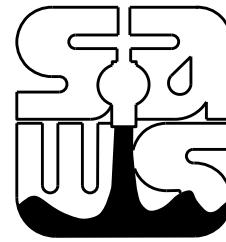


SAN ANTONIO WATER SYSTEM



MATERIALS NOTE
 PIPE: NORTH AMERICAN
 VALVES: FLOW MASTER
 FITTINGS: STAR
 FIRE HYDRANTS: WATER MASTER

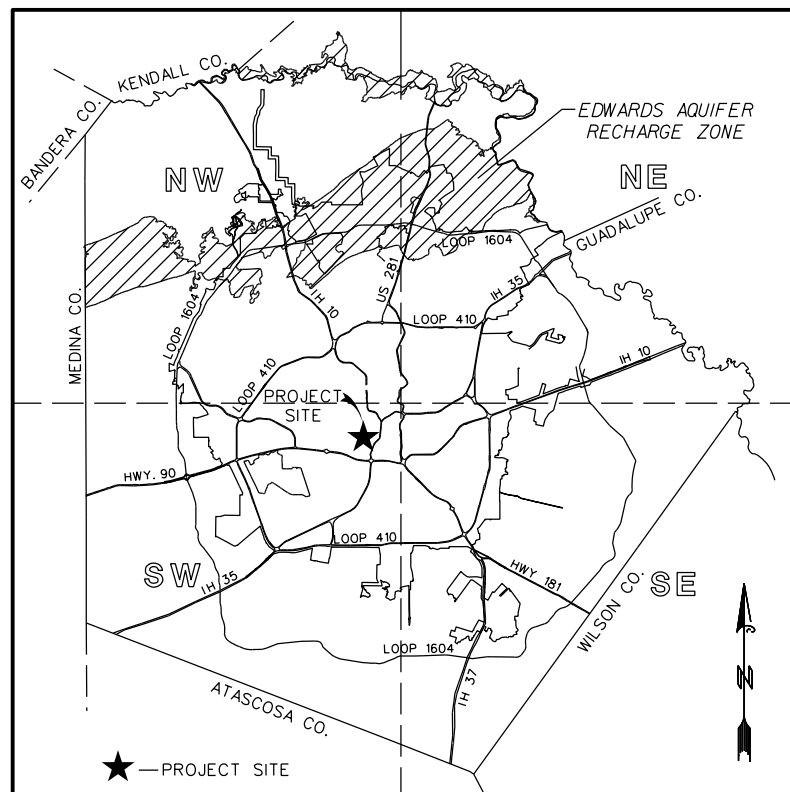
PLAN OF RECORD
 SAWS JOB NO.: 21-5108
 COMPLETION DATE: 10-9-2018
 CONTRACTOR: QUEST
 INSPECTOR: RUEBEN M VILLARREAL

JOB NO. 12-5108 SEELING CHANNEL IMPROVEMENTS - PHASE 2 WATER LINE REPLACEMENTS 100% SUBMITTAL APRIL 2015

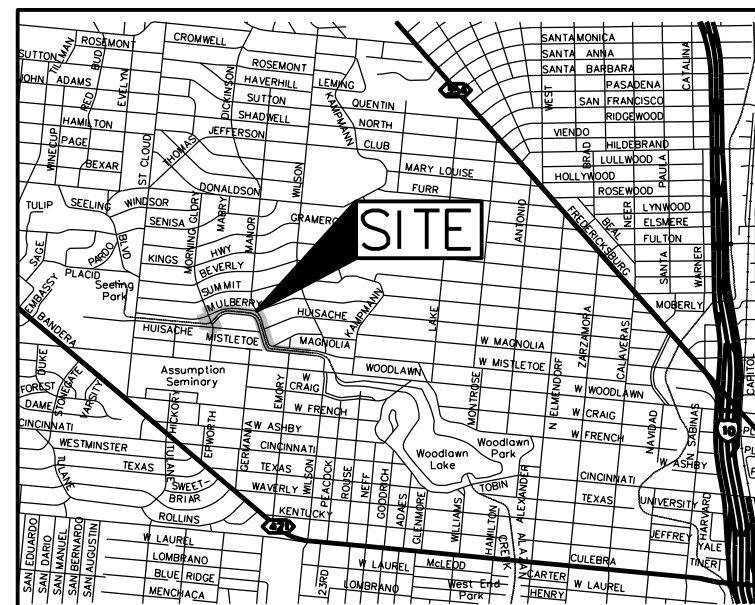
SHT	8" PVC	16" PVC	8" STEEL	16" STEEL	6" FH	6" PVC	16" D.I.M.I. - T/S
1006	431'				23'		
1007	238.5'						
1008	508'				27'		
1009	581'				32'	2'	
1010	371.5'						
1011	158.5'						
1012	113'						
1013	310.5'		67'				
1014	233'			82'	17'		
1015		359'					12'
TOTAL	2945'	359'	67'	82'	99'	2'	12'

SHEET INDEX

1000	COVER SHEET
1001	GENERAL NOTES
1002-1004	PROJECT LAYOUT
1005	SUMMARY QUANTITY SHEET
1006-1015	WATER LINE PLANS
1016	WATER LINE CROSSING DETAILS



VICINITY MAP
 N.T.S.



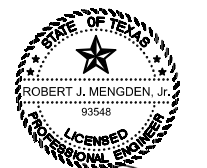
LOCATION MAP
 N.T.S.

AECOM

AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78204
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.



MARCH 3, 2019

Plans include Base Bid and Alternate 1 Bid. The bid alternative is specified above the sheet name as follows:

- Base Bid only - "Seeling Channel Improvements Phase 2 Base Bid."
- Alternate 1 Bid only - "Seeling Channel Improvements Phase 2 Alt 1 Bid."
- Both bids - "Seeling Channel Improvements Phase 2."

Sheets pertaining to the bid alternative that is not selected may be discarded after receiving direction from TCI.

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: 207-8052
 COSA TRAFFIC SIGNAL OPERATIONS: 207-7720
 TEXAS STATE WIDE ONE CALL LOCATOR: 1-800-545-6005 OR 811
- 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.

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.

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 "Lr" 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 7.0 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) HEREOF 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.
- 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.
- SEE SHEET 706 FOR WATERLINE SUPPORT DETAILS ON HUISACHE BRIDGE AND SHEET 714 FOR WATERLINE SUPPORT DETAILS ON MORNING GLORY BRIDGE.

ENGINEER'S NOTES

- CONTRACTOR SHALL REPLACE ALL DISTURBED ASPHALT IN ACCORDANCE WITH DD-804.
- CONTRACTOR SHALL REFER TO SEALING CHANNEL PHASE II 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 SEALING CHANNEL IMPROVEMENTS (PHASE II) 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 48 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.
- EXISTING AND PROPOSED WATER LINES ARE LOCATED WITHIN THE IRRIGATED LANDSCAPE AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE ALL IRRIGATION LINES, VALVES, CONTROLLERS, AND SPRINKLER HEADS AS REQUIRED FOR CONSTRUCTION OF NEW WATER LIN, SERVICES, AND FIRE HYDRANTS. THE CONTRACTOR SHALL USE A LICENSED IRRIGATOR TO RELOCATE THE EXISTING IRRIGATION SYSTEM (NO SEPARATE PAY ITEM).

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.

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.
- 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 SEALING 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.

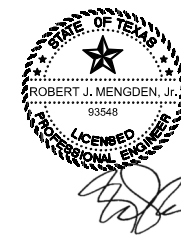
THE CONTRACTOR SHALL CONTACT THE APPROPRIATE AGENCY (CITY OF SAN ANTONIO, BEXAR COUNTY, OR TXDOT) TRAFFIC OPERATIONS SECTION PRIOR TO REMOVING ANY TRAFFIC SIGNS OR TRAFFIC SIGNALS.

PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.

LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
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	



MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
		REVISIONS		



AECOM TECHNICAL SERVICES, INC.
112 E. PECAN ST., SUITE 400
SAN ANTONIO, TEXAS 78205
WWW.AECOM.COM
TBPE REG. NO. F-3580



SAN ANTONIO WATER SYSTEM
WATER LINE REPLACEMENT PROJECT
PROP. JOB NO. 12-5108

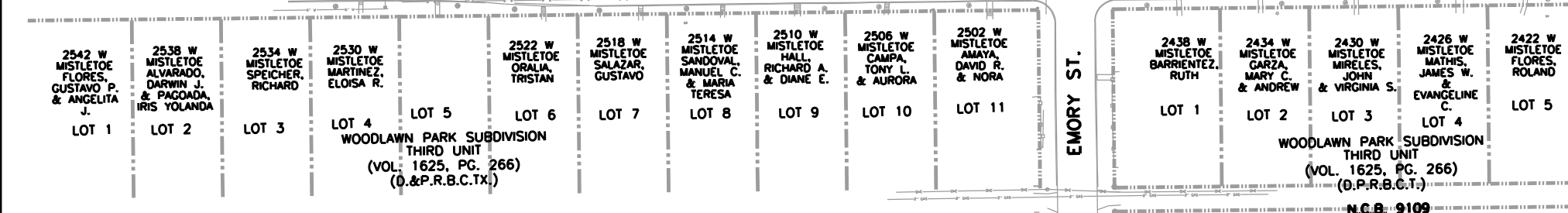
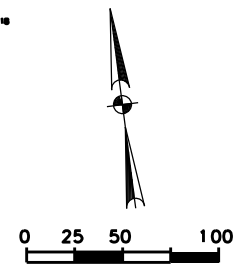
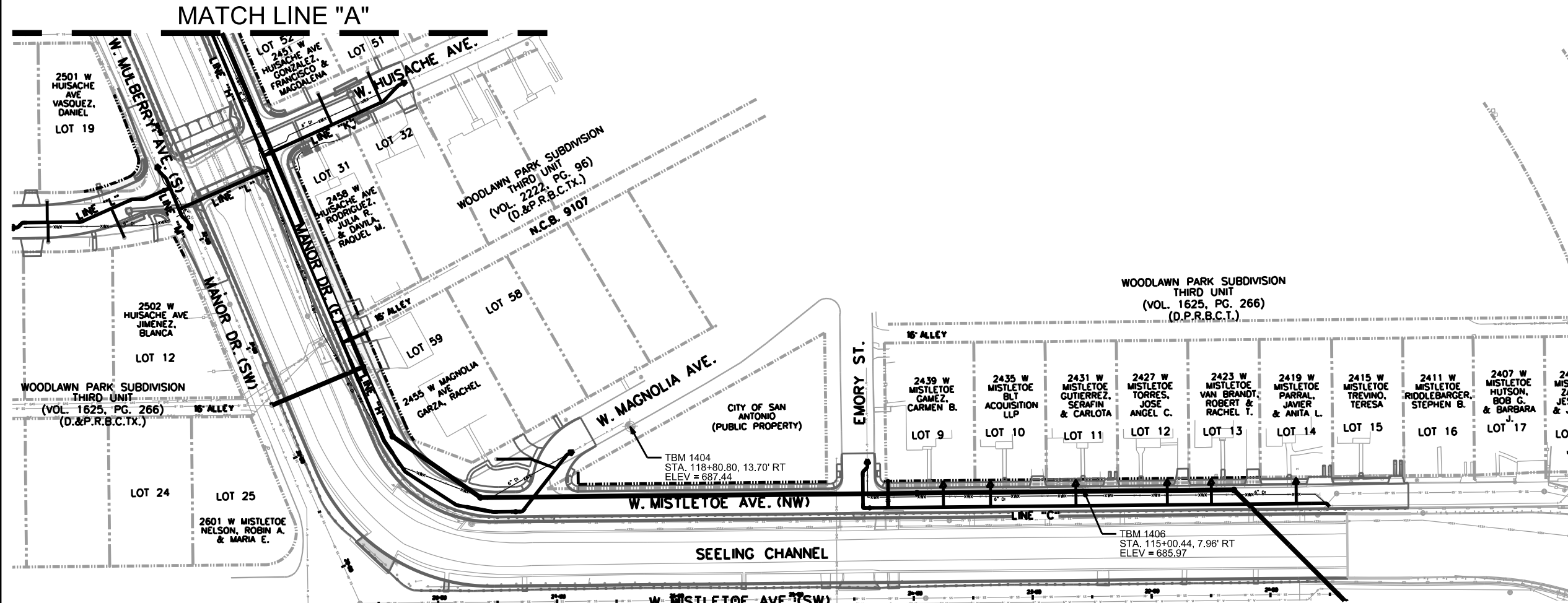
CITY OF SAN ANTONIO
TRANSPORTATION & CAPITAL IMPROVEMENTS
SEALING CHANNEL IMPROVEMENTS PHASE 2

GENERAL NOTES

100% SUBMITTAL	PROJECT NO.:	60312595	DATE:	APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB	SHEET NO.	1001

PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.



LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
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	

ROBERT J. MENGDEN, JR.
LICENSED PROFESSIONAL ENGINEER
95546
MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

AECOM

AECOM TECHNICAL SERVICES, INC.
112 E. PECAN ST., SUITE 400
SAN ANTONIO, TEXAS 78205
WWW.AECOM.COM
TBP REG. NO. F-3580

SAN ANTONIO WATER SYSTEM

WATER LINE REPLACEMENT PROJECT
PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO

TRANSPORTATION & CAPITAL IMPROVEMENTS
SEELING CHANNEL IMPROVEMENTS PHASE 2

WATER PROJECT LAYOUT 1

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1002

LEGEND

	EX LOT LINE
	EX RIGHT-OF-WAY
	BENCHMARK
	PROPOSED RIGHT-OF-WAY
	PROPOSED PURCHASE AREA

BENCHMARKS

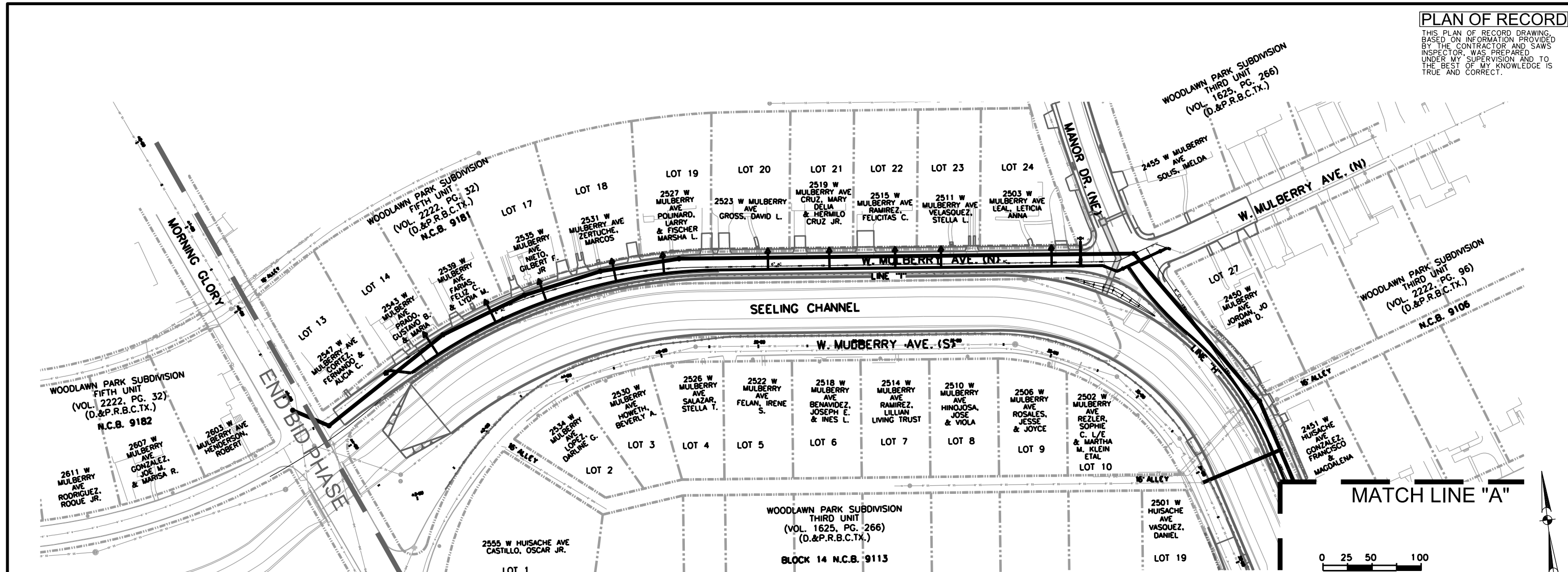
TBM 1406	ELEV = 685.97 N = 13,716,142.67 E = 2,115,036.15
TBM 1404	ELEV = 687.44 N = 13,716,239.16 E = 2,114,663.91

NOTES:

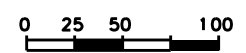
- ALL BEARINGS AND COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NAD-83 THE SOUTH CENTRAL ZONE.
- GRID TO SURFACE FACTOR: 1.00017
- COORDINATES PROVIDED ARE SURFACE COORDINATES.

PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.



MATCH LINE "A"



LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
DUAL BRANCH SERV.	
NEW UNMETERED SERVICE:	
3/4" SINGLE	
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SERVICE RELAY:	
3/4"	
1" OR LARGER	
SERVICE RELOCATE:	
3/4"	
1" OR LARGER	
RELOCATE METER	
NEW SERVICE:	
3/4"	
1" OR LARGER	



MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

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 AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2 (BASE BID)

WATER PROJECT LAYOUT 2

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1003

BENCHMARKS

TBM 13	ELEV = 693.55 N = 13,716,462.49 E = 2,113,413.18
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LEGEND

	EX LOT LINE
	EX RIGHT-OF-WAY
	BENCHMARK
	PROPOSED RIGHT-OF-WAY
	PROPOSED PURCHASE AREA

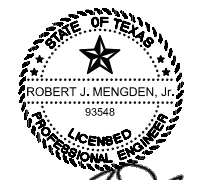
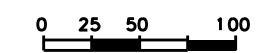
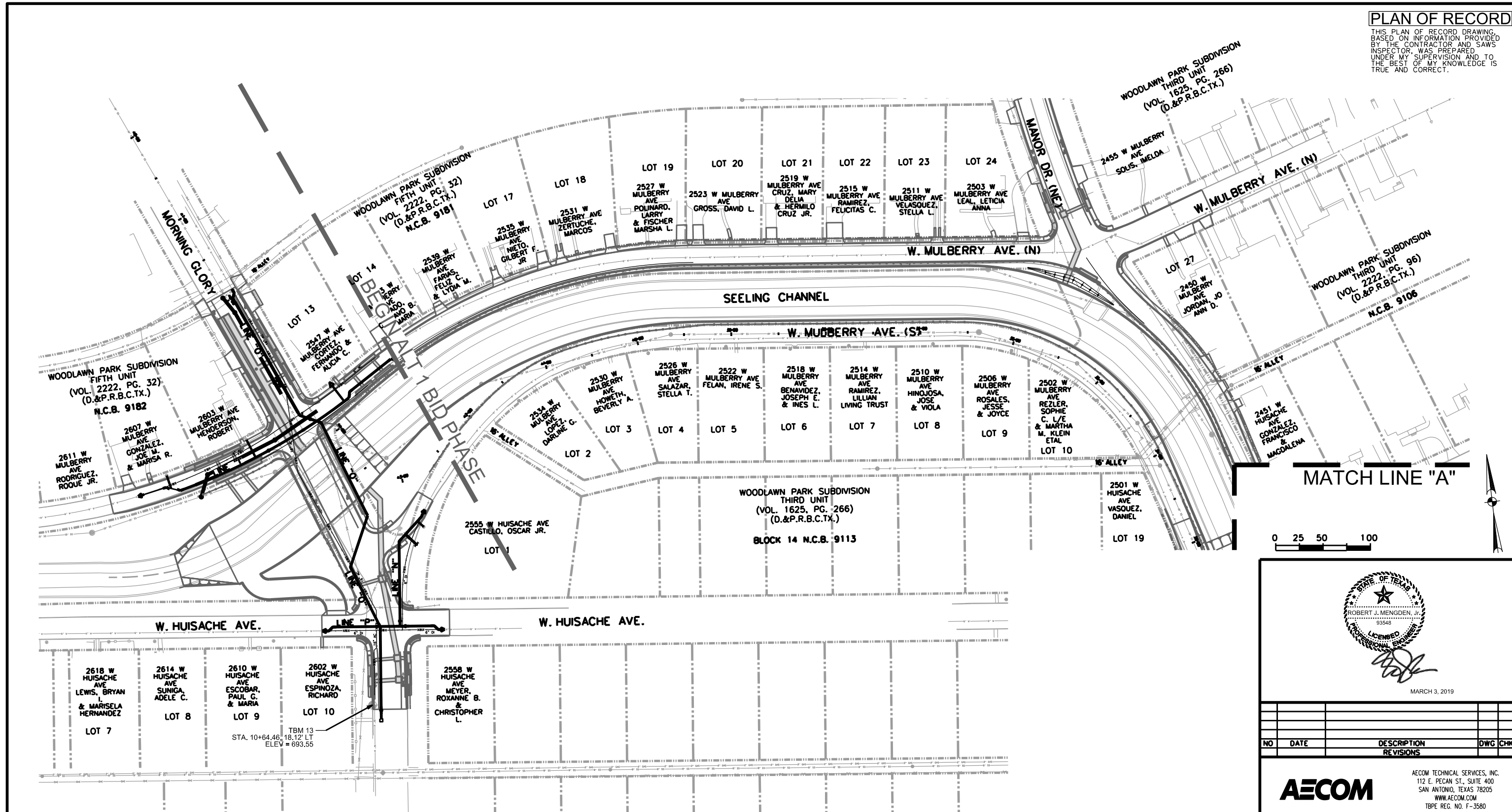
NOTES:

- ALL BEARINGS AND COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NAD-83 THE SOUTH CENTRAL ZONE.
- GRID TO SURFACE FACTOR: 1.00017
- COORDINATES PROVIDED ARE SURFACE COORDINATES.

TBM 13
 STA. 10+64.46 - 18.12' LT
 ELEV = 693.55

PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.



MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

AECOM
 AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2 (ALT 1 BID)

WATER PROJECT LAYOUT 2

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1004

BENCHMARKS	
TBM 13	ELEV = 693.55 N = 13,716,462.49 E = 2,113,413.18

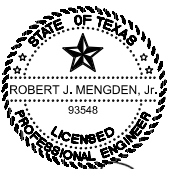
- LEGEND**
- EX LOT LINE
 - - - EX RIGHT-OF-WAY
 - ⊙ BENCHMARK
 - - - PROPOSED RIGHT-OF-WAY
 - ▭ PROPOSED PURCHASE AREA

- NOTES:**
- ALL BEARINGS AND COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM NAD-83 THE SOUTH CENTRAL ZONE.
 - GRID TO SURFACE FACTOR: 1.00017
 - COORDINATES PROVIDED ARE SURFACE COORDINATES.

PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.

