



SAN ANTONIO WATER SYSTEM  
W-6: Western Watershed Sewer Relief  
Line (Middle Segment P-3 and P-4)  
SAWS Job Nos. 14-2501 & 15-4504  
Solicitation No. CO-00061

**ADDENDUM NO. 1**

**TO BIDDER OF RECORD:**

**The following changes, additions, and/or deletions** are hereby made as part of the Contract Documents for the W-6: Western Watershed Sewer Relief Line (Middle Segment P-3 and P-4, for the San Antonio Water System, San Antonio, Texas, dated May 2016, as fully and completely as if the same were set forth therein.

**GENERAL CLARIFICATIONS**

1. REMOVE & REPLACE – Price Proposal, with the attached revised Price Proposal
2. REMOVE & REPLACE – Table of Contents, with the attached revised Table of Contents

**BIDDING AND CONTRACT REQUIREMENTS**

N/A

**TECHNICAL SPECIFICATIONS**

1. REMOVE - Spec. SS852 Sanitary Sewer Manholes
2. ADD – Spec. SS840 Water Tie-ins
3. ADD - Attached Special Provision to Item No. 850
4. ADD - Attached Special Provision to Item No. 853
5. ADD – Attached Special Provision to Item No. 864

**DRAWINGS**

1. REPLACE – Quantities Schedule, Sheet G-04 with the revised attached Sheet G-04
2. REPLACE – Plan & Profile STA. 9+50.26 to STA. 19+00, Sheet C-01 with the revised attached Sheet C-01
3. REPLACE – Plan & Profile STA. 28+50 to STA. 37+00, Sheet C-03 with the revised attached Sheet C-03
4. REPLACE - Plan & Profile STA. 64+00 to STA. 73+00, Sheet C-07 with the revised attached Sheet C-07
5. REPLACE - Plan & Profile STA. 82+00 to STA. 90+50, Sheet C-097 with the revised attached Sheet C-09
6. REPLACE - Plan & Profile STA. 90+50 to STA. 96+95.93, Sheet C-10 with the revised attached Sheet C-10

**ALL BIDDERS SHALL ACKNOWLEDGE RECEIPT OF ADDENDUM NO. 1 IN THE BID FORM AND BY HIS/HER SIGNATURE AFFIXED HERETO AND TO FILE SAME AS AN ATTACHMENT TO HIS/HER BID. BID FORMS SUBMITTED WITHOUT THIS ACKNOWLEDGEMENT WILL BE CONSIDERED INFORMAL.**



**ACKNOWLEDGEMENT BY BIDDER**

**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**

Appended hereto and part of Addendum No. 1

1. Questions and Answers
2. Table of Contents
3. Price Proposal
4. Spec. SS840 Water Tie-Ins
5. Special Provision to Item No. 850
6. Special Provision to Item No. 853
7. Special Provision to Item No. 864
8. PLANS – Quantities Schedule, Sheet G-04
9. PLANS – Plan & Profile, STA. 9+50.26 to STA. 19+00, Sheet C-01
10. PLANS – Plan & Profile, STA. 28+50 to STA. 37+00, Sheet C-03
11. PLANS – Plan & Profile, STA. 64+00 to STA. 73+00, Sheet C-07
12. PLANS – Plan & Profile, STA. 82+00 to STA. 90+50, Sheet C-09
13. PLANS – Plan & Profile, STA. 90+50 to STA. 96+95.93, Sheet C-10

END OF ADDENDUM NO. 1

## 1.0 **QUESTIONS AND ANSWERS:**

**Question #1:** My questions are regarding the HDPE air jumper and low point drain. Does the 36" require stainless steel backing rings with the flange adapters or will ductile iron backing rings work?

**Response:**

*36" backing rings shall be ductile iron HDPE fused MJ adapter rings.*

**Question #2:**

Does the 24" low point drain connect to a reducing tee in the 36" line? It looks like it is just sitting on top of the line.

**Response:**

*The 24" riser connects to a reducing tee.*

**Question #3:**

Will a geotechnical report be provided for this project?

**Response:**

*Please refer to Special condition SC-1 for information regarding the Geotechnical Report.*

**Question #4:**

Will bidding contractors have full and unfettered access to the work area to perform their own excavations to determine existing ground conditions?

**Response:**

*Please refer to Special condition SC-1 for information regarding the Geotechnical Report.*

**Question #5:**

Recommendations Hydroseeding - planting dates, coverage, cover blends, mulch, erosion matting provided – attached

**Response:**

*Bid re-seeding efforts per the Contract Documents.*

**Question #6:**

I have a question about water for the hydroseeding . Specs require temporary irrigation-- are there water taps etc. available along the job site areas?

**Response:**

*Please note per spec #520, Section 520.2 – Materials, Section E. – Water shall be furnished by the Contractor and shall be clean and free of substances harmful to the growth of vegetation. However, Contractor may obtain a meter from SAWS to access a SAWS fire hydrant.*

**Question #7:**

We need to know the flow upstream of the location of the new line connection in order to accurately design a bypass pumping system with 100% pumping redundancy as per SAWS requirement. Additionally, we were unable to locate a manhole to use as the bypass discharge point downstream of the new line connection on the engineering plans. Is there surface access into Junction Structure 4 (immediately downstream of the STA 9+50.26 connection), and can we assume that this will be the discharge point?

**Response:**

*Please refer to Special Provision to Item No. 864 – Bypass Pumping*

**Question Set #8:**

I do not see a line item on the bid sheet for abandonment grout. Will the entire 8,067' X 54' sewer line, 54" manhole's, and siphon lines need to be completely filled?

**Response:**

*Please refer to line item #862-54A; along with SAWS Standard Specifications for Construction Item No. 862.*

**Contract Documents  
Table of Contents**

<u>PROPOSAL AND CONTRACT REQUIREMENTS</u>	<u>PAGE</u>
Invitation for Competitive Sealed Proposals . . . . .	. IV-1
Instruction to Respondents. . . . .	. IR-1
Supplementary Instructions to Respondents . . . . .	. SIR-1
Workers' Compensation Insurance Coverage Requirements. . . . .	. WC-1
Respondent's Proposal Checklist . . . . .	. RC
Respondent Questionnaire. . . . .	. RQ-1
Price Proposal . . . . .	. PP-1
Proposal Certification. . . . .	. PC-1
Good Faith Effort Plan . . . . .	. GFEP-1
Conflict of Interest . . . . .	. Form CIQ
Wage Decisions . . . . .	. WR-1
Asbestos Workers Memo . . . . .	. AAWR-1
General Conditions of the Contract . . . . .	. GC-1
Contract Agreement - TWDB . . . . .	. CA-1
Performance and Payment Bond. . . . .	. PB-1
Workers' Compensation Exhibit "A" . . . . .	. WA-1
Contractor Suspension Policy Exhibit "B". . . . .	. SP-1
Contractor Security Procedures Exhibit "C".. . . .	. SP-10
Request for Taxpayer Identification Number and Certification Form (Rev. 12/2014). . . . .	. W-9
Instructions for Completing the ACORD Certificate of Liability Insurance . . . . .	. ICS
TWDB-0551 Supplemental Contract Conditions (Rev. 02/2014). . . . .	TWDB
American Iron and Steel Guidance Manual . . . . .	AIS
Supplemental Conditions . . . . .	SS-1
Special Conditions . . . . .	. SC-1
Special Provisions. . . . .	. SP-1
Technical Specifications. . . . .	. TS-1
 (Separate Documents)	
CoSA STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (Latest Edition)	
SAWS SPECIFICATIONS FOR WATER & SANITARY SEWER CONSTRUCTION (April 2014)	



