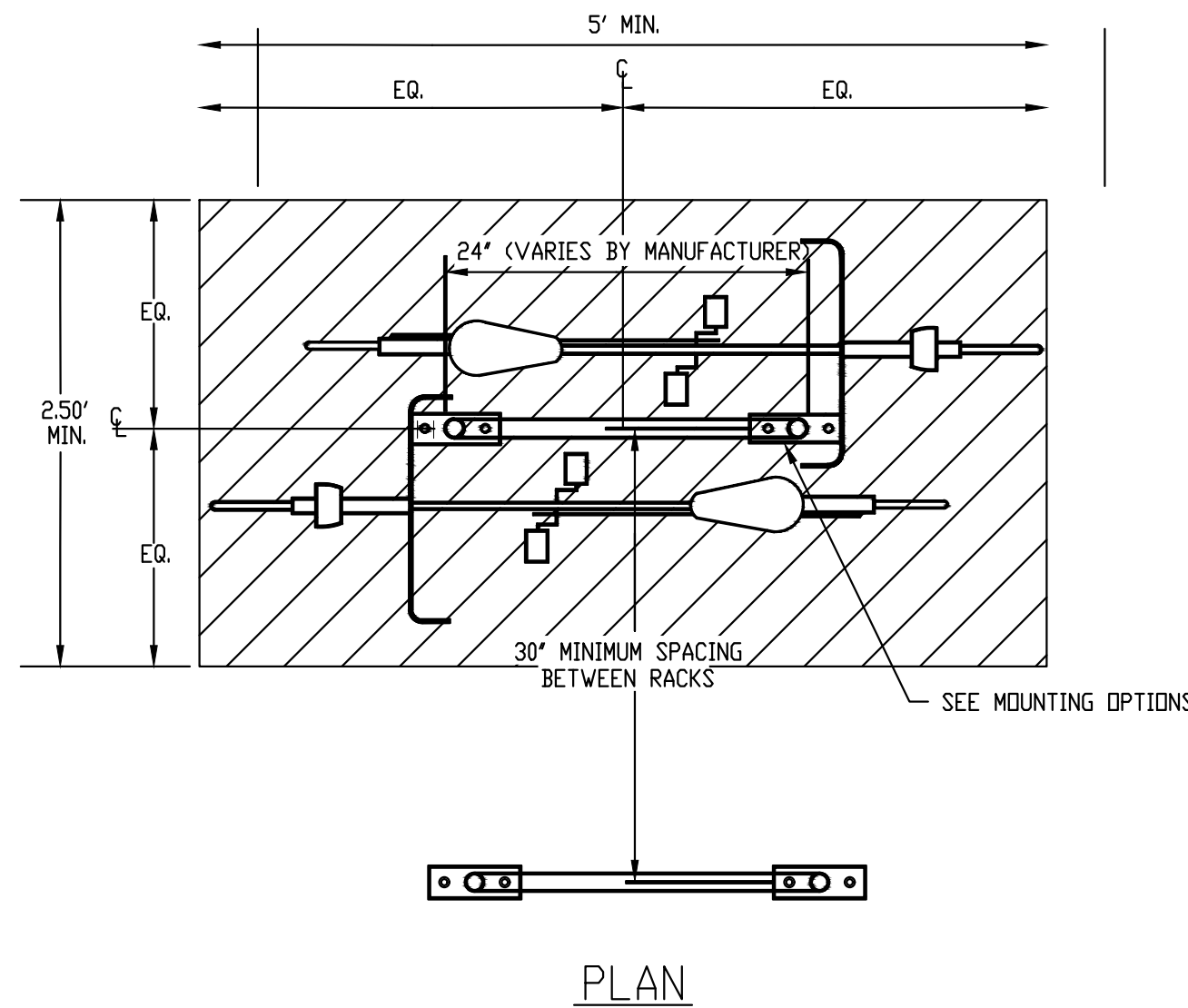
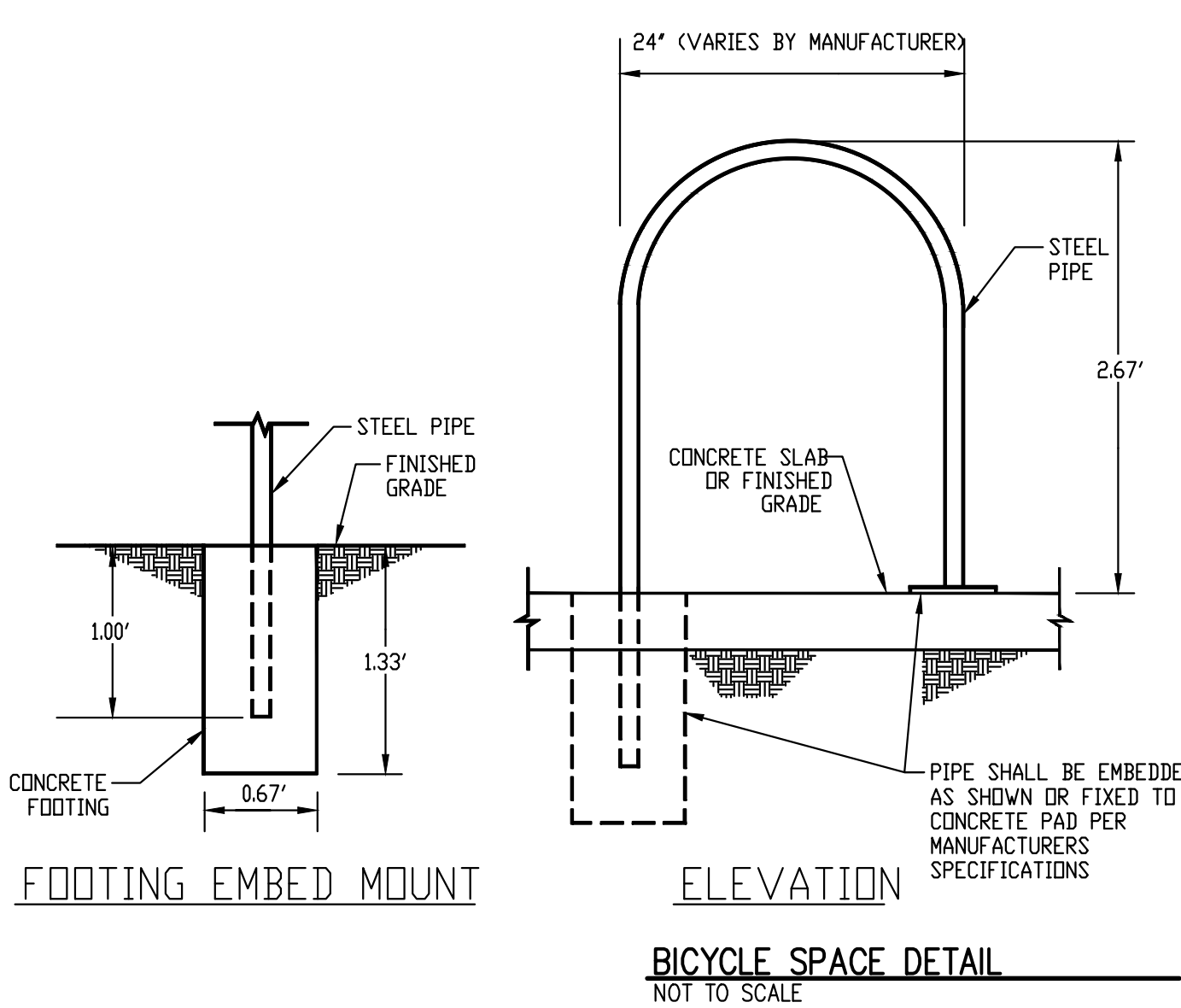
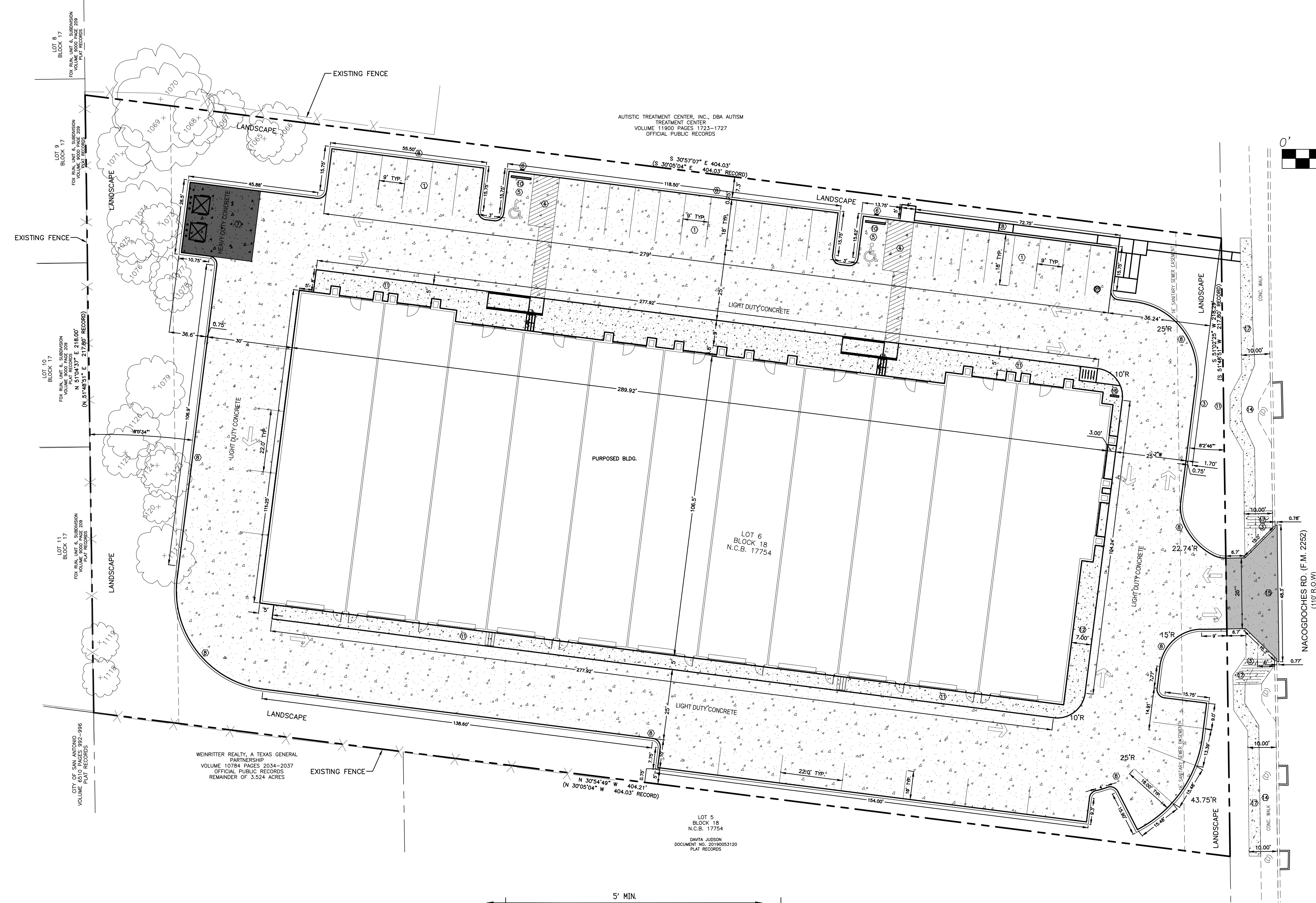


Date: Oct 04, 2022, 3:11pm User ID: sqgqj
File: U:\2201046-15709 NACOGDOCHES\Civil\C1.0-DC-NAC.dwg



KEYED NOTES:

- 1 PROPOSED 4" WIDE SOLID WHITE STRIPE (SEE DETAIL SHEET)
- 2 PROPOSED PAINTED ISLAND (SEE DETAIL SHEET)
- 3 WHEELCHAIR RAMP @ 12:1 MAX. SLOPE (SEE DETAIL SHEET)
- 4 PROPOSED DISABLED ACCESS PAINTED ISLAND (SEE DETAIL SHEET)
- 5 DISABLED PARKING SYMBOL (SEE DETAIL SHEET)
(FOR REFERENCE ONLY-NOT TO BE PAINTED ON GROUND)
- 6 PROPOSED DISABLED PARKING SIGN (SEE DETAIL SHEET)
- 7 DUMPSTER PAD LOCATION
- 8 STANDARD CURB (SEE DETAIL SHEET)
- 9 2' TRANSITION CURB (SEE DETAIL SHEET)
- 10 WHEEL STOP (SEE DETAIL SHEET)
- 11 PROPOSED 5' SIDEWALK (SEE DETAIL SHEET)
- 12 PROPOSED 7' SIDEWALK (SEE DETAIL SHEET)
- 13 PROPOSED 9' SIDEWALK (SEE DETAIL SHEET)
- 14 MATCH EXISTING SIDEWALK AND TOP OF CURB
- 15 PROPOSED DRIVEWAY (SEE DETAIL SHEET)
- 16 PROPOSED BIKE RACK (SEE DETAIL SHEET)
- 17 NEW 10' MULTIPATH

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB TO CENTER OF PAINT STRIPING, OR PERPENDICULAR TO THE PROPERTY LINE.
2. ALL CURB RADIUS ARE 3', UNLESS OTHERWISE NOTED.
3. COORDINATE CONTROL FOR PARKING DRIVES, DRIVEWAYS, AND ISLANDS IS AS SHOWN. NO OFFSETS FROM FACE OF CURB OR BUILDINGS ARE GIVEN.
4. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS NECESSARY FOR CONSTRUCTION OF THE PROJECT.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS BEFORE BEGINNING CONSTRUCTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING UTILITIES, FENCES, PAVEMENT, CURBS, DRIVEWAYS, SIDEWALKS, OR SIGNS.
7. CONTRACTOR SHALL PRESERVE ALL PROPERTY CORNER PINS/RODS, CONTROL POINTS & BENCHMARK. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ADDRESS

15709 NACOGDOCHES RD.
SAN ANTONIO, TEXAS 78247

LEGAL DESCRIPTION

LOT 6
COUNTY BLOCK 18
PLAT NAME: NACOGDOCHES
VOLUME ---, PAGE ---

BENCHMARK #1:

1/2" STEEL ROD WITH AN ORANGE 'RPLS 5207'

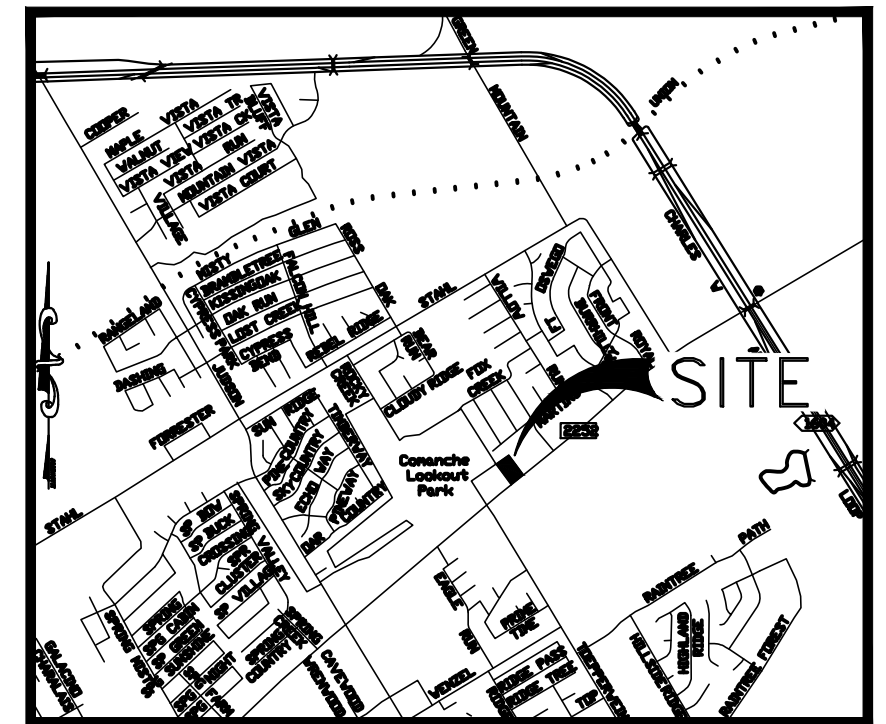
PLASTIC CAP
(GPS TRAV) ELEV. = 962.14'

BENCHMARK #2:

NAIL IN CURB
(GPS TRAV) ELEV. = 937.78'

SITE INFORMATION

PARKING INFORMATION:	
PARKING SPACES =	41
HANDICAP PARKING SPACES =	2
TOTAL SPACES =	27
WAREHOUSE AREA =	±31,509 S.F.
TOTAL REQUIRED MIN. SPACES:	16



LOCATION MAP

NOT TO SCALE

LEGEND

	HEAVY DUTY CONCRETE
	LIGHT DUTY CONCRETE
	CONCRETE SIDEWALKS/DRIVEWAYS
	PROPERTY LINE
	COMPACT CAR PARKING SPACE
	LANDSCAPE AREA
	TRAFFIC DIRECTIONAL ARROW
	WHEEL CHAIR RAMP
	HANDICAP SIGN (SEE DETAIL)
	VAN ACCESSIBLE DISABLED PARKING SPACE
	EXISTING CURB TO REMAIN
	PROPOSED CURB
	EXISTING CURB TO BE REMOVED
	PROPOSED SAWTOOTH CURB
	EXISTING CONCRETE TO BE REMOVED

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108449 DATE: 9/2/2022

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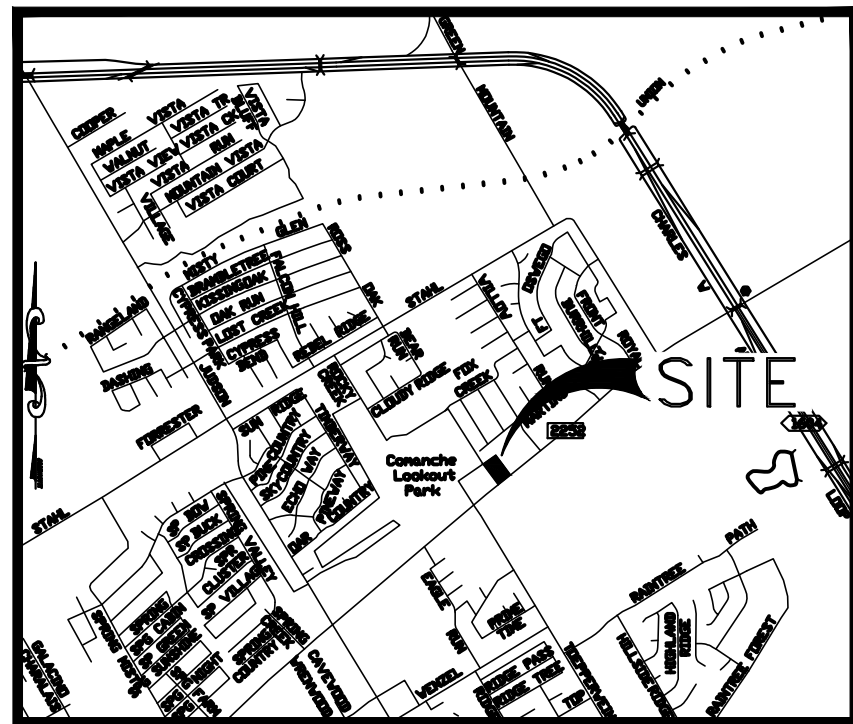
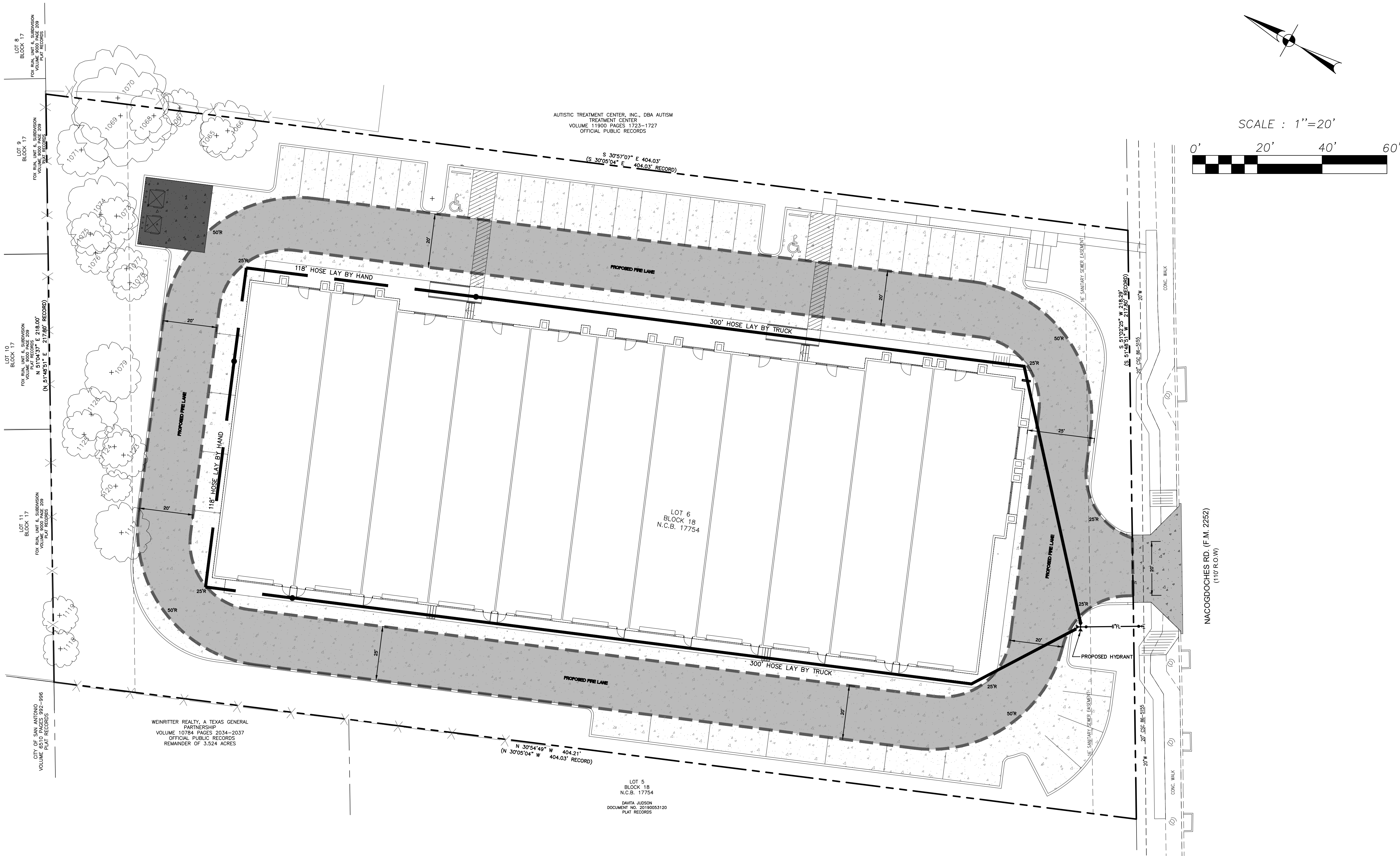
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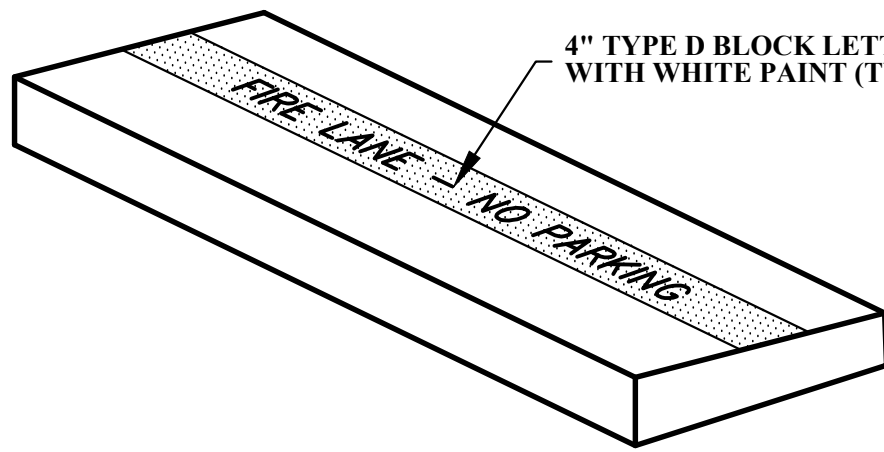
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LOCATION MAP
NOT TO SCALE

LEGEND

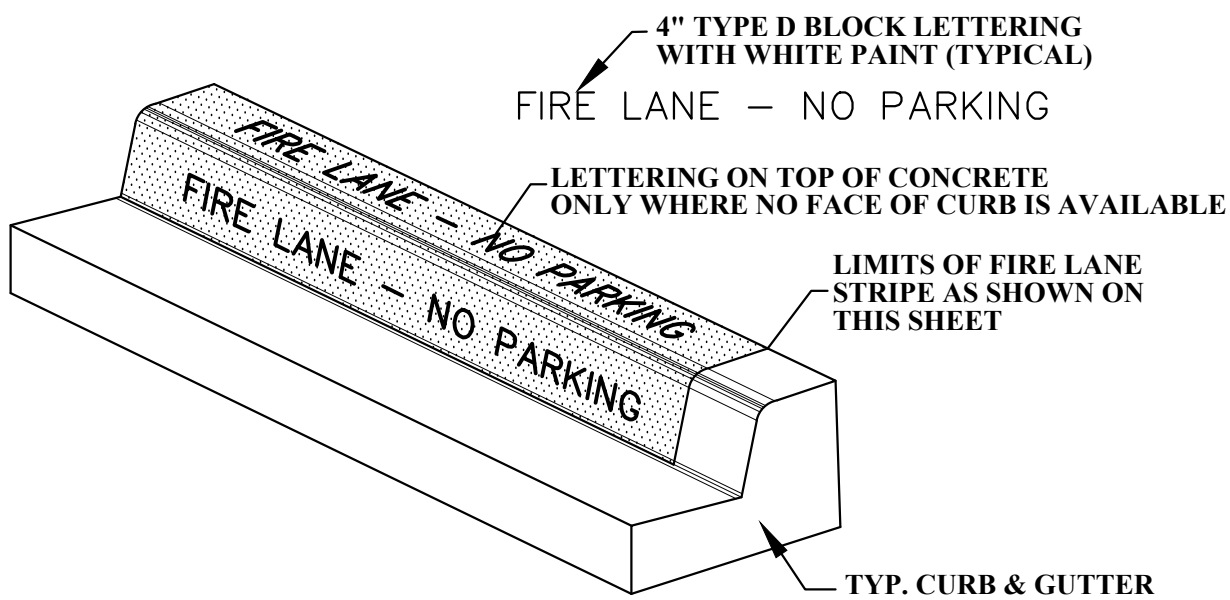
- PROPERTY LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- HOSE LAY BY TRUCK
- HOSE LAY BY HAND
- END OF HOSE LAY
- FIRE LANE



TYPICAL PAVEMENT FIRE LANE
MARKING DETAIL

APPLICATION:

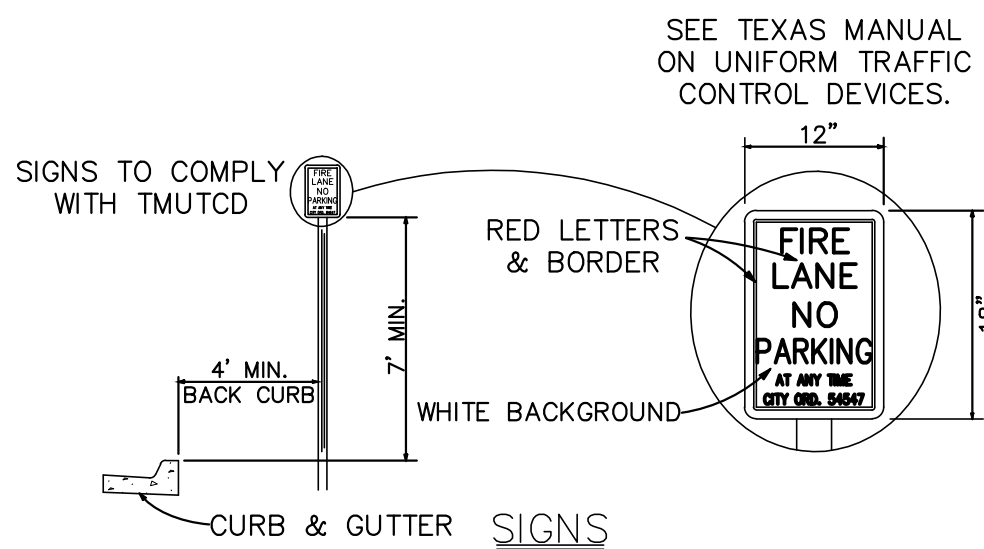
1. PAINT 6" SOLID RED STRIPE ON CONCRETE OR ASPHALT SURFACE. PAINT 4" WHITE LETTERING ON SOLID RED STRIPE AS SHOWN ABOVE.
2. SEE STRIPING AND SIGNAGE PLAN FOR STRIPING LOCATIONS.
3. 40 FOOT SPACING BETWEEN THE BEGINNING OF THE WHITE LETTERING.



