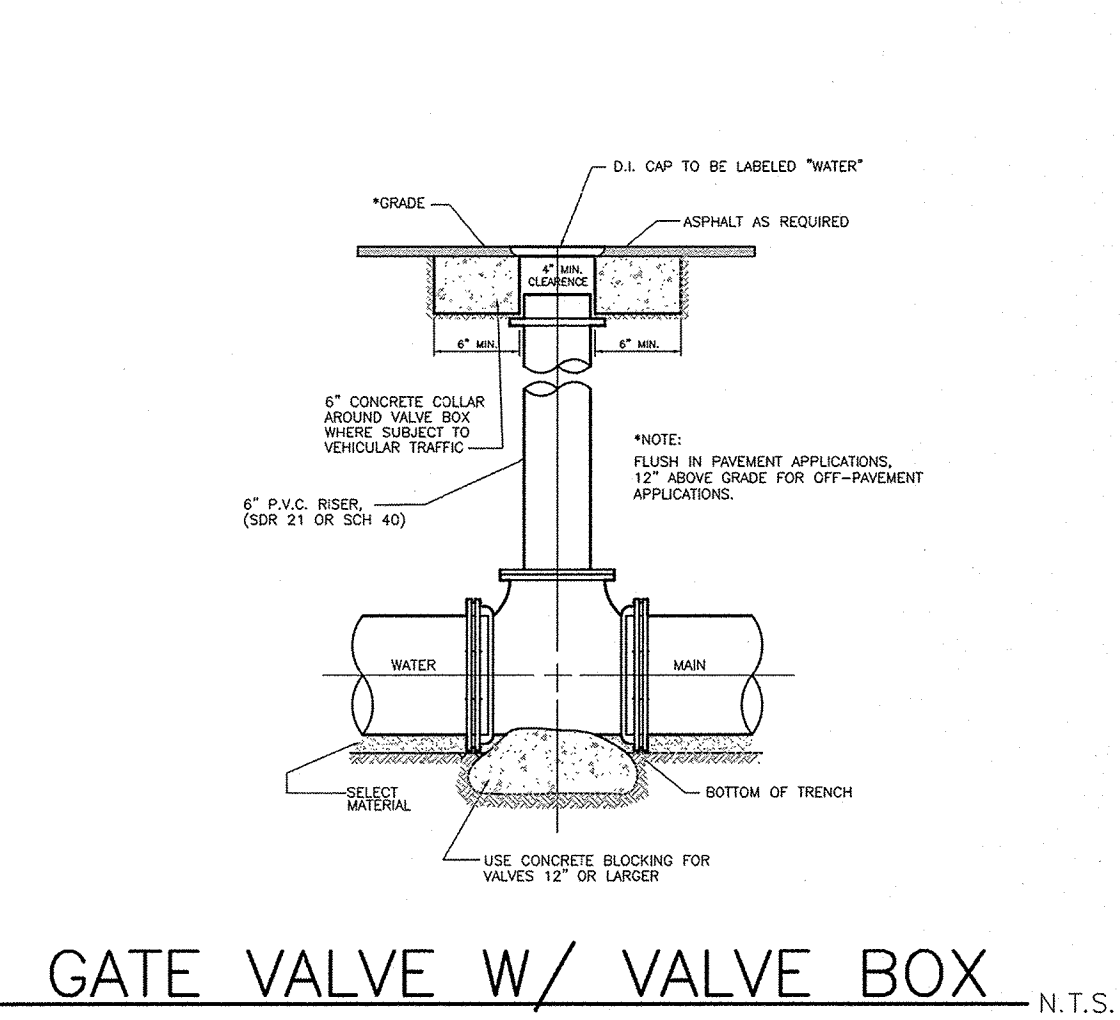
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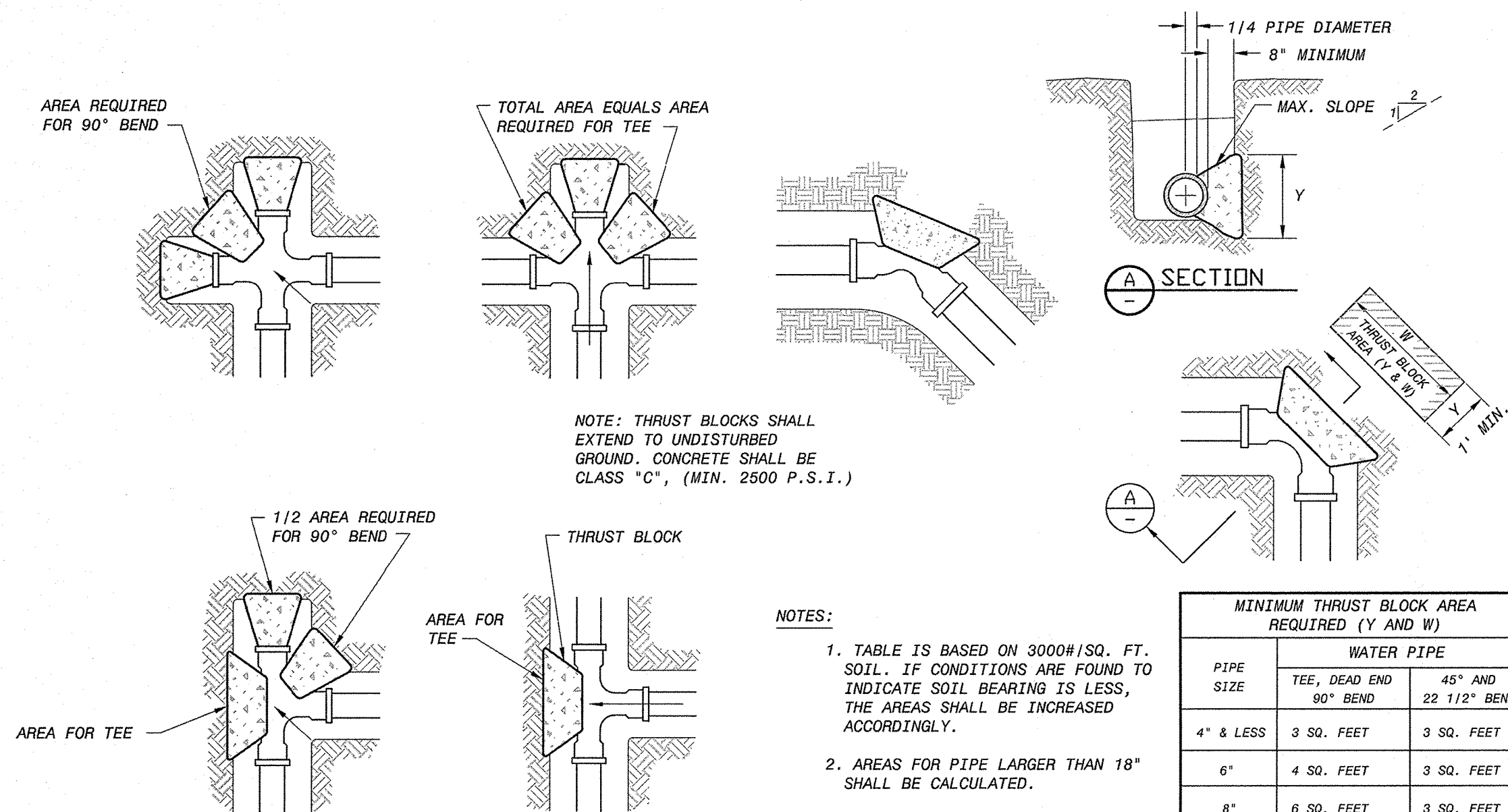
7.2



FIRE HYDRANT INSTALLATION N.T.S.