## Quotes

Line No.	Item No.	Quote Category	SOV Item	Item Description	Unit	Quantity	Unit Bid Price	Total
1	101A	General Sanitary Sewer Bid Items		Removal Class III Material	LS	1.00		
				(103) Remove Misc. Concrete (Existing Junction Structure and Pipe	LS	1.00		
2	103	General Sanitary Sewer Bid Items		(103) Remove Misc. Concrete (Existing Junction Structure and Pipe	LS	1.00		
3	104	General Sanitary Sewer Bid Items		(104) Street Excavation	SY	2,004.00		
4	202	General Sanitary Sewer Bid Items		(202) Prime Coat	GAL	811.00		
5	203	General Sanitary Sewer Bid Items		(203) Tack Coat	GAL	406.00		
6	205	General Sanitary Sewer Bid Items		(205) Hot Mix Asphaltic Concrete, Type D 2" Thick Pavement	SY	4,057.00		
7	206	General Sanitary Sewer Bid Items		(206) Asphalt Treated Base, 10" Compacted Depth	SY	2,004.00		
8	208	General Sanitary Sewer Bid Items		(208) Salvaging, Hauling, and Stockpiling Reclaimable Asphaltic Pavement (2" Depth)	SY	2,004.00		
9	507	General Sanitary Sewer Bid Items		(507) Temporary Chain Link Wire Fence (6' high)	LF	4,788.00		
10	515	General Sanitary Sewer Bid Items		(515) Topsoil (4")	CY	8,872.00		
11	520	General Sanitary Sewer Bid Items		(520) Hydromulching (Commercial)	SY	78,936.00		
12	530	General Sanitary Sewer Bid Items		(530) Barricades, Signs, and Traffic Handling	LS	1.00		
13	540-A	General Sanitary Sewer Bid Items		(540-A) Rock Filter Dam (Install/Remove), Type 1	LF	807.00		
14	540-B	General Sanitary Sewer Bid Items		(540-B) Temporary Sediment-Control Fence	LF	7,655.00		
15	550	General Sanitary Sewer Bid Items		(550) Trench Excavation Safety Protection	LF	9,118.00		
16	804	General Sanitary Sewer Bid Items		(804) Contaminated Soils Removal	CY	20,713.00		
17	814	General Sanitary Sewer Bid Items		(814) 36" Ductile Iron Pipe	LF	16.00		
18	842-36	General Sanitary Sewer Bid Items		(842-36) 36" HDPE Air Jumper Line Open Cut	LF	393.00		
19	842-24	General Sanitary Sewer Bid Items		(842-24) 24" HDPE Air Jumper LPD Riser Open Cut	LF	14.00		
20	843	General Sanitary Sewer Bid Items		(843) Stop Logs	EA	4.00		
21	848-96	General Sanitary Sewer Bid Items		(848-96) 96" FRP Gravity Line (15'-30') Open Cut	LF	113.00		
22	848-90	General Sanitary Sewer Bid Items		(848-90) 90" FRP Gravity Line (15'-30') OpenCut	LF	7,758.00		
23	848-72	General Sanitary Sewer Bid Items		(848-72) 72" FRP Gravity Line Open Cut	LF	393.00		
24	848-54	General Sanitary Sewer Bid Items		(848-54) 54" FRP Gravity Line (20'-30') Open Cut	LF	68.00		
25	848-48	General Sanitary Sewer Bid Items		(848-48) 48" FRP Gravity Line Open Cut	LF	393.00		
26	850-A	General Sanitary Sewer Bid Items		(850-A) Siphon Inlet Structure (AIS)	LS	1.00		
27	850-B	General Sanitary Sewer Bid Items		(850-B) Siphon Outlet Structure (AIS)	LS	1.00		
28	850-C	General Sanitary Sewer Bid Items		(850-C) Air Jumper LPD Structure (AIS)	LS	1.00		
29	850-D	General Sanitary Sewer Bid Items		(850-D) Doghouse Manhole (AIS)	LS	1.00		
30	853-A	General Sanitary Sewer Bid Items		(853-A) FRP Manhole Straight Run (AIS)	EA	4.00		
31	853-B	General Sanitary Sewer Bid Items		(853-B) FRP Manhole Horizontal Deflection (AIS)	EA	9.00		
32	853-C	General Sanitary Sewer Bid Items		(853-C) FRP Manhole Wye (AIS)	EA	1.00		
33	856-108	General Sanitary Sewer Bid Items		(856-108) 108" Jacking, Boring or Tunneling	LF	306.00		
34	856-90	General Sanitary Sewer Bid Items		(856-90) 90" Jacking, Boring or Tunneling	LF	175.00		
35	856-66	General Sanitary Sewer Bid Items		(856-66) 66" Jacking, Boring or Tunneling	LF	175.00		
36	856-54	General Sanitary Sewer Bid Items		(856-54) 54" Jacking, Boring or Tunneling	LF	175.00		
37	856-108A	General Sanitary Sewer Bid Items		(856-108A) 108" Steel Casing (Railroad Crossing) (AIS) - 1" min. thick	LF	256.00		
38	856-90A	General Sanitary Sewer Bid Items		(856-90A) 108" Steel Casing (Heritage Tree Area) - 0.875" min. (AIS)	LF	50.00		
39	856-90A	General Sanitary Sewer Bid Items		(856-90A) 90" Steel Casing (Siphon) - 0.875" min. (AIS)	LF	175.00		
40	856-66A	General Sanitary Sewer Bid Items		(856-66A) 66" Steel Casing (Siphon) - .50" min thick (AIS)	LF	175.00		

41	856-54A	General Sanitary Sewer Bid Items	(856-54A) 54" Steel Casing (Air Jumper) - 0.50" min. thick (AIS)	LF	175.00		
42	856-90B	General Sanitary Sewer Bid Items	(856-90B) 90" FRP Carrier Gravity Line	LF	306.00		
43	856-72	General Sanitary Sewer Bid Items	(856-72) 72" FRP Carrier Siphon Line	LF	175.00		
44	856-48	General Sanitary Sewer Bid Items	(856-48) 48" FRP Carrier Siphon Line	LF	175.00		
45	856-36	General Sanitary Sewer Bid Items	856-36) 36" HDPE Carrier Air Jumper Line	LF	175.00		
46	862-54A	General Sanitary Sewer Bid Items	(862-54A) Abandon 54" RCP Sewer	LF	8,067.00		
47	862-54B	General Sanitary Sewer Bid Items	(862-54B) Abandon 54" Manholes	EA	4.00		
48	862-54C	General Sanitary Sewer Bid Items	(862-54C) Abandon 54" Siphon Line	LF	514.00		
49	862-24	General Sanitary Sewer Bid Items	(862-24) Abandon 24" Siphon Line	LF	508.00		
50	862-S	General Sanitary Sewer Bid Items	(862-S) Abandon Siphon Structures 8'x16'x7'	EA	2.00		
51	864	General Sanitary Sewer Bid Items	(864) Bypass and 54" Tie-In (AIS)	LS	1.00		
52	866	General Sanitary Sewer Bid Items	(866) Sewer Main Television Inspection	LF	9,962.00		
53	1103	General Sanitary Sewer Bid Items	(1103) 54" Point Line Repair	EA	3.00		
54	1501	General Sanitary Sewer Bid Items	(1501) Stormwater Pollution Prevention Plan (SWPPP) and Execution	EA	1.00		
55	550	General Sanitary Sewer Bid Items	(550) Trench Excavation Safety Protection	LF	91.00		
56	820	General Sanitary Sewer Bid Items	36" RWL CSC Open Cut (AIS)	LF	91.00		
57	820-A	General Sanitary Sewer Bid Items	(820-A) Inlet Siphon Washdown Station (AIS)	LS	1.00		
58	820-B	General Sanitary Sewer Bid Items	(820-B) Outlet Siphon Washdown Station (AIS)	LS	1.00		
59	840	General Sanitary Sewer Bid Items	(840) Reuse Water Tie-In (36", Upstream and Downstream for Relocation) (AIS)	EA	2.00		
60	841	General Sanitary Sewer Bid Items	(841) Hydrostatic Testing Operations	EA	1.00		
61	844	General Sanitary Sewer Bid Items	(844) 4" temporary Blow-Off Assemblies	EA	6.00		
62	862-36	General Sanitary Sewer Bid Items	(862-36) Remove 36" CSC RWL	LF	91.00		
63	864-A	General Sanitary Sewer Bid Items	(864-A) Additional Weekly Bypass	WK	1.00		
64	100	General Sanitary Sewer Bid Items	(100) Mobilization/Demobilization - This item includes project move-in and move-out of personnel and equipment, and shall include furnishing all labor, materials, tools and equipment and incidentals required to mobilize, demobilize, bond and insure the Work for the Project, in accordance with the contract documents, complete in place. Maximum of 10% of Items 1-63.	LS	1.00		
65	101	General Sanitary Sewer Bid Items	(101) Preparation of Right-of-Way. Maximum of 5% of Items 1-63.	LS	1.00		
66	100	General Sanitary Sewer Bid Items	(100) Intermediate Mobilization/Demobilization	EA	2.00		