Item #	Description	Units	Total
100	MOBILIZATION	LS	1
101	PREPARATION OF ROW	LS	1
413	FLOWABLE FILL	CY	29
550	TRENCH EXCAVATION SAFETY PROTECTION	LF	3291
816	8" STEEL WATERLINE	LF	83
816	16" STEEL WATERLINE	LF	110
818	8" PVC WATERLINE	LF	2940
818	16" PVC WATERLINE	LF	351
824	NEW 3/4" UNMETERED SERVICE	EA	0
824	RELAY 3/4" SHORT SERVICE	EA	6
824	RELAY 3/4" LONG SERVICE	EA	23
828	8" GATE VALVE	EA	14
828	16" GATE VALVE	EA	3
833	EXISTING METER & METER BOX RELOCATION	EA	27
834.1	FIRE HYDRANT	EA	3
836	GREY-IRON AND DUCTILE IRON FITTINGS	TON	6
840	6" WATER LINE TIE-IN	EA	11
840	8" WATER LINE TIE-IN	EA	3
840	16" WATER LINE TIE-IN	EA	3
841	HYDROSTATIC TEST	EA	6
844	TEMPORARY 2" BLOW OFF	EA	9
1015	6" SERVICE LINE LEAK/ BREAK REPAIR	EA	1
1015	8" SERVICE LINE LEAK/ BREAK REPAIR	EA	0
1015	16" SERVICE LINE LEAK/ BREAK REPAIR	EA	1
3000.06	REMOVAL, TRANSPORTATION, AND DISPOSAL OF AC PIPE	LF	1642



[Signature]

MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

AECOM
 AECOM TECHNICAL SERVICES, INC.
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 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

SAW
SAN ANTONIO WATER SYSTEM
WATER LINE REPLACEMENT PROJECT
PROP. JOB NO. 12-5108

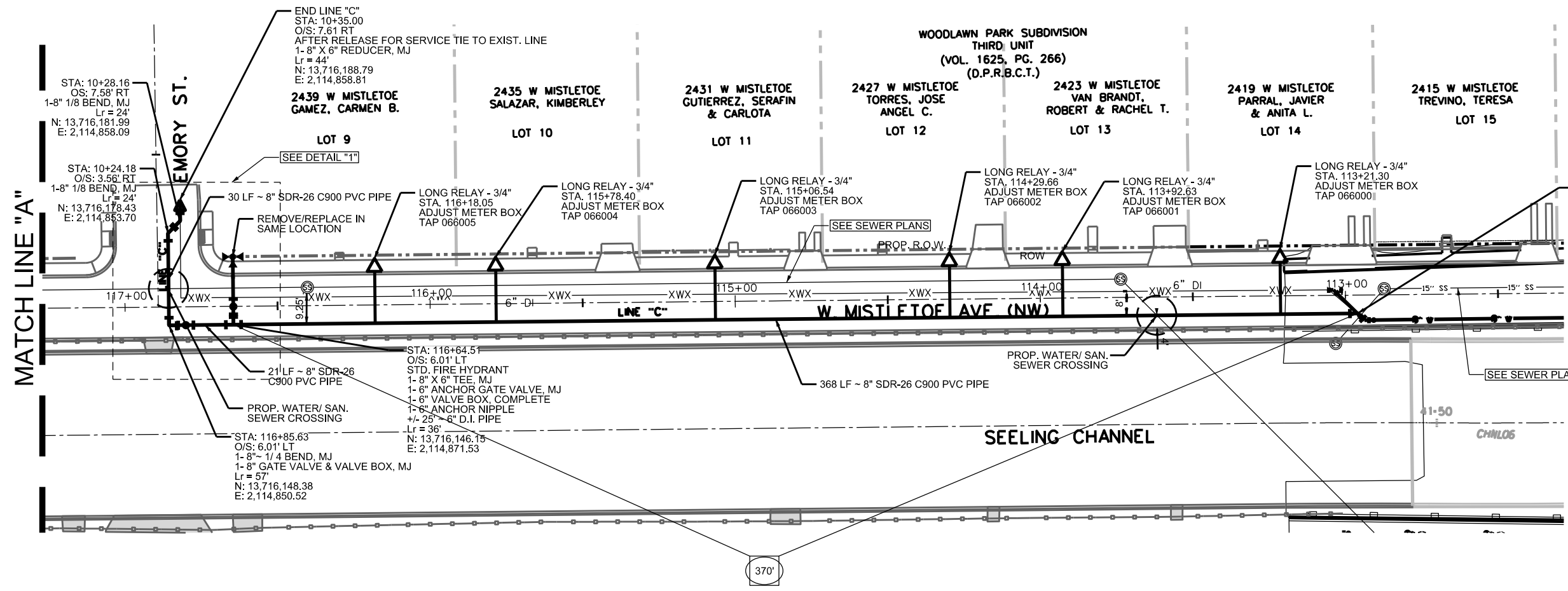
CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2

SUMMARY QUANTITY SHEET

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1005

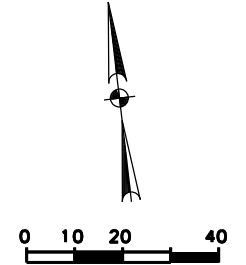
PLAN OF RECORD

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BEGIN LINE "C"
 STA: 112+93.82
 O/S: 8.26 LT
 AFTER RELEASE FOR SERVICE
 TIE NEW 8" MAIN TO EXIST. 8" MAIN
 1- 8" SOLID SLEEVE, MJ
 1- 2" TEMP. BLOWOFF
 +/- 5' ~ 8" PIPE, CUT AS REQUIRED
 1- 8" 1/8 BEND, MJ
 INSTALL FOR MACHINE CHLORINATION BY CONTRACTOR
 2- 1" CORP. STOP CC X IP
 2- 1" COPPER TUBBING, CUT AS REQUIRED
 2- 1" COMP. X 1/4" COUPLING CURB STOP
 2- 1 1/4" SOLID CAPS, THR.
 Lr = 24'
 N: 13,716,104.67
 E: 2,115,239.89

MATCH LINE "A"



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.

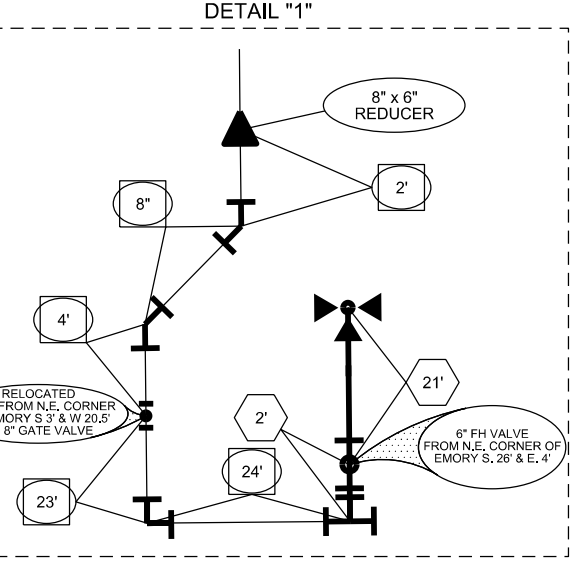
CPS AND TELEPHONE COMPANY NOTES
 CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005 48 HOURS BEFORE ANY CONSTRUCTION.
 DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS MUST MAINTAIN ACCESS TO GAS VALVES THAT ARE IN THE PROJECT AREA.
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING CPS OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES IF ADJACENT TO WORK AREA.

Item #	Description	QTY	Total
550	Trench Excavation Safety Protection	LF	419
818	8" PVC Waterline	LF	419
824	Relay 3/4" Long Service	EA	6
828	8" Gate Valve	EA	1
833	Existing Meter & Existing Meter Box Relocation	EA	6
834.1	Fire Hydrant	EA	1
836	Grey-Iron and Ductile Iron Fittings	TON	0.36
840	6" Water Line Tie-In	EA	1
840	8" Water Line Tie-In	EA	1
841	Hydrostatic Test	EA	1
844	Temporary 2" Blow Off	EA	1

NOTE
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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 CONSTRUCTION (NSPI). CONTRACTOR TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION (NSPI).

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



LEGEND

- PROP. WATER MAIN:
- EXIST. WATER MAIN:
- WATER MAIN RMV'D:
- GAS MAIN:
- SANITARY SEWER:
- SANITARY SEWER RMV'D:
- STORM SEWER:
- UTILITY POLE LINE:
- ELECTRIC CABLE:
- TELEPHONE CABLE:
- 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:

MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

AECOM
 AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

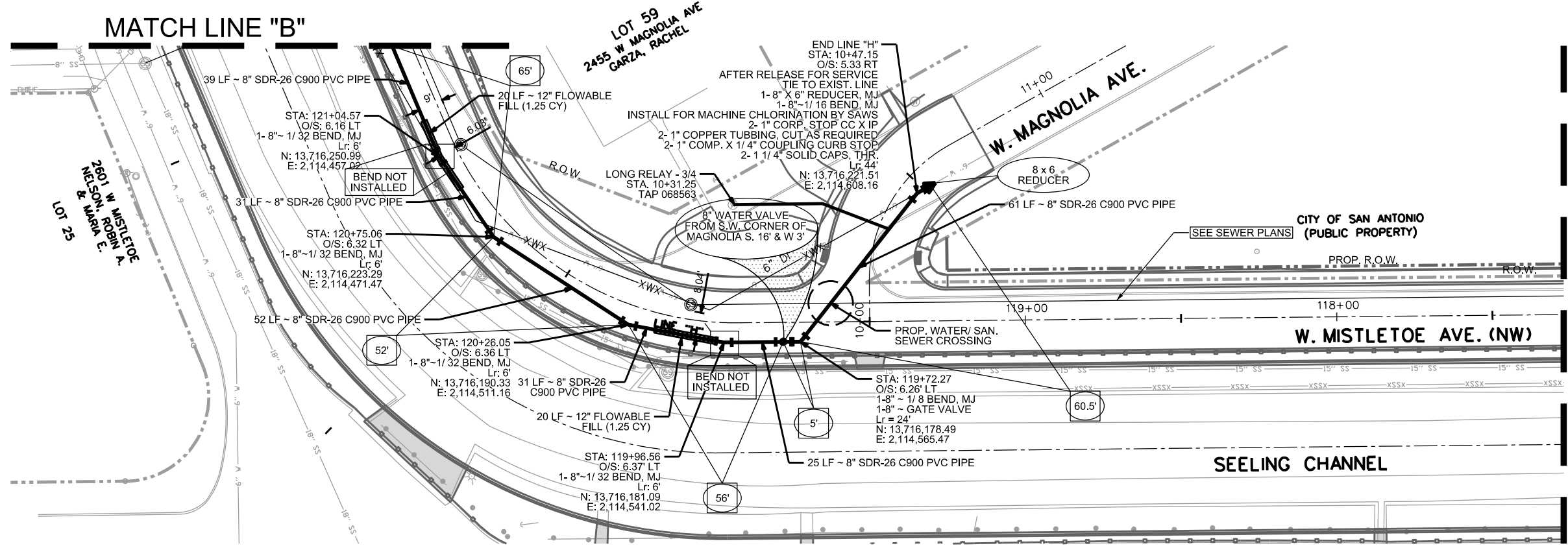
CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2

WATER LINE "C" W. MISTLETOE AVE. (NW)

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1006

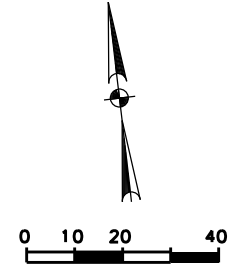
PLAN OF RECORD

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MATCH LINE "A"

MATCH LINE "B"



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.

CPS AND TELEPHONE COMPANY NOTES

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DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS MUST MAINTAIN ACCESS TO GAS VALVES THAT ARE IN THE PROJECT AREA.
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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 CONSTRUCTION (NSPI). CONTRACTOR TO PROTECT AND SUPPORT TELEPHONE COMPANY PLANT DURING CONSTRUCTION (NSPI).

