

	PLANS	BY	DATE
	DESIGNED	----	----
	CHECKED	----	----
REGISTERED CIVIL ENGINEER		DATE	

PLANS FOR THE IMPROVEMENT OF MANCHESTER AVENUE POTABLE WATER PIPELINE REPLACEMENT PROJECT OMWD WO NUMBER 18AGR029



VICINITY MAP
NO SCALE

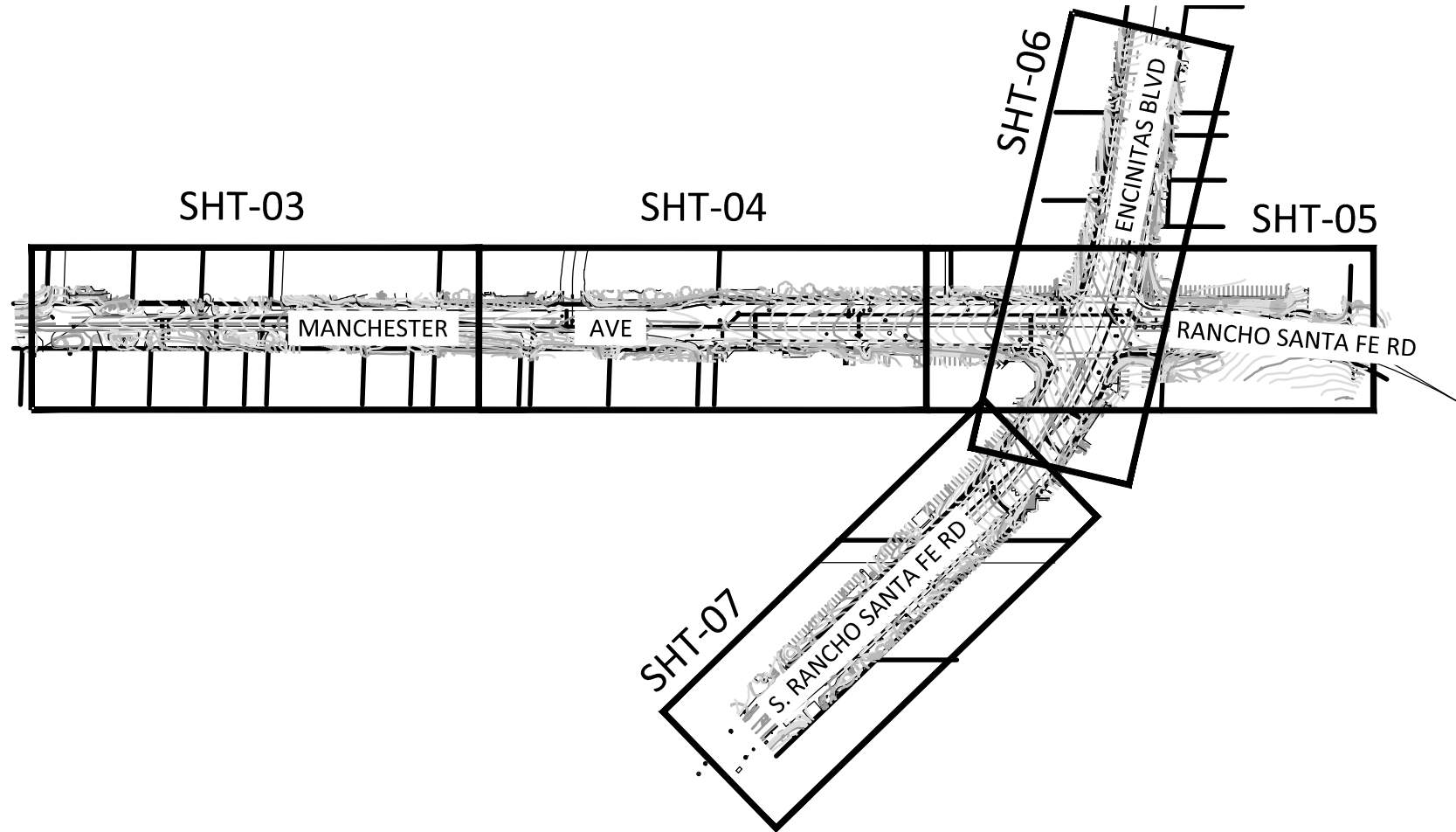


BOARD OF DIRECTORS
 LAWRENCE A. WATT - PRESIDENT
 CHRISTY GUERIN - VICE PRESIDENT
 EDMUND K. SPRAGUE - TREASURER
 ROBERT KEPHART - SECRETARY
 ROBERT F. TOPOLOVAC - DIRECTOR

DECEMBER 2018



LOCATION MAP
1" = 1000'



KEY MAP
1" = 300'

SHEET INDEX	
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REFERENCE DRAWINGS	
DWG 0091-R	ENCINITAS TRACT 88-231
DWG 5515-A	RHO SANTA FE RD & MANCHESTER AVE UNIT "A" PIPELINES
DWG 7422-1	MANCHESTER AVE TPM 00-191
PM 4406	WATER LINE SYSTEM RANCHO PROFESSIONAL PLAZA

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CARLSBAD DOES NOT RELIEVE ME AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

FIRM: HOCH CONSULTING
 ADDRESS: 5675 RUFFIN RD SUITE 305
 CITY, ST.: SAN DIEGO, CALIFORNIA 92123
 TELEPHONE: 858-431-9767
 BY: ADAM HOCH, PE DATE: _____
 R.C.E. NO.: C77635
 REGISTRATION EXPIRATION DATE: 06-30-19



OLIVENHAIN MUNICIPAL WATER DISTRICT
 DEPARTMENT OF ENGINEERING
 1966 OLIVENHAIN ROAD, ENCINITAS, CA. 92024

OLIVENHAIN
 Municipal Water District
 1966 Olivenhain Road
 Encinitas, CA 92024 (760)753-6466

HOCH CONSULTING
 5675 RUFFIN ROAD, SUITE 305
 SAN DIEGO, CA 92123 (858) 431-9767
 www.hochconsulting.com

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	
XXXX N.	XXXX E.
CONST. COMPL. _____	
FIELD REVISIONS _____	

**MANCHESTER AVE POTABLE WATER
PIPELINE REPLACEMENT PROJECT**
 TITLE SHEET

SCALE: HOR. AS SHOWN	VERT. NONE
W.A. XXXX	R.S. XXXX
SHEET 01 OF 11 SHEETS	

90% SUBMITTAL - NOT FOR CONSTRUCTION

WORK TO BE DONE

THE WORK INCLUDES BUT NOT NECESSARILY LIMITED TO THE FOLLOWING:
 THE CONSTRUCTION OF APPROX 2,000 LF OF NEW 12" PVC, 20 LF OF NEW 10" PVC, 1,050 LF OF NEW 8" PVC, AND 320 LF OF NEW 6" PVC WATER PIPELINE; 2,500 LF OF NEW SERVICE LATERAL CONNECTIONS TO 73 EXISTING METERS; 50 LF OF 20" (TRENCHLESS) STEEL CASING; THE INSTALLATION OF 10 - 12" GATE VALVES, 1 - 10" GATE VALVE, 5 - 8" GATE VALVES, 13 - 6" GATE VALVES, 1-12" OCCLUDE VALVE, STANDARD WATER APPURTENANCES; 3700 LF OF EXISTING WATER PIPELINE ABANDONMENT; DEWATERING OF TRENCH EXCAVATIONS; AND ALL INCIDENTAL WORK AS SHOWN OR OTHERWISE REQUIRED IN THE CONTRACT DOCUMENTS.