SECTION SS840

WATER TIE-INS

PART 1: GENERAL

1.01 SUMMARY

- A. This section is a supplement to Item No. 840 of the SAWS Specification for Water and Sanitary Sewer Construction.
- B. Contractor shall coordinate with the Owner for a timeframe that the existing 36-inch Recycled Water Line CSC line can be shutdown for connection. The shutdown shall be limited to a 24-hour period. The Owner shall perform the shutdown and coordinate with the Contractor on dewatering of the line.
- C. Contractor to perform the following for the Recycle Water Line Shutdown:
  - 1. Need 3-weeks advance notice, followed by 7-day notice, followed by 24-hours prior to shutdown
  - 2. 2 valve shutdown on South end
  - 3. 2 valve shutdown on North end
  - 4. Shutdowns limited to 24-hours, or SAWS crews to reinstate, expenses paid by Contractor
  - 5. No Monday or Friday shutdown
  - 6. Shutdown shall be in January or February due to the low flow demands

PART 2: PRODUCTS – NOT USED

PART 3: EXECUTION

3.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment shall be in accordance with SAWS Item No. 840 – WATER TIE-INS.

END OF SECTION



**SPECIAL PROVISIONS TO SAWS SPECIFICATION  
FOR WATER AND SANITARY SEWER CONSTRUCTION**

**San Antonio Water System Technical Specifications**

**Special Provisions to Item No. 850 Sanitary Sewer Structures**

These Special Provisions amend or supplement the Technical Specifications Item No. 850. All provisions which are not so amended or supplemented remain in full force and effect.

1. In Section 850.1 DESCRIPTION:

a. DELETE the following sentences:

- i. “Structure covers may be either watertight or water resistant, depending upon their specific location. Every structure cover located in the Edward’s Aquifer Recharge Zone, shall be watertight.”

2. In Section 850.3 MATERIALS:

a. In Section 4:

i. In first Paragraph:

DELETE the following sentence:

“A water-resistant (cam lock) ring and cover shall be used in areas of minimal infiltration potential to allow venting.

ii. In second Paragraph:

REPLACE the words “Water-resistant” with “Watertight” and

DELETE the following sentences:

“Prior to acceptance of the work, a stainless steel keyed “cam” lock shall be provided by the Contractor to the Inspector. When the key is inserted in the cam, it shall remain in the lid while the cam is in the open (unlocked) position. When in the closed (locked) position, the key can be removed. When not in use, the cam lock key hole shall be covered with a plastic plug to prevent infiltration of debris. The cover shall positively lock at 90° to prevent accidental closure and open fully to 120°.”

iii. In third Paragraph:

DELETE the words “the same as above for water-resistant version, except the covers shall be”

**SPECIAL PROVISIONS TO SAWS SPECIFICATION  
FOR WATER AND SANITARY SEWER CONSTRUCTION**

**San Antonio Water System Technical Specifications**

**Special Provisions to Item No. 853 Sanitary Sewer Glass-Fiber  
Reinforced Polyester (FRP) Manholes**

These Special Provisions amend or supplement the Technical Specifications Item No. 853. All provisions which are not so amended or supplemented remain in full force and effect.

1. In Section 853.1 DESCRIPTION:

a. DELETE the following sentences:

- i. Manhole covers may be either watertight or water resistant, depending on their specific location.

2. In Section 853.3 MATERIALS:

a. In Section 9:

i. In the first paragraph:

DELETE the following sentences:

The ring and cover shall be hinged and the cover may contain a hole or opening for venting, depending upon their specific location.

A water-resistant (cam-lock) ring and cover shall be used in areas of minimal infiltration potential to allow venting.

ii. In Section a:

DELETE the words “Water-resistant”

DELETE the following sentences:

“Prior to acceptance of the work, a stainless steel keyed “cam” lock shall be provided by the Contractor to the Inspector. When the key is inserted in the cam, it shall remain in the lid while the cam is in the open (unlocked) position. When in the closed (locked) position, the key can be removed. When not in use, the cam lock key hole shall be covered with a plastic plug to prevent infiltration of debris. The cover shall positively lock at 90° to prevent accidental closure and open fully to 120°.”

iii. In section b:

DELETE the words “the same as above for water-resistant version, except the covers”

# **SPECIAL PROVISIONS TO SAWS SPECIFICATION FOR WATER AND SANITARY SEWER CONSTRUCTION**

## **San Antonio Water System Technical Specifications**

### **Special Provisions to Item No. 864 Bypass Pumping (Bypass Pumping Capacity)**

These Special Provisions amend or supplement the Technical Specifications Item No. 864. All provisions which are not so amended or supplemented remain in full force and effect.

1. DELETE:

864.3 Design: Bypass pumping flow data shall be developed during the design phase of the project and may be incorporated into the contract documents. The flow data will provide the Contractor with the best-known sewer system flow information from which the Contractor can develop the required Bypass Pumping Plan (BPP). Depending upon the complexity of the subject project, all available bypass pumping data will be described in the contract documents showing the possible connection or impact location(s). It shall include:

1. Wastewater flow information.
2. Upstream and downstream manhole locations and depths, invert elevations, manhole and pipe diameters and materials, any affected laterals, etc.;
3. A description of possible bypass pumping options and constraints.

The Contractor shall confirm that the bypass pumping flow data shown in the contract documents remains applicable by including updated flow information in the BPP. This will be accomplished by the contractor providing flow data back to SAWS and the Engineer for analysis using a technique first deemed acceptable to SAWS and the Engineer. This submitted flow data shall be obtained prior to the actual bypass work that accommodates the identified scope of work reflected in the contract documents. Contractor shall not proceed with any work until SAWS and the Engineer have had an opportunity to review and comment on the Contractor's measured flow data. In the absence of any flow data furnished in the contract documents, the Contractor's submitted flow data will be the only means to incorporate the to-be submitted BPP for review and acknowledgement.