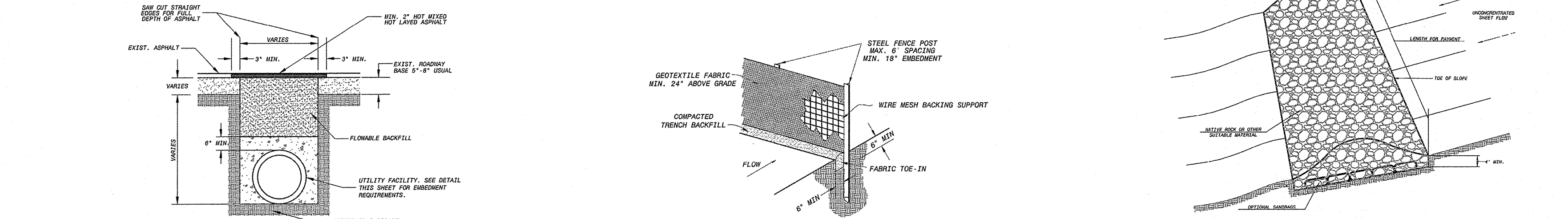


GATE VALVE W/ VALVE BOX N.T.S.



THRUST BLOCK DETAILS N.T.S.

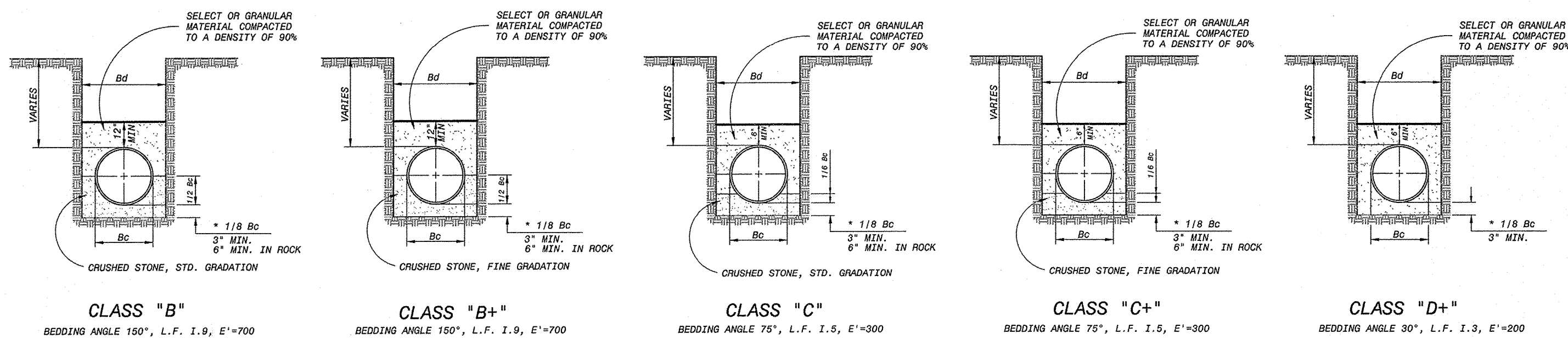
PIPE SIZE	WATER PIPE	
	TEE, DEAD END 90° BEND	45° AND 22 1/2° BENDS
4" & LESS	3 SQ. FEET	3 SQ. FEET
6"	4 SQ. FEET	3 SQ. FEET
8"	6 SQ. FEET	3 SQ. FEET
10"	9 SQ. FEET	5 SQ. FEET
12"	13 SQ. FEET	7 SQ. FEET
16"	23 SQ. FEET	12 SQ. FEET
18"	29 SQ. FEET	15 SQ. FEET



BACKFILL AND PATCH PAVEMENT N.T.S.

TEMPORARY SILT FENCE N.T.S.

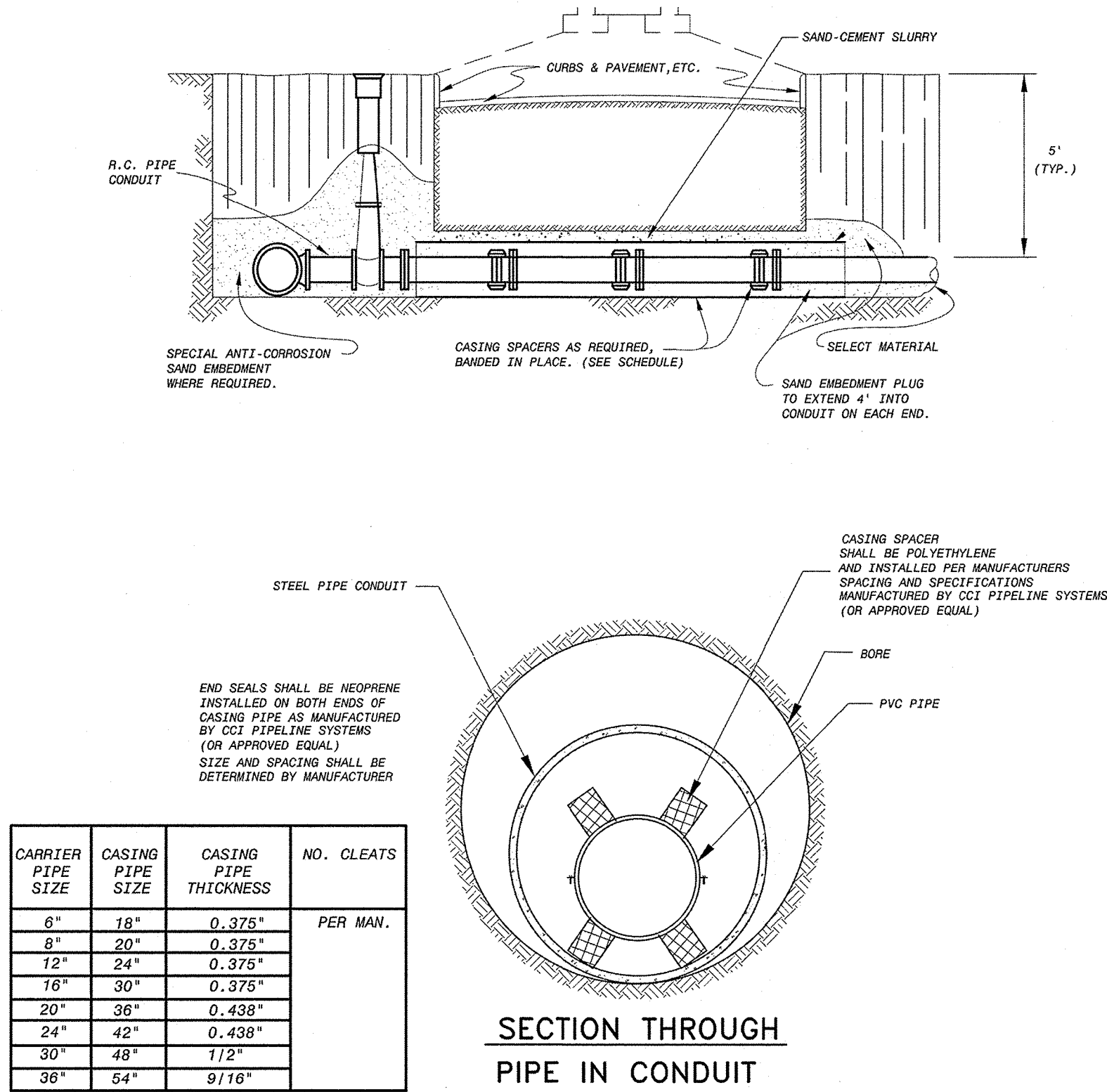
TEMPORARY ROCK BERM N.T.S.



TYPE OF PIPE	IN EARTH			IN ROCK		
	0'-8'	8'-16'	>16'	0'-8'	8'-16'	>16'
ALL PVC WATER PIPE	C+	B+	B+	C+	B+	B+
16" AND SMALLER DUCTILE IRON WATER PIPE	D+	C	B	C	C	B
18" AND LARGER DUCTILE IRON WATER PIPE	B	B	B	B	B	B

EMBEDMENT DETAILS N.T.S.

EMBEDMENT DIMENSIONS			
PIPE DIAMETER (INCHES)	KIND OF PIPE	EXTERNAL DIAMETER B _o (INCHES)	TRENCH WIDTH B _t (INCHES)
6"	PVC	6.90	24
6"	DI	6.90	24
8"	PVC	9.05	26
8"	DI	9.05	26
10"	PVC	11.10	27
10"	DI	11.10	27
12"	PVC	13.20	29
12"	DI	13.20	29
16"	DI	17.40	33
18"	DI	19.50	36
20"	DI	21.60	38



INSTALLATION OF PIPE IN CONDUIT N.T.S.

