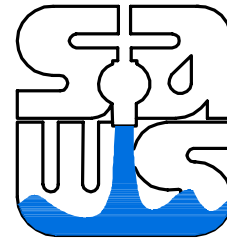


# SAN ANTONIO WATER SYSTEM



LAUGHLIN-THYSSEN, INC.  
AS-BUILTS  
02/17/16

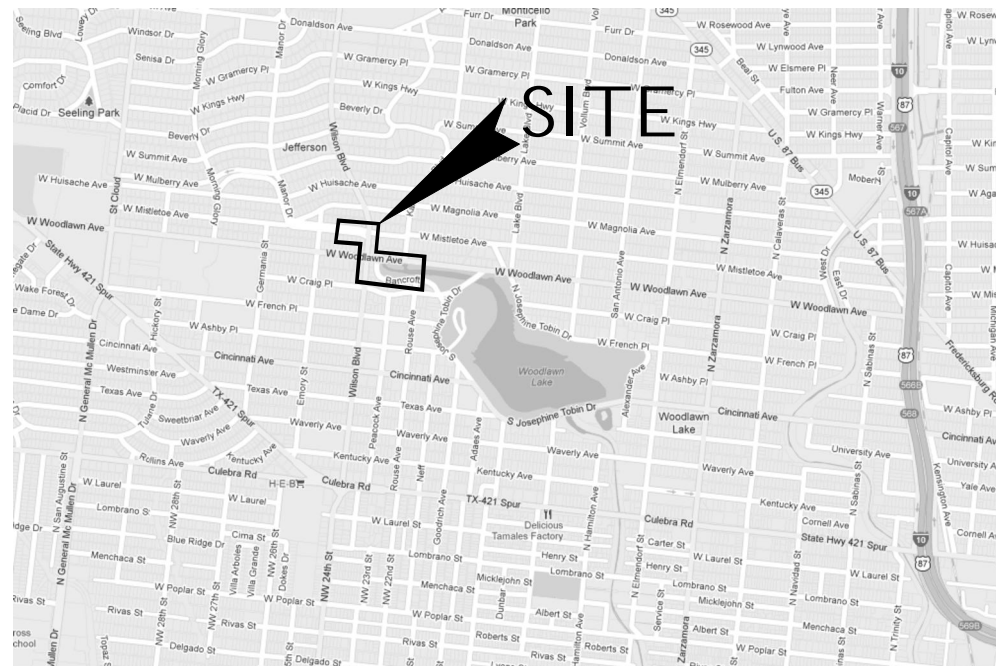
JOB NO. 10-5010  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WOODLAWN LAKE  
WATER LINE REPLACEMENTS  
BID SET  
JULY 2012

SHEET INDEX

1	COVER SHEET
2	GENERAL NOTES
3	MISC DETAILS
4	PROJECT LAYOUT
5	SUMMARY QUANTITY SHEET
6-13	WATER LINE PLANS
14	WATER METER RELOCATIONS
15	WATER LINE CROSSING DETAILS SHEET 1
16	WATER LINE CROSSING DETAILS SHEET 2
17	WATER LINE BRIDGE SUPPORT DETAILS

PLAN OF RECORD QUANTITIES

8" PVC								8" STEEL	6" PVC	6" D.I.
6/7	3	2		7	13	3	103	2	1	
	4	8	20		65		101	73	13	2
	12		10		10		57		10	1
	6		20	11	20		141		5	5
	18		20		30		2		5	1
	6		2		7				5	29
	23		123		25				5	
	4		90		7				3	
	3		2		50				6	
	2		20		45				7	
	8		5		40				16	
	10	9	2		38				4	
	10		185		2				10	
	10		20		2					
	17		7		30					
	11		12		52					
	8		7		17					
	8		50		30					
	17		12		5					
	8		20		20					
	12		12		2					
	11		2	12	2					
	8		22		23					
15	5	10	2		12					
	5		170		20					
6	27		15		12					
	130		7		23					
	3		20		2					
2,251 L.F.								176 L.F.	91 L.F.	39 L.F.



LOCATION MAP  
N.T.S.



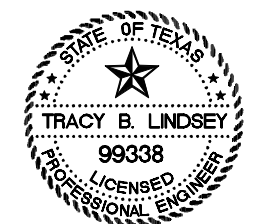
AECOM TECHNICAL SERVICES, INC.  
6800 PARK TEN BLVD., SUITE 180 SOUTH  
SAN ANTONIO, TEXAS 78219  
WWW.AECOM.COM  
TBPE REG. NO. F-8580

PLAN OF RECORD

CONTRACTOR: LAUGHLIN-THYSSEN  
INSPECTOR: BARRY SMITH  
COMPLETED: 2-26-2016

MATERIALS NOTE

PIPE - JM EAGLE  
VALVES - MUELLER  
FITTINGS - TYLER/STAR  
FIRE HYD. - MUELLER/KENNEDY



LAST MODIFIED: Apr 28, 2016 - 1:54pm BY: USER: gonzalezm1  
 DWG. LOCATION: P:\01\_42860\_SanAntonio\_Channel\_Improvements\Drawings\AS-BUILT\10-5010-010-Plan of Record.dwg  
 DWG. DATE: 02/17/16  
 DWG. PLOTTED: 02/17/16  
 DWG. PLOTTED BY: BARRY SMITH

**GENERAL WATER NOTES**  
REVISED SEPTEMBER 2011

- ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:
  - CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
  - CURRENT TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE."
  - CURRENT SAN ANTONIO WATER SYSTEM "STANDARD SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION."
  - CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION."
  - CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL"
- THE CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT 233-3500 AND PROVIDE NOTIFICATION PROCEDURES. THE CONTRACTOR WILL USE TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO EXCAVATION.
- LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR 48 HOURS PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
 

SAWS UTILITY LOCATES: 233-2010  
SAWS PRODUCTION CONTROL CENTER: 233-2016  
COSA DRAINAGE: 207-8048  
COSA TRAFFIC SIGNAL OPERATIONS: 207-7720  
TEXAS STATE WIDE ONE CALL LOCATOR: 1-800-545-6005 OR 811  
BEXAR METROPOLITAN WATER DISTRICT: 354-6536
- THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR TREES.
- THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS OR SPOILS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN PERMIT.
- PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-3500 AND/OR SAWS PRODUCTION GROUPS AT LEAST TWO WEEKS IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.
- WHERE WATER LINES AND NEW SEWER LINES ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC 217.53(D) (PIPE DESIGN) AND 30 TAC 290.44(E) (WATER DISTRIBUTION).
- ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN ASBESTOS-CONTAINING MATERIAL (ACM), IS LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS ARE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCURS. PAYMENT FOR SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM 3000, "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE"
- ANY WORK COMPLETED WITHOUT PRIOR WRITTEN AUTHORIZATION WHICH IS NOT INCLUDED IN THESE PLANS AND SPECIFICATIONS WILL NOT BE COMPENSATED BY THE SAN ANTONIO WATER SYSTEM.

**RESTRAINED LENGTH DESIGN**

RESTRAINED LENGTH CALCULATIONS ARE FOR P.V.C, D.I. OR STEEL PIPE AS IDENTIFIED ON PLANS. RESTRAINED LENGTHS ARE IDENTIFIED AS "L" AT EACH FITTING LOCATION. THE CALCULATIONS ARE BASED ON THE FOLLOWING PARAMETERS:

SOIL CLASSIFICATION:	CH GRANULAR FILL
TRENCH TYPE:	4
TEST PRESURE:	150 PSI
SAFETY FACTOR:	1.5 TO 1
DEPTH OF BURY	4 FT

\*SOIL CLASSIFICATIONS BASED UPON UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D 2487 SOFTWARE PROGRAM USED WAS EBAA IRON INC. RESTRAINED LENGTH CALCULATION PROGRAM, VERSION 6.0 REFER TO EBAA.COM FOR RESTRAINT LENGTH DIAGRAMS.

THESE CALCULATIONS ARE PROVIDED FOR REFERENCE. THE RESTRAINED LENGTH SHALL BE DESIGNED BASED UPON THE CONDITIONS ENCOUNTERED DURING THE INSTALLATION.

**SAFETY NOTES**

- DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CITY PUBLIC SERVICE MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND GAS VALVES THAT ARE IN THE PROJECT AREAS.
- THESE PLANS, PREPARED BY AECOM TECHNICAL SERVICES INC., DO NOT EXTEND TO OR INCLUDE DESIGNS ON SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVE IN THE PERFORMANCE OF THE WORK, THE SEAL OF THE REGISTERED ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR IS TO PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY HOUSE BILLS 562 AND 565 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE-REGULAR SESSION
- IF POTENTIAL HAZARDOUS MATERIALS ARE ENCOUNTERED DURING EXCAVATION, CONSTRUCTION SHOULD CEASE UNTIL THE ENGINEER IS NOTIFIED. IF AN IMMEDIATE THREAT TO WORKER SAFETY OR A RELEASE TO THE ENVIRONMENT OF UNKNOWN WASTES IS PRESENT, CALL 911.

**EXCAVATION**

- CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL 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.
- CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PERMANENTLY PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
- CONTRACTOR SHALL INCORPORATE THE USE OF A TRENCH BOX OR OTHER ACCEPTABLE SAFETY SYSTEM IN ANY TRENCH THAT EXCEEDS FIVE (5) FEET IN DEPTH.

**EROSION AND SEDIMENTATION CONTROL**

- THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AND ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTES ON THE PROJECT'S PLAN AND PROFILE SHEETS.
- ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE SAN ANTONIO WATER SYSTEM.
- CONTRACTOR SHALL COMPLY WITH THE GOVERNING AGENCY NPDES CONSTRUCTION REQUIREMENTS AND SHALL PROVIDE APPROPRIATE MITIGATION MEASURES OR PROTECTION AND RESTORATION AT ALL LOCATIONS AS REQUIRED BY THEIR OPERATIONS, AND AS DIRECTED BY THE ENGINEER. SPECIAL CONSTRUCTION REQUIREMENTS, TEMPORARY PROTECTIVE FENCING OR BARRICADES, SHEETING, SHORING, EROSION PROTECTION, AND SURFACE RESTORATION AT CERTAIN LOCATIONS ARE INDICATED ON THE DRAWINGS TO BRING CONTRACTORS ATTENTION TO SENSITIVE AREAS.

**WATER LINE GENERAL NOTES**

- ALL WATER AND WASTEWATER INSTALLATIONS SHALL BE IN ACCORDANCE WITH TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) REQUIREMENTS. WHERE A MINIMUM OF NINE (9) FEET OF SEPARATION CANNOT BE MAINTAINED BETWEEN SEWER LINES AND WATERLINE/MAINS, THE INSTALLATION OF SEWER LINES SHALL BE IN STRICT ACCORDANCE WITH TCEQ 30 TAC 217.53.

**ENGINEER'S NOTES**

- CONTRACTOR SHALL REPLACE ALL DISTURBED ASPHALT IN ACCORDANCE WITH DD-804 (SHEET 15 OF 16).
- CONTRACTOR SHALL REFER TO SEELING CHANNEL PHASE I TRAFFIC CONTROL PLAN SEQUENCE OF WORK FOR PROPOSED WATER LINE PHASING REQUIREMENTS.
- INFORMATION FROM AVAILABLE PLAN OF RECORD DRAWINGS SUGGESTS THAT THE SITE MAY CONTAIN EXISTING WATER AND WASTEWATER SYSTEMS THAT WERE ABANDONED. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY ABANDONED WATER OR WASTEWATER SYSTEMS IN CONFLICT WITH ANY PROPOSED IMPROVEMENTS. NO SEPARATE PAY ITEM.
- REFER TO SEELING CHANNEL IMPROVEMENTS (PHASE I) PROJECT LEGEND FOR ADDITIONAL IDENTIFICATION OF EXISTING AND PROPOSED UTILITIES.

**NOTIFICATIONS**

- CONTRACTOR SHALL GIVE NOTICES TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN BE ISSUED TO CONTRACTOR SHALL BE OBTAINED AT HIS EXPENSE.
- CONTRACTOR SHALL NOTIFY CONSTRUCTION INSPECTOR AND ENVIRONMENTAL INSPECTOR AT LEAST 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY WITHIN EASEMENT OR STREET RIGHT-OF-WAY. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S RIGHT-OF-WAY MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.

**GENERAL NOTES**

- CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR ACTUAL TEST HOLE LOCATIONS AND THE FINDINGS OF THE GEOTECHNICAL INVESTIGATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION FROM DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING, STRUCTURES, AND OTHER EXISTING IMPROVEMENTS WITHIN THE LIMITS OF CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE, NEAT, AND WORKMAN-LIKE MANNER AT ALL TIMES, JOB SITE SAFETY SHALL NOT BE COMPROMISED.
- IF A THREATENED OR ENDANGERED PLANT OR ANIMAL SPECIES IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY SAWS.
- BLASTING IS NOT ALLOWED ON THIS CONTRACT.
- WHERE REQUIRED, CONCRETE ENCASEMENT SHALL BE PLACED FOR FULL WIDTH OF THE TRENCH TO A PLANE 6" ABOVE THE TOP OF THE PIPE, WITH PAY LIMITS AS SHOWN ON THE ITEM NO. DD-858-01.
- CONTRACTOR SHALL PROTECT OR REMOVE AND REPLACE ALL TRAFFIC SIGNS.
- CONTRACTOR SHALL PROTECT OR REMOVE AND REPLACE ALL MAILBOXES.
- CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER IN ADVANCE OF ANY WORK ON THE OWNER'S PROPERTY.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT AND COMPLY WITH ALL TRAFFIC CONTROL REQUIREMENTS SET FORTH BY ALL REGULATING ENTITIES PRIOR TO THE START OF ANY WORK.
- ALL PERMANENT SIGNS OR TRAFFIC CONTROL DEVICES MISSING OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR MUST MAINTAIN ALL STREETS OPEN TO THROUGH TRAFFIC AS IDENTIFIED IN THE SEELING CHANNEL IMPROVEMENT (PHASE I) TRAFFIC CONTROL PLANS. CONTRACTOR SHALL PROVIDE REASONABLE ACCESS TO RESIDENCES AND ALL BUSINESSES WITHIN ALL PHASES OF WORK, AS WELL AS PROVIDING SUITABLE ACCESS TO ACCOMMODATIONS FOR SCHOOL CHILDREN, PEDESTRIANS, GARBAGE PICK-UP, AND MAIL DELIVERY BY THE US POSTAL SERVICE.
- ALL PVC MAINS ARE C900 CLASS 150 UNLESS OTHERWISE NOTED. CONNECTIONS TO OTHER PIPE MATERIALS: MAKE CONNECTION USING COUPLING APPROVED BY ENGINEER WITH APPROPRIATE TRANSITION GUIDELINES.

**TREE PROTECTION**

- CONTRACTOR SHALL PROTECT ALL TREES WHENEVER POSSIBLE. DAMAGE TO TREES SHOWN ON PLANS TO BE SAVED WILL BE MITIGATED AT THE CONTRACTOR'S EXPENSE PER MOST CURRENT CITY OF SAN ANTONIO TREE ORDINANCE.
- THE CITY ARBORIST SHALL BE PRESENT AT THE PRE CONSTRUCTION MEETING.
- NO CONSTRUCTION ACTIVITIES SHALL BE PERFORMED WITHIN 5' FROM THE TRUNK OF A TREE THAT IS PROTECTED. TRENCH SHORING WILL BE REQUIRED INSIDE OF A TREE'S ROOT PROTECTION ZONE. THE ROOT PROTECTION ZONE IS CALCULATED AS A RADIUS TO THE TREE TRUNK EQUAL TO ONE FOOT PER DIAMETER INCH OF THE TREE.
- THIS PROJECT IS SUBJECT TO REGULATIONS ESTABLISHED BY THE CITY OF SAN ANTONIO TREE ORDINANCE.

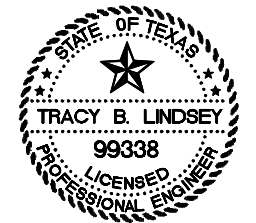
**UNDERGROUND UTILITIES**

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTHS OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THE PLANS 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING UTILITY DISCREPANCIES IDENTIFIED DURING UTILITY VERIFICATIONS 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
- THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE.

**TRAFFIC CONTROL**

- IF THE GENERAL CONTRACTOR ELECTS TO DO THEIR OWN BARRICADING, THEY MUST COMPLY WITH ALL FOREGOING REQUIREMENTS. ADDITIONALLY, A GENERAL CONTRACTOR WILL BE REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN (TCP) TO THE APPROPRIATE AGENCY (CITY OF SAN ANTONIO, BEXAR COUNTY, OR TXDOT) AT LEAST 72 HOURS IN ADVANCE (EXCLUDING WEEKENDS AND HOLIDAYS) OF STARTING WORK IN EACH CONSTRUCTION PHASE. UPON SATISFACTORY EVIDENCE OF COMPETENT BARRICADING EXPERTISE, THIS REQUIREMENT FOR A TRAFFIC CONTROL PLAN MAY BE WAIVED BY THE CITY TRAFFIC ENGINEER.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL TRAFFIC CONTROL DEVICES ARE PROPERLY INSTALLED AND MAINTAINED AT THE JOB SITE.

THE CONTRACTOR SHALL CONTACT THE APPROPRIATE AGENCY (CITY OF SAN ANTONIO, BEXAR COUNTY, OR TXDOT) TRAFFIC OPERATIONS SECTION PRIOR TO REMOVING ANY TRAFFIC SIGNS OR TRAFFIC SIGNALS.