NOTE TO CONTRACTOR

SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION OF LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

Item #	Description	QTY	Total
413	Flowable Fill	CY	2.5
550	Trench Excavation Safety Protection	LF	239
818	8" PVC Waterline	LF	239
824	Relay 3/4" Long Service	EA	1
828	8" Gate Valve	EA	1
836	Grey-Iron and Ductile Iron Fittings	TON	0.38
840	6" Water Line Tie-In	EA	1
841	Hydrostatic Test	EA	1

LEGEND

- PROP. WATER MAIN
- EXIST. WATER MAIN
- WATER MAIN RMV'D
- GAS MAIN
- SANITARY SEWER
- SANITARY SEWER RMV'D
- STORM SEWER
- UTILITY POLE LINE
- ELECTRIC CABLE
- TELEPHONE CABLE
- 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

MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

AECOM TECHNICAL SERVICES, INC.
112 E. PECAN ST., SUITE 400
SAN ANTONIO, TEXAS 78205
WWW.AECOM.COM
TBPE REG. NO. F-3580

SAN ANTONIO WATER SYSTEM
WATER LINE REPLACEMENT PROJECT
PROP. JOB NO. 12-5108

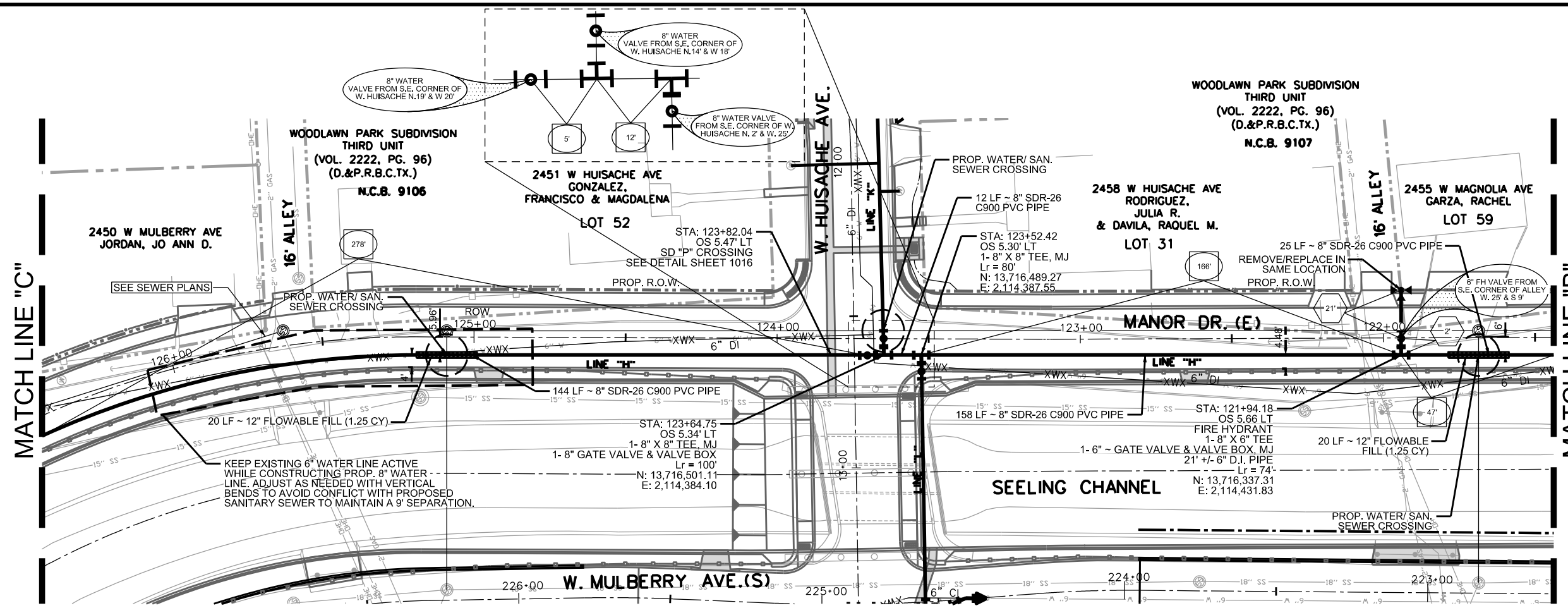
CITY OF SAN ANTONIO
TRANSPORTATION & CAPITAL IMPROVEMENTS
SEELING CHANNEL IMPROVEMENTS PHASE 2

WATER LINE "H"
W. MISTLETOE & W. MAGNOLIA

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1007

PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.



TRENCH EXCAVATION SAFETY PROTECTION
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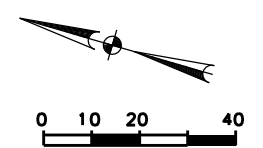
CPS AND TELEPHONE COMPANY NOTES
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NOTE TO CONTRACTOR
 SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION OF LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

Item #	Description	QTY	Total
413	Flowable Fill	QY	2.5
550	Trench Excavation Safety Protection	LF	340
818	8" PVC Waterline	LF	508
828	8" Gate Valve	EA	1
834.1	Fire Hydrant	EA	1
836	Grey-Iron and Ductile Iron Fittings	TON	0.32

LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
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	



MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

AECOM
 AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

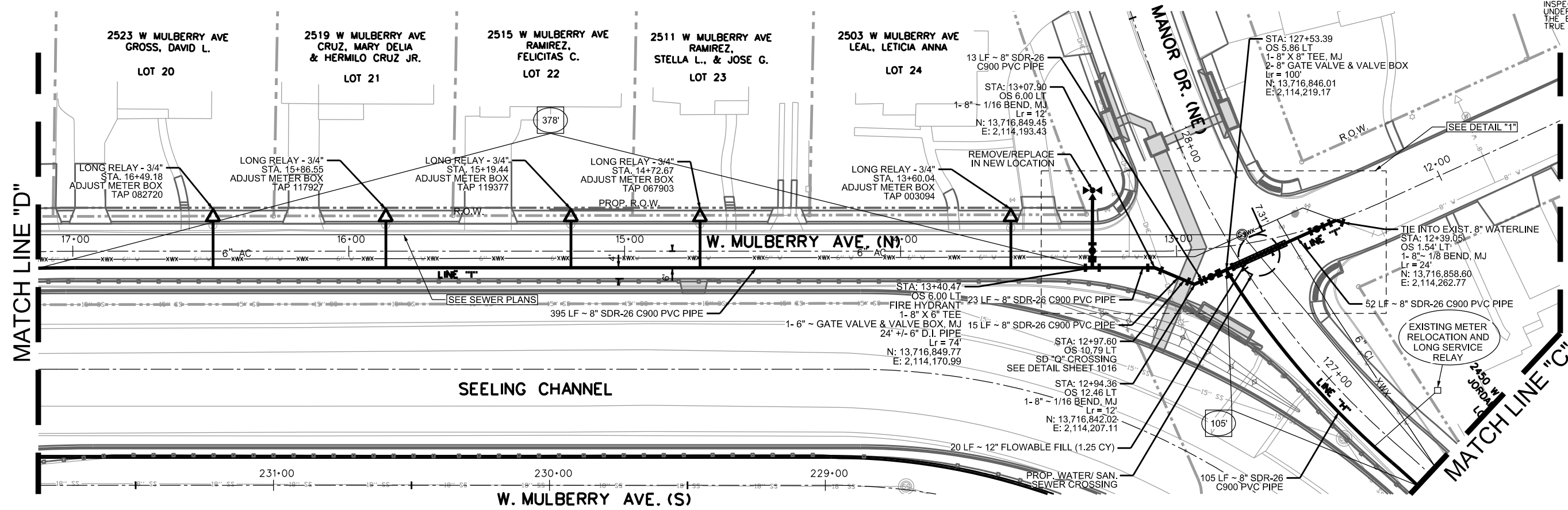
SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2
 WATER LINE PLAN "H"
 MANOR DR. & W. HUISACHE AVE.

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1008

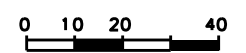
PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.



MATCH LINE "D"

MATCH LINE "C"



TRENCH EXCAVATION SAFETY PROTECTION

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NOTE

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CPS AND TELEPHONE COMPANY NOTES

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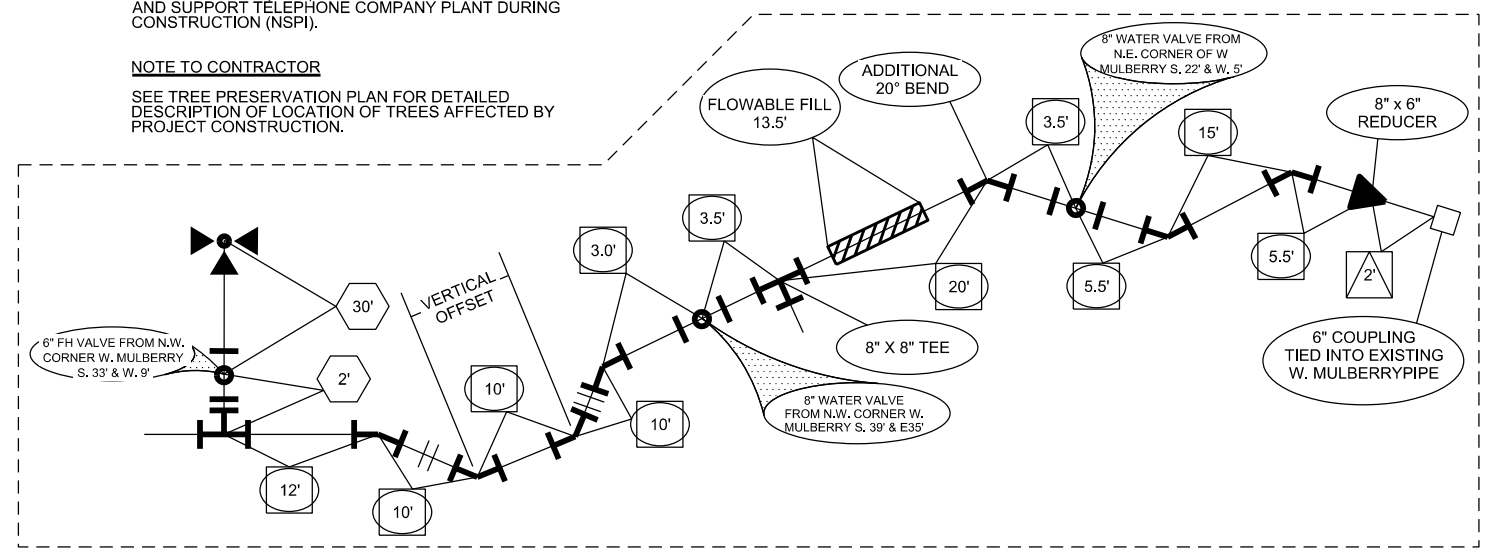
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NOTE TO CONTRACTOR

SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION OF LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

Item #	Description	QTY	Total
413	Flowable Fill	CY	1.25
550	Trench Excavation Safety Protection	LF	590
818	8" PVC Waterline	LF	581
824	Relay 3/4" Long Service	EA	5
828	8" Gate Valve	EA	2
833	Existing Meter & Existing Meter Box Relocation	EA	5
834.1	Fire Hydrant	EA	1
836	Grey-Iron and Ductile Iron Fittings	TON	0.56
840	6" Water Line Tie-In	EA	1
3000.06	Removal, Transportation, and Disposal of AC Pipe	LF	542

DETAIL "1"



LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
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	



MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

AECOM
 AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

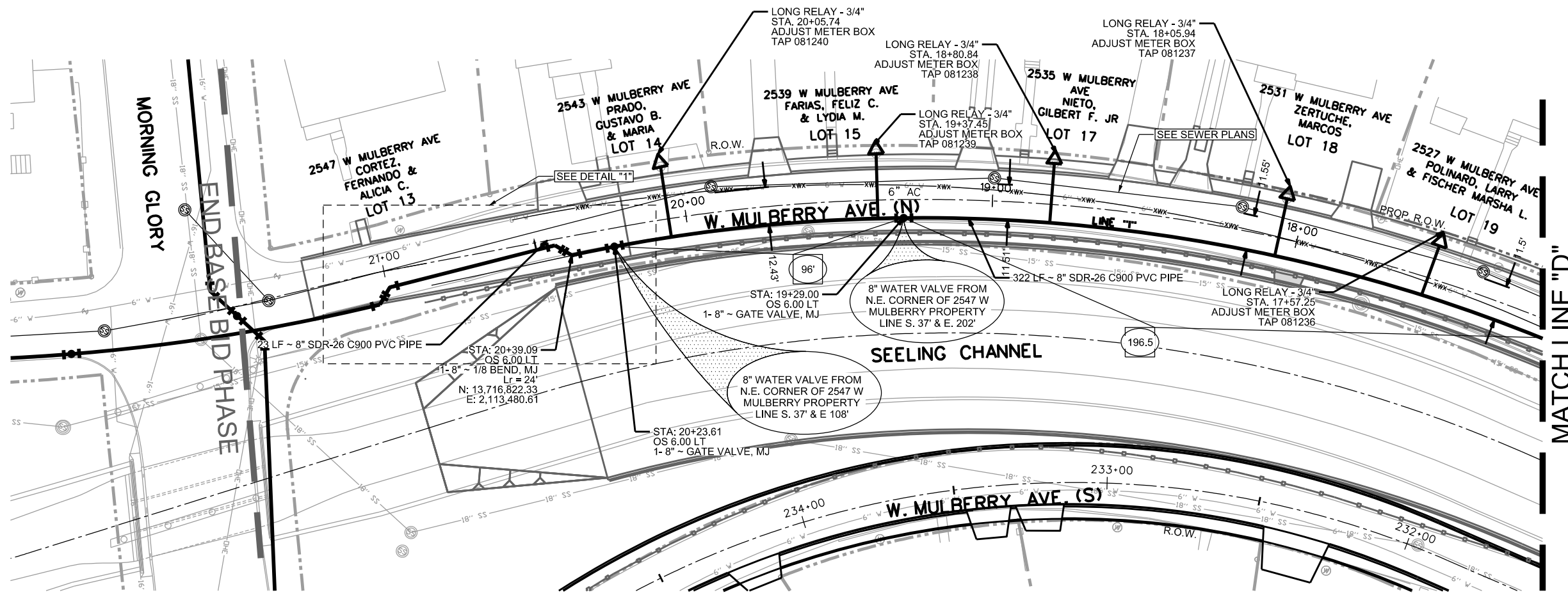
CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2

WATER LINE "H" & "I"
W. MANOR & W. MULBERRY AVE.