CARRIER PIPE SIZE	CASING PIPE SIZE	CASING PIPE THICKNESS	NO. CLEATS
6"	18"	0.375"	PER MAN.
8"	20"	0.375"	
12"	24"	0.375"	
16"	30"	0.375"	
20"	36"	0.438"	
24"	42"	0.438"	
30"	48"	1/2"	
36"	54"	9/16"	

Date: Aug 08, 2022, 9:22am User: ID: crodriguez
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PROJECT COMPLETION:

1. ALL DISTURBED AREAS ARE NOT COVERED BY IMPERVIOUS COVER ARE TO BE STABILIZED PER THE SWPPP AND PROJECT SPECIFICATIONS PRIOR TO REMOVAL OF ANY BMP'S AND/OR PRIOR TO FILING A NOTICE OF TERMINATION (NOT).
2. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN PHASES IF ALL UPGRADEMENT AREAS HAVE BEEN STABILIZED PER SWPPP AND PROJECT SPECIFICATIONS. THIS PHASING SHOULD BE NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
3. CONTRACTOR TO ENSURE THEY HAVE MET ALL REQUIREMENTS OF THE SWPPP AND SHOULD CALL BEXAR COUNTY STORM WATER INSPECTOR TO CONDUCT A FINAL INSPECTION BEFORE FILING A NOTICE OF TERMINATION (NOT).

GENERAL:

1. THIS EXHIBIT IS TO BE USED FOR THE PURPOSES OF STORMWATER POLLUTION PREVENTION ONLY. ALL OTHER CIVIL ENGINEERING INFORMATION SHOULD BE OBTAINED FROM THE APPROPRIATE CONSTRUCTION DOCUMENTS.
2. THE PURPOSE OF THE SIGNATURE AND SEAL OF THE ENGINEER ON THIS DOCUMENT IS TO DEMONSTRATE COMPLIANCE WITH THE TPCDES STORMWATER POLLUTION PREVENTION PLAN REGULATIONS ONLY.
3. ALL OWNERS/OPERATORS ARE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH THE STORMWATER POLLUTION PREVENTION PLAN AND COMPLYING WITH THE REGULATIONS CONTAINED WITHIN IT.
4. CPS IS A SECONDARY OPERATOR IN THIS PROJECT. THEY WILL BE INSTALLING THE GAS AND ELECTRIC UTILITIES.

INSTALLATION:

1. ALL OPERATORS SHALL SUBMIT A NOTICE OF INTENT (NOI) AT LEAST 48 HOURS IN ADVANCE AND ALL BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION ACTIVITIES.
2. CONTRACTOR TO ENSURE THAT STRUCTURAL BMP'S ARE INSTALLED WITHIN THE LIMITS OF THE SITE BOUNDARY.
3. CONTRACTOR MAY INSTALL THE BEST MANAGEMENT PRACTICES IN PHASES THAT COINCIDE WITH THE DISTURBANCE OF UP GRADIENT AREAS. THIS PHASING SHOULD BE NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
4. CONTRACTOR TO VERIFY SUFFICIENT VEGETATION IN AREAS DENOTED AS VEGETATED FILTER STRIP. IF INSUFFICIENT VEGETATION EXISTS, CONTRACTOR SHALL IMPLEMENT A DIFFERENT BEST MANAGEMENT PRACTICE AND WILL SHOW IT ON THIS PLAN WITH NOTATION IN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
5. A CONTRACTOR MUST CALL BEXAR COUNTY STORM WATER INSPECTOR AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK ACTIVITIES TO ENSURE ALL BMP'S AND STABILIZATION MEASURES ARE IN PLACE.

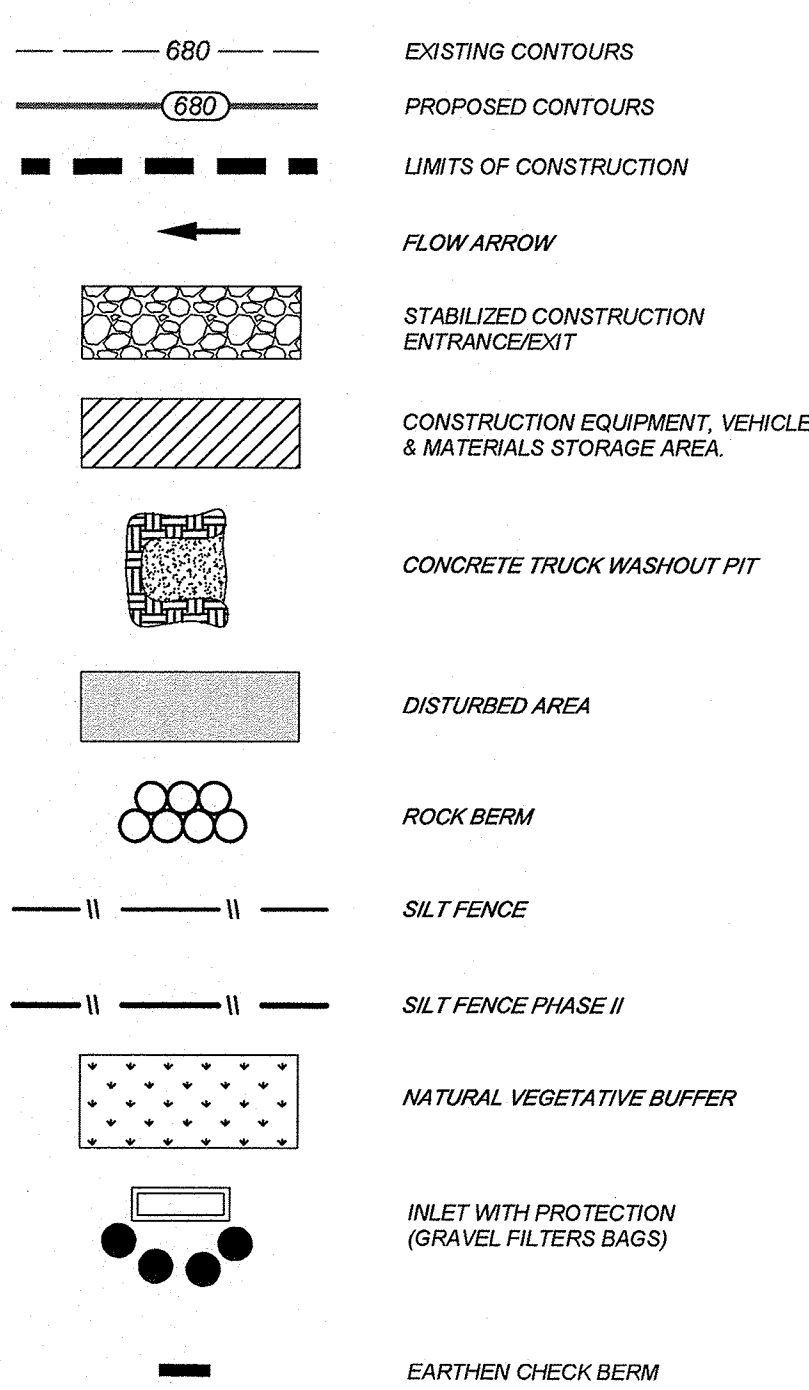
MAINTENANCE AND INSPECTION:

1. CONTRACTOR SHOULD LIMIT CONSTRUCTION ACTIVITIES TO ONLY THOSE AREAS SHOWN TO BE DISTURBED ON THIS PLAN. IF ADDITIONAL VEGETATED AREAS ARE DISTURBED, THEY SHOULD BE PROTECTED WITH APPROPRIATE BEST MANAGEMENT PRACTICES UNTIL THE AREAS HAVE BEEN STABILIZED AS PER THE SPECIFICATIONS OF THE SWPPP. THE AREAS OF THIS ADDITIONAL SOIL DISTURBANCE AND THE MEASURES USED SHOULD BE SHOWN ON THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF BMP'S AS PER THE SPECIFICATIONS OF THE SWPPP. THE CONTRACTOR MAY MODIFY THE CONTROLS AS NECESSARY TO PREVENT SEDIMENT RUNOFF. THESE MODIFICATIONS SHOULD BE SHOWN AND THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
3. LOCATION OF CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND EQUIPMENT AND STORAGE ARE TO BE FIELD DETERMINED. LOCATIONS SHALL BE UPDATED ON THIS PLAN.
4. CONTRACTOR TO ONLY USE THE APPROVED TEMPORARY CONSTRUCTION ENTRANCE/EXIT ON MUSK ROSE. CONTRACTOR SHALL ALSO PROVIDE A TEMPORARY TRAFFIC BARRIER ON GOLDEN ROSE AT ROSE VALLEY PHASE 1A AND ROSE VALLEY PHASE 1B BOUNDARY.

