SAWS STANDARD GENERAL CONSTRUCTION NOTES ASSOCIATED WITH 2022 SAWS STANDARD SPECS UPDATED JANUARY, 2022

GENERAL SECTION

- 1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE
- A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR
- CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290. B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS

DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1

- C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS FOR WATER AND
- SANITARY SEWER CONSTRUCTION".
- D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION"
- E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM)
- 2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
- 3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE, HTTP://WWW.SAWS.ORG/BUSINESS_CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.
- 4. THE CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO BEGINNING ANY WORK.
- 5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO
- 6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
- SAWS UTILITY LOCATES: <u>HTTP://WWW.SAWS.ORG/SERVICE/LOCATES</u>
- 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
 - 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
- 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
- 13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION

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
- A. IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT (210) 233-2014. PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
- B. ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO. CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE
- CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF
- POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.

SEWER CONSTRUCTION, ITEM NO. 864, "BYPASS PUMPING".

E. 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

SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA, TCEQ AND/OR ANY OTHER FEDERAL, STATE OR LOCAL AGENCIES.

NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND SAWS.

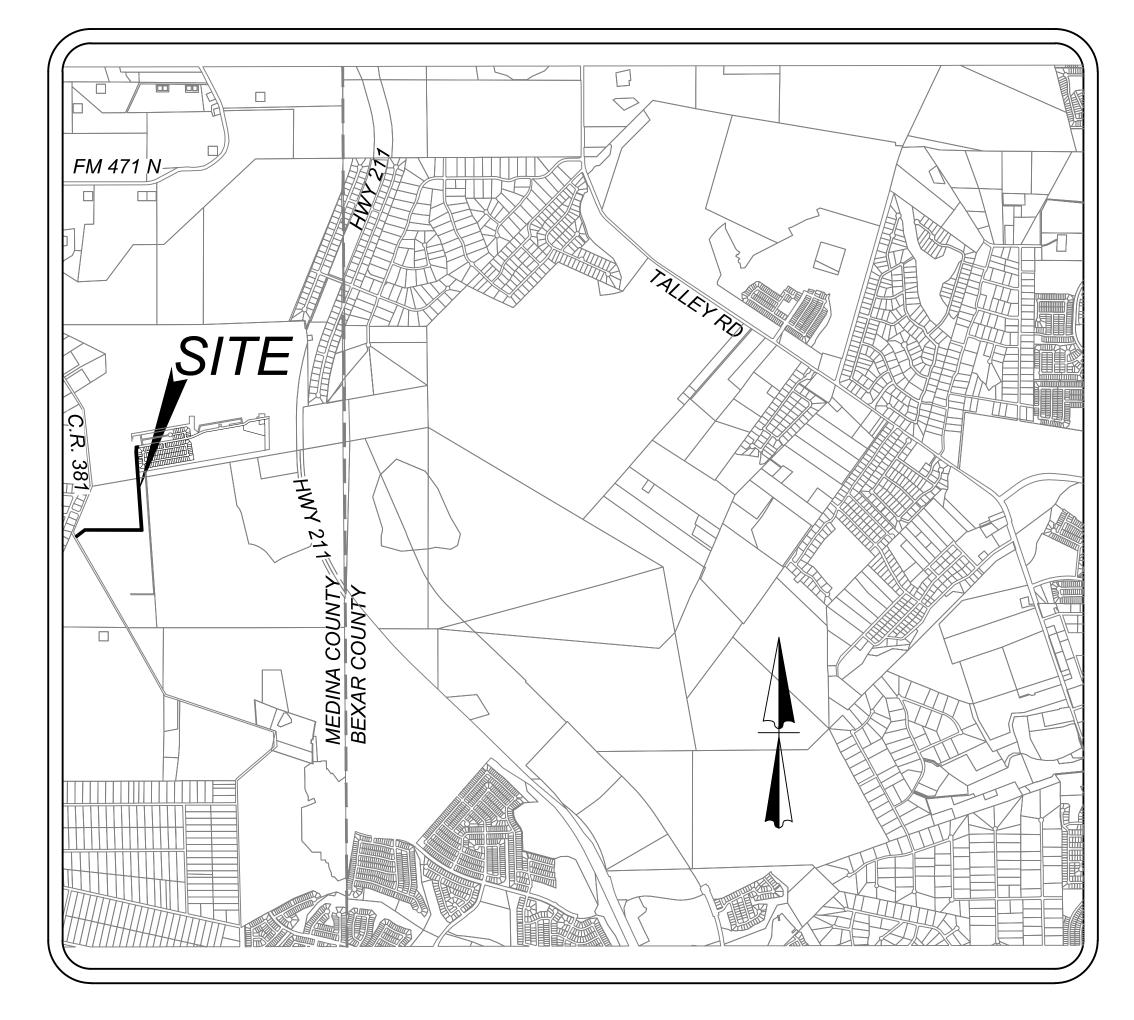
- 2. IF BYPASS PUMPING IS REQUIRED, THE CONTRACTOR SHALL PERFORM SUCH WORK IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION FOR WATER AND SANITARY
- 3 PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973 AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.
- 4. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241, TAC 217.53 AND TCEQ 290.44(E)(4)(B). CONTRACTOR SHALL CENTER A 20' JOINT OF 160 PSI PRESSURE RATED PVC AT THE PROPOSED WATER
- 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 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
- 8. ALL PVC PIPE OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH WITH MINIMUM PIPE STIFFNESS OF 115 PSI

	SHEET REVISION LOG							
DATE	SHEET NO.	REVISION NO.	DESCRIPTION					

WESTRIDGE SUBDIVISION SEWER EXTENSION

MEDINA COUNTY, TX

SANITARY SEWER IMPROVEMENTS



LOCATION MAP NOT-TO-SCALE

OWNER INFORMATION MEDINA REVITALIZATION INITIATIVE, LLC 5210 THOUSAND OAKS, SUITE 1318 SAN ANTONIO, TX, 78233

Sheet List Table

SHEET TITLE	SHEET NUMBER
SANITARY SEWER COVER SHEET	6.0
OVERALL SANITARY SEWER	6.1
LINE B PLAN & PROFILE (SHEET 1 OF 3)	6.2
LINE B PLAN & PROFILE (SHEET 2 OF 3)	6.3
LINE B PLAN & PROFILE (SHEET 3 OF 3)	6.4

SEWER: MEDIO - FAR WEST-SEWERSHED - Medio Creek Collection and Treatment Area (MCCTA)

SAWS JOB #: 25-XXXX

TOTAL ACREAGE: 1.89 AC.