TYPICAL CURB FIRE LANE
MARKING DETAIL

APPLICATION:

1. STANDRAD 6" CURB: PAINT RED LANE STRIPE ON BOTH FACE AND TOP OF CURB, PAINT WHITE LETTERS ON FACE OF CURB ONLY
2. LOW CURB (HEADER CURB): PAINT RED LANE STRIPE AND WHITE LETTERS ON TOP OF CURB
3. ASPHALT: PAINT RED LANE STRIPE AND WHITE LETTERS TO THE LIMITS AS INDICATED ON THE PLANS.
4. 40 FEET SPACING BETWEEN THE BEGINNING OF THE WHITE LETTERING.



TYPICAL FIRE LANE SIGN
DETAIL

ADDRESS

15709 NACOGDOCHES RD.
SAN ANTONIO, TEXAS 78247

LEGAL DESCRIPTION

LOT 6
COUNTY BLOCK 18
PLAT NAME: NACOGDOCHES
VOLUME ---, PAGE ---

BENCHMARK #1:

1/2" STEEL ROD WITH AN ORANGE 'RPLS 5207'
PLASTIC CAP
(GPS TRAV) ELEV. = 962.14'
BENCHMARK #2:
NAIL IN CURB
(GPS TRAV) ELEV. = 937.78'

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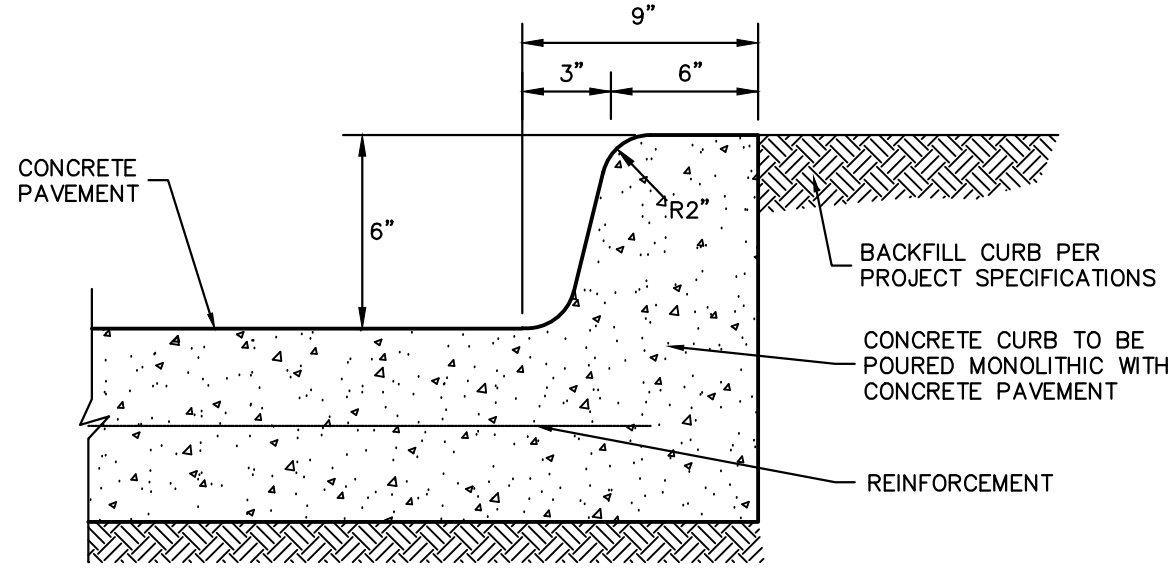
FIRE PROTECTION PLAN

DESIGN	RL
DRAWN	SA
CHECKED	DA
DATE	7/25/2022
JOB NO.	2201046
SHEET	

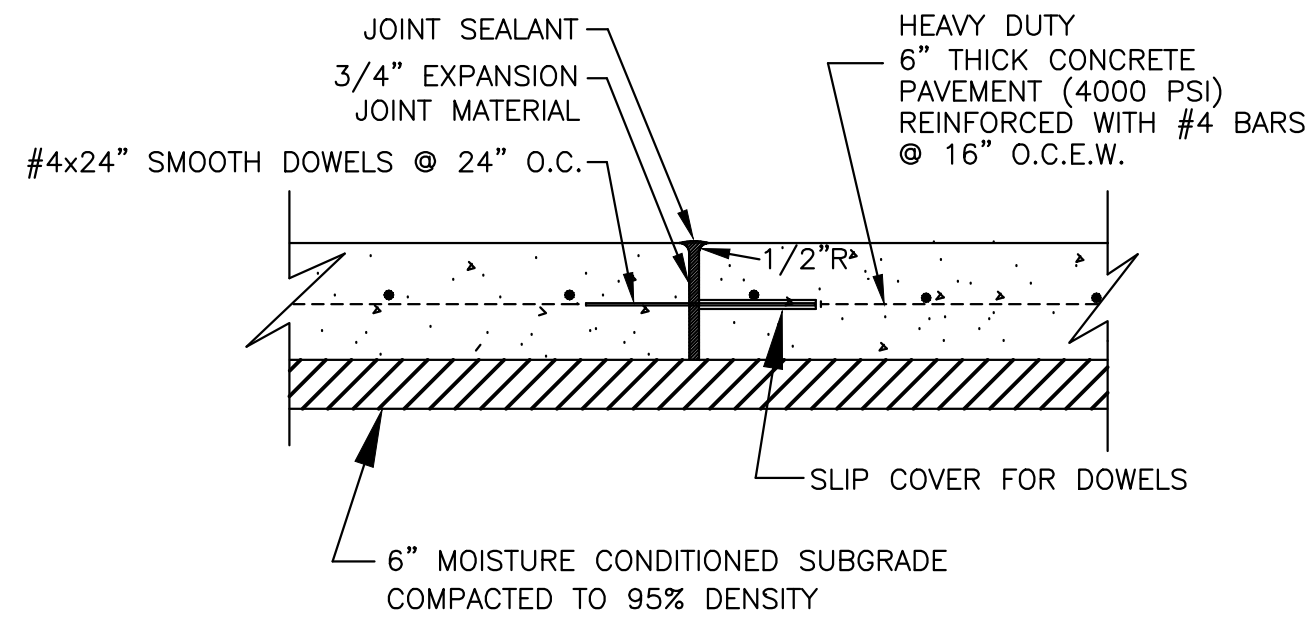
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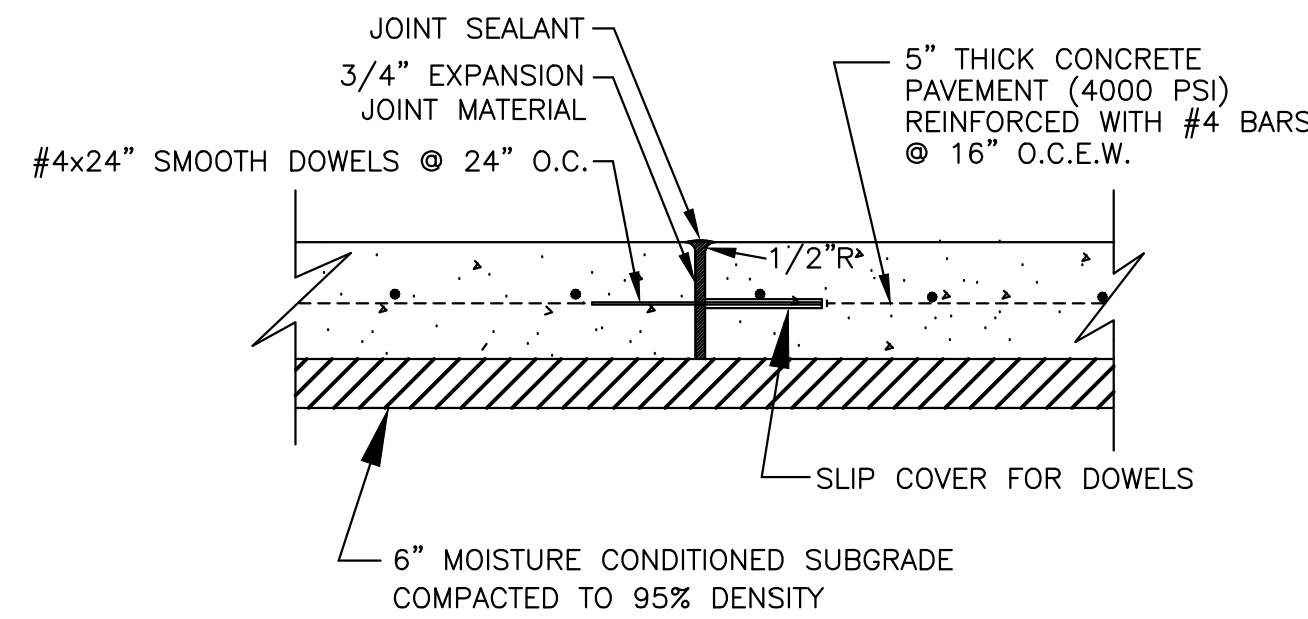
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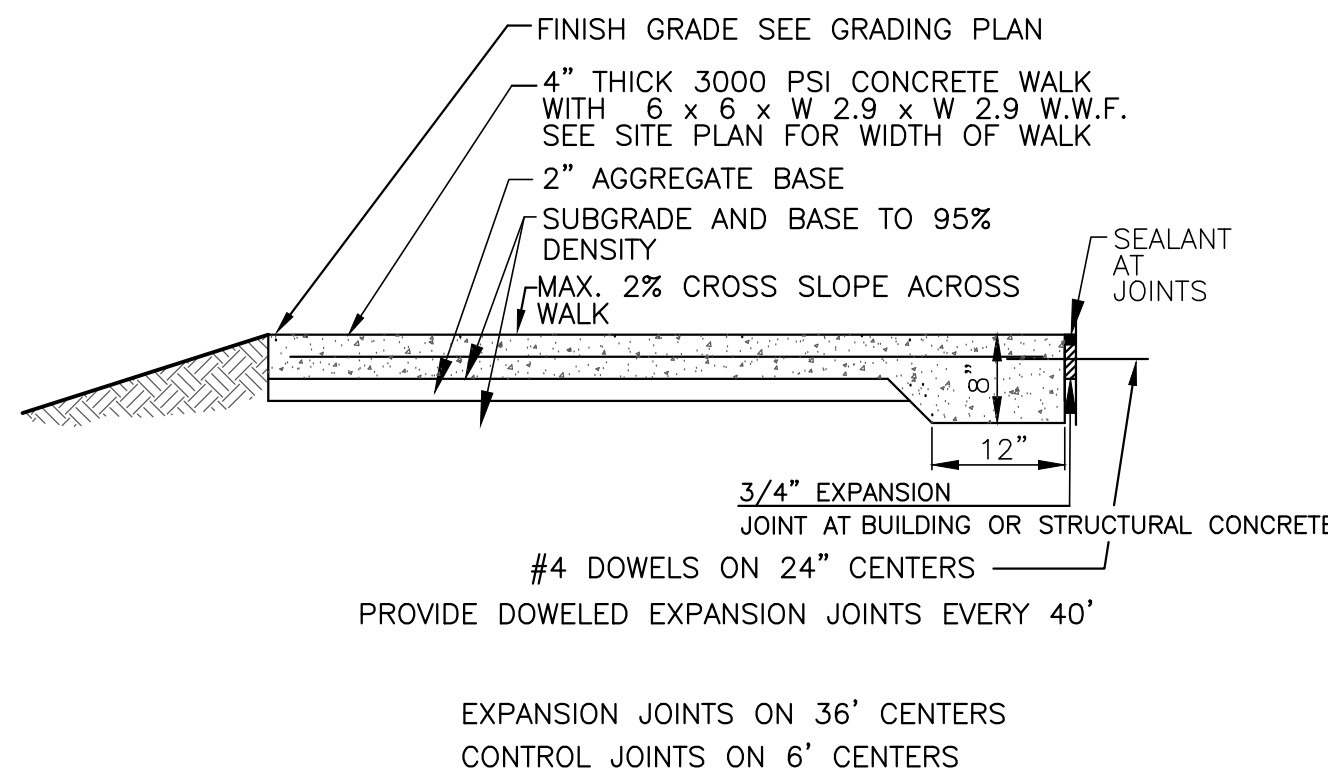
1 MACHINE LAID CURB AT CONCRETE PAVEMENT
NOT TO SCALE



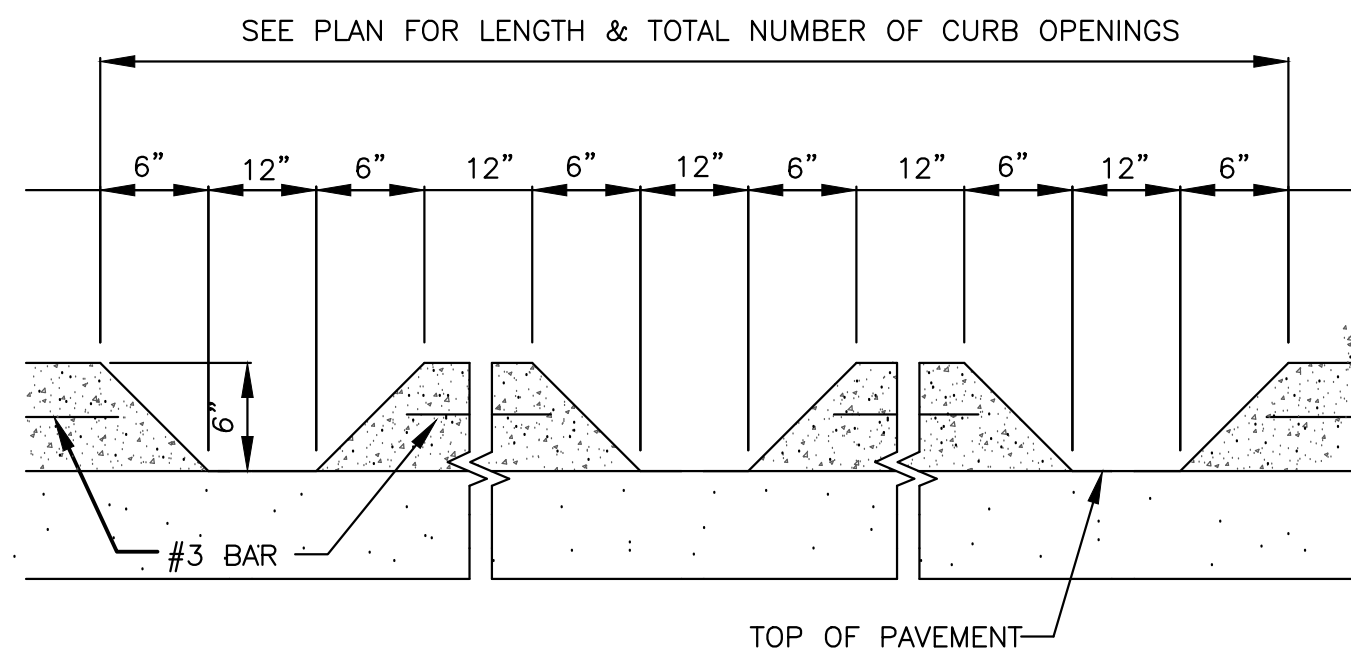
2 HEAVY DUTY CONCRETE PAVEMENT SECTION
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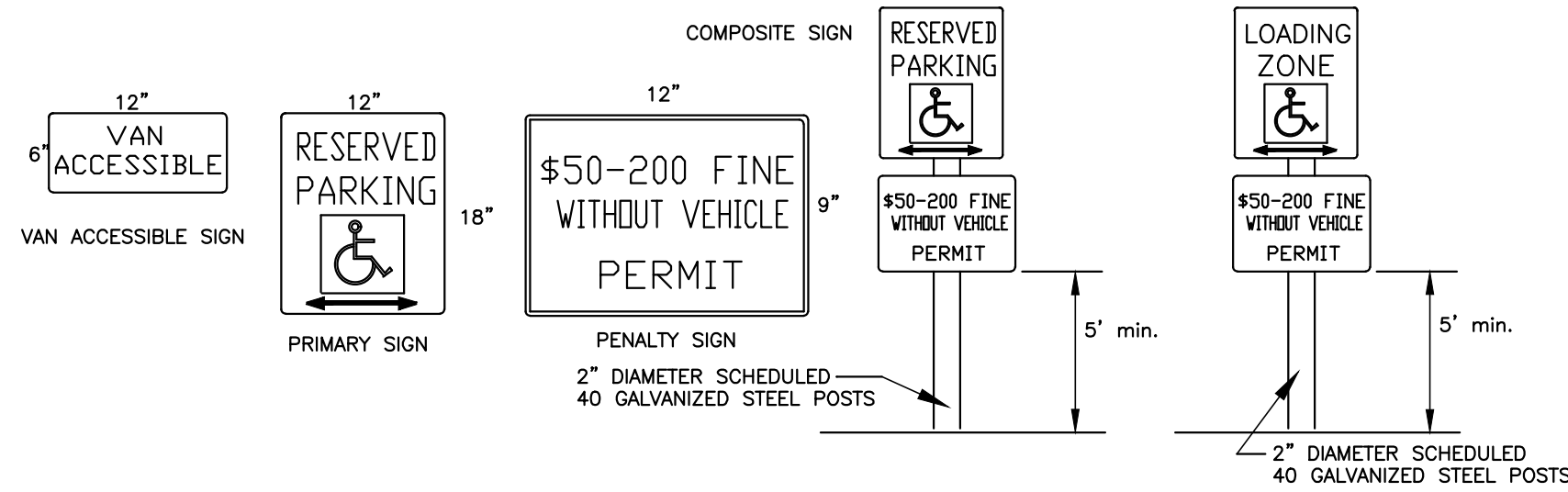
3 LIGHT DUTY CONCRETE PAVEMENT SECTION
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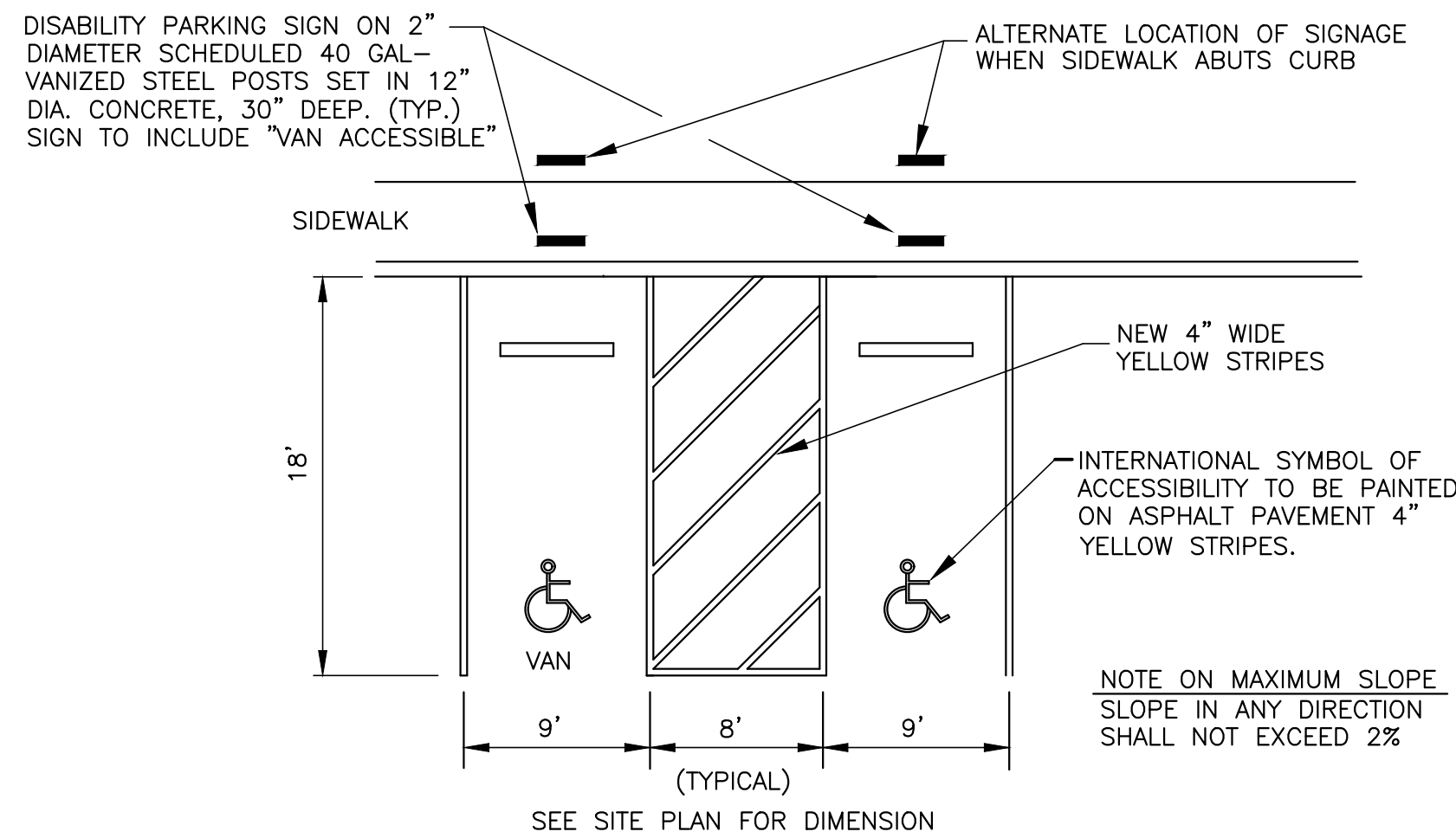
4 TYPICAL CONCRETE WALK
NOT TO SCALE