COORDINATION NOTE:

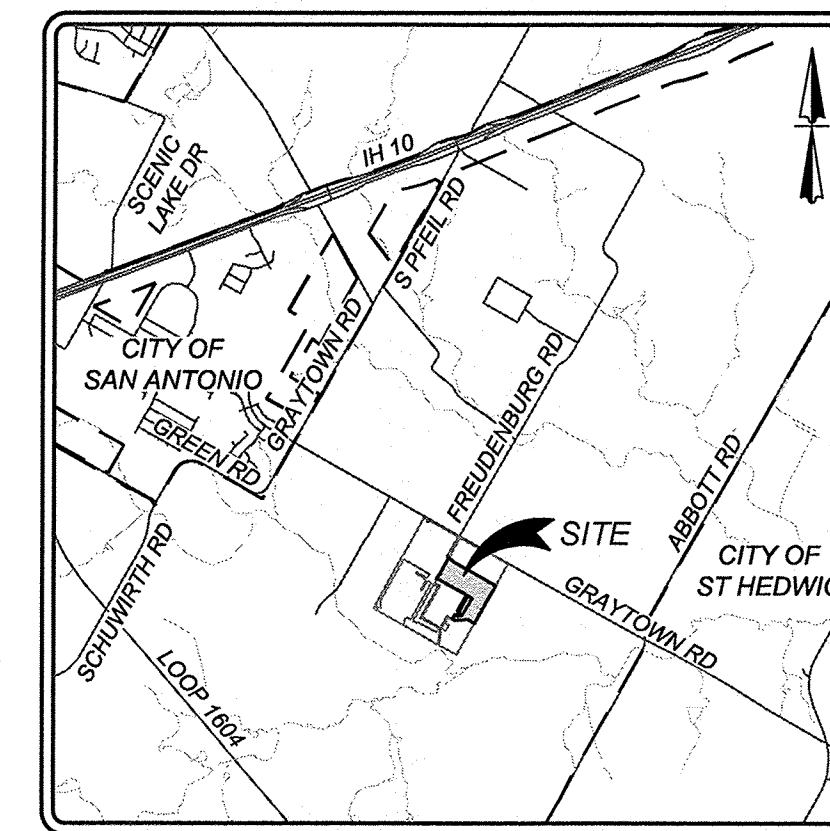
1. CONTACT TIME WARNER TO COORDINATE CABLE TV SERVICE. (210) 244-0500
2. CONDUIT FOR ELECTRICAL SERVICE, CONFIRM REQUIREMENTS AND COORDINATE WITH CPS FOR INSPECTION. (210) 353-2246.
3. CONTACT AT&T TO COORDINATE TELEPHONE SERVICE. 1-800-449-7928.
4. CONTRACTOR TO COORDINATE WITH CPS PRIOR TO CONSTRUCTION TO PLAN ELECTRIC SERVICE.
5. CONTRACTOR TO COORDINATE WITH SAWS TO PLAN WATER AND SANITARY SEWER SERVICES (210) 704-7297.
6. A CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

LEGEND



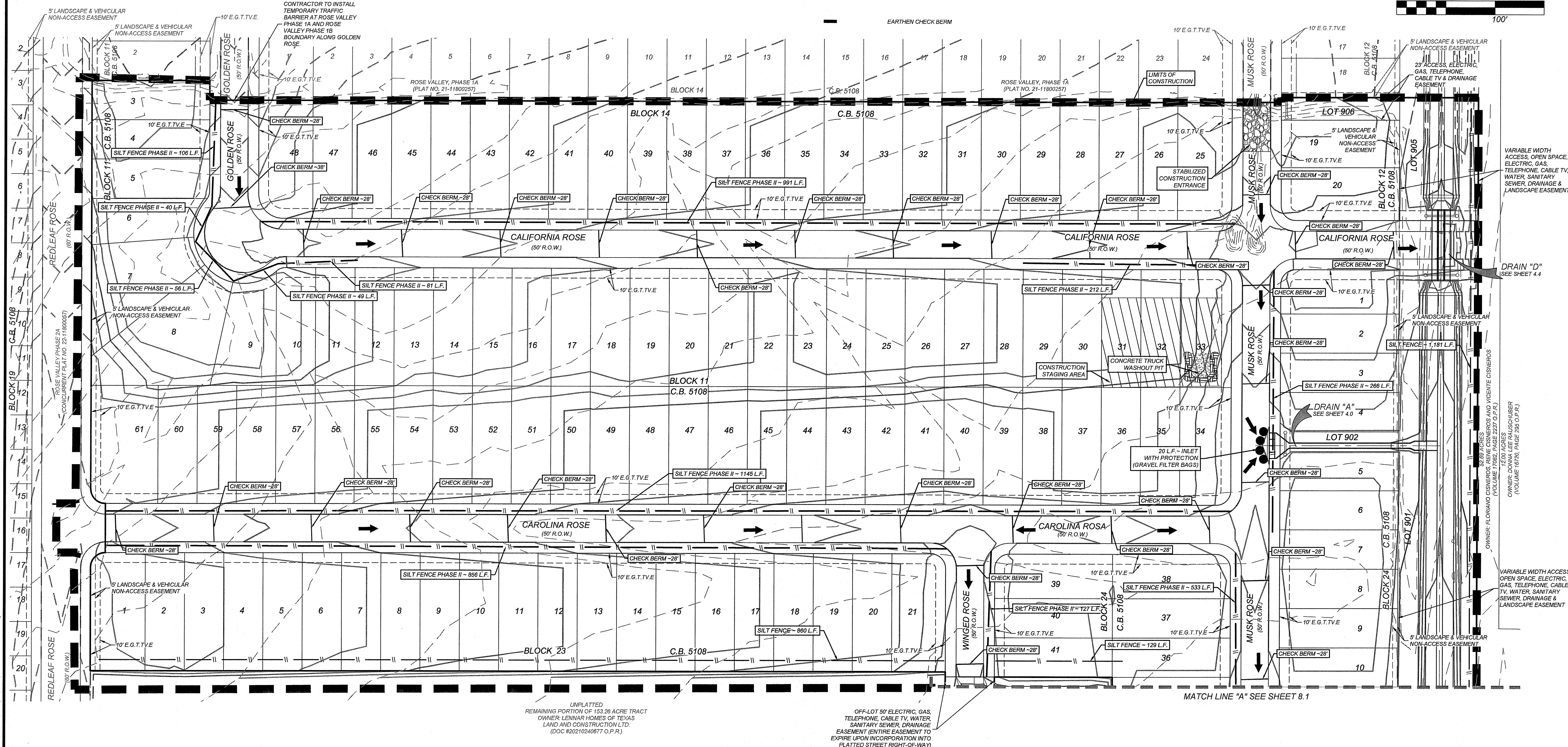
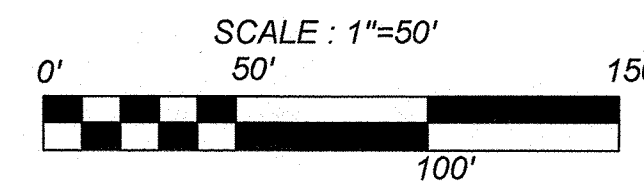
SW3P MODIFICATIONS

DATE	SIGNATURE	DESCRIPTION



LOCATION MAP

N.T.S.



ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS

STORM WATER POLLUTION PREVENTION PLAN

PLAT NO.
22-11800056

JOB NO. 314-51-01

DATE: ---

DRAWN:SD CHECKED:JM

SHEET NUMBER:

PROJECT COMPLETION:

1. ALL DISTURBED AREAS ARE NOT COVERED BY IMPERVIOUS COVER ARE TO BE STABILIZED PER THE SWPPP AND PROJECT SPECIFICATIONS PRIOR TO REMOVAL OF ANY BMP'S AND/OR PRIOR TO FILING A NOTICE OF TERMINATION (NOT).
2. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN PHASES IF ALL UPGRADIENT AREAS HAVE BEEN STABILIZED PER SWPPP AND PROJECT SPECIFICATIONS. THIS PHASING SHOULD BE NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
3. CONTRACTOR TO ENSURE THEY HAVE MET ALL REQUIREMENTS OF THE SWPPP AND SHOULD CALL BEXAR COUNTY STORM WATER INSPECTOR TO CONDUCT A FINAL INSPECTION BEFORE FILING A NOTICE OF TERMINATION (NOT).

GENERAL:

1. THIS EXHIBIT IS TO BE USED FOR THE PURPOSES OF STORMWATER POLLUTION PREVENTION ONLY. ALL OTHER CIVIL ENGINEERING INFORMATION SHOULD BE OBTAINED FROM THE APPROPRIATE CONSTRUCTION DOCUMENTS.
2. THE PURPOSE OF THE SIGNATURE AND SEAL OF THE ENGINEER ON THIS DOCUMENT IS TO DEMONSTRATE COMPLIANCE WITH THE TPDES STORMWATER POLLUTION PREVENTION PLAN REGULATIONS ONLY.
3. ALL OWNERS/OPERATORS ARE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH THE STORMWATER POLLUTION PREVENTION PLAN AND COMPLYING WITH THE REGULATIONS CONTAINED WITHIN IT.
4. CPS IS A SECONDARY OPERATOR IN THIS PROJECT. THEY WILL BE INSTALLING THE GAS AND ELECTRIC UTILITIES.

INSTALLATION:

1. ALL OPERATORS SHALL SUBMIT A NOTICE OF INTENT (NOI) AT LEAST 48 HOURS IN ADVANCE AND ALL BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION ACTIVITIES.
2. CONTRACTOR TO ENSURE THAT STRUCTURAL BMP'S ARE INSTALLED WITHIN THE LIMITS OF THE SITE BOUNDARY.
3. CONTRACTOR MAY INSTALL THE BEST MANAGEMENT PRACTICES IN PHASES THAT COINCIDE WITH THE DISTURBANCE OF UP GRADIENT AREAS. THIS PHASING SHOULD BE NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
4. CONTRACTOR TO VERIFY SUFFICIENT VEGETATION IN AREAS DENOTED AS VEGETATED FILTER STRIP. IF INSUFFICIENT VEGETATION EXISTS, CONTRACTOR SHALL IMPLEMENT A DIFFERENT BEST MANAGEMENT PRACTICE AND WILL SHOW IT ON THIS PLAN WITH NOTATION IN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
5. A CONTRACTOR MUST CALL BEXAR COUNTY STORM WATER INSPECTOR AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK ACTIVITIES TO ENSURE ALL BMP'S AND STABILIZATION MEASURES ARE IN PLACE.

MAINTENANCE AND INSPECTION:

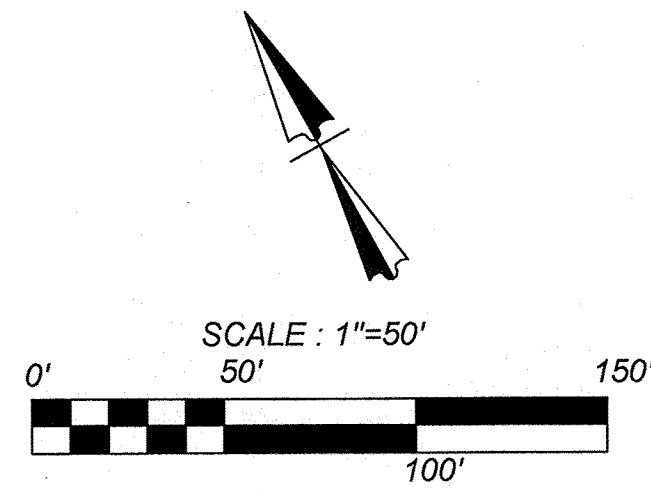
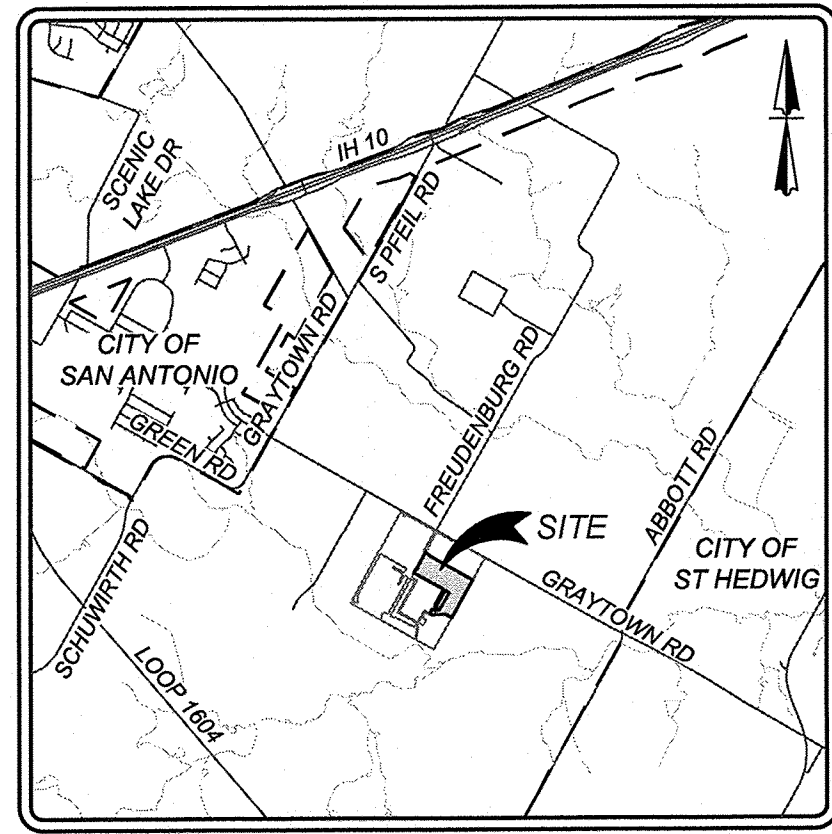
1. CONTRACTOR SHOULD LIMIT CONSTRUCTION ACTIVITIES TO ONLY THOSE AREAS SHOWN TO BE DISTURBED ON THIS PLAN. IF ADDITIONAL VEGETATED AREAS ARE DISTURBED, THEY SHOULD BE PROTECTED WITH APPROPRIATE BEST MANAGEMENT PRACTICES UNTIL THE AREAS HAVE BEEN STABILIZED AS PER THE SPECIFICATIONS OF THE SWPPP. THE AREAS OF THIS ADDITIONAL SOIL DISTURBANCE AND THE MEASURES USED SHOULD BE SHOWN ON THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF BMP'S AS PER THE SPECIFICATIONS OF THE SWPPP. THE CONTRACTOR MAY MODIFY THE CONTROLS AS NECESSARY TO PREVENT SEDIMENT RUNOFF. THESE MODIFICATIONS SHOULD BE SHOWN AND THE SITE PLAN AND NOTED WITHIN THE MODIFICATIONS SECTION WITH THE SIGNATURE AND DATE OF THE RESPONSIBLE PARTY.
3. LOCATION OF CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND EQUIPMENT AND STORAGE ARE TO BE FIELD DETERMINED. LOCATIONS SHALL BE UPDATED ON THIS PLAN.
4. CONTRACTOR TO ONLY USE THE APPROVED TEMPORARY CONSTRUCTION ENTRANCE/EXIT ON MUSK ROSE. CONTRACTOR SHALL ALSO PROVIDE A TEMPORARY TRAFFIC BARRIER ON GOLDEN ROSE AT ROSE VALLEY PHASE 1A AND ROSE VALLEY PHASE 1B BOUNDARY.

