



**SAN ANTONIO WATER SYSTEM
W6: Western Watershed Sewer Relief Line – Project I
SAWS Job No. 12-2516
Solicitation No. B-12-039-DD**

**ADDENDUM NO. 1
September 19, 2012**

To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bidding documents and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the addendum number and issue date in the space provided in submitted copies of the proposal.

A. Mandatory Pre-Bid Conference Meeting Minutes:

1. **Pre-Bid Meeting Sign-in Sheet** (See Attached – 2 pages)
2. **Pre-Bid Meeting Minutes** - A copy of the Mandatory Pre-Bid Conference meeting minutes held on September 6, 2012 is attached for reference only.

B. Bidding and Contract Requirements:

1. **Invitation to Bidders** – Bids will not be accepted from any company not represented at the mandatory pre-bid meeting held on September 6, 2012 at 2:00 p.m. The following list is a record of the represented firms.
 - BRH-Garver Construction
 - Condie Construction Co.
 - Flowtite Pipe
 - Gajeske-Bypass Pumping (or Gajeske, Inc.)
 - Hobas Pipe USA
 - Huff & Mitchell
 - Insituform
 - Layne
 - Lewis Contractors
 - Merryman Excavation
 - Mountain Cascade
 - Oscar Renda Contracting
 - Pesado Construction
 - Rain for Rent
 - SER Construction
 - S.J. Louis Construction
 - Wright Construction
2. **BID PROPOSAL:** Remove in its entirety and replace with the revised “Bid Proposal” attached, noting the following changes:



- Page BP-9 and 10 – Pay Items 853.a, the words ‘60” FRP Reinforced Poly Manhole’ will be replaced with ‘72” FRP Reinforced Poly Manhole’.
 - Page BP-9 and 10 – Pay Items 853.b, the words ‘60” FRP Reinforced Poly Manhole’ will be replaced with ‘72” FRP Reinforced Poly Manhole’.
 - Page BP-9 and 10 – Pay Items 853.c, the words ‘60” FRP Reinforced Poly Manhole’ will be replaced with ‘72” FRP Reinforced Poly Manhole’.
 - Page BP-9 and 10 – Pay Items 853.d, the words ‘60” FRP Reinforced Poly Manhole’ will be replaced with ‘72” FRP Reinforced Poly Manhole’.
 - Page BP-11 – Pay Items 856, Remove the following language, “SN 72”, from the description language.
 - Page BP-11 – Pay Items 858, Change the quantity from 2,270.2 CY to 1479.7 CY.
3. **INSTRUCTIONS TO BIDDERS:** Page IB-7, replace Paragraph 23 with the following:
23. *To assist the San Antonio Water System Contracting Office in performing the bidder evaluation and subsequent recommendation of award, the apparent low bidder must submit the following items with their bid packet the day of the bid opening. Failure to provide the required information within the specific time may result in determining a non-responsive bidder:*
- a) *A complete financial statement for your organization that was prepared within the past 12 months, by an independent Certified Public Accountant, and a point of contact for your banking institution.*
 - b) *An information packet on company showing experience, organization and equipment.*
 - c) *A statement regarding ability to complete the project within the schedule taking into account existing commitments.*
 - d) *Record of performance on three (3) similar projects as outlined in the SC 7.17 of the Special Conditions.*
 - e) *A completed and signed W-9 Request for Taxpayer Identification Number and Certification form.*
2. *Reservation of Rights: SAWS reserves its right to ask for additional projects or clarification of information submitted to complete the review of or establish a bidder’s record of performance.*
4. **ARTICLE IV. CONTRACT ADMINISTRATION:** Section 4.6, Subcontractors of the General Conditions shall be amended as follows:
- .2 **CONTRACTORS**
- The Contractor shall perform the Work with its own organization on at least 40% of the total original contract price. The term to “perform the Work with its own organization” is defined herein as utilizing only:*



- *Workers employed and paid directly by the Contractor or a wholly owned subsidiary of the contractor.*
- *Equipment owned by the contractor or its wholly owned subsidiary.*
- *Rented or leased equipment operated by the Contractor's, or its wholly owned subsidiaries, employees.*
- *For purposes of determining the value of the Work self performed, the amount shall include all materials incorporated into the Work where the majority of the value of the Work involved in incorporating the material is performed by the Contractor's own Organization, including wholly owned subsidiary; and*
- *Labor provided by staff leasing firms licensed under Chapter 91 of the Texas Labor code for non supervisory personnel if the contractor or wholly owned subsidiary maintains direct control over the labor.*

The remainder of this Section shall remain unchanged.

8. **ARTICLE V. CONTRACT RESPONSIBILITIES:** Section 5.4, Superintendent of the General Conditions shall be amended as follows:

The Contractor shall keep on-site pursuant to this Project during its progress a competent full-time Superintendent who is a direct employee of the prime contractor and any necessary assistants, all satisfactory to the Owner.

The appointment of a designee in lieu of a full time superintendent shall not be allowed as part of this provision, therefore any reference to "designee" shall not be applicable.

The remainder of this section shall remain unchanged.

9. **BID PROPOSAL CHECKLIST | BPC-1:** Remove in its entirety and replace with the revised "Bid Packet Checklist" attached.
10. **CONSTRUCTION PLANS | SHEET G-2B:** Remove in its entirety and replace with the revised "Sheet G-2B – Quantities Summary" attached.
11. **CONSTRUCTION PLANS | SHEET C-4:** Remove in its entirety and replace with the revised "Sheet C-4 – Plan and Profile STA 22+00 to STA 33+00 Siphon No. 1" attached.
12. **CONSTRUCTION PLANS | SHEET C-6:** Remove in its entirety and replace with the revised "Sheet C-6 – Plan and Profile STA 44+00 to STA 55+00 IH 35 Crossing" attached.
13. **CONSTRUCTION PLANS | SHEET C-7:** Remove in its entirety and replace with the revised "Sheet C-7 – Plan and Profile STA 55+00 to END Siphon No. 2" attached.
14. **CONSTRUCTION PLANS | SHEET CZ-5:** Remove in its entirety and replace with the revised "Sheet CZ-5 – Civil Detail V" attached.



15. **CONSTRUCTION PLANS | SHEET TP-2:** Remove in its entirety and replace with the revised “Sheet TP-2 – Stormwater Pollution Prevention & Tree Preservation Plan: Tree Summary Sheet” attached.
16. **CONSTRUCTION PLANS | SHEET TP-3:** Remove in its entirety and replace with the revised “Sheet TP-3 – Stormwater Pollution Prevention & Tree Preservation Plan: STA 1+00 to 30+00” attached. Revision clouds which appear but have no contents represent trees that have been deleted from the plan per tree inspector comments. The cloud is shown simply to indicate the location of the old tree symbol.
17. **CONSTRUCTION PLANS | SHEET TP-4:** Remove in its entirety and replace with the revised “Sheet TP-4 – Stormwater Pollution Prevention & Tree Preservation Plan: STA 30+00 to 60+00” will be deleted in its entirety and replaced. Revision clouds which appear but have no contents represent trees that have been deleted from the plan per tree inspector comments. The cloud is shown simply to indicate the location of the old tree symbol.
18. **CONSTRUCTION SPECIFICATIONS: SPECIFICATION SECTION SS520 HYDROMULCH SEEDING:** Delete this section in its entirety. The Contractor shall rely on the City of San Antonio Standard “Specification 520 – Hydromulching” which is already included in these specifications by reference.
19. **CONSTRUCTION SPECIFICATIONS: SPECIFICATION SECTION 520 HYDROMULCHING,** Paragraph 520.2.A, City of San Antonio Standard Specification: Replace references to Bermuda Grass Seed Mixture with “Caliche Mix – Native Seed Mix, Item #2860” as manufactured by Native American Seed; Junction, Tx; 1-800-728-4043; email: info@seedsource.com, or approved equal.
20. **CONSTRUCTION SPECIFICATIONS: SPECIFICATION SECTION 520 HYDROMULCHING,** Paragraph 520.4.D, City of San Antonio Standard Specification: Replace references to Bermuda grass seed mixture with “Caliche Mix – Native Seed Mix, Item #2860” as manufactured by Native American Seed; Junction, Tx; 1-800-728-4043; email: info@seedsource.com, or approved equal. The application rate for the seed mixture shall be as specified by the manufacturer.

C. **Questions and Answers:**

The following represent clarification on the Contract Documents:

1. The Tree Preservation Plan has been revised as noted above. Please refer to revised plan sheets attached to this Addendum.
2. Contractor is expected to use erosion control matting and other devices as necessary to control erosion at the creek crossings.
3. Contractor is to supply a copy of any agreement that he/she makes with private property owners to the “Owner” i.e. SAWS.
4. Sanitary sewer trench backfill shall be 98% compaction in accordance with the SAWS Construction Specification 804 - Excavation, Trenching, and Backfill.



5. The Construction Sequencing notes identify sequencing of bypass flows are suggested; but ultimately the Contractor is responsible for all flow management throughout the duration of the project.

The following represents answers to questions received by SAWS in writing:

1. Question: We are wondering whether or not SEWERLOCK has been placed on the "or equivalent" list for MANHOLE/SECURITY ACCESS product. Mr. Robert Cruz at SAWS has been provided all SEWERLOCK product information/specifications and yet we have had no communication with him about the status of SEWERLOCK's desire to be an approved(as equivalent) vendor. Could you please direct this to the appropriate individuals as we do not wish to miss an opportunity (as in this job) to supply our product on any job that is calling for manhole "locking"?

Answer: This is not a requirement for this Project. Please contact the SAWS Standards Committee for additional information.

2. Question: Have soil borings been done for this project and available to the contractor? If borings have been done, can you provide information on where to review or download them?

Answer: Yes. This information is available on the SAWS website. The link is as follows:
http://www.saws.org/business_center/ContractSol/Drill.cfm?id=582&View=Yes

3. Question: Will an exact 96"ID for the 96"FRP be required to meet the design requirements of W6: Western Watershed Sewer Relief Line?

Answer: 96" is the nominal inside diameter used in design. The actual inside pipe diameter shall not be less than 95".

4. Question: Sheet C-6 calls out for 321.2lf of 60" SN 72 Jack and Bore pipe thru the IH 35 ROW. It is typical that all flexible pipes (FRP) are encased inside a steel casing under any TxDOT ROW. Please see attached PDF outlining TxDOT requirements: "Casing shall consist of a pipe or other separate structure around and outside the carrier line". Will a steel casing be required as the carrier pipe for the FRP which is typical of all SAWS projects crossing a major roadway such as IH 35?

Answer: Design constraints do not allow for a steel casing to be installed under IH-35. All jacking pipe under IH-35 shall be of the proper thickness and use the proper couplings to facilitate the site soil conditions.

5. Question: Please confirm the Tee Base necks are to be 48" in diameter and the FRP Manhole Risers are to be 60" in diameter. There seems to be a conflict between what is called out on Sheet CZ-2 and Sheet G-2B of the plans.

Answer: Sheet G-2B, Items 853 a-d all consist of 60" FRP MH's on a TBase Fitting. The number 60" should be changed to 72" to correlate with the details shown on sheet CZ-2.



- 6. Question: As noted on the plans for the shallow cover areas, The use of concrete saddles are not recommended, because they (by design) create two different support conditions at the same location on a given pipe. For flexible pipe, a continuous & uniform modulus material for support (surround) is important to avoid stress concentrations and can eventually cause damage. For shallow cover areas, a concrete slab not in contact with the pipe that has a 4" to 6" stone or sand buffer can be used, or complete surround of the pipe can be done.

Answer: The detail on sheet CZ-5 will be modified to show 4" of sand buffer to be installed between pipe saddle and FRP pipe.

- 7. Question: On the bid form, Line item 856, what is the tonnage rating for the Jacking pipe?

