



2019 SMP Package IV (Santiago St., Bowdoin St.)  
Solicitation Number: CO-00204  
Job No.: 18-5011 and 18-5511

**ADDENDUM 1**  
August 2, 2018

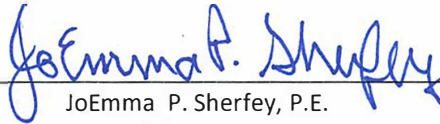
To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bid proposal, plans and specifications 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 on the space provided in submitted copies of the bid proposal.

**CHANGES TO THE PLANS**

1. Replace all the construction plan sheets (pg. 1-11) of the 2019 SMP Package IV (Santiago St., Bowdoin St.) Water Plans in its entirety with the construction plans included this addendum in its entirety.

**END OF ADDENDUM**

  
JoEmma P. Sherfey, P.E.  
S & GE, LLC

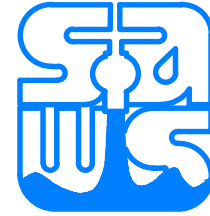


This Addendum, including this one (1) page, is twelve (12) pages with attachments in its entirety.

Attachments: 2019 SMP Package IV (Santiago St., Bowdoin St.) Water Plans, Sheets 1-11

# SAN ANTONIO

WATER

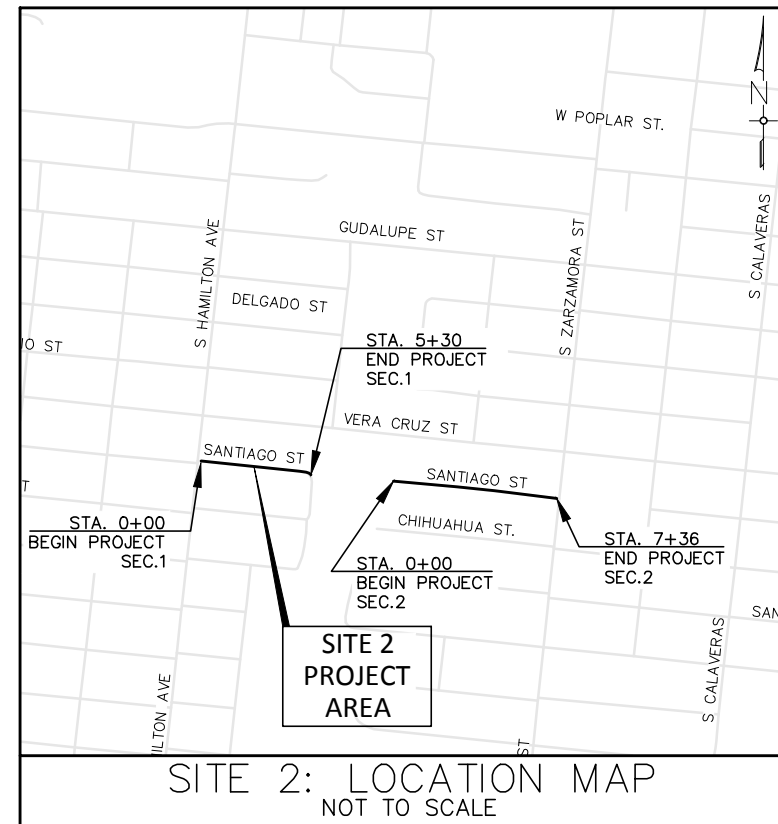
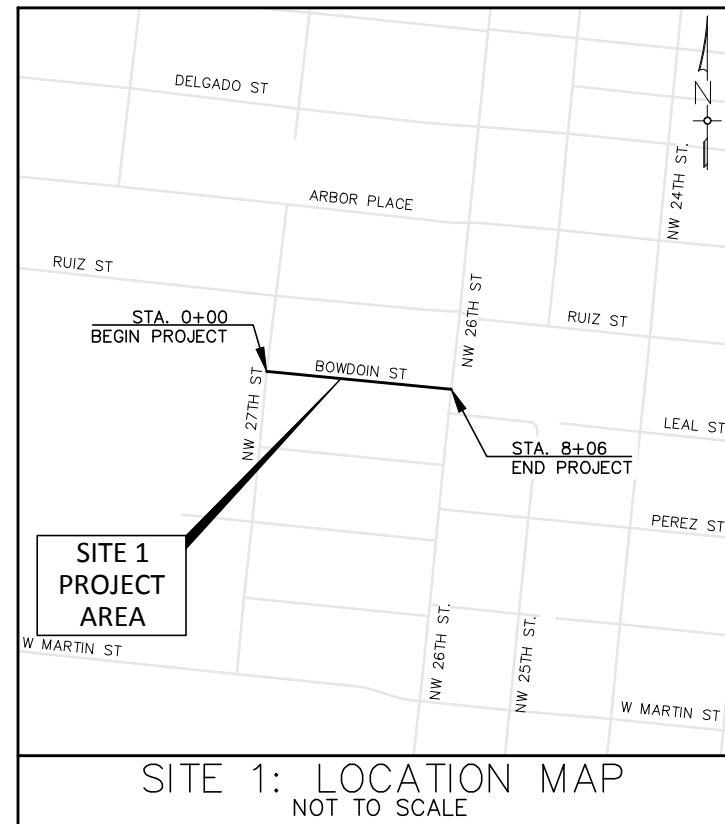
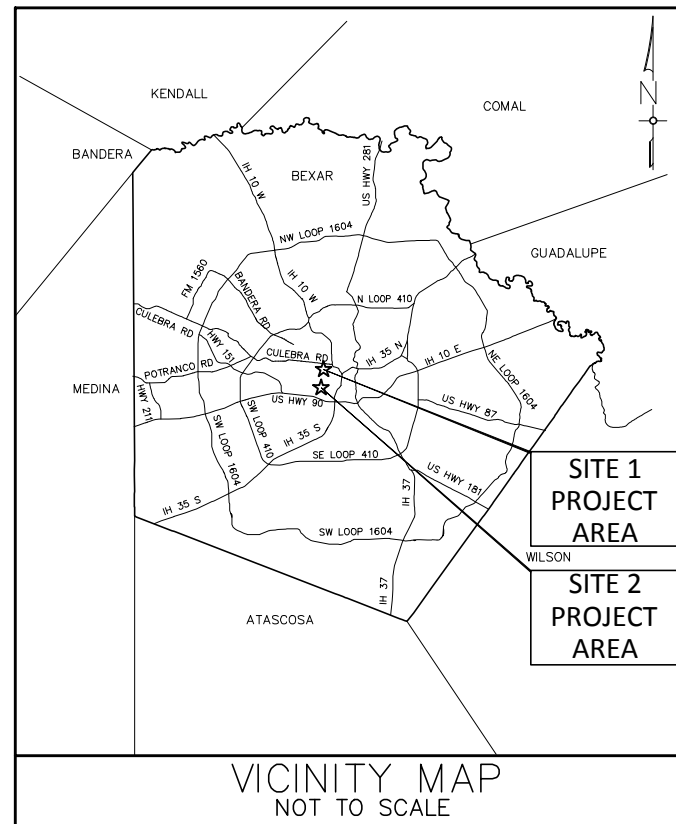