COORDINATION NOTE:

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2. CONDUIT FOR ELECTRICAL SERVICE, CONFIRM REQUIREMENTS AND COORDINATE WITH CPS FOR INSPECTION. (210) 353-2246.
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4. CONTRACTOR TO COORDINATE WITH CPS PRIOR TO CONSTRUCTION TO PLAN ELECTRIC SERVICE.
5. CONTRACTOR TO COORDINATE WITH S&WS TO PLAN WATER AND SANITARY SEWER SERVICES (210) 704-7297
6. CONTRACTOR SHALL CONTACT 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

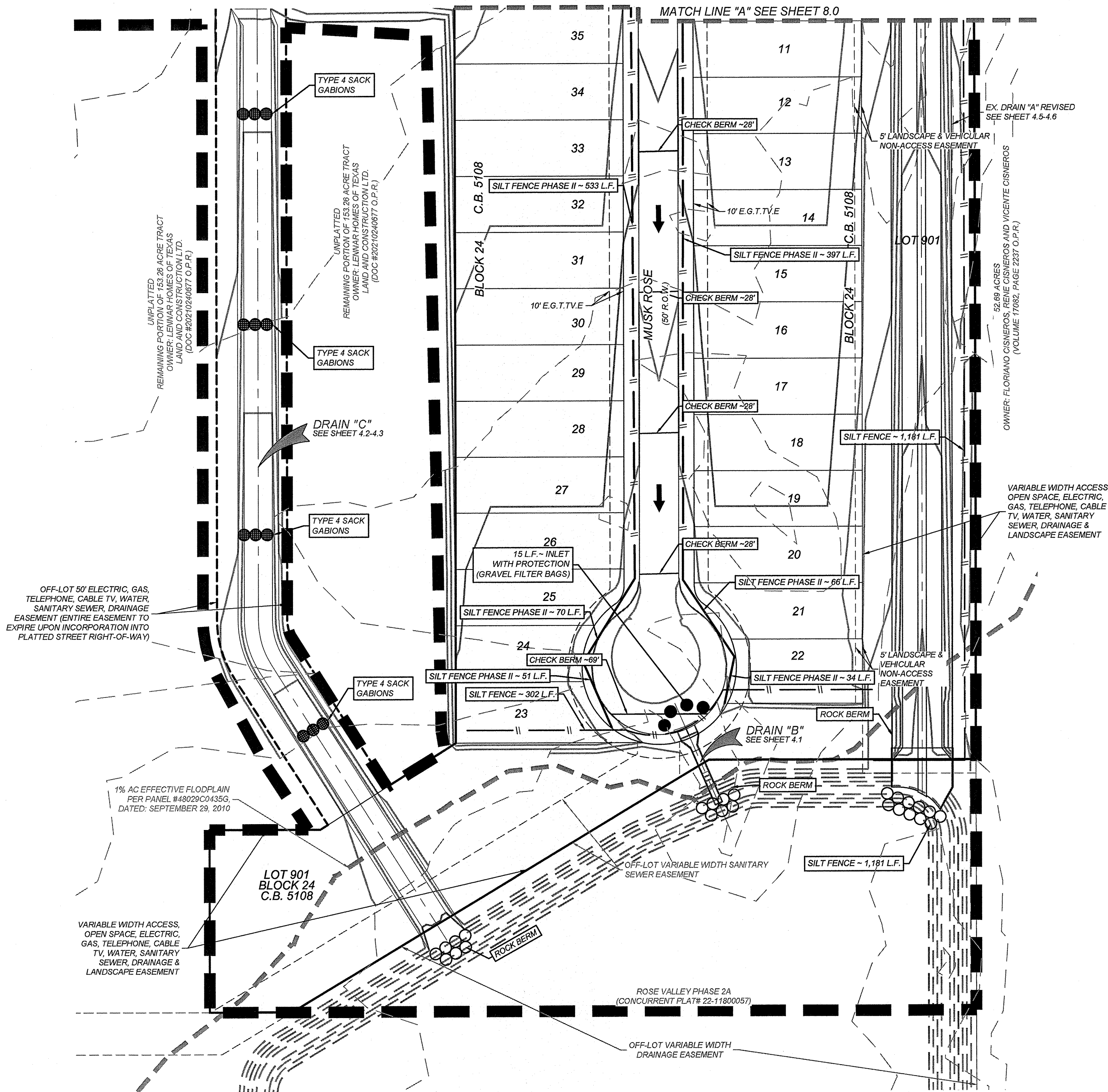
SW3P MODIFICATIONS

DATE	SIGNATURE	DESCRIPTION



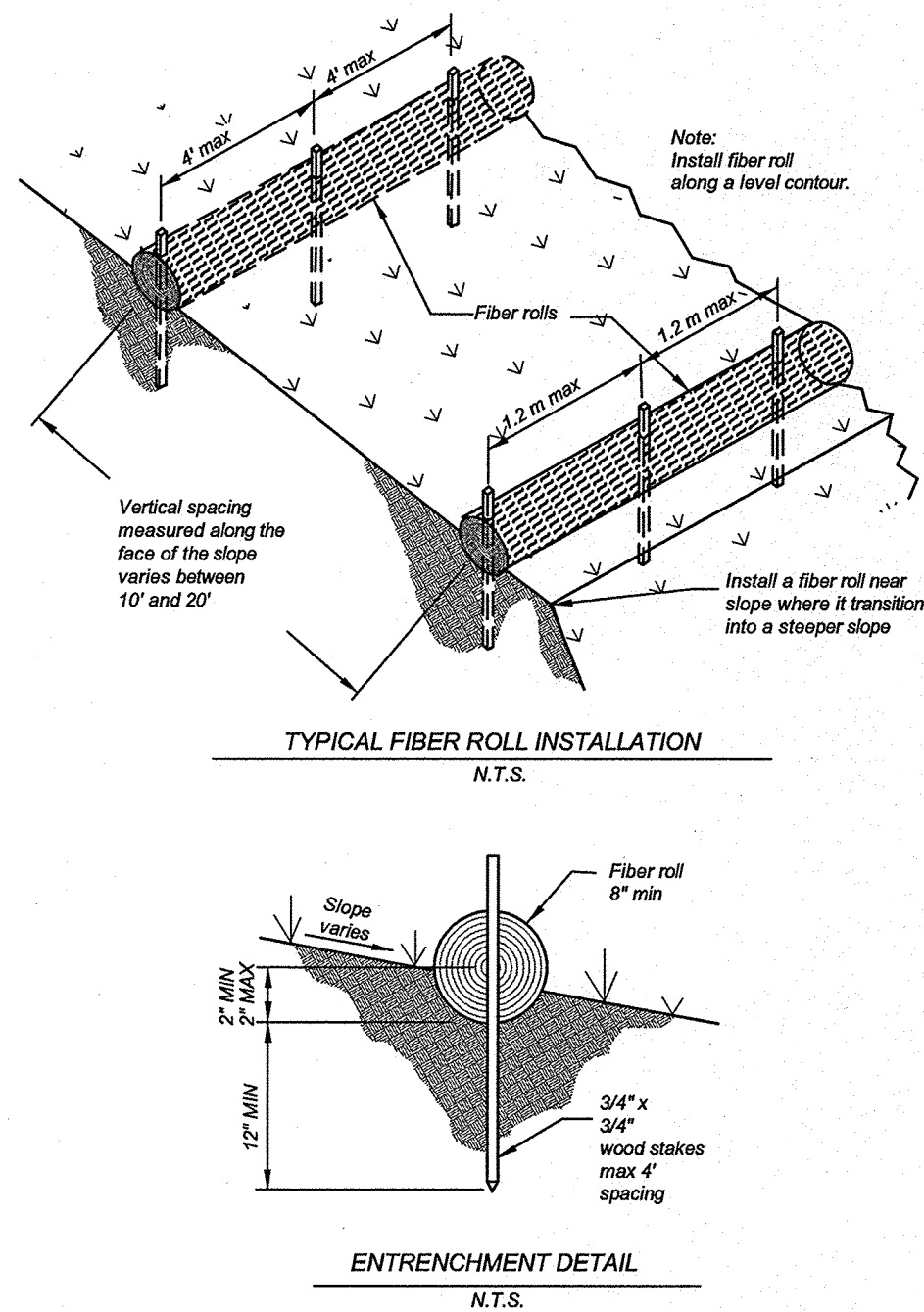
LEGEND

- 680 EXISTING CONTOURS
- 680 PROPOSED CONTOURS
- LIMITS OF CONSTRUCTION
- FLOW ARROW
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA
- CONCRETE TRUCK WASHOUT PIT
- DISTURBED AREA
- ROCK BERM
- SILT FENCE
- SILT FENCE PHASE II
- NATURAL VEGETATIVE BUFFER
- INLET WITH PROTECTION (GRAVEL FILTER BAGS)
- EARTHEN CHECK BERM