TOTAL EDU'S: 0

DEVELOPER'S NAME: MEDINA REVITALIZATION INITIATIVE, LLC.

DEVELOPER'S ADDRESS: 5210 THOUSAND OAKS, SUITE 1318

TOTAL LINEAR FOOTAGE OF PIPE: 2,744 L.F. ~ 8" SDR 26 597 L.F. ~ 12" SDR 26

CITY: SAN ANTONIO

NUMBER OF LOTS: 0

PHONE #: <u>(210) 493 - 2811</u>

SAWS BLOCK MAP #:056592

ALL STATES REQUIRE NOTIFICATION C EXCAVATORS, DESIGNERS, OR ANY PER PREPARING TO DISTURB THE EARTH'
SURFACE ANYWHERE IN ANY STATE FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW CALL811 COM

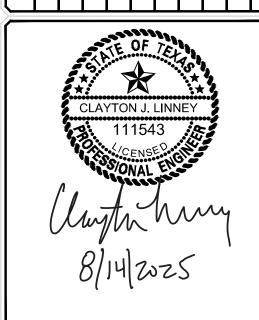
Engineering & Design

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PRELIMINARY

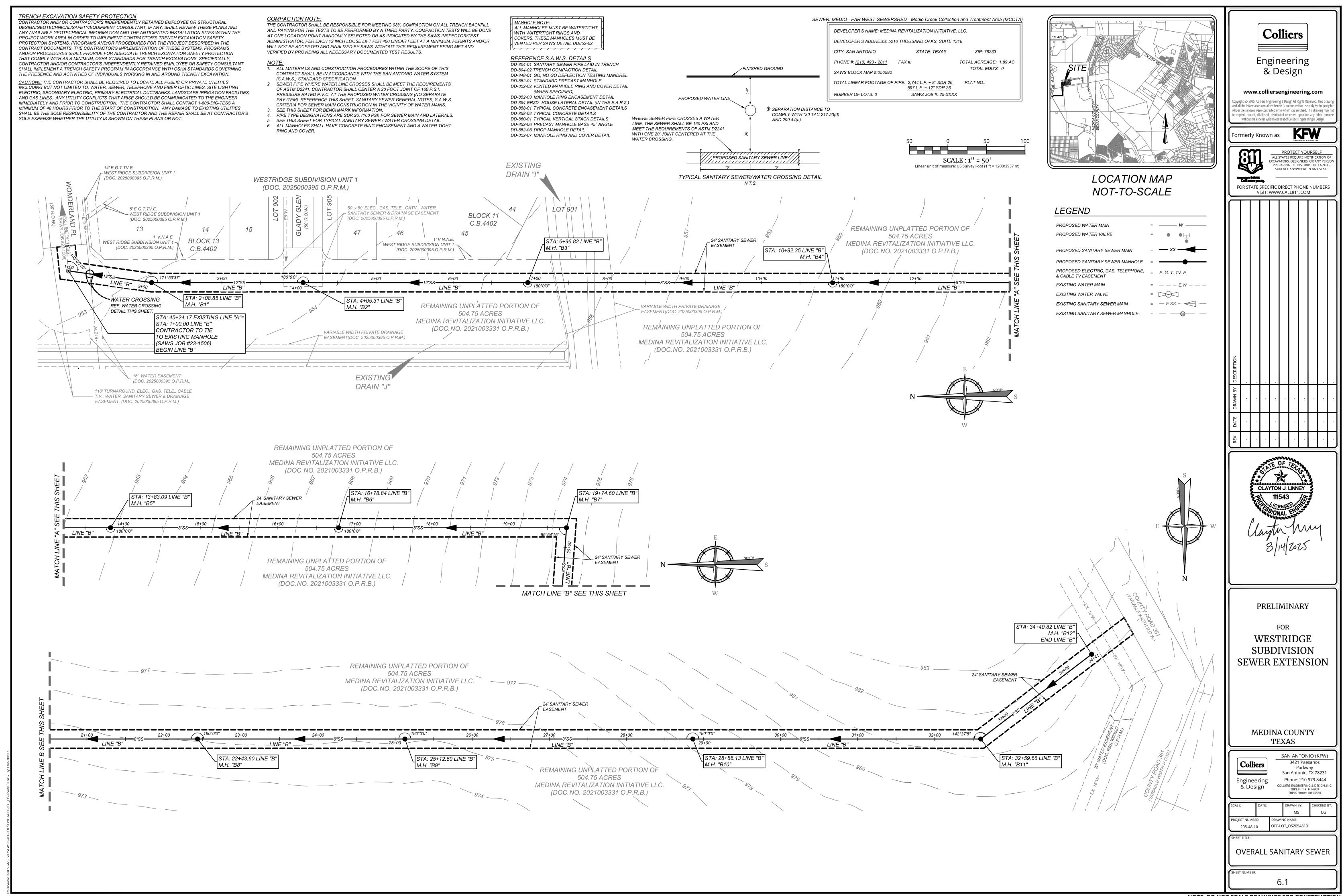
WESTRIDGE **SUBDIVISION** SEWER EXTENSION