SPECIFICATIONS AND DRAWINGS

IN ORDER OF PRECEDENCE:

- CONTRACT DRAWINGS
- CONTRACT SPECIFICATIONS
- OLIVENHAIN MUNICIPAL WATER DISTRICT STANDARD SPECIFICATIONS AND DRAWINGS FOR THE CONSTRUCTION OF WATER MAINS AND FACILITIES (LATEST EDITION). REVISIONS THERETO, AS CONTAINED IN THESE PROJECT SPECIFIC DRAWINGS AND SPECIFICATIONS, SHALL TAKE PRECEDENCE OVER THE STANDARD SPECIFICATIONS AND DRAWINGS.
- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
- SAN DIEGO COUNTY HYDRAULIC DESIGN MANUAL (LATEST EDITION).
- SAN DIEGO REGIONAL STANDARD DRAWINGS (LATEST EDITION).

GENERAL NOTES

- THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES REQUIRED TO PROTECT ADJACENT PROPERTIES AND IMPROVEMENTS DURING ALL PROJECT OPERATIONS. DAMAGED OR DESTROYED ITEMS SHALL BE REPAIRED OR REPLACED TO THE CONDITION EXISTING PRIOR TO WORK BY THE CONTRACTOR AT NO COST TO THE DISTRICT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND/OR BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT. THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTS THAT ARE LOCATED WITHIN 10 FEET OF THE CENTERLINE OF CONSTRUCTION BY COVERING THE MONUMENTS WITH 1-INCH THICK STEEL PLATE DURING EXCAVATION AND BACKFILL OPERATIONS OR SHALL EMPLOY ALTERNATIVE PROTECTION MEASURES NECESSARY TO AVOID DISTURBANCE OR DAMAGE TO THE MONUMENTS. ALTERNATIVE PROTECTION MEASURES SHALL BE SUBMITTED FOR DISTRICT REVIEW AND APPROVAL IN ACCORDANCE WITH SECTION 01300.
- THESE DOCUMENTS HAVE BEEN PREPARED FOR A SPECIFIC PROJECT AND SHALL NEITHER BE ALTERED NOR REUSED FOR ANY OTHER PURPOSE. ALSO, THESE DOCUMENTS DO NOT REPRESENT AS-BUILT CONDITIONS. IF THESE DOCUMENTS ARE ALTERED INTENTIONALLY OR UNINTENTIONALLY, OR REUSED WITHOUT THE DESIGN ENGINEER'S WRITTEN APPROVAL, IT WILL BE AT THE SOLE RISK AND RESPONSIBILITY OF THE USER. THE ACT OF ALTERING OR REUSING IS CONSTRUED AS INDEMNIFYING AND HOLDING THE DESIGN ENGINEERING FIRM AND ITS EMPLOYEES AND SUBCONSULTANTS HARMLESS FROM ALL CLAIMS, DAMAGES, AND EXPENSES, INCLUDING ATTORNEY FEES, ARISING OUT OF SUCH ACT.
- CONTRACTOR MAY STAGE MATERIAL AND EQUIPMENT ON SITE. CONTRACTOR SHALL STAGE WITHIN THE LIMITS OF EXISTING OMWD EASEMENT AND COORDINATE THEIR CONSTRUCTION STAGING AREAS WITH THE DISTRICT PRIOR TO MOBILIZATION.
- WORK HOURS SHALL BE BETWEEN THE HOURS OF 7:00 AM TO 3:00 PM, MONDAY THROUGH FRIDAY. NO WORK OF ANY KIND, INCLUDING WARMING UP OR MOVEMENT OF EQUIPMENT IS PERMITTED OUTSIDE THESE HOURS OF OPERATION.
- THE CONTRACTOR SHALL FURNISH TO THE ENGINEER OF WORK AS-BUILT PLANS FOR ALL NEW IMPROVEMENTS SHOWN ON THESE PLANS. ITEMS INCLUDE, BUT ARE NOT LIMITED TO, RECORDING FINAL FINISHED GRADE ELEVATION, CONTOURS, AND FINAL SLOPES.
- IF REQUIRED TO COMPLETE WORK, FINISH GRADE OF NEW CONCRETE PAVING SHALL CONFORM TO EXISTING SITE GRADES OR AS SHOWN ON THESE DRAWINGS AS DIRECTED BY THE ENGINEER. STRAIGHT GRADES SHALL BE MAINTAINED BETWEEN FINISH ELEVATIONS AS SHOWN.
- ALL SURPLUS SEDIMENT, EXCAVATED SOIL, AND DEBRIS SHALL BE LEGALLY DISPOSED OFF SITE. ALL COSTS FOR TRANSPORTATION AND DISPOSAL SHALL BE INCLUDED IN THEIR APPURTENANT ITEMS OF WORK. ESTIMATED QUANTITIES FOR EARTHWORK AND IMPORTED MATERIALS ARE APPROXIMATE AND CONTRACTOR SHALL DEVELOP HIS/HER OWN ESTIMATES FOR BIDDING PURPOSES.
- THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE DISTRICT AND HOCH CONSULTING, ITS EMPLOYEES, OFFICERS, AGENTS, OR SUBCONSULTANTS HARMLESS AGAINST ANY AND ALL CLAIMS BY ANY PARTIES ARISING FROM, OR RELATED TO, ANY AND ALL DAMAGES, INCLUDING LEGAL COSTS AND ATTORNEY'S FEES, RESULTING FROM INTERFERENCE WITH, INTERRUPTION OF, DAMAGE TO, OR ANY AND AL INJURIES WHICH RESULT FROM DAMAGE CAUSED TO SUBSURFACE INSTALLATION, WHICH IS UNFORESEEN AND DESPITE ENGINEER'S EFFORT DURING THE DESIGN PROCESS WAS NOT LOCATED, EXCEPTING ONLY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF THE ENGINEER IN PROVIDING ITS SERVICES.