SYSTEM

JOB NO: 18-5011

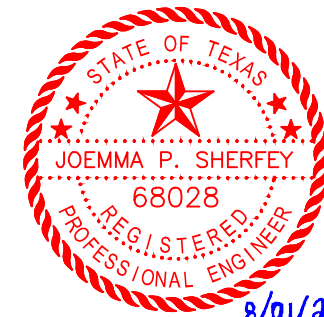
2019 SMP PACKAGE IV

## BOWDOIN ST. (NW 27TH ST. TO NW 26TH ST.) SANTIAGO ST. (S ZARZAMORA ST. TO HAMILTON AVE.) WATER PLANS



### SHEET INDEX

Sheet	Title
1	COVER SHEET
2	GENERAL NOTES & QUANTITIES
3	HORIZONTAL & VERTICAL CONTROL PLAN
4	HORIZONTAL & VERTICAL CONTROL PLAN
5	BOWDOIN ST. STA. 0+00 TO STA. 4+00
6	BOWDOIN ST. STA. 4+00 TO STA. 8+06
7	SANTIAGO ST. STA. 0+00 TO STA. 3+00
8	SANTIAGO ST. STA. 3+00 TO STA. 5+30
9	SANTIAGO ST. STA. 0+00 TO STA. 4+00
10	SANTIAGO ST. STA. 4+00 TO STA. 7+58
11	TREE PRESERVATION PLAN



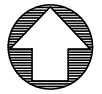
*Joemma P. Sherfey*



THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JOEMMA P. SHERFEY ON AUGUST 01, 2018 ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE "TEXAS ENGINEERING PRACTICE ACT"

TBPE Firm No. F-8038  
8400 Blanco Road, Ste. 201, San Antonio, Texas 78216  
Office: (210) 493-9200 Fax: (210) 493-9205  
TBPE Firm No. F-8038

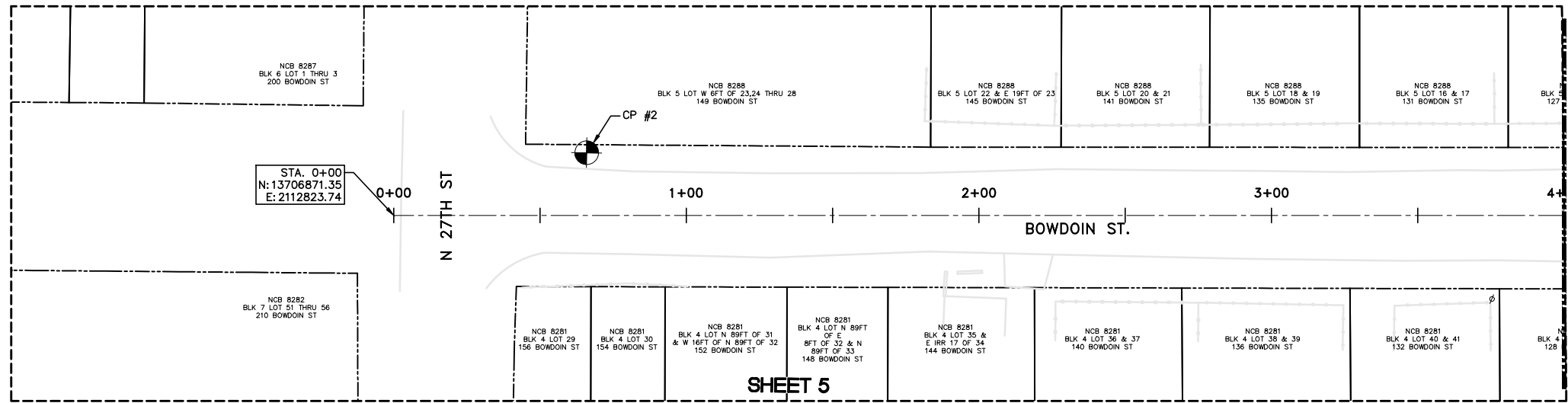




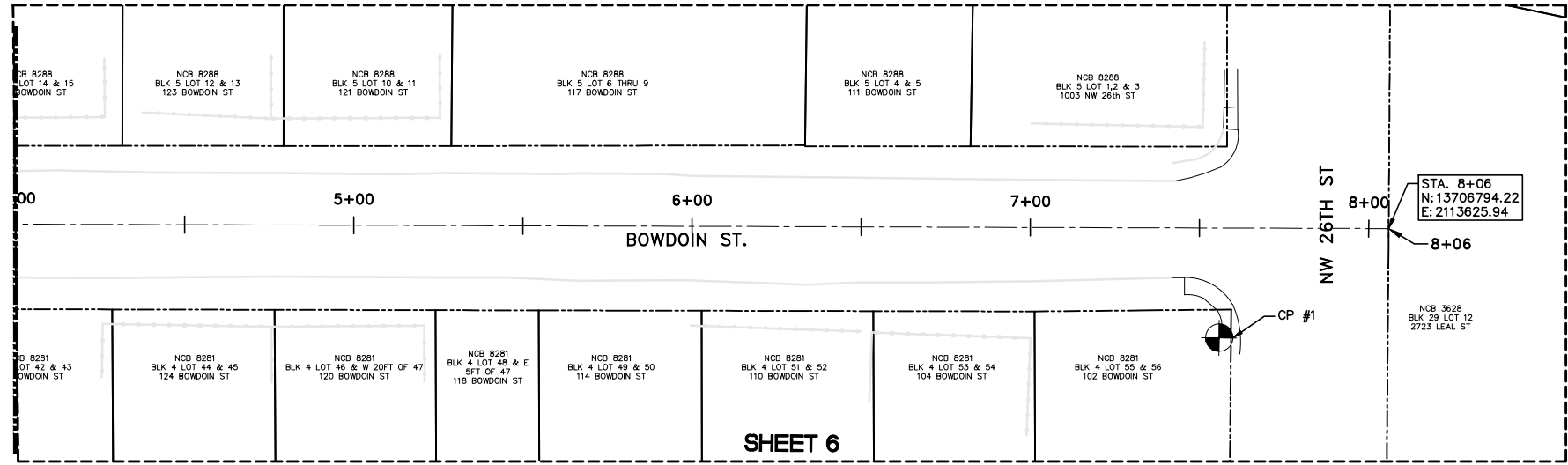
HORIZ. SCALE: 1"=50'  
 0 25 50  
 SCALE IN FEET

**LEGEND**

- TEMPORARY BENCH MARK/CONTROL POINT
- RIGHT-OF-WAY LINE
- EXISTING FENCE
- ROAD CENTER LINE



MATCH LINE STA. 4+00



MATCH LINE STA. 4+00

T.B.M. COORDINATE DATUM				
T.B.M.	NORTHING	EASTING	ELEVATION	DESCRIPTION
NO.1	13706766.8000	2113573.0050	673.52	MAG NAIL
NO.2	13706886.4300	2112891.3690	680.61	MAG NAIL

NOTES:  
 1. COORDINATE AND ELEVATIONS BASED ON NORTH AMERICAN DATUM 1983, TEXAS STATE PLANE COORDINATES, TEXAS SOUTH CENTRAL ZONE-4204 AND NORTH AMERICAN VERTICAL DATUM 1988.