2. ADD the following:

864.3 Design: the following data will be provided to the Contractor from which the Contractor can develop the required Bypass Pumping Plan (BPP):

The bypass pumping system shall be designed to have pumping capacity of at least the full pipe gravity flow capacity of the lines to be bypassed during construction, not including the backup pump(s).

QUANTITIES SCHEDULE																				
BASE BID ITEMS																				
ITEM NO.	ITEM	UNIT	DRAWING C-01	DRAWING C-02	DRAWING C-03	DRAWING C-04	DRAWING C-05	DRAWING C-06	DRAWING C-07	DRAWING C-08	DRAWING C-09	DRAWING C-10	DRAWING C-19	DRAWING SR-02	DRAWING SR-03	DRAWING SR-04	DRAWING SR-05	DRAWING SR-06	DRAWING SR-07	TOTAL QUANTITY
100	MOBILIZATION/DEMobilIZATION	LS																		1
100	INTERMEDIATE MOBILIZATION/DEMobilIZATION	EA																		2
101	PREPARATION OF RIGHT-OF-WAY	LS																		1
101A	REMOVE CLASS III MATERIAL	LS																		1
103	REMOVE MISC CONCRETE (EXISTING JUNCTION STRUCTURE AND PIPE)	LS	1																	1
104	STREET EXCAVATION	SY					277	36					1690							2004
202	PRIME COAT	GAL					55	7					749							811
203	TACK COAT	GAL					28	4					374							406
205	HOT MIX ASPHALTIC CONCRETE PAVEMENT TYPE D, 2" THICK PAVEMENT	SY					277	36					3743							4057
206	ASPHALT TREATED BASE, 10 INCHES COMPACTED DEPTH	SY					277	36					1690							2004
208	SALVAGING, HAULING AND STOCKPILING RECLAIMABLE ASPHALTIC PAVEMENT (2" DEPTH)	SY					277	36					1690							2004
507	TEMPORARY CHAIN LINK WIRE FENCE (6' HIGH)	LF	555	808	826	900	347					1352								4788
515	TOPSOIL (4")	CY												1776	784	2032	2252	1787	241	8872
520	HYDROMULCHING (COMMERCIAL)	SY												15982	7050	18292	19363	16080	2169	78936
530	BARRICADES, SIGNS, AND TRAFFIC HANDLING	LS																		1
1501	STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND EXECUTION	EA																		1
540-A	ROCK FILTER DAM (INSTALL/REMOVE), TYPE 1	LF												446			361			807
540-B	TEMPORARY SEDIMENT-CONTROL FENCE	LF												591	638	2086	1920	2200	220	7655
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	693	950	850	900	900	900	1511	900	850	664								9118
804	CONTAMINATED SOILS REMOVAL	CY	2620	7466	8487	2140														20713
814	36" DUCTILE IRON PIPE	LF							16											16
842-36	36" HDPE AIR JUMPER LINE - OPEN CUT	LF							393											393
842-24	24" HDPE AIR JUMPER LPD RISER - OPEN CUT	LF							14											14
843	STOP LOGS	EA							4											4
848-96	96" FRP GRAVITY LINE (15'-30') - OPEN CUT	LF	113																	113
848-90	90" FRP GRAVITY LINE (15'-30') - OPEN CUT	LF	580	950	850	900	900	900	332	900	850	596								7758
848-72	72" FRP SIPHON LINE - OPEN CUT	LF							393											393
848-54	54" FRP GRAVITY LINE (20'-30') - OPEN CUT	LF										68								68
848-48	48" FRP SIPHON LINE - OPEN CUT	LF							393											393
850-A	SIPHON INLET STRUCTURE (AIS)	LS							1											1
850-B	SIPHON OUTLET STRUCTURE (AIS)	LS							1											1
850-C	AIR JUMPER LPD STRUCTURE (AIS)	LS							1											1
850-D	DOGHOUSE MANHOLE	LS										1								1
853-A	FRP MANHOLE STRAIGHT RUN (AIS)	EA	1			1		1		1										4
853-B	FRP MANHOLE HORIZONTAL DEFLECTION (AIS)	EA	1	2	1		1		1		2	1								9
853-C	FRP MANHOLE WYE (AIS)	EA										1								1
856-108	108" JACKING, BORING OR TUNNELING	LF	256										50							306
856-90	90" JACKING, BORING OR TUNNELING	LF							175											175
856-66	66" JACKING, BORING OR TUNNELING	LF							175											175
856-54	54" JACKING, BORING OR TUNNELING	LF							175											175
856-108A	108" STEEL CASING PIPE (Railroad Crossing) - 1" min thick (AIS)	LF	256																	256
856-108B	108" STEEL CASING PIPE (Heritage Tree Area) - 0.875" min thick (AIS)	LF											50							50
856-90A	90" STEEL CASING PIPE (Siphon) - 0.875" min thick (AIS)	LF							175											175
856-66A	66" STEEL CASING PIPE (Siphon) - 0.50" min thick (AIS)	LF							175											175
856-54A	54" STEEL CASING PIPE (Air Jumper) - 0.50" min thick (AIS)	LF							175											175
856-90B	90" FRP CARRIER GRAVITY LINE	LF	256										50							306
856-72	72" FRP CARRIER SIPHON LINE	LF							175											175
856-48	48" FRP CARRIER SIPHON LINE	LF							175											175
856-36	36" HDPE CARRIER AIR JUMPER LINE	LF							175											175
862-54A	ABANDON 54" RCP SEWER	LF	855	952	852	900	930	900	339	900	858	581								8067
862-54B	ABANDON 54" MANHOLES	EA			1		1	1			1									4
862-54C	ABANDON 54" SIPHON LINE	LF							514											514
862-24	ABANDON 24" SIPHON LINE	LF							508											508
862-S	ABANDON SIPHON STRUCTURES 8"x16"x7"	EA							2											2
864	BYPASS AND 54" TIE-IN (AIS)	LS																		1
864-A	ADDITIONAL WEEKLY 54" BYPASS	WEEKLY																		1
866	SEWER MAIN TELEVISION INSPECTION	LF	949	950	850	900	900	900	2049	900	850	714								9962
1103	54" POINT LINE REPAIR	EA																		3

RWL RELOCATION BID ITEMS																					
ITEM NO.	ITEM	UNIT	DRAWING C-01	DRAWING C-02	DRAWING C-03	DRAWING C-04	DRAWING C-05	DRAWING C-06	DRAWING C-07	DRAWING C-08	DRAWING C-09	DRAWING C-10	DRAWING C-20	DRAWING E-01	DRAWING E-02	DRAWING E-03	DRAWING E-04	DRAWING E-05	DRAWING E-06	TOTAL QUANTITY	
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	91																		91
820	36" RWL CSC 303- OPEN CUT (AIS)	LF	91																		91
820-A	INLET SIPHON WASHDOWN STATION (AIS)	LS							1											1	
820-B	OUTLET SIPHON WASHDOWN STATION (AIS)	LS							1											1	
840	REUSE WATER TIE-IN (36", UPSTREAM & DOWNSTREAM FOR RELOCATION) (AIS)	EA	2																	2	
841	HYDROSTATIC TESTING OPERATIONS	EACH	1																	1	
844	4" TEMPORARY BLOW-OFF ASSEMBLIES	EA	2						4											6	
862-36	REMOVE 36" CSC RWL	LF	91																	91	

Path: P:\Projects\bc-san Antonio\138765 Saws Wwrf Middle Segment\11-CADD\2-SHEETS\General Filename: 138765-G04.dwg Plot Date: June 13, 2016 - 11:25 AM CADD User: David Davise 8/8/2014