GENERAL NOTES (CONT)

- NO REVISIONS WILL BE MADE TO THESE PLANS WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER, NOTED WITHIN THE REVISION BLOCK, ON THE APPROPRIATE SHEET OF THE PLANS AND TITLE SHEET.
- THE ORIGINAL DRAWING SHALL BE REVISED TO REFLECT AS-BUILT CONDITIONS BY CONTRACTOR PRIOR TO FINAL ACCEPTANCE OF THE WORK BY OMWD.
- CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
- THE CONTRACTOR SHALL CONFORM TO LABOR CODE SECTION 6705 BY SUBMITTING A DETAIL PLAN TO THE ENGINEER THE DESIGN OF SHORING, BRACING SLOPE OR OTHER PROVISIONS TO BE MADE OF WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCH OR TRENCHES OR DURING THE PIPE INSTALLATION THEREIN. THIS PLAN MUST BE PREPARED FOR ALL TRENCHES FIVE FEET (5') OR MORE IN DEPTH AND APPROVED BY THE CITY ENGINEER AND/OR CONCERNED AGENCY PRIOR TO EXCAVATION. IF THE PLAN VARIES FROM THE SHORING SYSTEM STANDARDS ESTABLISHED BY THE CONSTRUCTION SAFETY ORDERS, TITLE 8 CALIFORNIA ADMINISTRATIVE CODE, THE PLAN SHALL BE PREPARED BY A REGISTERED ENGINEER AT THE CONTRACTORS EXPENSE. A COPY OF THE OSHA EXCAVATION PERMIT MUST BE SUBMITTED TO THE INSPECTOR PRIOR TO EXCAVATION.
- THE EXISTENCE AND LOCATION OF UTILITY STRUCTURES AND FACILITIES SHOWN ON THE CONSTRUCTION PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. ATTENTION IS CALLED TO THE POSSIBLE EXISTENCE OF OTHER UTILITY FACILITIES OR STRUCTURES NOT SHOWN OR IN A LOCATION DIFFERENT FROM THAT SHOWN ON THE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN ON THE PLANS AND ANY OTHER EXISTING FACILITIES OR STRUCTURES NOT SHOWN.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING FACILITIES (ABOVEGROUND AND UNDERGROUND) WITHIN THE PROJECT SITE SUFFICIENTLY AHEAD OF THE CONSTRUCTION TO PERMIT THE REVISIONS OF THE CONSTRUCTION PLANS IF IT IS FOUND THAT THE ACTUAL LOCATIONS ARE IN CONFLICT WITH THE PROPOSED WORK.
- THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITY COMPANIES (SEE BELOW) AT LEAST TWO FULL WORKING DAYS PRIOR TO STARTING CONSTRUCTION NEAR THEIR FACILITIES AND SHALL COORDINATE WORK WITH A COMPANY REPRESENTATIVE.

OLIVENHAIN MUNICIPAL WATER DISTRICT UNDERGROUND SERVICE ALERT	(760)753-6466 (800)422-4133
SAN DIEGO GAS AND ELECTRIC SOUTHERN CALIFORNIA GAS	(800)411-7343
TIME WARNER/CHARTER COMMUNICATIONS	(855)411-0725
COX CABLE	(800)234-3993
CROWN CASTLE	(800)788-7011
CITY OF ENCINITAS (PUBLIC WORKS)	(760)633-2840
SAN DIEGUITO WATER DISTRICT	(760)633-2650
CARDIFF SANITATION DISTRICT	(760)753-5018
SAN ELIJO JOINT POWERS AUTHORITY	(760)802-0104
- ITEMS THAT ARE NOT IDENTIFIED AS "TO BE REMOVED AND DISPOSED" SHALL BE PROTECTED-IN-PLACE.
- ACCESS FOR FIRE AND OTHER EMERGENCY VEHICLES SHALL BE MAINTAINED TO THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.
- IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED WITHIN ANY WORK ZONE DURING CONSTRUCTION, OPERATIONS SHALL CEASE IMMEDIATELY, AND THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER. OPERATIONS SHALL NOT RESTART UNTIL THE CONTRACTOR HAS RECEIVED WRITTEN AUTHORITY FROM THE CITY ENGINEER TO DO SO.
- ALL OPERATIONS EXCEPT TRAFFIC CONTROL CONDUCTED ON THE SITE OR ADJACENT THERETO, INCLUDING WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR OPERATION OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 8:00 PM TO 5:00 AM SUNDAY THROUGH FRIDAY MORNING (NIGHT WORK).
- ALL OFF-SITE HAUL ROUTES SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CITY ENGINEER FOR APPROVAL TWO FULL WORKING DAYS PRIOR TO BEGINNING OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEBRIS OR DAMAGE OCCURRING ALONG THE HAUL ROUTE OR ADJACENT STREETS AS A RESULT OF THE HAULING.
- UNLESS OTHERWISE INDICATED, SUBSURFACE UTILITY DATA IS DEPICTED TO LEVEL C AS DEFINED IN "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" C/ASCE 38-02. LEVEL C INCLUDES SURVEYING SURFACE UTILITY FEATURES AND CORRELATING APPLICABLE UTILITY RECORDS TO THE SURVEYED FEATURES.
- SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES THAT A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR DIG ALERT ID NUMBER CALL UNDERGROUND SERVICE ALERT TOLL FREE 811 TWO FULL WORKING DAYS BEFORE YOU DIG.

BASIS OF COORDINATES & ELEVATIONS

NAD 83 (1991.35 EPOCH)		
PT. # 1029		PT. # 1036
WELL MONUMENT IN CENTERLINE OF ENCINITAS BLVD. 300' EAST OF INTERSECTION WITH WILLOW SPRINGS AT BEGINNING OF LEFT TURN POCKET. N 1960165.668' E 6257029.935' ELEV. 218.103' (NAVD 88) RECORD OF SURVEY 18416		2.5" CITY OF ENCINITAS BRASS DISC IN THE NORTHEAST CORNER OF DRAINAGE INLET ON THE NORTH SIDE OF RANCHO SANTA FE RD. 200' WEST OF THE INTERSECTION WITH LA BAJADA AND EL MIRLO. N 1957305.454' E 6259823.741' ELEV. 37.309' (NAVD 88) RECORD OF SURVEY 18416
NOTE: PROPERTY LINES, RIGHT-OF-WAY LINES, AND EASEMENT LINES SHOWN HEREON WERE ESTABLISHED FROM AVAILABLE RECORD MAPS AND ASSESSOR'S MAPS. NO TITLE REPORTS WERE REVIEWED FOR THIS PROJECT. SELECT RECORD MONUMENTS WERE TIED INTO THE PROJECT COORDINATE SYSTEM TO ORIENTATE RECORD MAPS. BEARINGS AND DISTANCES TAKEN FROM THIS DRAWING REPRESENT A BEST FIT COMPIATION OF RECORD DATA. THESE PROPERTY LINES, RIGHT-OF-WAY LINES, AND EASEMENT LINES ARE INTENDED TO BE USED FOR A GRAPHIC REPRESENTATION ONLY.		