No.	Revision	Drawn	Approved	Date

**REVISIONS**

**BOWDOIN ST.**  
 (NW 27TH ST. TO NW 26TH ST.)  
**HORIZONTAL & VERTICAL CONTROL PLAN**

DEVELOPER: SAN-ANTONIO-WATER-SYSTEM  
 CONT. BUDGET PROJ. 00-00-00

SUBMITTED \_\_\_\_\_  
 APPROVED \_\_\_\_\_

MAP No.	144-582	SHEET	3
SECT. No.		DR.	CK.
JOB No. 18-5011		Of 11	



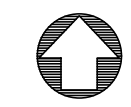
8/01/2018  
*Joemma P. Sherfey*

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**SITE 1 - BOWDOIN ST. (NW 27TH ST. TO NW 26TH ST.)**



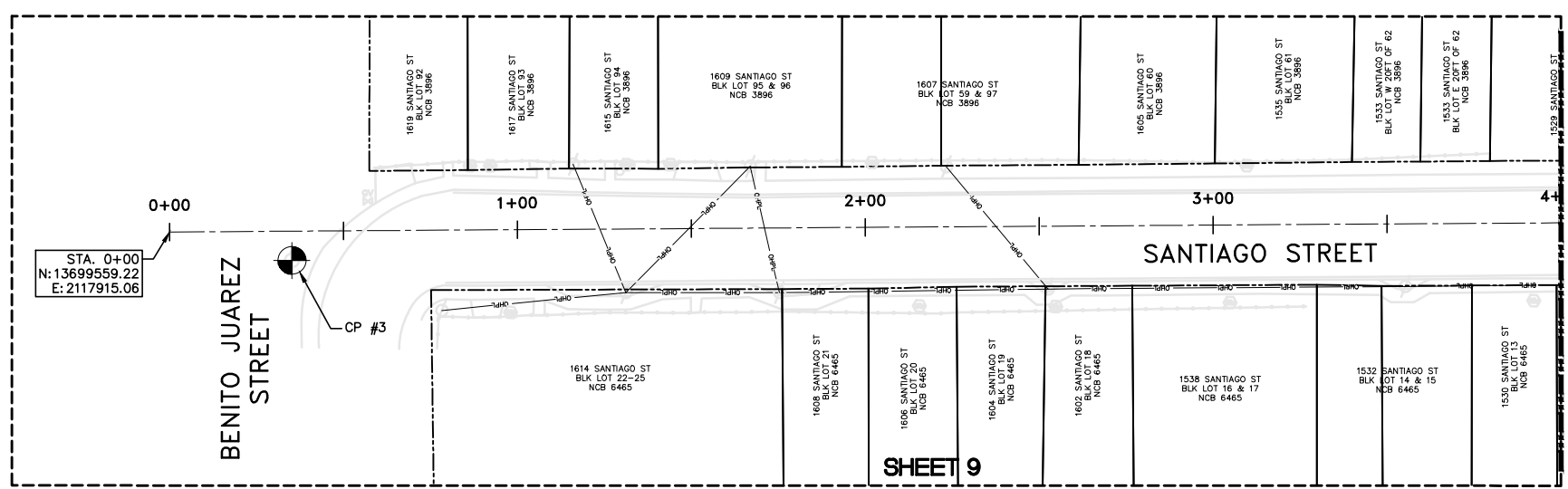
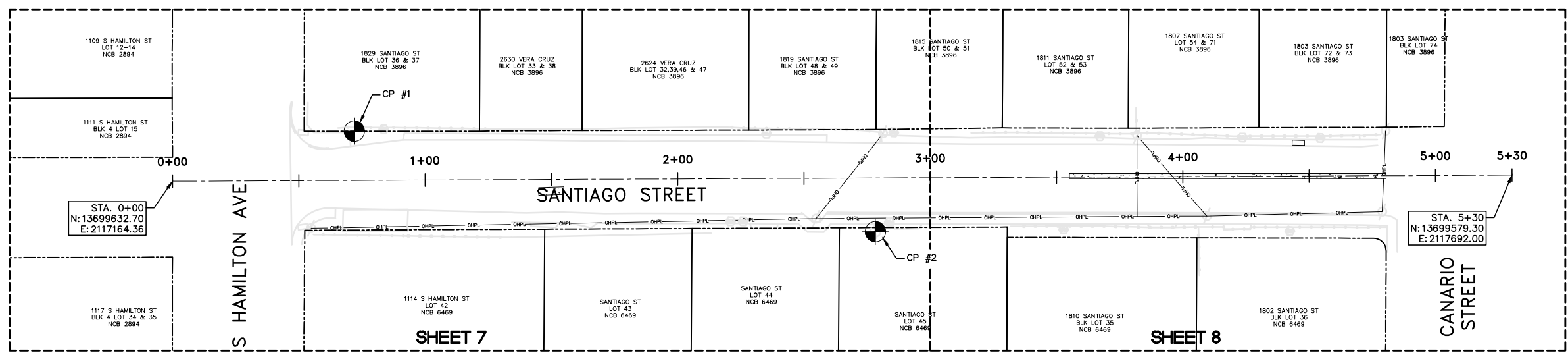
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HORIZ. SCALE: 1"=50'  
0 25 50  
SCALE IN FEET

**LEGEND**

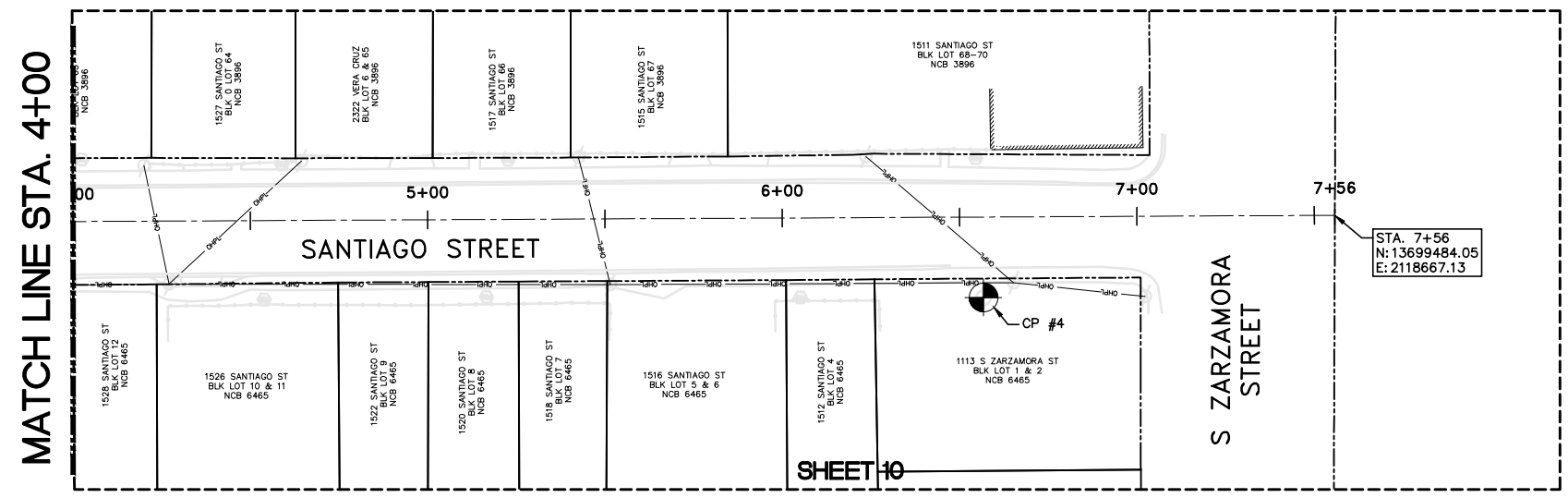
- TEMPORARY BENCH MARK/CONTROL POINT
- RIGHT-OF-WAY LINE
- EXISTING FENCE
- ROAD CENTER LINE
- OVERHEAD POWERLINE



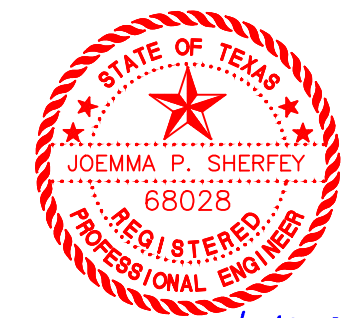
T.B.M. COORDINATE DATUM				
T.B.M.	NORTHING	EASTING	ELEVATION	DESCRIPTION
NO.1	13699644.8340	2117237.9570	656.12	MAG NAIL
NO.2	13699583.5830	2117438.9380	649.97	MAG NAIL
NO.3	13699471.4570	2118566.1250	658.60	MAG NAIL
NO.4	13699547.3750	2117949.1200	650.18	MAG NAIL

NOTES:  
1. COORDINATE AND ELEVATIONS BASED ON NORTH AMERICAN DATUM 1983, TEXAS STATE PLANE COORDINATES, TEXAS SOUTH CENTRAL ZONE-4204 AND NORTH AMERICAN VERTICAL DATUM 1988.