8337 WEST SUNSET ROAD, SUITE 290  
LAS VEGAS, NEVADA 89113 PHONE 702-938-4080

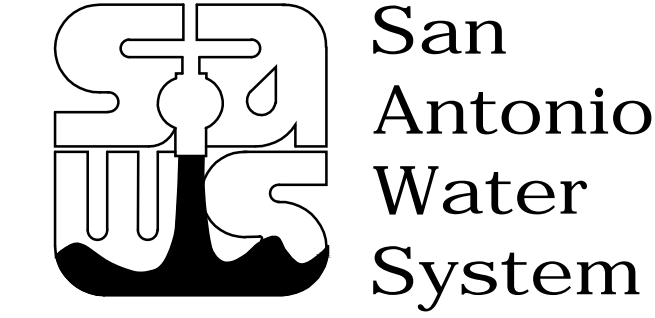
SUBMITTED: \_\_\_\_\_ DATE: \_\_\_\_\_  
PROJECT MANAGER  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
BROWN AND CALDWELL

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)  
SCALE: NONE  
DESIGNED: BV  
DRAWN: DD  
CHECKED: CJ  
APPROVED: RA

EXTERNAL REFERENCE FILES



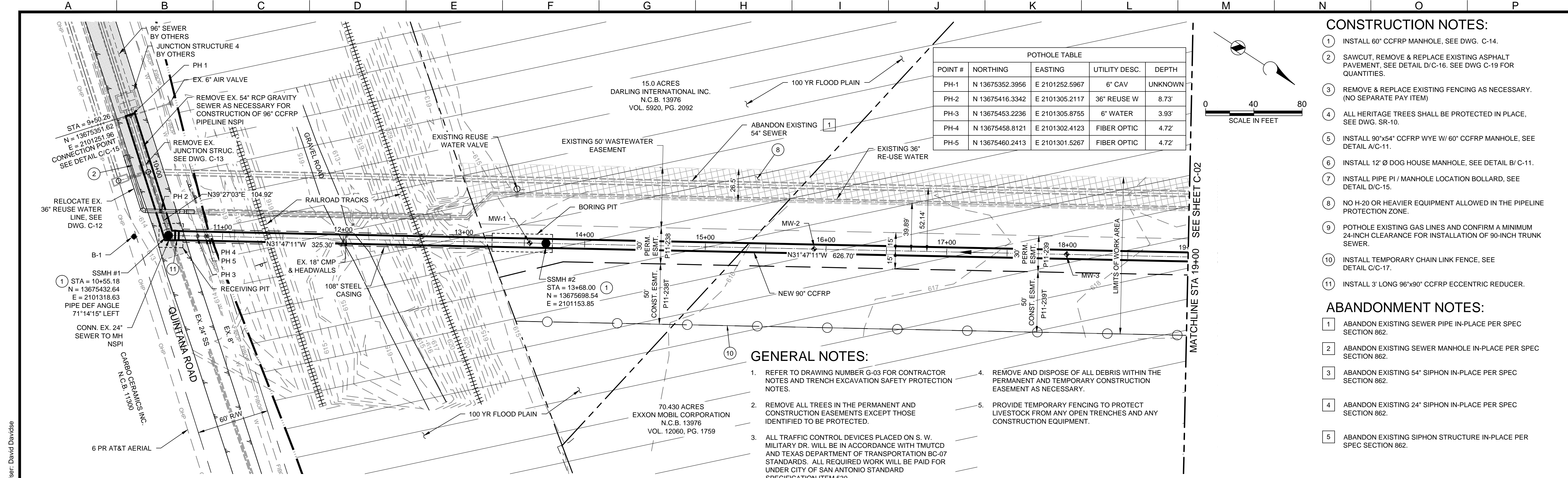
REVISIONS				
ZONE	REV.	DESCRIPTION	BY	DATE
	1	ADDENDUM NO. 1	JPO	6-14-16



W-6: WESTERN WATERSHED SEWER RELIEF LINE

QUANTITIES SCHEDULE

FILENAME: 138765-G04.dwg  
BC PROJECT NUMBER: 138765  
DRAWING NUMBER: G-04  
SHEET NUMBER: 4 OF 65

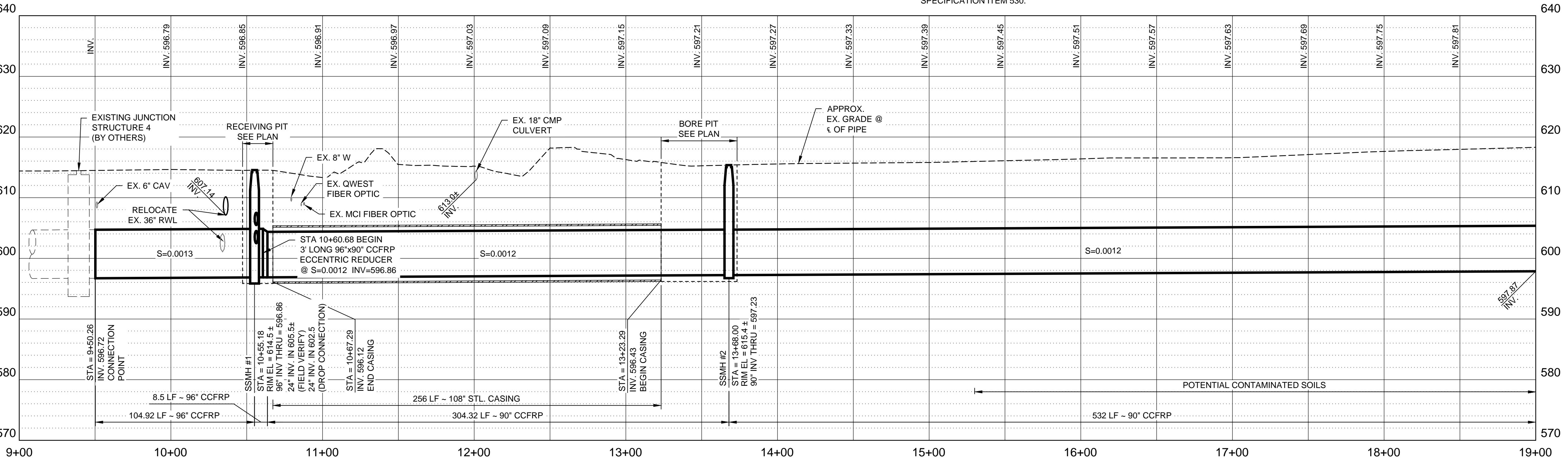


POINT #	NORTHING	EASTING	UTILITY DESC.	DEPTH
PH-1	N 13675352.3956	E 2101252.5967	6" CAV	UNKNOWN
PH-2	N 13675416.3342	E 2101305.2117	36" REUSE W	8.73'
PH-3	N 13675453.2236	E 2101305.8755	6" WATER	3.93'
PH-4	N 13675458.8121	E 2101302.4123	FIBER OPTIC	4.72'
PH-5	N 13675460.2413	E 2101301.5267	FIBER OPTIC	4.72'

- ### CONSTRUCTION NOTES:
- INSTALL 60" CCFRP MANHOLE. SEE DWG. C-14.
  - SAWCUT, REMOVE & REPLACE EXISTING ASPHALT PAVEMENT. SEE DETAIL D/C-16. SEE DWG C-19 FOR QUANTITIES.
  - REMOVE & REPLACE EXISTING FENCING AS NECESSARY. (NO SEPARATE PAY ITEM)
  - ALL HERITAGE TREES SHALL BE PROTECTED IN PLACE. SEE DWG. SR-10.
  - INSTALL 90"x54" CCFRP WYE W/ 60" CCFRP MANHOLE. SEE DETAIL A/C-11.
  - INSTALL 12" Ø DOG HOUSE MANHOLE. SEE DETAIL B/C-11.
  - INSTALL PIPE PI / MANHOLE LOCATION BOLLARD, SEE DETAIL D/C-15.
  - NO H-20 OR HEAVIER EQUIPMENT ALLOWED IN THE PIPELINE PROTECTION ZONE.
  - POTHOLE EXISTING GAS LINES AND CONFIRM A MINIMUM 24-INCH CLEARANCE FOR INSTALLATION OF 90-INCH TRUNK SEWER.
  - INSTALL TEMPORARY CHAIN LINK FENCE, SEE DETAIL C/C-17.
  - INSTALL 3' LONG 96"x90" CCFRP ECCENTRIC REDUCER.