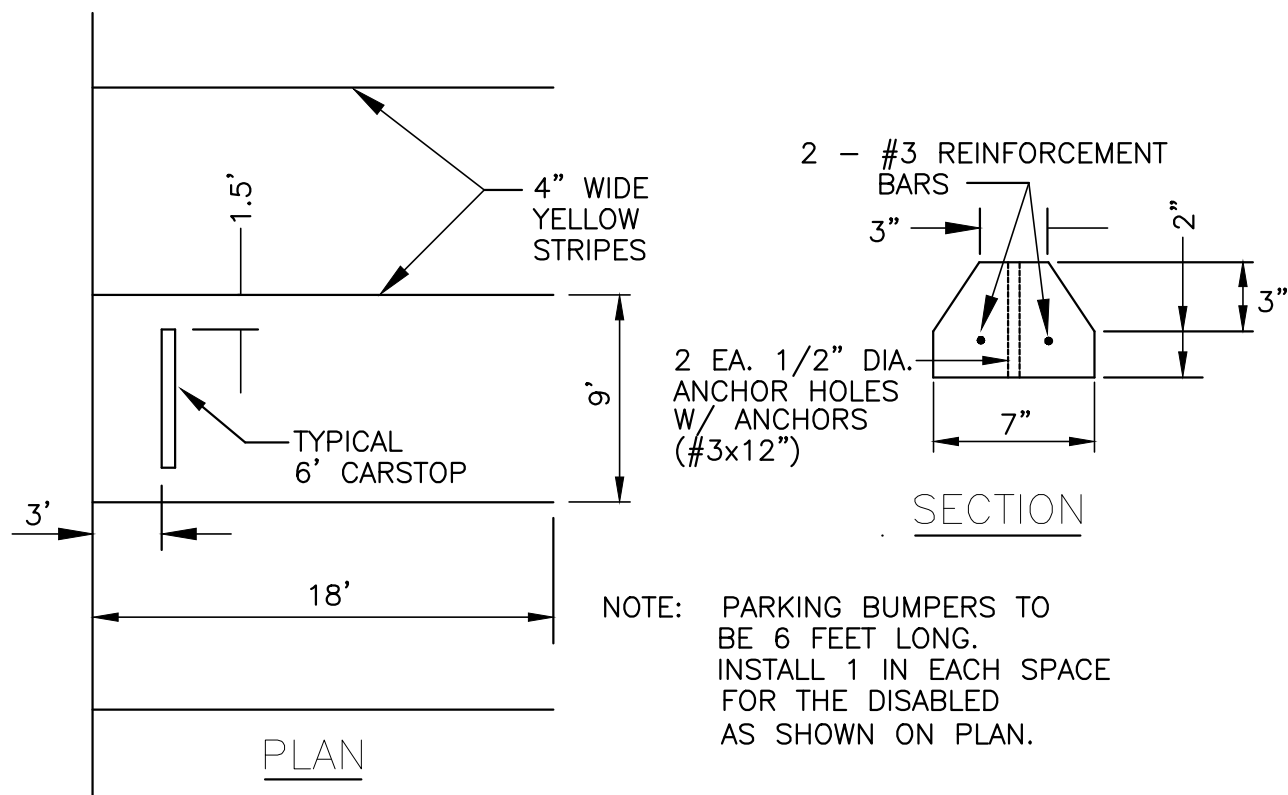
5 CURB CUT DETAIL
NOT TO SCALE



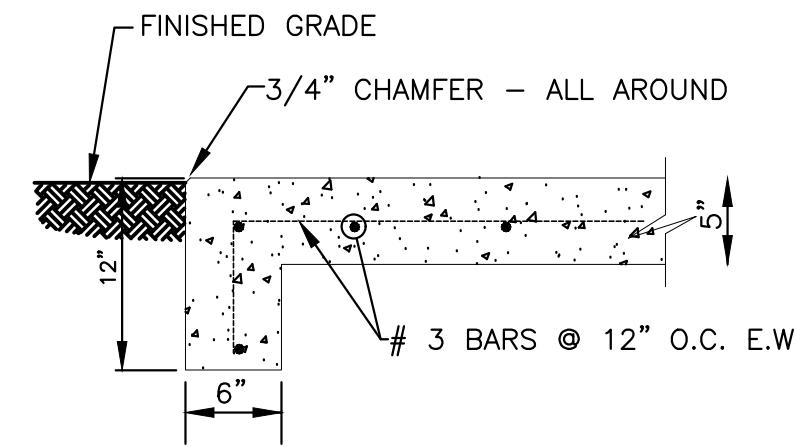
6 DISABILITY PARKING SIGNAGE
NOT TO SCALE



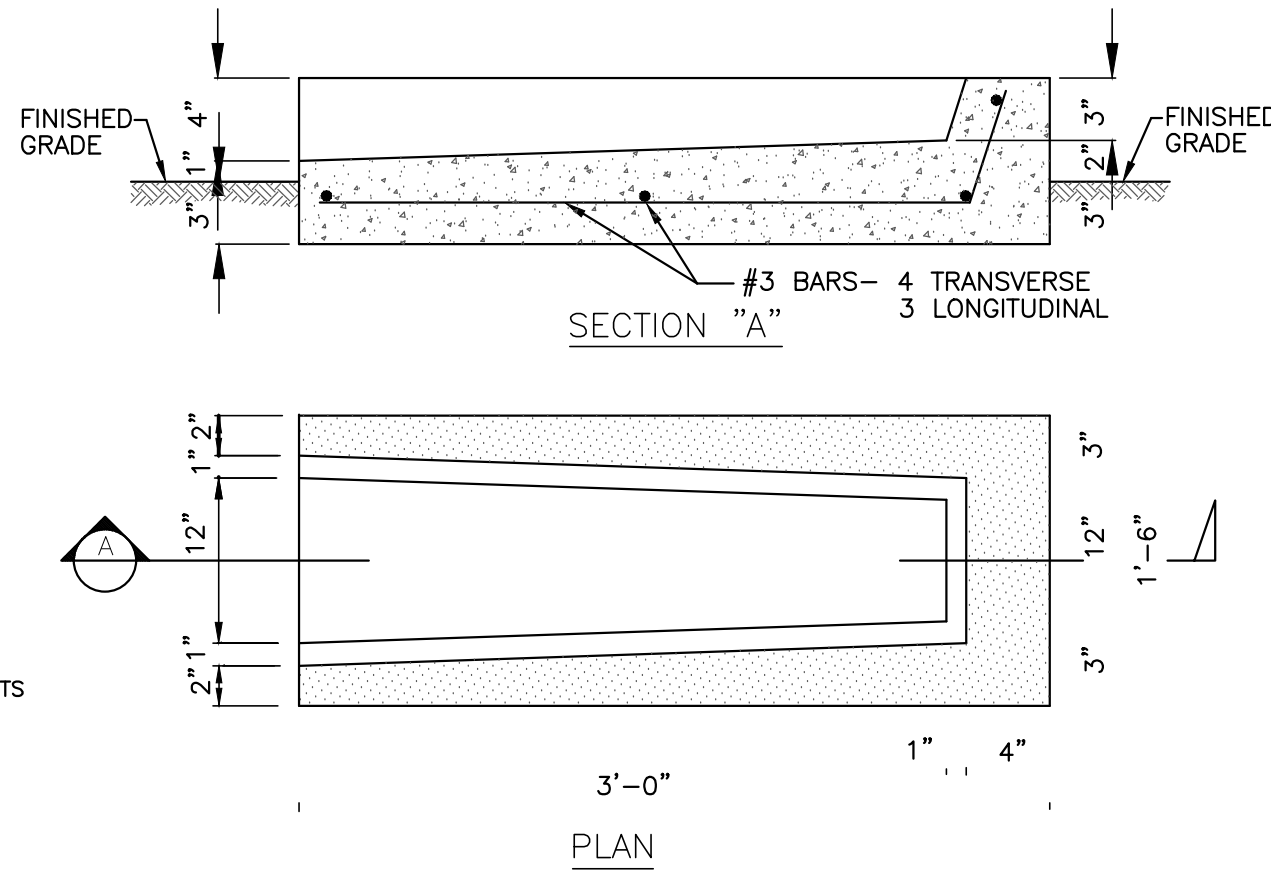
7 DISABILITY PARKING
NOT TO SCALE



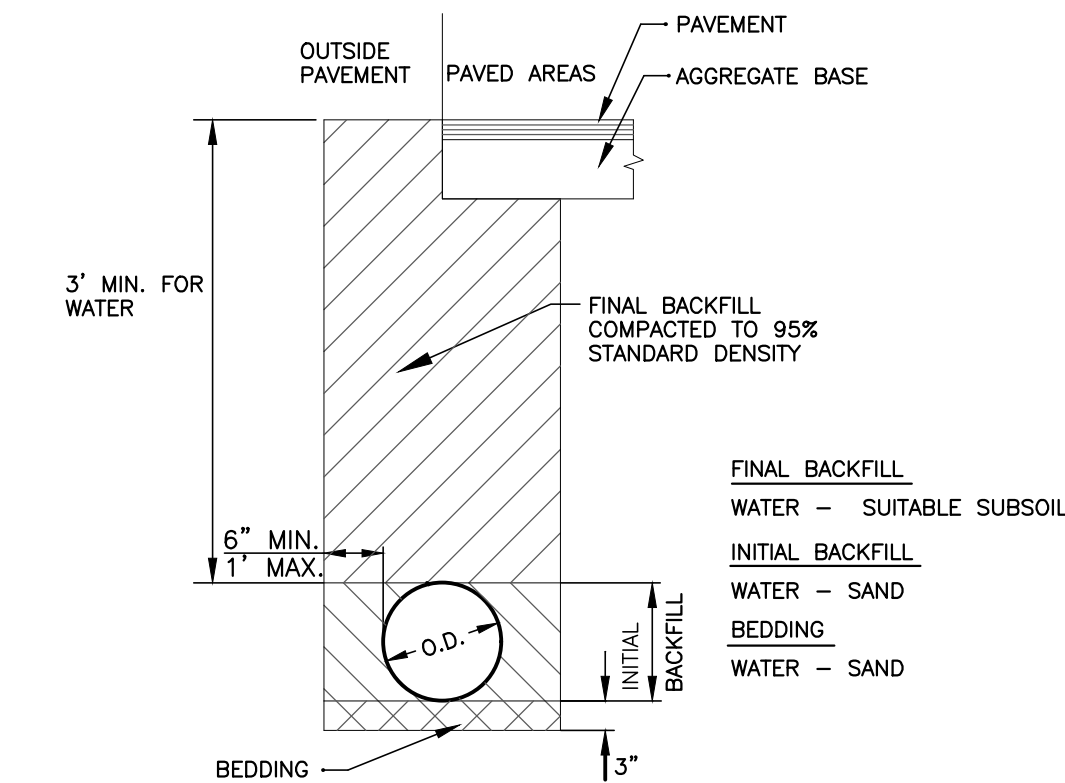
8 WHEEL STOP DETAIL
NOT TO SCALE



9 DUMPSTER PAD DETAIL
NOT TO SCALE



10 SPLASH BLOCK DETAIL
NOT TO SCALE

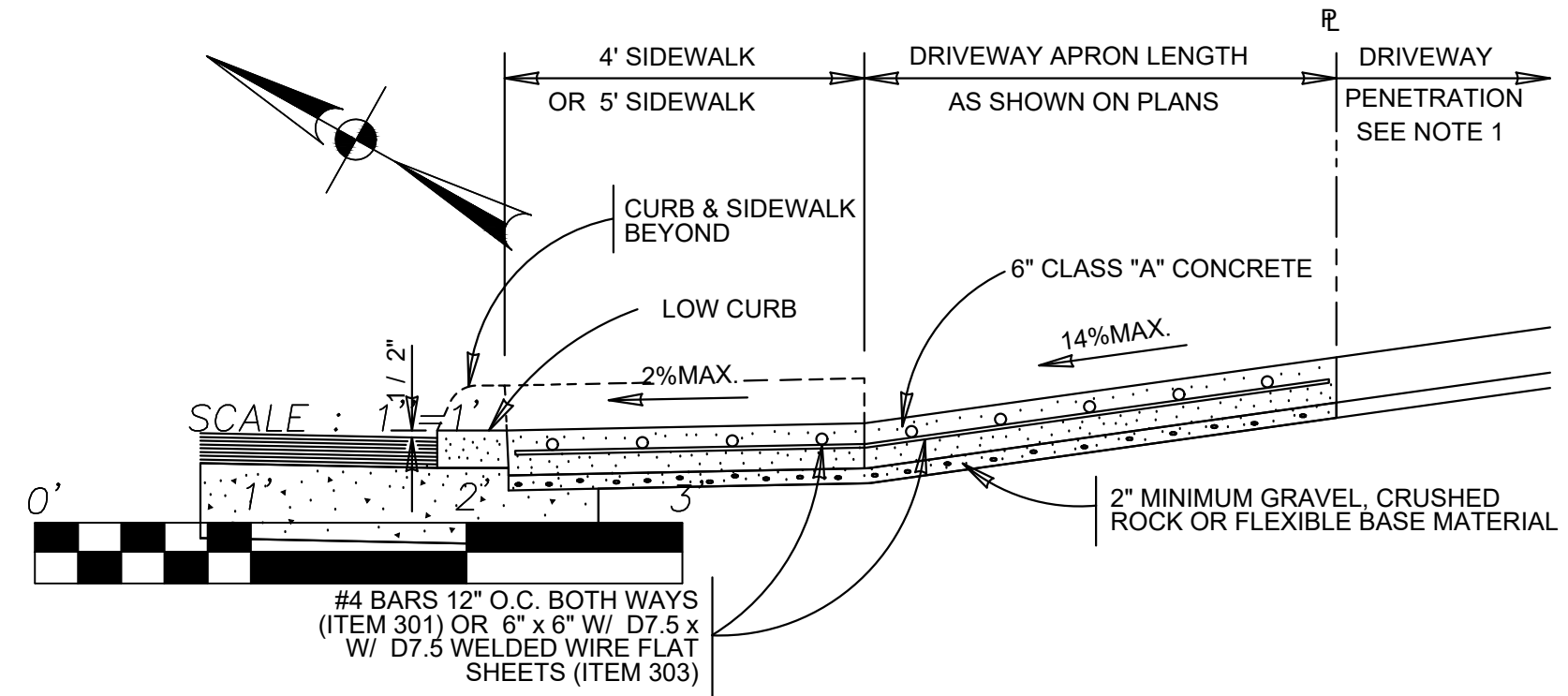


10 TRENCHING DETAIL
NOT TO SCALE

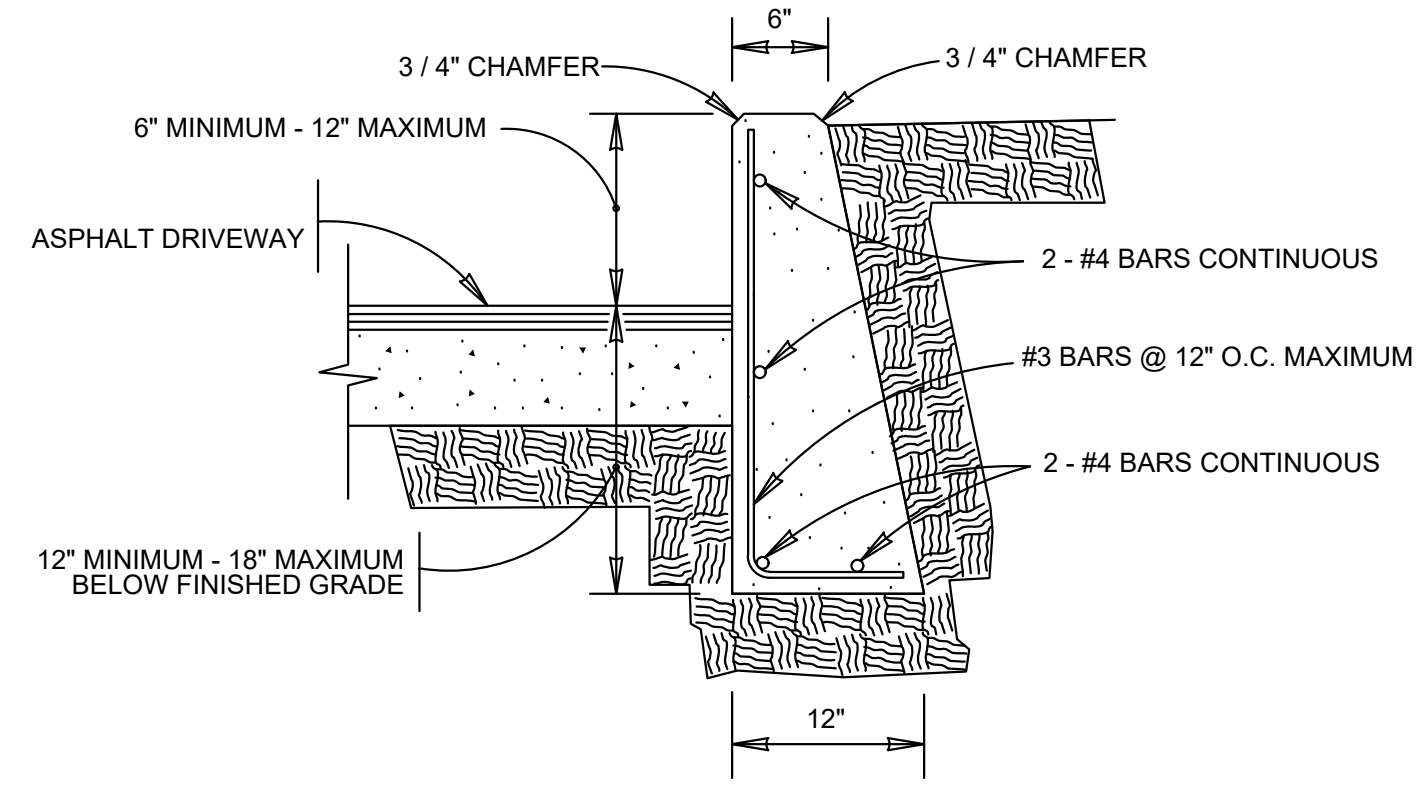
CONCRETE DRIVEWAY NOTES

1. 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. 502-2 B.) ASPHALTIC CONCRETE DRIVEWAY PAID FOR UNDER ITEM NO. 503-1 1" ASPHALT TYPE 'D' & 6" FLEXIBLE BASE C.) GRAVEL DRIVEWAY PAID FOR UNDER ITEM NO. 503-2 AND SHALL INCLUDE A MINIMUM OF 6" FLEXIBLE BASE
2. 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.
3. 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:

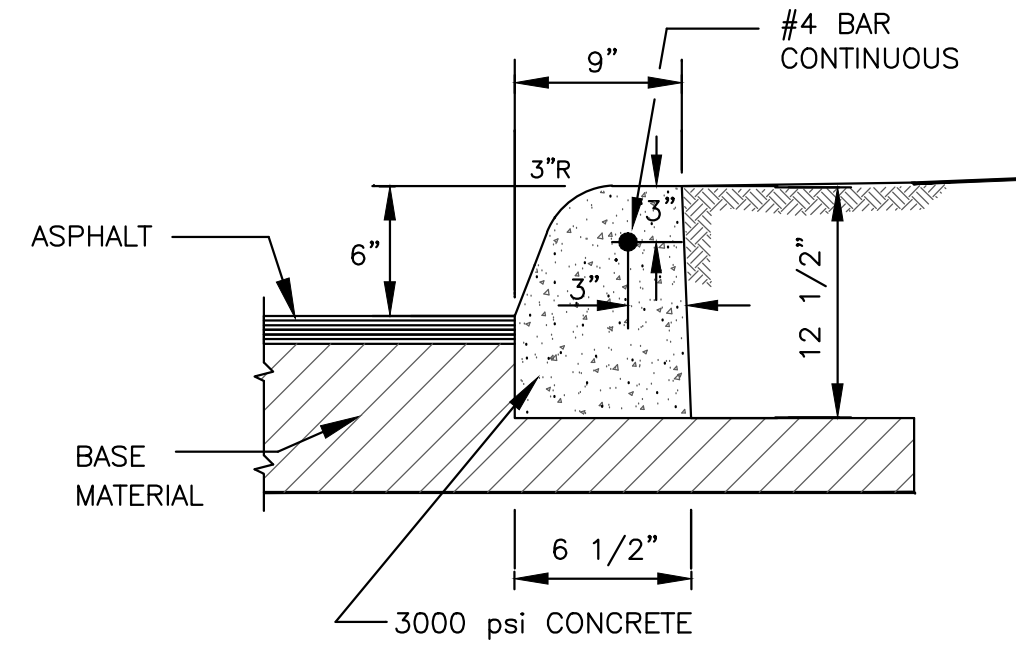
TYPE	MINIMUM	MAXIMUM
RESIDENTIAL	10'	20'
COMMERCIAL - ONE WAY	12'	20'
COMMERCIAL - TWO WAY	24'	30'



12 TYPICAL COMMERCIAL DRIVEWAY SECTION
NOT TO SCALE



13 DRIVEWAY - CONCRETE HIGH CURB
NOT TO SCALE



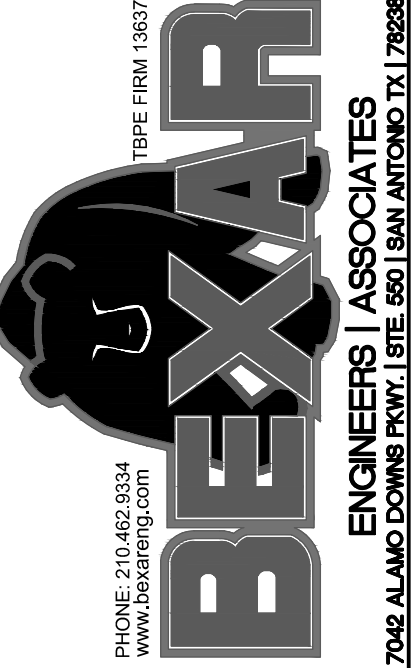
14 MACHINE LAID CURB AT ASPHALT PAVEMENT
NOT TO SCALE

4. 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 2' FROM THE BACK OF CURB.
5. FOR OTHER THAN LOCAL TYPE 'A' STREETS, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' 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.
6. 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.
7. 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.
8. 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%.
9. SIDEWALK RAMP SURFACE SHALL BE BRUSH FINISHED.

REVISIONS:
NO. DATE DESCRIPTION

10/04/2022

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FUNDING P.E. REG. NO.
108449 DATE: 9/9/2022