Answer: The compressive strength and net wall thickness of the pipe shall provide a safety factor of at least 2.5 equating to 540 tons minimum.

- 8. Will Construction Materials Testing be needed for #B-12-039-DD W6 Western Watershed Sewer Relief Line Project? Or, will SAWS procure that service from a rotation list?

Answer: The Contractor is responsible for performing the required testing at his/her own expense to demonstrate compliance with SAWS Contract Documents.

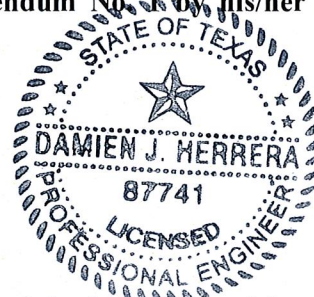
The remainder of the bid documents remains unchanged.

This Addendum, including this page, is six (6) pages in its entirety.

Each bidder is requested to acknowledge receipt of this Addendum No. 1 by his/her signature affixed hereto and to file same as an attachment to his/her bid.

[Handwritten Signature] 9/19/12

Damien J. Herrera, P.E.
 Project Manager
 CDM Smith Inc.
 Texas TBPE Registration No. F-3043



The Undersigned acknowledges receipt of this Addendum No. 1 and the bid submitted herewith is in accordance with the information and stipulation set forth.

Date

Signature of Bidder

END OF ADDENDUM

SAN ANTONIO WATER SYSTEM

MANDATORY PRE-BID CONFERENCE

W6 Western Watershed Sewer Relief Line Project 1 Sign In Sheet

SAWS Job No. 12-2516

Solicitation No. B-12-039-DD

September 6, 2012

SIGN-IN

No.	NAME	COMPANY	Email	PHONE NUMBER
1	Julie A Simko, P.E. ✓	SAWS		
2	Roland Menchaca ✓	SAWS		
3	Diana Dwyer ✓	SAWS	ddwyer@saws.org	(210)-233-3372
4	Damien Herrera, P.E. ✓	CDM Smith		
5	Mike Coppock	SER Construction	mike@serconstruction.net	713-473-7900
6	Phil Reed	SRH-GARVER Const	Phil REED @ SRH-GARVER.com	713-921-2929
7	T.A. Schulz	Layne	tommy.schulz@layne.com	281-838-1500
8	Justin Lewis	Lewis Contractors	matt@lewiscontractors.com	512-260-9900
9	ROGER J. FLORES	PESADO CONSTRUCTION	R.FLORES@PESADOCONSTRUCTIONPCO.com	210-373-6509
10	AARON RODRIGUEZ	ST LOUIS CONSTRUCTION	AARONR@STLOUIS.COM	(210) 340-9998
11	Rex Heflin	Mountain Cascade	EstimatingTX@mountaincascade.com	682-618-1084
12	Tim Hickey	MERRYMAN EXCAVATION	Tim. Hickey @ MERRYMAN EXCAVATION.com	790-0227
13	Jeff Heflin	Huff & Mitchell, Inc.	jheflin@huffmitchell.com	281-304-9100
14	TIM NAYLOR	INSITUFORM	tnaylor@insituform.com	512-677-8732
15	Joe Harris	Oscar Renda Contracting	jharris@oscarrenda.com	(704) 808-1052
16	VICTOR RIVERA	HOBAS PIPE USA	vrivera@hobaspipe.com	713-907-4406
17	Matt Lucas	Rain for Rent	mlucas@rainforrent.com	210-602-8887
18	Mike AHO	Wright Construction	shugdahl@WrightConst.com	817-329-7095
19	BRAD MILLER	CONDIE CONSTRUCTION	BRAD@CONDIECONSTRUCTION.COM	940-391-2788
20	CHEDDY WESSON	GATESKE - BYPASS PUMPING	CWESSON@GATESKE.COM	817-675-8514

No.	NAME	COMPANY	Email	PHONE NUMBER
21	MICHAEL FERGUSON	GAJESKE INC.	MFERGUSON@GAJESKE.COM	210-563-3522
22	Rocky Lorenz	Flowtite Pipe	RLORRENZ@Flowtitepipe.com	⁸¹⁷ 829-4525
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**PRE-BID CONFERENCE
MEETING MINUTES**

PROJECT: **W6: Western Watershed Sewer Relief, Project 1**
 Job No.: 12-2516
 Solicitation No.: B-12-039-DD

DATE OF MEETING: **September 6, 2012; 2:00 p.m.**

LOCATION OF MEETING: **San Antonio Water System's Customer Service Building**
 2800 U.S. Hwy 281 North, San Antonio, Texas, CR-145

ATTENDEES: **(SIGN IN SHEET ATTACHED)**

ITEMS OF DISCUSSION:

1. Julie Simko made introductions of SAWS and CDM Smith Staff.
2. All bidders were informed that the purpose of the meeting was to introduce the project and clarify any initial questions. If any charges are made to the Bid Documents prior to the bid opening date, they will be done in writing by addendum.
3. Diana Dwyer, SAWS contracting, presented a brief overview of the bidding process, requirements and key dates. The final addendum posting will be on September 19, 2012. Ms. Dwyer reviewed the question/answer process and summarized that bidders are not to approach the design consultant with any questions regarding the Bid Documents. All questions will need to be formally submitted to SAWS as explained in the Invitation To Bidders, no later than 4:00 pm on September 12, 2012.
4. Bids will be opened and read publicly at 2:00 pm on Wednesday, September 26, 2012 at the Contract Administration Division, 2800 U.S. Hwy 281 North, Customer Center Building, Suite 169, San Antonio, Texas 78212.
5. The engineers estimate is approximately \$9,800,000. The Contract duration is 390 consecutive calendar days.
6. For questions contact Diana Dwyer, via email at ddwyer@saws.org or fax at (210) 233-5218.
7. All warranties are two years.
8. SAWS has no staging area available to the Contractor within the construction limits. The Contractor shall have to legally acquire his/her own staging and storage areas near the site at his/her own expense.
9. Staking must be requested in writing 7 calendar days in advance.
10. Bidders should make themselves aware of the Special Conditions and notes on the plan drawings.



11. Contractors shall give notice to residents and businesses prior to construction.
12. Contractor must be responsive to resident's complaints. Communication with the resident and the City, SAWS, and TxDOT will be extremely important to minimize complaints. Notification letters / door hangers will be required to be distributed by the successful low bidder.
13. Data on soil borings along project alignment are available on the SAWS website. The Contractor may perform additional investigations prior to bidding as he deems necessary at his expense.
14. Contractor shall coordinate with all entities when working in close proximity to their facilities or right-of-way and meet their requirements.
15. Contractor is responsible for coordinating his work with other Contractors near project limits.
16. All questions must be submitted to the Contracting Officer in writing by Wednesday 9/12/12 by 4 pm.
17. There shall be absolutely no contact with the Project Engineer or the Design Consultant.
18. Any answers or discussion are not considered a final answer until posted by addendum on the SAWS website (proposed posting of final addendum is 9/19/12).
19. Work shall primarily consist of the construction of approximately 5400 linear feet of 96-inch FRP sanitary sewer main, including approximately 642 feet of jacking pipe, 2 siphon structures across Leon Creek.
20. Special Considerations for Construction:
 - a. Open Cut installation in same trench of existing 54"
 - b. (2) four barreled siphons w/air jumpers crossing Leon Creek
 - c. Provision for dewatering wells for bore pits optional bid item as needed
 - d. Construction phasing with particular attention to temporary structure
 - e. TxDOT Crossings; IH 35
 - f. Limited cover and (2) 60" to be jacked installation
 - g. COSA Crossing: Somerset
 - h. Flow management and Qmin and contractor responsibilities. Contractor may refer to special specification.
 - i. 1400 LF of (2) 66"; new pipe and CIPP north side of Loop 410 due to cover
 - j. Well pointing has been itemized for water groundwater control where needed but is not mandatory. This method will be used at Contractor's discretion.
 - k. Pipe abandonment limits are shown in the construction drawings and details.
 - l. SAWS requires 98% compaction on pipeline projects.



21. OPEN SESSION FOR QUESTIONS?

- a. QUESTION: Will any alternate method of pipe reinforcing be considered over Cast-In-Place Pipe? **ANSWER: *Maintaining capacity is a concern and therefore CIPP was deemed the most appropriate method to maintain a similar diameter of pipe.***
- b. QUESTION: Do all Alternative Methods have to be approved by SAWS? **ANSWER: *If the product has not been approved by the SAWS Standards Committee, do not bid the product.***
- c. QUESTION: Is there water available on site to provide for construction needs? **ANSWER: *Uncertain - Contractor shall plan to provide for his/her needs.***
- d. QUESTION: Is the contractor responsible for shoring near the home at the end of Edwards Schlundt Road? **ANSWER: *The Contractor assumes all liability and will be responsible to take all necessary precautions to ensure the integrity of the trench as well as existing utilities, infrastructure, and improvements within project limits are protected.***
- e. QUESTION: Are all existing lines RCP? **ANSWER: *Based on available records, the existing Sanitary Sewer Gravity Mains are reinforced concrete pipe (RCP) and the existing Sanitary Sewer Siphons are concrete steel cylinder (CSC). Contractor shall verify all existing pipe materials prior to construction.***
- f. QUESTION: How are the pipes being abandoned and where are they grout filled? **ANSWER: *Pipes will be abandoned in placed and be grout filled as specified by the abandonment callouts as provided in the Contract Documents.***



BID PACKET CHECKLIST

(Rev. 8/19/12)

SAN ANTONIO WATER SYSTEM
W6: WESTERN WATERSHED SEWER RELIEF LINE, PROJECT 1
SAWS Job No.: 12-2516
Solicitation No.: B-12-039-DD

The following items must be submitted with the Bid Packet:

- Bid Packet Checklist (BPC-1)
- Bid Proposal (BP-1 to BP-18)
- Proposal Certification Page (BP-19)
- Bid Bond/Cashiers Check
- Signed page(s) of Addendum(s)
- Acknowledgement of Pollution Abatement Compliance Form (APAC-1)
- Good Faith Effort Plan (GFEP)
- Conflict of Interest Questionnaire (Form CIQ)
- Letter of Insurance Verification and/or sample Certificate of Insurance verifying insurance coverage
- Financial Statement prepared within the last twelve (12) months by an independent Certified Public Accountant (#23 of the Instructions to Bidders)
- Company Information Packet with experience, organizational structure and equipment (#23 of the Instructions to Bidders)
- Statement of Ability to Complete Work (#23 of the Instructions to Bidders)
- Record of Performance on three (3) similar projects of similar scope and size (**as outlined in SC 7.17 of the Special Conditions**)
- W-9

BID PROPOSAL

PROPOSAL OF _____, a corporation
 a partnership consisting of _____
 an individual doing business as _____

THE SAN ANTONIO WATER SYSTEM (SAWS):

Pursuant to Instructions and Invitations to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the construction of pipelines and appurtenances, San Antonio Water System Job Number **12-2516** in accordance with the Plans and Specifications for the following prices to wit:

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
104	Pavement Demolition per Cubic Yard, the sum of _____ Dollars and _____ Cents	C.Y.	1,524.9	\$ _____	\$ _____
107.1	Embankment, Final, Ordinary Compaction, Type B, per Cubic Yard, the sum of _____ Dollars and _____ Cents	C.Y.	832.6	\$ _____	\$ _____
202	Prime Coat to be used on Somerset Rd. & Edwards Schlundt Rd., per Gallon, the sum of _____ Dollars and _____ Cents	GAL	456	\$ _____	\$ _____
203	Tack Coat to be used on Somerset Rd. & Edwards Schlundt Rd., per Gallon, the sum of _____ Dollars and _____ Cents	GAL	228	\$ _____	\$ _____
205-A	Placement of Hot Mix Asphaltic Concrete Pavement, Type D, 3" pavement thickness (Somerset Rd.), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	202.2	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
205-B	Placement of Hot Mix Asphaltic Concrete Pavement, Type D, 1.5" pavement thickness (Edwards Schlundt Rd.), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	2,040	\$ _____	\$ _____
206-A	Placement of asphaltic treated base, Type B, 12" compacted depth (Somerset Rd.), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	217.8	\$ _____	\$ _____
206-B	Placement of asphaltic treated base, Type B, 8" compacted depth (Edwards Schlundt Rd.), per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	2,280	\$ _____	\$ _____
508-CL48	Chain Link Fence Removal & Replacement (48" Height), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	80	\$ _____	\$ _____
508-CL72	Chain Link Fence Removal & Replacement (72" Height, located near Siphon Box 2A), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	48	\$ _____	\$ _____
508-BW4	Barbed Wire Fence Removal (4-Strand on T-posts) & Replacement, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	185	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
508-BW5	Barbed Wire Fence Removal (5-Strand on T-Posts) & Replacement along Edwards Schlundt Rd., per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	755	\$ _____	\$ _____
508-GF	Goat Fencing, woven 4"x 4" square x 48" (10 gauge Galv.), topped with 3-Strand Barbed Wire on Metal T-Posts, includes removal & replacement, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	324	\$ _____	\$ _____
508-M/W	Metal Frame w/ Wooden Pickets & Gates, Fence Removal & Reinstall, (2" x 2" square tubing frame), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	157	\$ _____	\$ _____
508	Temporary Fence Replacement & Removal, 4-Strand Barbed Wire, 48" height, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	1,820	\$ _____	\$ _____
509	Metal Beam Guardrail, Removal & Replacement at Somerset Rd Crossing, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	80	\$ _____	\$ _____
515	Topsoil (3" depth), complete-in-place as Detailed & Specified, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	70,478	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
516	Sodding (Bermuda), installed complete-in-place at residence on Edwards Schlundt, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	620	\$ _____	\$ _____
520	Hydromulching, installed complete-in-place, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	69,859	\$ _____	\$ _____
530	Traffic Safety System, Barricades, Signs & Traffic Control, per Lump Sum, the sum of _____ Dollars and _____ Cents	L.S.	1	\$ <u>XXXXXX</u>	\$ _____
540-a	Construction Exit, Install & Remove as detailed & specified, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y	333	\$ _____	\$ _____
540-b	Temporary Sediment Control Fence, Install & Remove as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	3,475	\$ _____	\$ _____
550	Trench Safety, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	8,171	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
553	Storm Water Pollution Prevention Plan includes furnishing all necessary labor, materials, supplies, equipment & incidentals, to include payment of all permit fees, per Lump Sum, the sum of _____ Dollars and _____ Cents	L.S.	1	\$ XXXXXX	\$ _____
554-a	Erosion Control Mats (TXDOT Item 169, ECB, Type A), complete-in-place as detailed & specified, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	2,213	\$ _____	\$ _____
554-b	Erosion Control Mats (TXDOT Item 169, ECB, Type C), complete-in-place as detailed & specified, per Square Yard, the sum of _____ Dollars and _____ Cents	S.Y.	1,779	\$ _____	\$ _____
848-16	Pipe, Sanitary Sewer 16" Diameter PVC C-905 (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	57.7	\$ _____	\$ _____
848-54a	Pipe, Sanitary Sewer 54" Diameter SN 72 FRP (0'-10') Open Cut Siphon, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	93.6	\$ _____	\$ _____
848-54b	Pipe, Sanitary Sewer 54" Diameter SN 72 FRP (10'-15') Open Cut Siphon, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	288.5	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
848-54c	Pipe, Sanitary Sewer 54" Diameter SN 72 FRP (>15') Open Cut Siphon, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	270.4	\$ _____	\$ _____
848-60a	Pipe, Sanitary Sewer 60" Diameter SN 72 FRP (0'-10') Open Cut Siphon, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	187.2	\$ _____	\$ _____
848-60b	Pipe, Sanitary Sewer 60" Diameter SN 72 FRP (10'-15') Open Cut Siphon, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	576.9	\$ _____	\$ _____
848-60c	Pipe, Sanitary Sewer 60" Diameter SN 72 FRP (>15') Open Cut Siphon, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	540.7	\$ _____	\$ _____
848-60d	Pipe, Sanitary Sewer 60" Diameter SN 72 FRP (10'-15') Open Cut temporary diversion piping, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	30	\$ _____	\$ _____
848-66a	Pipe, Sanitary Sewer 66" Diameter SN 72 FRP (0'-10') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	976.7	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
848-66b	Pipe, Sanitary Sewer 66" Diameter SN 72 FRP (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	325	\$ _____	\$ _____
848-96a	Pipe, Sanitary Sewer 96" Diameter SN 72 FRP (0'-10') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	275	\$ _____	\$ _____
848-96b	Pipe, Sanitary Sewer 96" Diameter SN 72 FRP (10'-15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	2,886.8	\$ _____	\$ _____
848-96c	Pipe, Sanitary Sewer 96" Diameter SN 72 FRP (>15') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	965	\$ _____	\$ _____
850-1	Sanitary Sewer Structure, Junction Box 1, includes including DI vent piping, fittings, & support, as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-2a	Sanitary Sewer Structure, Siphon 1A Outlet, includes Air-Bypass Piping & support within the structure as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
850-2b	Sanitary Sewer Structure, Siphon 1B Inlet, includes Air-Bypass Piping & support within the structure as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-3a	Sanitary Sewer Structure, Junction Box 2A, as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-3b	Sanitary Sewer Structure, Junction Box 2B, as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-4a	Sanitary Sewer Structure, Siphon 2A Outlet, includes Air-Bypass Piping & Support within the Structure as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-4b	Sanitary Sewer Structure, Siphon 2B Inlet, includes Air-Bypass Piping & support within the structure as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-5	Flow Diversion Box-1 Structure, as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
850-6	Flow Diversion Box-2 Structure, as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-7	Temporary Flow Diversion Box-3 Structure, as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
850-8	Temporary Flow Diversion Box-4 Structure, as shown on drawings complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
852.2	Drop Manhole, 48" Precast (0'-6' depth), as shown on drawing complete-in-place, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
852.3	Extra depth manhole (> 6 ft), 48", as shown on drawing complete-in-place, per Vertical Foot, the sum of _____ Dollars and _____ Cents	V.F.	6.3	\$ _____	\$ _____
853-a	Sanitary Sewer Structure, 72" FRP Reinforced Poly Manhole on 66" x 66" x 60" – T-Base with Watertight MH, complete-in-place as shown on the drawings, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
853-b	Sanitary Sewer Structure, 72" FRP Reinforced Poly Manhole on 96" x 96" x 60" – T Base with Watertight MH, complete-in-place as shown on the drawings, per Each, the sum of _____ Dollars and _____ Cents	EA.	7	\$ _____	\$ _____
853-c	Sanitary Sewer Structure, 72" FRP Reinforced Poly Manhole on 96" x 96" x 60" – T Base with Watertight MH, including DI vent piping, fittings, & support complete-in-place as shown on the drawings, per Each, the sum of _____ Dollars and _____ Cents	EA.	4	\$ _____	\$ _____
853-d	Sanitary Sewer Structure, 72" FRP Reinforced Poly Manhole on 96" x 96" x 60" – T Base with Watertight MH & 60" side outlet, complete-in-place as shown on the drawings, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
853-e	Sanitary Sewer Structure – Fiberglass Reinforced Poly Manhole 72" Monolithic Watertight MH (Air By-Pass), complete-in-place as shown on the drawings, per Each, the sum of _____ Dollars and _____ Cents	EA.	4	\$ _____	\$ _____
853-f	Partially Remove & Abandon Existing Concrete Siphon Junction Boxes, demolish 3 feet below finished grade & fill with crushed stone as detailed & specified, per Each, the sum of _____ Dollars and _____ Cents	EA.	4	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
854-6	Pipe, Sanitary Sewer 6" Diameter SDR-26 (0'-10') Open Cut, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	220.7	\$ _____	\$ _____
855	Reconstruction of Existing Manholes, the sum of _____ Dollars and _____ Cents	EA.	3	\$ _____	\$ _____
856	Jacking / Boring 60" Diameter RP (Jacking Pipe with a minimum jacking load pushing "straight" = 540 tons) Carrier Pipe, Parallel Alignment (2 Bores at 321-feet each at IH-35 crossing) per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	642	\$ _____	\$ _____
858	Concrete Encasement Cradles, Saddles & Collars, per Cubic Yard, the sum of _____ Dollars and _____ Cents	C.Y.	1,479.7	\$ _____	\$ _____
862-48a	Abandon Existing 48" CSC Sewer Mains, fill with Flowable Fill, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	960	\$ _____	\$ _____
862-48b	Remove Existing 54" RCP with 48" HDPE Slipliner Sewer Main, per Linear Foot, the Sum of _____ Dollars and _____ Cents	L.F.	1,100	\$ _____	\$ _____
862-54a	Remove Existing 54" RCP Sewer Main, per Linear Foot, the sum of _____ Dollars	L.F.	1,350	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
	and _____ Cents				
862-54b	Abandon Existing 54" RCP/CSC Sewer Mains/Siphons, fill with Flowable Fill, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	2,376	\$ _____	\$ _____
862-54c	Remove Existing Manholes in place on 54" RCP sewer main, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
862-54d	Abandon Existing Manholes in place on 54" Sewer Line, demolish 3 feet below Finished Grade & fill with Crushed Rock, as detailed & specified, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
862-54e	Abandon Existing Manholes in place on 54" Sewer Line, demolish 3' below Finished Grade & fill with Flowable Fill, as detailed & specified, per Each, the sum of _____ Dollars and _____ Cents	EA	2	\$ _____	\$ _____
862-66a	Abandon Existing 66" RCP Sewer Mains, fill with Flowable Fill, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	468	\$ _____	\$ _____
862-66b	Abandon Existing Sewer Manholes in place on 66" RCP sewer line, demolish 3' below Finished Grade & fill with Crushed Stone as detailed & specified, per Each, the sum of _____ Dollars and _____ Cents	EA.	2	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
862-66c	Abandon Existing Sewer Manholes in place on 66" sewer line, demolish 3' below Finished Grade & fill with Flowable Fill, as detailed & specified, per Each, the sum of _____ Dollars and _____ Cents	EA.	1	\$ _____	\$ _____
866-a	Sewer Main Television Inspection (CCTV) of Proposed Piping >30" as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	9,921.29	\$ _____	\$ _____
866-b	Sewer Main Pre-Television Inspection (CCTV) of Existing Line to be abandoned, 54", 60", & 66" Sewer Mains, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	9,850	\$ _____	\$ _____
868-48	Clean Existing 48" Sewer Main prior to abandonment, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	960	\$ _____	\$ _____
868-54	Clean Existing 54" Sewer Main, prior to abandonment, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	2,376	\$ _____	\$ _____
868-66	Clean Existing 66" Sewer Main prior to abandonment, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	468	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
901.1	Reconstruction of Existing 66" RCP Sewer by Cured-in-Place pipe, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	1,166	\$ _____	\$ _____
910.2	Sewer Structure Rehabilitation, per Square Foot, the sum of _____ Dollars and _____ Cents	S.F.	120	\$ _____	\$ _____
1001	Flow Management, Equipment necessary to provide Flow Management for flows in excess of existing 66" diameter up to 1,000 Linear Feet. as detailed & specified, per Lump Sum, the sum of _____ Dollars and _____ Cents	L.S.	1	\$ <u>XXXXXX</u>	\$ _____
1001.a	Flow Management, equipment necessary to provide Flow Management for flows in excess of existing 66" diameter greater than 1,000 Linear Feet, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	3,400	\$ _____	\$ _____
1103-54	Point Repairs and Obstruction Removal for 54" RCP WW Piping (6' to 10' depth), complete-in-place, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100	\$ _____	\$ _____
1103-54a	Extra Length Point Repairs for 54" RCPWW Piping (6' to 10" depth), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
1103-60	Point Repairs and Obstruction Removal for 60" RCP WW Piping (6' to 10' depth), complete-in-place, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100	\$ _____	\$ _____
1103-60a	Extra Length Point Repair for 60" RCPWW Piping (6' to 10' depth), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100	\$ _____	\$ _____
1103-66	Point Repairs and Obstruction Removal for 66" RCP WW Piping (6' to 10' depth), complete-in-place, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100	\$ _____	\$ _____
1103-66a	Extra Length Point Repair for 66" RCP WW Piping (6' to 10' depth), per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	100	\$ _____	\$ _____
2140	Well Pointing for Dewatering Siphon Pipe Trenching, including Air Bypass Line, as detailed & specified, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	2,663.26	\$ _____	\$ _____
2623-24a	Air Bypass Hydrant, 24" HDPE Riser on 36" HDPE DR17 pipe, per Each, the sum of _____ Dollars and _____ Cents	EA.	2	\$ _____	\$ _____