LEGEND	
PROPOSED 30" SANITARY SEWER	
PROPOSED 21" SANITARY SEWER	
PROPOSED 8"-15" SANITARY SEWER	
PROPOSED WATER MAIN	
KEY NOTE	
REMOVE EXISTING WATER MAIN	
UTILITY POLE LINE	
DUAL BRANCH SERV.	
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	

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

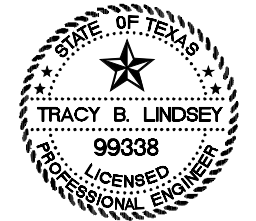
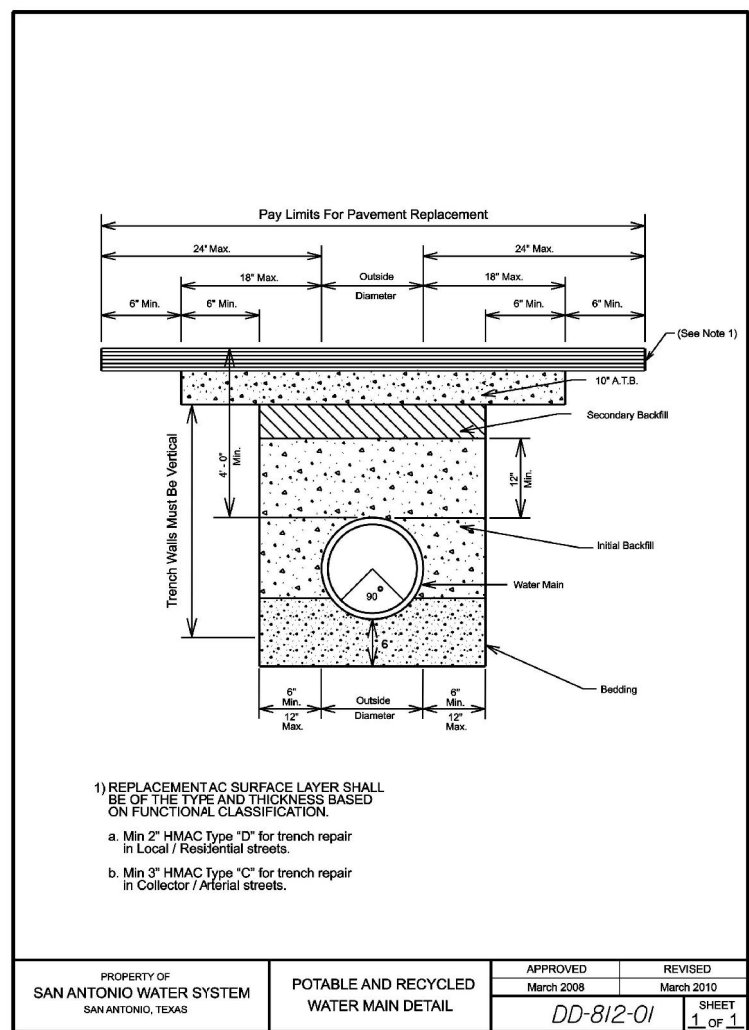
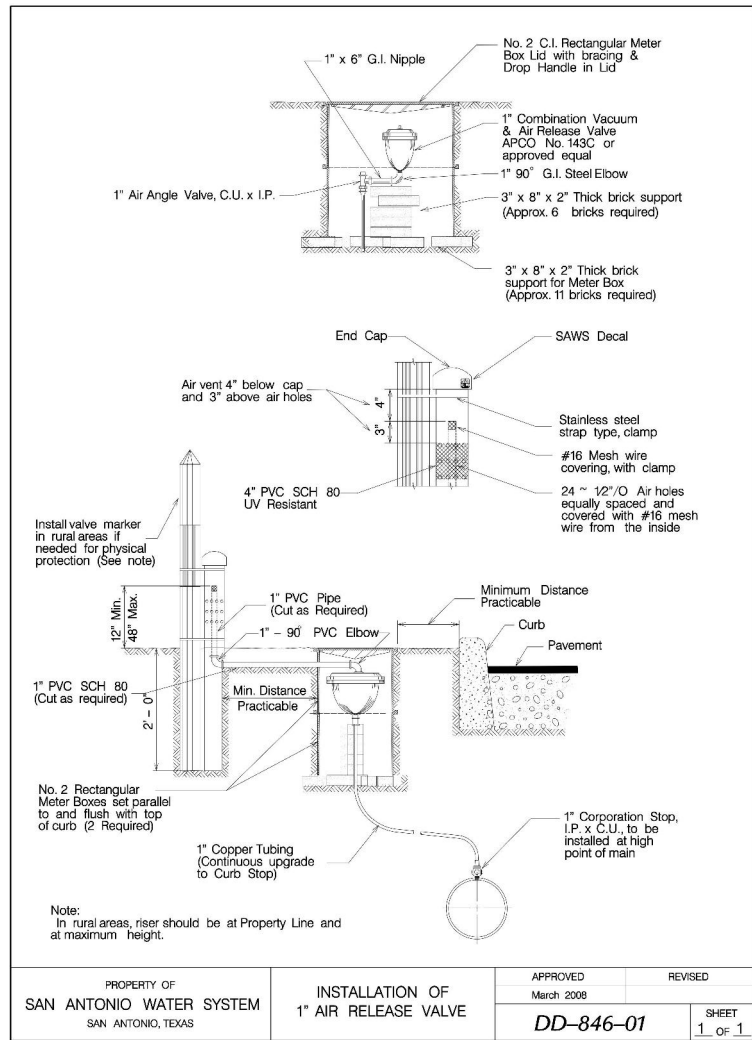
**AECOM**  
AECOM TECHNICAL SERVICES, INC.  
6800 PARK TEN BLVD., SUITE 180 SOUTH  
SAN ANTONIO, TEXAS 78213  
WWW.AECOM.COM  
TBP# REG. NO. F-3580

**SAN ANTONIO WATER SYSTEM**  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I  
**WATER GENERAL NOTES**

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC



NO	DATE	DESCRIPTION REVISIONS	DWG/CHK

**AECOM**

AECOM TECHNICAL SERVICES, INC.  
6800 PARK TEN BLVD., SUITE 180 SOUTH  
SAN ANTONIO, TEXAS 78213  
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**SAN ANTONIO WATER SYSTEM**  
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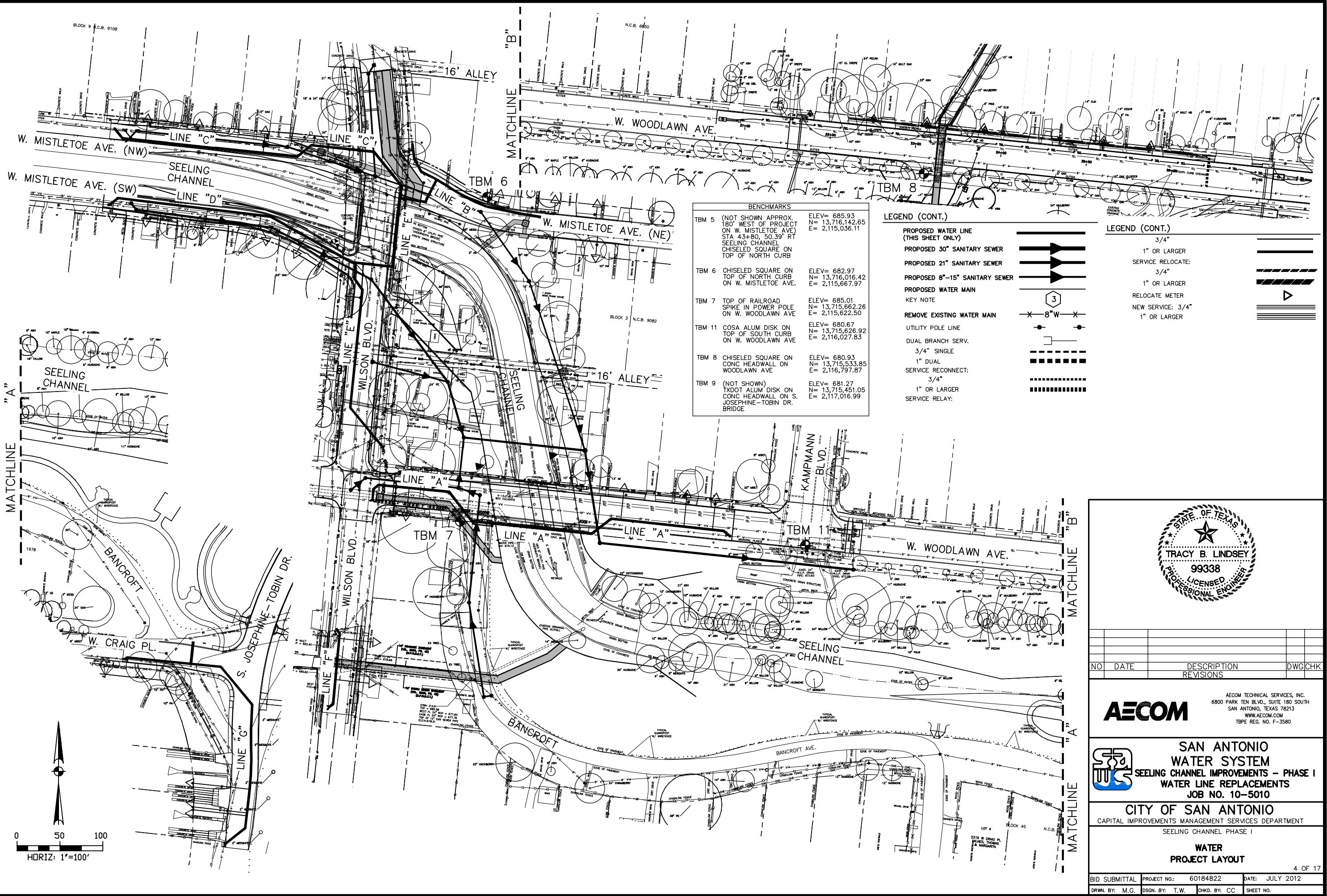
**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
SEELING CHANNEL PHASE I

**MISC DETAIL**

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC



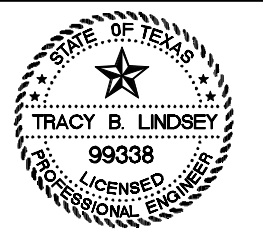
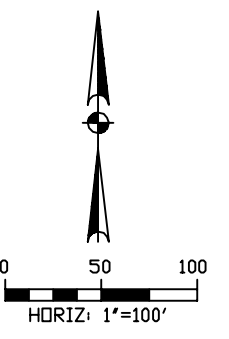
LAST MODIFIED: May 25, 2016 8:52:00am BY USER: gencolm1  
 DWG. LOCATION: P:\014586 Sealing Channel (Misc)\COM\000\_000\_000\CIP\Plan of Record - Water\



BENCHMARKS	
TBM 5 (NOT SHOWN APPROX. 180' WEST OF PROJECT ON W. MISTLETOE AVE) STA 43+80, 50.39' RT SEELING CHANNEL CHISELED SQUARE ON TOP OF NORTH CURB	ELEV= 685.93 N= 13,716,142.65 E= 2,115,036.11
TBM 6 CHISELED SQUARE ON TOP OF NORTH CURB ON W. MISTLETOE AVE.	ELEV= 682.97 N= 13,716,016.42 E= 2,115,667.97
TBM 7 TOP OF RAILROAD SPIKE IN POWER POLE ON W. WOODLAWN AVE	ELEV= 685.01 N= 13,715,662.26 E= 2,115,622.50
TBM 11 COSA ALUM DISK ON TOP OF SOUTH CURB ON W. WOODLAWN AVE	ELEV= 680.67 N= 13,715,626.92 E= 2,116,027.83
TBM 8 CHISELED SQUARE ON CONC HEADWALL ON WOODLAWN AVE	ELEV= 680.93 N= 13,715,533.85 E= 2,116,797.87
TBM 9 (NOT SHOWN) TXDOT ALUM DISK ON CONC HEADWALL ON S. JOSEPHINE-TOBIN DR. BRIDGE	ELEV= 681.27 N= 13,715,451.05 E= 2,117,016.99

LEGEND (CONT.)	
PROPOSED WATER LINE (THIS SHEET ONLY)	
PROPOSED 30" SANITARY SEWER	
PROPOSED 21" SANITARY SEWER	
PROPOSED 8"-15" SANITARY SEWER	
PROPOSED WATER MAIN	
KEY NOTE	
REMOVE EXISTING WATER MAIN	
UTILITY POLE LINE	
DUAL BRANCH SERV.	
3/4" SINGLE	
1" DUAL	
SERVICE RECONNECT: 3/4"	
1" OR LARGER	
SERVICE RELAY:	

LEGEND (CONT.)	
3/4"	
1" OR LARGER	
SERVICE RELOCATE: 3/4"	
1" OR LARGER	
RELOCATE METER	
NEW SERVICE: 3/4"	
1" OR LARGER	



NO	DATE	DESCRIPTION	DWGCHK
		REVISIONS	

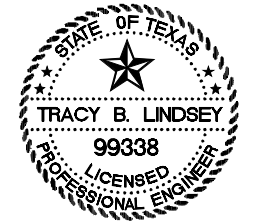
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 SEELING CHANNEL IMPROVEMENTS - PHASE I  
 WATER LINE REPLACEMENTS  
 JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 SEELING CHANNEL PHASE I


**WATER PROJECT LAYOUT**

WATER LINE REPLACEMENTS			
ITEM NO.	DESCRIPTION	UNIT	TOTAL
100	Mobilization	L.S.	1
101	Preparation of R.O.W.	L.S.	1
550	Trench Excavation Safety Protection	L.F.	2,150
816	8" Steel Waterline (suspended)	L.F.	167
818	6" PVC Waterline	L.F.	110
818	8" PVC Waterline	L.F.	1,995
818	12" PVC Waterline	L.F.	45
824	Relay 3/4" Long Service	EA	17
824	Relay 3/4" Short Service	EA	7
824	Relay 1" Short Service	EA	1
824	New 5/8" Long Service	EA	1
824	New 3/4" Unmetered Long Service	EA	1
828	6" Gate Valve	EA	1
828	8" Gate Valve	EA	12
828	12" Gate Valve	EA	1
833	Existing Meter & Existing Meter Box Relocation	EA	16
833	Meter Box	EA	15
836	Pipe Fitting, all sizes and types	TON	5.88
840	6" Water line tie in	EA	7
840	8" Water line tie in	EA	6
840	12" Water line tie in	EA	1
834	Fire Hydrant Assembly, Complete	EA	3
841	Hydrostatic Testing	EA	6
844	2" Blowoff Temporary	EA	9
846	Air Release Assembly	EA	2
858	Concrete Encasement	CY	17
3000.06	Removal, Transportation and Disposal of AC Pipe	LF	515



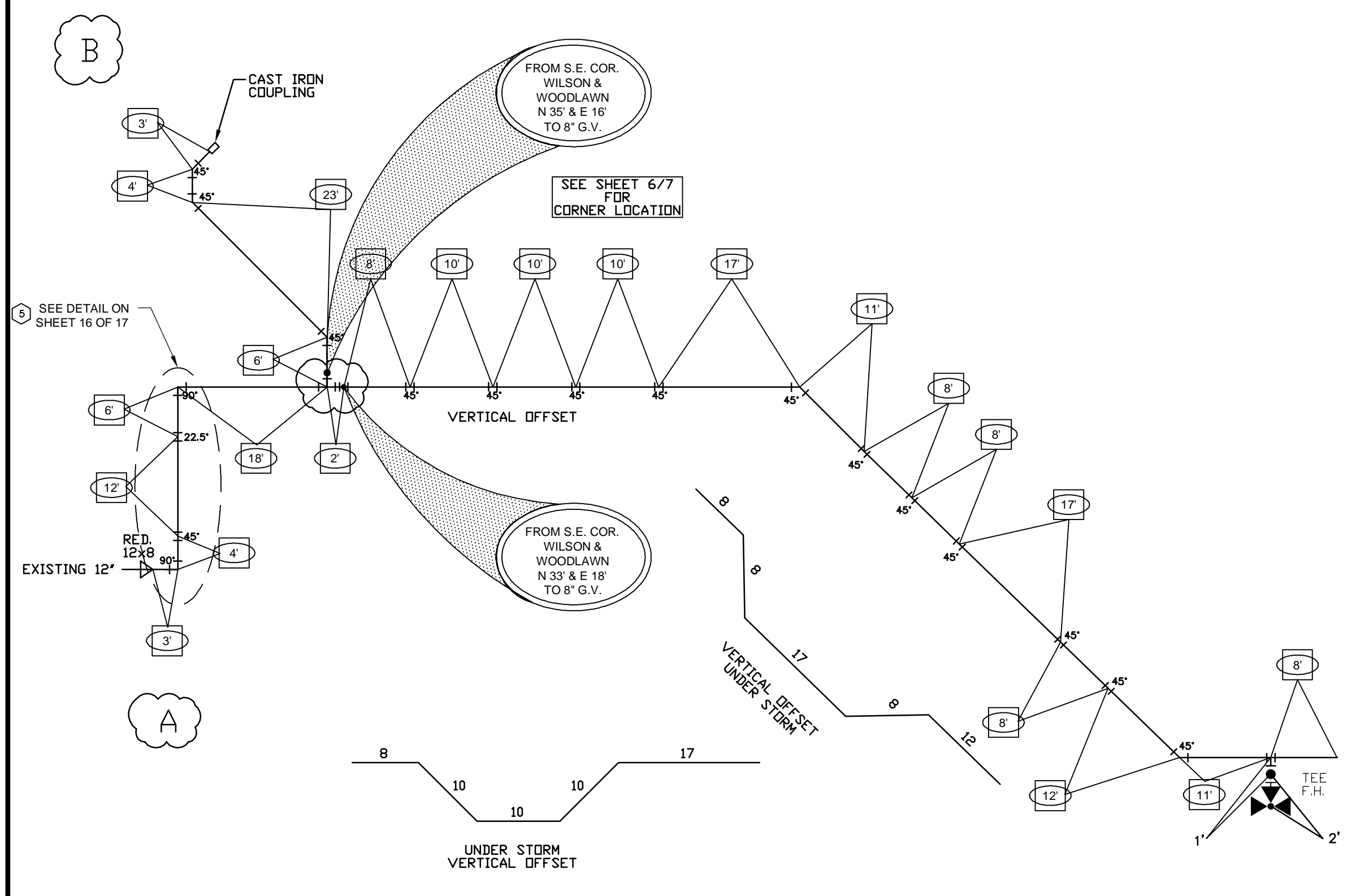
Δ	8/14/12	REVISED QUANTITIES	
NO	DATE	DESCRIPTION REVISIONS	DWGCHK

**AECOM**  
AECOM TECHNICAL SERVICES, INC.  
 6800 PARK TEN BLVD., SUITE 180 SOUTH  
 SAN ANTONIO, TEXAS 78213  
 WWW.AECOM.COM  
 TBPE REG. NO. F-3580