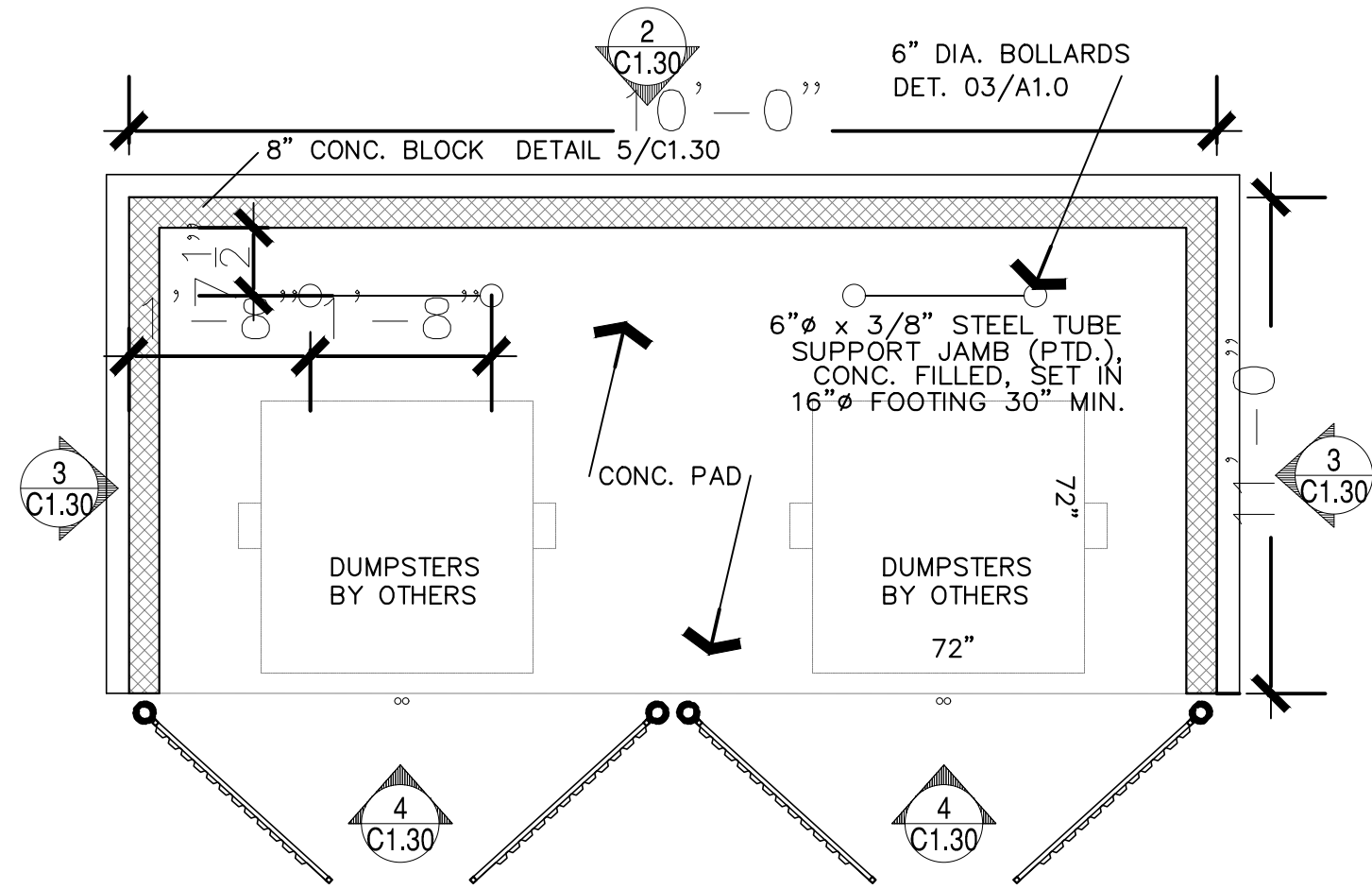


SITE DETAILS

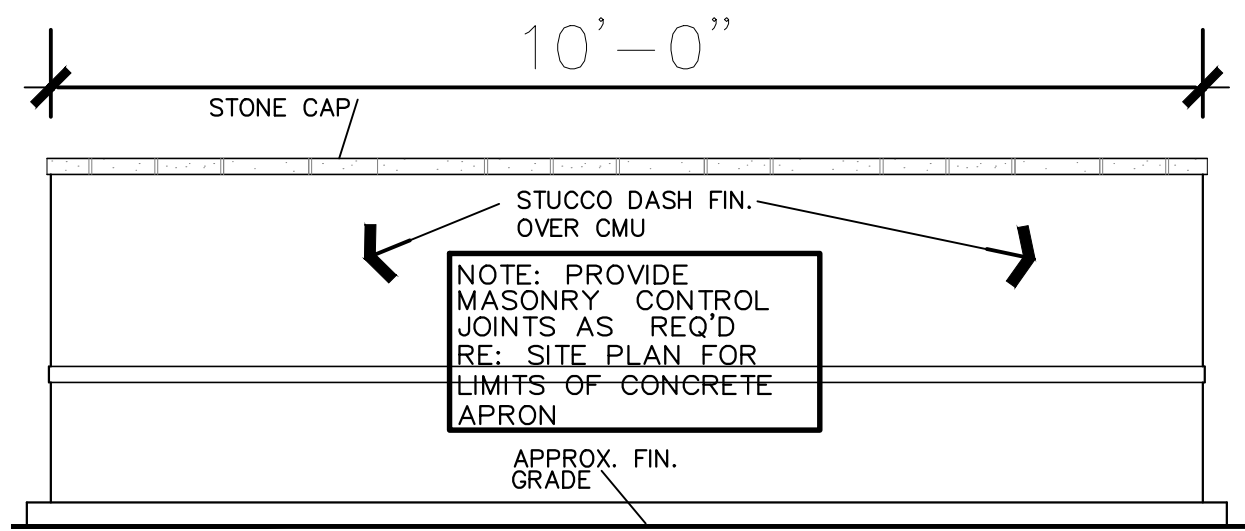
NACOGDOCHES
NEW CONSTRUCTION
15709 NACOGDOCHES RD
SAN ANTONIO, TEXAS 78247

DESIGN RL
DRAWN SA
CHECKED DA
DATE 10/04/2022
JOB NO. 2201046
SHEET

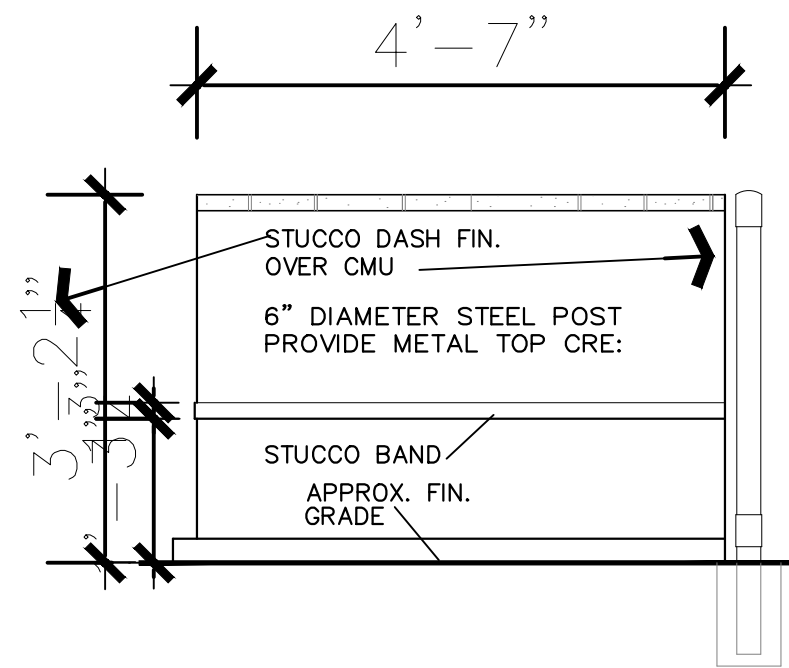
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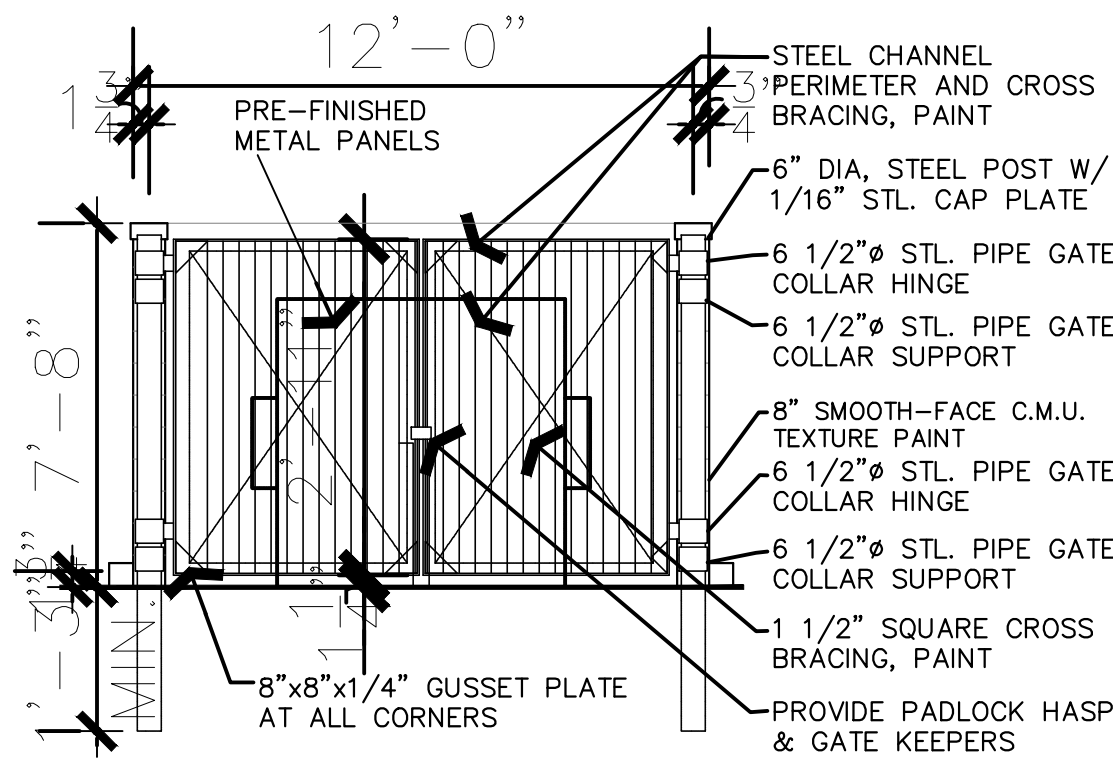
1 DUMPSTER ENCLOSURE PLAN
SCALE: 1/4" = 1'-0"



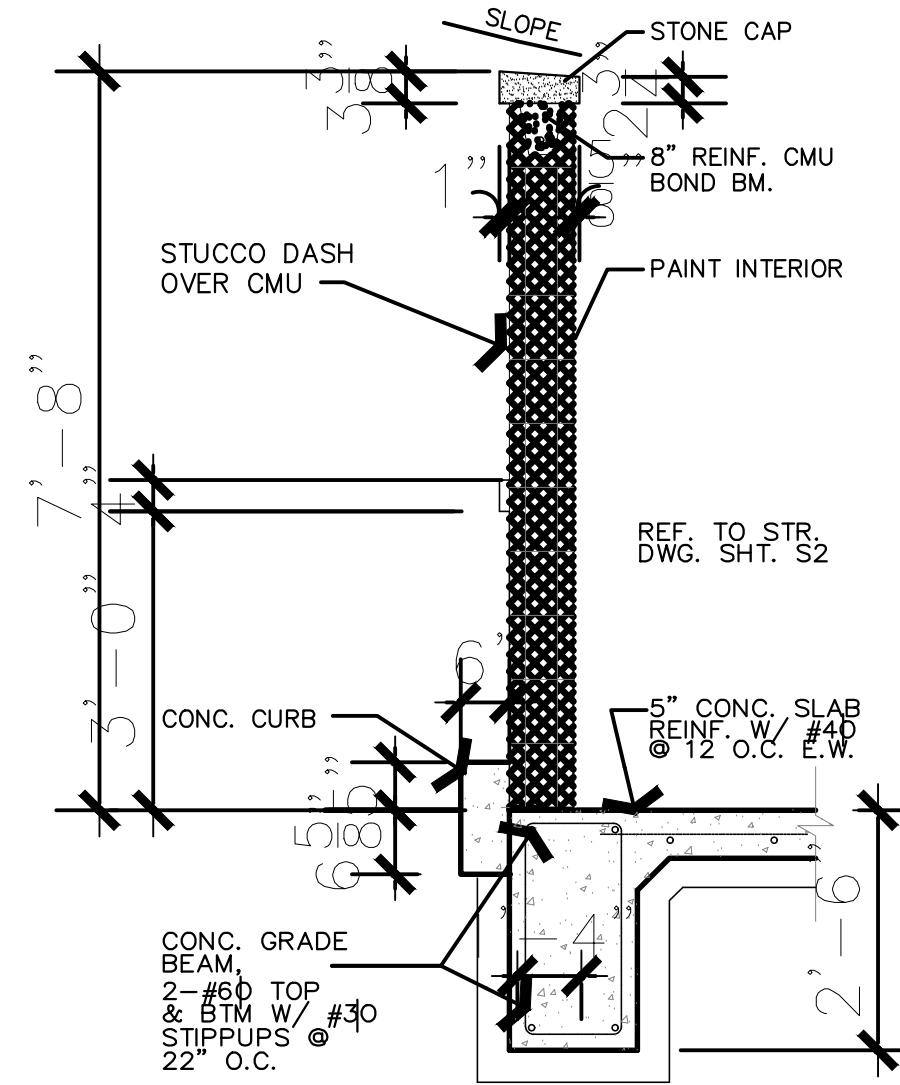
2 DUMPSTER ENCLOSURE REAR VIEW
SCALE: 1/4" = 1'-0"



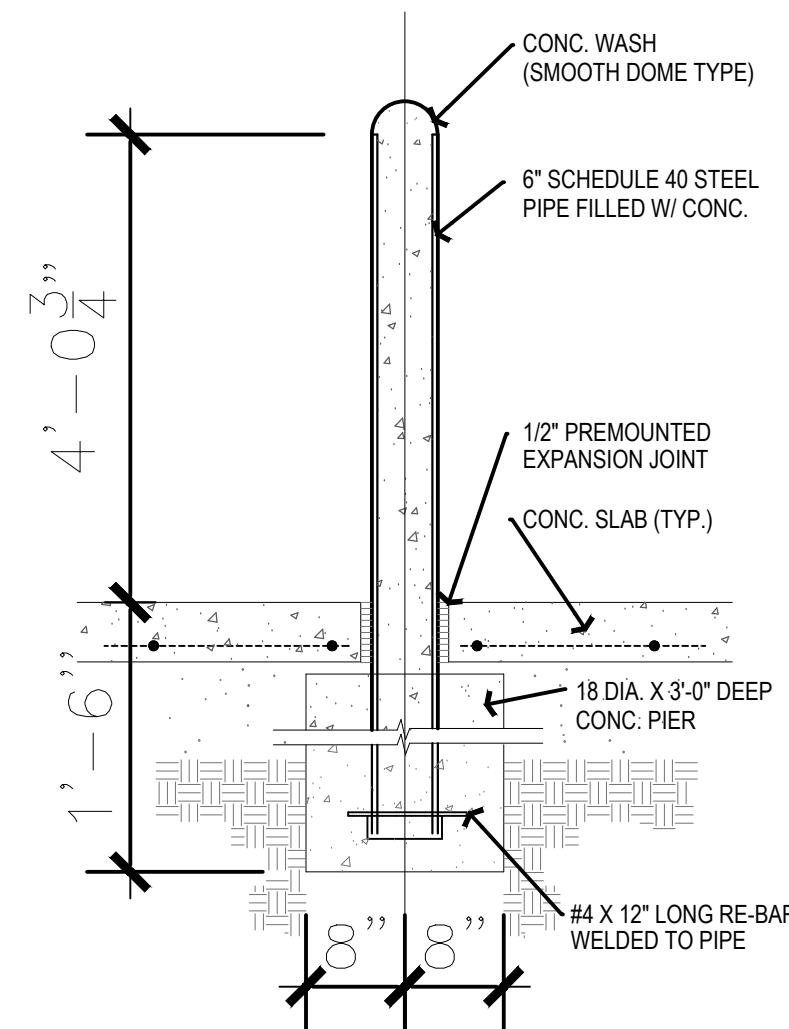
3 DUMPSTER ENCLOSURE SIDE VIEW
SCALE: 1/4" = 1'-0"



4 DUMPSTER ENCLOSURE FRONT VIEW
SCALE: 1/4" = 1'-0"



5 DUMPSTER ENCLOSURE WALL DETAIL
SCALE: 1/4" = 1'-0"



6 BOLLARD DETAIL
SCALE: 1/4" = 1'-0"

SITE DETAILS

NACOGDOCHES
NEW CONSTRUCTION
15709 NACOGDOCHES RD
SAN ANTONIO, TEXAS 78247

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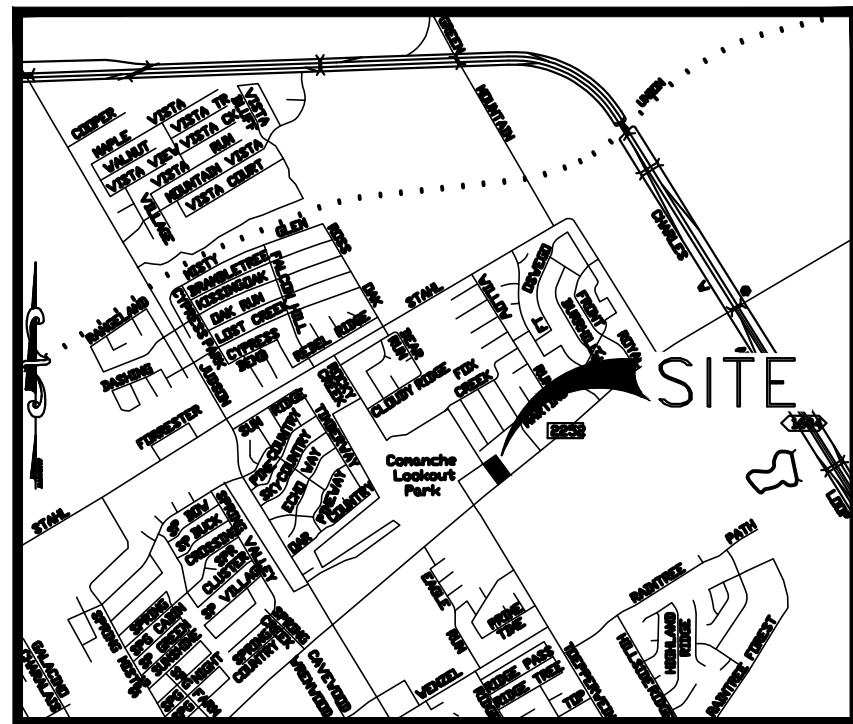
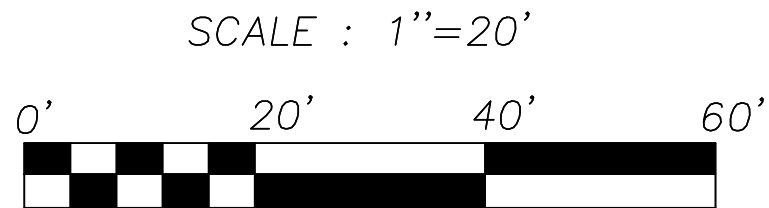
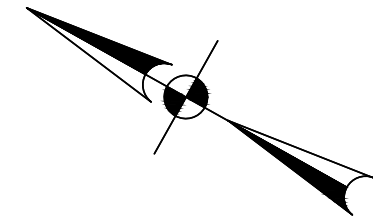
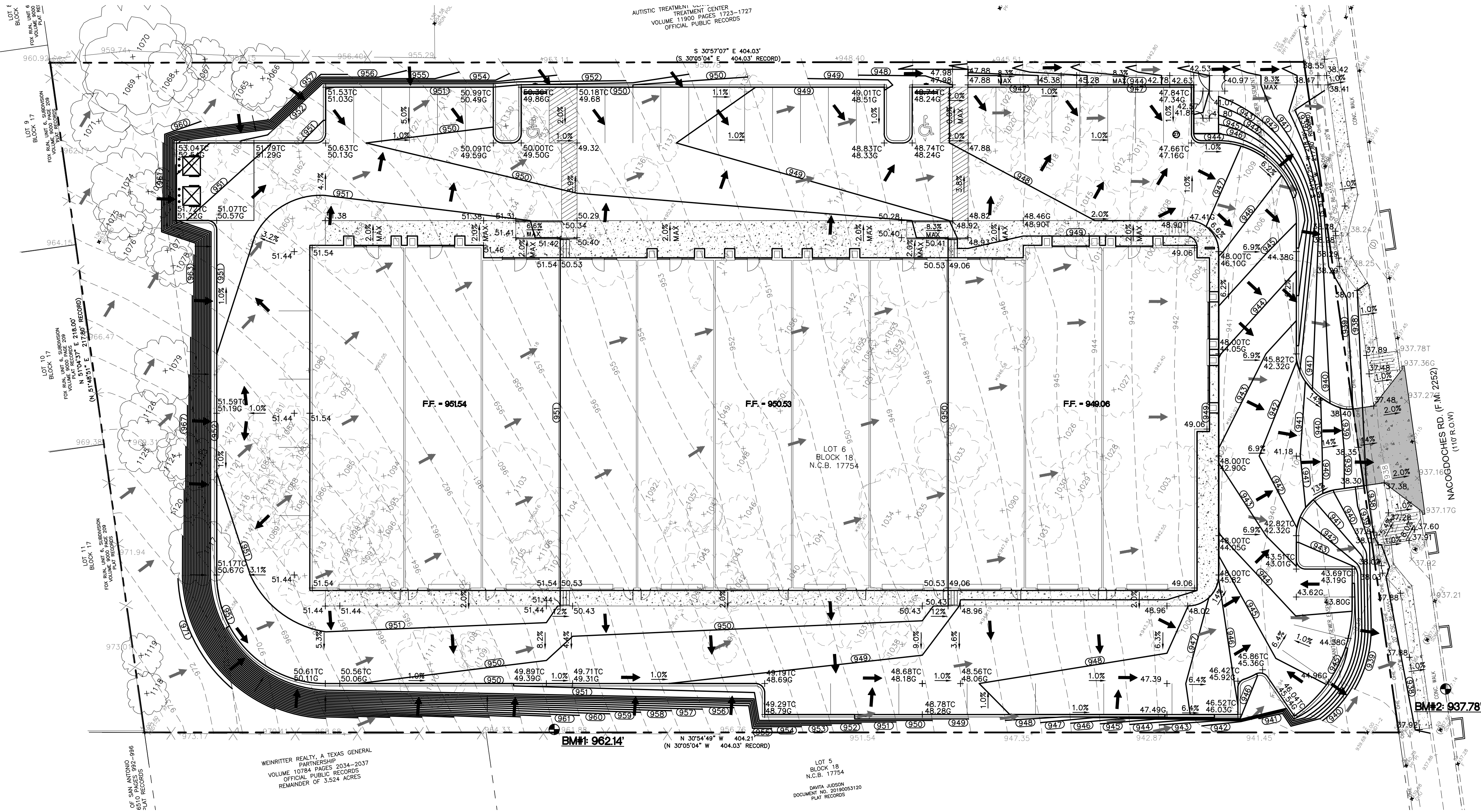
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10/04/21

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ENGINEER P.E. REG. NO.
108449 DATE: 9/2/2021

PHONE: 210.462.9334
www.bexareng.com
TYPE FIRM 13837
BEXAR
ENGINEERS & ASSOCIATES
7042 ALAMO DOWNS PKWY, STE 500 SAN ANTONIO, TX 78248

Date: Oct 04, 2022, 3:18pm User ID: sogul
File: U:\2201046-15709 NACOGDOCHES\Civil\C2.0-GR-NAC.dwg



LOCATION MAP
NOT TO SCALE

LEGEND

- | | |
|----------|--------------------------------|
| --- | PROJECT LIMITS |
| x 700 | EXISTING SPOT ELEVATION |
| + 700 G | PROPOSED TOP OF GUTTER |
| + 700 TW | PROPOSED TOP OF WALL |
| + 700 | PROPOSED SPOT ELEVATION |
| + 700 TC | PROPOSED TOP OF CURB ELEVATION |
| --- | EXISTING CONTOUR |
| (780) | PROPOSED CONTOUR |
| --- | DRAINAGE SWALE |
| --- | PROPERTY LINE |
| --- | PROPOSED HIGH POINT |
| --- | PROPOSED DRAINAGE FLOW ARROW |
| --- | EXISTING DRAINAGE FLOW ARROW |
| --- | PROPOSED DRIVEWAY |
| --- | PROPOSED CURB |
| --- | SAWTOOTH CURB |
| --- | EXISTING CURB TO REMAIN |

GRADING AND DRAINAGE GENERAL NOTES

- ALL GRADES AND CONTOURS SHOWN ARE FINAL, TOP OF FINISHED SURFACE ELEVATIONS.
- POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW PONDING OF WATER AND NOT TO BLOCK DRAINAGE FLOW FOR ADJACENT PROPERTY.
- NO ABRUPT CHANGE OF GRADE SHALL OCCUR.
- ALL DISTURBED AREAS SHALL BE REVEGETATED, BY THE CONTRACTOR, IN ACCORDANCE WITH PROJECT SPECIFICATIONS, AND LANDSCAPING PLANS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
- ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL APPLICABLE CITY OF SAN ANTONIO SPECIFICATIONS FOR CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ORIGINAL, OR BETTER, CONDITION TO ANY DAMAGES DONE TO EXISTING UTILITIES, FENCES, PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEM).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
- CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS, AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
- ALL EXCAVATION IS UNCLASSIFIED.
- PROPOSED SPOT ELEVATIONS ARE BASED OFF DATUM OF ELEVATION 900'.

NOTE: CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT TYPES AND SECTIONS.

ADDRESS

15709 NACOGDOCHES RD.
SAN ANTONIO, TEXAS 78247

LEGAL DESCRIPTION

LOT 6
COUNTY BLOCK 18
PLAT NAME: NACOGDOCHES
VOLUME ---, PAGE ---

BENCHMARK #1:
1/2" STEEL ROD WITH AN ORANGE 'RPLS 5207'
PLASTIC CAP
(GPS TRAV) ELEV. = 962.14'
BENCHMARK #2:
NAIL IN CURB
(GPS TRAV) ELEV. = 937.78'

SITE INFORMATION

PARKING INFORMATION:
PARKING SPACES = 41
HANDICAP PARKING SPACES = 2
TOTAL SPACES = 27
WAREHOUSE AREA = ±31,509 S.F.
TOTAL REQUIRED MIN. SPACES: 16

GRADING & DRAINAGE PLAN

DESIGN RL
DRAWN SA
CHECKED DA
DATE 9/30/2022
JOB NO. 2201046
SHEET

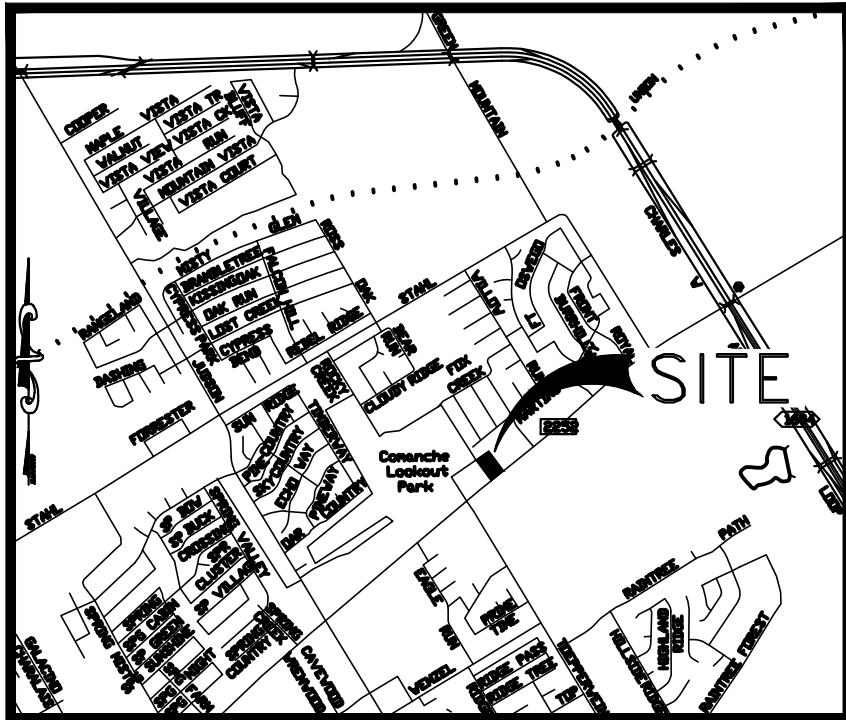
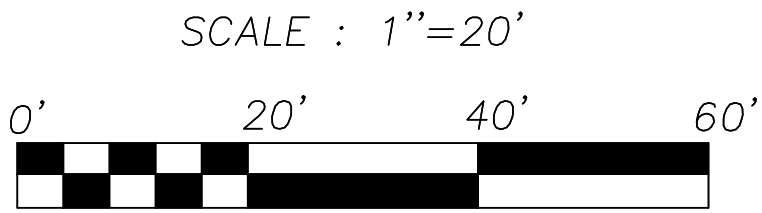
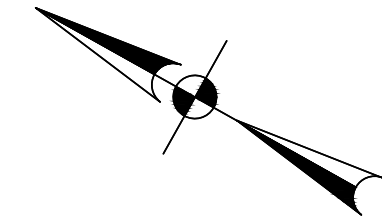
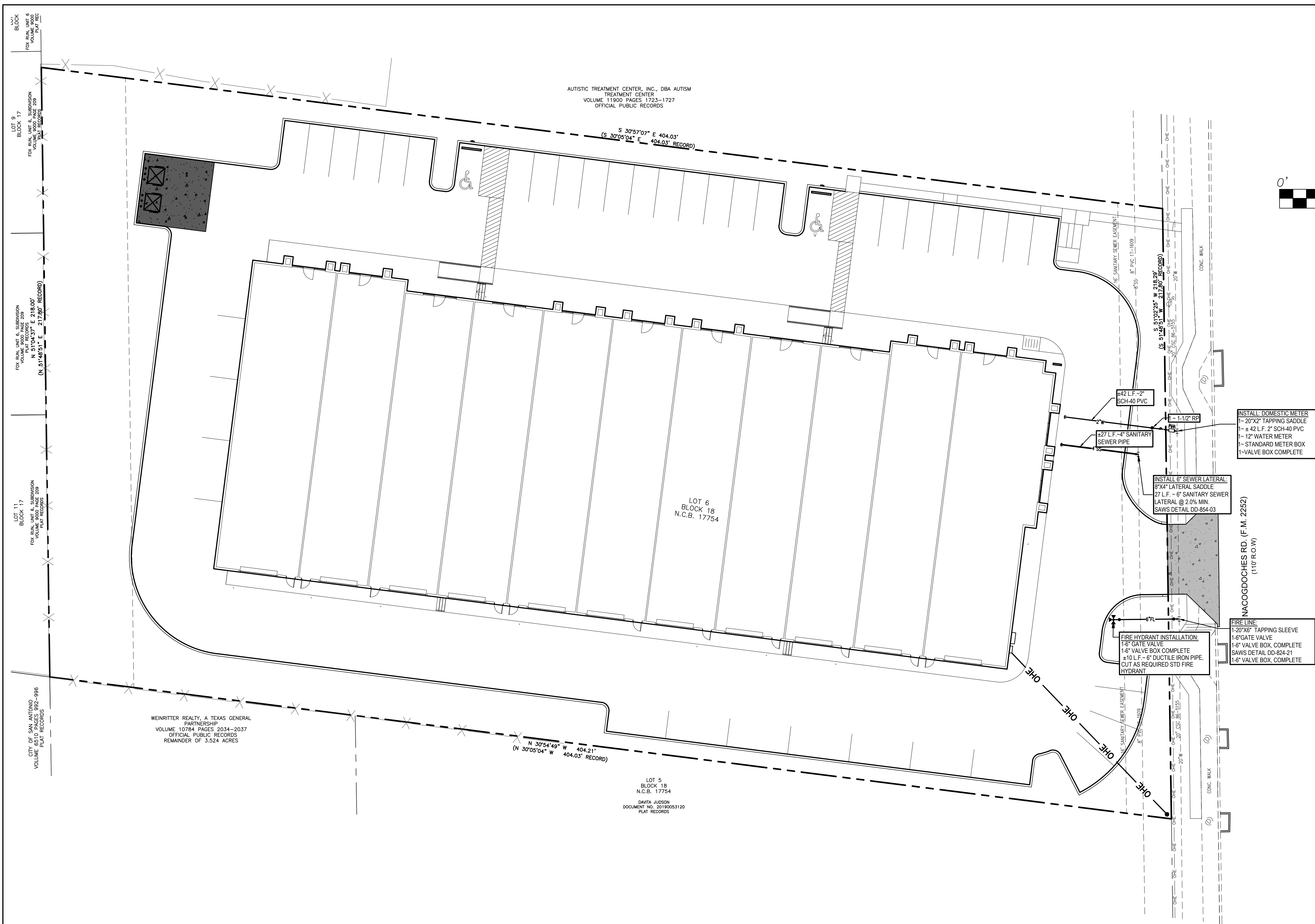
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9/30/2022
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CONSTRUCTION
ENGINEER P.E. REG. NO.
108449 DATE: 9/7/2022

TEPE FIRM 1837
PHONE: 210.462.8334
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BEXAR
ENGINEERS & ASSOCIATES
7042 ALAMO DR. SUITE 500 SAN ANTONIO, TX 78247

Date: Oct 04, 2022, 3:25pm User ID: sogul
File: U:\2201046-15709 NACOGDOCHES\Civil\C3.0-OU-NAC.dwg



LOCATION MAP
NOT TO SCALE

LEGEND

	EXISTING SANITARY SEWER LINE
	PROPOSED SANITARY SEWER LINE
	PROPOSED GREASE WASTE LINE
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING OVERHEAD ELECTRIC
	PROPOSED OVERHEAD ELECTRIC/TELEPHONE
	PROPOSED UNDERGROUND ELECTRIC/TELEPHONE
	EXISTING UNDERGROUND TELEPHONE
	PROPOSED GAS LINE
	EXISTING WATER METER
	NEW WATER METER
	PROPOSED RISER POLE 3-PHASE
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING UTILITY POLE
	EXISTING CLEANOUT
	EXISTING SANITARY SEWER MANHOLE
	EXISTING STORM DRAIN MANHOLE
	EXISTING SOUTHWESTERN BELL MANHOLE
	EXISTING WATER VALVE
	PROPOSED FIRE LANE

KEYED NOTES:

1. CONTRACTOR TO ENSURE THAT THERE IS NO INTERRUPTION OF INGRESS/EGRESS OR OBSTRUCTION IN DRIVE WAY TO IMPED ACCESS TO ADJACENT LOTS.