- ### ABANDONMENT NOTES:
- ABANDON EXISTING SEWER PIPE IN-PLACE PER SPEC SECTION 862.
  - ABANDON EXISTING SEWER MANHOLE IN-PLACE PER SPEC SECTION 862.
  - ABANDON EXISTING 54" SIPHON IN-PLACE PER SPEC SECTION 862.
  - ABANDON EXISTING 24" SIPHON IN-PLACE PER SPEC SECTION 862.
  - ABANDON EXISTING SIPHON STRUCTURE IN-PLACE PER SPEC SECTION 862.

- ### GENERAL NOTES:
- REFER TO DRAWING NUMBER G-03 FOR CONTRACTOR NOTES AND TRENCH EXCAVATION SAFETY PROTECTION NOTES.
  - REMOVE ALL TREES IN THE PERMANENT AND CONSTRUCTION EASEMENTS EXCEPT THOSE IDENTIFIED TO BE PROTECTED.
  - ALL TRAFFIC CONTROL DEVICES PLACED ON S. W. MILITARY DR. WILL BE IN ACCORDANCE WITH TMUTCD AND TEXAS DEPARTMENT OF TRANSPORTATION BC-07 STANDARDS. ALL REQUIRED WORK WILL BE PAID FOR UNDER CITY OF SAN ANTONIO STANDARD SPECIFICATION ITEM 530.
  - REMOVE AND DISPOSE OF ALL DEBRIS WITHIN THE PERMANENT AND TEMPORARY CONSTRUCTION EASEMENT AS NECESSARY.
  - PROVIDE TEMPORARY FENCING TO PROTECT LIVESTOCK FROM ANY OPEN TRENCHES AND ANY CONSTRUCTION EQUIPMENT.



### QUANTITIES SCHEDULE

ITEM NO.	ITEM	UNIT	DRAWING
103	REMOVE MISC CONCRETE (EXISTING JUNCTION STRUCTURE AND PIPE)	LS	1
507	TEMPORARY CHAIN LINK WIRE FENCE (6' HIGH)	LF	555
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	693
804	CONTAMINATED SOILS REMOVAL	CY	2620
848-96	96" FRP GRAVITY LINE (15'-30') - OPEN CUT	LF	113
848-90	90" FRP GRAVITY LINE (15'-30') - OPEN CUT	LF	580
853-A	FRP MANHOLE STRAIGHT RUN (AIS)	EA	1
853-B	FRP MANHOLE HORIZONTAL DEFLECTION (AIS)	EA	1
856-108	108" JACKING, BORING OR TUNNELING	LF	256
856-108A	108" STEEL CASING PIPE (RAILROAD CROSSING) - 1" MIN THICK (AIS)	LF	256
856-90B	90" FRP CARRIER GRAVITY LINE	LF	256
862-54A	ABANDON 54" RCP SEWER	LF	855
866	SEWER MAIN TELEVISION INSPECTION	LF	949

### RWL RELOCATION BID ITEMS

ITEM NO.	ITEM	UNIT	DRAWING
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	91
820	36" RWL CSC 303- OPEN CUT (AIS)	LF	91
840	REUSE WATER TIE-IN (36", UPSTREAM & DOWNSTREAM FOR RELOCATION) (AIS)	EA	2
841	HYDROSTATIC TESTING OPERATIONS	EACH	1
844	4" TEMPORARY BLOW-OFF ASSEMBLIES	EA	2
862-36	REMOVE 36" CSC RWL	LF	91

**CALL BEFORE YOU DIG**  
1-800-DIG-TESS

**PROFILE**  
SCALE H: 1" = 40'  
SCALE V: 1" = 10'

**LEGEND:**

- ASPHALT REMOVAL AND REPLACEMENT
- PIPELINE PROTECTION ZONE
- 100-YEAR FLOOD PLAIN

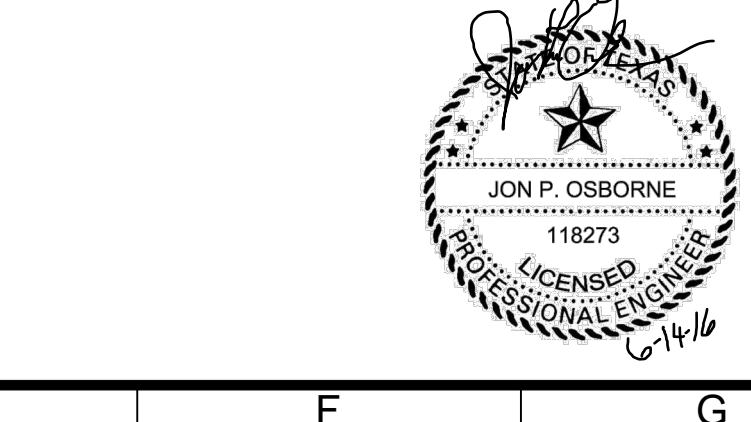
**Brown and Caldwell**  
8337 WEST SUNSET ROAD, SUITE 290  
LAS VEGAS, NEVADA 89113 PHONE 702-938-4080

DESIGNED: BV  
DRAWN: DD  
CHECKED: CJ  
APPROVED: RA

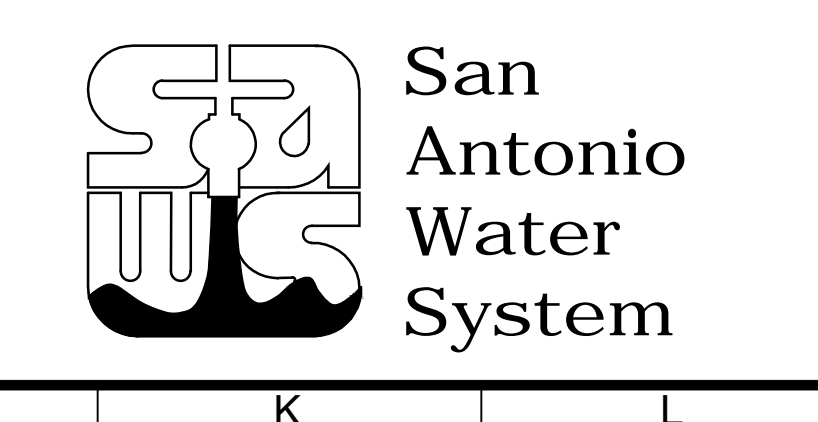
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)