 **SAN ANTONIO WATER SYSTEM**  
**SEELING CHANNEL IMPROVEMENTS - PHASE I**  
**WATER LINE REPLACEMENTS**  
**JOB NO. 10-5010**

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 SEELING CHANNEL PHASE I

**SUMMARY QUANTITY SHEET**



LINE - "A" & "B" DETAIL  
NOT TO SCALE

TRACY B. LINDSEY  
99338  
LICENSED PROFESSIONAL ENGINEER

NO	DATE	DESCRIPTION REVISIONS	DWGCHK

**AECOM**

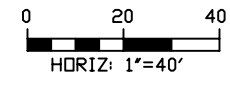
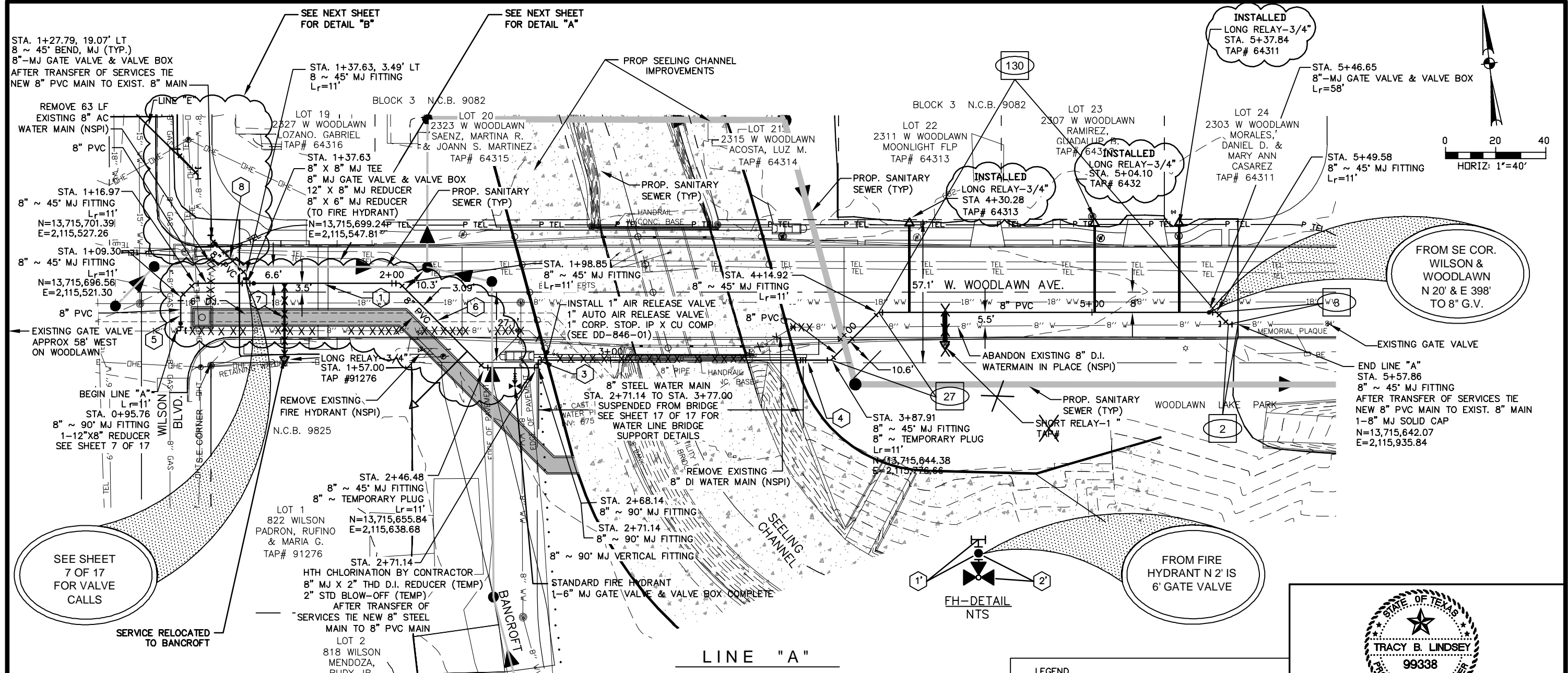
AECOM TECHNICAL SERVICES, INC.  
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SAN ANTONIO, TEXAS 78213  
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TBPPE REG. NO. F-3580

**SAN ANTONIO**  
WATER SYSTEM  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
SEELING CHANNEL PHASE I  
**W. WOODLAWN AVE.**  
LINE "A"  
DETAIL

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012	7 OF 17
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC	SHEET NO.





STA. 1+27.79, 19.07' LT  
8" ~ 45' BEND, MJ (TYP.)  
8" MJ GATE VALVE & VALVE BOX  
AFTER TRANSFER OF SERVICES TIE  
NEW 8" PVC MAIN TO EXIST. 8" MAIN

SEE NEXT SHEET  
FOR DETAIL "B"

SEE NEXT SHEET  
FOR DETAIL "A"

INSTALLED  
LONG RELAY-3/4"  
STA. 5+37.84  
TAP# 64311

STA. 5+46.65  
8" MJ GATE VALVE & VALVE BOX  
Lr=58'

REMOVE 63 LF  
EXISTING 8" AC  
WATER MAIN (NSPI)  
8" PVC

STA. 1+37.63  
8" X 8" MJ TEE  
8" MJ GATE VALVE & VALVE BOX  
12" X 8" MJ REDUCER  
8" X 6" MJ REDUCER  
(TO FIRE HYDRANT)

PROP. SEELING CHANNEL  
IMPROVEMENTS

INSTALLED  
LONG RELAY-3/4"  
STA. 4+30.28  
TAP# 64313

INSTALLED  
LONG RELAY-3/4"  
STA. 5+04.10  
TAP# 6432

STA. 5+49.58  
8" ~ 45' MJ FITTING  
Lr=11'

STA. 1+16.97  
8" ~ 45' MJ FITTING  
Lr=11'  
N=13,715,701.39  
E=2,115,527.26

PROP. SANITARY  
SEWER (TYP)

PROP. SANITARY  
SEWER (TYP)

PROP. SANITARY  
SEWER (TYP)

STA. 1+09.30  
8" ~ 45' MJ FITTING  
Lr=11'  
N=13,715,696.56  
E=2,115,521.30

PROP. SANITARY  
SEWER (TYP)

PROP. SANITARY  
SEWER (TYP)

PROP. SANITARY  
SEWER (TYP)

PROP. SANITARY  
SEWER (TYP)

EXISTING GATE VALVE  
APPROX 58' WEST  
ON WOODLAWN

LONG RELAY-3/4"  
STA. 1+57.00  
TAP #91276

INSTALL 1" AIR RELEASE VALVE  
1" AUTO AIR RELEASE VALVE  
1" CORP. STOP. IP X CU COMP  
(SEE DD-846-01)

8" STEEL WATER MAIN  
SUSPENDED FROM BRIDGE  
SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

ABANDON EXISTING 8" D.I.  
WATERMAIN IN PLACE (NSPI)

BEGIN LINE "A"  
Lr=11'  
STA. 0+95.76  
8" ~ 90' MJ FITTING  
1-12" X 8" REDUCER  
SEE SHEET 7 OF 17

REMOVE EXISTING  
FIRE HYDRANT (NSPI)

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

WILSON BLVD.  
N.C.B. 9825

LOT 1  
822 WILSON  
PADRON, RUFINO  
& MARIA G.  
TAP# 91276

LOT 2  
818 WILSON  
MENDOZA,  
RUDY JR.  
& LUCY  
TAP# 91275

STANDARD FIRE HYDRANT  
1-6" MJ GATE VALVE & VALVE BOX COMPLETE

STA. 3+87.91  
8" ~ 45' MJ FITTING  
8" ~ TEMPORARY PLUG  
Lr=11'  
N=13,715,644.38  
E=2,115,476.66

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SERVICE RELOCATED  
TO BANCROFT

LOT 2  
818 WILSON  
MENDOZA,  
RUDY JR.  
& LUCY  
TAP# 91275

STANDARD FIRE HYDRANT  
1-6" MJ GATE VALVE & VALVE BOX COMPLETE

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

SEE SHEET  
7 OF 17  
FOR VALVE  
CALLS

HTH CHLORINATION BY CONTRACTOR  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
AFTER TRANSFER OF  
SERVICES TIE NEW 8" STEEL  
MAIN TO 8" PVC MAIN

SEE SHEET 17 OF 17 FOR  
WATER LINE BRIDGE  
SUPPORT DETAILS

REMOVE EXISTING  
8" DI WATER MAIN (NSPI)

PROP. SANITARY  
SEWER (TYP)

LAST MODIFIED: Apr 26, 2016 - 3:52pm BY USER: yongkern  
 DWG NO: 101042860 SANITARY CHANNEL IMPROVEMENTS PLAN OF RECORD - WATER/WASTEWATER INSPECTOR BARRY SHIFF  
 DATE: 10/12/15

**TRENCH EXCAVATION SAFETY PROTECTION**

TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS OF PART 1926, SUBPART P-EXCAVATION, TRENCHING, AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS AND INTERPRETATIONS. THE CONTRACTOR/FOREMAN SHALL ALSO COMPLY WITH 550, TRENCH EXCAVATION PROTECTION, SAN ANTONIO WATER SYSTEM SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.

**NOTE**

ALL PVC MAINS ARE C900 CLASS 150 UNLESS OTHERWISE NOTED.

Item#	Description	Unit	QTY
550	Trench Excavation Safety Protection	LF	335
814	8" Steel Waterline (suspended)	LF	115
816	8" PVC Waterline	LF	290
818	12" PVC Waterline	LF	45
818	Relay 3/4" Long Service	EA	4
818	Relay 1" Short Service	EA	1
824	8" Gate Valve	EA	3
828	12" Gate Valve	EA	1
828	Existing Meter & Existing Meter Box Relocation	EA	5
833	Pipe Fitting, all sizes and types	TON	1.72
836	Water line tie in 8"	EA	4
840	Water line tie in 12"	EA	1
840	Fire Hydrant Assembly, Complete	EA	1
834	Hydrostatic Testing	EA	3
841	2" Blowoff Temporary	EA	3
844	Air Release Assembly	EA	1

**CPS AND TELEPHONE COMPANY NOTES**

CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005. 48 HOURS BEFORE ANY CONSTRUCTION.

DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR/FOREMAN MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

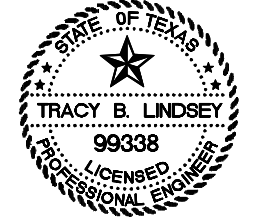
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREA.

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR/FOREMAN IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF POWER POLES AND UNDERGROUND ELECTRIC CABLES DURING (NSPI) CONSTRUCTION. 48 HOURS BEFORE BEGINNING ANY EXCAVATION, CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005. CONTRACTOR TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.

- KEY NOTE:**
- ① ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 1 ON SHEET 14 OF 16.
  - ② REFER WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 5 ON SHEET 14 OF 16
  - ③ SEE DETAIL 6 ON SHEET 14 OF 17 FOR VERTICAL BEND AND PLUG DETAIL.
  - ④ SEE DETAIL 7 ON SHEET 14 OF 17 FOR VERTICAL BEND AND PLUG DETAIL.
  - ⑤ ROUTE WATER LINE OVER EXISTING STORM DRAIN. REFER TO DETAIL 1 ON SHEET 15 OF 17.
  - ⑥ ROUTE WATER LINE UNDER EXISTING STORM DRAIN. REFER TO DETAIL 2 ON SHEET 15 OF 17.
  - ⑦ ROUTE SERVICE LINE UNDER EXISTING STORM DRAIN. REFER TO DETAIL 3 ON SHEET 15 OF 17.
  - ⑧ STA 1+31 (OFFSET 6' NORTH) CENTER ONE JOINT OF PROPOSED 8" PVC OVER PROPOSED SANITARY SEWER MAIN.

**LEGEND**

- PROPOSED 30" SANITARY SEWER
- PROPOSED 21" SANITARY SEWER
- PROPOSED 8"-15" SANITARY SEWER
- PROPOSED WATER MAIN
- KEY NOTE
- REMOVE EXISTING WATER MAIN
- UTILITY POLE LINE
- DUAL BRANCH SERV.
- 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



NO	DATE	DESCRIPTION	DWG	CHK

**AECOM**  
 AECOM TECHNICAL SERVICES, INC.  
 6800 PARK TEN BLVD., SUITE 180 SOUTH  
 SAN ANTONIO, TEXAS 78213  
 WWW.AECOM.COM  
 TBP REG. NO. F-3580

**SAN ANTONIO WATER SYSTEM**  
 SEELING CHANNEL IMPROVEMENTS - PHASE I  
 WATER LINE REPLACEMENTS  
 JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I  
 WATER LINE PLAN  
 W. WOODLAWN AVE.  
 LINE "A"

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC

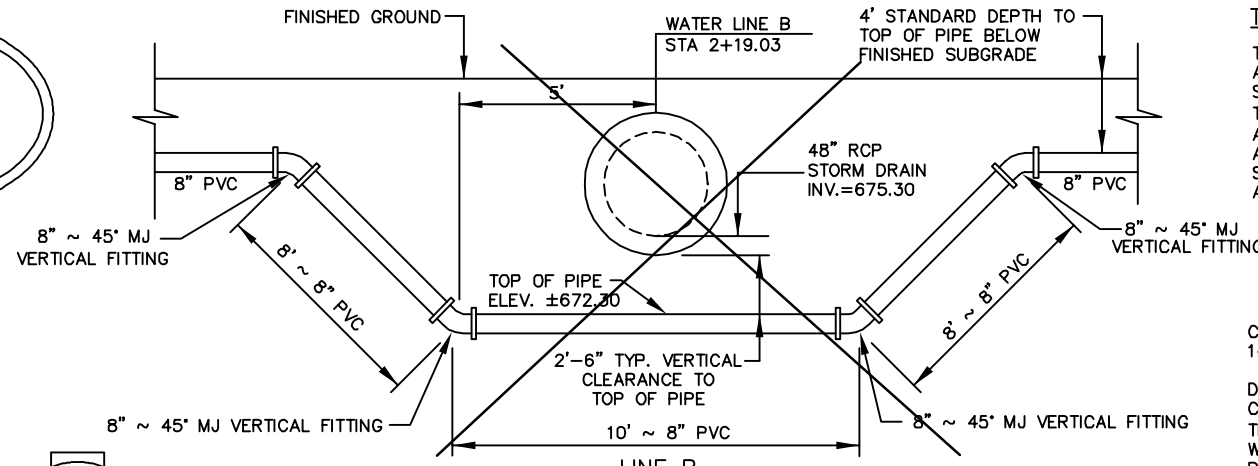


NOTE TO CONTRACTOR:  
SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION AND LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

**TRENCH EXCAVATION SAFETY PROTECTION**  
TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS OF PART 1926, SUBPART P-EXCAVATION, TRENCHING, AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS AND INTERPRETATIONS. THE CONTRACTOR/FOREMAN SHALL ALSO COMPLY WITH 550, TRENCH EXCAVATION PROTECTION, SAN ANTONIO WATER SYSTEM SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.

**CPS AND TELEPHONE COMPANY NOTES**  
CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005. 48 HOURS BEFORE ANY CONSTRUCTION.  
DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR/FOREMAN MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREA.  
THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR/FOREMAN IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF POWER POLES AND UNDERGROUND ELECTRIC CABLES DURING (NSPI) CONSTRUCTION. 48 HOURS BEFORE BEGINNING ANY EXCAVATION. CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005. CONTRACTOR TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.



DETAIL 1 - WATER CROSSING UNDER STORM DRAIN  
NOT TO SCALE

BEGIN LINE "B"  
STA. 0+50.00  
8" ~ 11.25' MJ FITTING  
L<sub>r</sub>=11'  
AFTER TRANSFER OF SERVICES TIE NEW 8" PVC MAIN TO EXIST. 8" MAIN  
N=13,716,099.81  
E=2,115,566.59  
INSTALL FOR MACHINE CHLORINATION BY SAWS:  
2-1" CORP. STOP CC X IP  
2-1" COPPER TUBING, CUT AS REQUIRED  
2-1" COMP. X 1 1/4" COUPLING CURB STOP  
2-1 1/4" SOLID CAPS, THR.

STANDARD FIRE HYDRANT  
1-6" MJ GATE VALVE & VALVE BOX COMPLETE  
10'± 6" D.I. PIPE  
N=13,716,090.67  
E=2,115,558.09

STA. 0+68.03  
8" ~ 22.5' MJ FITTING  
L<sub>r</sub>=11'

STA. 0+85.39  
8" ~ 45' MJ FITTING  
L<sub>r</sub>=11'

REMOVE 175 LF EXISTING D.I. WATER MAIN (NSPI)

FROM F.H. "B" S 32' & E 42' TO 8" X 8" TEE

FROM F.H. "B" S 31' & E 44' TO 8" G.V.

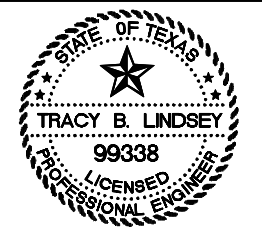
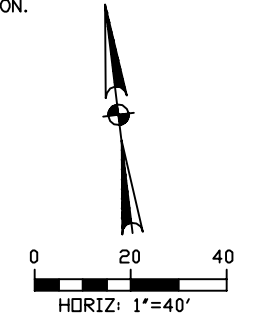
FROM F.H. "B" TO WEST S 60' & E 248' TO 8" G.V.