CAUTION!!
CONTRACTOR TO VERIFY EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ENGINEER OF ANY CONFLICTS.

NOTE:
REFER TO MEP PLANS FOR SLEEVES/CONDUITS FOR PARKING LOT LIGHTS, ALL SIGNAGE, AND COMMUNICATIONS TO PROPOSED MENU BOARD.

CONTRACTOR TO ENSURE THERE ARE NO CONFLICTS BETWEEN LIGHT POLE BASES AND ANY UTILITIES.

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.

JOINT RESTRAINT NOTE:

CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE JOINT RESTRAINING HARNESSSES OR FIELD LOOK GASKETS AT ALL JOINTS WITHIN THE LENGTH SHOWN. CONTRACTOR SHALL ENSURE THAT ALL TEE'S, BEND'S, VALVE'S, ETC. HAVE A MINIMUM OF 5' OF PIPE WITH NO JOINTS AT EACH SIDE OF THE FITTING. JOINT RESTRAINTS AND RETAINER GLANDS SHALL BE CALCULATED BY THE DEVELOPER'S ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE JOINT RESTRAINTS WITH THE DEVELOPER'S ENGINEER.

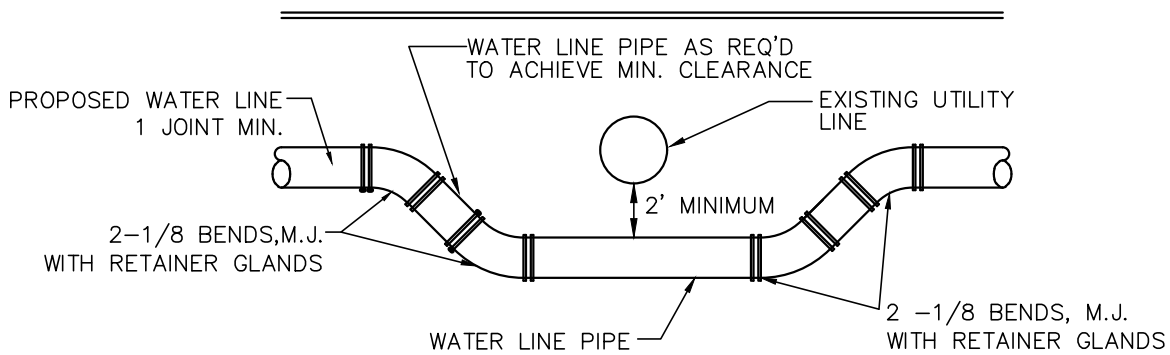
ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSIT PIPE, CONTAINS ASBESTOS - CONTAINING MATERIAL (ACM) AND IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS ARE APPLICABLE WHEN DANDLING, REMOVING, AND DISPOSING OF THIS PIPE. PAYMENT FOR SUCH WORK IS TO MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000, "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE".

UTILITY CONSTRUCTION NOTES:

- ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL CONFORM TO ALL APPLICABLE CITY OF SAN ANTONIO RULES AND REQUIREMENTS FOR STREETS, SIDEWALKS ALLEYS AND ROADWAY DESIGN (LATEST EDITION), THE TEXAS ALLEYS AND ROADWAY DESIGN (LATEST EDITION), THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (LATEST EDITION), AND SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER WORKS CONSTRUCTION (LATEST EDITION).
- THE LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS OF UTILITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY CONFLICTS IMMEDIATELY. ANY DAMAGE BY THE CONTRACTOR TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AT HIS EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WHETHER SHOWN ON PLANS OR NOT.

UTILITY	AGENCY	PHONE NUMBER
SANITARY SEWER	SAWS	233-3503
WATER	SAWS	233-3511
TELEPHONE	AT&T	283-1771
GAS	CITY PUBLIC SERVICE	353-4807
ELECTRIC	CITY PUBLIC SERVICE	353-2527
CABLE T.V.	TIME WARNER CABLE	352-4466
	DIGTESS	1-800-DIGTESS
- ALL UTILITIES SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
- ALL UTILITY CONNECTIONS SHALL BE COORDINATED WITH THE MECHANICAL AND ELECTRICAL PLANS. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL ANY BENDS, FITTINGS, ETC. IN THE WATER LINE AS REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES. (NO SEPARATE PAY)

- NO WATER JETTING TO BACK FILL TRENCHES WILL BE ALLOWED ON THIS PROJECT.
- REFER TO ELECTRICAL PLANS FOR PARKING LOT LIGHTING AND SIGN LIGHTING.
- ADDITIONAL CONDUITS ARE SHOWN ON OTHER PLANS.
- POLYVINYL CHLORIDE (PVC) SEWER PIPE SHALL BE SDR 35. FITTINGS AND JOINTS SHALL CONFORM TO COMPATIBLE SDR 35 PIPE, WITH THE EXCEPTION THAT SOLVENT CEMENT JOINTS SHALL NOT BE USED.
- THE CONTRACTOR SHALL INSTALL THE SANITARY SEWER SYSTEM OUTSIDE OF THE BUILDING IN ACCORDANCE WITH PROCEDURES SPECIFIED BY THE CITY OF SAN ANTONIO PLUMBING CODE. THE LINE SHALL BE INSPECTED BY CITY OF SAN ANTONIO.
- WHEN SEWER LINES ARE INSTALLED IN THE VICINITY OF WATER MAINS, SUCH INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE TEXAS DEPARTMENT OF HEALTH "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS" (1988 OR ANY REVISIONS THERETO).
- DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CPS ENERGY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
- ALL SPOIL AND OTHER UNSUITABLE MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT HIS EXPENSE.
- ALL SERVICES ARE BROUGHT TO WITHIN 5 FEET OF THE BUILDING. BUILDING CONTRACTOR SHALL INCLUDE IN THEIR BID THE COST TO CONNECT ALL SERVICES TO THE BUILDING.
- CLEAN OUTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLUMBING CODE AND AS AS DIRECTED BY THE PLUMBING INSPECTOR. ALL CLEAN OUT TOPS SHALL BE INSTALLED AT LEAST 2" ABOVE FINISHED GRADE OUTSIDE PAVEMENT AND FLUSH WITH FINISHED GRADE WITHIN THE PAVEMENT AREAS.
- REFER TO MEP PLANS FOR CONDUITS/SLEEVES TO PARKING LOT LIGHTS AND ALL SIGNAGE.



WATER / SWER CROSSING DETAIL

ADDRESS

15709 NACOGDOCHES RD.
SAN ANTONIO, TEXAS 78247

LEGAL DESCRIPTION

LOT 6
COUNTY BLOCK 18
PLAT NAME: NACOGDOCHES
VOLUME ---, PAGE --

BENCHMARK #1:

1/2" STEEL ROD WITH AN ORANGE 'RPLS 5207'
PLASTIC CAP
(GPS TRAV) ELEV. = 962.14'
BENCHMARK #2:
NAIL IN CURB
(GPS TRAV) ELEV. = 937.78'

SITE INFORMATION

PARKING INFORMATION:	
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HANDICAP PARKING SPACES =	2
TOTAL SPACES =	27
WAREHOUSE AREA =	±31,509 S.F.
TOTAL REQUIRED MIN. SPACES:	16

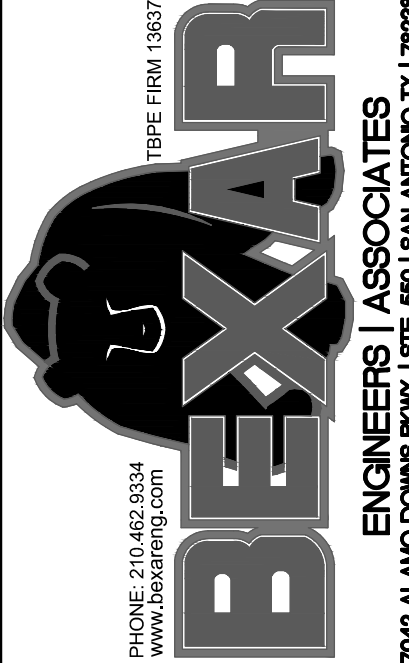
OVERALL UTILITY PLAN

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SHEET

C3.00

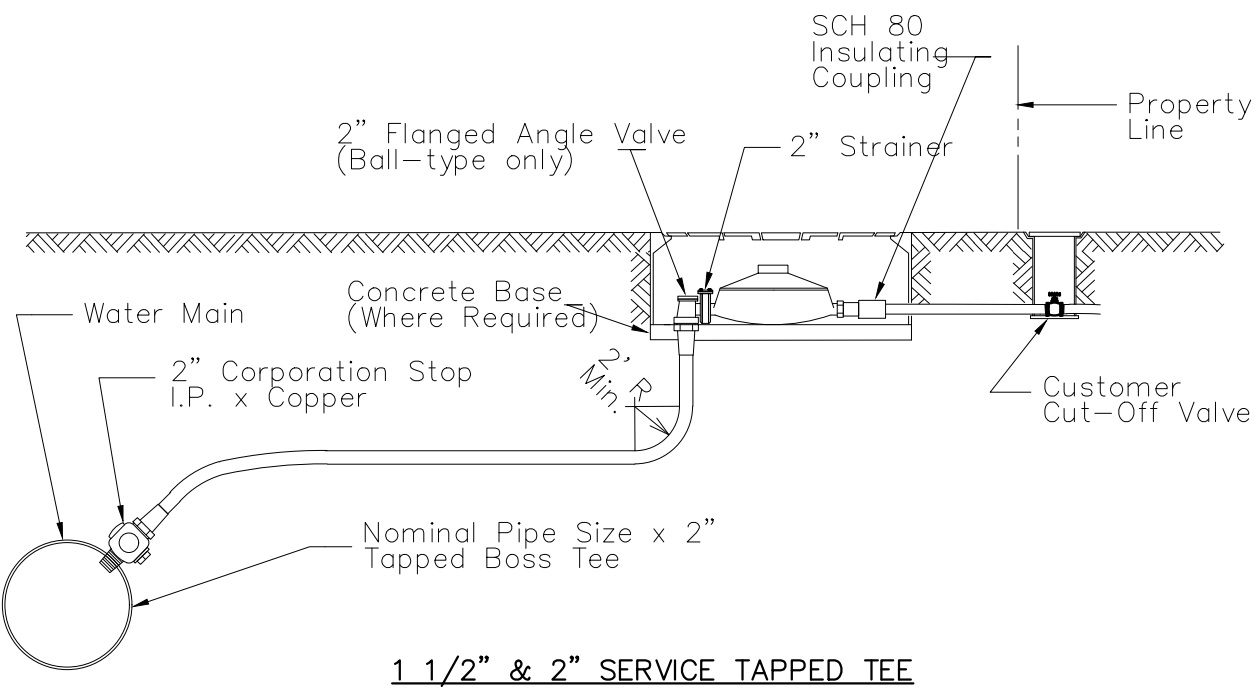
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108449 DATE: 9/9/2022



NACOGDOCHES
NEW CONSTRUCTION
15709 NACOGDOCHES RD
SAN ANTONIO, TEXAS 78247

PIPE DIAMETER	PIPE TAPPING SCHEDULE			
	3/4"	1"	1 1/2"	2"
6" A.C.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
6" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
8" A.C.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
8" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
8" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
10" A.C.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
10" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
10" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
12" A.C.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
12" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
12" PVC	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle	Tap With Service Saddle
16" A.C.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle
16" C.I. or D.I.	Tap	Tap	Tap With Service Saddle	Tap With Service Saddle

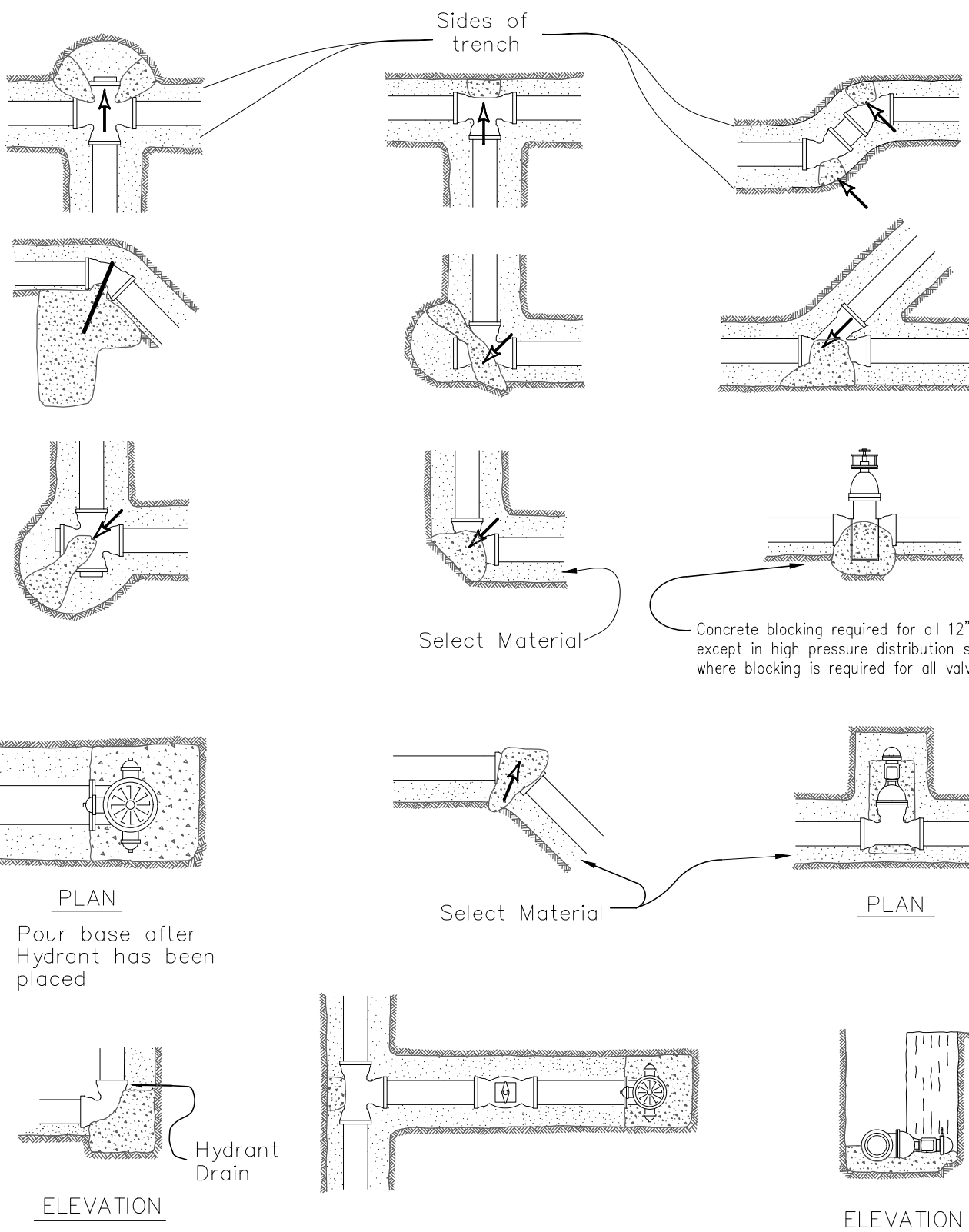


Note:
For direct tap to main, see Tapping Schedule

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	COPPER SERVICE INSTALLATION TAPPING SCHEDULE	APPROVED AUGUST 1998	REVISED
		DD-824-01	SHEET 3 OF 3

PIPE TAPPING SCHEDULE

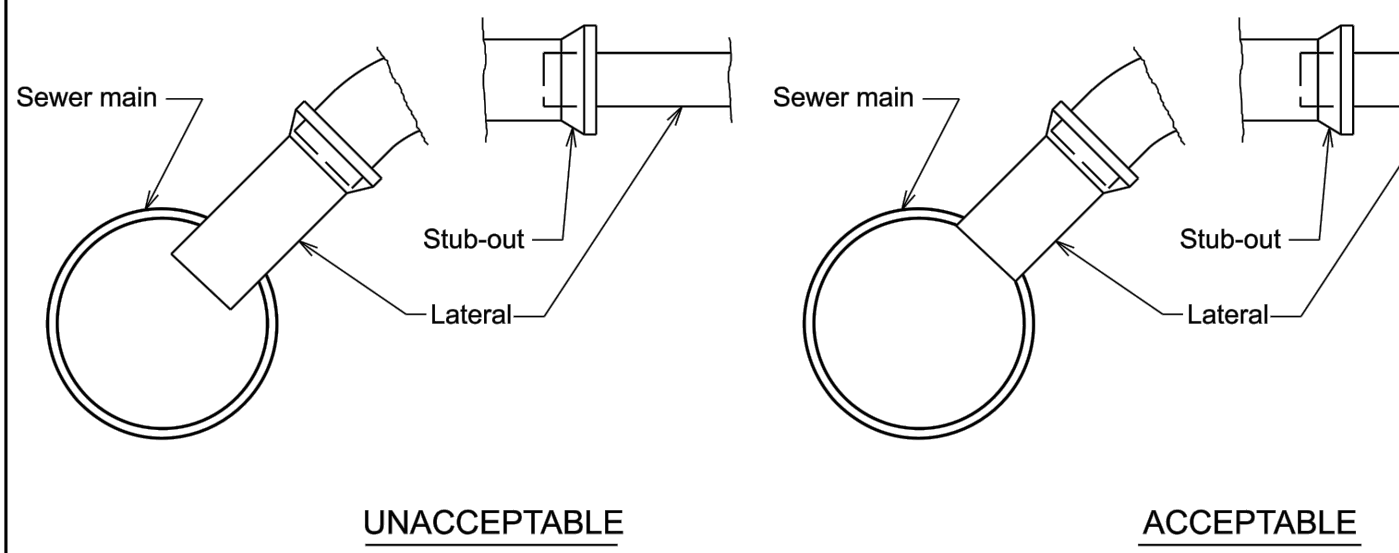
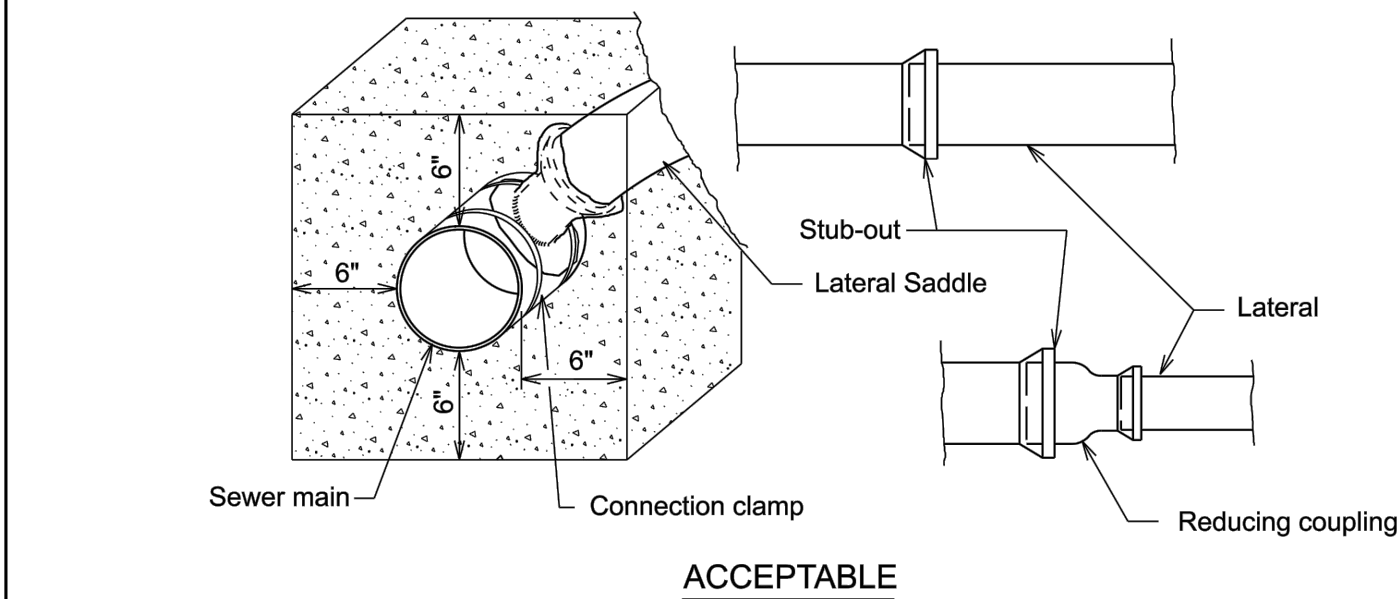
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THRUST BLOCKING FOR WATER FITTINGS DETAIL

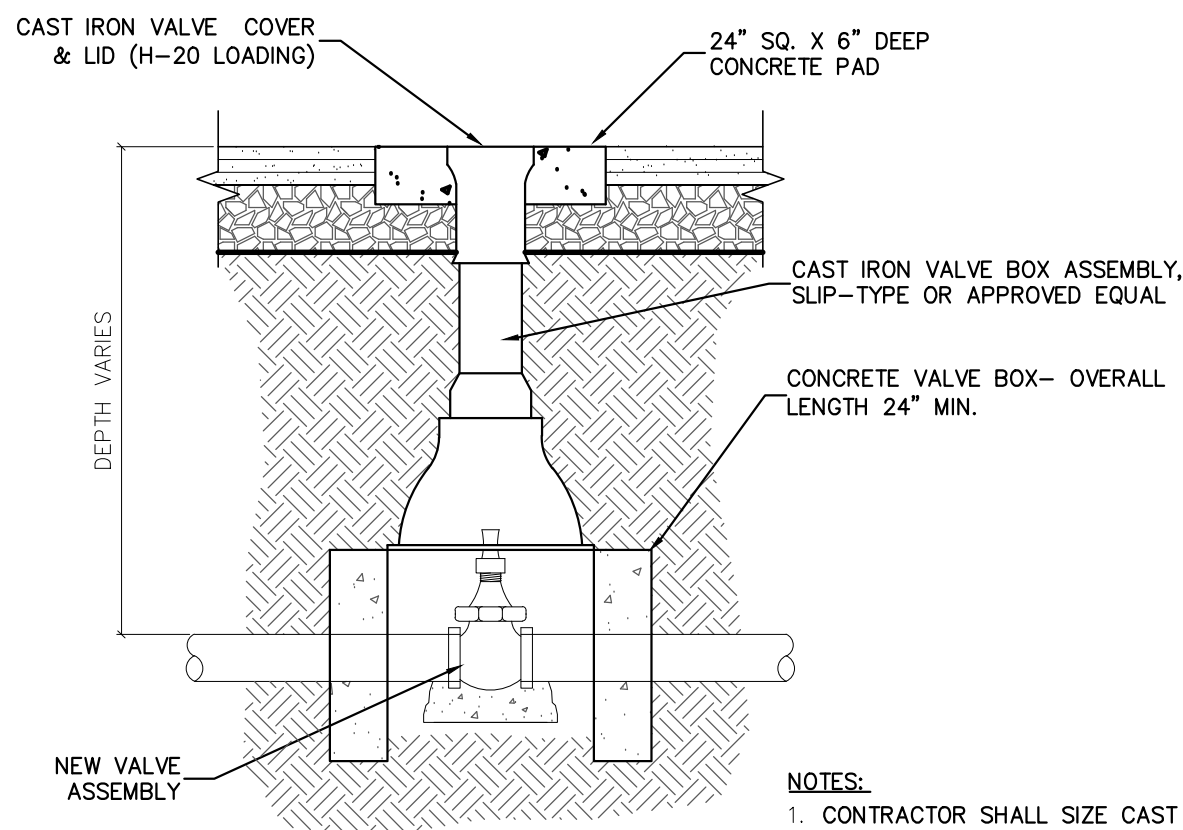
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LATERAL CONNECTION TO EXISTING SEWER MAIN



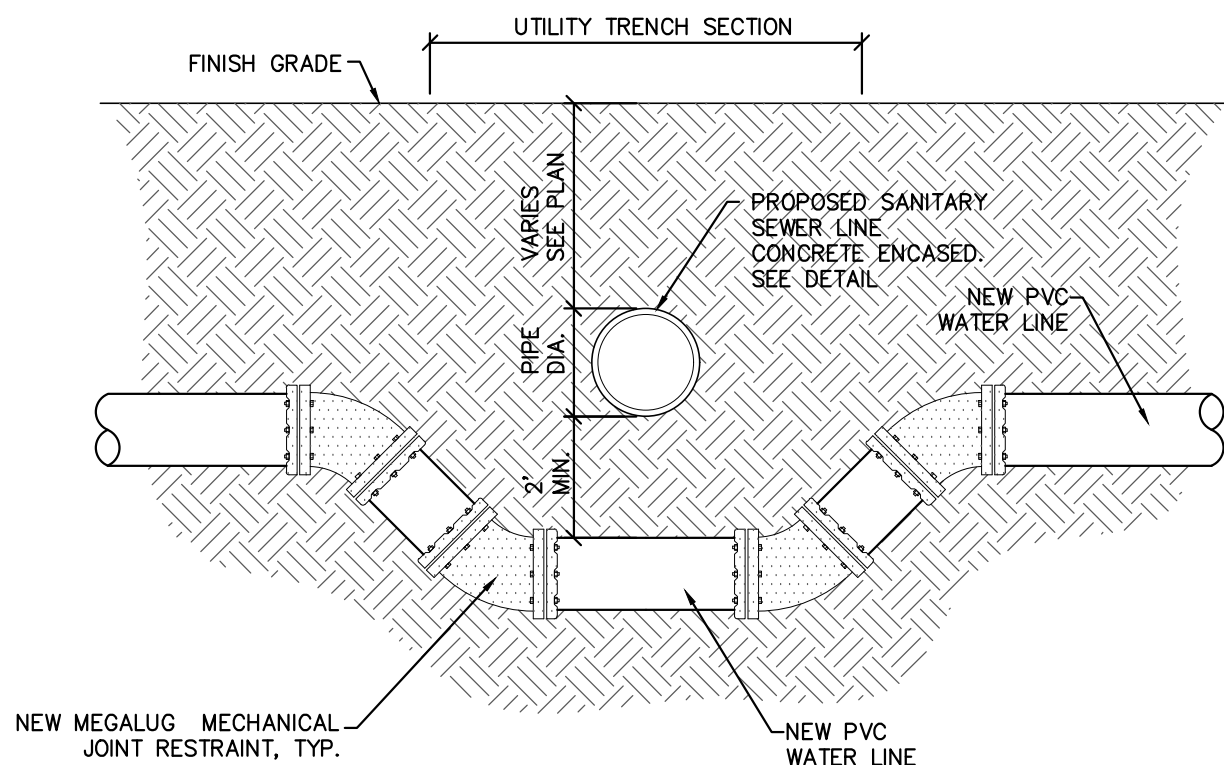
Note:
The saddle shall be permanently bonded to the existing main by the use of compounds or clamps as recommended by the manufacturer.