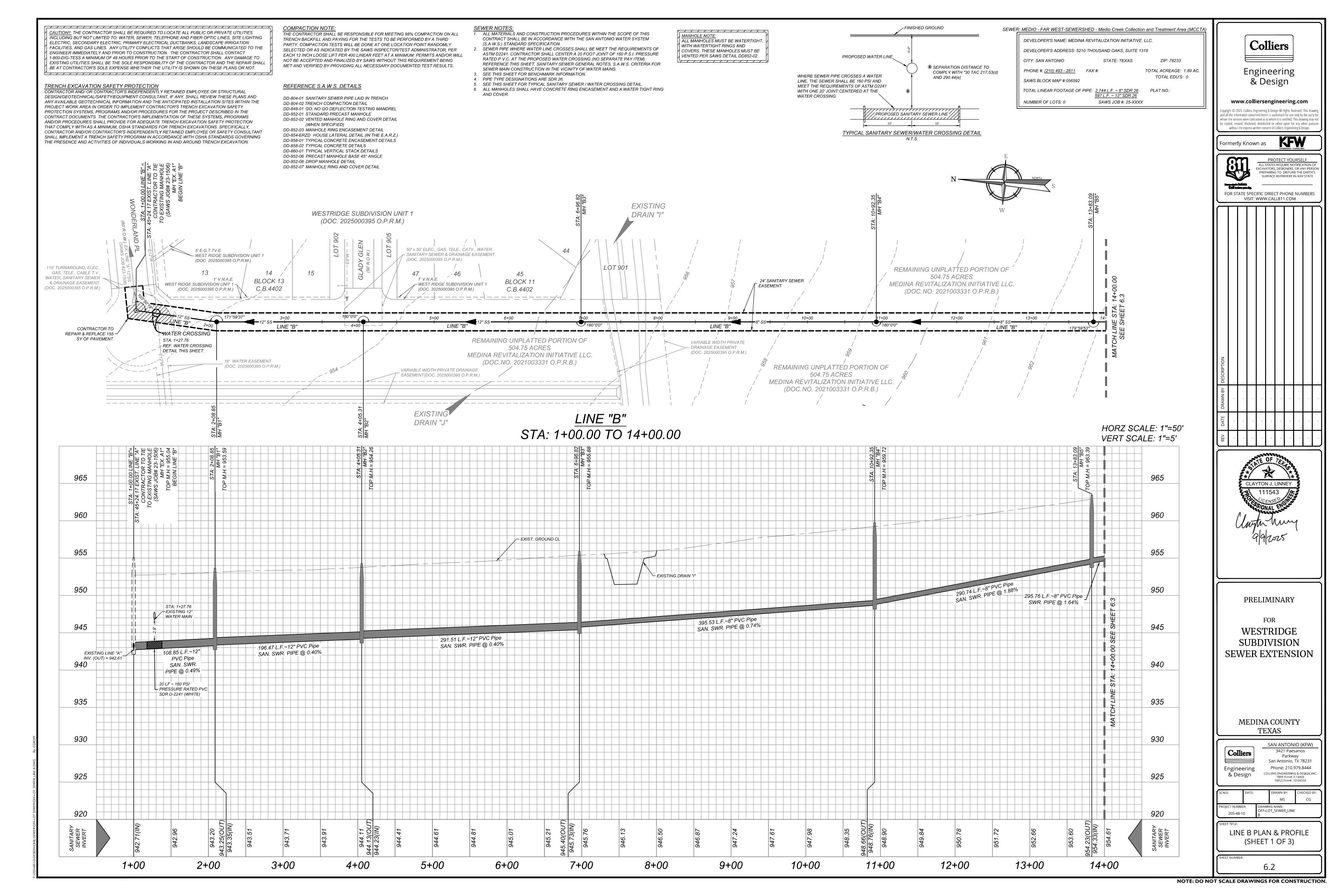
> MEDINA COUNTY TEXAS

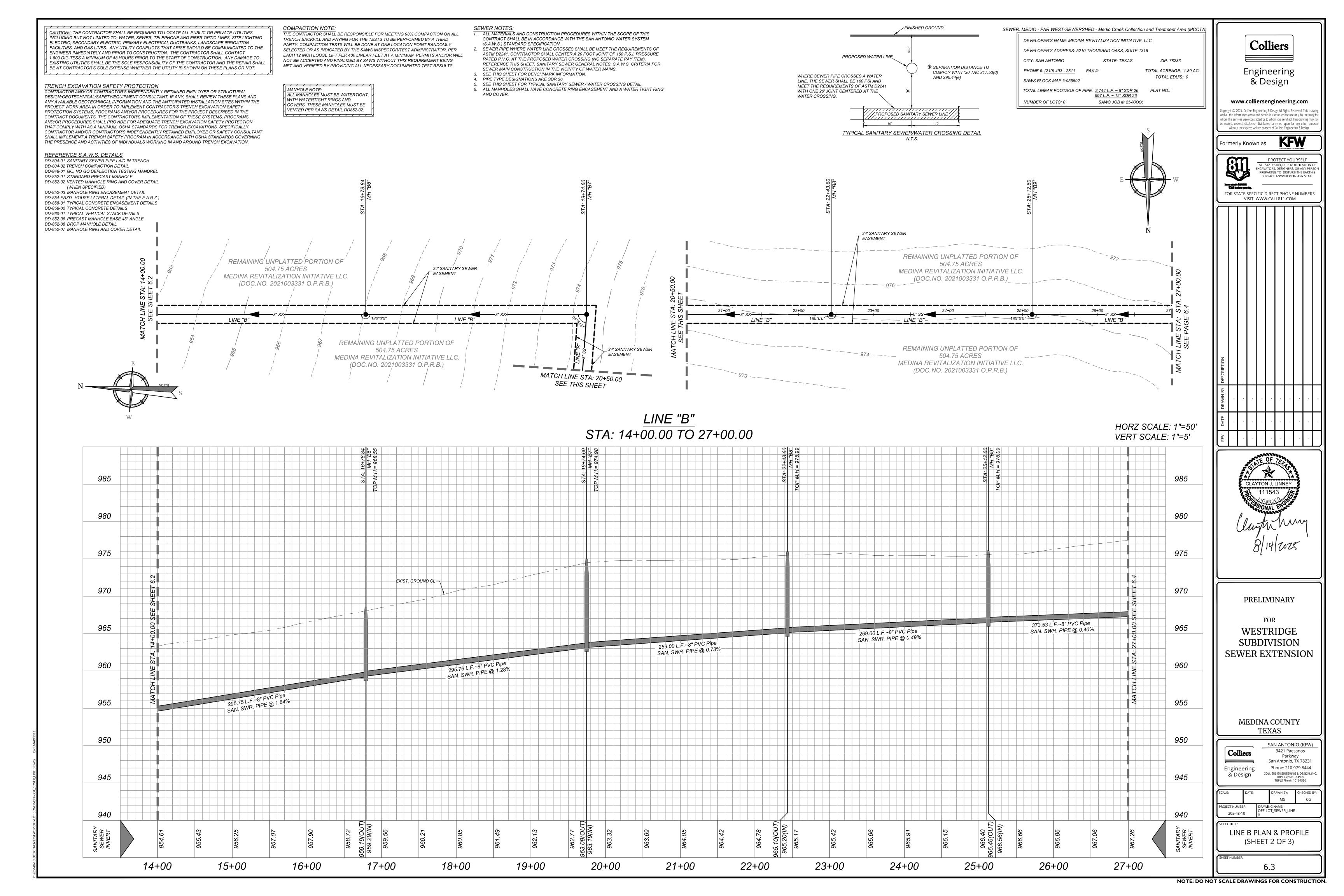
l		SAN ANTONIO (KFW)				
Collie	ore	3421 Paesanos				
	C19	Parkway				
			San Antonio, TX 78231			
Enginee	ering	Phone: 210.979.8444 COLLIERS ENGINEERING & DESIGN, IN TBPE Firm#: F-14909 TBPLS Firm#: 10194550				
& Des	_					
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205-48-10		CVS2054810				