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total (Figures)
2623-36a	Pipe, 36" Diameter DR17 HDPE Line (0' to 10') Open Cut Air Bypass, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	138.76		
				\$ _____	\$ _____
2623-36b	Pipe, 36" Diameter DR17 HDPE Line (10' to 15') Open Cut Air Bypass, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	288.45		
				\$ _____	\$ _____
2623-36c	Pipe, 36" Diameter DR17 HDPE Line (greater than 5') Open Cut Air Bypass, per Linear Foot, the sum of _____ Dollars and _____ Cents	L.F.	270.36		
				\$ _____	\$ _____

BID SUMMARY

SUBTOTAL – SAWS JOB NO. 12-2516 (SEWER): \$ _____

LINE ITEM "A"

SUBTOTAL BASE BID (SEWER) \$ _____

Item	Description	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
100	MOBILIZATION Percent of the Line Item "A" Subtotal Base Bid Written in Words _____ Percent	LUMP SUM	1	\$ <u>XXXXXX</u>	\$ _____
	<i>(Maximum of 10% of the Line Item "A" Subtotal Base Bid Amount)</i>				
101	PREPARING R.O.W. Percent of the Line Item "A" Subtotal Base Bid Written in Words _____ Percent	LUMP SUM	1	\$ <u>XXXXXX</u>	\$ _____
	<i>(Maximum of 5% of the Line Item "A" Subtotal Base Bid Amount)</i>				
	MOBILIZATION AND PREPARING ROW SUBTOTAL				\$ _____

Mobilization lump sum bid shall be limited to a maximum 10% of the Line Item "A" Subtotal Base Bid amount. Preparing Right-of-Way lump sum bid shall be limited to a maximum of 5% of the Line Item "A" Subtotal Base Bid amount. The Line Item "A" Subtotal base bid is defined as all bid items **EXCLUDING** Item 100, Mobilization and Item 101, Preparing Right-of-Way. **In the event of a discrepancy between the written percentage and dollar amount shown for Mobilization and Preparation of ROW bid items the written percentage will govern. If the percentage written exceeds the allowable maximum stated for mobilization and or preparation of ROW, SAWS reserves the right to cap the amount at the percentages shown and adjust the extensions of the bid items accordingly.**

TOTAL BID AMOUNT (Line Item "A", Mobilization & Preparing R.O.W. \$ _____

_____ DOLLARS

AND _____ CENTS

BIDDER'S SIGNATURE & TITLE

FIRM'S NAME (TYPE OR PRINT)

FIRM'S ADDRESS

FIRM'S PHONE NO. /FAX NO.

FIRM'S EMAIL ADDRESS

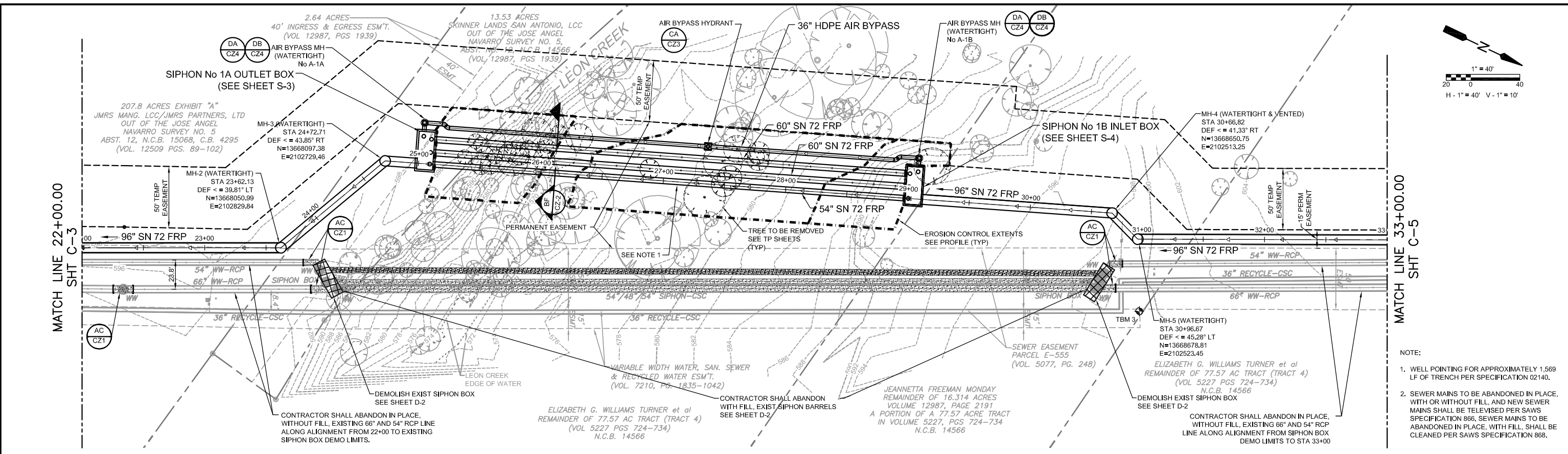
THE CONTRACTOR HEREIN ACKNOWLEDGES RECEIPT OF THE FOLLOWING:

Addendum Nos. _____.

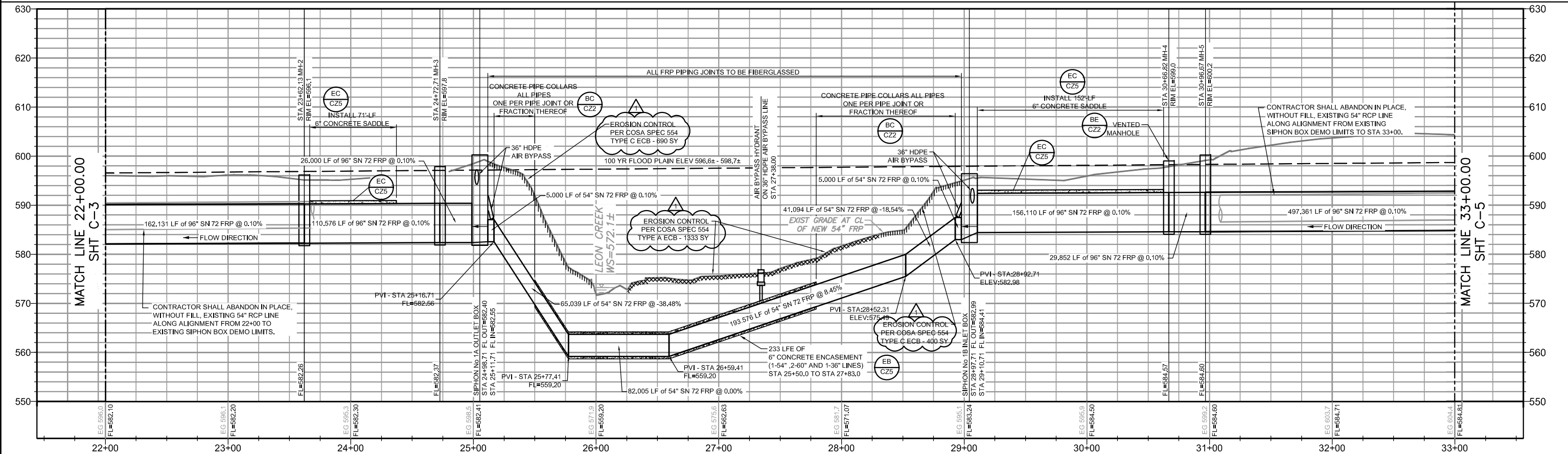
OWNER RESERVES THE RIGHT TO ACCEPT THE OVERALL MOST RESPONSIBLE BID.

The bidder offers to construct the Project in accordance with the Contract Documents for the contract price, and to complete the Project within **Three Hundred Ninety (390)** Calendar Days after the start date, as set forth in the Authorization to Proceed. **The bidder understands and accepts the provisions of the contract Documents relating to liquidated damages of the project if not completed on time.**

COMPLETE THE ADDITIONAL REQUIREMENTS OF THE PROPOSAL WHICH ARE INCLUDED ON THE FOLLOWING PAGES.



-SEE LOCATOR NOTES ON SHEET G-1. -SEE TRENCH EXCAVATION SAFETY PROTECTION NOTE ON SHEET G-1. -SEE CITY PUBLIC SERVICE NOTES ON SHEET G-1. -SEE AT&T NOTE ON SHEET G-1. -SEE TIME WARNER NOTE ON SHEET G-1.



ISSUE No	DATE	CHKD	REMARKS
	09/19/12	DH	REVISED PER ADDENDUM 1

DESIGNED BY: RAMIREZ
DRAWN BY: SANDEFUR
SHEET CHK'D BY: RAMIREZ
CROSS CHK'D BY: HERRERA
APPROVED BY: _____
DATE: SEPTEMBER 2012

CDM Smith
1777 NE Loop 410, Suite 500
San Antonio, Texas 78217
Tel: (210) 826-3200
Texas Registration Number F-3043