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	LATERAL CONNECTION	APPROVED MARCH 2008	REVISED APRIL 2014
		DD-854-03	SHEET 1 OF 1



NOTES:
1. CONTRACTOR SHALL SIZE CAST IRON VALVE BOX ASSEMBLY BASED ON THE VALVE DIMENSIONS.

N.T.S.



NOTES:
1. MECHANICAL JOINTS SHALL CONFORM TO THE AWWA C-600 INSTALLATION PROCEDURES.
2. REFERENCE THE SPECIFICATIONS FOR MECHANICALLY RESTRAINED JOINTS FOR ADDITIONAL INFORMATION.
3. RECOMPACT ALL PIPE BEDDING AROUND NEW AND EXISTING PIPES AND REPAIR OR RECONSTRUCT FINISH GRADE MATERIAL.

WATER LINE CROSSING DETAIL

N.T.S.

SAWS CONSTRUCTION NOTES COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT

Last Revised: 7/2017

GENERAL SELECTION

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

- Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System" Texas Administrative Code (TAC) Title 30 Part 1 Chapter 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 280.
- Current TxDOT "Standard Specifications for Construction of Highways, Streets and Drainage".
- Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction".
- Current City of San Antonio "Standard Specifications for Public Works Construction".
- Current City of San Antonio Utility Excavation Criteria Manual (UECM).

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

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

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

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

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

- SAWS Utility Locates: <http://www.saws.org/service/locates>
- COSA Drainage (210) 207-0724 or (210) 207-6026
- COSA Traffic Signal Operations (210) 206-8480
- COSA Traffic Signal Damages (210) 207-3951
- Texas State Wide One Call Locator 1-800-545-6005 or 811

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

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

9. The Contractor shall comply with City of San Antonio or other governing municipality's tree ordinances when excavating near trees.

10. The Contractor shall not place any waste materials in the 100-year Flood Plain without first obtaining an approved Flood Plain Permit.

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

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

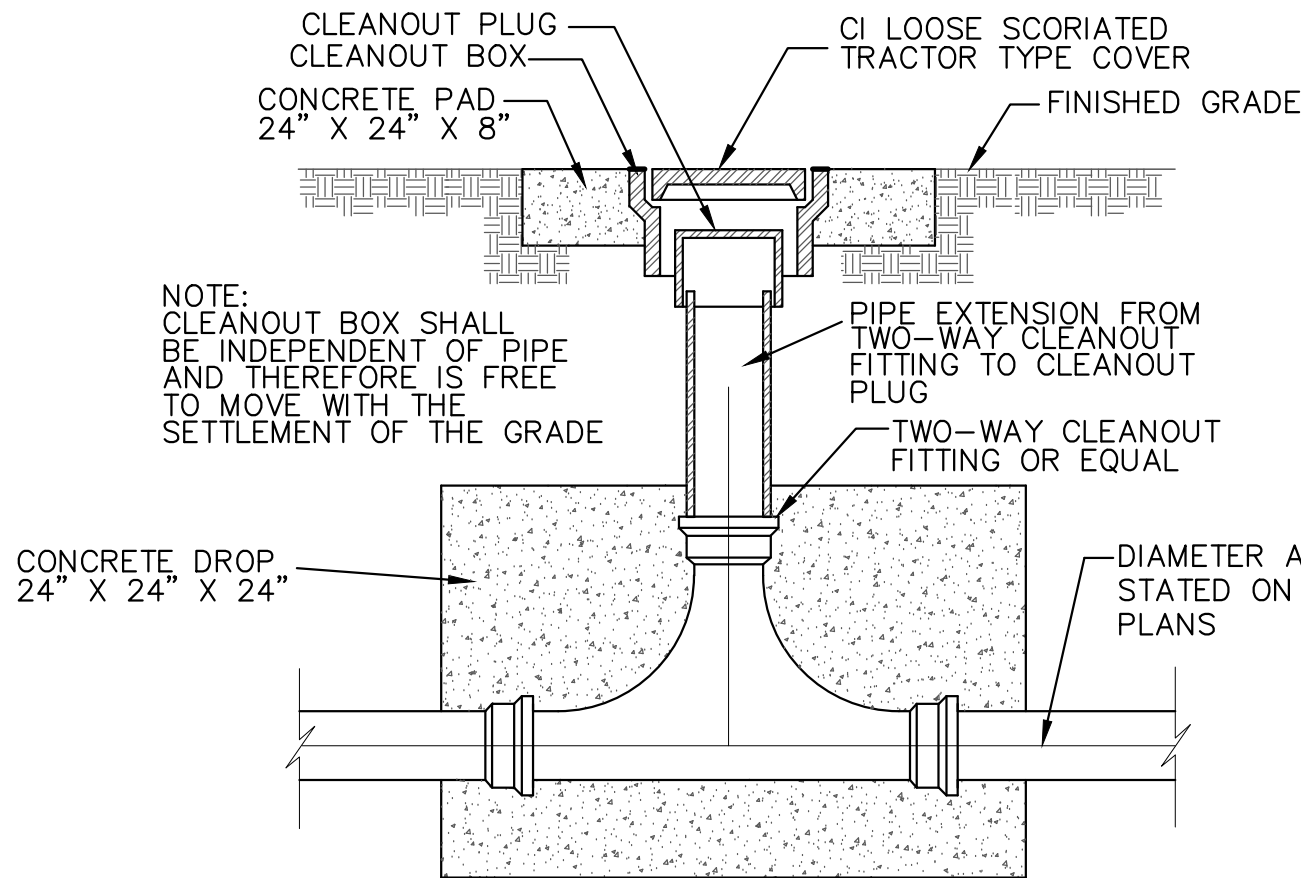
Any and all SAWS utility work installed without holiday/weekend approval will be subject to be uncovered for proper inspection.

12. Compaction note (Item 804): The Contractor shall be responsible for meeting the compaction requirements on all trench backfill and for paying for the tests performed by a third party. Compaction tests will be done at one location point randomly selected, or as indicated by the SAWS Inspector and/or the test administrator, per each 12-inch loose lift per 400 linear feet at a minimum. This project will not be accepted and finalized by SAWS without this requirement being met and verified by providing all necessary documented test results.

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

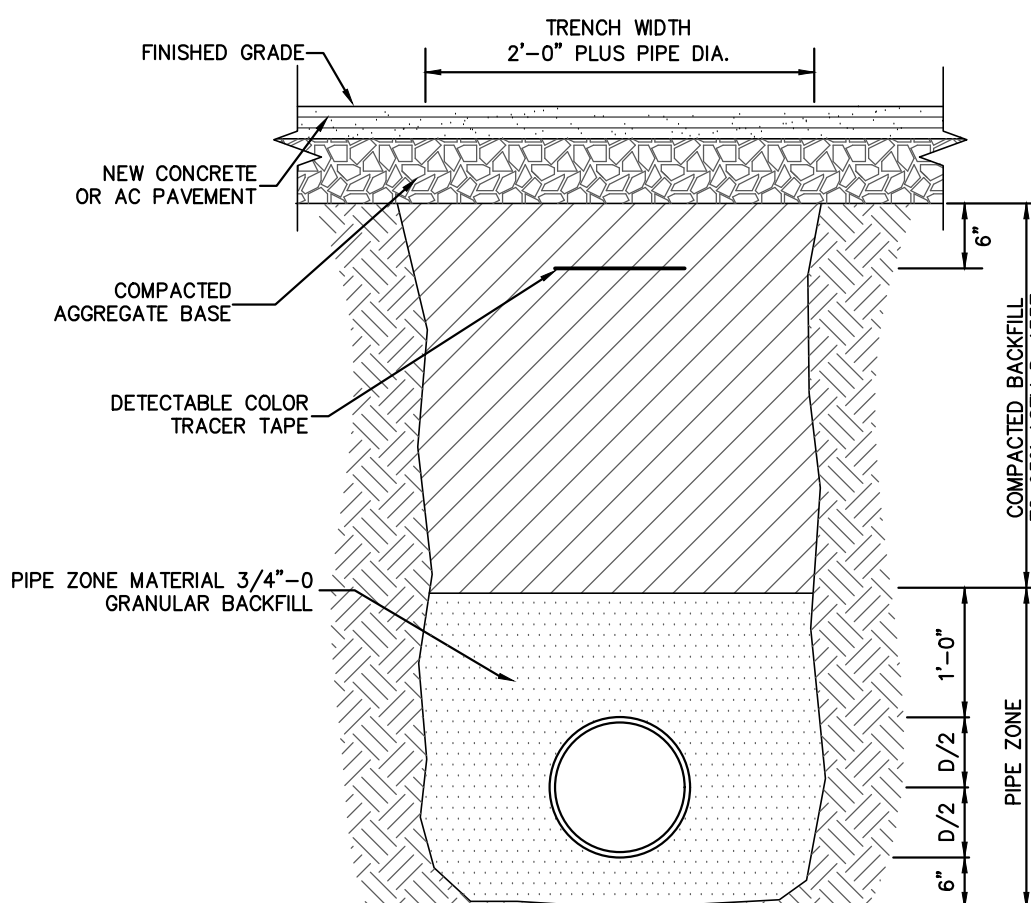
NOTES

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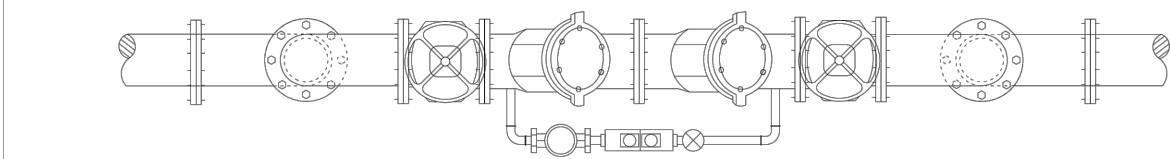
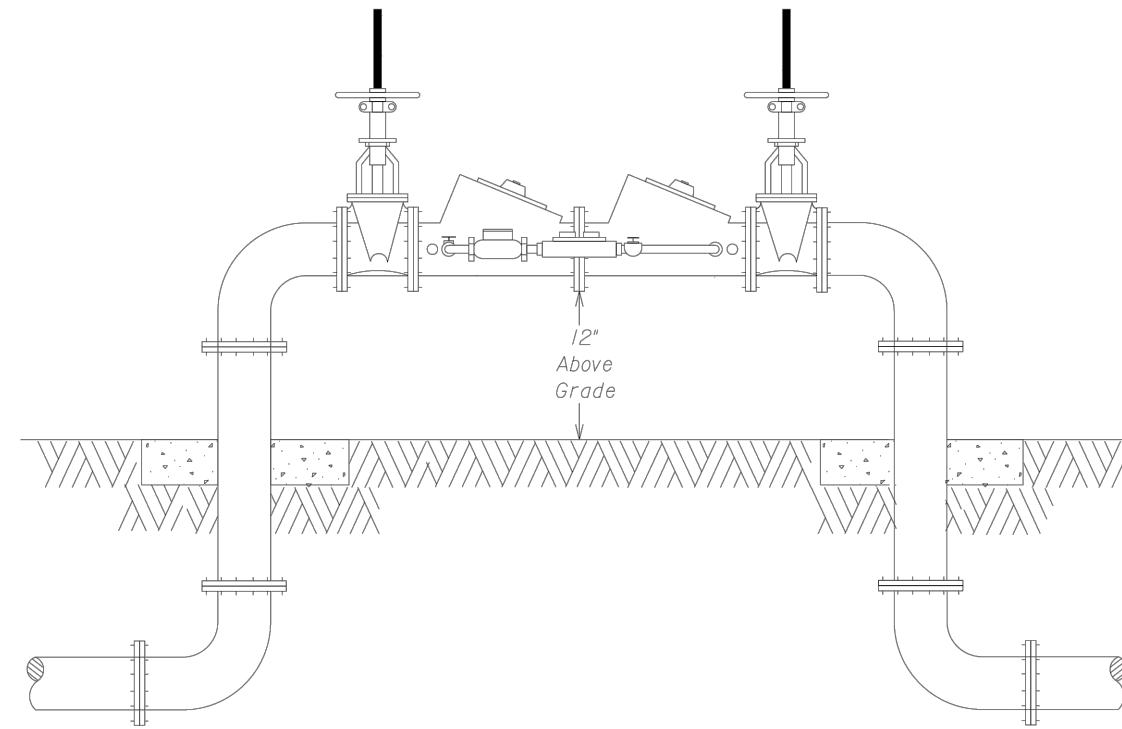
NOTE:
CLEANOUT BOX SHALL BE INDEPENDENT OF PIPE AND THEREFORE IS FREE TO MOVE WITH THE SETTLEMENT OF THE GRADE

N.T.S.



TRENCH DETAIL

N.T.S.



PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	DOUBLE CHECK DETECTOR (DCD) ASSEMBLY ABOVE GRADE INSTALLATION	APPROVED June 2008	REVISED
		DD-824-22	SHEET 1 OF 1

SAWS CONSTRUCTION NOTES COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT

Last Revised: 7/2017

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

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

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

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

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

5. All valves shall read "open right".

6. PRVs Required: Contractor to verify that no portion of the tract is below ground elevation of 8 feet where the static pressure will normally exceed 80 PSI. At all such locations where the ground level is below 8 feet, the Developer or Builder shall install at each lot, on the customer's side of the meter, an approved type pressure regulator in conformance with the Plumbing Code of the City of San Antonio. No dual services allowed for any lot(s) if a PRV is/are required for such lot(s), only single service connections shall be allowed. *Note: A pressure regulator is also known as a pressure reducing valve (PRV).

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

8. Backflow Prevention Devices:

- All irrigation services within residential areas are required to have backflow prevention devices.
- All commercial backflow prevention must be approved by SAWS prior to installation.

9. Final connection to the existing water main shall not be made until the water main has been pressure tested, chlorinated, and SAWS has released the main for tie-in and use.

SEWER NOTES

1. The Contractor is responsible for ensuring that no Sanitary Sewer Overflow (SSO) occurs as a result of their work. All contractor personnel responsible for SSO prevention and control shall be trained on proper response. Should an SSO occur, the contractor shall:

- Identify the source of the SSO and notify SAWS Emergency Operation Center (EOC) immediately at (210)233-2014. Provide the address of the spill and an estimated volume or flow.
- Attempt to eliminate the source of the SSO.
- Contain sewage from the SSO to the extent of preventing a possible contamination of waterways.
- Clean up spill site (return contained sewage to the collection system if possible) and properly dispose of contaminated soil/material.
- Clean the affected sewer mains and remove any debris.
- Meet all post-SSO requirements as per the EPA Consent Decree, including line cleaning and televising the affected sewer mains (at SAWS direction) within 24 hours.

Should the Contractor fail to address an SSO immediately and to the SAWS satisfaction, they will be responsible for all costs incurred by SAWS, including any EPA, TCEQ and/or any other Federal, State or Local Agencies.

No separate measurements or payment shall be made for this work. All work shall be done according to guidelines set by the TCEQ and SAWS.

2. If bypass pumping is required, the Contractor shall perform such work in accordance with SAWS Standard Specification for Water and Sanitary Sewer Construction, Item No. 864, "Bypass Pumping".

3. Prior to tie-ins, any shutdowns of existing force mains of any size must be coordinated with the SAWS Construction Inspection Division at (210)233-2973 at least one week in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly.

4. Sewer pipe where water line crosses shall be 160 psi and meet the requirements of ASTM D2241, TAC 217.53 and TCEQ 290.44(a)(4)(B). Contractor shall center 20' joint of 160 psi pressure rated PVC at the proposed water crossing.

5. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: It shall be the responsibility of the Contractor to make allowances and adjustments for top of manholes to match the finished grade of the project's improvements. (NSPI)

6. Spills, Overflows, or Discharges of Wastewater: All spills, overflows, or discharges of wastewater, recycled water, petroleum products, or chemicals must be reported immediately to the SAWS Inspector assigned to the Counter Permit or General Construction Permit (GCP). This requirement applies to every spill, overflow, or discharge regardless of size.

7. Manhole and all pipe testing (including the TV inspection) must be performed and passed prior to Final Field Acceptance by SAWS Construction Inspection Division, as per the SAWS Specifications for Water and Sanitary Sewer Construction.

8. All PVC pipe over 14 feet of cover shall be extra strength with minimum pipe stiffness of 115 psi.

NOTES

N.T.S.

UTILITY DETAILS

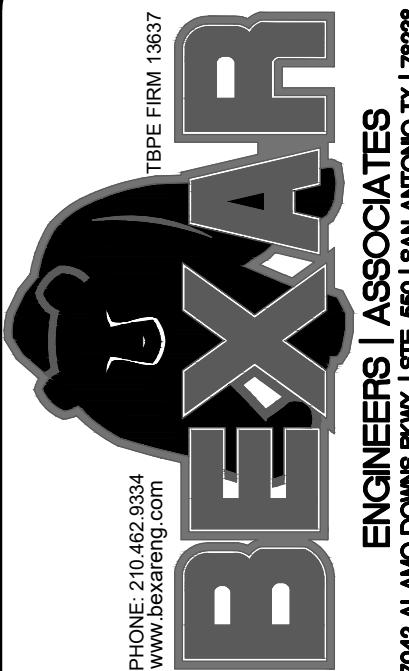
NACOGDOCHES
NEW CONSTRUCTION
15709 NACOGDOCHES RD
SAN ANTONIO, TEXAS 78247

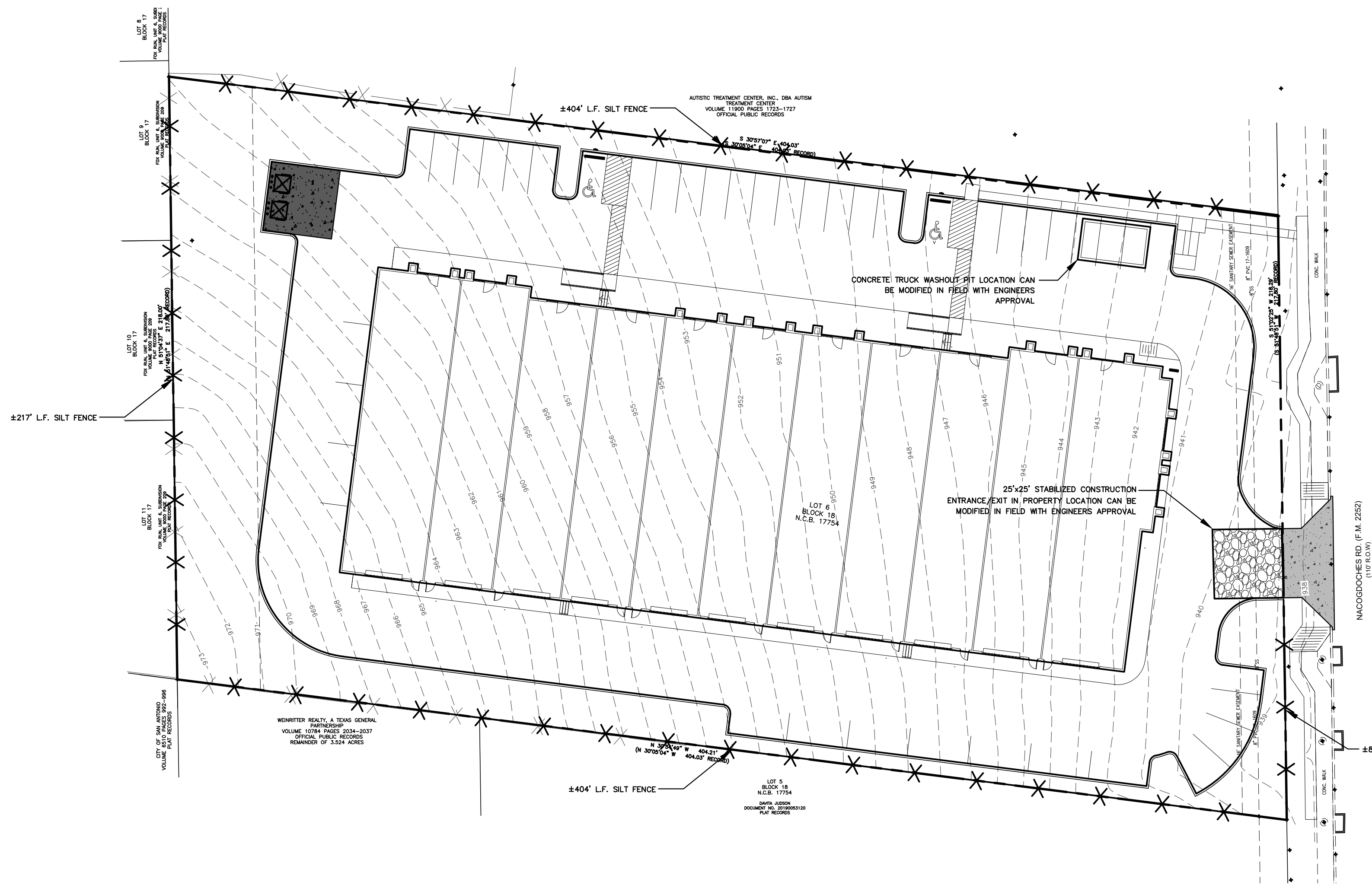
DESIGN RL
DRAWN SA
CHECKED DA
DATE 10/04/2022
JOB NO. 2201046
SHEET

C3.10

1004/2022

INTERNAL REVIEW ONLY
DOCUMENT NO. 1004/2022
PERMIT BIDDING OR
CONSTRUCTION PANEL
AQUILAR P.E. REG. NO.
108449 DATE: 9/9/2022