- NOTES:**
1. WATER VALVES SHALL HAVE CONCRETE COLLARS AS PER SAWS ITEM NO. 828.
  2. REFER TO ENLARGED PLANS FOR WATER MAIN ADJUSTMENTS.



**SITE 2 - SANTIAGO ST.  
(S ZARZAMORA ST.  
TO HAMILTON AVE.)**



8/01/2018  
*Joemma P. Sherfey*

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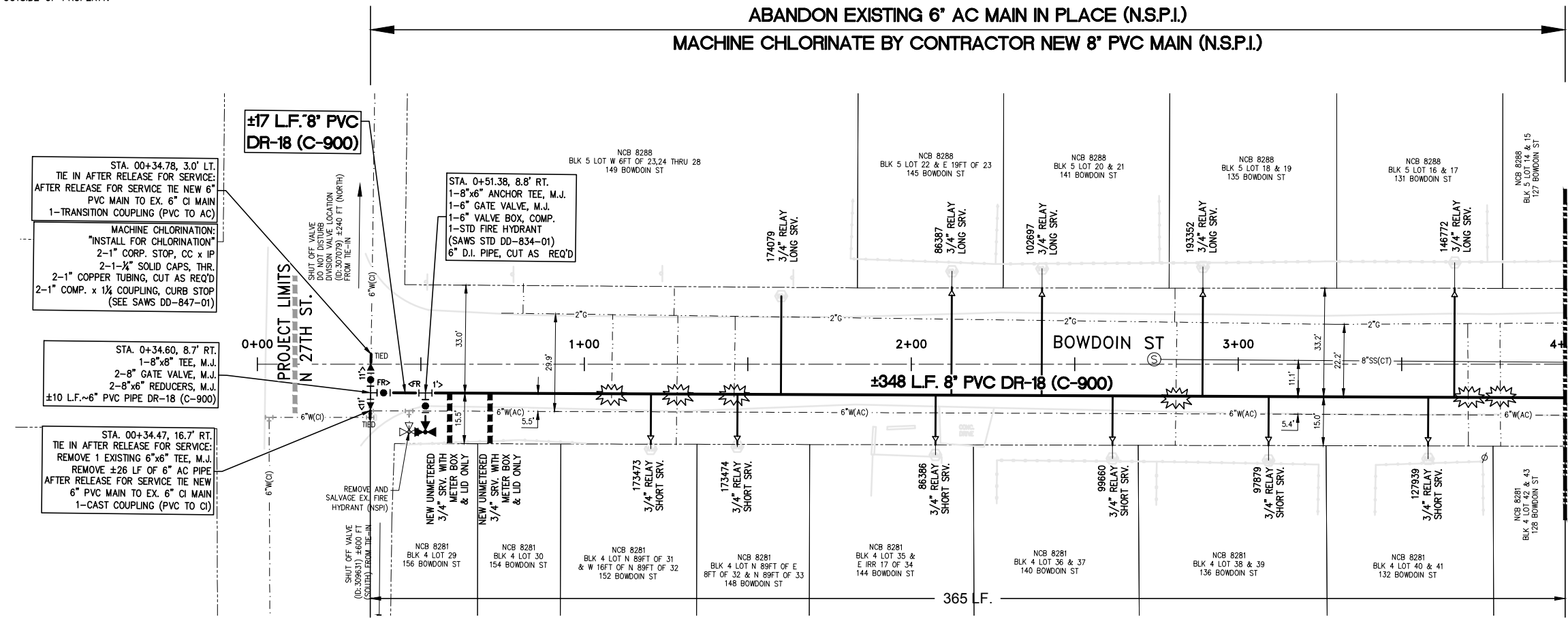
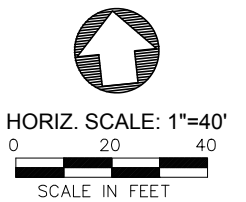
No.	Revision	Drawn	Approved	Date

**REVISIONS**

		<b>SANTIAGO ST. (S ZARZAMORA ST. TO HAMILTON AVE.) WATER PLANS</b>	
		<b>HORIZONTAL &amp; VERTICAL CONTROL PLAN</b>	
DEVELOPER:		SAN-ANTONIO-WATER-SYSTEM	
CONT.:		BUDGET PROJ. 00-00-00	
SUBMITTED _____		APPROVED _____	
MAP No.	148-576, 150-576	SHEET	
SECT. No.		4	
DR.	CK.	JOB No. 18-5011	Of 11

**SHEET NOTES**

- PIPE RESTRAINT
  - #> = RESTRAINED LENGTH (FT)/DIRECTION FROM FITTING.
  - FR = FULLY RESTRAINED BETWEEN FITTINGS
- LOCATION OF WATER METERS IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION OF METERS PRIOR TO COMMENCING CONSTRUCTION.
- RELOCATE ALL METERS OUTSIDE OF PROPERTY.

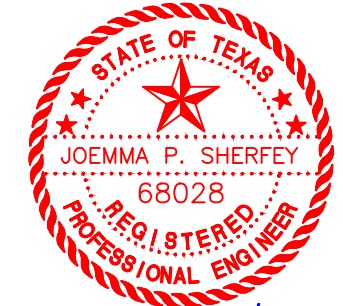
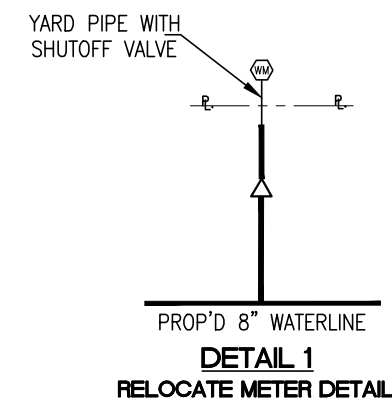