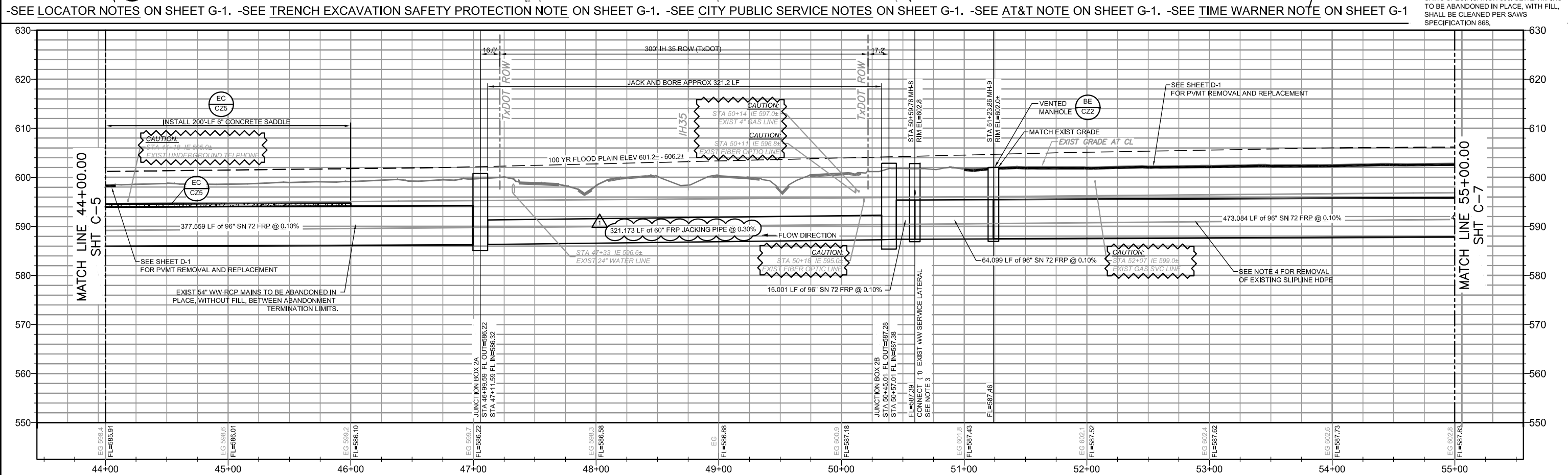
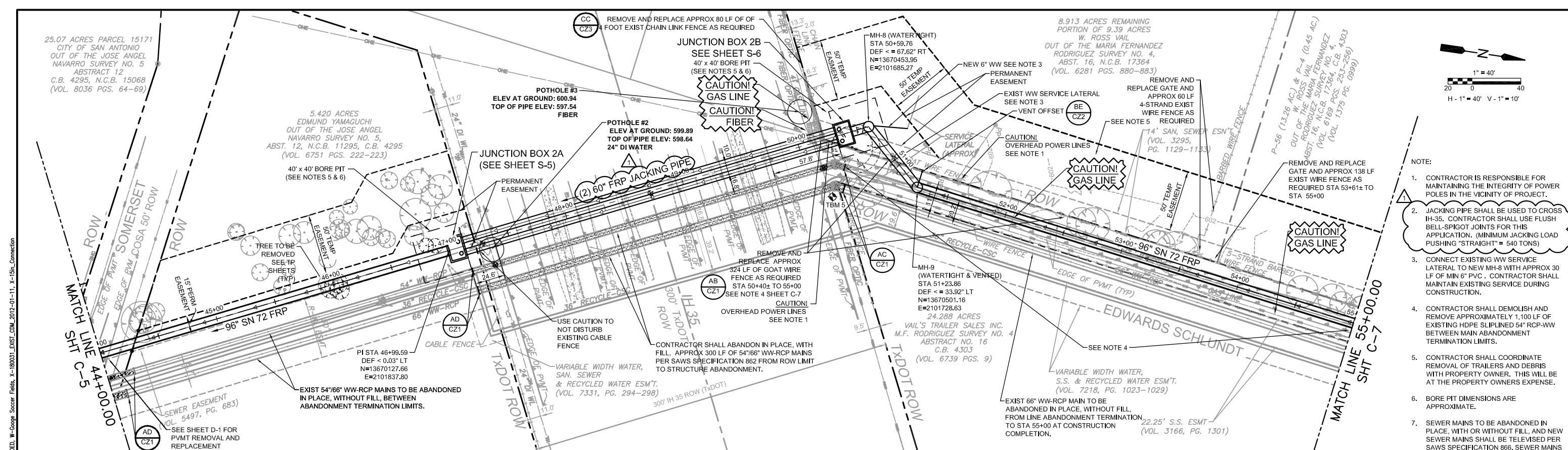
STATE OF TEXAS
DAMIEN J. HERRERA
7874
LICENSED PROFESSIONAL ENGINEER
SEPTEMBER 18, 2012

SAN ANTONIO WATER SYSTEM
W6: WESTERN WATERSHED
SEWER RELIEF LINE - PROJECT 1
PROJECT No 12-2516

PLAN AND PROFILE
STA 22+00 TO STA 33+00
SIPHON No 1

SAWS PROJECT #12-2516
FILE NAME: C-PLPP101

SHEET No
C-4



ISSUE No	DATE	CHKD	REMARKS
09/19/12	DH		REVISED PER ADDENDUM 1

DESIGNED BY: RAMIREZ
DRAWN BY: SANDEFUR
SHEET CHK'D BY: RAMIREZ
CROSS CHK'D BY: HERRERA
APPROVED BY: _____
DATE: SEPTEMBER 2012

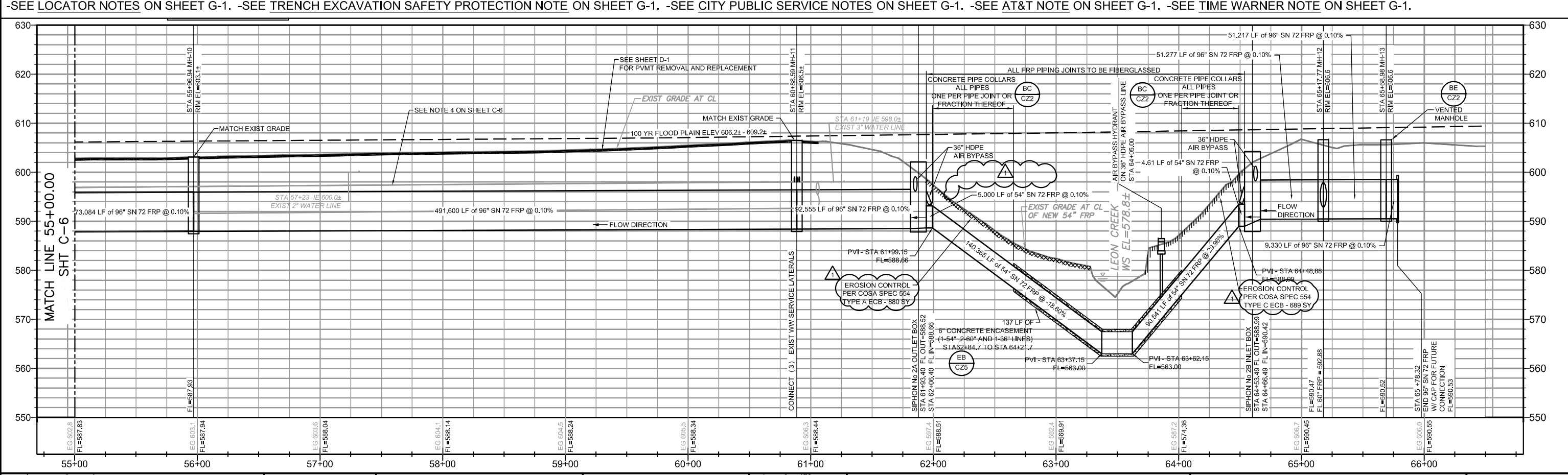
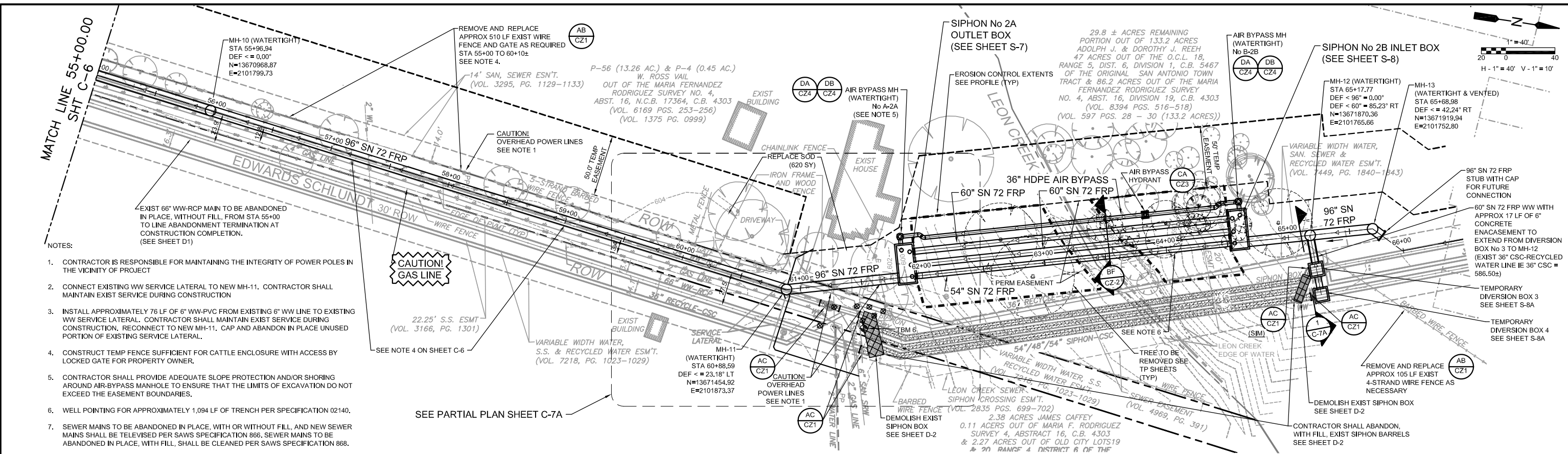
1777 NE Loop 410, Suite 500
San Antonio, Texas 78217
Tel: (210) 826-3200
Texas Registration Number F-3043

SEPTEMBER 18, 2012

SAN ANTONIO WATER SYSTEM
W6: WESTERN WATERSHED
SEWER RELIEF LINE - PROJECT 1
PROJECT No 12-2516

PLAN AND PROFILE
STA 44+00 TO STA 55+00
IH 35 CROSSING

SAWS PROJECT #12-2516
FILE NAME: C-PLPP101
SHEET No
C-6



ISSUE No	DATE	CHKD	REMARKS
09/19/12	DH		REVISED PER ADDENDUM 1

DESIGNED BY: RAMIREZ
 DRAWN BY: SANDEFUR
 SHEET CHK'D BY: RAMIREZ
 CROSS CHK'D BY: HERRERA
 APPROVED BY:

DATE: SEPTEMBER 2012

BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY.

CDM Smith
 1777 NE Loop 410, Suite 500
 San Antonio, Texas 78217
 Tel: (210) 826-3200
 Texas Registration Number F-3043

STATE OF TEXAS
 DAMIEN J. HERRERA
 8774
 LICENSED PROFESSIONAL ENGINEER
 SEPTEMBER 18, 2012

SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 1
 PROJECT No 12-2516

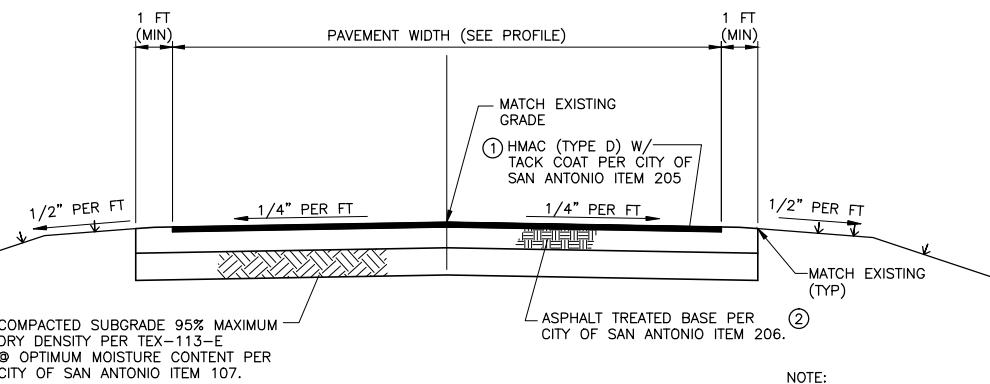
PLAN AND PROFILE
 STA 55+00 TO END
 SIPHON No 2