GENERAL POTABLE WATER SYSTEM NOTES

- POTABLE WATER WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS AND MATERIALS AS SPECIFIED IN THE MOST RECENT EDITION OF THE OLIVENHAIN MUNICIPAL WATER DISTRICT (DISTRICT) STANDARD SPECIFICATIONS AND DRAWINGS FOR THE CONSTRUCTION OF WATER MAINS AND FACILITIES, INCLUDING ALL AMENDMENTS ADOPTED PRIOR TO THE DISTRICT APPROVAL DATE ON THESE PLANS. CONTRACTOR SHALL HAVE A COPY OF THE STANDARD SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.
- THE SUBMISSION AND REVIEW OF ALL SUBMITTALS (SHOP DRAWINGS, SIX SETS) AS REQUIRED BY THE STANDARD SPECIFICATIONS ARE TO BE ACCOMPLISHED PRIOR TO THE PRE-CONSTRUCTION MEETING WITH THE DISTRICT'S INSPECTOR.
- UNLESS OTHERWISE NOTED, CONNECTIONS TO EXISTING MAINS SHALL BE MADE DRY. THE TIME AND DURATION OF ANY SHUTDOWNS OF EXISTING MAINS SHALL BE SUBJECT TO APPROVAL BY THE DISTRICT. DISTRICT SHALL BE NOTIFIED TWO WEEKS MINIMUM IN ADVANCE OF ANY SHUTDOWN.
- CONTRACTOR SHALL COORDINATE WITH DISTRICT ALL ARRANGEMENTS FOR HIGH-LINING TEMPORARY SERVICES PRIOR TO SHUTDOWNS. NO SHUTDOWNS WILL BE SCHEDULED ON A MONDAY OR FRIDAY.
- CONTRACTOR SHALL REVIEW ALL PROPOSED TRENCH WORK WITH CAL/OSHA. A COPY OF EXEMPTION LETTER OR TRENCHING PERMIT, IF REQUIRED, SHALL BE SUBMITTED TO THE DISTRICT PRIOR TO CONSTRUCTION.
- NO WORK MAY BEGIN OR PROCEED WITHOUT DIRECTION OF DISTRICT'S INSPECTOR. CONTRACTOR SHALL NOTIFY THE DISTRICT INSPECTIONS DEPARTMENT 48 HOURS PRIOR TO THE BEGINNING OF WORK TO ARRANGE FOR INSPECTION OF THE PROJECT.
- THE CONTRACTOR MUST CALL "DIG ALERT OF SOUTHERN CALIFORNIA" TO HAVE UNDERGROUND SERVICE UTILITIES LOCATED PRIOR TO CONSTRUCTION. THIS CALL WILL BE MADE AT LEAST 48 HOURS IN ADVANCE PRIOR TO ANY WORK BEING PERFORMED IN PUBLIC RIGHT-OF-WAY. (DIG ALERT PHONE: 800-227-2600)
- ALL EXISTING FACILITIES WHICH MAY AFFECT PROJECT CONSTRUCTION, I.E., LINE CROSSINGS, LINE PARALLELING, OR PROPOSED CONNECTIONS SHALL BE FIELD VERIFIED BEFORE ANY CONSTRUCTION BEGINS.
- THE CONTRACTOR SHALL FURNISH AND INSTALL PER THE STANDARD SPECIFICATIONS THE APPROPRIATE BURIED UTILITY WARNING AND IDENTIFICATION TAPE ABOVE ALL PUBLIC WATER LINES INCLUDING WATER LATERALS LOCATED IN PUBLIC RIGHT-OF-WAY.
- WHERE ELEVATIONS AND GRADES ARE NOT SHOWN ON THE WATER MAIN PROFILE, TOP OF PIPE PROFILE IS 48-INCHES BELOW CENTERLINE OF FINISH GRADE OF STREET.
- ALL DEFLECTIONS (HORIZONTAL AND VERTICAL) SHALL BE MADE BY USE OF JOINT COUPLINGS WITH 4 MAXIMUM DEFLECTION PER COUPLING (2 PER JOINT). NO BENDING (CURVING) OF PIPE SHALL BE PERMITTED.
- MANUAL AIR RELEASES SHALL BE INSTALLED AT ALL HIGH POINTS AND BLOW-OFFS AT ALL LOW POINTS IN THE WATER MAIN PROFILE. PLACE MANUAL AIR RELEASES AND BLOW-OFFS WITHIN METER BOX AND LOCATE BEHIND CURB UNLESS OTHERWISE APPROVED BY DISTRICTS REPRESENTATIVE. FIRE HYDRANTS MAY BE USED IN LIEU OF A MANUAL AIR RELEASE OR BLOW-OFF WHEN LOCATED AT OR NEAR HIGH OR LOW POINTS, AS APPROVED BY THE DISTRICTS REPRESENTATIVE.
- INSTALL A MINIMUM 1-INCH WATER SERVICE TO EACH LOT. METER TO BE LOCATED 5-FEET FROM A SIDE LOT LINE. A 3/4-INCH HIGH LETTER "W" SHALL BE CHISELED IN TOP OF EXISTING CURB OR IMPRINTED IN NEW CURB AT ALL WATER SERVICE CROSSINGS.
- METER BOXES SHALL NOT BE PLACED WITHIN DRIVEWAYS OR SIDEWALKS WITHOUT THE DISTRICTS PRIOR WRITTEN CONSENT.
- ALL WATER SERVICES FOR IRRIGATION, MULTIPLE RESIDENTIAL COMPLEXES, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL HAVE APPROVED BACKFLOW PREVENTION DEVICE ON CUSTOMER'S SIDE OF WATER METER.
- CONTRACTOR SHALL TIE OFF ALL VALVE LOCATIONS AND PROVIDE WRITTEN DIMENSIONS TO INSPECTOR IMMEDIATELY UPON INSTALLATION OF VALVES.
- LINE VALVES, WHERE REQUIRED AT STREET INTERSECTIONS SHALL BE LOCATED AT THE TEE WHENEVER POSSIBLE.
- FIRE HYDRANTS, AS APPROVED BY THE APPROPRIATE FIRE DISTRICT AND MEETING THE DISTRICTS STANDARD SPECIFICATIONS, ARE TO BE INSTALLED AT LOCATIONS SPECIFIED BY THE FIRE DISTRICT.
- ALL DESIGN CHANGES TO THE WATER SYSTEM SHALL BE APPROVED BY THE DISTRICT REPRESENTATIVE IN WRITING PRIOR TO CONSTRUCTION AND ACCEPTANCE OF THE CHANGE.
- THE WATER SYSTEM SHALL BE PRESSURE TESTED IN ACCORDANCE WITH THE PROCEDURES IN THE OMWD STANDARD SPECIFICATIONS. THE CLASS OF PIPE SHALL BE USED AS THE DESIGNATED WORKING PRESSURE FOR TESTING ALL PIPE, VALVES (CLOSED) AND APPURTENANCES.
- PIPELINES AND APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 15041 OF THE OMWD STANDARD SPECIFICATIONS PRIOR TO TIE-IN OR CONNECTION TO EXISTING SYSTEM FACILITIES. BACTERIOLOGIC QUALITY TEST RESULTS SHALL CONFORM TO THE CRITERIA SPECIFIED IN THAT SPECIFICATION.
- CONTRACT RECORD DRAWINGS MUST BE SUBMITTED PRIOR TO FINAL ACCEPTANCE OF WORK. THE PLANS MUST PROVIDE POST CONSTRUCTION VERIFICATION OF THE LOCATION AND ELEVATION OF PIPES AND APPURTENANCES.
- CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF ACCEPTANCE FOR THE PROJECT. CONTRACTOR SHALL REPAIR OR REPLACE ANY OR ALL SUCH WORK, TOGETHER WITH ANY OTHER WORK WHICH MAY BE DISPLACED IN SO DOING THAT MAY PROVE DEFECTIVE IN WORKMANSHIP AND/OR MATERIALS WITHIN THE ONE-YEAR PERIOD FROM THE DATE OF ACCEPTANCE WITHOUT EXPENSE WHATSOEVER TO THE DISTRICT, ORDINARY WEAR AND TEAR, UNUSUAL ABUSE OR NEGLECT EXCEPTED.
- ALL IRRIGATION METERS SHALL BE SERVED WITH RECYCLED WATER UNLESS PREVIOUSLY APPROVED IN WRITING BY THE DISTRICT.
- ALL BURIED FITTINGS AND VALVES SHALL BE WAX TAPE WRAPPED IN ACCORDANCE WITH OMWD STANDARD SPECIFICATIONS.
- IF ASBESTOS CEMENT PIPE MUST BE CUT AND HANDLED IN THE FIELD TO ACCOMPLISH THE WORK, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL APPROPRIATE PRECAUTIONS FOR PROTECTING AGAINST THREATS TO HEALTH AND SAFETY OF THE WORK FORCE AND GENERAL PUBLIC ARISING OUT OF CONSTRUCTION INVOLVING ASBESTOS. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS FOR THE HANDLING, CUTTING, SHAPING, INSTALLATION AND DISPOSAL OF ASBESTOS. ASBESTOS CEMENT PIPE TO BE DISPOSED SHALL BE PROPERLY MANIFESTED, PREPARED FOR TRANSPORT FOLLOWING CRITERIA OF COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS, SOLID WASTE DIVISION, AND DELIVERED TO A LANDFILL PERMITTED FOR DISPOSAL OF NON-FRIABLE ASBESTOS CONTAINING MATERIALS. THE COMPLETED GENERATOR COPY (YELLOW) MANIFEST SHALL BE RETURNED TO THE DISTRICT'S REPRESENTATIVE. ALL COSTS FOR HANDLING AND DISPOSAL OF THE AC PIPE SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
- THE CONTRACTOR SHALL INSTALL NEW WATER SERVICE ASSEMBLIES TO EXISTING WATER METERS (TYP) PER DISTRICT STD DWG B-1.1. RECONNECTIONS TO EXISTING METERS SHALL BE PERFORMED, UNLESS OTHERWISE DIRECTED BY THE DISTRICT. CONTRACTOR SHALL FIELD VERIFY EXISTING SERVICE CONNECTIONS AND METER LOCATIONS PRIOR TO COMMENCING WORK.