SANITARY SEWER COVER SHEET

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



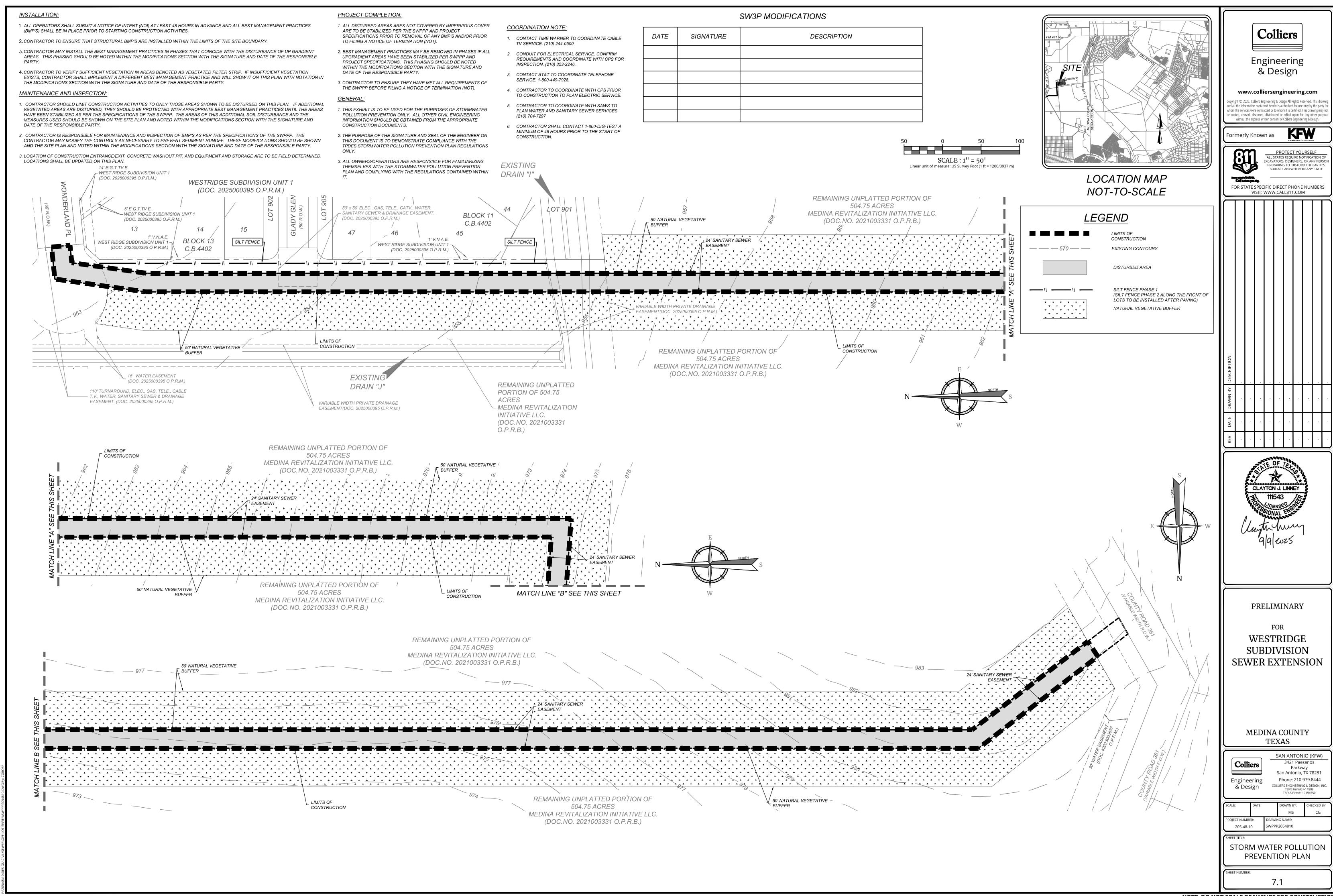