SAWS PROJECT #12-2516
 FILE NAME: C-PLPP101
 SHEET No
 C-7



DETAIL EA
NTS

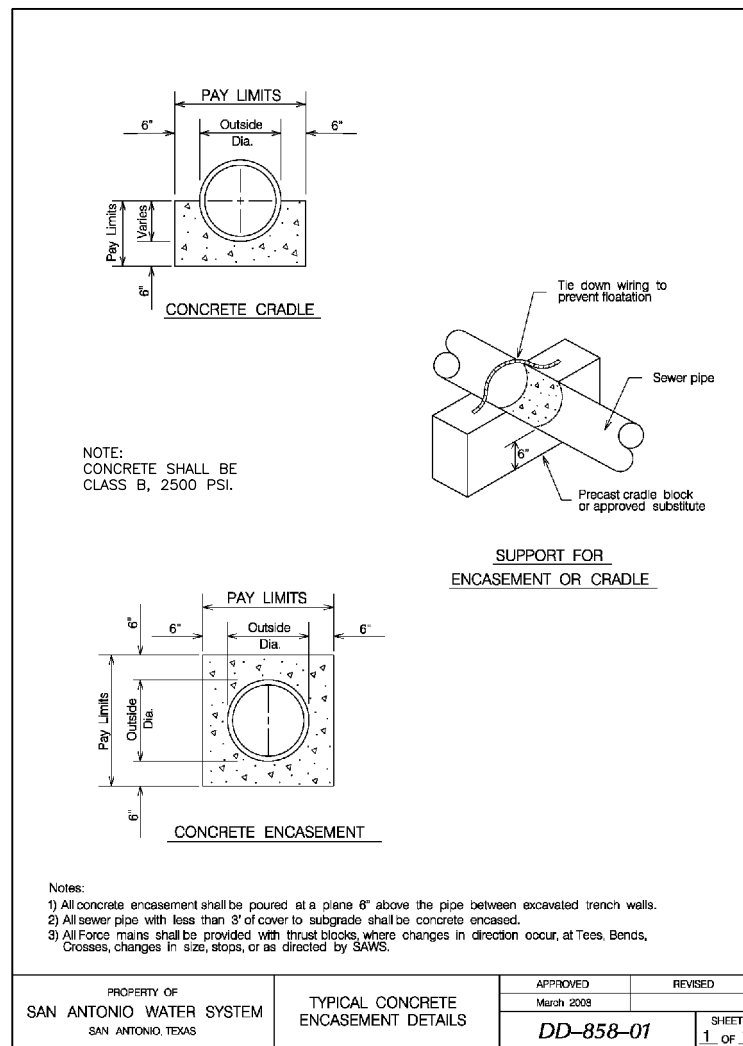
STREET	① HMAC (INCHES COMPACTED DEPTH)	② ASPHALT TREATED BASE (INCHES COMPACTED DEPTH)	③ SUBGRADE (INCHES COMPACTED DEPTH)	PAVEMENT WIDTH (FT)	LENGTH (FT)
EDWARDS SCHLUNDT	1.5	8	12	14' - 20' (WIDTH VARIES)	1080
SOMERSET	3	12	12	26	70



TYPICAL PAVEMENT REPLACEMENT SECTION

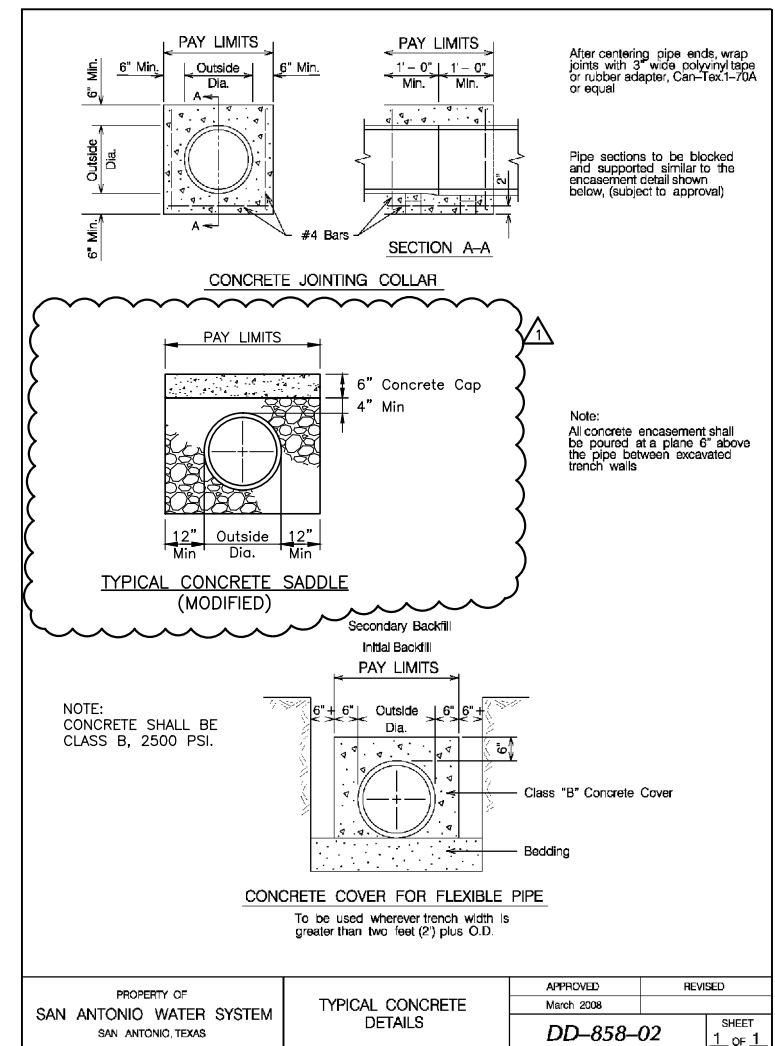
DETAIL ED
NTS

NOTE:
1. CONTRACTOR SHALL INSTALL PAVEMENT MARKINGS TO MATCH EXISTING CONDITIONS AS REQUIRED. (NSPI)



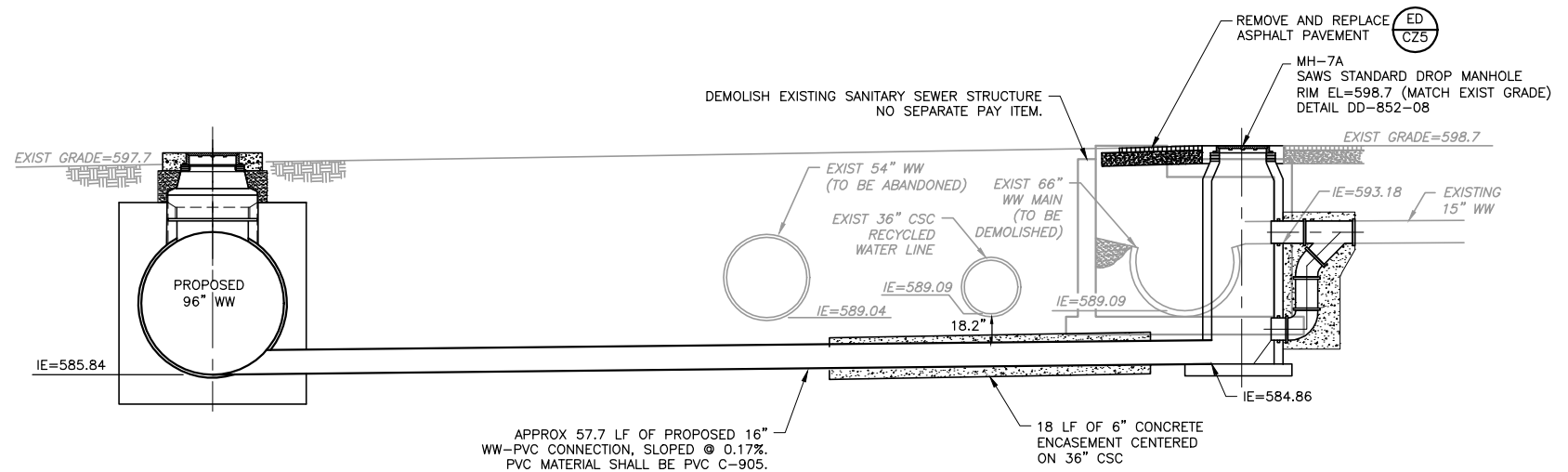
TYPICAL CONCRETE ENCASEMENT DETAILS

DETAIL EB
3/4" = 1'-0"



TYPICAL CONCRETE DETAILS

DETAIL EC
3/4" = 1'-0"

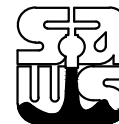


DETAIL EE
1" = 5'

DESIGNED BY: RAMIREZ	DRAWN BY: SANDEFUR
SHEET CHK'D BY: RAMIREZ	CROSS CHK'D BY: HERRERA
APPROVED BY: [Signature]	DATE: SEPTEMBER 2012
BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY.	

CDM Smith
1777 NE Loop 410, Suite 500
San Antonio, Texas 78217
Tel: (210) 826-3200
Texas Registration Number F-3043

STATE OF TEXAS
DAMIEN J. HERRERA
87741
LICENSED PROFESSIONAL ENGINEER
SEPTEMBER 18, 2012



SAN ANTONIO WATER SYSTEM
W6: WESTERN WATERSHED
SEWER RELIEF LINE - PROJECT 1
PROJECT No 12-2516

CIVIL DETAILS V

SAN ANTONIO WATER SYSTEM	TYPICAL CONCRETE ENCASEMENT DETAILS	APPROVED: March 2008	REVISED:
DD-858-01	SHEET 1 OF 1	DD-858-02	SHEET 1 OF 1

SAWS PROJECT #12-2516
FILE NAME: CZ-5

SHEET No
CZ-5

SIGNIFICANT TREES WITHIN FLOODPLAIN TO REMOVE			
POINT #	SPECIES	DESCRIPTION	DBH (IN)
5405	HACK	11" hackberry	11
5407	HACK	17" hackberry	17
7017	HACK	19" hackberry	19
7018	MESQ	13"x19" mesquite	19
8228	HACK	11"x6" hackberry	11
8301	ASH	17" ash	17
8302	HACK	11" hackberry	11
8303	ASH	18" ash	18
8318	PEC	15" pecan	15
8319	PEC	6" pecan	6
8421	PEC	7" pecan	7
8422	PEC	10" pecan	10
8423	PEC	6" pecan	6
8424	PEC	8" pecan	8
8426	PEC	12" pecan	12
8509	ELM	16" elm	16
8523	ML	7" mountain laurel	7
8530	MESQ	17"x12" mesquite	17
8531	HACK	18" hackberry	18
8536	PER	5" persimmon	5
TOTAL			250

SIGNIFICANT TREES WITHIN FLOODPLAIN TO REMAIN			
POINT #	SPECIES	DESCRIPTION	DBH (IN)
5177	MESQ	10x15" mesquite	15
5360	HACK	12" hackberry	12
5362	HUI	18" huisache	18
5365	HACK	15" hackberry	15
5446	HUI	13" huisache	13
6934	HACK	19" hackberry	19
6937	MESQ	7"x15"x6" mesquite	15
6938	HACK	14" hackberry	14
6939	MESQ	8"x14"x15" mesquite	15
6946	MESQ	10"x10"x8" mesquite	10
6975	MESQ	23" mesquite	23
6984	HACK	10" hackberry	10
6987	HACK	10" hackberry	10
6990	UNKNOWN	cluster 6"x6"x7"x5"x2"x3"	7
6992	HACK	10"x11"x12" hackberry	12
6993	HACK	10" hackberry	10
6996	HACK	6"x8"x6"x10" hackberry	10
8299	WILL	22" willow	22
8493	HACK	17" hackberry	17
8494	HACK	12" hackberry	12
8496	CYP	21" cypress	21
8499	MESQ	17" mesquite	17
TOTAL			317

SIGNIFICANT TREES OUTSIDE FLOODPLAIN TO REMAIN			
POINT #	SPECIES	DESCRIPTION	DBH (IN)
5354	MESQ	10" mesquite	10
5357	ASH	12" ash	12
TOTAL			22