LEGEND

PLANS	BY	DATE
DESIGNED	----	----
CHECKED	----	----

	EXIST INDEX CONTOUR
	EXIST INTERMEDIATE CONTOUR
	EXIST RIGHT-OF-WAY
	EXIST WATER METER
	EXIST FIRE HYDRANT
	EXIST WATER VALVE
	EXIST BLOWOFF
	EXIST BACK FLOW PREVENTER
	EXIST POWER POLE
	EXIST STREET LIGHT
	EXIST PULLBOX
	EXIST ELECTRIC CONTROL PANEL
	EXIST TELEPHONE RISER
	EXIST GAS VALVE
	EXIST SEWER MANHOLE
	EXIST SEWER CLEANOUT
	EXIST STORM DRAIN MANHOLE
	EXIST TREE
	EXIST SIGN
	SURVEY MONUMENT

ABBREVIATIONS

ACP	ASBESTOS CEMENT PIPE
APPROX	APPROXIMATE
ASSY	ASSEMBLY
BC	BEGINNING OF CURVATURE
BO	BLOW-OFF
CL	CENTERLINE, CLASS
CONC	CONCRETE
CML&C	CEMENT MORTAR LINED & COATED
CPLG	COUPLING
DWVG	DRAWING
E	EASTING
EC	END OF CURVATURE
ELEV	ELEVATION
E'LY	EASTERLY
EX	EXISTING
F	FLANGE
FL	FLOWLINE
FM	FORCE MAIN
FS	FINISH SURFACE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH PRESSURE
INT	INTERSECTION
LF	LINEAR FEET
LN	LANE
LT	LEFT
MAR	MANUAL AIR RELEASE
MAX	MAXIMUM
MH	MANHOLE
MJ	MECHANICAL JOINT
MOD	MODIFIED
N	NORTHING
NG	NATURAL GROUND
OMWD	OLIVENHAIN MUNICIPAL WATER DISTRICT
PCC	PORTLAND CEMENT CONCRETE
PH	POTHOLE
PRC	POINT OF REVERSING CURVATURE
PVC	POLYVINYL CHLORIDE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
RD	RIGHT
SD	STORM DRAIN
SDCO	STORM DRAIN CLEANOUT
SDMH	STORM DRAIN MANHOLE
SDSD	SAN DIEGO STANDARD DRAWING
STD	STANDARD
STL	STEEL
SWR	SEWER
TER	TERRACE
TG	TOP OF GRATE
TYP	TYPICAL
UNK	UNKNOWN
VCP	VITRIFIED CLAY PIPE
W'LY	WESTERLY
WTR	WATER



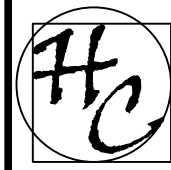
CALL 811
AT LEAST TWO DAYS
BEFORE YOU DIG

Know what's Below.
Call before you dig.
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

OLIVENHAIN MUNICIPAL WATER DISTRICT
DEPARTMENT OF ENGINEERING
 1966 OLIVENHAIN ROAD, ENCINITAS, CA. 92024



Municipal Water District
1966 Olivenhain Road
Encinitas, CA 92024 (760)753-6466



HOCH CONSULTING
5675 RUFFIN ROAD, SUITE 305
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www.hochconsulting.com