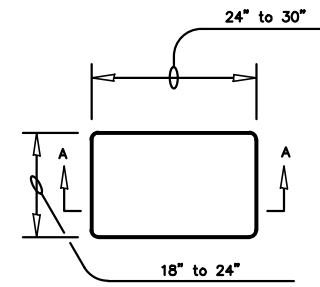




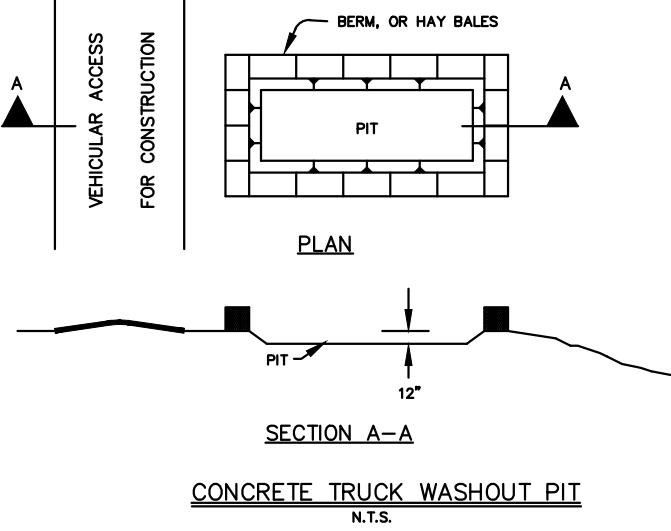
GENERAL NOTES:
THE MAXIMUM HEIGHT OF THE FILTER FABRIC SHOULD RANGE BETWEEN 18 AND 36 INCHES ABOVE THE GROUND SURFACE (DEPENDS ON THE AMOUNT OF UPSLOPE PONDING EXPECTED).
POSTS SHOULD BE SPACED 8 TO 10 FEET APART WHEN A WOVEN WIRE SUPPORT FENCE IS USED AND NOT MORE THAN 6 FEET APART WHEN EXTRA STRENGTH FILTER FABRIC (WITHOUT A WOVEN WIRE SUPPORT FENCE) IS USED. THE POSTS SHOULD BE EMBEDDED A MINIMUM OF 18 INCHES.
A TRENCH SHOULD BE EXCAVATED 4 TO 8 INCHES WIDE AND 4 TO 12 INCHES DEEP ALONG THE UPSLOPE SIDE OF THE LINE OF POSTS.
IF STANDARD STRENGTH FILTER FABRIC IS TO BE USED, THE OPTIONAL WOVEN WIRE SUPPORT FENCE SHOULD BE FASTENED TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WOVEN WIRE SUPPORT TO THE BOTTOM SUPPORT OF THE TRENCH. THE FILTER FABRIC SHOULD BE FASTENED USING 4 EVENLY SPACED STAPLES OR T-CIPS TO THE WOVEN WIRE SUPPORT FENCE, AND 8 TO 20 INCHES OF THE FABRIC SHOULD EXTEND INTO THE TRENCH.
EXTRA STRENGTH FILTER FABRIC DOES NOT REQUIRE A WOVEN WIRE SUPPORT FENCE.
FASTENED THE FILTER FABRIC DIRECTLY TO THE POSTS AND EXTEND 8 TO 20 INCHES OF THE FABRIC INTO THE TRENCH.
WHERE JOINTS IN THE FILTER FABRIC ARE REQUIRED, THE FILTER FABRIC SHOULD BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND SECURELY SEALED.
DO NOT ATTACH FILTER FABRIC TO TREES.
BACKFILL THE ANCHOR TRENCH WITH COMPACTED SOIL OR 0.75 INCH MINIMUM DIAMETER GRAVEL PLACED OVER THE FILTER FABRIC.
REMOVE SILT FENCE WHEN THE CONSTRUCTION SITE IS COMPLETELY STABILIZED.
INSPECT SILT FENCES DAILY DURING PERIODS OF PROLONGED RAINFALL. IMMEDIATELY AFTER EACH RAINFALL EVENT, AND WEEKLY DURING PERIODS OF NO RAINFALL, MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
SEDIMENT MUST BE REMOVED WHEN IT REACHES A DEPTH OF 6". TAKE CARE TO AVOID DAMAGING THE FENCE DURING CLEANOUT.
SILT FENCES SHOULD NOT BE REMOVED UNTIL THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED. CONTAMINATED SEDIMENT DEPOSITS MUST BE REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS. UNCONTAMINATED SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE HAS BEEN REMOVED SHOULD BE DRESSED TO CONFORM WITH THE EXISTING GRADE, AND STABILIZED.
PLACE SILT FENCE ALONG A LINE OF UNIFORM ELEVATION, PERPENDICULAR TO THE DIRECTION OF FLOW.
MATERIALS:
FENCE POSTS MAY BE EITHER 4" MIN. STEEL OR WOOD POSTS SPACED AT 6" TO 8". SOFTWOOD SHALL BE 3" MIN. DIA. OR NOMINAL 2 X 4". HARD WOOD POSTS SHALL HAVE A MIN. CROSS SECTION 1.5 X 1.5".
SYNTHETIC FILTER FABRIC REQUIREMENTS

Physical Property	Requirements
Minimum Weight	3.5 ounces per square yard (ASTM 3776-84)
Min. Mullen Burst Strength	200 lbs. per square inch (ASTM 3786-97)
Maximum flow through rate	100 GPM/5% of frontal area (ASTM 4481-85)

BURIAL OF 10 OUNCES PER SQUARE YARD OF FABRIC CAN ALSO BE USED.
THE FILTER FABRIC SHOULD BE PURCHASED IN CONTINUOUS ROLLS TO MINIMIZE JOINTS.
MAINTENANCE:
INSPECT REGULARLY AND AFTER EVERY STORM. MAKE ANY REPAIRS NECESSARY TO ENSURE THE MEASURE IS IN GOOD WORKING ORDER.
SEDIMENT SHOULD BE REMOVED AND THE STRUCTURE RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 6".
CLEAN OR REMOVE AND REPLACE THE STONE FILTER OR FILTER FABRIC IF THEY BECOME CLOGGED.
INLET PROTECTION SHOULD REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA IS STABILIZED.



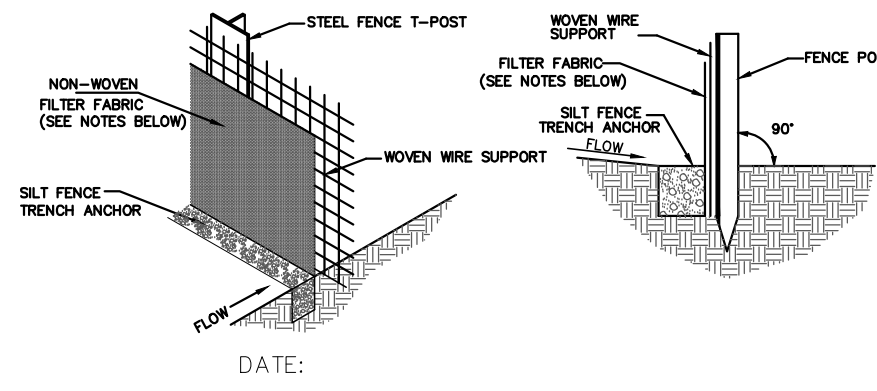
1. THE FILTER BAG MATERIAL SHALL BE MADE OF POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN FABRIC, MIN. UNIT WEIGHT OF 4 OUNCES/ Y. ULLEN BURST STRENGTH EXCEEDING 300 PSB AND UL RAVOLET STABILITY EXCEEDING 0K.
2. THE FILTER BA SHALL BE FILLED WITH CLEAN, MEDIUM TO COARSE GRAVEL G (0.3" TO 0.75 INCH DIAMETER).



GENERAL NOTES:
DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
IF HAY BALES ARE USED, THEY SHALL BE PLACED IN ACCORDANCE WITH DETAILS SHOWN ON EXHIBIT FOR HAY BALES.
WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO RUNOFF FROM STORM WATER RUNOFF.

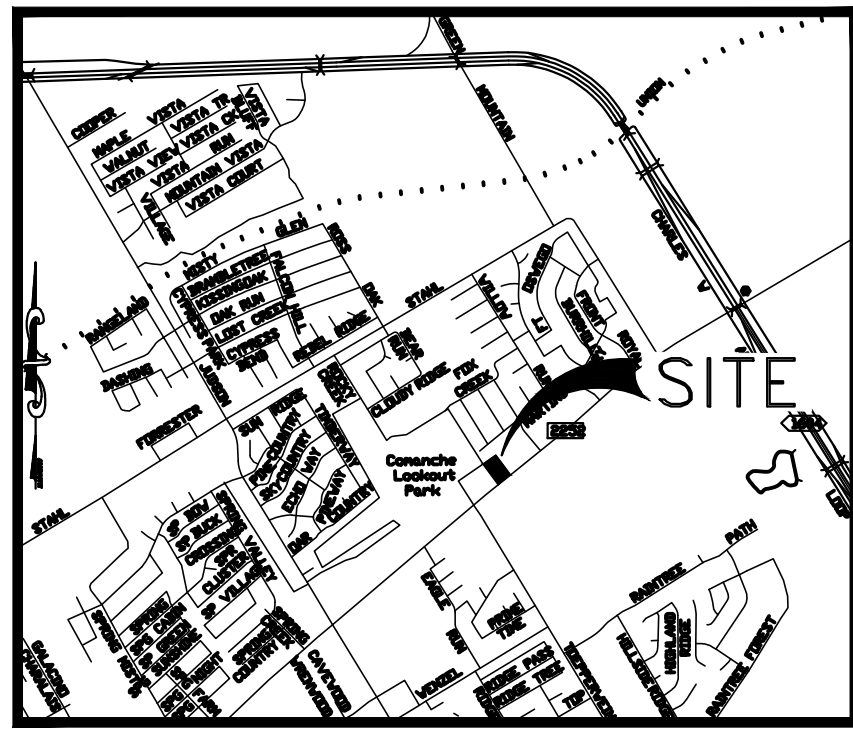
MATERIALS:
CRUSHED STONE 4-INCHES - 8-INCHES IN DIAMETER.
GEOTEXTILE (FILTER FABRIC) WITH THE PROPERTIES LISTED BELOW.

Physical Property	Requirements
Grab Tensile Strength	220 lbs. (ASTM D4632)
Elongation Failure	60% (ASTM D4632)
Mullen Burst Strength	430 lbs. (ASTM D3786)
Puncture Strength	125 lbs. (ASTM D4833)
Equivalent Opening	Size 40-80 (US Std Sieve)(ASTM D4751)



GENERAL NOTES

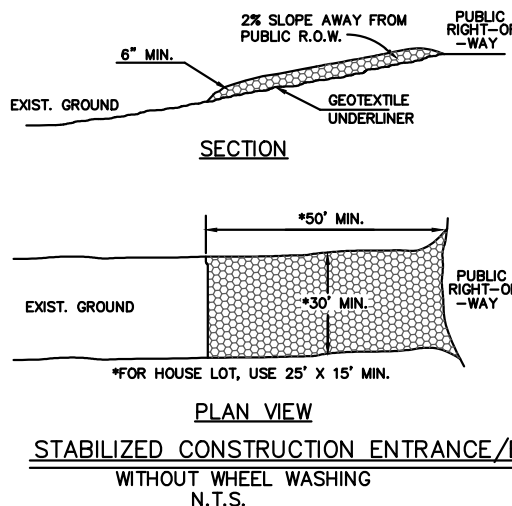
1. Do not disturb vegetated areas (trees, grass, weeds, brush, etc.) any more than necessary for construction.
2. Construction entrance/exit location and concrete washout pit to be determined in the field.
3. Storm Water Pollution Prevention Controls may need to be modified in the field to accomplish the desired effect.
4. Restrict entry/exit to the project site to designated locations by use of adequate fencing, if necessary.
5. All Storm Water Pollution Prevention Controls are to be maintained and in working conditions at all times.
6. Storm water pollution prevention structures should be constructed within the site boundaries.
7. As soon as practical, all disturbed soil that will not be covered by impervious cover such as home slab, sidewalks, and driveway will be stabilized.
8. This is a performance based plan. Actual field conditions may require different placement of erosion control measures. Contractor will be responsible for proper placement of erosion control devices to prevent contamination from leaving the construction site.



LOCATION MAP NOT TO SCALE

LEGEND

- ROCK BERM
- SILT FENCE
- CURB INLET GRAVEL FILTER
- STABILIZED CONSTRUCTION ENTRANCE/EXIT



GENERAL NOTES:

CLEAR ALL VEGETATION, ROOTS AND ALL OTHER OBSTRUCTIONS IN PREPARATION FOR GRADING.
PRIOR TO PLACING GEOTEXTILE (FILTER FABRIC) MAKE SURE THAT THE ENTRANCE IS PROPERLY GRADED AND COMPACTED.
TO REDUCE MAINTENANCE AND LOSS OF AGGREGATE PLACE GEOTEXTILE FABRIC (FILTER CLOTH) OVER THE EXISTING GROUND BEFORE PLACING THE STONE FOR THE ENTRANCE.
STONE SHOULD BE PLACED TO A DEPTH OF 6-INCHES OR GREATER FOR THE ENTIRE WIDTH AND LENGTH.
WIDTH SHOULD BE NOT LESS THAN FULL WIDTH OF ALL PORTS OF INGRESS OR EGRESS. FLARE THE ENTRANCE WHERE IT MEETS EXISTING ROAD TO PROVIDE A TURNING RADIUS.
PERIODIC MAINTENANCE WILL BE REQUIRED TO PREVENT TRACKING ONTO PUBLIC RIGHT-OF-WAY OR ANY ROADWAY. ALL SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ANY PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

ADDRESS
15709 NACOGDOCHES RD.
SAN ANTONIO, TEXAS 78247
LEGAL DESCRIPTION
LOT 6
COUNTY BLOCK 18
PLAT NAME: NACOGDOCHES
VOLUME ---, PAGE ---

BENCHMARK #1:
1/2" STEEL ROD WITH AN ORANGE 'RPLS 5207'
PLASTIC CAP
(GPS TRAV) ELEV. = 962.14'
BENCHMARK #2:
NAIL IN CURB
(GPS TRAV) ELEV. = 937.78'

SITE INFORMATION

PARKING INFORMATION:	
PARKING SPACES =	41
HANDICAP PARKING SPACES =	2
TOTAL SPACES =	27
WAREHOUSE AREA =	±31,509 S.F.
TOTAL REQUIRED MIN. SPACES:	16

STORMWATER POLLUTION PREVENTION PLAN

DESIGN RL
DRAWN SA
CHECKED DA
DATE 10/04/22
JOB NO. 2201046
SHEET

NACOGDOCHES
NEW CONSTRUCTION
15709 NACOGDOCHES RD
SAN ANTONIO, TEXAS 78247

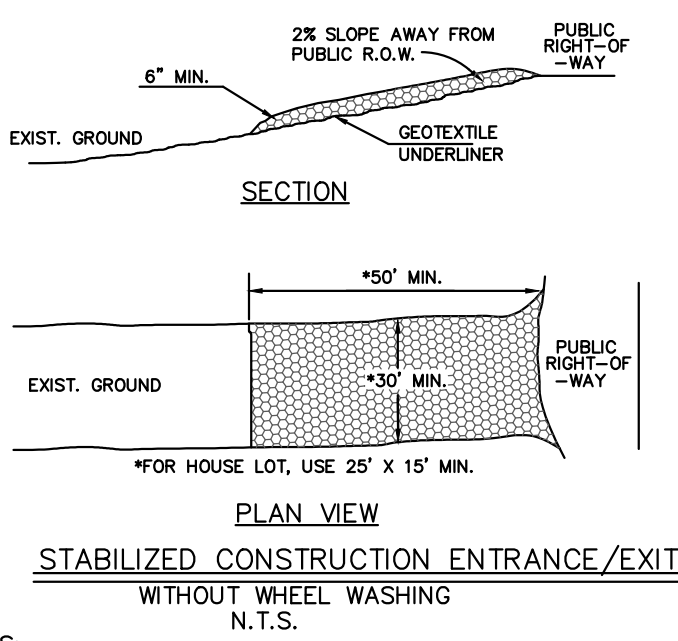


10/04/2022

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE
PERMIT BIDDING OR
CONSTRUCTION
FUNDING P.E. REG. NO.
108449 DATE: 9/9/2022

REVISIONS:
NO. DATE DESCRIPTION

C4.00



STABILIZED CONSTRUCTION ENTRANCE/EXIT

PLAN VIEW

CROSS-SECTION "A-A"

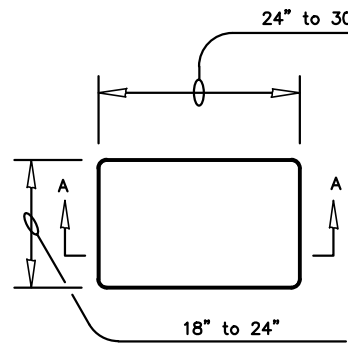
GENERAL NOTES:

- Clear all vegetation, roots and all other obstructions in preparation for grading.
- Prior to placing geotextile (filter fabric) make sure that the entrance is properly graded and compacted.
- To reduce maintenance and loss of aggregate place geotextile fabric (filter cloth) over the existing ground before placing the stone for the entrance.
- Stone should be placed to a depth of 6-inches or greater for the entire width and length.
- Width should be not less than full width of all points of ingress or egress. Flare the entrance where it meets existing road to provide a turning radius.
- Periodic maintenance will be required to prevent tracking onto public right-of-way or any roadway. All sediment spilled, dropped, or tracked onto any public right-of-way must be removed immediately.

MATERIALS:

- Crushed stone 4-inches – 8-inches in diameter.
- Geotextile (filter fabric) with the properties listed below.

Physical Property	Requirements
Grab Tensile Strength	220 lbs. (ASTM D4632)
Elongation Failure	60% (ASTM D4632)
Mullen Burst Strength	430 lbs. (ASTM D3786)
Puncture Strength	125 lbs. (ASTM D4833)
Equivalent Opening	Size 40–80 (US Std Sieve)(ASTM D4751)

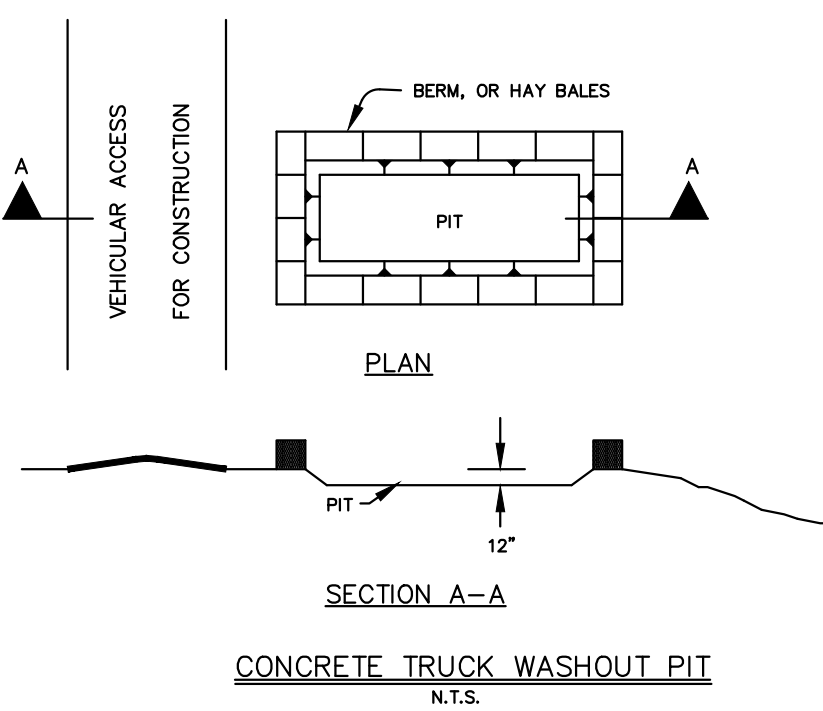


GRAVEL FILTER BAG DETAIL

N.T.S.

SECTION A-A

- The filter bag material shall be made of polypropylene, polyethylene or polyamide woven fabric, min. unit weight of 4 ounces/SY, Mullen burst strength exceeding 300 psi and ultraviolet stability exceeding 70%.
- The filter bag shall be filled with clean, medium to coarse gravel (0.31 to 0.75 inch diameter).

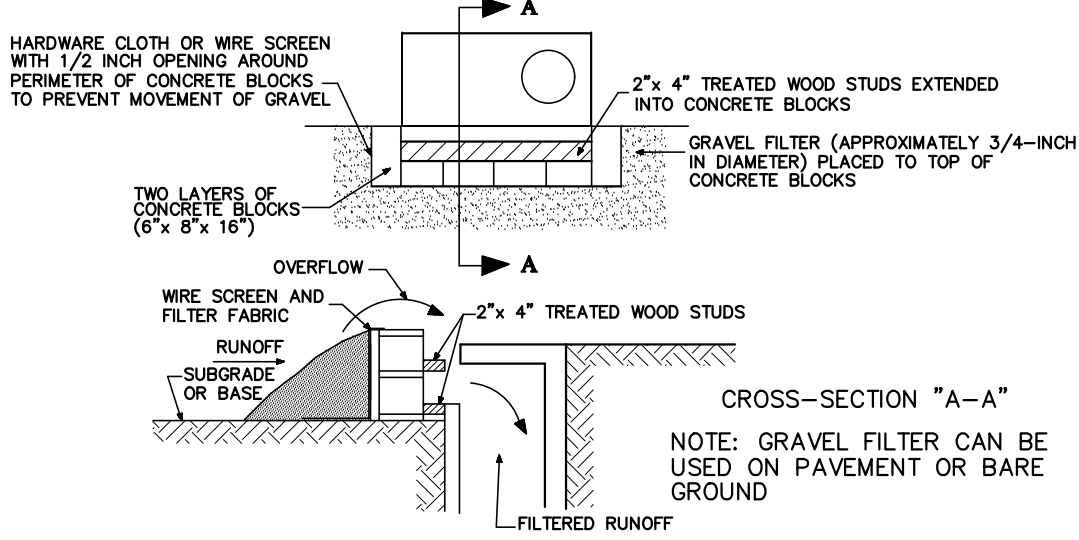


CONCRETE TRUCK WASHOUT PIT

N.T.S.

GENERAL NOTES:

- Detail above illustrates minimum dimensions. Pit can be increased in size depending on expected frequency of use.
- If hay bales are used, they shall be placed in accordance with details shown on Exhibit for hay bales.
- Washout pit shall be located in an area easily accessible to construction traffic.
- Washout pit shall not be located in areas subject to inundation from storm water runoff.

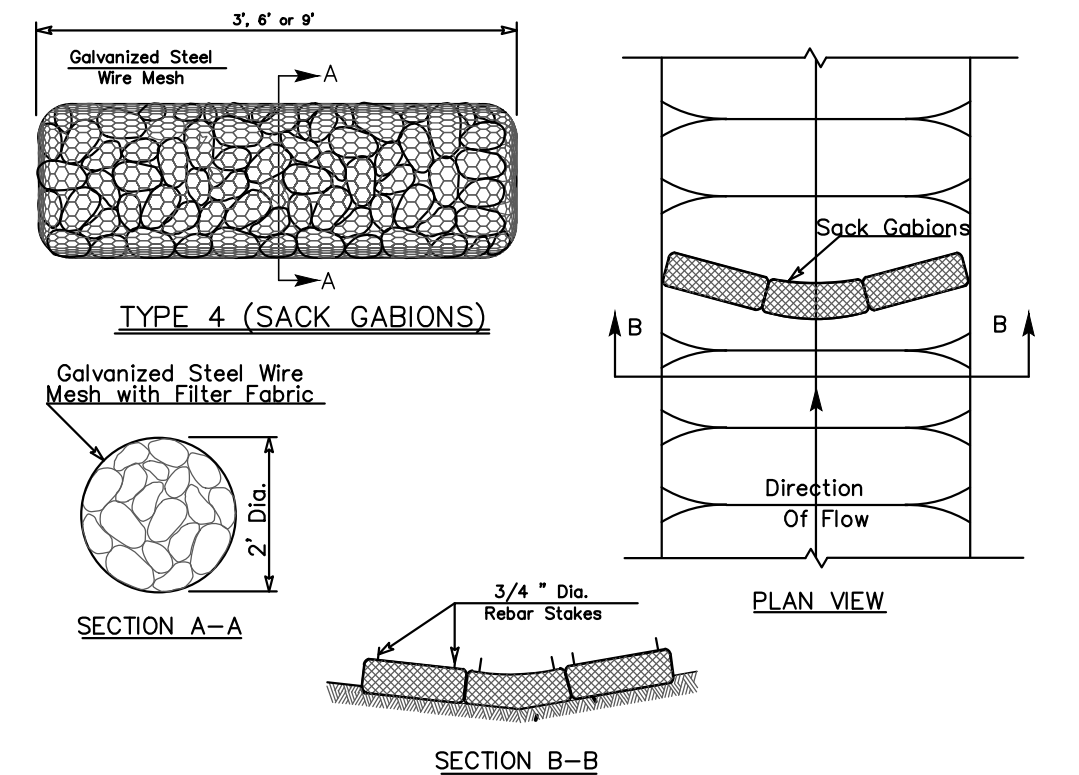


CURB INLET GRAVEL FILTER

N.T.S.

GENERAL NOTES:

- All storm drainage systems inlets should filter runoff before the water is discharged into streams or onto adjacent properties, unless treatment is provided elsewhere.
- If no additional downstream treatment exists, the maximum drainage area tributary to and area drain installed with a gravel filter should be one acre.
- Curb inlet gravel filters should be constructed with a combination of concrete blocks, 1/2-inch wire screen, coarse (approximately 3/4-inch diameter) gravel and a 2" x 4" wood stud for support. Concrete blocks (6" x 8" x 16") may be placed either on their sides or stood on their ends depending on the area being served.
- Gravel filters can be used if the immediate and adjacent area to the drain consists of soil or pavement. However, only gravel filters should be installed on top of pavement.
- 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.
- Gravel can be placed in porous sacks which will allow water to flow through gravel and help prevent downstream migration of gravel.



TYPE 4 (SACK GABIONS)

GENERAL NOTES:

- The top of the sack 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 should be non-woven geotextile with minimum weight of 3.5 ounces per square yard, minimum mullen burst strength of 200 pounds per square inch and a flow through rate of 120 gallons per minute per square foot of frontal area.
- Stone size: 1/4"–8" open graded crushed limestone.
- Inspect weekly or after each rainfall event and repair or replace as needed.
- When silt reaches a depth of 6 inches or more above natural ground, silt shall be removed and disposed in an approved manner that will not contribute to resiltation. Contaminated sediment must be removed and disposed of off-site in accordance with applicable regulations.

- Remove sack gabions after construction site is completely stabilized.