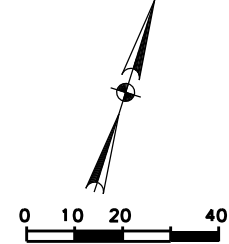
100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1009

PLAN OF RECORD

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MATCH LINE "D"



TRENCH EXCAVATION SAFETY PROTECTION
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NOTE TO CONTRACTOR
 SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION OF LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

Item #	Description	QTY	Total
550	Trench Excavation Safety Protection	LF	345
818	8" PVC Waterline	LF	345
824	Relay 3/4" Long Service	EA	5
828	8" Gate Valve	EA	2
833	Existing Meter & Existing Meter Box Relocation	EA	5
836	Grey-Iron and Ductile Iron Fittings	TON	0.11
840	6" Water Line Tie-In	EA	1
3000.06	Removal, Transportation, and Disposal of AC Pipe	LF	343

LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
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	

Professional Engineer Seal for Robert J. Mengden, Jr., State of Texas, License No. 95546. Date: MARCH 3, 2019.

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

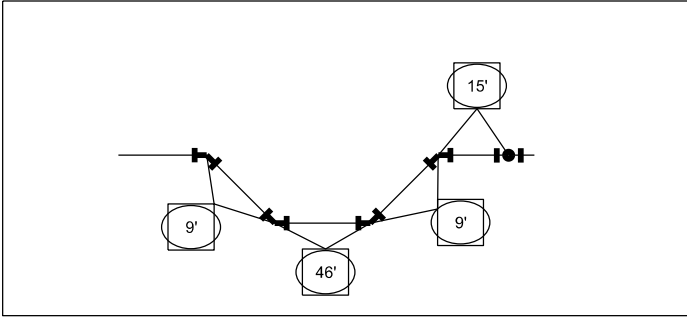
AECOM
 AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2 (BASE BID)

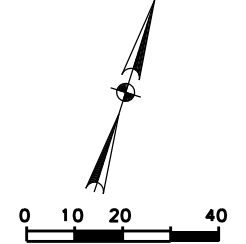
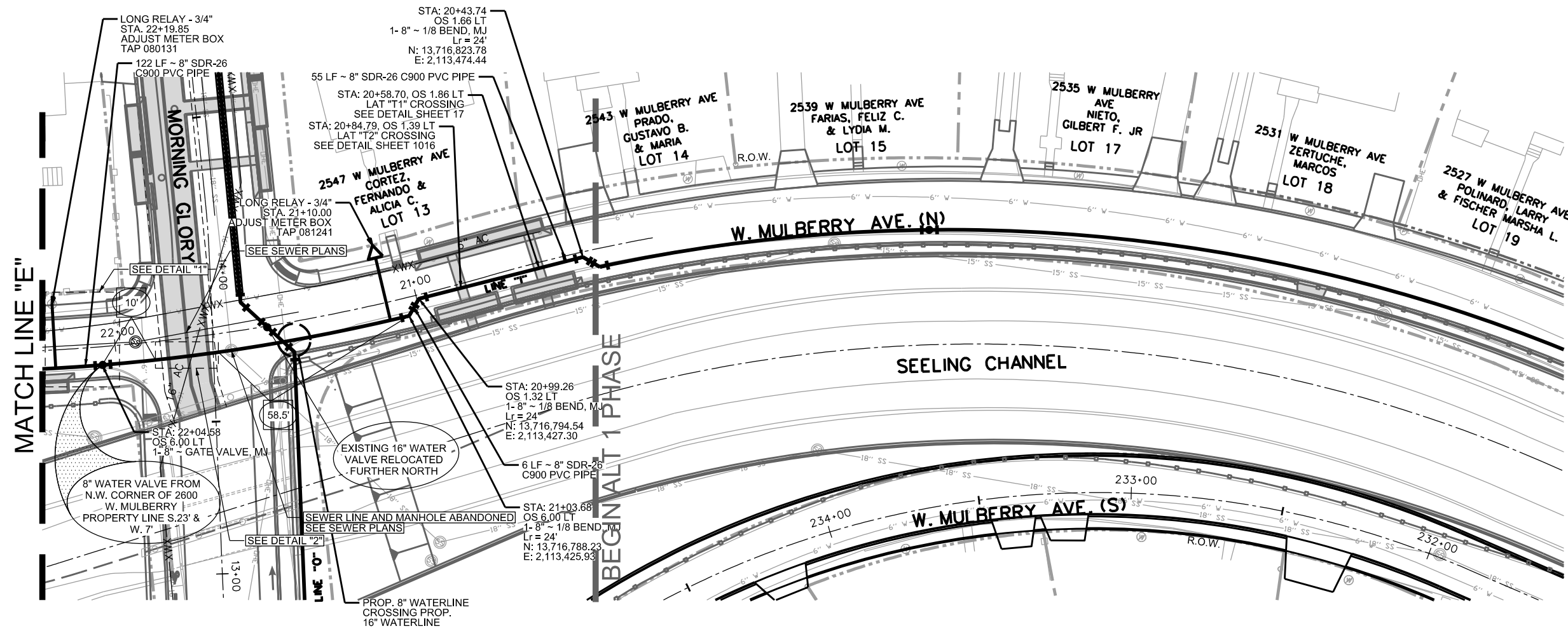
WATER LINE "I"
W. MISTLETOE AVE.

DETAIL "1"



PLAN OF RECORD

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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.

CPS AND TELEPHONE COMPANY NOTES
 CALL THE TEXAS WIDE STATE ONE CALL LOCATOR AT 1-800-545-6005 48 HOURS BEFORE ANY CONSTRUCTION.
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NOTE TO CONTRACTOR
 SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION OF LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

Item #	Description	QTY	Total
550	Trench Excavation Safety Protection	LF	183
818	8" PVC Waterline	LF	183
824	Relay 3/4" Long Service	EA	2
828	8" Gate Valve	EA	1
833	Existing Meter & Existing Meter Box Relocation	EA	2
836	Grey-Iron and Ductile Iron Fittings	TON	0.28
3000.06	Removal, Transportation, and Disposal of AC Pipe	LF	167

LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
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	

Professional Engineer Seal for Robert J. Mengden, Jr., State of Texas, License No. 95546. Date: MARCH 3, 2019.

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

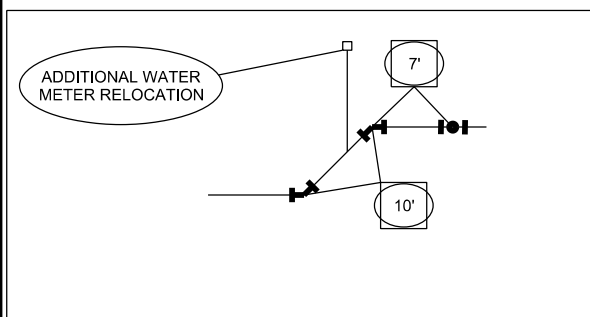
AECOM
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 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

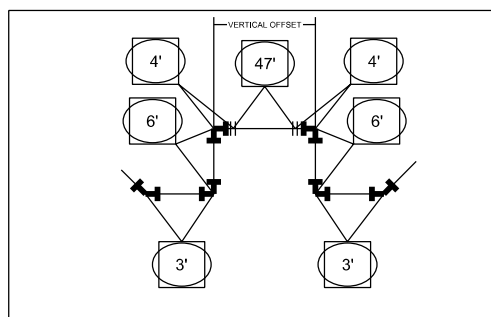
CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2 (ALT 1 BID)

WATER LINE "I"
 W. MISTLETOE AVE.

DETAIL "1"

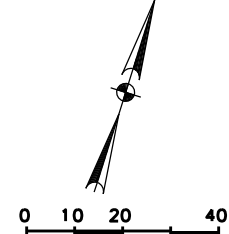
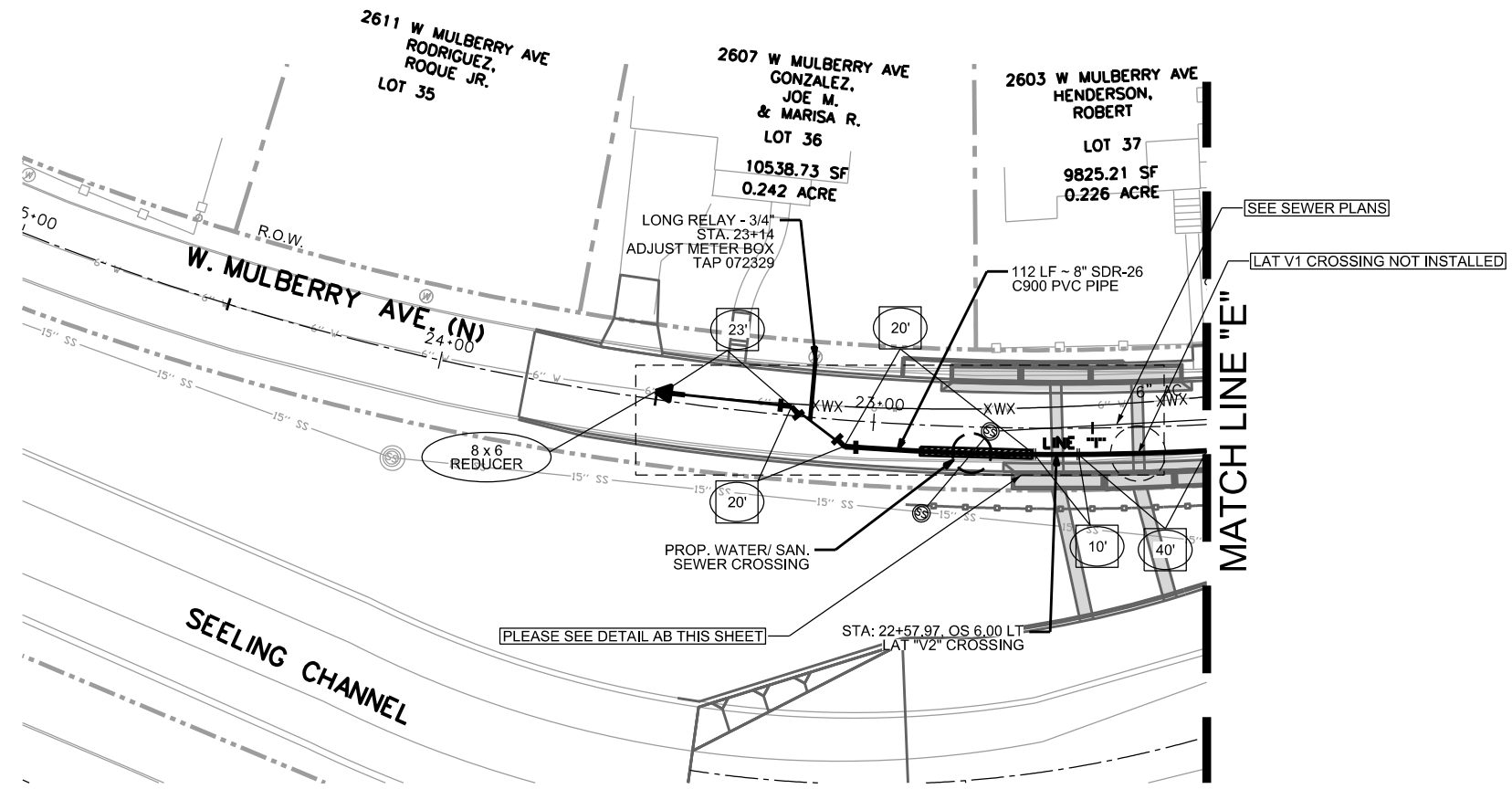


DETAIL "2"



PLAN OF RECORD

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TRENCH EXCAVATION SAFETY PROTECTION

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NOTE

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CPS AND TELEPHONE COMPANY NOTES

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NOTE TO CONTRACTOR

SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION OF LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