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX	
XXXX N.	XXXX E.
CONST. COMPL. _____	
FIELD REVISIONS _____	

MANCHESTER AVE POTABLE WATER
PIPELINE REPLACEMENT PROJECT

NOTES, ABBREVIATIONS, LEGEND & MISC

SCALE: HOR. NONE	VERT. NONE
W.A. XXXX	R.S. XXXX
SHEET_02 OF 11 SHEETS	

90% SUBMITTAL - NOT FOR CONSTRUCTION

PLANS	BY	DATE
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HORIZONTAL BORING FOR METER SERVICE CONNECTIONS

- FOR METER SERVICE PIPES 1-INCH OR LARGER IN DIAMETER, THE MAXIMUM BORE HOLE SIZE PERMISSIBLE SHALL BE TWICE THE INTERNAL DIAMETER OF THE SERVICE LINE BEING INSTALLED. FOR METER SERVICE PIPES SMALLER THAN 1-INCH IN DIAMETER, THE MAXIMUM BOREHOLE SIZE SHALL BE (2) INCHES IN DIAMETER.

WATER MAIN SHUTDOWN NOTES

- FOR SHUTDOWNS THAT ARE NECESSARY TO ACCOMPLISH THE WORK, THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO OMWD AT LEAST THREE (3) CALENDAR WEEKS BEFORE THE SHUTDOWN. REQUESTS SHALL SPECIFY LOCATION, SIZE OF LINE, DURATION, DATE, AND TIME FOR EACH SHUTDOWN. WITHIN ONE (1) WEEK, THE DISTRICT WILL SCHEDULE SHUTDOWN AND GIVE WRITTEN NOTIFICATION TO THE CONTRACTOR. ANY SCHEDULE REVISIONS REQUESTED BY THE CONTRACTOR MUST BE IN WRITING. OMWD'S REVISED SCHEDULE WILL BE AVAILABLE WITHIN ONE (1) WEEK. THE DISTRICT DOES NOT GUARANTEE A TOTALLY DRY LINE. THE CONTRACTOR SHALL BE PREPARED TO DE-WATER AS NECESSARY TO ACCOMPLISH THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESSIBILITY TO THE VALVE OPERATING NUTS FOR ALL VALVES WITHIN THE PROJECT BOUNDARIES. FAILURE TO MAINTAIN ACCESSIBILITY TO VALVES SHALL BE CAUSE FOR CANCELING SHUTDOWN, AND THE CONTRACTOR WILL BE REQUIRED TO REQUEST A REVISED SCHEDULE.
- THE DISTRICT IS INDEMNIFIED FOR ANY AND ALL RESULTANT COSTS INCURRED BY THE CONTRACTOR SUCH AS, BUT NOT LIMITED TO TRAFFIC CONTROL, DELAYS, LOSS OF INCENTIVES, STANDBY AND PENALTIES IF THE CONTRACTOR DID NOT PROPERLY REQUEST A SHUTDOWN; FAILURE TO MAINTAIN ACCESSIBILITY TO VALVES; OR IF THE CONTRACTOR'S SCHEDULED WORK DID NOT PROGRESS TO THE ANTICIPATED SHUTDOWN SCHEDULE.

EXCAVATION NOTE

- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE DIVISION OF INDUSTRIAL SAFETY BEFORE ANY EXCAVATION AND SHALL PROVIDE PROOF OF OSHA NOTIFICATION AND SHALL ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS.

SIGNING AND STRIPING NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL SIGNING AND STRIPING THAT WAS REMOVED OR DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
- ALL SIGNING, STRIPING AND PAVEMENT MARKINGS SHALL CONFORM TO THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST VERSION), THE CALTRANS STANDARD PLANS AND SPECIFICATIONS (LATEST VERSION), THESE PLANS AND THE SPECIAL PROVISIONS.
- ALL SIGNING AND STRIPING IS SUBJECT TO THE APPROVAL OF THE TRANSPORTATION DIRECTOR OR HIS REPRESENTATIVE, PRIOR TO INSTALLATION.
- ANY DEVIATION FROM THESE SIGNING AND STRIPING PLANS SHALL BE APPROVED BY THE TRANSPORTATION DIRECTOR OR A REPRESENTATIVE PRIOR TO ANY CHANGE IN THE FIELD.
- ALL STRIPING SHALL BE REFLECTIVE PER CALTRANS SPECIFICATIONS. STRIPING SHALL BE REPAINTED TWO WEEKS AFTER INITIAL PAINTING.
- ALL SIGNAGE SHALL BE REFLECTIVE PER ASTM DESIGNATION D4956 AND SHALL USE TYPE IV PRISMATIC REFLECTIVE SHEETING (HIGH INTENSITY PRISMATIC OR EQUAL) UNLESS OTHERWISE SPECIFIED. R1-1 "STOP", R1-2 "YIELD", R2-1 "SPEED LIMIT" AND STREET NAME SIGNS SHALL USE TYPE IX PRISMATIC CUBE-CORNER REFLECTIVE SHEETING (DIAMOND GRADE VIP OR EQUAL).
- PRIOR TO FINAL ACCEPTANCE OF STREET IMPROVEMENTS, ALL STREET STRIPING AND MARKINGS WITHIN A 500' PERIMETER OF THE CONSTRUCTION PROJECT WILL BE RESTORED TO A "LIKE NEW" CONDITION, IN A MANNER MEETING THE APPROVAL OF THE CITY INSPECTOR.
- EXACT LOCATION OF STRIPING AND STOP LIMIT LINES SHALL BE APPROVED BY THE TRANSPORTATION DIRECTOR OR HIS REPRESENTATIVE PRIOR TO INSTALLATION.
- CONTRACTOR SHALL REMOVE ALL CONFLICTING PAINTED LINES, MARKINGS AND PAVEMENT. ALL PAVEMENT LEGENDS SHALL BE THE LATEST VERSION OF THE CALTRANS STENCILS.
- ALL CROSSWALKS, LIMIT LINES, STOP BARS, PAVEMENT ARROWS AND PAVEMENT LEGENDS SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED. PREFORMED THERMOPLASTIC ARROWS AND LEGENDS SHALL NOT BE ACCEPTABLE.
- SHOULD THERE BE ANY DAMAGE TO STOP BAR STRIPING, THE ENTIRE STOP BAR SHALL BE REMOVED AND NEW THERMO PLASTIC STOP BAR BE INSTALLED. ANY STRIPING TO BE REMOVED SHALL BE WET SANDBLASTED UNLESS APPROVED BY THE CITY ENGINEER.