INSTALLATION:

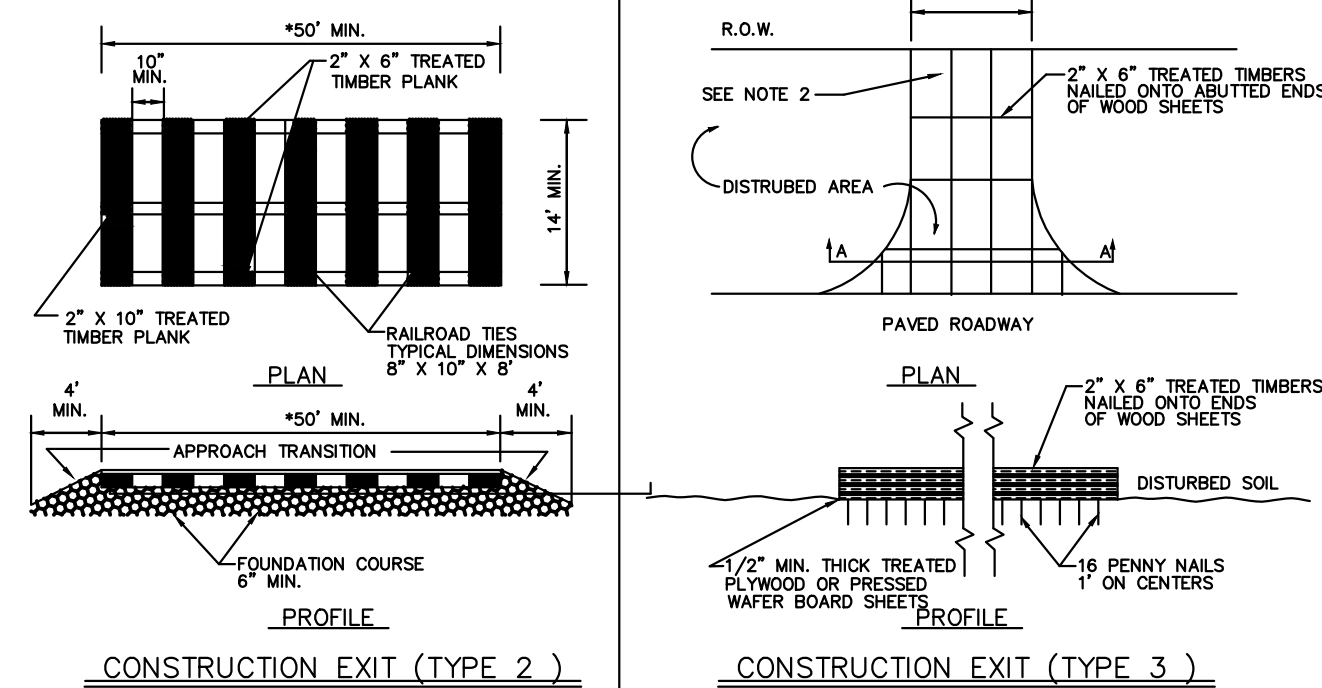
- Layout the perpendicular to flow direction.
- Clear the area of debris, rocks or plants that will interfere with installation.
- Place wire mesh and filter fabric on the ground along the proposed installation with enough overlap to completely encircle the finished size of the berm.
- Place the rock along the center of the woven wire mesh taking care not to damage the filter fabric.
- Wrap the structure with the previously placed woven wire mesh secure enough so that when walked across the structure retains it's shape.
- Secure with tie wire.

MATERIALS:

- Synthetic filter fabric should contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 70% strength retained after 500 hours.
- Burlap of 10 ounces per square yard of fabric may also be used.
- The filter fabric should be purchased in continuous rolls to minimize joints.
- Woven wire support sheathing shall be a minimum 20 gauge with 1 inch openings.

MAINTENANCE:

- Inspect regularly and after every storm. Make any repairs necessary to ensure the sack gabions are in good working order.
- Sediment should be removed and the structure restored to its original dimensions when sediment has accumulated to a depth of 6".
- Clean or remove and replace the stone filter or filter fabric if they become clogged.
- Sack Gabions should remain in place and operational until the drainage area is stabilized.

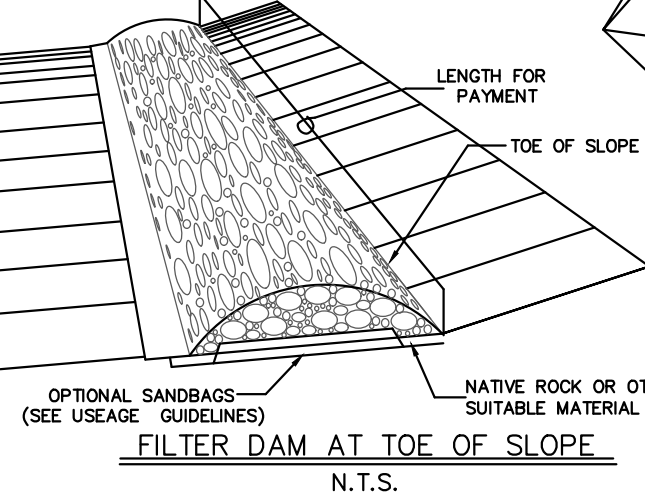


CONSTRUCTION EXIT (TYPE 2)

N.T.S.

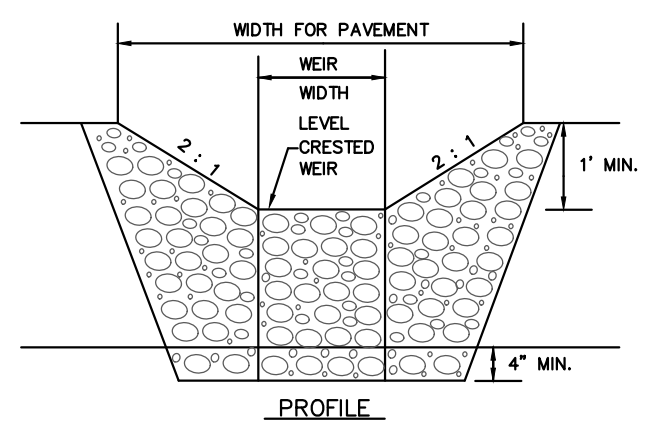
GENERAL NOTES:

- The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50 ft.
- The treated timber planks shall be attached to the railroad ties with 1/2" x 6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
- The treated timber planks shall be #2 grade min. and should be free of large loose knots.
- The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
- The construction exit foundation course shall be flexible base, bituminous concrete, Portland cement concrete or other material as approved by the Engineer.
- The construction exit should be graded to allow drainage to a sediment trapping device.



FILTER DAM AT TOE OF SLOPE

N.T.S.



FILTER DAM AT TOP OF SLOPE

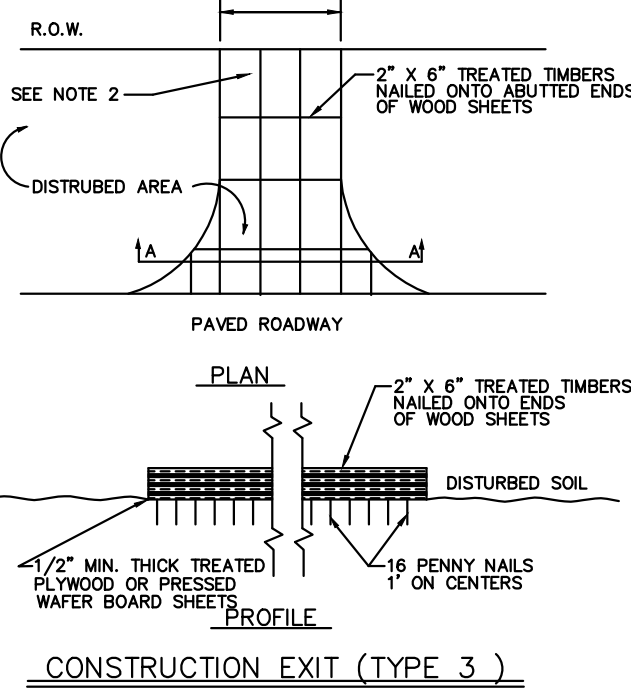
N.T.S.

GENERAL NOTES:

- If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream of drainage structures, and in roadway ditches and channels to collect sediment.
- Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by specification for rock filter dams for erosion and sediment control.
- Throck filter dimensions shall be as indicated on the SWSP plans.
- Side slopes should be 2:1 or flatter. Dams within the safety zone shall have side slopes of 6:1 or flatter.
- Maintain a minimum of 1 ft. between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
- Filter dams should be embedded a minimum of 4 inches into existing ground.
- The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
- Rock filter dams types 2 & 3 shall be secure with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the heights and slopes and specified. The aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. The mesh should be secured or staked to the stream bed prior to aggregate placement.
- Sack gabions should be staked down with 3/4" dia. rebar stakes.
- Flow outlet should be onto a stabilized area (vegetation, rock, etc.)

GENERAL NOTES

- Do not disturb vegetated areas (trees, grass, weeds, brush, etc.) any more than necessary for construction.
- Construction entrance/exit location and concrete washout pit to be determined in the field.
- Storm Water Pollution Prevention Controls may need to be modified in the field to accomplish the desired effect.
- Restrict entry/exit to the project site to designated locations by use of adequate fencing, if necessary.
- All Storm Water Pollution Prevention Controls are to be maintained and in working conditions at all times.
- Storm water pollution prevention structures should be constructed within the site boundaries.
- As soon as practical, all disturbed soil that will not be covered by impervious cover such as house slab, sidewalks, and driveway will be stabilized.
- This is a performance based plan. Actual field conditions may require different placement of erosion control measures. Contractor will be responsible for proper placement of erosion control devices to prevent contamination from leaving the construction site.

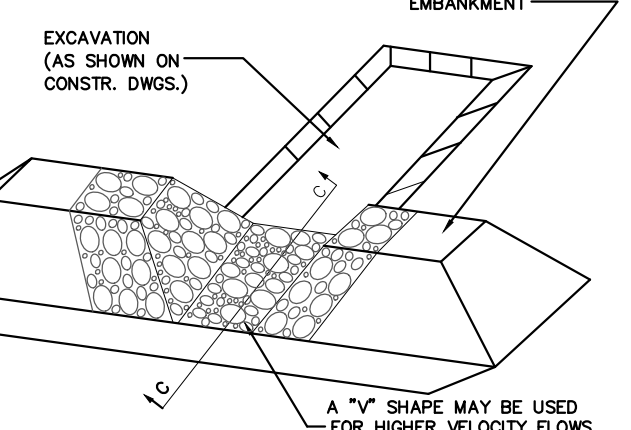


CONSTRUCTION EXIT (TYPE 3)

N.T.S.

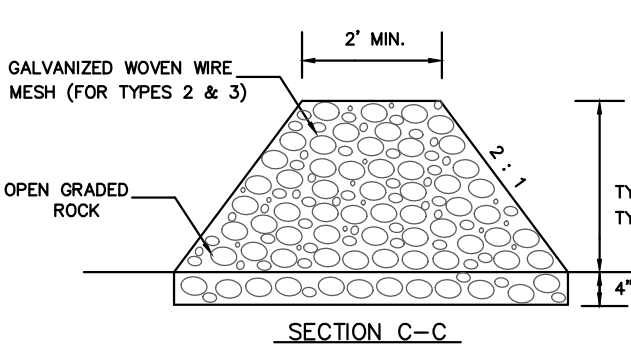
GENERAL NOTES:

- The length of the type 3 construction exit shall be as indicated on the plans or by directed by the Engineer.
- The type 3 construction exit may be constructed from open graded crushed with a size of two to four inches of spread, a minimum of 4" thick to the limits shown on the plans.
- The treated timber planks shall be #2 grade min. and should be free of large loose knots.



FILTER DAM AT SEDIMENT TRAP

N.T.S.



SECTION C-C

SECTION C-C

SECTION C-C

SECTION C-C

SECTION C-C

SECTION C-C

SECTION C-C

SECTION C-C

SECTION C-C

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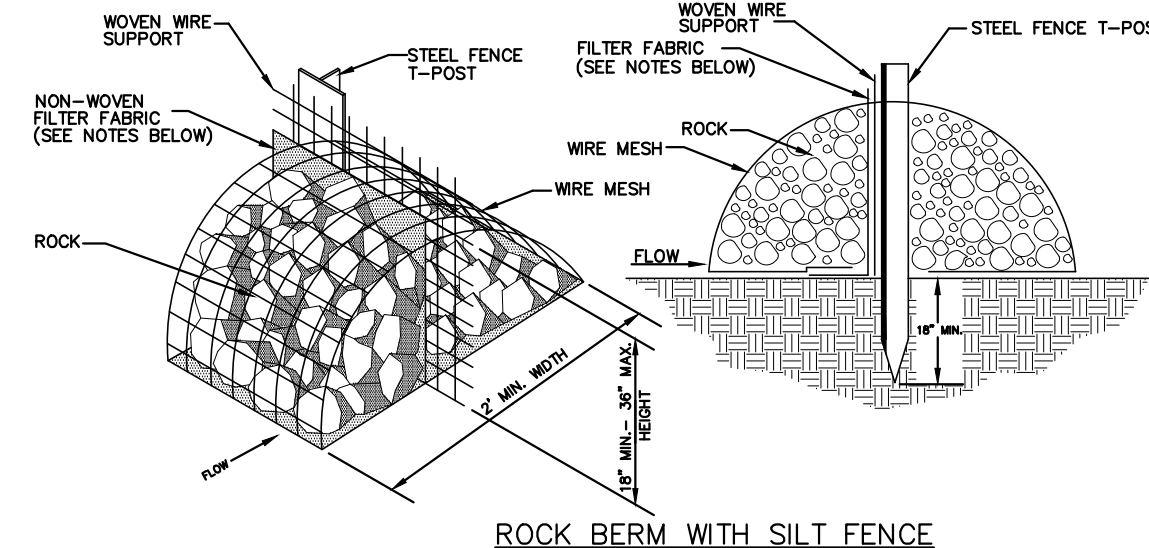
SECTION C-C

SECTION C-C

SECTION C-C

SECTION C-C

SECTION C-C



ROCK BERM WITH SILT FENCE

GENERAL NOTES:

- The top of the rock berm should be level and oriented perpendicular to the direction of flow.
- Steel fence T-posts should be embedded a minimum of 18 inches.
- Woven wire support shall be fastened to steel fence posts.
- Filter fabric material shall be fastened to woven wire support.
- Filter fabric material should meet the following specifications:
 - Resistant to ultraviolet light. Fabric should be non-woven geotextile with minimum weight of 3.5 ounces per square yard, minimum mullen burst strength of 200 pounds per square inch and a flow through rate of 120 gallons per minute per square foot of frontal area.
- Stone size: 1/4"–5" open graded crushed limestone.
- Inspect weekly or after each rainfall event and repair or replace as needed.
- When silt reaches a depth of 6 inches or more above natural ground, silt shall be removed and disposed in an approved manner that will not contribute to resiltation. Contaminated sediment deposits remaining in place after the filter fence has been removed should be dressed to conform with the existing grade and stabilized. Contaminated sediment must be removed and disposed of off-site in accordance with applicable regulations.
- Remove silt fence/rock berm after construction site is completely stabilized.

INSTALLATION:

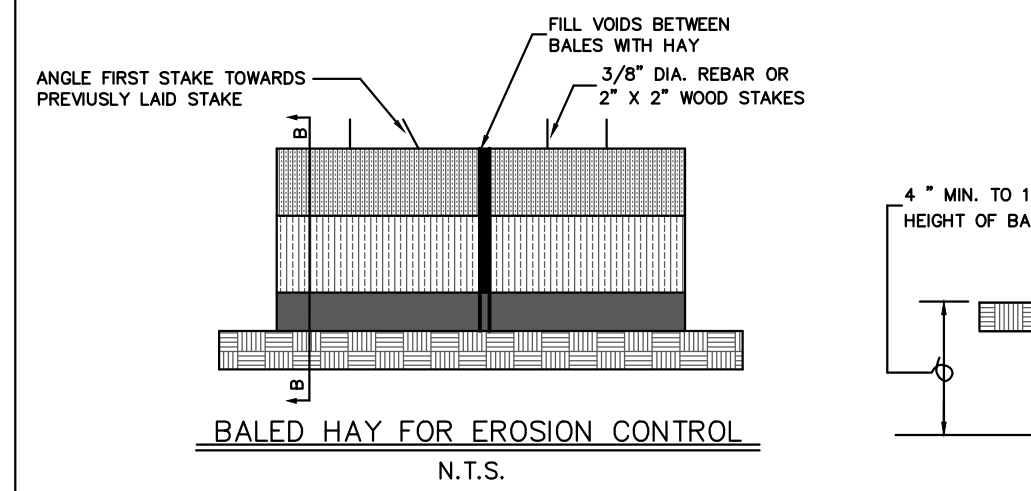
- Layout the rock berm following the contour as closely as possible.
- Clear the area of debris, rocks or plants that will interfere with installation.
- Place wire mesh on the ground along the proposed installation with enough overlap to completely encircle the finished size of the berm.
- Install the silt fence (steel T-posts, woven wire support, and filter fabric) along the center of the proposed berm placement.
- Place the rock along the center of the woven wire mesh on both sides of the silt fence to the designated height.
- Wrap the structure with the previously placed woven wire mesh secure enough so that when walked across the structure retains it's shape.
- Secure with tie wire.

MATERIALS:

- Synthetic filter fabric should contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 70% strength retained after 500 hours.
- Burlap of 10 ounces per square yard of fabric may also be used.
- The filter fabric should be purchased in continuous rolls to minimize joints.
- Woven wire support sheathing shall be a minimum 20 gauge with 1 inch openings.

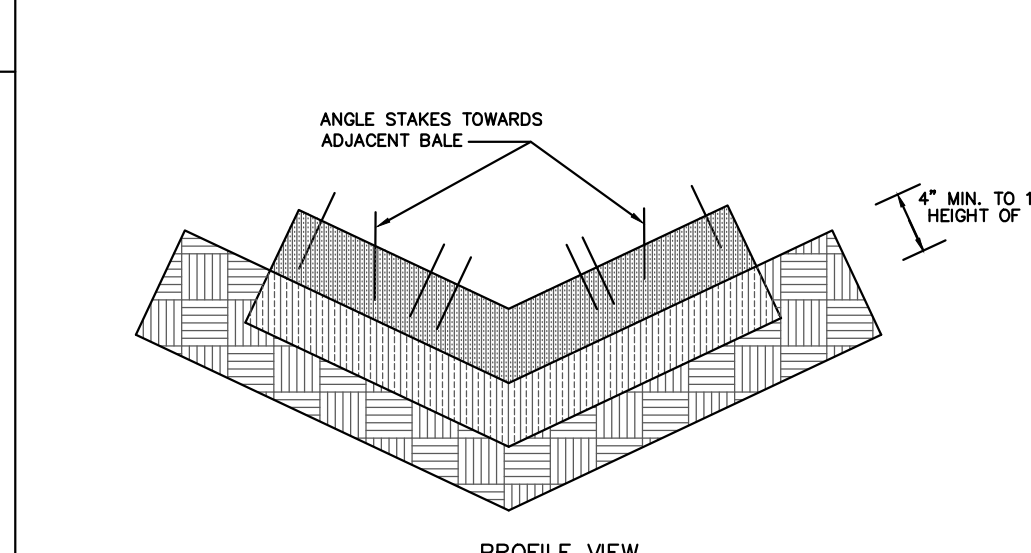
MAINTENANCE:

- Inspect regularly and after every storm. Make any repairs necessary to ensure the rock berm is in good working order.
- Sediment should be removed and the structure restored to its original dimensions when sediment has accumulated to a depth of 6".
- Clean or remove and replace the stone filter or filter fabric if they become clogged.
- Rock berm should remain in place and operational until the drainage area is stabilized.

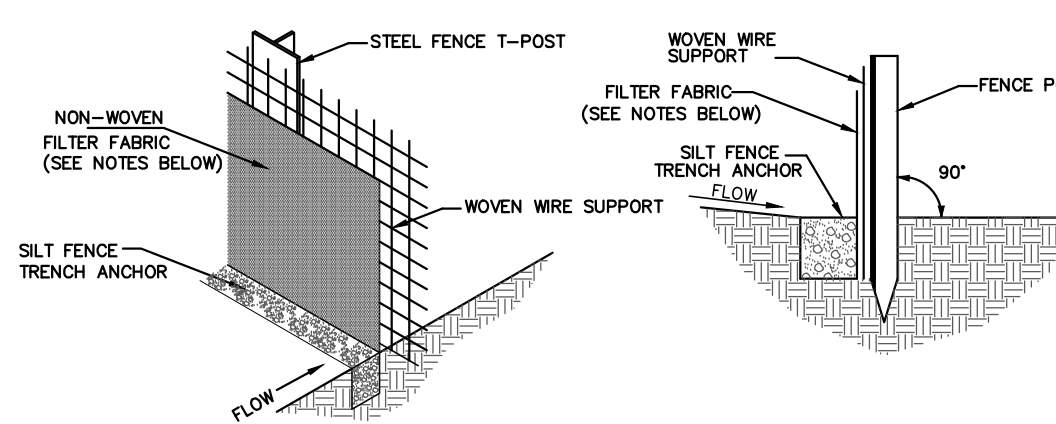


BALED HAY FOR EROSION CONTROL

N.T.S.



PROFILE VIEW



GENERAL NOTES:

- The maximum height of the filter fabric should range between 18 and 36 inches above the ground surface (depending on the amount of upslope ponding expected).
- Posts should be spaced 8 to 10 feet apart when a woven wire support fence is used and not more than 6 feet apart when extra strength filter fabric (without a woven wire support fence) is used. The posts should be embedded a minimum of 18 inches.
- A trench should be excavated 4 to 8 inches wide and 4 to 12 inches deep along the upslope side of the line of posts.
- If standard strength filter fabric is to be used, the optional woven wire support fence should be fastened to the upslope side of the posts. Extend the woven wire support to the bottom of the trench. The filter fabric should be fastened using 4 evenly spaced staples or T-clips to the woven wire support fence, and 8 to 20 inches of the fabric should extend into the trench.
- Extra strength filter fabric does not require a woven wire support fence. Fastened the filter fabric directly to the posts and extend 8 to 20 inches of the fabric into the trench.
- Where joints in the filter fabric are required, the filter fabric should be spliced together only at a support post, with a minimum 6-inch overlap and securely sealed.
- Do not attach filter fabric to trees.
- Backfill the anchor trench with compacted soil or 0.75 inch minimum diameter gravel placed over the filter fabric.
- Remove silt fence when the construction site is completely stabilized.
- Inspect silt fences daily during periods of prolonged rainfall, immediately after each rainfall event, and weekly during periods of no rainfall. Make any required repairs immediately.
- Sediment must be removed when it reaches a depth of 6". Take care to avoid damaging the fence during cleanup.
- Silt fences should not be removed until the upslope area has been permanently stabilized. Contaminated sediment deposits must be removed and disposed of off-site in accordance with applicable regulations. Uncontaminated sediment deposits remaining in place after the silt fence has been removed should be dressed to conform with the existing grade, and stabilized.
- Place silt fence along a line of uniform elevation, perpendicular to the direction of flow.

MATERIALS:

- Fence posts may be either 4" min. steel or wood posts spaced at 6' to 8'. Softwood shall be 3" min. dia. or nominal 2" x 4". Hardwood posts shall have a min. cross section 1.5" x 1.5".
- Synthetic filter fabric should be a pervious sheet of polypropylene, nylon, polyester, or polyethylene yarn conforming to the requirements below.

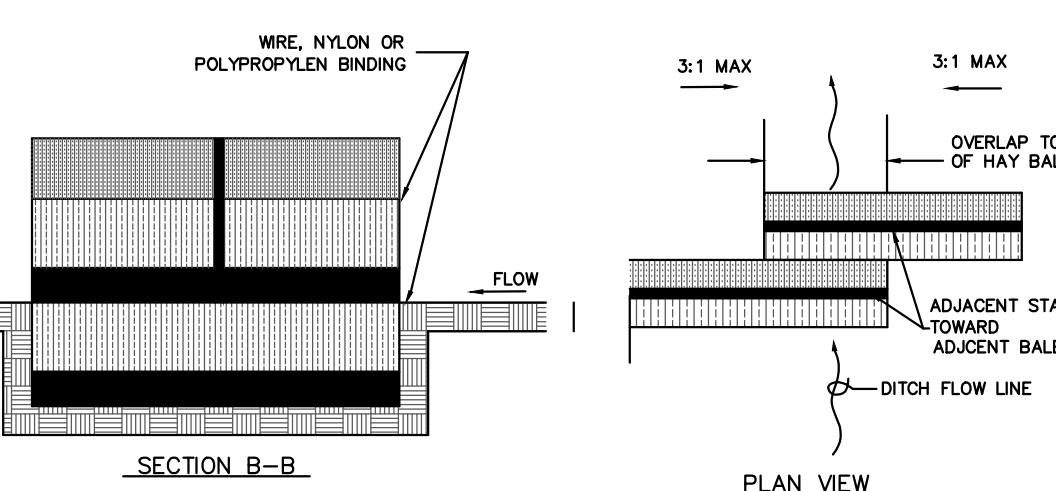
SYNTHETIC FILTER FABRIC REQUIREMENTS

Physical Property	Requirements
Minimum Weight	3.5 ounces per square yard (ASTM 3776-84)
Min. Mullen Burst Strength	200 lbs per square inch (ASTM 3786-87)
Maximum flow through rate	100 GPM/SF of frontal area (ASTM 4491-85)

- Burlap of 10 ounces per square yard of fabric can also be used.
- The filter fabric should be purchased in continuous rolls to minimize joints.

MAINTENANCE:

- Inspect regularly and after every storm. Make any repairs necessary to ensure the measure is in good working order.
- Sediment should be removed and the structure restored to its original dimensions when sediment has accumulated to a depth of 6".
- Clean or remove and replace the stone filter or filter fabric if they become clogged.
- Inlet protection should remain in place and operational until the drainage area is stabilized.



BALED HAY USAGE GUIDELINES

GENERAL NOTES:

- A baled hay installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flow rate to be filtered. The installation should be sized to filter the maximum flow thru rate of 5 GPM/af of cross sectional area. Baled hay may be used in the following locations:
 - Where the runoff approaching the baled hay the slope of the disturbed soil shall not exceed 10% and the length of the slope upstream of the hay bale should be less than 50'.
 - Where the installation will be required for less than three months.
 - Where the contributing drainage area is less than 1/2 acre.
 - For baled hay installations in small ditches, the additional following considerations apply:
 - The ditch side slopes shall be graded as flow as possible to maximize the drainage flow rate thru the hay.
 - Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.

STORMWATER POLLUTION PREVENTION PLAN

DESIGN RL
DRAWN SA
CHECKED DA
DATE 10/04/2022
JOB NO. 2201046
SHEET

C4.10
8 OF 8

10/04/2022

INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE
NO PERMIT BUILDING OR
CONSTRUCTION SHALL
BEGIN UNTIL THE
FINAL P.E. REG. NO.
108449 DATE: 9/9/2022



NACOGDOCHES
NEW CONSTRUCTION
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SAN ANTONIO, TEXAS 78247