Item #	Description	QTY	Total
413	Flowable Fill	CY	1.6
550	Trench Excavation Safety Protection	LF	123
818	8" PVC Waterline	LF	123
836	Grey-Iron and Ductile Iron Fittings	TON	0.16
840	6" Water Line Tie-In	EA	1
824	Relay 3/4" Long Service	EA	1
3000.06	Removal, Transportation, and Disposal of AC Pipe	LF	126

LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
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	

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

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

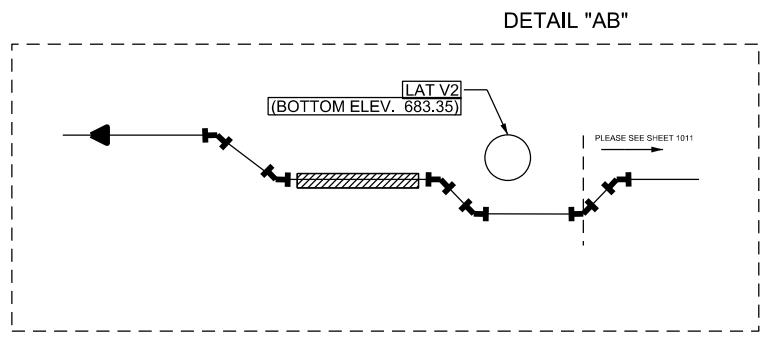
SAN ANTONIO WATER SYSTEM

WATER LINE REPLACEMENT PROJECT
PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO
TRANSPORTATION & CAPITAL IMPROVEMENTS
SEELING CHANNEL IMPROVEMENTS PHASE 2 (ALT 1 BID)

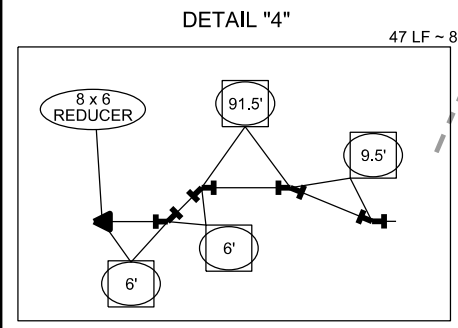
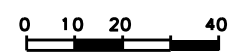
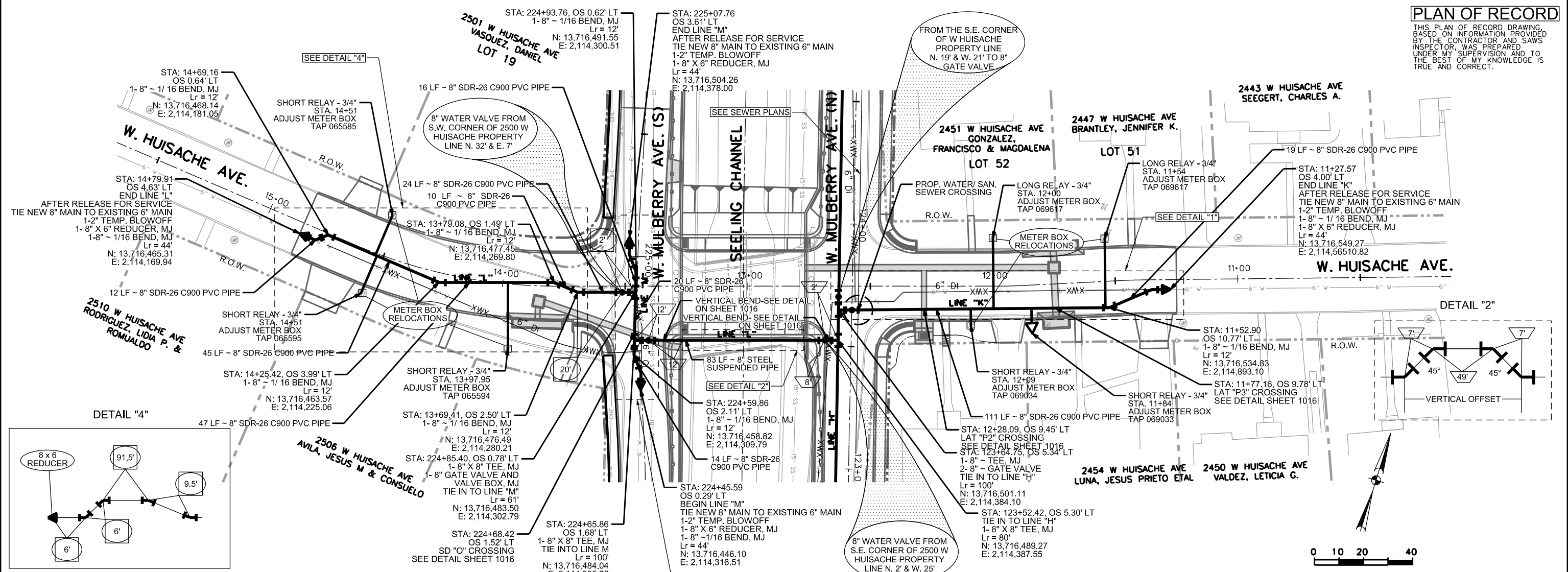
WATER LINE "I" W. MULBERRY AVE.

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1012



PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.



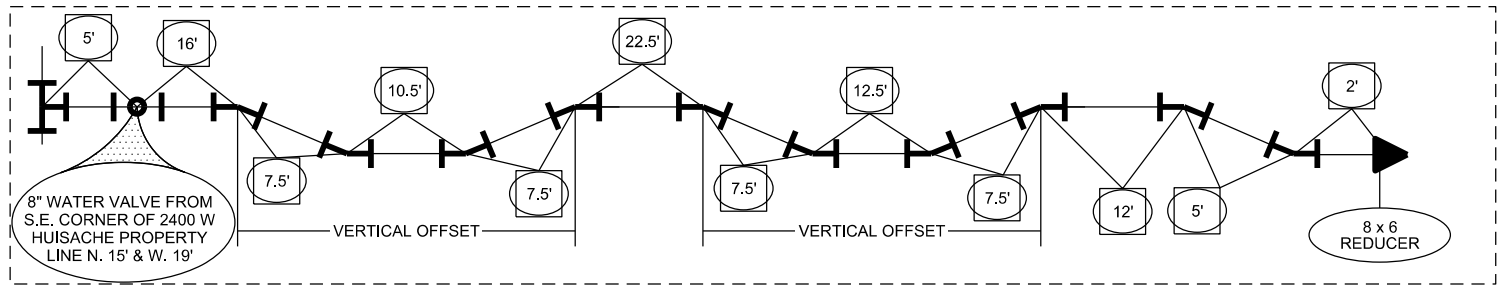
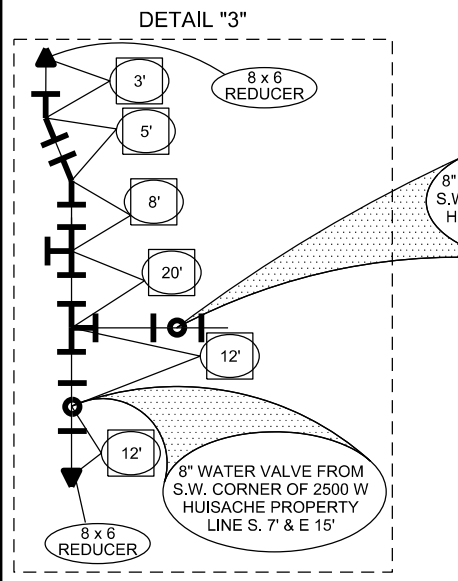
TRENCH EXCAVATION SAFETY PROTECTION
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NOTE
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 FOR DETAIL OF WATER LINE SUSPENSION ON BRIDGE, REFER TO BRIDGE DETAIL SHEET 706.

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

Item #	Description	QTY	Total
550	Trench Excavation Safety Protection	LF	318
816	8" Steel Waterline	LF	83
818	8" PVC Waterline	LF	299
824	Relay 3/4" Long Service	EA	4
824	Relay 3/4" Short Service	EA	2
828	8" Gate Valve	EA	4
833	Existing Meter & Existing Meter Box Relocation	EA	7
836	Grey-Iron and Ductile Iron Fittings	TON	0.92
840	6" Water Line Tie-In	EA	4
844	Temporary 2" Blow Off	EA	2



LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
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	

MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

AECOM
 AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TPBC REG. NO. F-3580

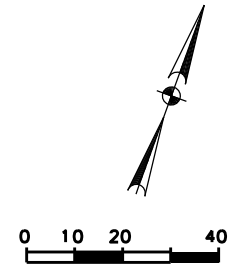
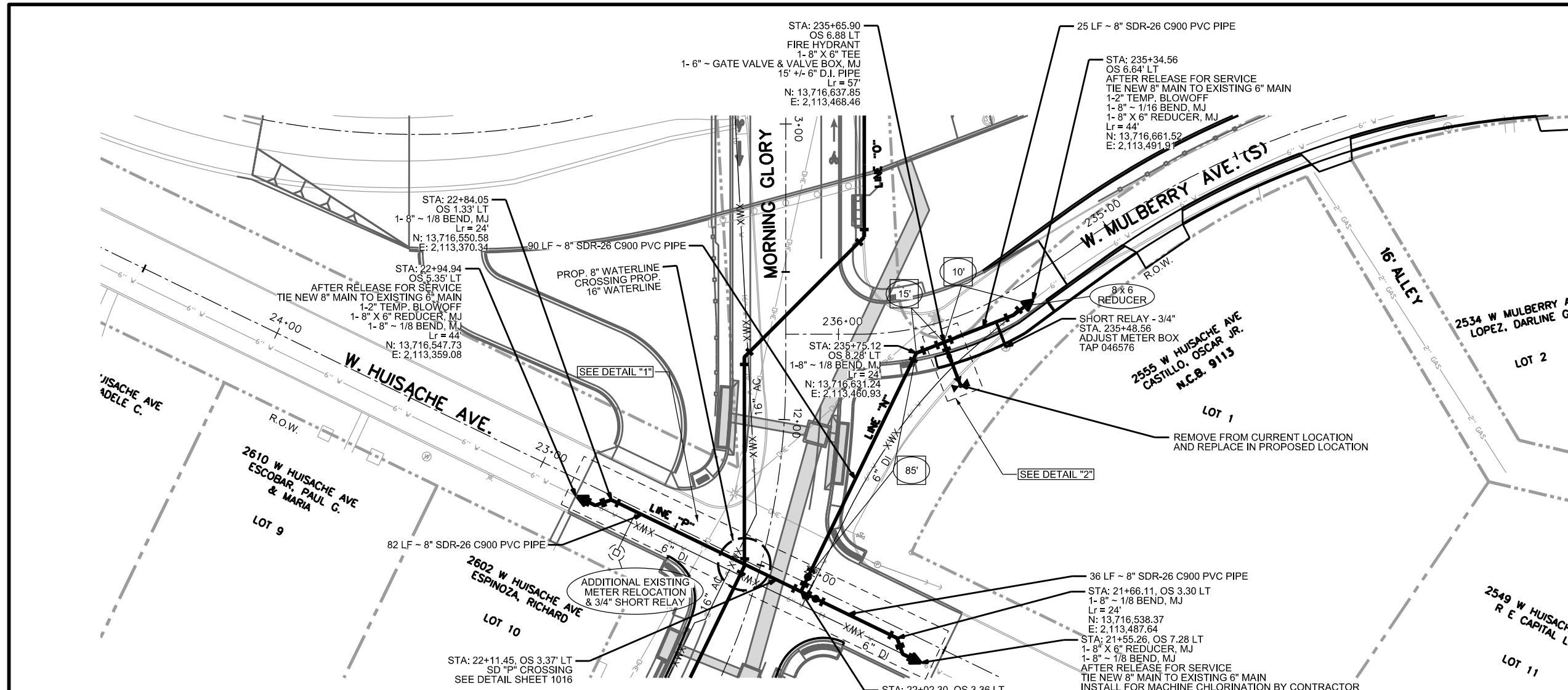
SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2

WATER LINE "K" & "L" & "M"
MANOR DR. & W. HUISACHE AVE.