Item #	Description	Unit	QTY
800	Trench Excavation Safety Protection	LF	300
810	8" PVC Waterline	LF	25
815	8" PVC Waterline	LF	275
824	Relay 3/4" Long Service	EA	1
824	Relay 3/4" Short Service	EA	4
824	Service Reconnect	EA	4
825	8" Gate Valve	EA	2
822	Sealing Meter & Sealing Water Box Relocation	EA	4
824	Fire Hydrant Assembly, Complete	EA	1
830	Pipe Fitting, all sizes and types	TON	0.67
840	Waterline in 8"	EA	1
840	Waterline in 6"	EA	1
841	Hydrostatic Testing	EA	1
844	2' Gloveoff Temporary	EA	1

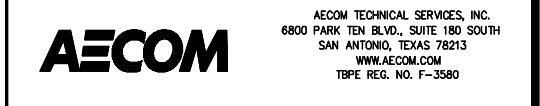
- KEY NOTES:**
- CONSTRUCT WATER LINE FROM NOTED P.C. TO P.T. ON RADIUS BY DEFLECTING PIPE JOINTS. DO NOT EXCEED MANUFACTURERS MAX. RECOMMENDED JOINT DEFLECTION.
  - ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 1 THIS SHEET.
  - ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 3 SHEET 15 OF 17.

**LEGEND**

PROPOSED 30" SANITARY SEWER	
PROPOSED 21" SANITARY SEWER	
PROPOSED 8"-15" SANITARY SEWER	
PROPOSED WATER MAIN	
KEY NOTE	
REMOVE EXISTING WATER MAIN	
UTILITY POLE LINE	
DUAL BRANCH SERV.	
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	



NO	DATE	DESCRIPTION REVISIONS	DWGCHK



**SAN ANTONIO WATER SYSTEM**  
SEALING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEALING CHANNEL PHASE I  
**WATER LINE PLAN**  
W. MISTLETOE AVE. (NE)  
LINE "B"

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC

LAST MODIFIED: Apr 26, 2016 - 1:27pm BY USER: gonzalezr1  
NO. LOCATION: P:\0145860 Sealing Channel (Automated)\DWG\10-5010-01.dwg  
DWG. NAME: Water Line Plan - Sealing Channel Improvements - Phase I - 10-5010

**NOTE**  
ALL PVC MAINS ARE C900 CLASS 150 UNLESS OTHERWISE NOTED.

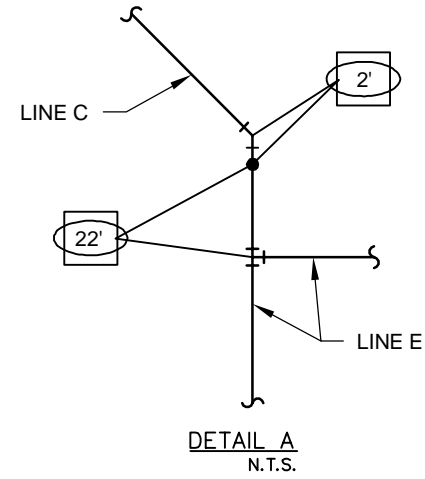
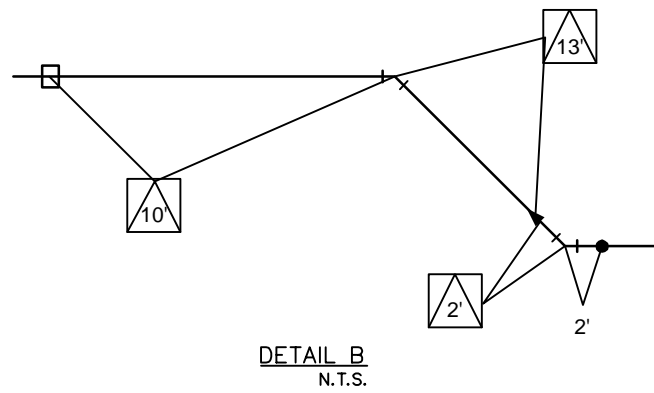


NOTE TO CONTRACTOR:  
SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION AND LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

NOTE  
ALL PVC MAINS ARE C900 CLASS 150 UNLESS OTHERWISE NOTED.

KEY NOTE:

- ① ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 1 THIS SHEET.
- ② ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 4 SHEET 16 OF 17.
- ③ ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 3 SHEET 15 OF 17.
- ③ CONCRETE ENCASE PROPOSED 8" WATER MAIN STA 4+06 TO STA 4+82



TRENCH EXCAVATION SAFETY PROTECTION

TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS OF PART 1926, SUBPART P-EXCAVATION, TRENCHING, AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS AND INTERPRETATIONS. THE CONTRACTOR/FOREMAN SHALL ALSO COMPLY WITH 550. TRENCH EXCAVATION PROTECTION, SAN ANTONIO WATER SYSTEM SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.

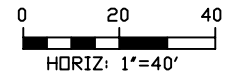
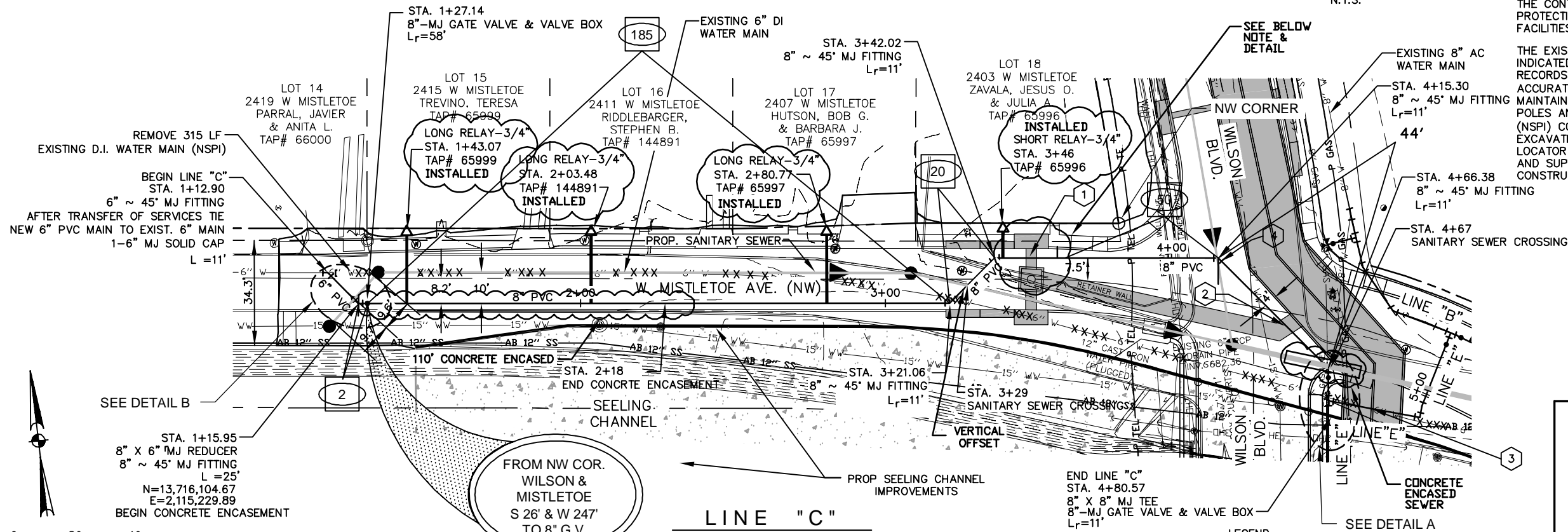
CPS AND TELEPHONE COMPANY NOTES

CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005. 48 HOURS BEFORE ANY CONSTRUCTION.

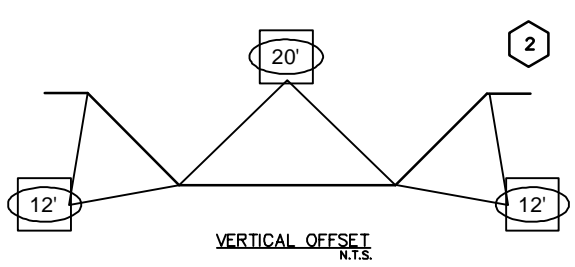
DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR/FOREMAN MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREA.

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR/FOREMAN IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF POWER POLES AND UNDERGROUND ELECTRIC CABLES DURING (NSPI) CONSTRUCTION. 48 HOURS BEFORE BEGINNING ANY EXCAVATION. CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005. CONTRACTOR TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.



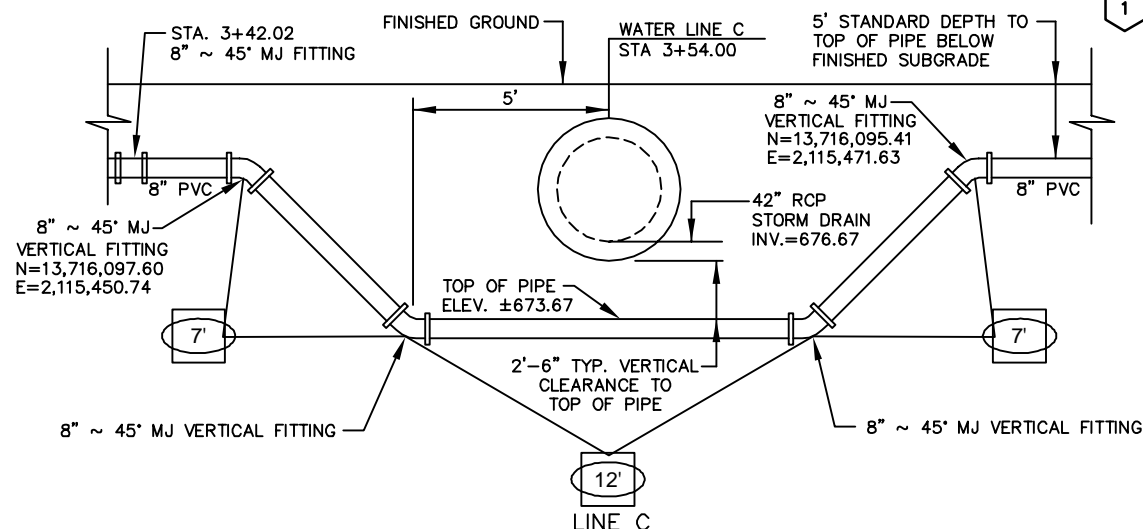
LINE "C"



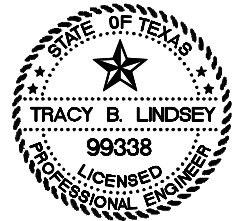
LEGEND

- PROPOSED 30" SANITARY SEWER
- PROPOSED 21" SANITARY SEWER
- PROPOSED 8"-15" SANITARY SEWER
- PROPOSED WATER MAIN
- KEY NOTE
- REMOVE EXISTING WATER MAIN
- UTILITY POLE LINE
- DUAL BRANCH SERV.
- 3/4" SINGLE
- 1" DUAL SERVICE RECONNECT: 3/4"
- 1" OR LARGER SERVICE RELAY:
- 3/4" SERVICE & RELAY
- 1" OR LARGER SERVICE RELOCATE: 3/4"
- 1" OR LARGER RELOCATE METER
- NEW SERVICE: 3/4" 1" OR LARGER

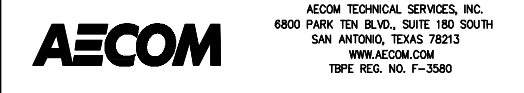
Item #	Description	Unit	QTY
550	Trench Excavation Safety Protection	LF	385
818	6" PVC Waterline	LF	20
818	8" PVC Waterline	LF	365
824	Relay 3/4" Long Service	EA	3
824	Relay 3/4" Short Service	EA	1
828	8" Gate Valve	EA	2
833	Existing Meter & Existing Meter Box Relocation	EA	4
836	Pipe Fitting, all sizes and types	TON	0.93
840	Water line tie in 6"	EA	1
844	2" Blowoff Temporary	EA	1
858	Concrete Encasement	CY	17



DETAIL 1 - WATER CROSSING UNDER STORM DRAIN NOT TO SCALE



NO	DATE	DESCRIPTION REVISIONS	DWGCHK



**SAN ANTONIO WATER SYSTEM**  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I  
**WATER LINE PLAN**  
W. MISTLETOE AVE. (NW)  
LINE "C"

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC
SHEET NO.		

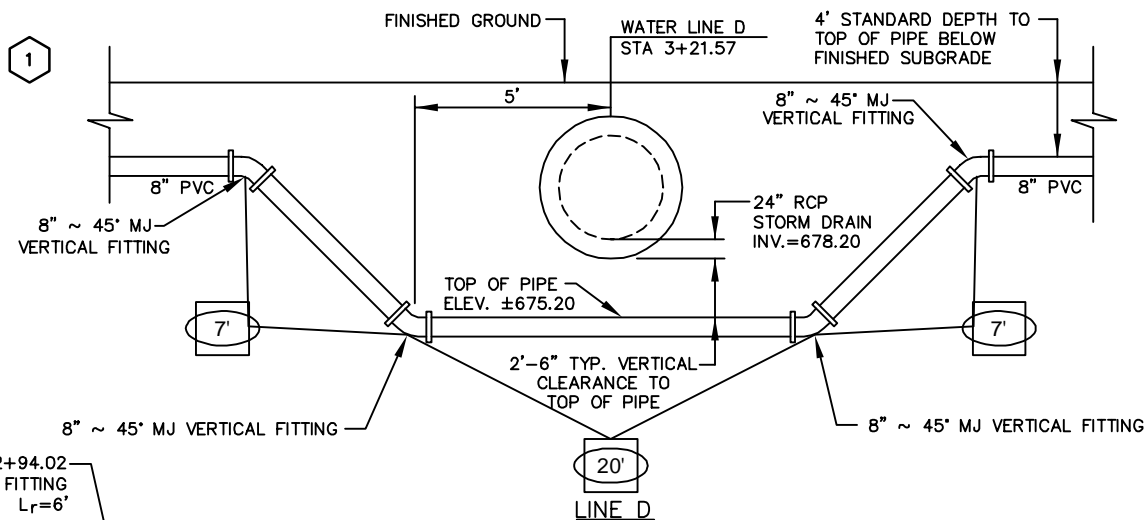
LAST MODIFIED: Apr 26, 2016 - 8:51am BY: USER: gonzalezr  
 FILE: C:\Users\ggonzalezr\Documents\SanAntonio\Water\Phase I\10-5010\10-5010-01.dwg  
 DWG: 10-5010-01.dwg  
 PLOT: 10-5010-01.dwg  
 PLOT DATE: 7/26/2012 10:51:00 AM  
 PLOT BY: ggonzalezr

NOTE TO CONTRACTOR:  
SEE TREE PRESERVATION PLAN FOR DETAILED  
DESCRIPTION AND LOCATION OF TREES AFFECTED  
BY PROJECT CONSTRUCTION.

KEY NOTE:

- 1 ROUTE WATER LINE UNDER PROP. STORM DRAIN.  
REFER TO DETAIL 1 THIS SHEET.
- 2 ENCASE PROPOSED 8" WATER LINE IN 20 LF  
OF 15" PVC (ASTM D-2241) CENTERD ON STA 1+30.  
SUPPORT THE SPACE AROUND THE CARRIER PIPE AT  
5' INTERVALS OR FILL TO SPRINGLINE WITH WASHED  
SAND. ENCASMENT PIPE SHALL BE SEALED AT BOTH  
END WITH CEMENT GROUT OR MANUFACTURED SEALANT.

NOTE  
ALL PVC MAINS ARE C900 CLASS 150  
UNLESS OTHERWISE NOTED.



TRENCH EXCAVATION SAFETY PROTECTION

TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS OF PART 1926, SUBPART P-EXCAVATION, TRENCHING, AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS AND INTERPRETATIONS. THE CONTRACTOR/FOREMAN SHALL ALSO COMPLY WITH 550, TRENCH EXCAVATION PROTECTION, SAN ANTONIO WATER SYSTEM SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.

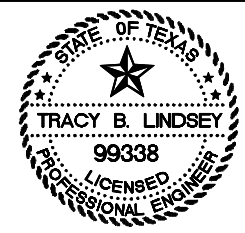
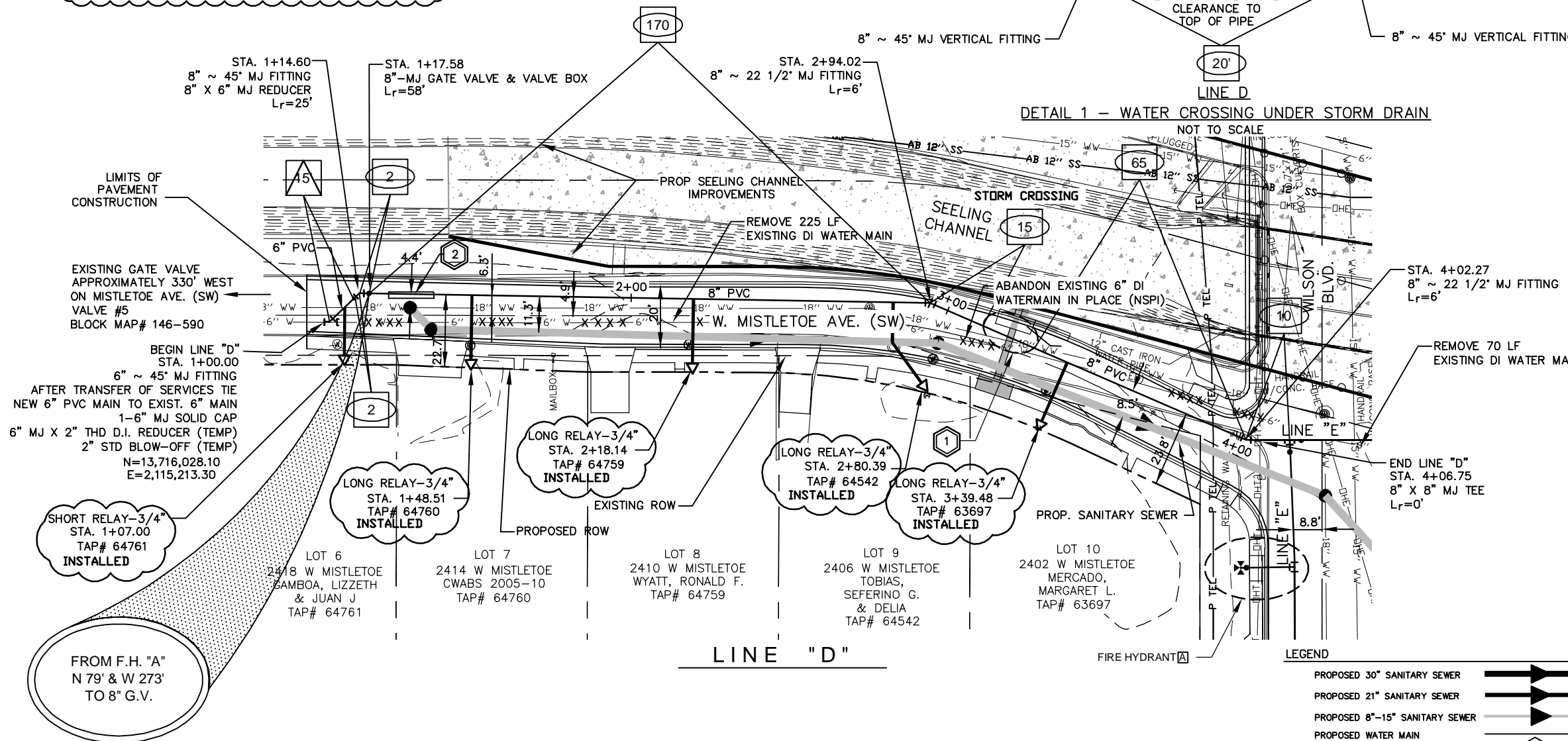
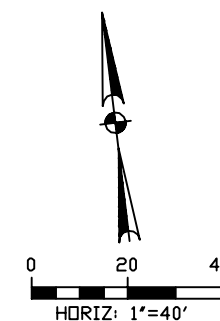
CPS AND TELEPHONE COMPANY NOTES