MATCH LINE STA. 4+00

**LEGEND**

PROP. WATER MAIN	—○—
EXIST. WATER MAIN	—○—
GAS MAIN	—2" G—
SANITARY SEWER	—8" SS—
STORM SEWER	—24" SD—
UTILITY POLE LINE	—○—
ELECTRIC CABLE	—E—
TELEPHONE CABLE	—T—
DUAL BRANCH SERV.	—
NEW UNMETERED SERVICE:	
3/4" SINGLE	—
1" DUAL	—
SERVICE RECONNECT:	
3/4"	—
1" OR LARGER	—
SERVICE RELAY:	
3/4"	—
1" OR LARGER	—
SERVICE RELOCATE:	
3/4"	—
1" OR LARGER	—
RELOCATE METER	—
NEW SERVICE:	
3/4"	—
1" OR LARGER	—
BURIED TEL	—UGT—
OH ELEC/OH TEL	—OHE/OT—
CHAINLINK FENCE	—○—
FLOWABLE FILL	—
LANDSCAPED AREA	L/S
IRON FENCE	—□—
WATER METER	—
TELE PEDESTAL/BOX	—TUB—
LIGHT POLE	—
POWER POLE/GUY WIRE	—
SIGN	—
MAIL BOX	—MB—
CLEAN OUT	—CO—
GAS @ WATER CROSSING	—

Item #	Description	Units	Est. Qty.
202.1	PRIME COAT	GAL	44
203.1	TACK COAT	GAL	22
205.4	HOT MIX ASPHALTIC PAVEMENT-TYPE D (2" COMPACTED DEPTH)	SY	219
206.1	ASPHALT TREATED BASE (10" COMPACTED DEPTH)	SY	173
550.1	TRENCH EXCAV. SAFETY PROTECTION	LF	413
818	6" PVC WATERLINE	LF	11
818	8" PVC WATERLINE	LF	402
822	YARD PIPING, SHORT	LF	53
822	YARD PIPING, LONG	LF	35
824	RELAY 3/4", SHORT	EA	6
824	RELAY 3/4", LONG	EA	5
824	NEW 3/4", SHORT, UNMETERED	EA	2
828	CUSTOMER SHUT-OFF VALVE	EA	10
828	8" GATE VALVE, COMPLETE w/ BOX	EA	2
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	10
833	NEW METER BOX AND LID	EA	13
824.1	FIRE HYDRANT, COMPLETE	EA	1
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.2
840	6" WATER TIE-IN	EA	2
841	HYDROSTATIC TESTING	EA	1
3000	REMOVAL, TRANSPORT, DISPOSAL OF AC PIPE	LF	29



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8/01/2018  
Joemma P. Sherfey

7/9/2018 X:\OPEN PROJECTS\5570-00 SANS SANTIAGO & BOWDOIN\5570-BOWDOIN (S&B WATER)\DRAWINGS\SHEETS\5570B-S-WTR-01.DWG

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

**S&GE, L.L.C.**  
TBPE Firm No. F-8038

No.	Revision	Drawn	Approved	Date

**REVISIONS**

**BOWDOIN ST.**  
(NW 27TH ST. TO NW 28TH ST.)

BOWDOIN ST. STA. 0+00 TO STA. 4+00

DEVELOPER: SAN-ANTONIO-WATER-SYSTEM  
CONT. BUDGET PROJ. 00-00-00

SUBMITTED \_\_\_\_\_  
APPROVED \_\_\_\_\_

MAP No. 144-582	SHEET 5
SECT. No.	Of 11
DR. CK.	JOB No. 18-5011



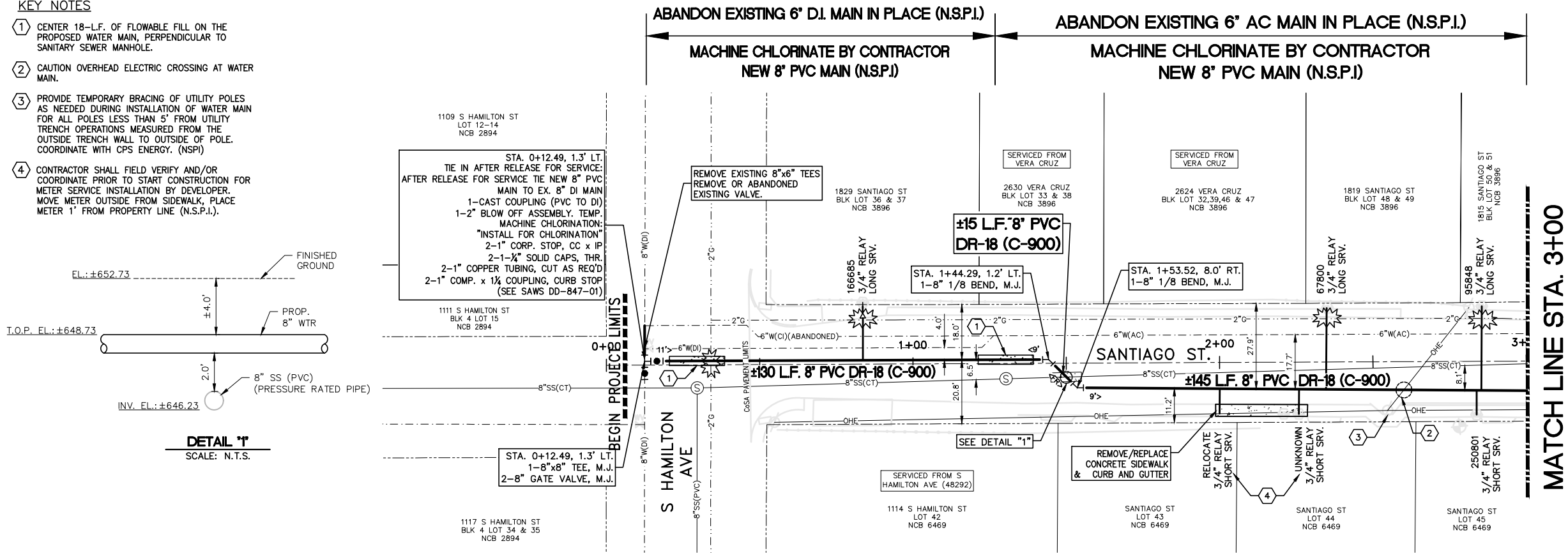
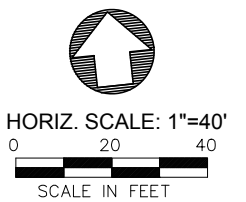


**SHEET NOTES**

1. PIPE RESTRAINT
  - 1.1. #> = RESTRAINED LENGTH (FT)/DIRECTION FROM FITTING.
  - 1.2. FR = FULLY RESTRAINED BETWEEN FITTINGS
2. LOCATIONS OF WATER METERS IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION OF WATER METERS PRIOR TO COMMENCING CONSTRUCTION.

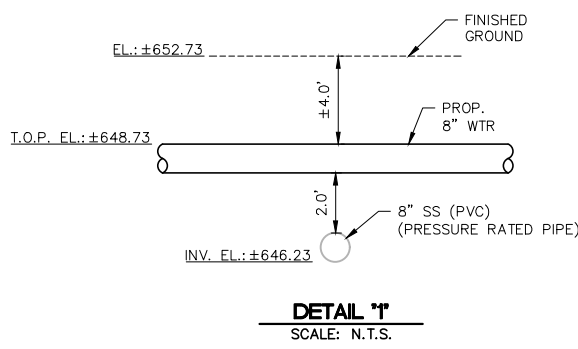
**KEY NOTES**

- ① CENTER 18'-L.F. OF FLOWABLE FILL ON THE PROPOSED WATER MAIN, PERPENDICULAR TO SANITARY SEWER MANHOLE.
- ② CAUTION OVERHEAD ELECTRIC CROSSING AT WATER MAIN.
- ③ PROVIDE TEMPORARY BRACING OF UTILITY POLES AS NEEDED DURING INSTALLATION OF WATER MAIN FOR ALL POLES LESS THAN 5' FROM UTILITY TRENCH OPERATIONS MEASURED FROM THE OUTSIDE TRENCH WALL TO OUTSIDE OF POLE. COORDINATE WITH CPS ENERGY. (NSP)
- ④ CONTRACTOR SHALL FIELD VERIFY AND/OR COORDINATE PRIOR TO START CONSTRUCTION FOR METER SERVICE INSTALLATION BY DEVELOPER. MOVE METER OUTSIDE FROM SIDEWALK, PLACE METER 1' FROM PROPERTY LINE (N.S.P.I.).