SCALE: AS SHOWN

EXTERNAL REFERENCE FILES



ZONE	REV.	DESCRIPTION	BY	DATE	APP.
	1	ADDENDUM NO. 1	JPO	6-14-16	JPO



W-6: WESTERN WATERSHED SEWER RELIEF LINE

PLAN & PROFILE  
STA. 9+50.26 TO STA. 19+00

FILENAME: 138765-C01.dwg  
BC PROJECT NUMBER: 138765

DRAWING NUMBER: C-01

SHEET NUMBER: 7 OF 65

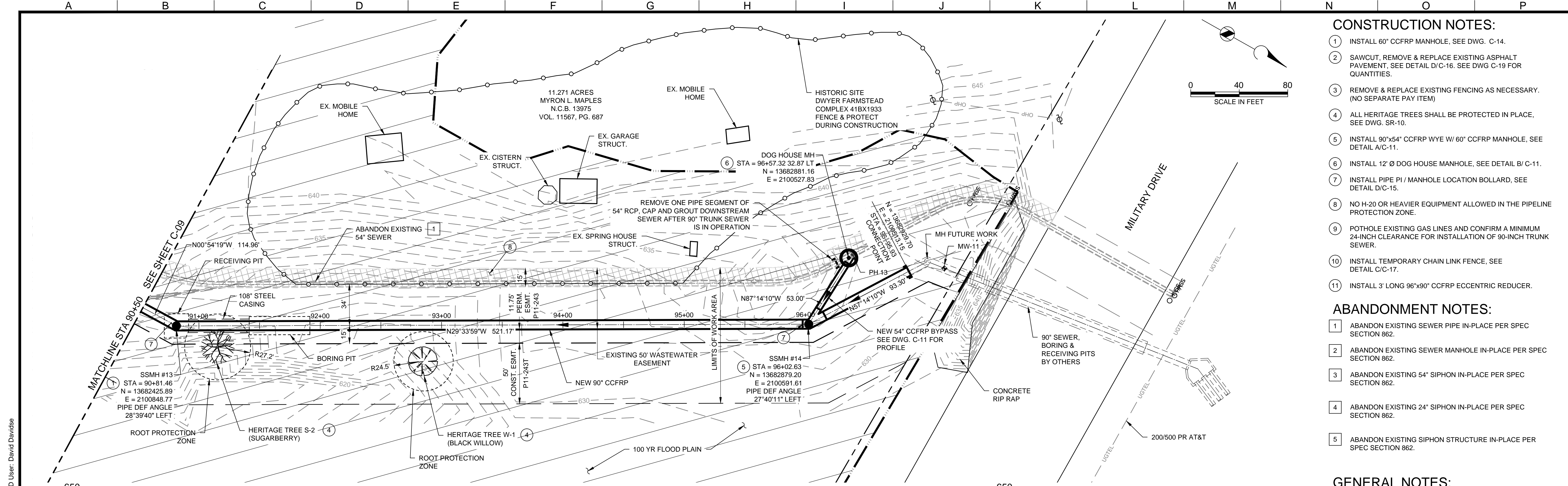
Path: P:\Projects\bc-san Antonio\138765 Sewer Wwr Middle Segment\11-CADD\2-SHEETS\Civil Filename: 138765-C01.dwg Plot Date: April 26, 2016 - 3:55 PM CADD User: David Davidsen 8/8/2014