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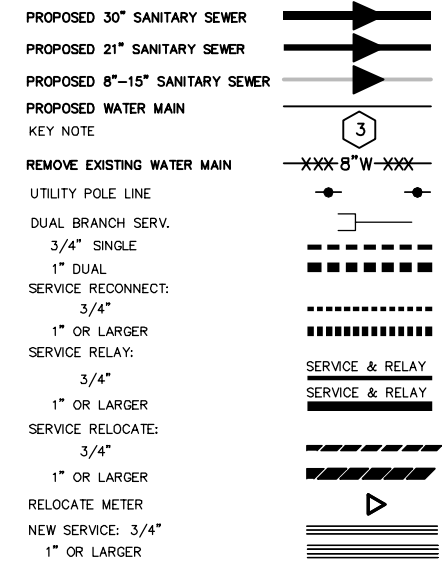
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Item #	Description	Unit	QTY
550	Trench Excavation Safety Protection	LF	310
818	6" PVC Waterline	LF	15
818	8" PVC Waterline	LF	295
824	Relay 3/4" Long Service	EA	4
824	Relay 3/4" Short Service	EA	1
828	8" Gate Valve	EA	1
833	Existing Meter & Existing Meter Box Relocation	EA	5
836	Pipe Fitting, all sizes and types	TON	0.69
840	Water line tie in 6"	EA	1
844	2" Blowoff Temporary	EA	1



NO	DATE	DESCRIPTION REVISIONS	DWGCHK



CITY OF SAN ANTONIO  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I  
WATER LINE PLAN  
W. MISTLETOE AVE. (SW)  
LINE "D"

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC

LAST MODIFIED: Apr 26, 2016 - 1:28pm BY USER: gonzalezr1  
 DWG. LOCATION: P:\0145860\_Seaning\_Channel\_Improvements\10-5010\10-5010.dwg  
 DWG. NAME: Water Line Plan for Sealing Channel Improvements.dwg  
 PLOT DATE: 7/26/2012 10:50:10 AM



NOTE TO CONTRACTOR:  
SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION AND LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

KEY NOTE:

- 1 ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL THIS SHEET.
- 2 ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 3 ON SHEET 15 OF 17.
- 3 SEE DETAIL B ON SHEET 15 OF 17 FOR VERTICAL BEND AND PLUG DETAIL.
- 4 CONTRACTOR TO INSTALL 8" CUT-IN-VALVE EXISTING 8" STEEL WATER LINE WITH PHASE 3 STEP 1 AS IDENTIFIED IN TRAFFIC CONTROL PLANS. NO SEPARATE PAY ITEM  
N=13,715,952.35  
E=2,115,554.80
- 5 STA 1+47 CENTER ONE JOINT OF PROPOSED 8" PVC OVER EXISTING SANITARY SEWER MAIN

NOTE

ALL PVC MAINS ARE C900 CLASS 150 UNLESS OTHERWISE NOTED.

SHUT OFF VALVE NOTE:

ENGINEER RECOMMENDS CONTRACTOR CLOSES THE FOLLOWING VALVES TO ISOLATE LINE "E". ALL VALVES TO BE FIELD VERIFIED. SAWS WATER BLOCK MAP# 146-588 VALVE # 51 SAWS WATER BLOCK MAP# 146-590 VALVE # 02

TRENCH EXCAVATION SAFETY PROTECTION

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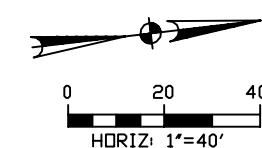
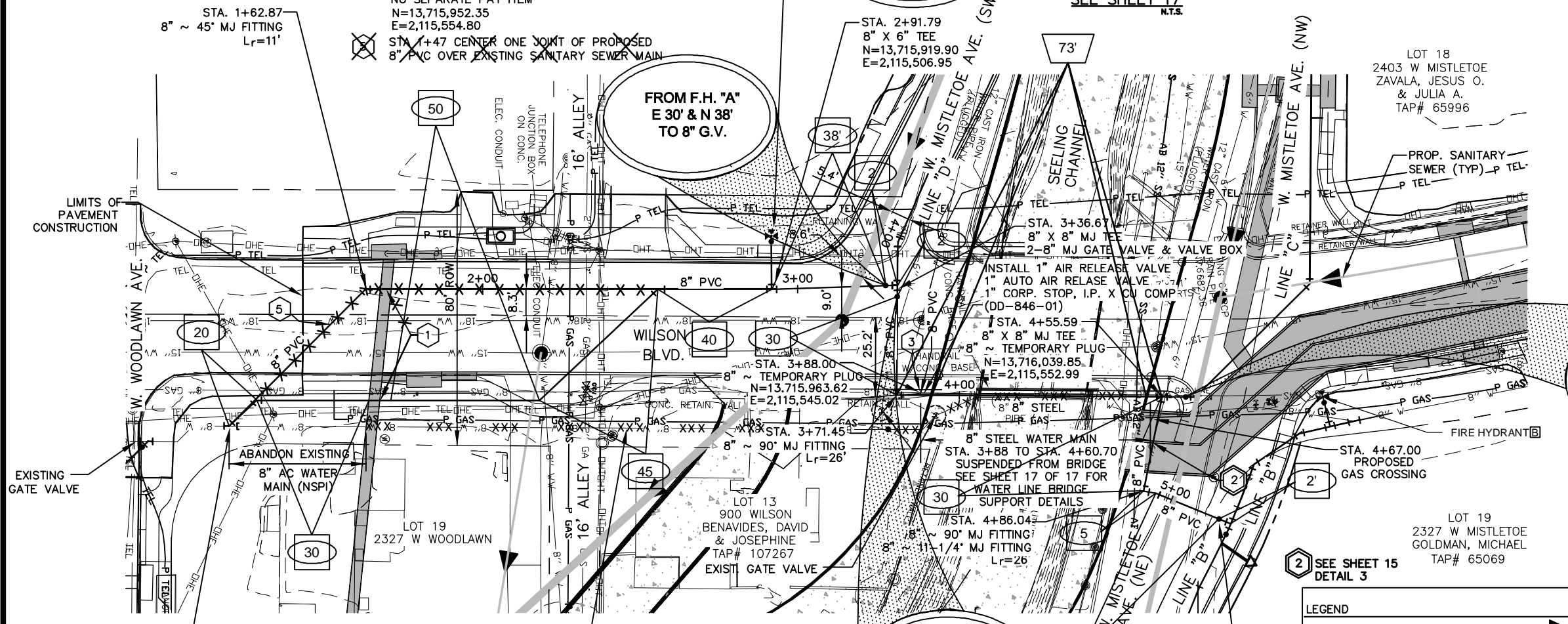
CPS AND TELEPHONE COMPANY NOTES

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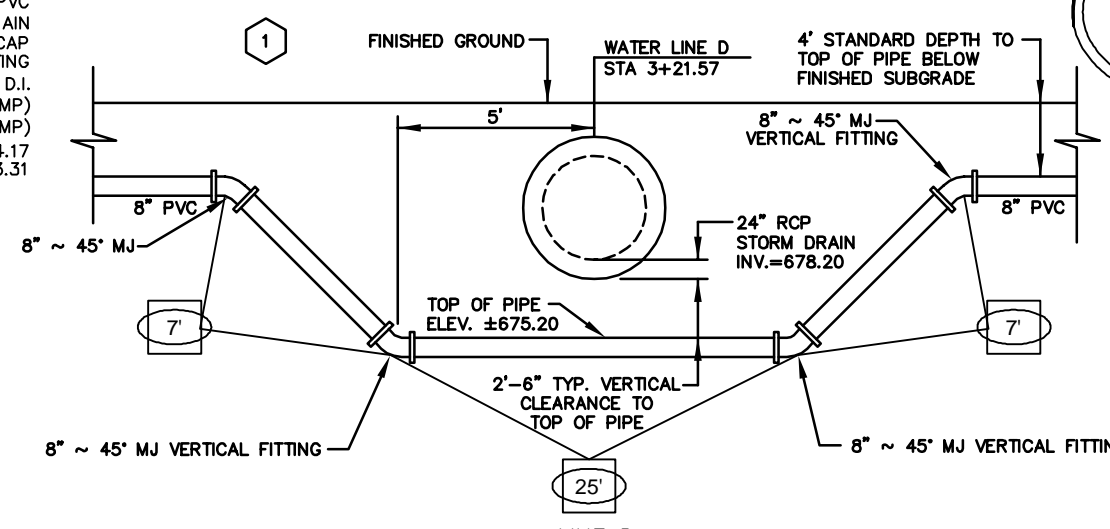
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AFTER TRANSFER OF SERVICES TIE NEW 8" PVC MAIN TO EXIST. 8" MAIN  
1-8" MJ SOLID CAP  
8" ~ 45" MJ FITTING  
8" MJ X 2" THD D.I. REDUCER (TEMP)  
2" STD BLOW-OFF (TEMP)  
N=13,715,744.17  
E=2,115,533.31



DETAIL 1 - WATER CROSSING UNDER STORM DRAIN  
NOT TO SCALE

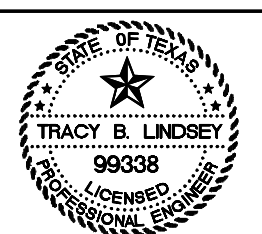
FROM F.H. "A" E 32' & N 40' TO 8" G.V.

NOTE: CONTRACTOR TO TIE PROPOSED MAIN AND FITTINGS INTO EXISTING D.I. WATER MAIN. CONTRACTOR SHALL NOTIFY ENGINEER IF EXISTING MAIN IS A.C. AT TIE-IN LOCATION.

Item #	Description	Unit	QTY
550	Trench Excavation Safety Protection	LF	370
816	8" Steel Waterline (suspended)	LF	52
818	8" PVC Waterline	LF	370
828	8" Gate Valve	EA	3
834	Fire Hydrant Assembly, Complete	EA	1
836	Pipe Fitting, all sizes and types	TON	0.71
840	Water line tie in 8"	EA	1
844	2" Blowoff Temporary	EA	1
846	Air Release Assembly	EA	1
3000.06	Removal, Transportation and Disposal of AC Pipe	LF	20

LEGEND

- PROPOSED 30" SANITARY SEWER
- PROPOSED 21" SANITARY SEWER
- PROPOSED 8"-15" SANITARY SEWER
- PROPOSED WATER MAIN
- KEY NOTE
- REMOVE EXISTING WATER MAIN
- UTILITY POLE LINE
- DUAL BRANCH SERV.
- 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



**SAN ANTONIO WATER SYSTEM**  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

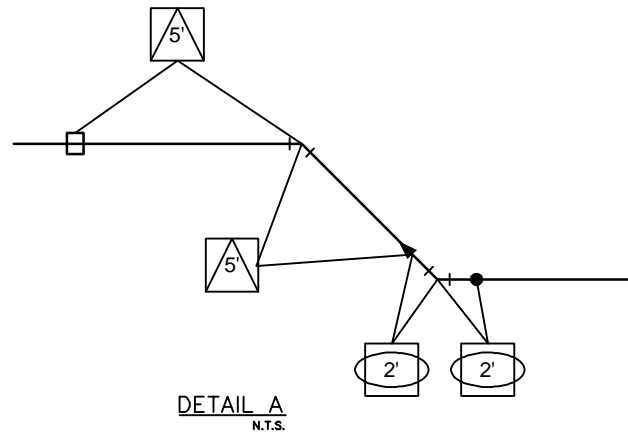
**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I  
WATER LINE PLAN  
WILSON BLVD.  
LINE "E"

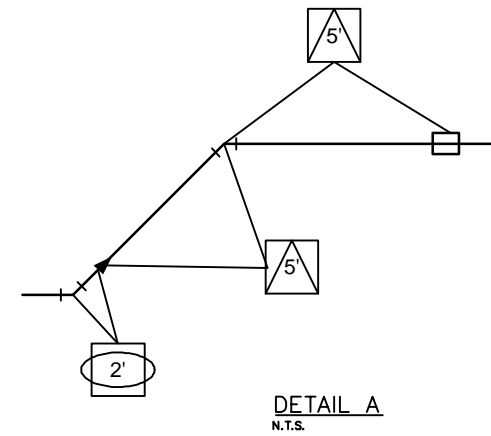
BID SUBMITTAL PROJECT NO.: 60184822 DATE: JULY 2012  
DRWN. BY: M.G. DSGN. BY: T.W. CHKD. BY: CC SHEET NO.

LAST MODIFIED: Apr 26, 2016 - 1:37pm BY: USER: gonzalez  
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 DWG: 10-5010-Waterline\_Replacement\_Plan.dwg  
 PLOT: 10-5010-Waterline\_Replacement\_Plan.dwg

NOTE TO CONTRACTOR:  
SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION AND LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.



NOTE  
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**TRENCH EXCAVATION SAFETY PROTECTION**  
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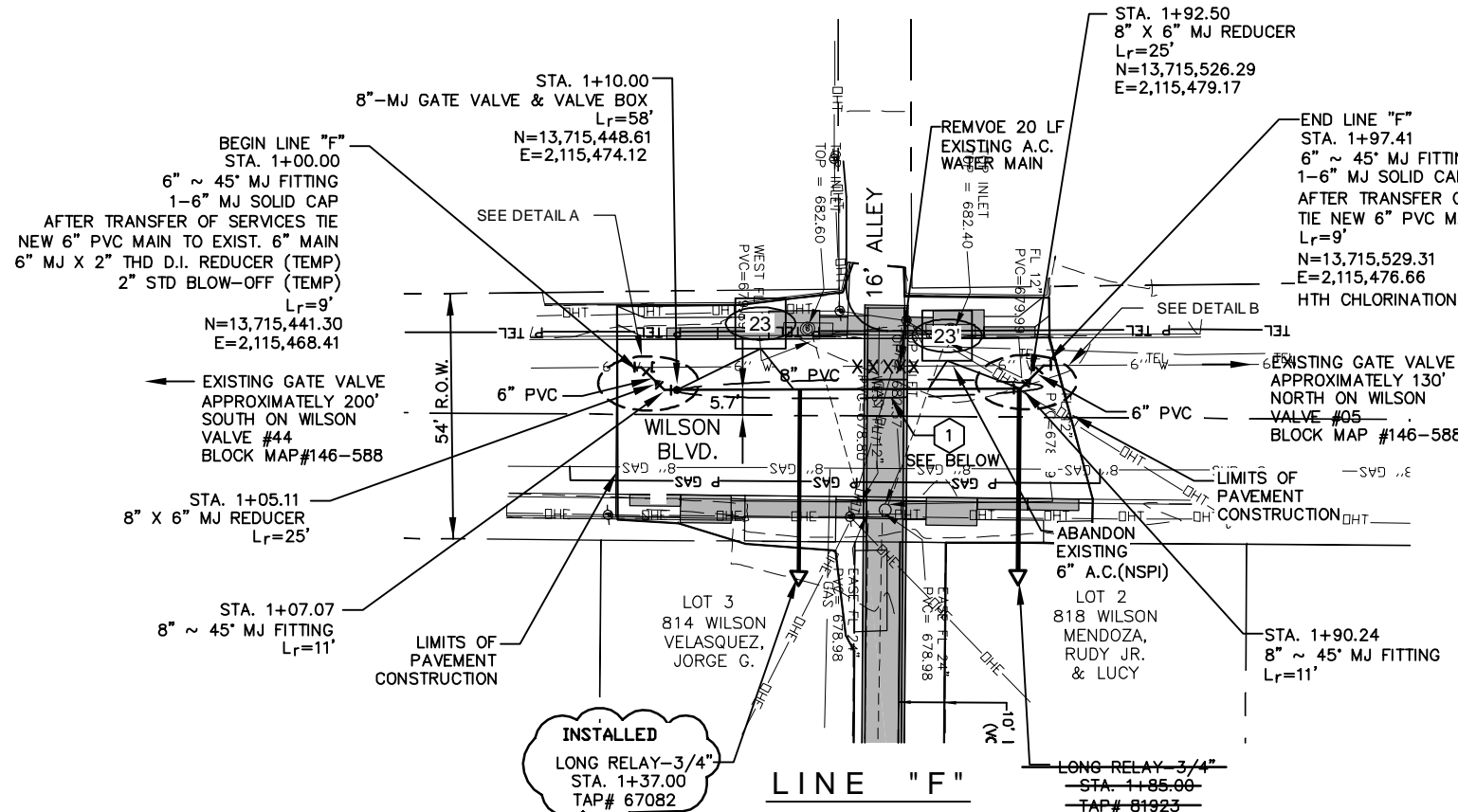
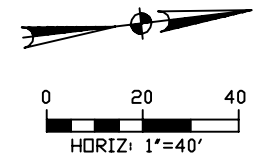
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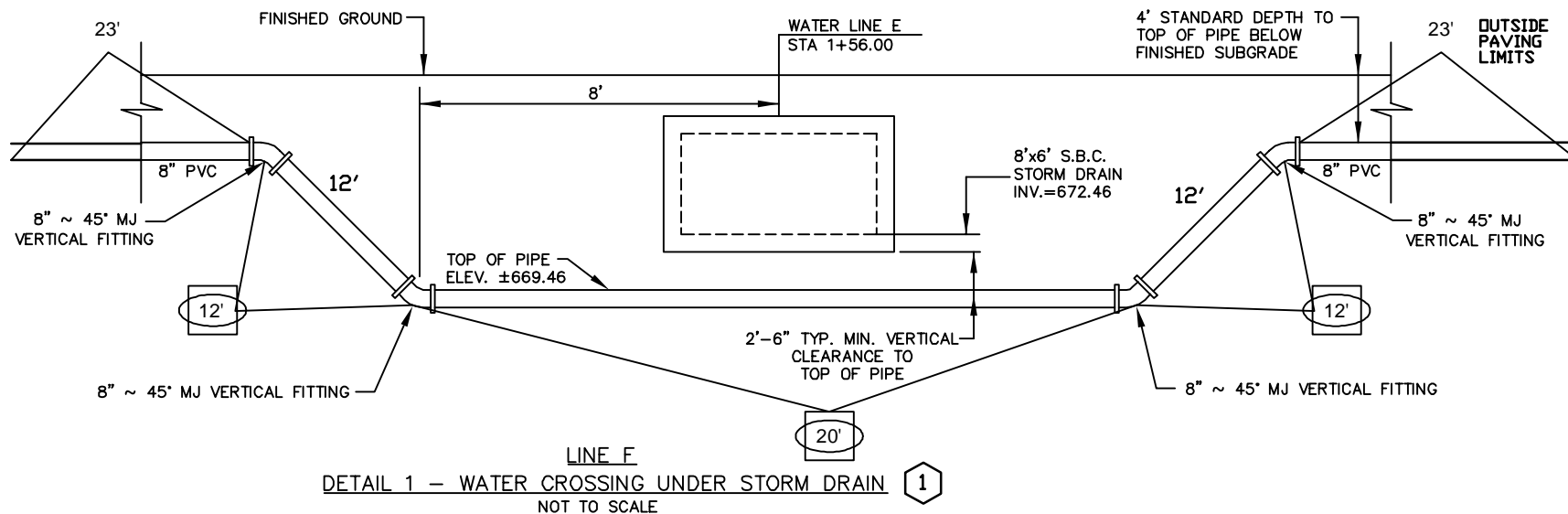
KEY NOTE:  
① ROUTE WATER LINE UNDER PROP. STORM DRAIN. REFER TO DETAIL 1 THIS SHEET.