PLAN OF RECORD

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NOTE TO CONTRACTOR
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Item #	Description	QTY	Total
550	Trench Excavation Safety Protection	LF	233
818	8" PVC Waterline	LF	233
824	Relay 3/4" Short Service	EA	2
828	8" Gate Valve	EA	2
834.1	Fire Hydrant	EA	1
836	Grey-Iron and Ductile Iron Fittings	TON	0.65
840	6" Water Line Tie-In	EA	3
841	Hydrostatic Test	EA	1
844	Temporary 2" Blow Off	EA	2

LEGEND

- PROP. WATER MAIN
- EXIST. WATER MAIN
- WATER MAIN RMV'D
- GAS MAIN
- SANITARY SEWER
- SANITARY SEWER RMV'D
- STORM SEWER
- UTILITY POLE LINE
- ELECTRIC CABLE
- TELEPHONE CABLE
- 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



MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK
REVISIONS				

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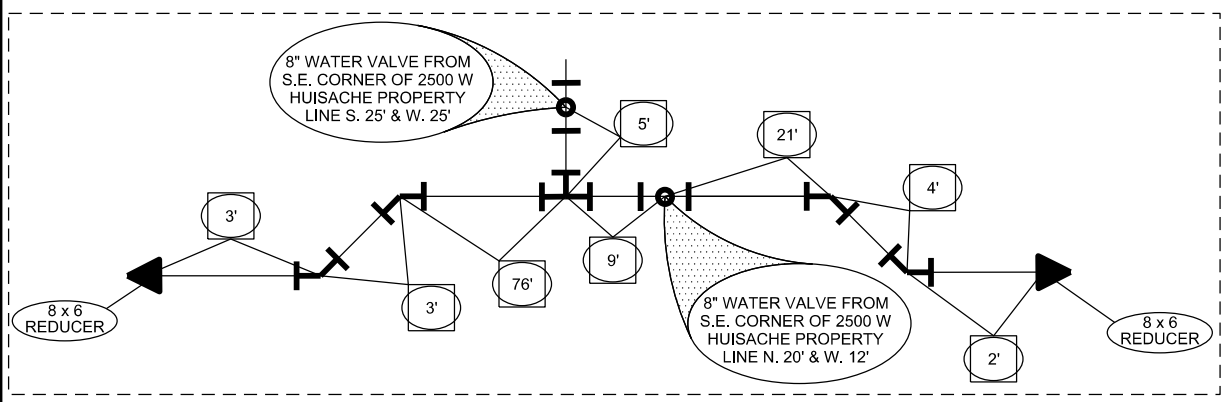
SAN ANTONIO WATER SYSTEM
 WATER LINE
 REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2 (ALT 1 BID)

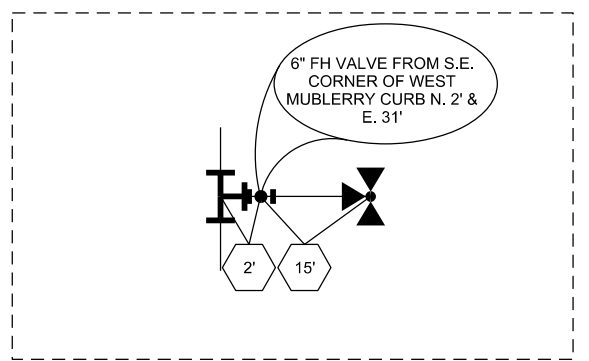
WATER LINE "N" & "P"
MORNING GLORY & W. MULBERRY

100% SUBMITTAL PROJECT NO.: 60312595 DATE: APRIL 2015
 DRWN. BY: CP DSGN. BY: BEH CHKD. BY: MAB SHEET NO. 1014

DETAIL "1"

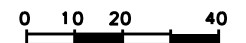
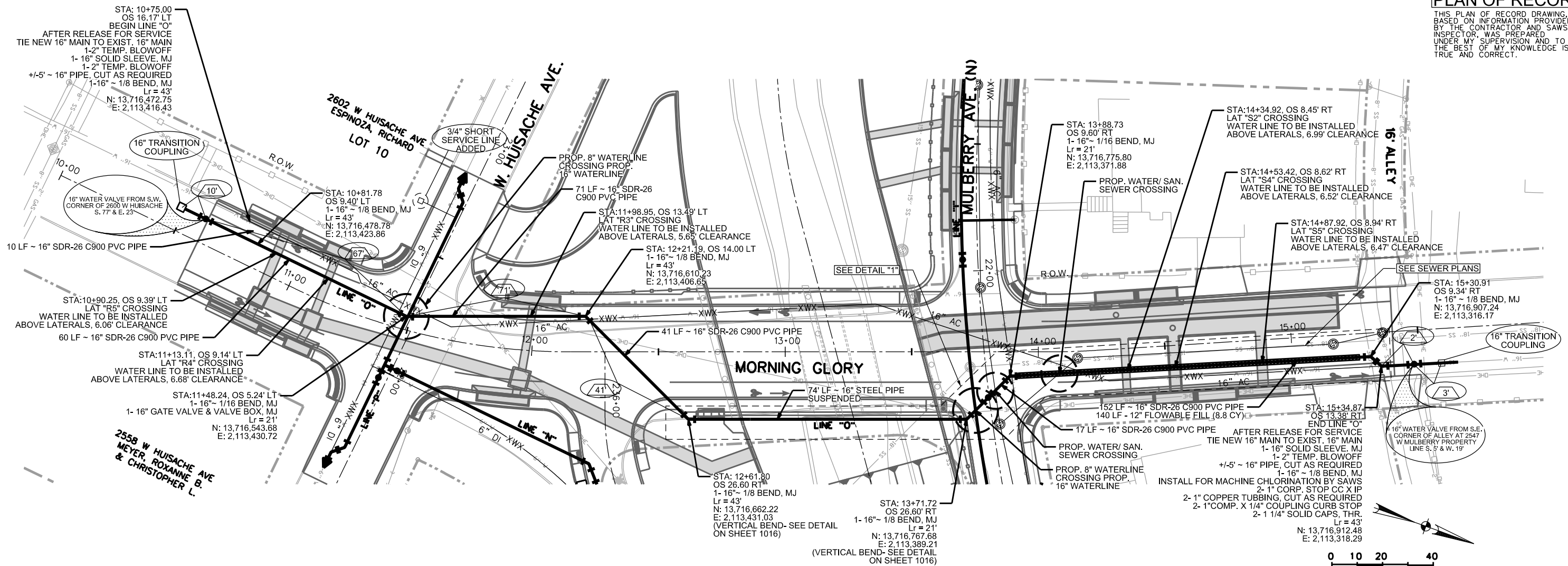


DETAIL "2"



PLAN OF RECORD

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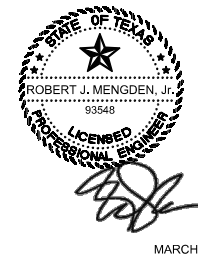
NOTE TO CONTRACTOR

SEE TREE PRESERVATION PLAN FOR DETAILED DESCRIPTION OF LOCATION OF TREES AFFECTED BY PROJECT CONSTRUCTION.

Item #	Description	QTY	Total
413	Flowable Fill	CY	21.0
550	Trench Excavation Safety Protection	LF	351
816	16" Steel Waterline	LF	110
818	16" PVC Waterline	LF	351
836	Grey-Iron and Ductile Iron Fittings	TON	2.06
828	16" Gate Valve	EA	2
834	16" Water Line Tie-In	EA	2
841	Hydrostatic Test	EA	1
844	Temporary 2" Blow Off	EA	2
3000.06	Removal, Transportation, and Disposal of AC Pipe	LF	464

LEGEND

PROP. WATER MAIN	
EXIST. WATER MAIN	
WATER MAIN RMV'D	
GAS MAIN	
SANITARY SEWER	
SANITARY SEWER RMV'D	
STORM SEWER	
UTILITY POLE LINE	
ELECTRIC CABLE	
TELEPHONE CABLE	
DUAL BRANCH SERV.	
NEW UNMETERED SERVICE:	
3/4" SINGLE	
1" DUAL	
SERVICE RECONNECT:	
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SERVICE RELOCATE:	
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RELOCATE METER	
NEW SERVICE:	
3/4"	
1" OR LARGER	



MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK

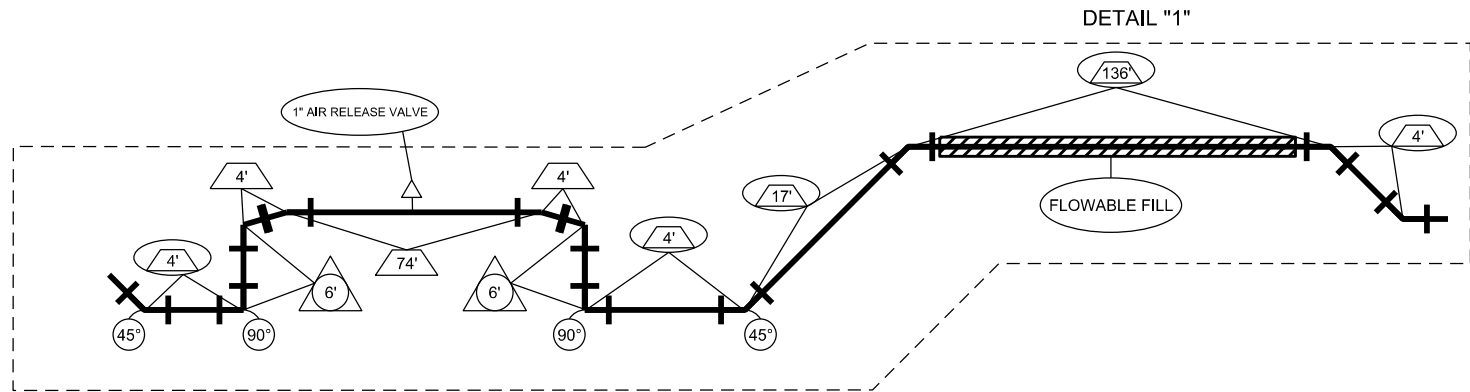
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 AECOM TECHNICAL SERVICES, INC.
 112 E. PECAN ST., SUITE 400
 SAN ANTONIO, TEXAS 78205
 WWW.AECOM.COM
 TBPE REG. NO. F-3580

SAN ANTONIO WATER SYSTEM
 WATER LINE REPLACEMENT PROJECT
 PROP. JOB NO. 12-5108

CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2 (ALT 1 BID)