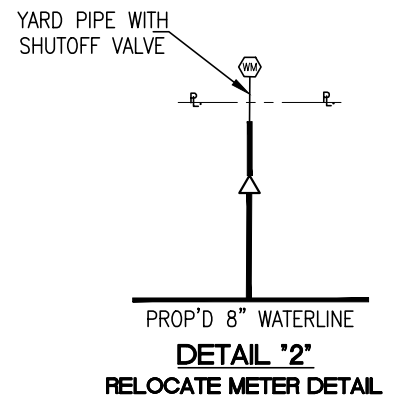


**LEGEND**

PROP. WATER MAIN	—○—
EXIST. WATER MAIN	—○—
GAS MAIN	—2" G—
SANITARY SEWER	—8" SS—
STORM SEWER	—24" SD—
UTILITY POLE LINE	—○—
ELECTRIC CABLE	—E—
TELEPHONE CABLE	—T—
DUAL BRANCH SERV.	—
NEW UNMETERED SERVICE:	
3/4" SINGLE	—
1" DUAL	—
SERVICE RECONNECT:	
3/4"	—
1" OR LARGER	—
SERVICE RELAY:	
3/4"	—
1" OR LARGER	—
SERVICE RELOCATE:	
3/4"	—
1" OR LARGER	—
RELOCATE METER	—
NEW SERVICE:	
3/4"	—
1" OR LARGER	—
BURIED TEL	—UGT—
OH ELEC/OH TEL	—OHE/OT—
CHAINLINK FENCE	—○—
FLOWABLE FILL	—
LANDSCAPED AREA	L/S
IRON FENCE	—
WATER METER	—
TELE PEDESTAL/BOX	—
LIGHT POLE	—
POWER POLE/GUY WIRE	—
SIGN	—
MAIL BOX	—
CLEAN OUT	—
GAS @ WATER CROSSING	—



Item #	Description	Units	Est. Qty.
103.3	REMOVE SIDEWALKS & DRIVEWAYS	SF	132
202.1	PRIME COAT	GAL	35
203.1	TACK COAT	GAL	18
205.4	HOT MIX ASPHALTIC PAVEMENT-TYPE D (2" COMPACTED DEPTH)	SY	170
206.1	ASPHALT TREATED BASE (10" COMPACTED DEPTH)	SY	133
413	FLOWABLE FILL	CY	4
500.4	CONCRETE CURB AND GUTTER	LF	33
502.1	CONCRETE SIDEWALK	SY	15
550.1	TRENCH EXCAV. SAFETY PROTECTION	LF	319
818	8" PVC WATERLINE	LF	319
822	YARD PIPING, LONG	LF	9
824	RELAY 3/4", SHORT	EA	2
824	RELAY 3/4", LONG	EA	3
824	RELOCATE 3/4" SHORT	EA	1
828	CUSTOMER SHUT-OFF VALVE	EA	1
828	8" GATE VALVE, COMPLETE w/ BOX	EA	2
831	8" X 8" CUT-IN TEE	EA	1
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	6
833	NEW METER BOX AND LID	EA	6
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.22
840	8" WATER TIE-IN	EA	2
841	HYDROSTATIC TESTING	EA	1
844	2" BLOW-OFF, TEMPORARY	EA	1



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

STATE OF TEXAS  
 JOEMMA P. SHERFEY  
 68028  
 REGISTERED PROFESSIONAL ENGINEER  
 8/01/2018  
 Joemma P. Sherfey

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No.	Revision	Drawn	Approved	Date

**REVISIONS**

		SANTIAGO ST. (S ZARZAMORA ST. TO HAMILTON AVE.) WATER PLANS SANTIAGO ST. STA. 0+00 TO STA. 3+00	
DEVELOPER:		SAN-ANTONIO-WATER-SYSTEM	
CONT.:		BUDGET PROJ. 00-00-00	
SUBMITTED			
APPROVED			
MAP No.	148-576, 150-576	SHEET	
SECT. No.		7	
DR.	CK.	JOB No. 18-5011	Of 11

7/10/2018 X:\OPEN PROJECTS\5570.00 SANS SANTIAGO & BOWDIN\5570-SANTIAGO(S&G SEWER)\DRAWINGS\SHEETS\5570S-S-WTR-01.DWG

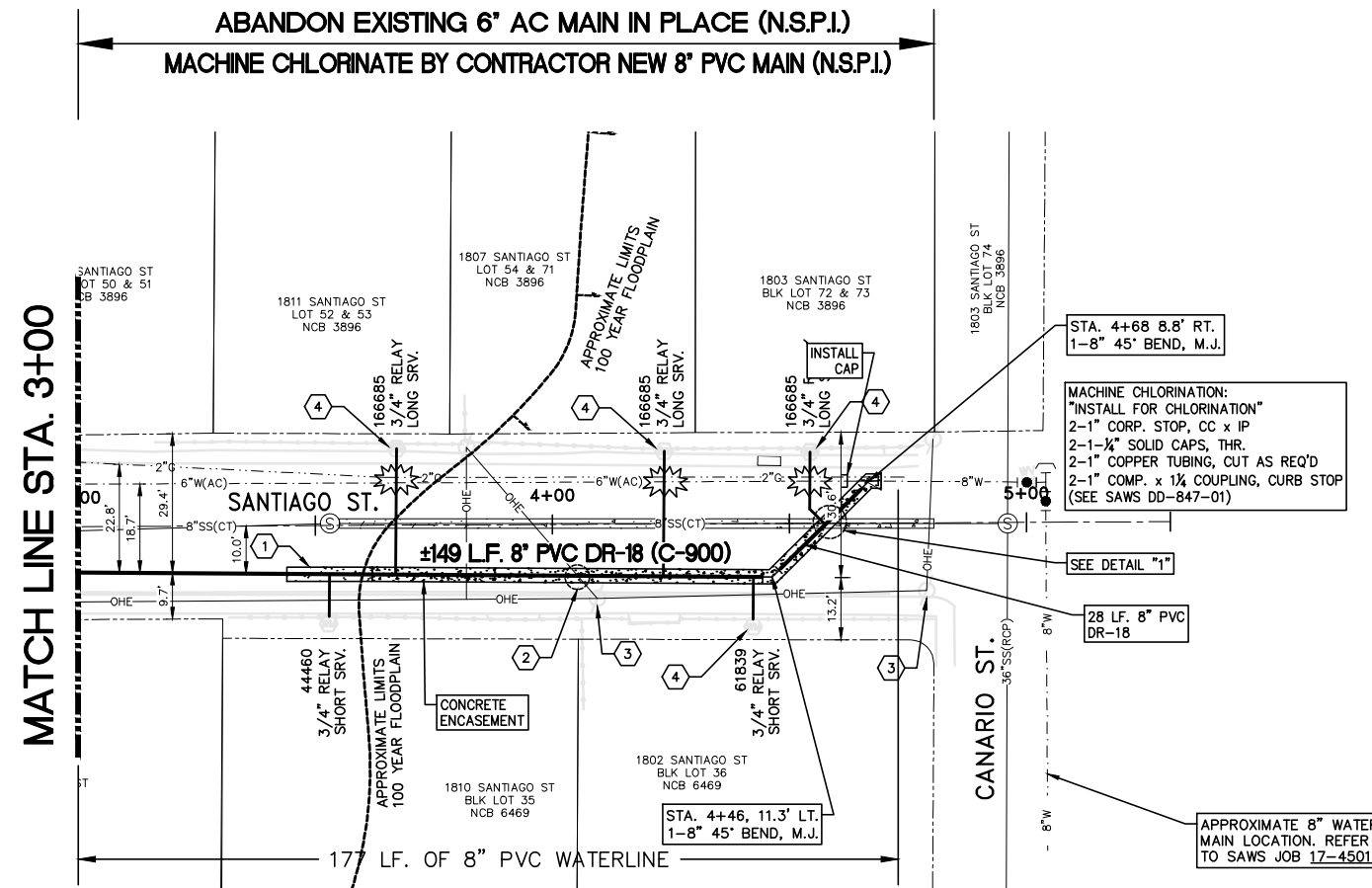
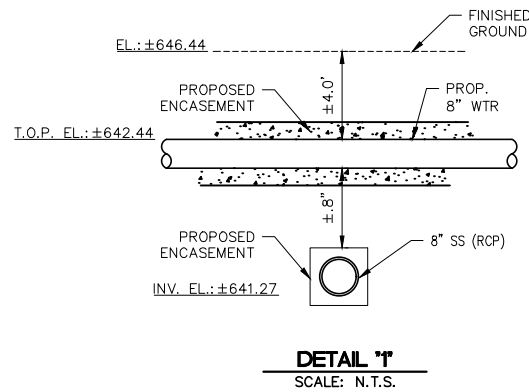
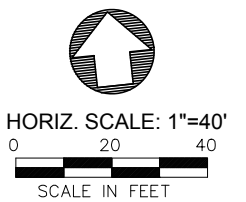