Item #	Description	Unit	QTY
550	Trench Excavation Safety Protection	LF	100
818	6" PVC Waterline	LF	10
818	8" PVC Waterline	LF	90
824	Relay 3/4" Long Service	EA	2
828	8" Gate Valve	EA	1
833	Existing Meter & Existing Meter Box Relocation	EA	2
836	Pipe Fitting, all sizes and types	TON	0.58
840	Water line tie in 6"	EA	2
841	Hydrostatic Testing	EA	1
844	2" Blowoff Temporary	EA	1
3000.06	Removal, Transportation and Disposal of AC Pipe	LF	20

**LEGEND**

PROPOSED 30" SANITARY SEWER	
PROPOSED 21" SANITARY SEWER	
PROPOSED 8"-15" SANITARY SEWER	
PROPOSED WATER MAIN	
KEY NOTE	③
REMOVE EXISTING WATER MAIN	
UTILITY POLE LINE	
DUAL BRANCH SERV.	
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	



**TRACY B. LINDSEY**  
99338  
LICENSED PROFESSIONAL ENGINEER

NO	DATE	DESCRIPTION	DWG	CHK

AECOM TECHNICAL SERVICES, INC.  
6800 PARK TEN BLVD., SUITE 180 SOUTH  
SAN ANTONIO, TEXAS 78213  
WWW.AECOM.COM  
TBP REG. NO. F-3580

**SAN ANTONIO WATER SYSTEM**  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
SEELING CHANNEL PHASE I  
**WATER LINE PLAN**  
WILSON BLVD.  
LINE "F"

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC
SHEET NO.		12 OF 17

LAST MODIFIED: Apr 26, 2016 - 1:30pm BY: USER: gonzalezr  
 DWG. LOCATION: P:\014586 Sealing Channel Improvements\10-5010\10-5010.dwg  
 DWG. NAME: Water Line Plan for Inspector 807.dwg  
 USER: gonzalezr



NOTE TO CONTRACTOR:  
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**NOTE**

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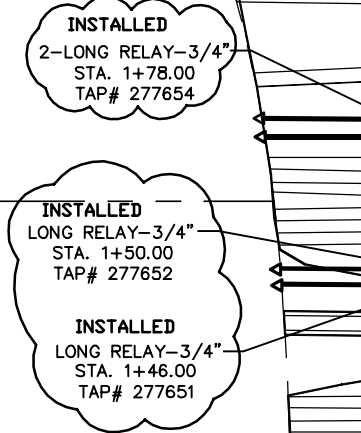
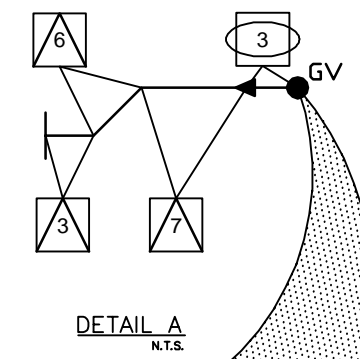
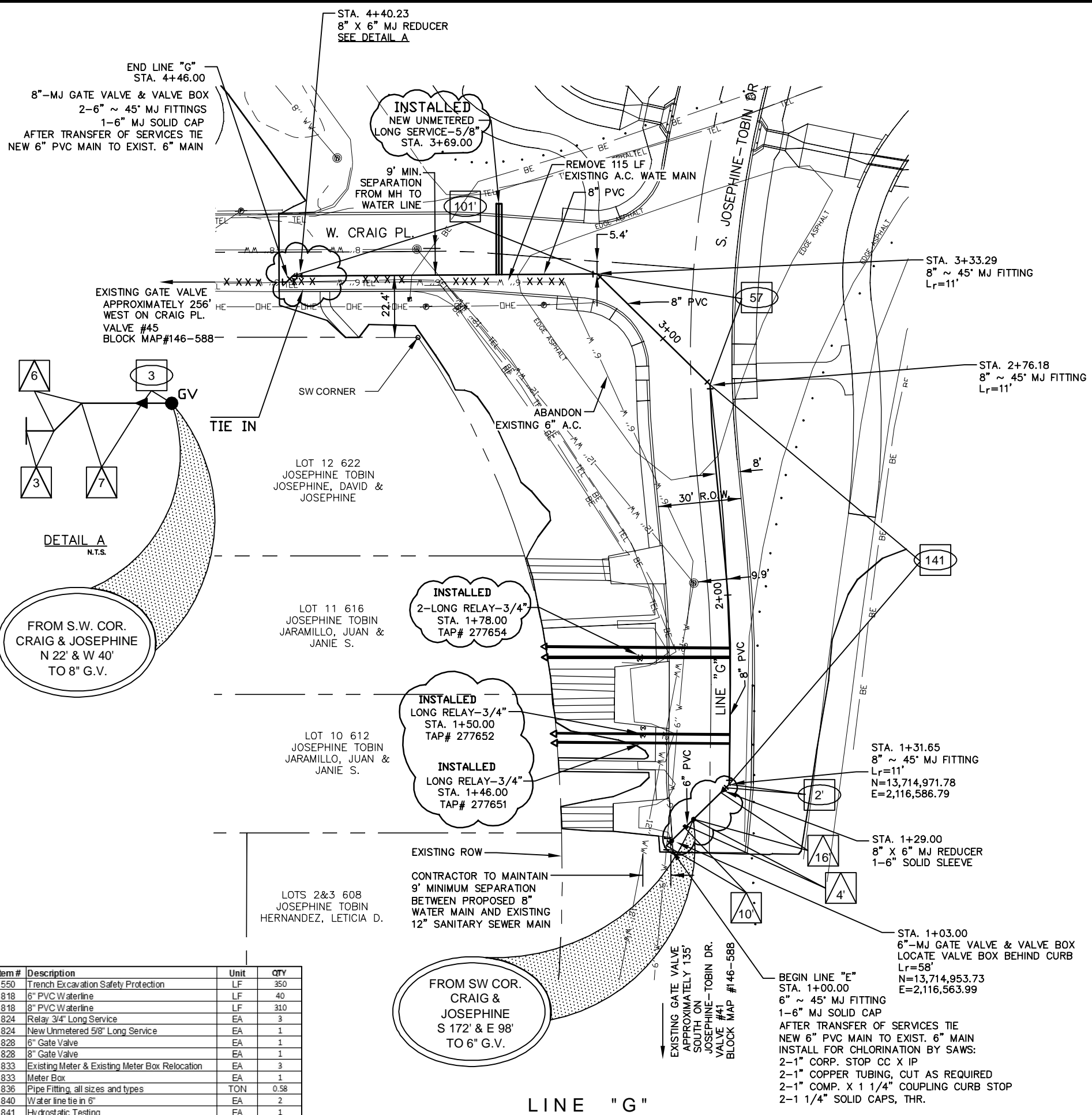
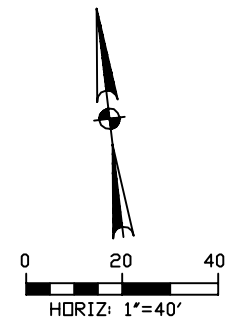
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Item #	Description	Unit	QTY
550	Trench Excavation Safety Protection	LF	350
818	6" PVC Waterline	LF	40
818	8" PVC Waterline	LF	310
824	Relay 3/4" Long Service	EA	3
824	New Unmetered 5/8" Long Service	EA	1
828	6" Gate Valve	EA	1
828	8" Gate Valve	EA	1
833	Existing Meter & Existing Meter Box Relocation	EA	3
833	Meter Box	EA	1
836	Pipe Fitting, all sizes and types	TON	0.58
840	Water line tie in 6"	EA	2
841	Hydrostatic Testing	EA	1
844	2" Blowoff Temporary	EA	1
3000.06	Removal, Transportation and Disposal of AC Pipe	LF	115

**LEGEND**

PROPOSED 30" SANITARY SEWER	
PROPOSED 21" SANITARY SEWER	
PROPOSED 8"-15" SANITARY SEWER	
PROPOSED WATER MAIN	
KEY NOTE	
REMOVE EXISTING WATER MAIN	

**TRACY B. LINDSEY**  
99338  
LICENSED PROFESSIONAL ENGINEER

NO	DATE	DESCRIPTION REVISIONS	DWGCHK

AECOM TECHNICAL SERVICES, INC.  
6800 PARK TEN BLVD., SUITE 180 SOUTH  
SAN ANTONIO, TEXAS 78213  
WWW.AECOM.COM  
TBP REG. NO. F-3580

**SAN ANTONIO WATER SYSTEM**  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

SEELING CHANNEL PHASE I  
**WATER LINE PLAN**  
S. JOSEPHINE-TOBIN DR.  
LINE "G"

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC

13 OF 17

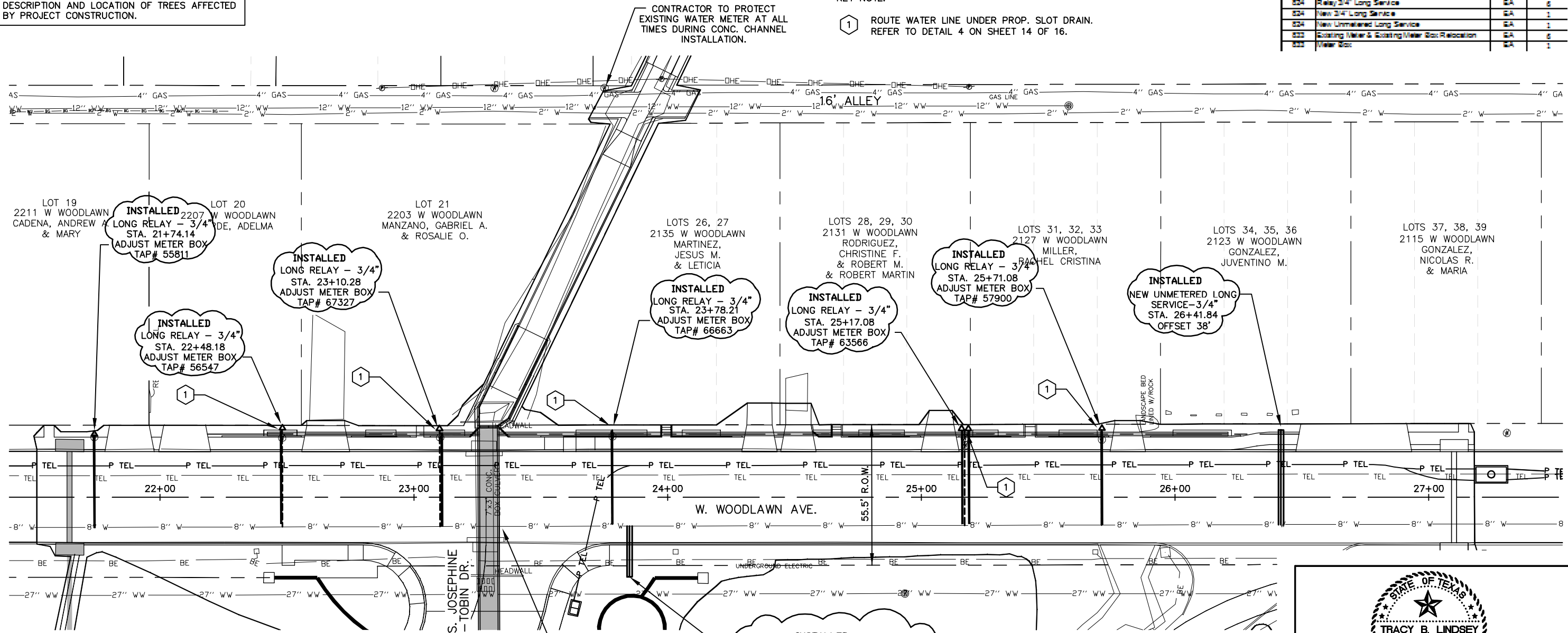
LAST MODIFIED: Apr 28, 2016 1:55:09pm BY: USDR - persimmon  
 DWG. LOCATION: P:\01\4888 Sealing Channel (Macro)\DWG\000\_DWG\CIP\Plan of Record - Water\Utilities\Inspector Barry Duff  
 Dwg. Name: Water Plans For Inspector Barry Duff

NOTE TO CONTRACTOR:  
SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION AND LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

KEY NOTE:

1 ROUTE WATER LINE UNDER PROP. SLOT DRAIN. REFER TO DETAIL 4 ON SHEET 14 OF 16.

Item #	Description	Unit	QTY
024	Relay 3/4" Long Service	EA	6
024	New 3/4" Long Service	EA	1
024	New Unmetered Long Service	EA	1
022	Existing Meter & Existing Meter Box Relocation	EA	6
022	New Box	EA	1



**CPS AND TELEPHONE COMPANY NOTES**

CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005. 48 HOURS BEFORE ANY CONSTRUCTION.

DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR/FOREMAN MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREA.

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR/FOREMAN IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF POWER POLES AND UNDERGROUND ELECTRIC CABLES DURING (NSPI) CONSTRUCTION. 48 HOURS BEFORE BEGINNING ANY EXCAVATION. CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005. CONTRACTOR TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION.

**TRENCH EXCAVATION SAFETY PROTECTION**

TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS OF PART 1926, SUBPART P-EXCAVATION, TRENCHING, AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH'S STANDARDS AND INTERPRETATIONS. THE CONTRACTOR/FOREMAN SHALL ALSO COMPLY WITH 550, TRENCH EXCAVATION PROTECTION, SAN ANTONIO WATER SYSTEM SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.

**SHUT OFF VALVE NOTE:**

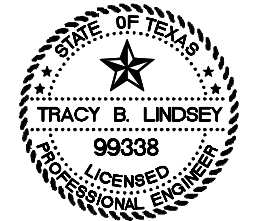
ENGINEER RECOMMENDS CONTRACTOR CLOSES THE FOLLOWING VALVES TO ISOLATE EXISTING 8" WATER LINE ALONG W. WOODLAWN AVE. ALL VALVES TO BE FIELD VERIFIED. SAWS WATER BLOCK MAP# 146-588 VALVE #59. SAWS WATER BLOCK MAP# 148-588 VALVES #05 & 06.

**NOTE**

ALL PVC MAINS ARE C900 CLASS 150 UNLESS OTHERWISE NOTED.