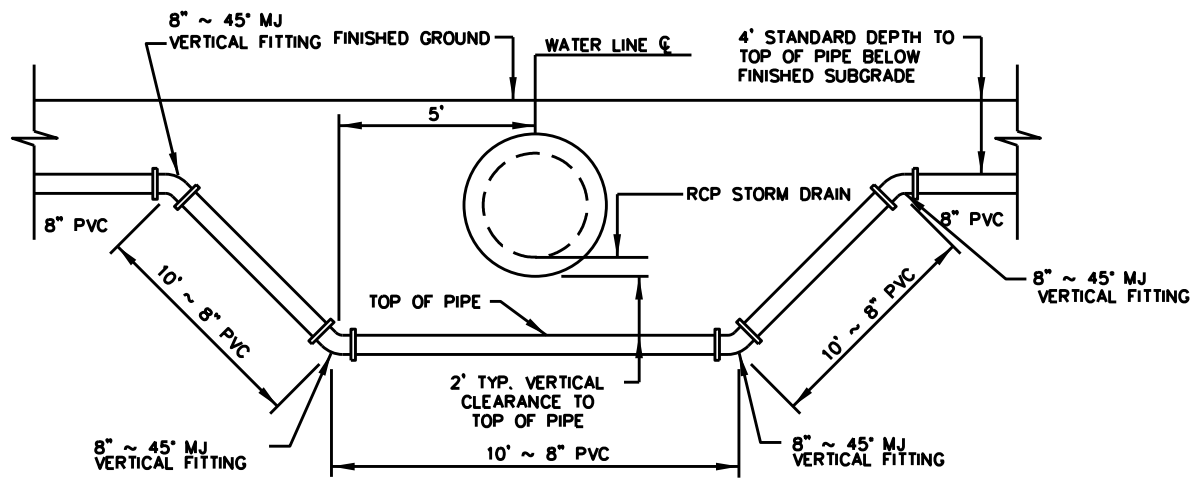
WATER LINE "O" MORNING GLORY

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1015

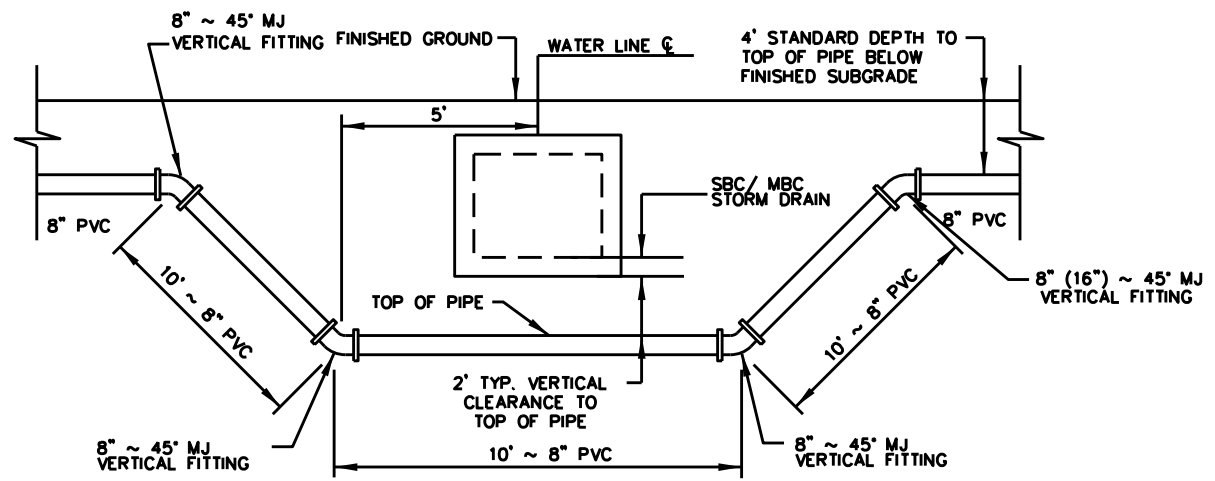


PLAN OF RECORD

THIS PLAN OF RECORD DRAWING, BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND SAWS INSPECTOR, WAS PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.



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



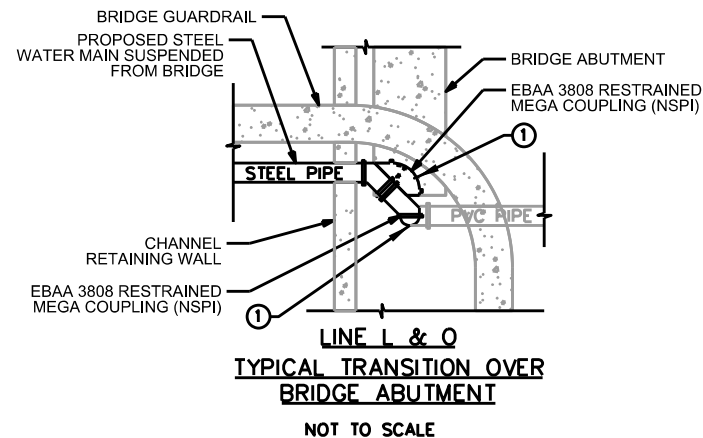
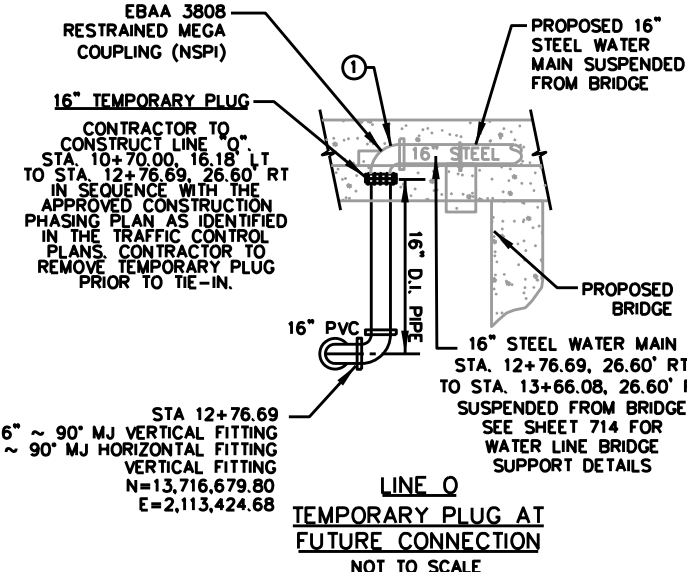
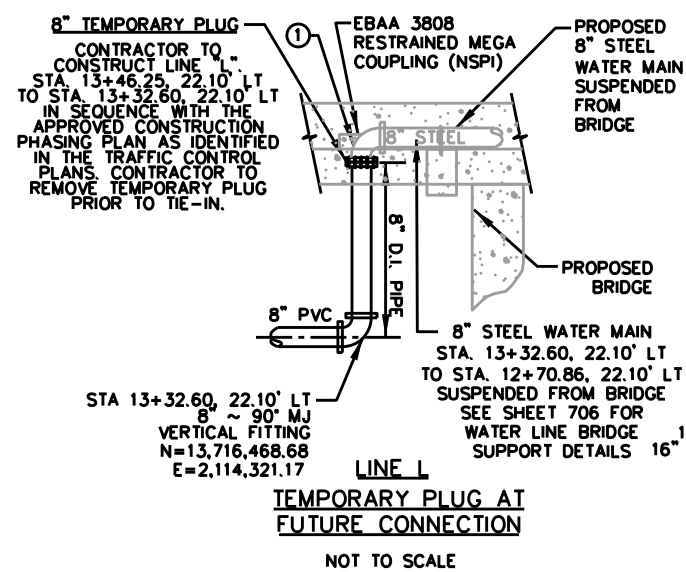
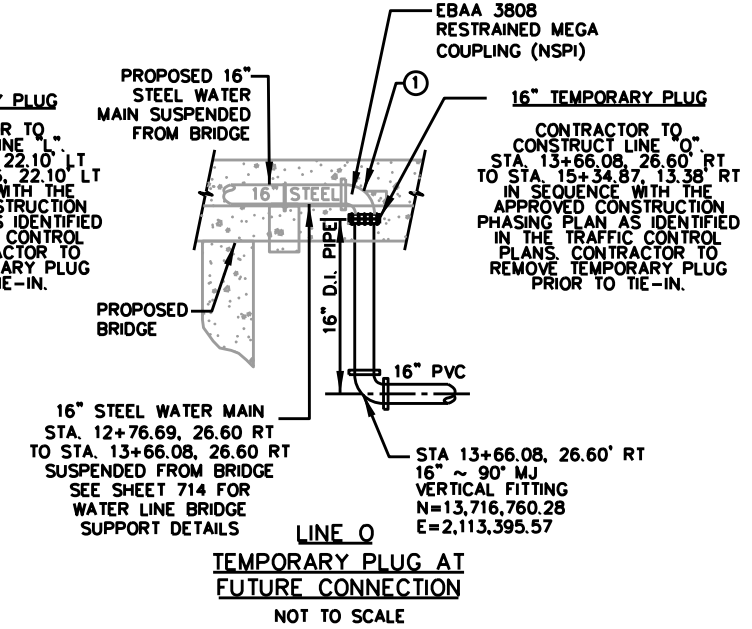
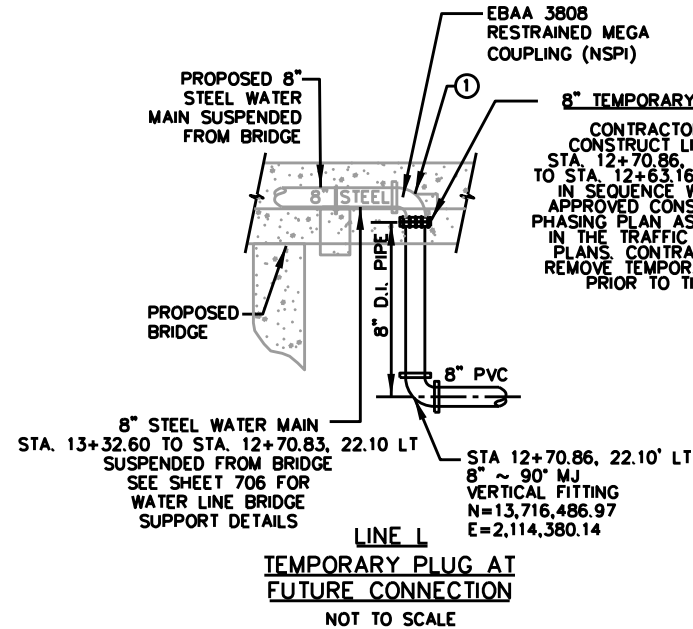
DETAIL 2 - WATER CROSSING UNDER SBC/ MBC STORM DRAIN
NOT TO SCALE

PROPOSED WATER LINE/ STORM DRAIN CROSSINGS	PIPE BOTTOM ELEV.	
WATER LINE "H" - STA: 123+82.04, 5.47' LT	SD "P"	679.52'
WATER LINE "K" - STA: 11+77.16, 9.78' LT	LAT "P2"	681.01'
WATER LINE "K" - STA: 12+28.09, 9.45' LT	LAT "P3"	681.39'
WATER LINE "I" - STA: 12+97.60, 10.79' LT	SD "Q"	678.93'
WATER LINE "I" - STA: 20+55.70, 1.86' LT	LAT "T1"	682.35'
WATER LINE "I" - STA: 20+84.79, 1.39' LT	LAT "T2"	682.35'
WATER LINE "I" - STA: 22+39.63, 6.00' LT	LAT "V1"	682.62'
WATER LINE "I" - STA: 22+57.97, 6.00' LT	LAT "V2"	683.35'
WATER LINE "M" - STA: 224+68.42, 1.52' LT	SD "O"	680.10'
WATER LINE "P" - STA: 22+11.45, 3.37' LT	SD "R"	681.64'

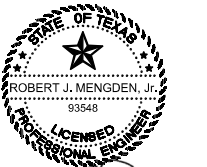
PROPOSED WATER LINE/ STORM DRAIN CROSSINGS	PIPE BOTTOM ELEV.	
WATER LINE "I" - STA: 21+76.56, 6.00' LT	SD "S"	679.19'

SAWS WATER DETAILS

- DD-816-01 COUPLING HARNESS STEEL PIPE
- DD-824-02 SERVICE RELAY, SERVICE RELOCATION 3/4" THRU 2"
- DD-824-03 SERVICE RECONNECTION 3/4" THRU 2"
- DD-828-01 INSTALLATION OF NON-GEARED GATE VALVE
- DD-833-01 TYPICAL METER BOX LOCATION
- DD-834-01 FIRE HYDRANT INSTALLATION
- DD-839-01 JOINT RESTRAINTS FOR FITTINGS
- DD-839-04 RESTRAINED LENGTHS FOR TEES
- DD-839-05 RESTRAINED LENGTHS FOR DEAD ENDS/ INLINE VALVES
- DD-839-06 RESTRAINED LENGTHS FOR VERTICAL OFFSETS
- DD-839-07 RESTRAINED LENGTHS FOR REDUCERS
- DD-839-08 RESTRAINED LENGTHS FOR HORIZONTAL BENDS
- DD-844-01 2" (TEMPORARY) BLOW-OFF ASSEMBLY
- DD-847-01 STANDARD CHLORINATION INSTALLATION



NOTE:
 ① CONTRACTOR SHALL TRANSITION BETWEEN BURIED PIPE AND BRIDGE SUPPORTED PIPE USING ROLLED JOINTS OR OTHER MEANS AND METHODS TO MATCH BRIDGE ELEVATIONS.
 SEE SHEET 706 FOR WATERLINE SUPPORT DETAILS ON HUISACHE BRIDGE AND SHEET 714 FOR WATERLINE SUPPORT DETAILS ON MORNING GLORY BRIDGE.



MARCH 3, 2019

NO	DATE	DESCRIPTION	DWG	CHK



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CITY OF SAN ANTONIO
 TRANSPORTATION & CAPITAL IMPROVEMENTS
 SEELING CHANNEL IMPROVEMENTS PHASE 2

WATER LINE DETAILS

100% SUBMITTAL	PROJECT NO.: 60312595	DATE: APRIL 2015
DRWN. BY: CP	DSGN. BY: BEH	CHKD. BY: MAB
		SHEET NO. 1016