**SHEET NOTES**

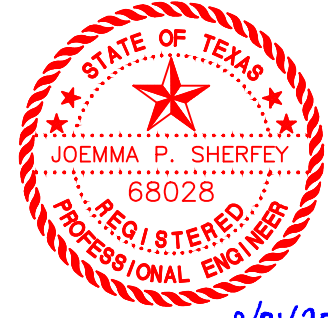
1. PIPE RESTRAINT
  - 1.1. #> = RESTRAINED LENGTH (FT)/DIRECTION FROM FITTING.
  - 1.2. FR = FULLY RESTRAINED BETWEEN FITTINGS
2. LOCATIONS OF WATER METERS IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION OF WATER METERS PRIOR TO COMMENCING CONSTRUCTION.

**KEY NOTES**

- ① CENTER 18--L.F. OF FLOWABLE FILL ON THE PROPOSED WATER MAIN, PERPENDICULAR TO SANITARY SEWER MANHOLE.
- ② CAUTION OVERHEAD ELECTRIC CROSSING AT WATER MAIN.
- ③ PROVIDE TEMPORARY BRACING OF UTILITY POLES AS NEEDED DURING INSTALLATION OF WATER MAIN FOR ALL POLES LESS THAN 5' FROM UTILITY TRENCH OPERATIONS MEASURED FROM THE OUTSIDE TRENCH WALL TO OUTSIDE OF POLE. COORDINATE WITH CPS ENERGY. (NSPI)
- ④ TYPE 2 METER BOXES, BLOCKED OUT IN THE SIDEWALKS AND/OR DRIVEWAYS.



Item #	Description	Units	Est. Qty.
202.1	PRIME COAT	GAL	22
203.1	TACK COAT	GAL	11
205.4	HOT MIX ASPHALTIC PAVEMENT-TYPE D (2" COMPACTED DEPTH)	SY	108
206.1	ASPHALT TREATED BASE (10" COMPACTED DEPTH)	SY	85
413	FLOWABLE FILL	CY	3
550.1	TRENCH EXCAV. SAFETY PROTECTION	LF	195
818	8" PVC WATERLINE	LF	195
824	RELAY 3/4", SHORT	EA	2
824	RELAY 3/4", LONG	EA	3
828	8" GATE VALVE, COMPLETE w/ BOX	EA	2
832	8" X 8" TAPPING SLEEVE AND VALVE	EA	1
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	5
833	NEW METER BOX AND LID	EA	5
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.14
840	8" WATER TIE-IN	EA	1
858	CONCRETE ENCASUREMENT, CRADLES, SADDLES AND COLLARS	CY	15
3000	REMOVAL, TRANSPORT, DISPOSAL OF AC PIPE	LF	28



8/01/2018  
 Joemma P. Sherfey

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JOEMMA P. SHERFEY ON AUGUST 01, 2018 ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE "TEXAS ENGINEERING PRACTICE ACT"