**LEGEND**

- PROPOSED 30" SANITARY SEWER
- PROPOSED 21" SANITARY SEWER
- PROPOSED 8"-15" SANITARY SEWER
- PROPOSED WATER MAIN
- KEY NOTE
- REMOVE EXISTING WATER MAIN
- UTILITY POLE LINE
- DUAL BRANCH SERV.
- 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



NO	DATE	DESCRIPTION	DWGCHK
REVISIONS			

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TBP REG. NO. F-3580

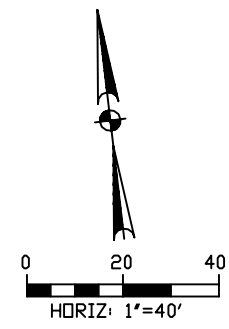
**SAN ANTONIO WATER SYSTEM**  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

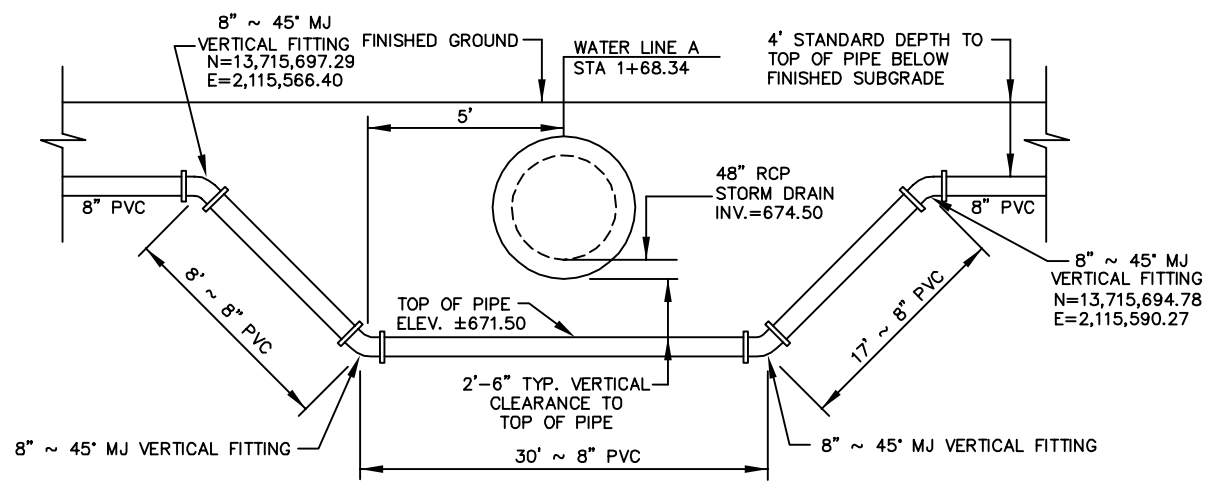
SEELING CHANNEL PHASE I  
**WATER LINE PLAN**  
W. WOODLAWN AVE.  
**WATER METER RELOCATIONS**

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC

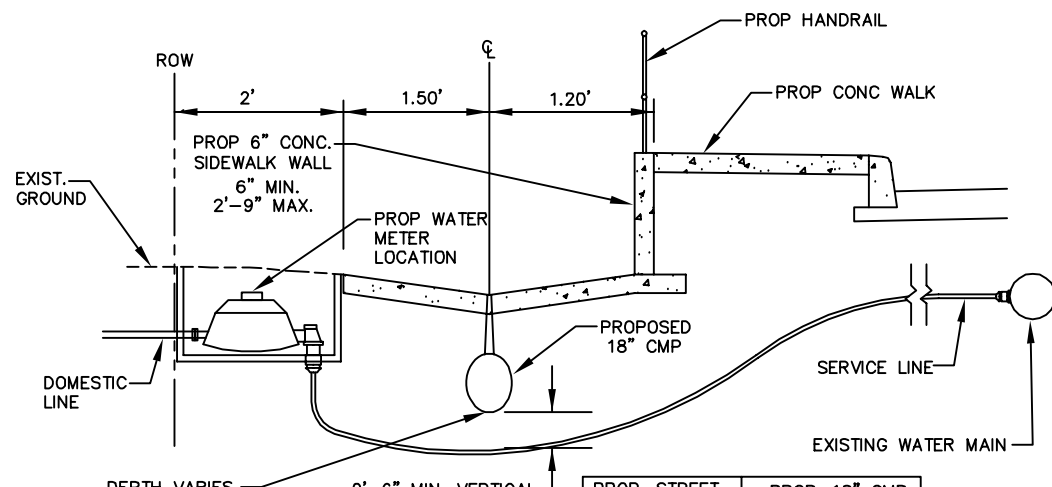
LAST MODIFIED: May 25, 2010 - 1:49pm BY USER: cestrova  
 FILE: P:\014586 Sealing Channel Improvements\10-5010.dwg  
 DWG NAME: Water Line Plan for Inspection.dwg  
 PLOT DATE: 7/10/12 10:58:57 AM  
 PLOT BY: BARRY SHIFF





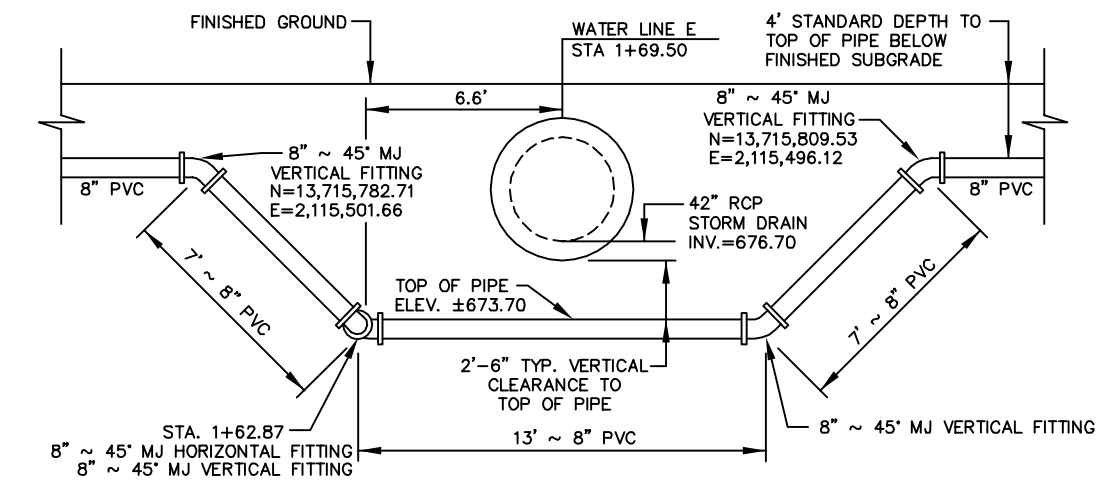


**1** **DETAIL 1 - WATER CROSSING UNDER STORM DRAIN**  
NOT TO SCALE

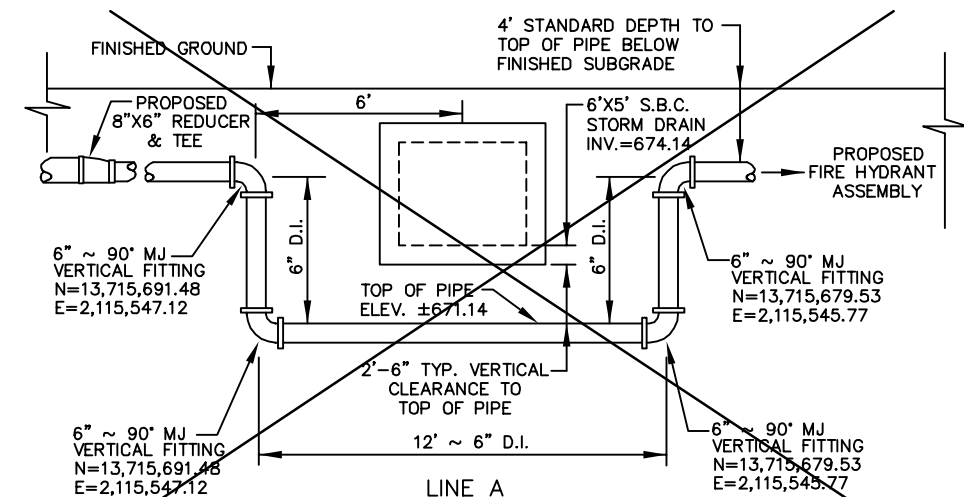


PROP. STREET RELAY STA:	PROP. 18" CMP INVERT ELEV.
22+48.18	678.46
23+10.28	677.73
23+78.21	675.95
25+17.08	677.24
25+71.08	678.20

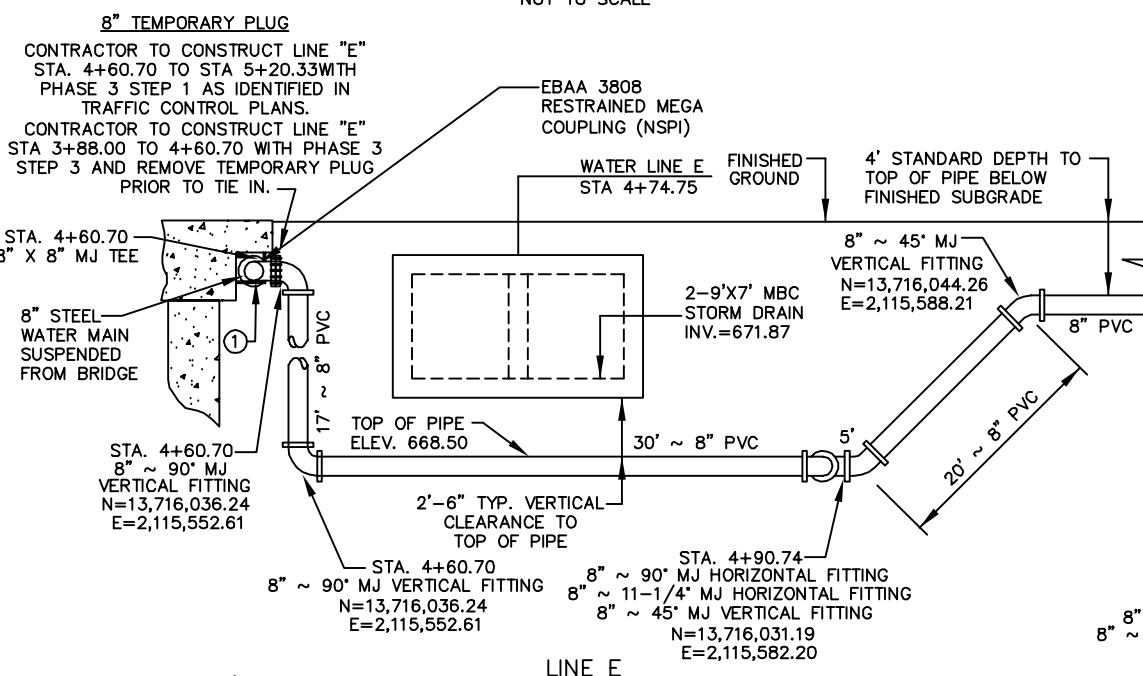
**DETAIL 4 - DOMESTIC WATER CROSSING UNDER SLOT DRAIN**  
NOT TO SCALE



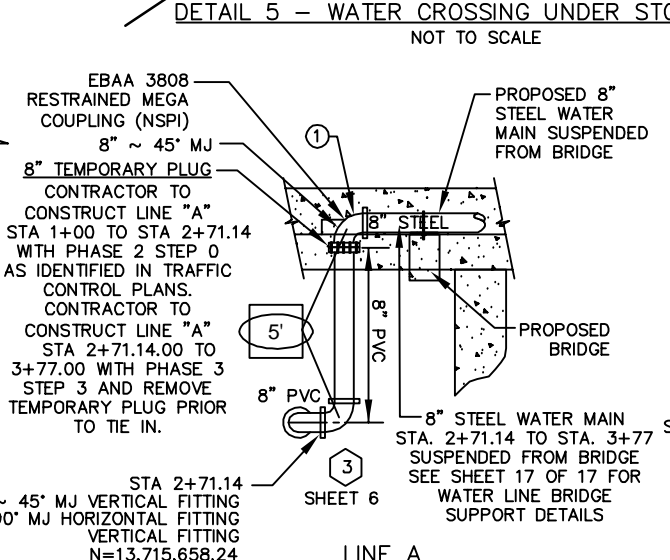
**DETAIL 2 - WATER CROSSING UNDER STORM DRAIN**  
NOT TO SCALE



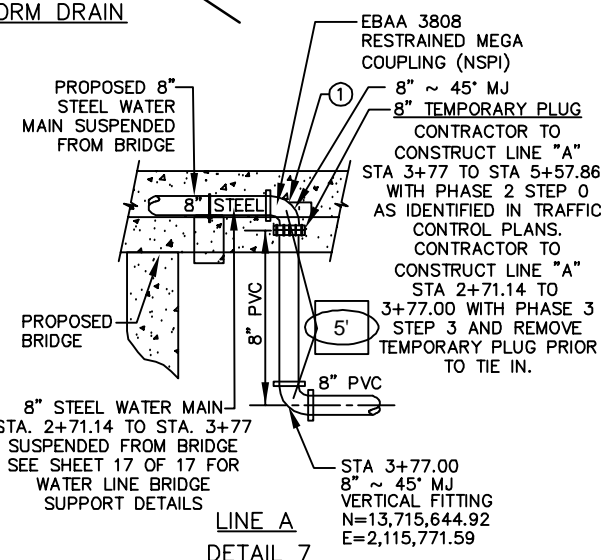
**DETAIL 5 - WATER CROSSING UNDER STORM DRAIN**  
NOT TO SCALE



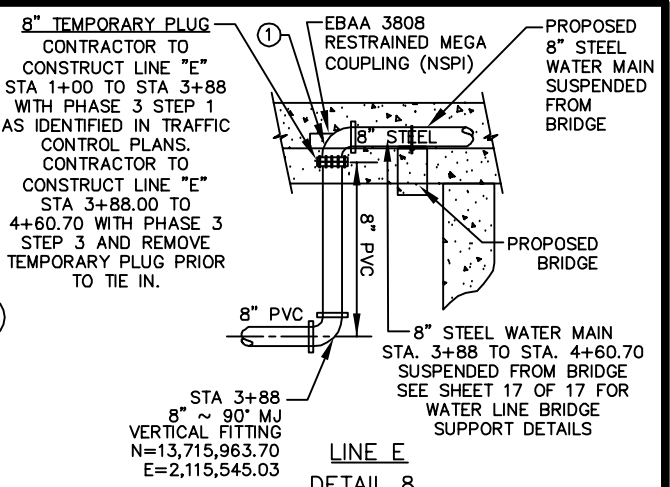
**2** **DETAIL 3 - WATER CROSSING UNDER STORM DRAIN**  
NOT TO SCALE



**3** **DETAIL 6 - TEMPORARY PLUG AT FUTURE CONNECTION**  
NOT TO SCALE

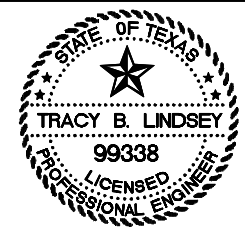


**4** **DETAIL 7 - TEMPORARY PLUG AT FUTURE CONNECTION**  
NOT TO SCALE

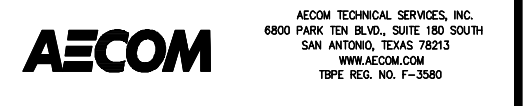


**3** **DETAIL 8 - TEMPORARY PLUG AT FUTURE CONNECTION**  
NOT TO SCALE

**NOTE:**  
 1 CONTRACTOR SHALL TRANSITION BETWEEN BURIED PIPE AND BRIDGE SUPPORTED PIPE USING ROLLED JOINTS OR OTHER MEANS AND METHODS TO MATCH BRIDGE ELEVATIONS.



NO	DATE	DESCRIPTION	DWG/CHK



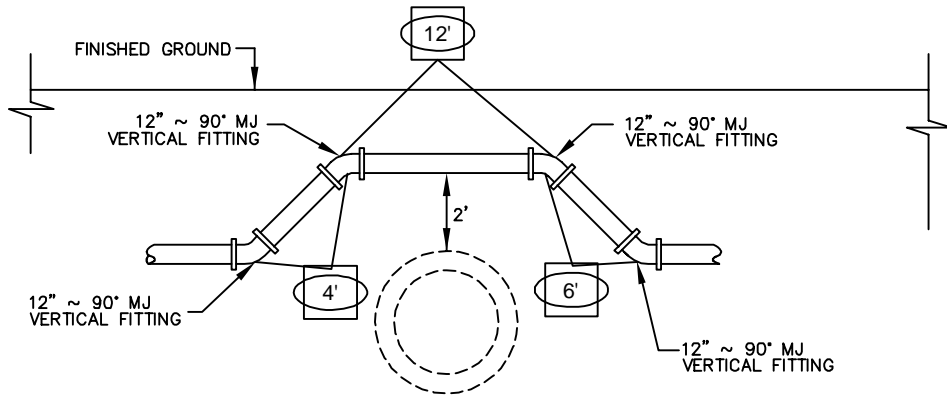
**SAN ANTONIO WATER SYSTEM**  
**SEELING CHANNEL IMPROVEMENTS - PHASE I**  
**WATER LINE REPLACEMENTS**  
**JOB NO. 10-5010**

**CITY OF SAN ANTONIO**  
 CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
 SEELING CHANNEL PHASE I

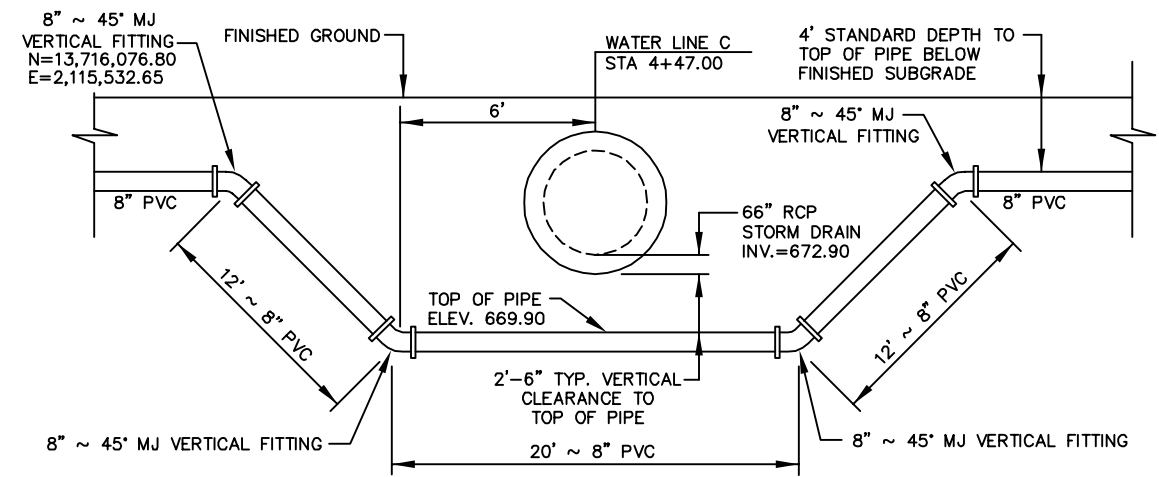
**WATER LINE CROSSING DETAILS SHEET 1**

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC

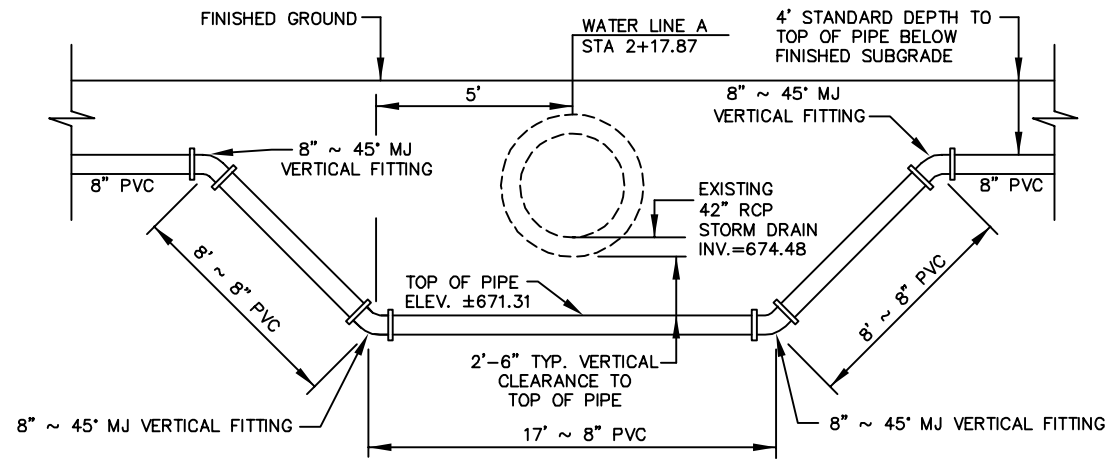
LAST MODIFIED: May 25, 2010 - 11:47am  
 BY USER: csw  
 FILE: C:\Users\csw\Documents\SanAntonio\Water Line Replacements\Phase I\Water Line Crossings\Sheet 1.dwg  
 DWG: Water Line Crossings - Phase I - Water Line Crossings - Phase I - Water Line Crossings - Phase I - Water Line Crossings - Phase I