MONUMENTATION / SURVEY NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LICENSED LAND SURVEYOR OR LICENSED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA SHALL FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR ANY EARTHWORK, DEMOLITION OR SURFACE IMPROVEMENTS. IF DESTROYED, A LICENSED LAND SURVEYOR SHALL REPLACE SUCH MONUMENT(S) WITH APPROPRIATE MONUMENTS. WHEN SETTING SURVEY MONUMENTS USED FOR RE-ESTABLISHMENT OF THE DISTURBED CONTROLLING SURVEY MONUMENTS AS REQUIRED BY SECTIONS 6730.2 AND 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILLED WITH THE COUNTY SURVEYOR. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF ENCINITAS FIELD SURVEY SECTION SHALL BE NOTIFIED IN WRITING AT LEAST 7 DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPLACING AND VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

GENERAL TRAFFIC CONTROL NOTES

- AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON ALL NIGHT LANE CLOSURES.
- ALL WARNING SIGNS FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED REFLECTORIZED AS SPECIFIED IN THE SPECIFICATIONS.
- ALL ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES OF ALL MAJOR AND PRIME ARTERIALS. FLASHING BEACONS SHALL BE USED DURING NIGHT LANE CLOSURES.
- A G20-2 "END ROAD WORK" SIGN SHALL BE PLACED AT THE END OF THE LANE CLOSURE UNLESS THE END OF THE WORK AREA IS OBVIOUS, OR ENDS WITHIN A LARGER PROJECT LIMITS.
- ALL CONES USED FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED TRAFFIC CONES OR FITTED WITH 13" REFLECTIVE SLEEVES.
- FLASHING ARROW SIGNS SHALL BE USED PER THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CALIFORNIA MUTCD, LATEST EDITION) SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
- THE MAXIMUM SPACING BETWEEN CONES IN A TAPER OR A TANGENT SHALL BE APPROXIMATELY 10 FEET.
- ADDITIONAL ADVANCE FLAGGERS SHALL BE REQUIRED WHEN TRAFFIC QUEUES DEVELOP. FLAGGER STATIONS FOR WORK AT NIGHT SHALL BE ILLUMINATED AS NOTED IN SECTION 66.20 OF THE MUTCD.
- PLACE C30 (CA) "LANE CLOSED" SIGN AT 500'-1000' INTERVALS THROUGHOUT EXTENDED WORK AREAS.
- ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED USING SQUARE PERFORATED STEEL TUBING WITH BREAKAWAY BASE PER SDRSD M-45.
- CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF SECTION 12 OF THE MOST RECENT EDITION OF THE CALTRANS STANDARD SPECIFICATIONS.

GENERAL TRAFFIC SIGNAL NOTES

- DAMAGE TO TRAFFIC SIGNAL CONDUIT OR WIRING SHALL BE REPAIRED IMMEDIATELY AT NO COST TO THE CITY.
- THE TRAFFIC LOOPS SHALL BE REPLACED WITHIN 3 DAYS OF COMPLETING WORK IN THE AREA TO CURRENT CALTRANS STANDARD TO DETECT BICYCLES PER TRAFFIC OPERATIONS POLICY DIRECTIVE 09-06 AT NO COST TO THE CITY.



OLIVENHAIN MUNICIPAL WATER DISTRICT
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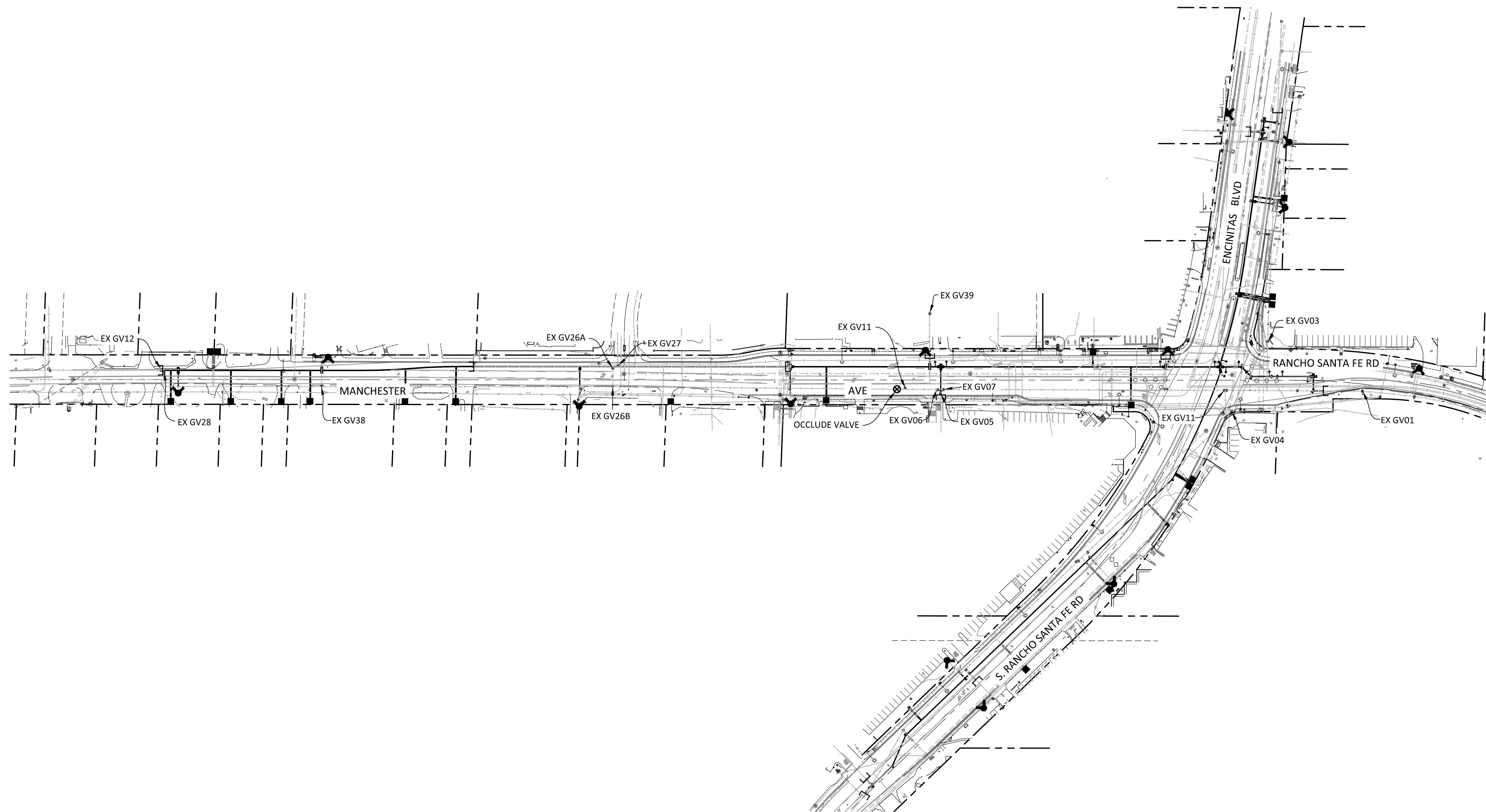
MANCHESTER AVE POTABLE WATER
PIPELINE REPLACEMENT PROJECT
 MISCELLANEOUS NOTES