7/27/2018 X:\OPEN PROJECTS\5570.00 SANIS SANTIAGO & BOWDOIN\5570-SANTIAGO(S&B SEWER)\DRAWINGS\SHEETS\5570S-S-WTR-02.DWG

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



No.	Revision	Drawn	Approved	Date

**REVISIONS**

**SANTIAGO ST. (S ZARZAMORA ST. TO HAMILTON AVE.) WATER PLANS**

SANTIAGO ST. STA. 3+00 TO STA. 5+30

DEVELOPER: SAN-ANTONIO-WATER-SYSTEM

CONT. BUDGET PROJ. 00-00-00

SUBMITTED \_\_\_\_\_

APPROVED \_\_\_\_\_

MAP No. 148-576, 150-576 SHEET 8

SECT. No. \_\_\_\_\_ Of 11

DR. CK. JOB No. 18-5011

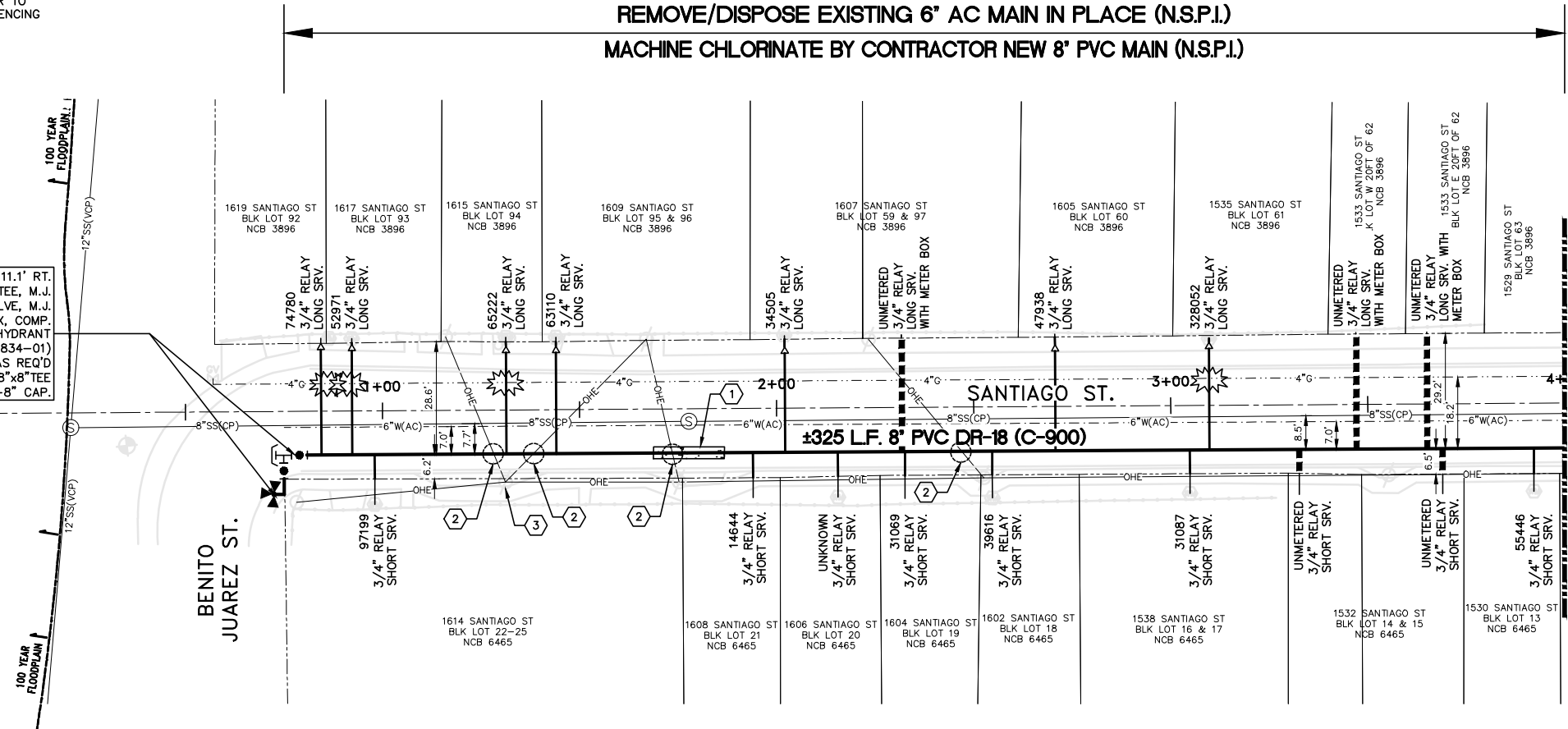
**SHEET NOTES**

1. PIPE RESTRAINT
  - 1.1. #> = RESTRAINED LENGTH (FT)/DIRECTION FROM FITTING.
  - 1.2. FR = FULLY RESTRAINED BETWEEN FITTINGS
2. LOCATIONS OF WATER METERS IS APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION OF WATER METERS PRIOR TO COMMENCING CONSTRUCTION.

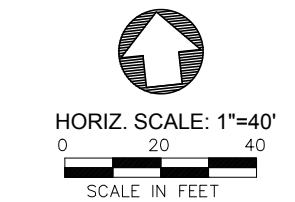
**KEY NOTES**

- ① CENTER 18--L.F. OF FLOWABLE FILL ON THE PROPOSED WATER MAIN, PERPENDICULAR TO SANITARY SEWER MANHOLE.
- ② CAUTION OVERHEAD ELECTRIC CROSSING AT WATER MAIN.
- ③ PROVIDE TEMPORARY BRACING OF UTILITY POLES AS NEEDED DURING INSTALLATION OF WATER MAIN FOR ALL POLES LESS THAN 5' FROM UTILITY TRENCH OPERATIONS MEASURED FROM THE OUTSIDE TRENCH WALL TO OUTSIDE OF POLE. COORDINATE WITH CPS ENERGY. (NSPI)

STA. 0+74.90, 11.1' RT.  
 1-8"x6" ANCHOR TEE, M.J.  
 1-6" GATE VALVE, M.J.  
 1-6" VALVE BOX, COMP.  
 1-STD FIRE HYDRANT  
 (SAWS STD DD-834-01)  
 6" D.I. PIPE, CUT AS REQ'D  
 1-8"x8" TEE  
 1-8" CAP



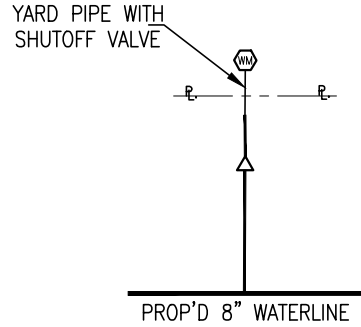
MATCH LINE STA. 4+00



**LEGEND**

PROP. WATER MAIN	—○—
EXIST. WATER MAIN	—○—
GAS MAIN	—2" G—
SANITARY SEWER	—8" SS—
STORM SEWER	—24" SD—
UTILITY POLE LINE	—○—
ELECTRIC CABLE	—E—
TELEPHONE CABLE	—T—
DUAL BRANCH SERV.	—
NEW UNMETERED SERVICE:	
3/4" SINGLE	—
1" DUAL	—
SERVICE RECONNECT:	
3/4"	—
1" OR LARGER	—
SERVICE RELAY:	
3/4"	—
1" OR LARGER	—
SERVICE RELOCATE:	
3/4"	—
1" OR LARGER	—
RELOCATE METER	—
NEW SERVICE:	
3/4"	—
1" OR LARGER	—
BURIED TEL	—UGT—
OH ELEC/OH TEL	—OHE/OT—
CHAINLINK FENCE	—○—
FLOWABLE FILL	—
LANDSCAPED AREA	L/S
IRON FENCE	—□—
WATER METER	—M—
TELE PEDESTAL/BOX	—TUB—
LIGHT POLE	—
POWER POLE/GUY WIRE	—
SIGN	—
MAIL BOX	—MB—
CLEAN OUT	—CO—
GAS @ WATER CROSSING	—

Item #	Description	Units	Est. Qty.
103.3	REMOVE SIDEWALKS & DRIVEWAYS	SF	1320
202.1	PRIME COAT	GAL	40
203.1	TACK COAT	GAL	19
205.4	HOT MIX ASPHALTIC PAVEMENT-TYPE D (2" COMPACTED DEPTH)	SY	187
206.1	ASPHALT TREATED BASE (10" COMPACTED DEPTH)	SY	148
413	FLOWABLE FILL	CY	3
502.1	CONCRETE SIDEWALK	SY	147
550.1	TRENCH EXCAV. SAFETY PROTECTION	LF	357
818	8" PVC WATERLINE	LF	357
822	YARD PIPING, SHORT	LF	62
822	YARD PIPING, LONG	LF	70
824	RELAY 3/4", SHORT	EA	7
824	RELAY 3/4", LONG	EA	7
824	NEW 3/4", SHORT, UNMETERED	EA	2
824	NEW 3/4", LONG, UNMETERED	EA	3
828	CUSTOMER SHUT-OFF VALVE	EA	7
833	EXISTING METER AND NEW METER BOX RELOCATION	EA	14
833	NEW METER BOX AND LID	EA	19
834.1	FIRE HYDRANT, COMPLETE	EA	1
836	PIPE FITTINGS, ALL SIZES AND TYPES	TON	0.24
841	HYDROSTATIC TESTING	EA	1



*Joemma P. Sherfey*  
 8/01/2018

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CONT. BUDGET PROJ. 00-00-00		SUBMITTED _____	
APPROVED _____		SHEET 9	
MAP No. 148-576, 150-576	DR. CK.	JOB No. 18-5011	OF 11

7/9/2018 X:\OPEN PROJECTS\5570.00 SANS SANTIAGO & BOWDOIN\5570-SANTIAGO(S&G SEWER)\DRAWINGS\SHEETS\5570S-S-WTR-03.DWG

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