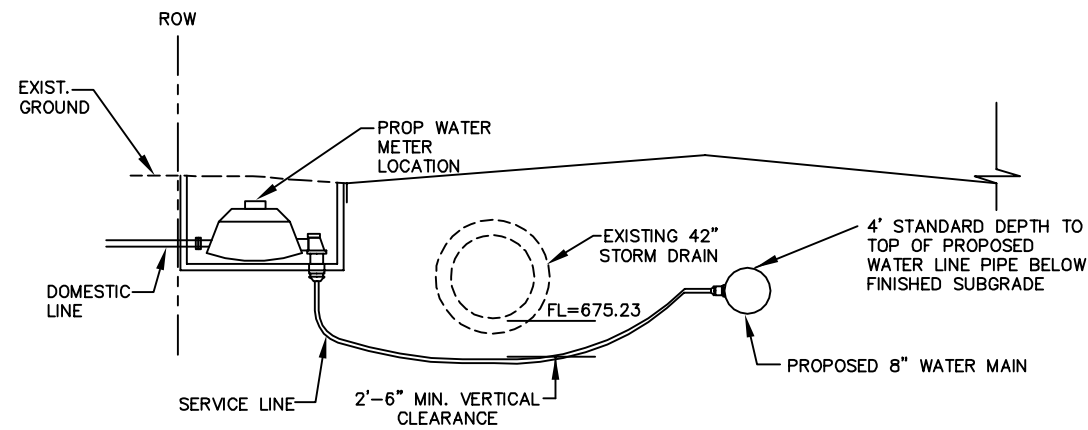
5  
SHEET 6  
LINE A  
DETAIL 1 - WATER CROSSING OVER EXISTING STORM DRAIN  
NOT TO SCALE



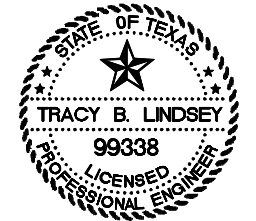
LINE C  
DETAIL 4 - WATER CROSSING UNDER STORM DRAIN  
NOT TO SCALE



6  
SHEET 6  
LINE A  
DETAIL 2 - WATER CROSSING UNDER EXISTING STORM DRAIN  
NOT TO SCALE



LINE A  
DETAIL 3 - WATER SERVICE CROSSING UNDER EXISTING STORM DRAIN  
NOT TO SCALE



NO	DATE	DESCRIPTION REVISIONS	DWGCHK

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**SAN ANTONIO WATER SYSTEM**  
SEELING CHANNEL IMPROVEMENTS - PHASE I  
WATER LINE REPLACEMENTS  
JOB NO. 10-5010

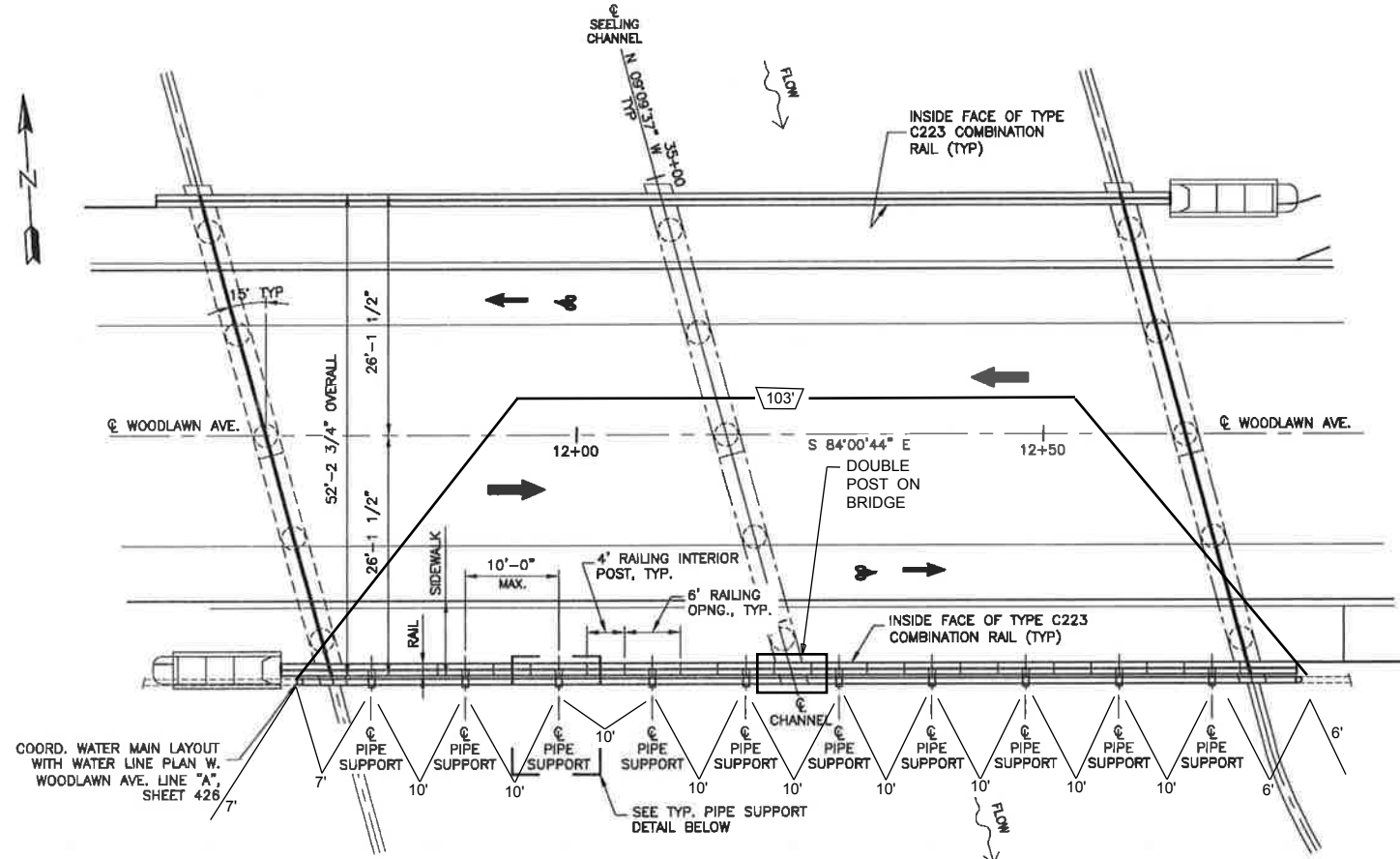
**CITY OF SAN ANTONIO**  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
SEELING CHANNEL PHASE I

**WATER LINE CROSSING DETAILS SHEET 2**  
16 OF 17

BID SUBMITTAL	PROJECT NO.: 60184822	DATE: JULY 2012
DRWN. BY: M.G.	DSGN. BY: T.W.	CHKD. BY: CC
SHEET NO.		

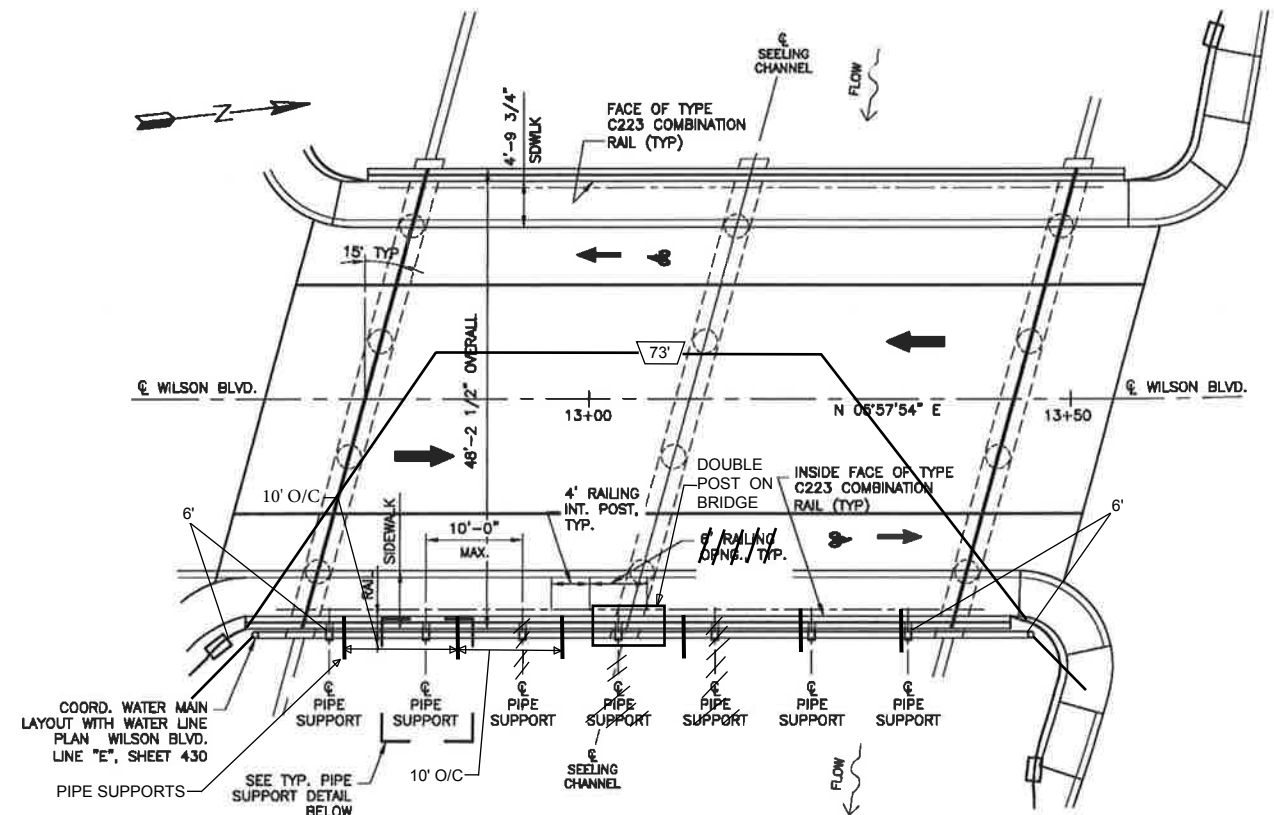
LAST MODIFIED: May 25, 2016 - 11:47am  
 BY USER: cestrow  
 LOCATION: F:\014586 - Sealing Channel Improvements\Drawings\DWG\10-5010-2016-05-25-1147.dwg  
 DWG: 10-5010-2016-05-25-1147.dwg  
 PLOT: 10-5010-2016-05-25-1147.dwg  
 PLOT DATE: 5/25/2016 11:47:00 AM  
 PLOT BY: BARRY SHIFF





**WOODLAWN AVE. PIPE SUPPORT PLAN (SHEET 6)**

SCALE = 1"=20'  
ALSO SEE  
DETAIL 6 & DETAIL 7  
ON 16 OF 17



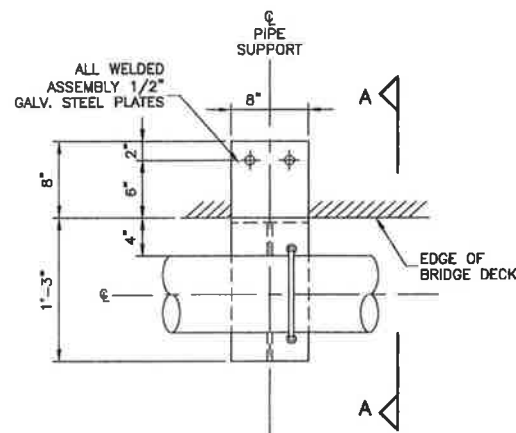
**WILSON BLVD. PIPE SUPPORT PLAN**

SHEET 11

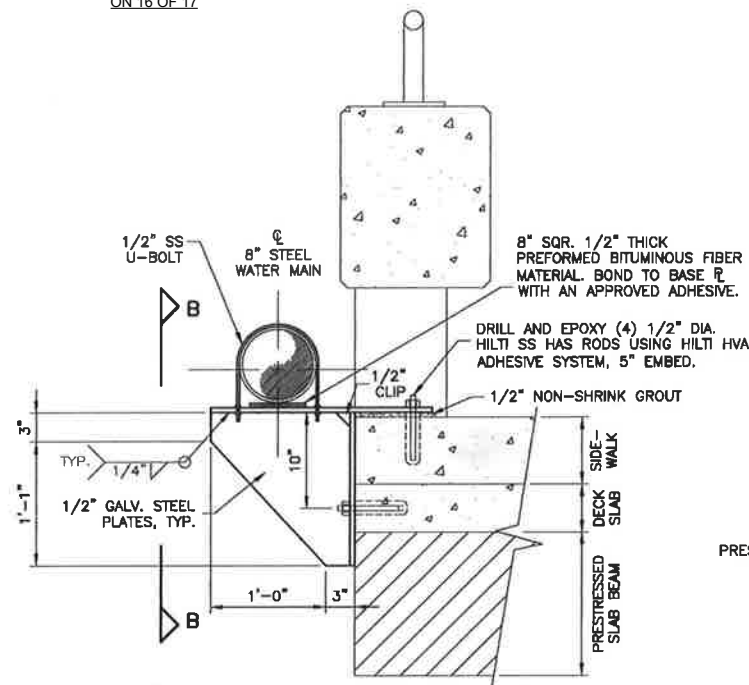
SCALE = 1"=20'

**NOTES:**

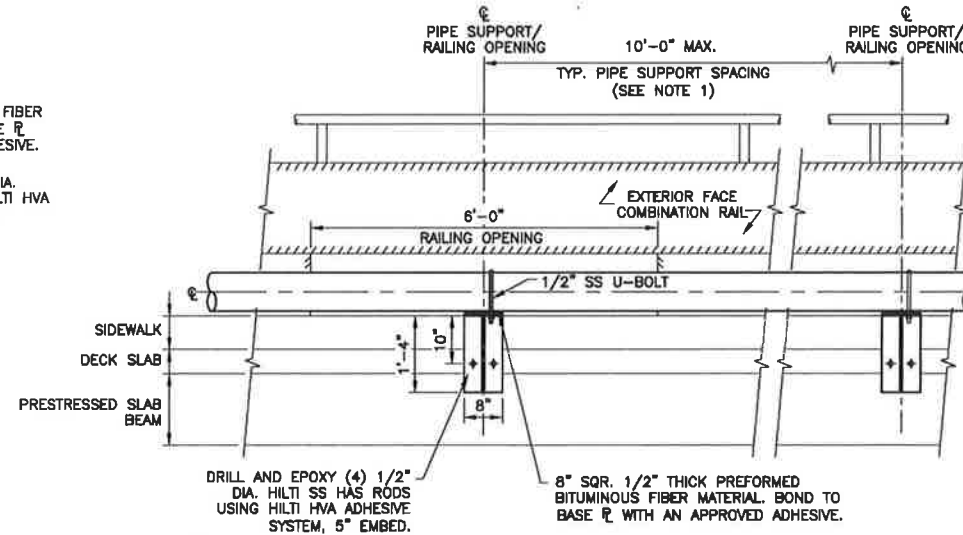
1. COORDINATE PIPE SUPPORT LAYOUT WITH BASE OF FLOWING OPENING CENTER LINES. MAX 10' SPACING BETWEEN ADJACENT SUPPORTS AND END WALLS.
2. ALL STEEL PLATES TO BE HOT DIPPED GALVANIZED A36 STEEL.
3. SEE SHEET 426 & 430 FOR WATER MAIN COORDINATION BEYOND BRIDGE SUPPORTS.



**TYPICAL PIPE SUPPORT PLAN**



**PIPE SUPPORT SECTION A-A**



**PIPE SUPPORT SECTION B-B**



0 5 10 20  
SCALE: 1"=20' HORIZ 1"=20' VERT

NO	DATE	DESCRIPTION REVISIONS	DWGCHK

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WWW.AECOM.COM  
TBP REG. NO. F-3580

**BRIONES CONSULTING & ENGINEERING LTD.**  
8118 BROADWAY (210) 828-1431  
SAN ANTONIO, TX 78209 (210) 828-1432 fax  
TBP REG. NO. F-6028

CITY OF SAN ANTONIO  
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT  
SEALING CHANNEL PHASE I  
**WATER LINE SUPPORTS  
WOODLAWN AVE. AND WILSON  
BLVD. BRIDGES**

PROJECT NO.:	DATE:	DATE:	DATE:
DESIGN BY: DSM	DESIGN BY: JVS	DESIGN BY: BE	SHEET NO. 17 OF 17