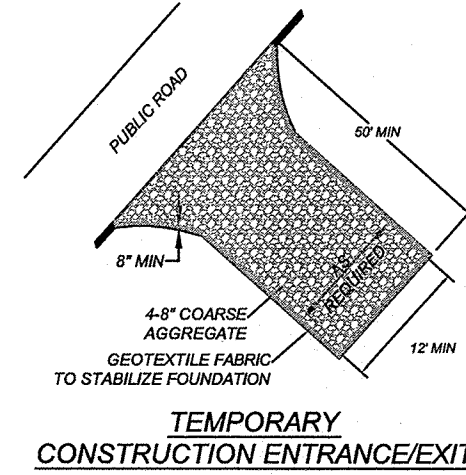
ROSE VALLEY PHASE 1B
SAN ANTONIO, TEXAS
STORM WATER POLLUTION PREVENTION PLAN

PLAT NO.
22-11800056
JOB NO. 314-51-01
DATE: ----
DRAWN: SD CHECKED: JM
SHEET NUMBER:



Inspection and Maintenance Guidelines:

- (1) Inspect prior to forecast rain, daily during extended rain events, after rain events and weekly.
- (2) Repair or replace spill, torn, unraveling, or slumping fiber rolls.
- (3) If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain steel flows, sediment that accumulates behind the roll must be promptly removed in order to maintain its effectiveness. Sediment should be removed when the accumulation reaches one-half the designated sediment storage depth, usually one-half the distance between the top of the fiber roll and the adjacent ground surface. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed of at an appropriate location.



- (1) 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 cleanup of any measures used to trap sediment.
- (2) All spilled sediment, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.
- (3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
- (4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
- (5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

- (1) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.
- (2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
- (3) Repair any loose wire sheathing.
- (4) The berm should be reshaped as needed during inspection.
- (5) The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
- (6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

TYPE 4 SACK GABIONS

Galvanized Steel Wire Mesh

3' 6" x 2' 0"

SECTION A-A

2' 0" Dia.

Galvanized Steel Wire Mesh with Filler Fabric

SECTION B-B

34" Dia. Rebar Stakes

Filler Fabric

PLAN VIEW

Sack Gabions

Direction of Flow

THE TOP OF THE BACK GABIONS SHOULD BE LEVEL AND ORIENTED PERPENDICULAR TO THE DIRECTION OF FLOW.

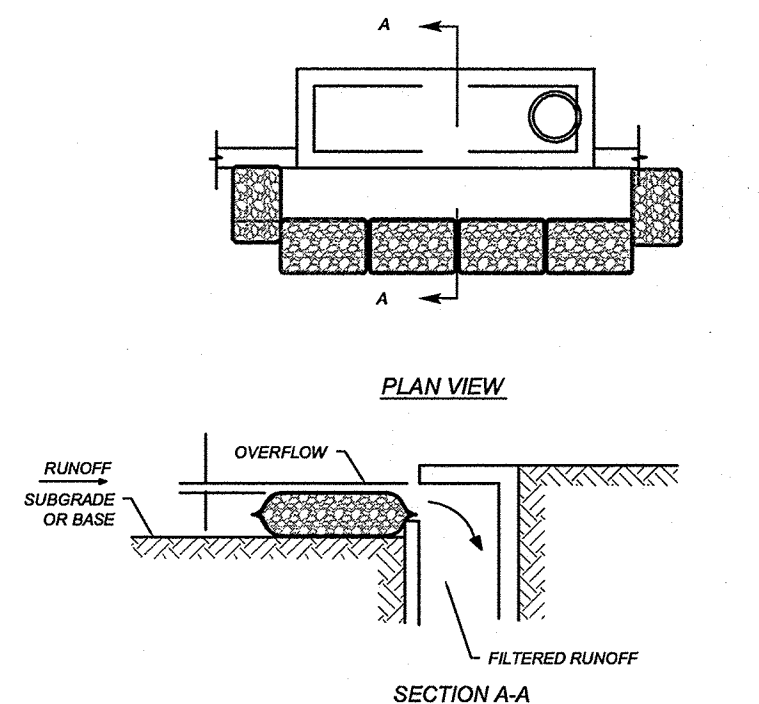
• FILTER FABRIC MATERIAL SHALL BE FASTENED TO WOVEN WIRE SUPPORT.

• FILTER FABRIC MATERIAL SHOULD MEET THE FOLLOWING SPECIFICATIONS: RESISTANT TO ULTRAVIOLET LIGHT, FABRIC SHALL BE NON-WOVEN GEOTEXTILE WITH MINIMUM WEIGHT OF 3.0 OUNCES PER SQUARE YARD, MINIMUM MULLEN BURST STRENGTH OF 100 LBS PER SQUARE YARD, MINIMUM TENSILE STRENGTH OF 150 GALLONS PER SQUARE FOOT OF FRONTAL AREA.

• STONE SIZE: 4" - 8" OPEN GRADED CRUSHED LIMESTONE.

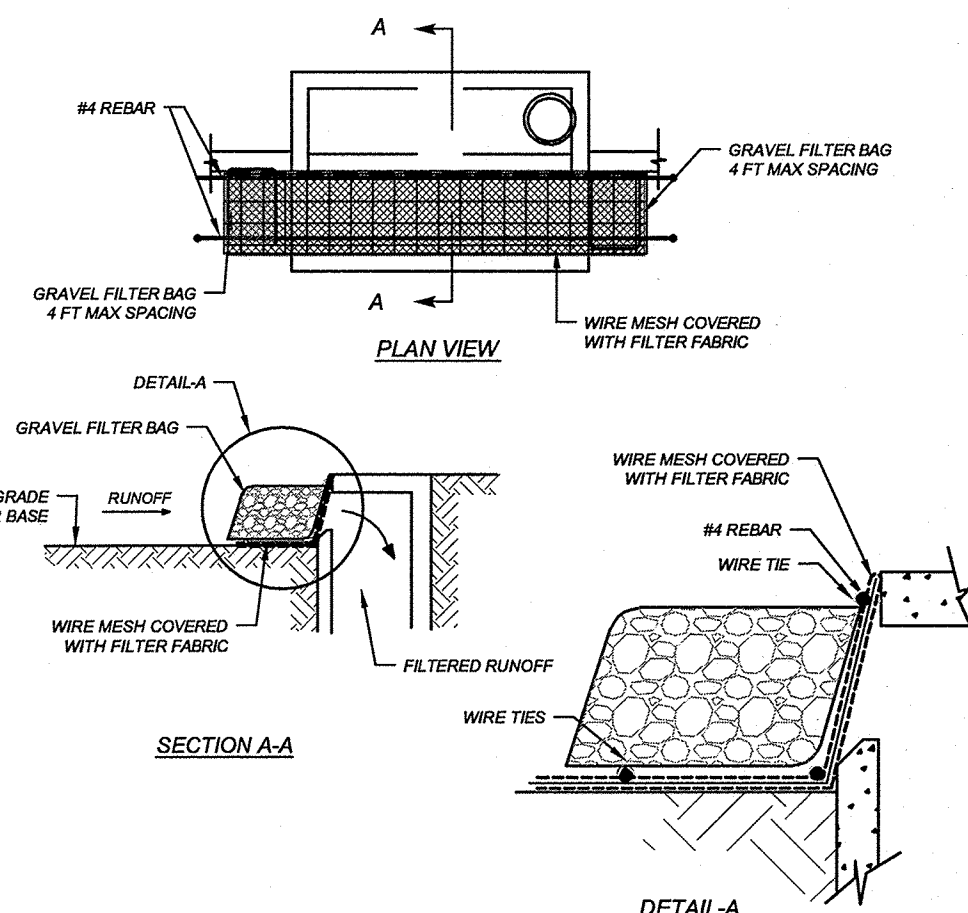
• INSPECT WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACE AS NEEDED.