SIGNIFICANT TREES WITHIN EASEMENT TO BE REMOVED			
POINT #	SPECIES	DESCRIPTION	DBH (IN)
5160	HACK	14x10x12" hackberry	14
5161	HACK	15" hackberry	15
5291	PEC	17" pecan	17
5437	MESQ	12x9x7x7" mesquite	12
5468	MESQ	17" mesquite	17
5469	MESQ	20" mesquite	20
6568	PEC	20" pecan	20
6592	MESQ	22" mesquite	22
7015	MESQ	9"x12"x10"x7" mesquite	12
7023	HACK	10" hackberry	10
7024	HACK	10" hackberry	10
7030	ELM	6" elm	6
7033	HACK	14" hackberry	14
7060	ASH	10"x10"x5"x5" ash	10
7061	MESQ	9"x12" mesquite	12
8221	ELM	6" elm	12
8223	ELM	6" elm twin	6
8226	ELM	6" elm	6
8231	HACK	12" hackberry	12
8233	ELM	8" elm	8
8234	ELM	8" elm	8
8235	PEC	9" pecan	9
8237	HACK	13" hackberry	13
8304	WILL	11" willow	11
8315	PEC	16" pecan	16
8316	PEC	11" pecan	11
8317	PEC	12" pecan	12
8321	PEC	9" pecan	9
8322	PEC	6" pecan	6
8323	PEC	9" pecan	9
8533	HACK	10" hackberry	10
8534	MESQ	19" mesquite	19
11511	CYP	15" cypress	15
11512	CYP	9" cypress	9
11513	CYP	8" cypress	8
11521	PEC	10" pecan	10
11522	PEC	10" pecan	10
TOTAL			440

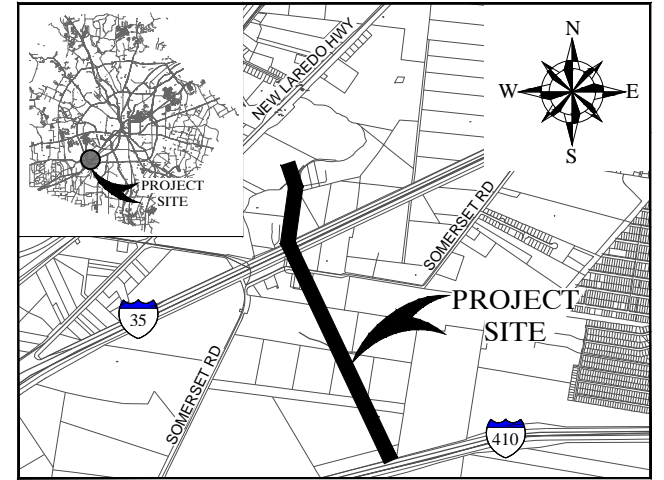
SIGNIFICANT TREES WITHIN EASEMENT TO REMAIN			
POINT #	SPECIES	DESCRIPTION	DBH (IN)
4225	ASH	10" ash	10
4226	WILL	8"x8"x10"x10"x10" willow	10
4239	ELM	12" elm	12
4251	WILL	10" willow	10
5264	HUI	12x10" huisache	12
5265	HUI	10"x10" huisache	10
5266	ELM	6" elm	6
5269	UNKNOWN	6" unknown	6
5270	UNKNOWN	7" unknown	7
5271	CYP	16" cypress	16
5272	CW	9" cottonwood	9
5274	HACK	15" hackberry	15
5290	PEC	11" pecan	11
5292	PEC	6" pecan	6
5460	HACK	11x14" hackberry	14
5461	HACK	12" hackberry	12
5462	HACK	18" hackberry	18
5464	HACK	13x10" hackberry	13
5541	HACK	12"x9" hackberry	12
5542	HACK	12"x10"x10" hackberry	12
5543	HACK	18" hackberry	18
5544	HACK	13"x11" hackberry	13
5545	HACK	12" hackberry	12
5546	HACK	10" hackberry	10
5547	COND	8"x6"x5" condolia	8
5548	HACK	14" hackberry	14
5549	COND	9" condolia	9
5550	PEC	8" pecan	8
5551	PEC	7" pecan	7
5552	HUI	12"x14" huisache	14
5553	HACK	16" hackberry	16
5569	HACK	10"x8" hackberry	10
5572	MESQ	11"x9"x14" mesquite	11
5573	HACK	11"x11" hackberry	11
5574	HACK	10" hackberry	10
5575	MESQ	16" mesquite	16
5623	PEC	17" pecan	17
5834	HUI	10"x9" huisache	10
TOTAL			435

HERITAGE TREES TO REMOVE (MITIGATE @ 1:1)			
POINT #	SPECIES	DESCRIPTION	DBH (IN)
5366	HACK	30" hackberry	30
7014	MESQ	28" mesquite	28
TOTAL			58

HERITAGE TREES TO REMOVE (MITIGATE @ 3:1)			
POINT #	SPECIES	DESCRIPTION	DBH (IN)
7077	PEC	30" pecan	30
7078	PEC	34" pecan	34
TOTAL			64

HERITAGE TREES TO REMAIN			
POINT #	SPECIES	DESCRIPTION	DBH (IN)
4223	WILL	24" willow	24
4224	WILL	24"x20" willow	24
5282	PEC	35" pecan	35
5624	PEC	30" pecan	30
5625	PEC	24" pecan	24
6972	ASH	36" ash	36
8351	PEC	32" pecan	32
8450	ELM	35" elm	35
TOTAL			240

Tree Preservation Calculations	
Total Significant Inches Outside Floodplain:	22
Significant To Remain:	22
Significant To Remove:	0
Significant Preserved Outside Floodplain:	100%
Total Significant Inches Within Floodplain:	1442
Significant To Remain:	752
Significant To Remove:	690
Significant Preserved Within Floodplain:	52%
Total Heritage Inches:	362
Total Heritage Remain:	240
Total Heritage Remove:	122
Total Heritage Preserved:	66%
Total Inches to Preserve:	
Significant Outside Floodplain: (40% Of Total)	9
Significant Within Floodplain: (80% Of Total)	1154
Heritage: (100% Of Total)	362
Total Inches to Mitigate:	
Significant (1:1):	402
Heritage (3:1):	192
Heritage (1:1):	58
Total Inches:	652
Inches Planted:	0
Cost Per Inch:	\$200.00
Total Paid Into Tree Fund:	\$130,400.00



TREE PROTECTION & PRESERVATION GENERAL NOTES

- NO UTILITY OR STREET EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
- TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION. DURING CONSTRUCTION ACTIVITY, AT LEAST A SIX-INCH LAYER OF COARSE MULCH SHALL BE PLACED AND MAINTAINED OVER THE ROOT PROTECTION ZONE (NO SEPARATE PAY ITEM).
- THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
- ROOTS WILL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.
- ALL CURB AND SIDEWALK WORK SHALL USE ALTERNATIVE CONSTRUCTION METHODS TO MINIMIZE EXTENSIVE ROOT DAMAGE TO TREES (REFER TO DETAILS).
- EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH, OR WET BURLAP.
- NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS 1 FOOT OF RADIUS PER INCH OF TREE'S DIAMETER. A 10-INCH DIAMETER TREE WOULD HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. OAK WOUNDS SHALL BE PAINTED OVER WITHIN 30 MINUTES TO PREVENT OAK WILT.
- SAPLINGS, SHRUBS OR BUSHES TO BE CLEARED FROM THE PROTECTED ROOT ZONE AREA OF A LARGE TREE SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR.
- NO WIRES, NAILS OR OTHER MATERIAL MAY BE ATTACHED TO PROTECTED TREES.
- TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE CITY STREET OR ALLEY RIGHT-OF-WAY OR PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES SHALL BE PROPERLY PRUNED FOLLOWING THE ANSI A-300 STANDARDS FOR PRUNING. ALL TREE PRUNING SHALL BE COMPLETED BY A CITY OF SAN ANTONIO TREE MAINTENANCE LICENSED CONTRACTOR (ARTICLE 21-171, CITY CODE) ONLY AFTER APPROVAL FROM THE CAPITAL PROJECTS MANAGEMENT THROUGH THE INSPECTOR.
- NO EXCESSIVE TREE TRIMMING WILL BE PERMITTED.
- ALL DEBRIS GENERATED BY THE TRIMMING AND PRUNING OF THE TREES AND/OR BUSHES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY (NO SEPARATE PAY ITEM).
- TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE, BUT NOT BE LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
- ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST (210-207-0278).
- TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
- TREE PLANTING FOR MITIGATION OR ENHANCEMENT: ALL PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATING, FERTILIZING, PRUNING AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT. TREES THAT DIE WITHIN TWELVE (12) MONTHS SHALL BE REPLACED WITH A TREE OF EQUAL SIZE AND SPECIES.

LEGEND

- LEVEL IIA TREE PROTECTION
- SILT FENCE
- TREE OUTSIDE OF LIMITS
- TREE TO REMAIN
- TREE TO REMOVE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- ROCK BERM

NOTE:

- SEE SHEET G-4 FOR BENCHMARK LOCATION DETAILS.
- SEE SHEETS TP-10 AND TP-11 FOR STORMWATER POLLUTION PREVENTION DETAILS.
- SEE SHEETS TP-6 THROUGH TP-9 FOR TREE PRESERVATION DETAILS.

100 YEAR FLOODPLAIN NOTE:

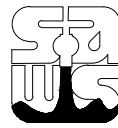
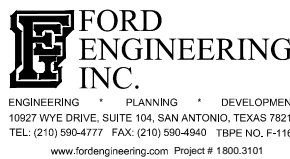
PLAN VIEW AREAS SHOWN LIE WITHIN THE 100-YEAR FLOODPLAIN AS SHOWN ON FEMA PANEL NO. 48029C0555F FOR BEXAR COUNTY EFFECTIVE SEPTEMBER 29, 2010 UNLESS OTHERWISE NOTED.

TREE PLANTING FOR MITIGATION OR ENHANCEMENT:

ALL PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATING, FERTILIZING, PRUNING AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT. TREES THAT DIE WITHIN TWELVE (12) MONTHS SHALL BE REPLACED WITH A TREE OF EQUAL SIZE AND SPECIES.

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DESIGNED BY: MDS	
DRAWN BY: MDS	
SHEET CHK'D BY: RWH	
CROSS CHK'D BY: RWH	
APPROVED BY: RWH	
DATE: AUGUST 21, 2012	
ISSUE No	REMARKS
09/19/12	RWH REVISED PER ADDENDUM 1