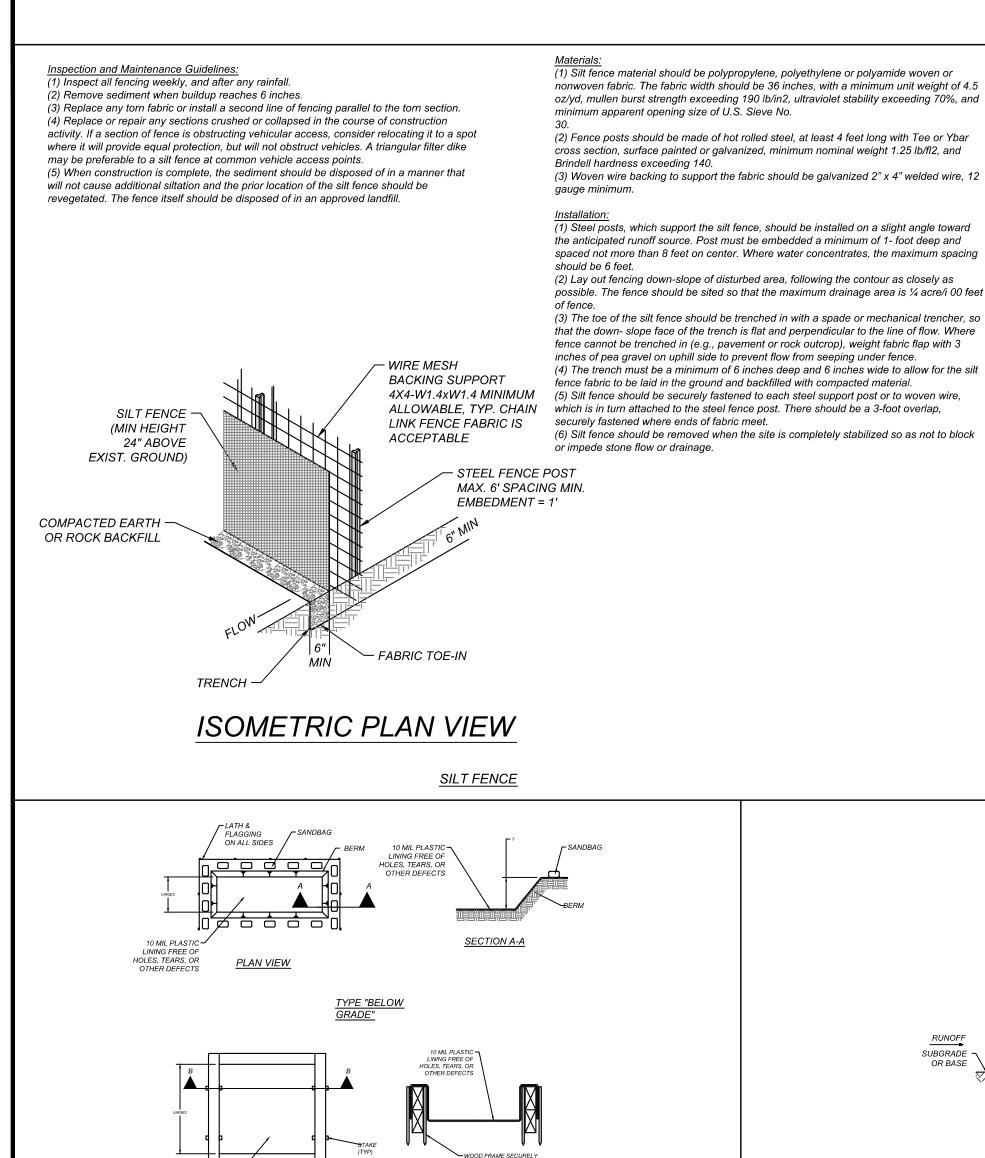


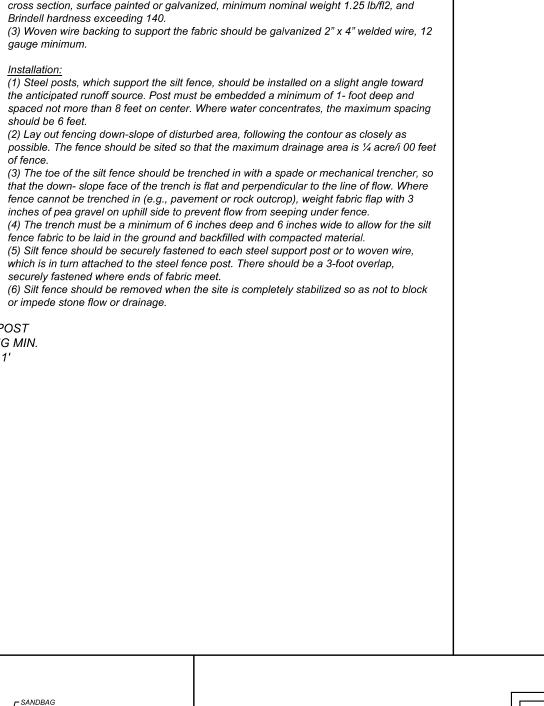
SEWER NOTES:

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS SEWER: MEDIO - FAR WEST-SEWERSHED - Medio Creek Collection and Treatment Area (MCCTA) CAUTION!!: THE CONTRACTOR SHALL BE REQUIRED TO LOCATE ALL PUBLIC OR PRIVATE UTILITIES THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL INCLUDING BUT NOT LIMITED TO: WATER, SEWER, TELEPHONE AND FIBER OPTIC LINES, SITE LIGHTING TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PERFORMED BY A THIRD CONTRACT SHALL BE IN ACCORDANCE WITH THE SAN ANTONIO WATER SYSTEM DEVELOPER'S NAME: MEDINA REVITALIZATION INITIATIVE, LLC. ELECTRIC, SECONDARY ELECTRIC, PRIMARY ELECTRICAL DUCTBANKS, LANDSCAPE IRRIGATION **Colliers** (S.A.W.S.) STANDARD SPECIFICATION. PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY FACILITIES, AND GAS LINES. ANY UTILITY CONFLICTS THAT ARISE SHOULD BE COMMUNICATED TO THE SEWER PIPE WHERE WATER LINE CROSSES SHALL BE MEET THE REQUIREMENTS OF SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTRATOR, PER DEVELOPER'S ADDRESS: 5210 THOUSAND OAKS, SUITE 1318 ENGINEER IMMEDIATELY AND PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT ASTM D2241. CONTRACTOR SHALL CENTER A 20 FOOT JOINT OF 160 P.S.I. PRESSURE EACH 12 INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. PERMITS AND/OR WILL 1-800-DIG-TESS A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO RATED P.V.C. AT THE PROPOSED WATER CROSSING (NO SEPARATE PAY ITEM). CITY: SAN ANTONIO ZIP: 78233 NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING STATE: TEXAS EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE REPAIR SHALL REFERENCE THIS SHEET, SANITARY SEWER GENERAL NOTES, S.A.W.S. CRITERIA FOR MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS. BE AT CONTRACTOR'S SOLE EXPENSE WHETHER THE UTILITY IS SHOWN ON THESE PLANS OR NOT. SEWER MAIN CONSTRUCTION IN THE VICINITY OF WATER MAINS. TOTAL ACREAGE: 1.89 AC. Engineering PHONE #: <u>(210) 493 - 2811</u> 3. SEE THIS SHEET FOR BENCHMARK INFORMATION. TOTAL EDU'S: 0 4. PIPE TYPE DESIGNATIONS ARE SDR 26. & Design SAWS BLOCK MAP #:056592 5. SEE THIS SHEET FOR TYPICAL SANITARY SEWER / WATER CROSSING DETAIL. TRENCH EXCAVATION SAFETY PROTECTION 6. ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND A WATER TIGHT RING TOTAL LINEAR FOOTAGE OF PIPE: 2,744 L.F. ~ 8" SDR 26 597 L.F. ~ 12" SDR 26 MANHOLE NOTE: ALL MANHOLES MUST BE WATERTIGHT, PLAT NO.: CONTRACTOR AND/ OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL AND COVER. DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND WITH WATERTIGHT RINGS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE www.colliersengineering.com SAWS JOB #: 25-XXXX NUMBER OF LOTS: 0 COVERS. THESE MANHOLES MUST BE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY VENTED PER SAWS DETAIL DD852-02. oyright © 2025. Colliers Engineering & Design All Rights Reserved. This draw PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE nd all the information contained herein is authorized for use only by the party CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS whom the services were contracted or to whom it is certified. This drawing may AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION pe copied, reused, disclosed, distributed or relied upon for any other pure THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, without the express written consent of Colliers Engineering & Design. 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. Formerly Known as REFERENCE S.A.W.S. DETAILS PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON DD-804-01 SANITARY SEWER PIPE LAID IN TRENCH DD-804-02 TRENCH COMPACTION DETAIL PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE 24' SANITARY SEWER GO, NO GO DEFLECTION TESTING MANDREL REMAINING UNPLATTED PORTION OF EASEMENT DD-852-01 STANDARD PRECAST MANHOLE DD-852-02 VENTED MANHOLE RING AND COVER 504.75 ACRES DETAIL (WHEN SPECIFIED) FOR STATE SPECIFIC DIRECT PHONE NUMBERS MEDINA REVITALIZATION INITIATIVE LLC. DD-852-03 MANHOLE RING ENCASEMENT DETAIL VISIT: WWW.CALL811.COM (DOC.NO. 2021003331 O.P.R.B.) DD-854-ERZD HOUSE LATERAL DETAIL (IN THE E.A.R.Z.) 24' SANITARY SEWER DD-858-01 TYPICAL CONCRETE ENCASEMENT DETAILS EASEMENT TYPICAL CONCRETE DETAILS DD-858-02 DD-860-01 TYPICAL VERTICAL STACK DETAILS DD-852-06 PRECAST MANHOLE BASE 45° ANGLE DD-852-08 DROP MANHOLE DETAIL DD-852-07 MANHOLE RING AND COVER DETAIL FINISHED GROUND PROPOSED WATER LINE 28+00 30+00 ★ SEPARATION DISTANCE TO LINE "B" COMPLY WITH "30 TAC 217.53(d) WHERE SEWER PIPE CROSSES A WATER AND 290.44(e) LINE, THE SEWER SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' JOINT CENTERED AT THE REMAINING UNPLATTED PORTION OF WATER CROSSING. 504.75 ACRES MEDINA REVITALIZATION INITIATIVE LLC. //,PROPOSED SANITARY SEWER LINE/ (DOC.NO. 2021003331 O.P.R.B.) TYPICAL SANITARY SEWER/WATER CROSSING DETAIL LINE "B" HORZ SCALE: 1"=50" STA: 27+00.00 TO END VERT SCALE: 1"=5" 995 990 985 EXIST. GROUND CL -980 980 **PRELIMINARY** FOR WESTRIDGE 975 975 **SUBDIVISION** SEWER EXTENSION 970 970 181.16 L.F.~8" PVC Pipe SAN. SWR. PIPE @ 0.40% 373.53 L.F.~8" PVC Pipe SAN. SWR. PIPE @ 0.40% 373.53 L.F.~8" PVC Pipe SAN. SWR. PIPE @ 0.40% 965 965 MEDINA COUNTY TEXAS 960 SAN ANTONIO (KFW) 3421 Paesanos Colliers San Antonio, TX 78231 Phone: 210.979.8444 Engineering COLLIERS ENGINEERING & DESIGN, INC & Design TBPE Firm#: F-14909 TBPLS Firm#: 10194550 955 950 LINE B PLAN & PROFILE (SHEET 3 OF 3) 27+00 34+00 34+50 28+00 29+00 30+00 31+00 32+00 33+00

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.