• WHEN SLIT REACHES A DEPTH OF 6 INCHES OR MORE ABOVE NATURAL GROUND, SLIT SHALL BE REMOVED AND DISPOSED IN AN APPROPRIATE MANNER. ALL MULCH CONTAINING TOXICITY, CONTAMINATED SEDIMENT MUST BE REMOVED AND DISPOSED OF IN AN APPROPRIATE MANNER.

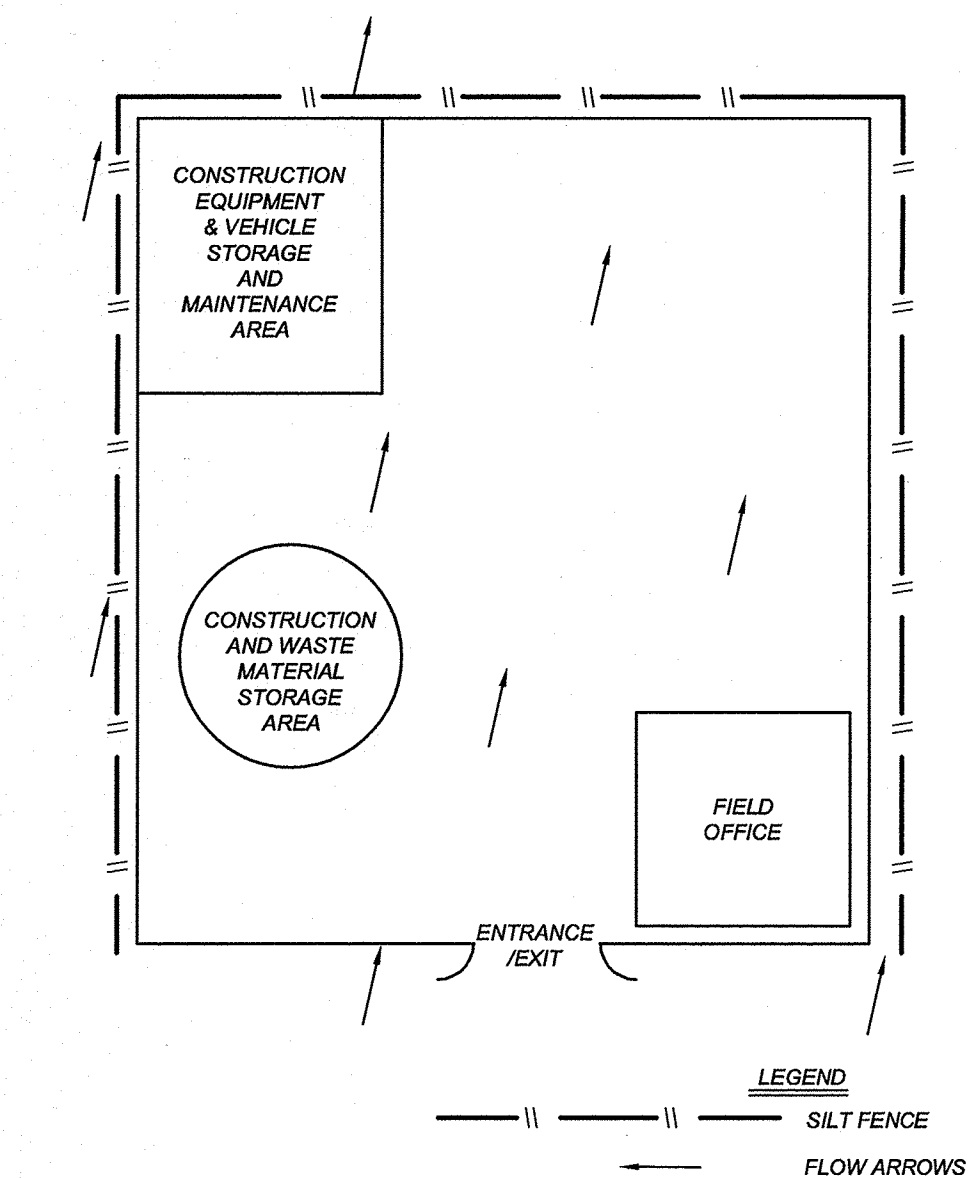


- ALL STORM DRAINAGE SYSTEMS INLETS SHOULD FILTER RUNOFF BEFORE THE WATER IS DISCHARGED INTO STREAMS OR ONTO ADJACENT PROPERTY UNLESS TREATMENT IS PROVIDED ELSEWHERE.
- IF NO ADDITIONAL DOWNSTREAM TREATMENT EXISTS, THE MAXIMUM DRAINAGE AREA TRIBUTARY TO AN AREA DRAIN INSTALLED WITH A GRAVEL FILTER SHOULD BE ONE ACRE.
- ALL CURB INLET GRAVEL FILTERS SHOULD BE INSPECTED AND REPAIRED AFTER EACH RUNOFF EVENT. SEDIMENT SHOULD BE REMOVED WHEN MATERIAL IS WITHIN THREE INCHES OF THE TOP OF THE CONCRETE BLOCKS. PERIODICALLY, THE GRAVEL SHOULD BE RAKED TO INCREASE INFILTRATION AND FILTERING OF RUNOFF WATERS.

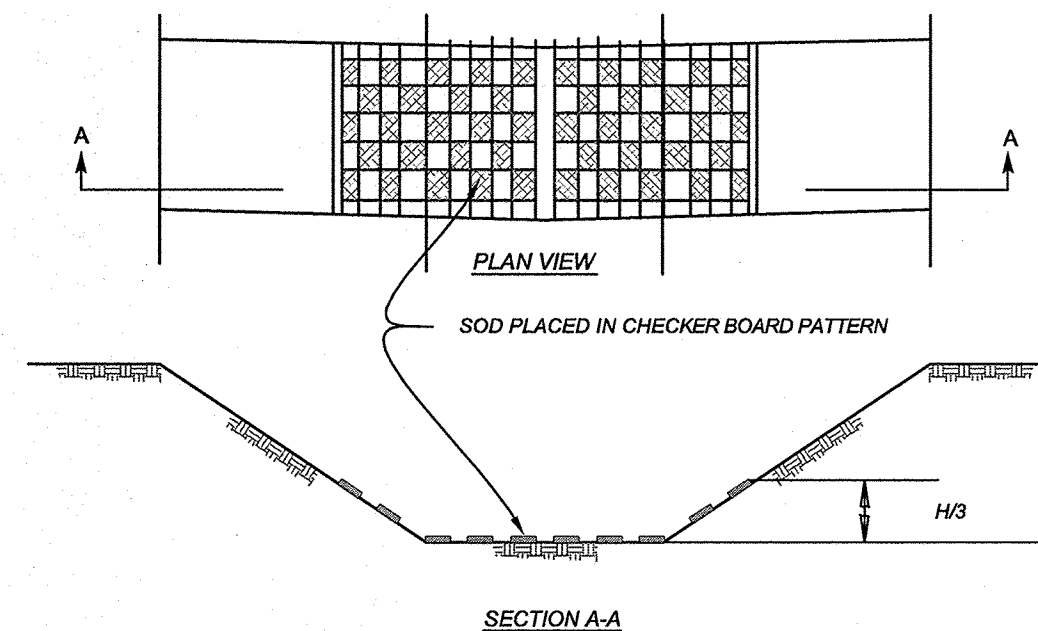
CURB INLET PROTECTION GRAVEL FILTER BAGS



CURB INLET PROTECTION (ALTERNATE)



TYPICAL CONSTRUCTION STAGING AREA



TH SOD PLACED IN A CHECKER BOARD PATTERN
D ON THE SIDES UP TO 1/3 THE DEPTH OF

CHANNEL LINING

8.2