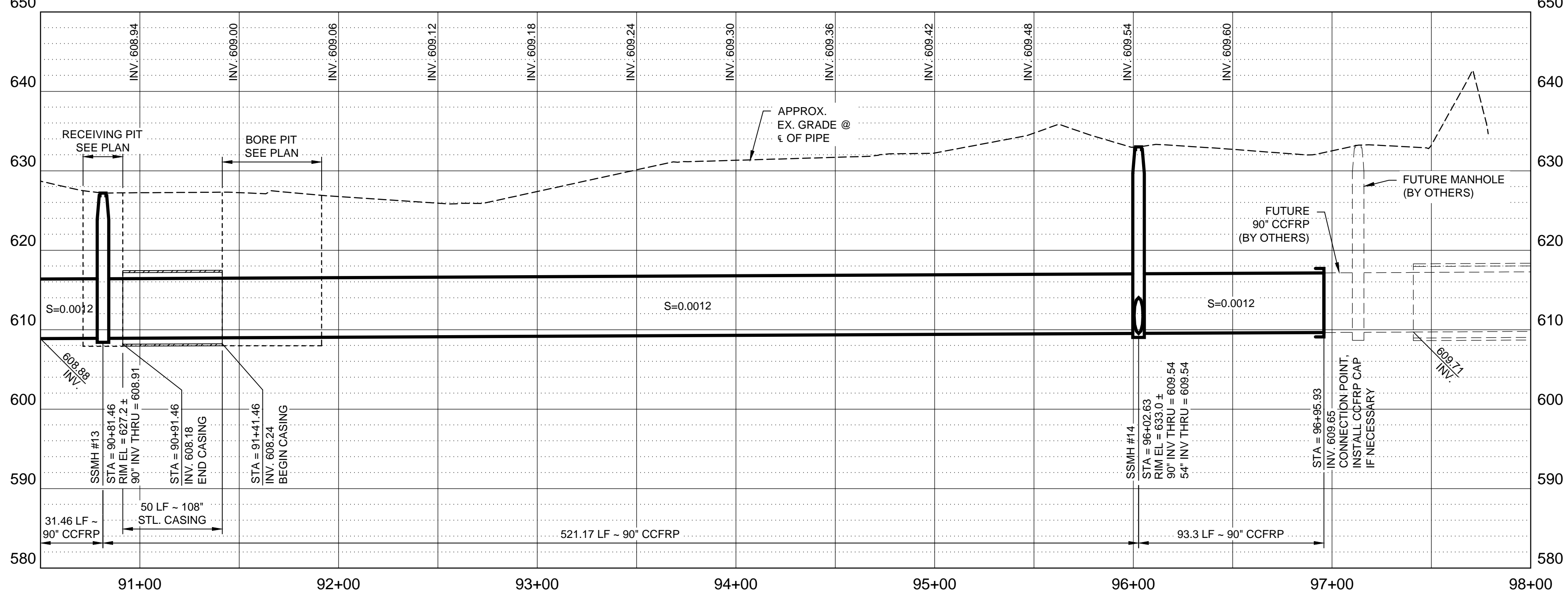






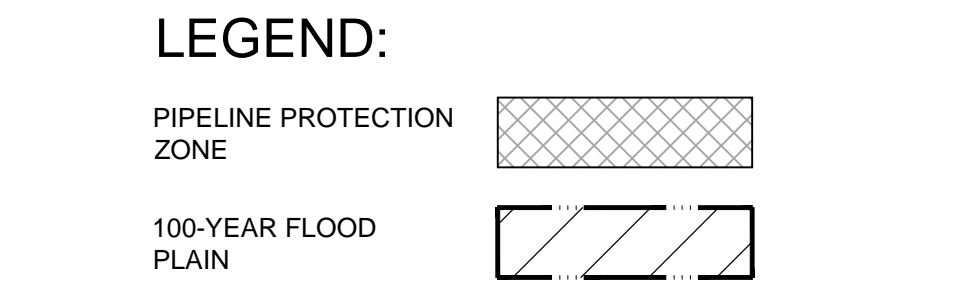
- ### CONSTRUCTION NOTES:
- INSTALL 60" CCFRP MANHOLE, SEE DWG. C-14.
  - SAWCUT, REMOVE & REPLACE EXISTING ASPHALT PAVEMENT, SEE DETAIL D/C-16. SEE DWG C-19 FOR QUANTITIES.
  - REMOVE & REPLACE EXISTING FENCING AS NECESSARY. (NO SEPARATE PAY ITEM)
  - ALL HERITAGE TREES SHALL BE PROTECTED IN PLACE, SEE DWG. SR-10.
  - INSTALL 90"x54" CCFRP WYE W/ 60" CCFRP MANHOLE, SEE DETAIL A/C-11.
  - INSTALL 12" Ø DOG HOUSE MANHOLE, SEE DETAIL B/ C-11.
  - INSTALL PIPE PI / MANHOLE LOCATION BOLLARD, SEE DETAIL D/C-15.
  - NO H-20 OR HEAVIER EQUIPMENT ALLOWED IN THE PIPELINE PROTECTION ZONE.
  - POTHOLE EXISTING GAS LINES AND CONFIRM A MINIMUM 24-INCH CLEARANCE FOR INSTALLATION OF 90-INCH TRUNK SEWER.
  - INSTALL TEMPORARY CHAIN LINK FENCE, SEE DETAIL C/C-17.
  - INSTALL 3' LONG 96"x90" CCFRP ECCENTRIC REDUCER.
- ### ABANDONMENT NOTES:
- ABANDON EXISTING SEWER PIPE IN-PLACE PER SPEC SECTION 862.
  - ABANDON EXISTING SEWER MANHOLE IN-PLACE PER SPEC SECTION 862.
  - ABANDON EXISTING 54" SIPHON IN-PLACE PER SPEC SECTION 862.
  - ABANDON EXISTING 24" SIPHON IN-PLACE PER SPEC SECTION 862.
  - ABANDON EXISTING SIPHON STRUCTURE IN-PLACE PER SPEC SECTION 862.

- ### GENERAL NOTES:
- REFER TO DRAWING NUMBER G-03 FOR CONTRACTOR NOTES AND TRENCH EXCAVATION SAFETY PROTECTION NOTES.
  - REMOVE ALL TREES IN THE PERMANENT AND CONSTRUCTION EASEMENTS EXCEPT THOSE IDENTIFIED TO BE PROTECTED.
  - ALL TRAFFIC CONTROL DEVICES PLACED ON S. W. MILITARY DR. WILL BE IN ACCORDANCE WITH TMUTCD AND TEXAS DEPARTMENT OF TRANSPORTATION BC-07 STANDARDS. ALL REQUIRED WORK WILL BE PAID FOR UNDER CITY OF SAN ANTONIO STANDARD SPECIFICATION ITEM 530.
  - REMOVE AND DISPOSE OF ALL DEBRIS WITHIN THE PERMANENT AND TEMPORARY CONSTRUCTION EASEMENT AS NECESSARY.
  - PROVIDE TEMPORARY FENCING TO PROTECT LIVESTOCK FROM ANY OPEN TRENCHES AND ANY CONSTRUCTION EQUIPMENT, NSPI.



#### QUANTITIES SCHEDULE BASE BID ITEMS

ITEM NO.	ITEM	UNIT	DRAWING C-10
507	TEMPORARY CHAIN LINK WIRE FENCE (6' HIGH)	LF	1352
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	664
848-90	90" FRP GRAVITY LINE (15'-30') - OPEN CUT	LF	596
848-54	54" FRP GRAVITY LINE (20'-30') - OPEN CUT	LF	68
850-D	DOGHOUSE MANHOLE	LS	1
853-B	FRP MANHOLE HORIZONTAL DEFLECTION (AIS)	EA	1
853-C	FRP MANHOLE WYE (AIS)	EA	1
856-108	108" JACKING, BORING OR TUNNELING	LF	50
856-108B	108" STEEL CASING PIPE (HERITAGE TREE AREA) - 0.875" MINTHICK (AIS)	LF	50
856-90B	90" FRP CARRIER GRAVITY LINE	LF	50
862-54A	ABANDON 54" RCP SEWER	LF	581
866	SEWER MAIN TELEVISION INSPECTION	LF	714



#### POTHOLE TABLE

POINT #	NORTHING	EASTING	UTILITY DESC.	DEPTH
PH-13	N 13682882.4814	E 2100523.6878	54" SEWER	6.09'

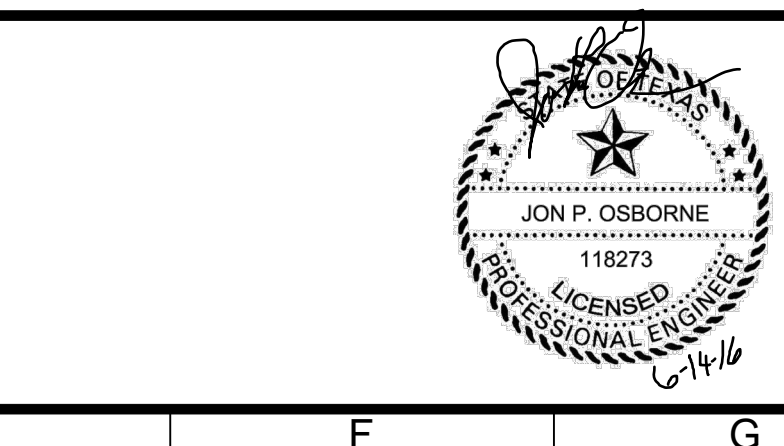
**CALL BEFORE YOU DIG**  
1-800-DIG-TESS

**Brown and Caldwell**  
8337 WEST SUNSET ROAD, SUITE 290  
LAS VEGAS, NEVADA 89113 PHONE 702-938-4080

DESIGNED: BV  
DRAWN: DD  
CHECKED: CJ  
APPROVED: RA

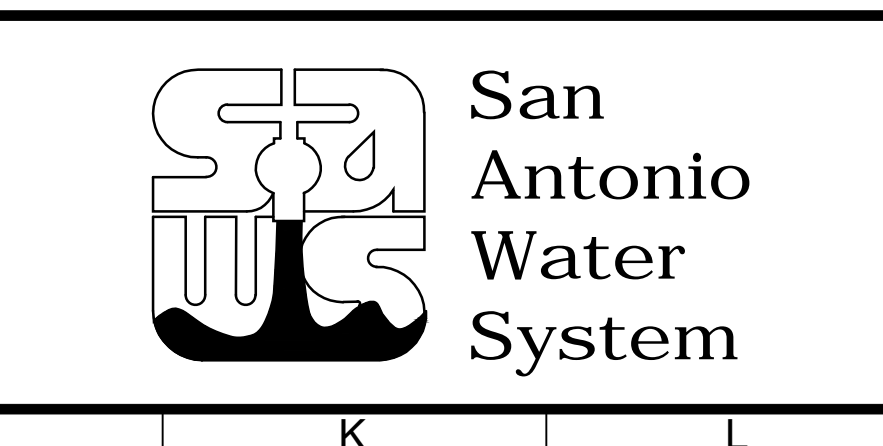
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)  
SCALE: AS SHOWN

EXTERNAL REFERENCE FILES



#### REVISIONS

ZONE	REV.	DESCRIPTION	BY	DATE	APP.
	1	ADDENDUM NO. 1	JPO	6-13-16	JPO



W-6: WESTERN WATERSHED SEWER RELIEF LINE

**PLAN & PROFILE**  
STA. 90+50 TO STA. 96+95.93

FILENAME: 138765-C10.dwg  
BC PROJECT NUMBER: 138765

DRAWING NUMBER: **C-10**

SHEET NUMBER: 16 OF 65

Path: P:\Projects\bc-san-antonio\138765 Saws Wwrf Middle Segment\11-CADD\2-SHEETS\Civil Filename: 138765-C10.dwg Plot Date: June 13, 2016 - 11:19 AM CADD User: David Davidsen 8/8/2014