GENERAL NOTES:

Install fiber roll along a level contour. Vertical spacing measured along the face of the slope varies between slope where it transitions into a steeper slope TYPICAL FIBER ROLL INSTALLATION

ENTRENCHMENT DETAIL

FIBER ROLL

THE MATERIAL, INSTALLATION, INSPECTION, AND MAINTENANCE OF FIBER ROLLS WILL BE PER THE MANUFACTURE'S SPECIFICATIONS AND SHALL ALSO COMPLY WITH THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY CURRENT "TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES" AS NOTED BELOW. (1) Core material: Core material should be biodegradable or recyclable. Material

may be compost, mulch, aspen wood fibers, chipped site vegetation, agricultural rice or wheat straw, coconut fiber, 100% recyclable fibers, or similar materials.

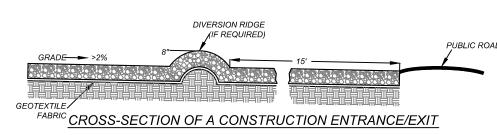
(2) Containment Mesh: Containment mesh should be 100% biodegradable, photodegradable or recyclable such as burlap, twine, UV photodegradable plastic, polyester, or similar material. When the fiber role will remain in place as part of a vegetative system use biodegradable or photodegradable mesh. For temporary installation recyclable mesh is recommended.

(1) Locate fiber rolls on level contours spaced as follows: Slope inclination of 4:1 (H:V) or flatter: Fiber rolls should be placed at a maximum interval of 20 ft. Slope inclination between 4:1 and 2:1 (H:V): Fiber Rolls should be placed at a maximum interval of 15 ft. (a closer spacing is more effective). Slope inclination 2:1 (H:V) or greater: Fiber Rolls should be placed at a maximum interval of 10 ft. (a closer spacing is more effective). (2) Turn the ends of the fiber roll up slope to prevent runoff from going around the

(3) Stake fiber rolls into a 2 to 4 in. deep trench with a width equal to the diameter of the fiber roll. (4) Drive stakes at the end of each fiber roll and spaced 4 ft maximum on center. (5) Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in. (6) If more than one fiber roll is placed in a row, the rolls should be overlapped, not

Inspection and Maintenance Guidelines: (1) Inspect prior to forecast rain, daily during extended rain events, after rain events,

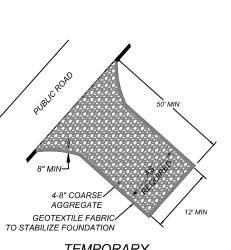
(2) Repair or replace split, torn, unraveling, or slumping fiber rolls. (3) If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates behind the role must be periodically removed in order to maintain its effectiveness. Sediment 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.



<u>Materials:</u>

(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan. (2) The aggregate should be placed with a minimum thickness of 8 inches (3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst

rating of 140 lb/in2, and an equivalent opening size greater than a number (4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rack should be included in the plans. Divert wastewater to a sediment trap or basin.



CONSTRUCTION ENTRANCE/EXIT

Inspection and Maintenance Guidelines:

Installation: (North Carolina, 1993)

area. Grade crown foundation for positive drainage.

(3) The construction entrance should be at least 50 feet long.

) 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 andlor cleanout of any measures used to trap sediment.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

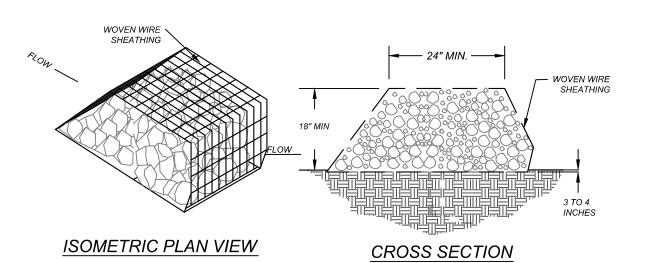
(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the

(2) All sediment spilled, 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 sedimen trap or sediment basin.

(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

STABILIZED CONSTRUCTION ENTRANCE / EXIT



(1) The berm structure should be, secured with a woven wire sheathing having maximum opening of 1 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings. (2) Clean, open graded 3- to 5-inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5- to 8-inch diameter rocks may be used.

(1) Lay out the woven wire sheathing perpendicular to the flow line. The sheathing should be 20 gauge woven wire mesh with 1 inch openings. (2) Berm should have a top width of 2 feet minimum with side slopes being 2:1 (H:V) or flatter.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlap at least 2 inches, airl the berm retains its shape when walked upon. (5) Berm should be built along the contour at zero percent grade or as near as possible.

(3) Place the rock along the sheathing as shown in the diagram Figure 1-28), to a height not less than

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

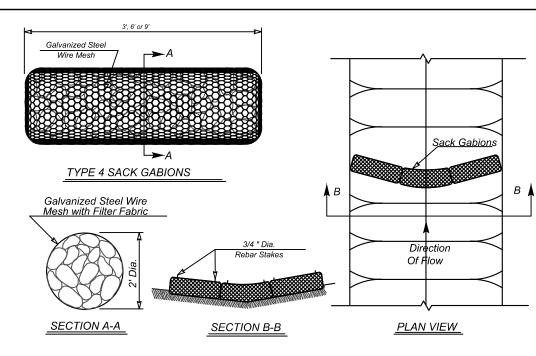
Inspection and Maintenance Guidelines:

(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

ROCK BERM



TYPE 4 SACK GABIONS

PRELIMINARY

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Formerly Known as

WESTRIDGE **SUBDIVISION** SEWER EXTENSION

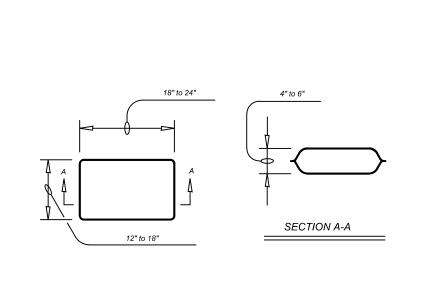
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AWING NAME: WPPP2054810

STORM WATER POLLUTION PREVENTION DETAILS

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN

WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO

FEATURES, STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.