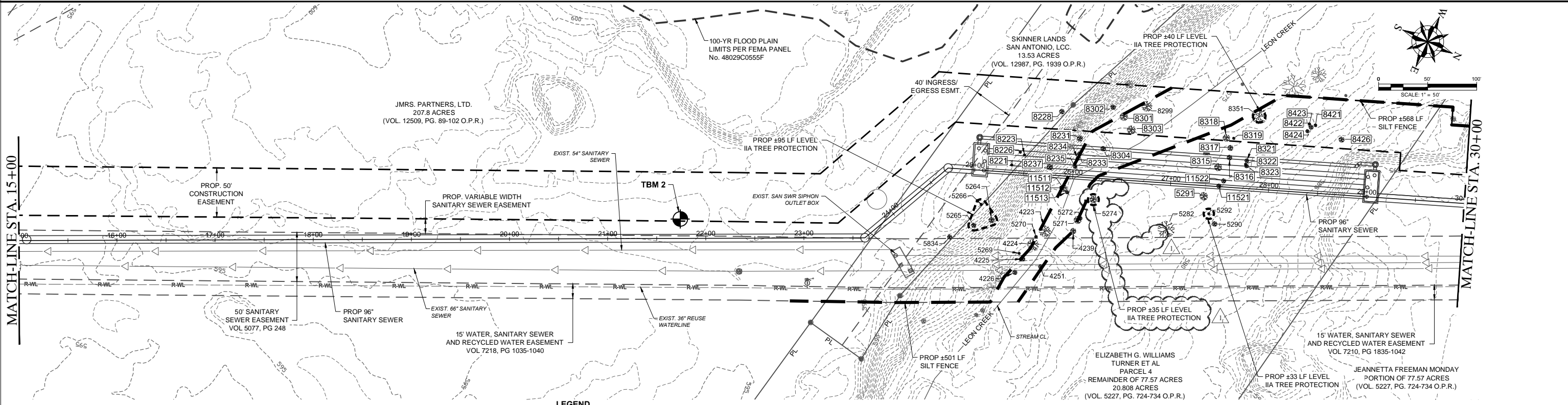
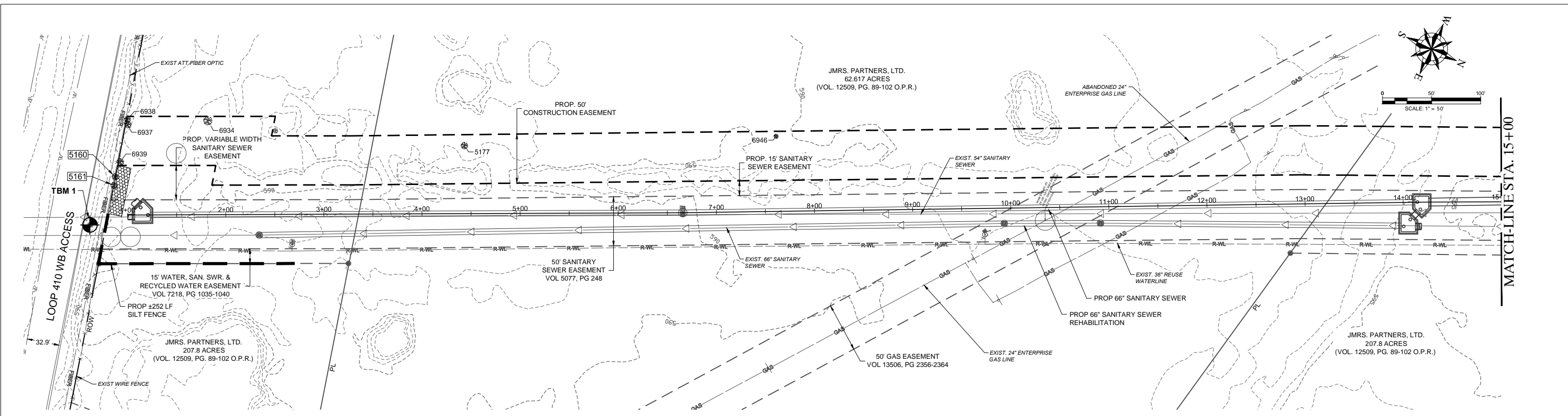


SAN ANTONIO WATER SYSTEM
W6: WESTERN WATERSHED
SEWER RELIEF LINE - PROJECT 1
PROJECT No 12-2516

STORMWATER POLLUTION PREVENTION
& TREE PRESERVATION PLAN
TREE SUMMARY SHEET

SAWS PROJECT #12-2516
FILE NAME:
180031_TREE_PRESERVATION PHASE 1
SHEET No
TP-2

H:\CIVIL\PROJ\SAWS\180031_01 WESTERN WATERSHED SEWER RELIEF LINE\180031_TREE_PRESERVATION PHASE 1 By: miles stanley Saved: 9/18/2012 3:00:54 PM Plotted: 9/18/2012 3:29:21 PM
 XREFSHEET SCALE: 2010, 180031_EXST, 180031_DESIGN, CDM PROPOSED ALIGNMENT, COMBINED 540, 650, 651, 790 TYPICAL CONDITIONS, BEAM



LEGEND

---	LEVEL IIA TREE PROTECTION	XXX	TREE TO REMOVE
---	SILT FENCE	[Pattern]	STABILIZED CONSTRUCTION ENTRANCE/EXIT
XXX	TREE OUTSIDE OF LIMITS	[Pattern]	ROCK BERM
XXX	TREE TO REMAIN		

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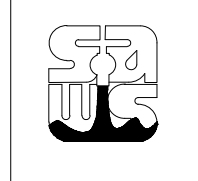
NOTE:
 1. SEE SHEET G-4 FOR BENCHMARK LOCATION DETAILS.
 2. SEE SHEETS TP-10 AND TP-11 FOR STORMWATER POLLUTION PREVENTION DETAILS.
 3. SEE SHEETS TP-6 THROUGH TP-9 FOR TREE PRESERVATION DETAILS.

ISSUE No	DATE	CHKD	REMARKS
	09/19/12	RWH	REVISED PER ADDENDUM 1

DESIGNED BY: MDS
 DRAWN BY: MDS
 SHEET CHK'D BY: RWH
 CROSS CHK'D BY: RWH
 APPROVED BY: RWH
 DATE: AUGUST 21, 2012

CDM Smith
 1777 NE Loop 410, Suite 500
 San Antonio, Texas 78217
 Tel: (210) 826-3200
 Texas Registration Number F-3043

FORD ENGINEERING INC.
 ENGINEERING PLANNING DEVELOPMENT
 16027 WYE DRIVE, SUITE 104, SAN ANTONIO, TEXAS 78217
 TEL: (210) 590-4777 FAX: (210) 590-4940 TBP# NO. F-1162
 www.fordengineering.com Project # 1800.3101



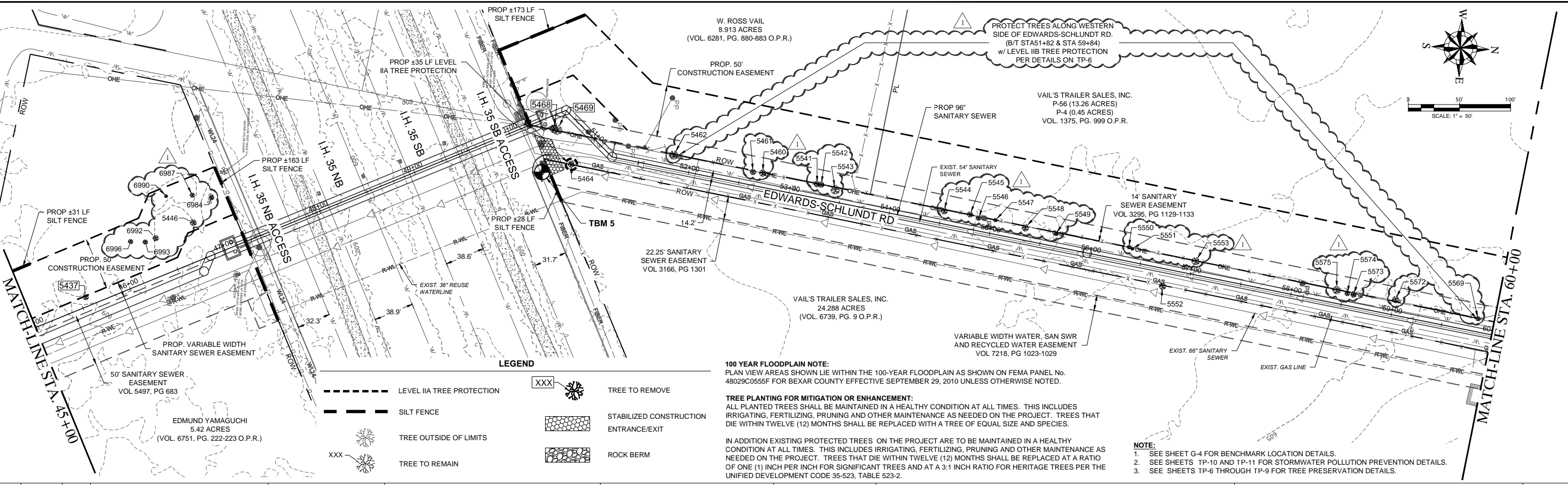
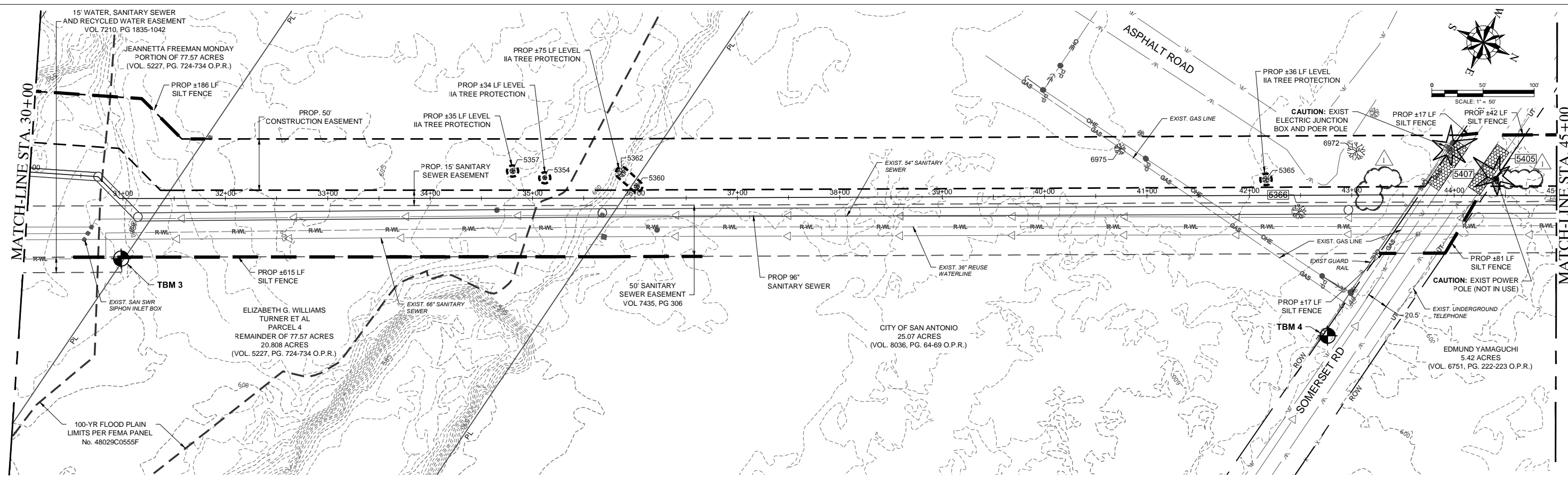
SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED
 SEWER RELIEF LINE - PROJECT 1
 PROJECT No 12-2516

STORMWATER POLLUTION PREVENTION
 & TREE PRESERVATION PLAN
 STA 1+00 TO 30+00

SAWS PROJECT # 12-2516
 FILE NAME:
 180031_TREE_PRESERVATION PHASE 1
 SHEET No
TP-3

Plotted - 9/18/2012 3:29:21 PM SAWS - W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 1 - Job No. 12-2516

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LEGEND

	LEVEL IIA TREE PROTECTION		TREE TO REMOVE
	SILT FENCE		STABILIZED CONSTRUCTION ENTRANCE/EXIT
	TREE OUTSIDE OF LIMITS		ROCK BERM
	TREE TO REMAIN		

100 YEAR FLOODPLAIN NOTE:
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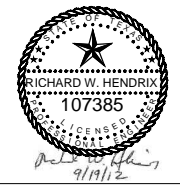
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SAN ANTONIO WATER SYSTEM
 W6: WESTERN WATERSHED
 SEWER RELIEF LINE - PROJECT 1
 PROJECT No 12-2516

STORMWATER POLLUTION PREVENTION
 & TREE PRESERVATION PLAN
 STA 30+00 TO 60+00

SAWS PROJECT #12-2516
 FILE NAME:
 180031_TREE_PRESERVATION PHASE 1
 SHEET No
TP-4

SAWS - W6: WESTERN WATERSHED SEWER RELIEF LINE - PROJECT 1 - Job No. 12-2516
 Plotted - 9/18/2012 3:29:46 PM