CONCRETE TRUCK WASHOUT PIT

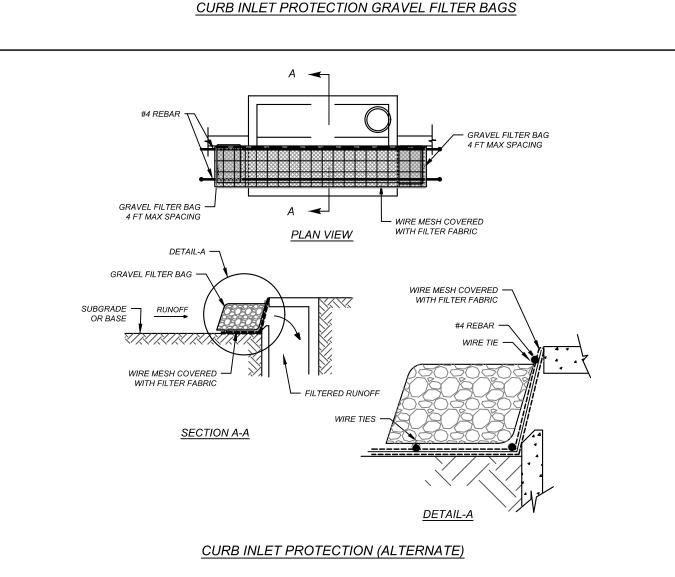
WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION

GENERAL NOTES:

GENERAL NOTES: 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

THE FILTER BAG SHALL BE FILLED WITH CLEAN, MEDIUM TO COARSE GRAVEL (0.31

GRAVEL FILTER BAG DETAIL



- FILTERED RUNOFF

SECTION A-A

ALL STORM DRAINAGE SYSTEMS INLETS SHOULD FILTER RUNOFF BEFORE

IF NO ADDITIONAL DOWNSTREAM TREATMENT EXISTS, THE MAXIMUM DRAINAGE AREA TRIBUTARY TO AN AREA DRAIN INSTALLED WITH A GRAVEL FILTER SHOULD BE ONE ACRE.

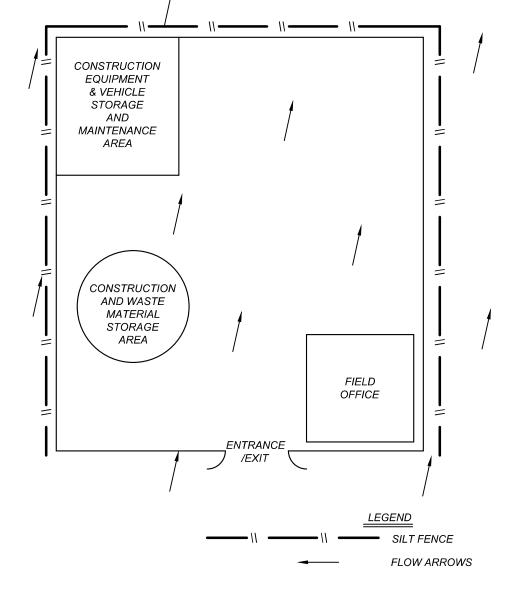
ALL CURB INLET GRAVEL FILTERS SHOULD BE INSPECTED AND REPAIRED

MATERIAL IS WITHIN THREE INCHES OF THE TOP OF THE CONCRETE BLOCKS.
PERIODICALLY, THE GRAVEL SHOULD BE RAKED TO INCREASE INFILTRATION AND

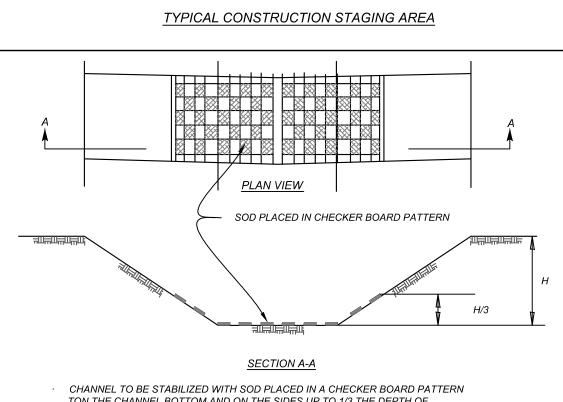
AFTER EACH RUNOFF EVENT. SEDIMENT SHOULD BE REMOVED WHEN

UNLESS TREATMENT IS PROVIDED ELSEWHERE.

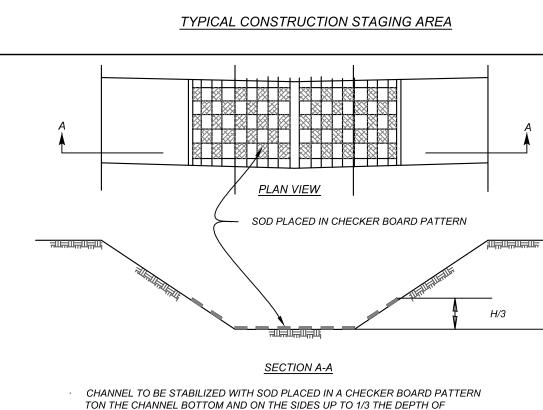
FILTERING OF RUNOFF WATERS.



TON THE CHANNEL BOTTOM AND ON THE SIDES UP TO 1/3 THE DEPTH OF CHANNEL.



CHANNEL LINING



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

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 C 200 POUNDS PER SQUARE INCH AND A FLOW THRU RATE OF 120 GALLONS PER MINUTE 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 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

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