SCALE: HOR. <u> NONE </u> VERT. <u> NONE </u>
W.A. <u> XXXX </u> R.S. <u> XXXX </u>
SHEET <u> 03 </u> OF <u> 11 </u> SHEETS

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PLANS	BY	DATE
DESIGNED	----	----
CHECKED	----	----

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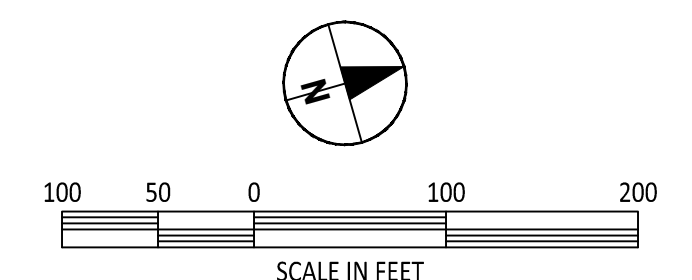


LEGEND:

- EX FIRE HYDRANT LOCATION
- EX WATER METER LOCATION
- PROPOSED WATERLINE ALIGNMENT
- INDICATES CONNECTION POINT TO EXISTING WATER PIPELINE
- EX GV11 VALVE NUMBER PER OMWD
- OCCLUDE INSERT VALVE

PHASING NOTES:

1. NO STRUCTURE SHALL BE MORE THAN 1000 FEET FROM A LIVE FIRE HYDRANT AT ANY TIME DURING CONSTRUCTION. THE DISTANCES SHALL BE MEASURED USING STREETS, PRIVATE ROADS, OR OTHER ROUTES DRIVEN BY EMERGENCY VEHICLES.
2. THE DISTRICT SHALL PERFORM ALL LIVE VALVE ACTUATIONS.
3. PRIOR TO SHUTDOWN/TRANSFER OF SERVICES, CONTRACTOR SHALL PROVIDE A MINIMUM OF 2 WEEKS NOTICE TO OWNER TO PERFORM PRELIMINARY SHUTDOWN TO CONFIRM LIMITS OF REQUIRED HIGHLINING.
4. CONTRACTOR SHALL OUTLINE THE PROPOSED WORK SEQUENCE FOR OWNER'S REVIEW AND APPROVAL.
5. UTILIZING INDEPENDENT MEANS AND METHODS, THE CONTRACTOR SHALL SEEK TO OPTIMIZE CONSTRUCTION COSTS BY GROUPING SIMILAR WORK ITEMS, INCLUDING PIPELINE CONSTRUCTION, TIE-INS, TESTING AND INSPECTION, DISINFECTION, AND ABANDONMENTS INTO A LINEAR AND LOGICAL CONSTRUCTION TIMELINE. PROJECT GUIDELINES AND STANDARDS SET IN PLACE BY THE OWNER ARE STATED AS FOLLOWS:
 - MINIMIZE THE USE OF INLINE OCCLUDE VALVES AND/OR LINE STOPS, PER PLAN THAT WOULD BE SUBSEQUENTLY ABANDONED.
 - LIMIT EACH AFFECTED CUSTOMER TO ONE MAINLINE SHUTDOWN PER METER, UNLESS OTHERWISE APPROVED BY OWNER.
 - LIMIT THE AMOUNT OF WORK AND PLAN THE SHUTDOWNS SO THEY CAN BE ACCOMPLISHED IN A 4-HOUR SHUTDOWN WINDOW DURING OFF-PEAK USAGE, AS APPROVED BY OWNER.
6. COMPLY WITH ALL WORK RESTRICTION REQUIREMENTS OF SECTION 01305 UNLESS OTHERWISE DIRECTED BY OWNER.



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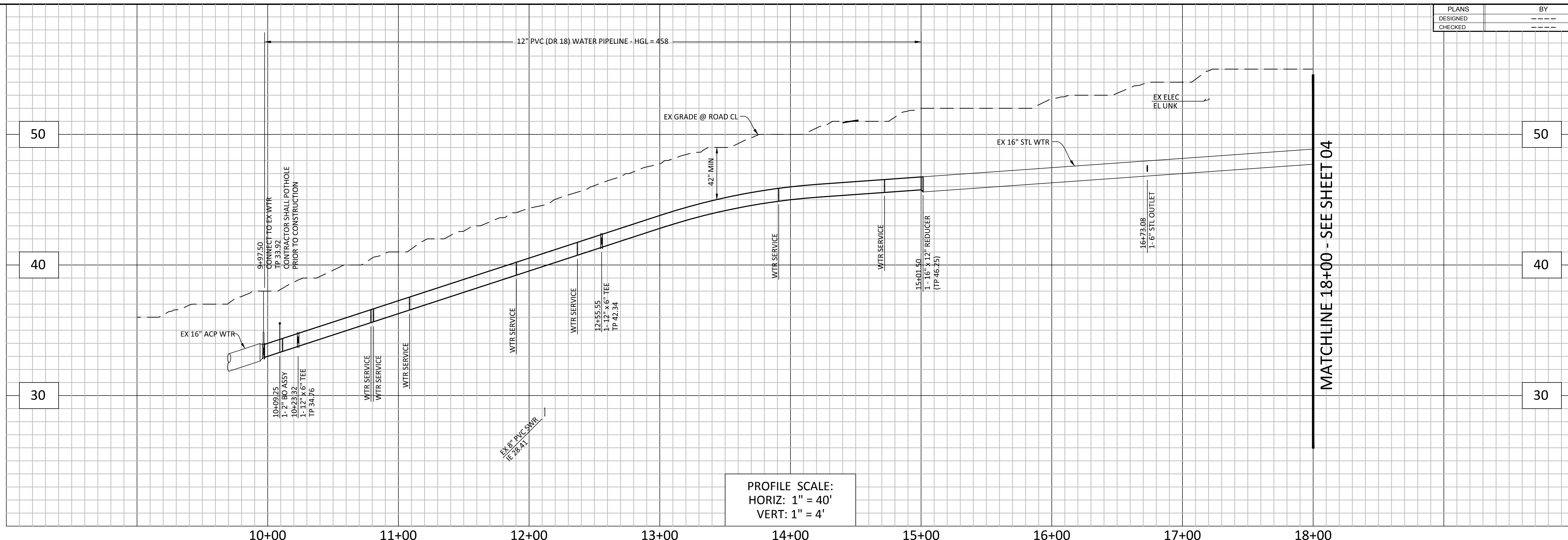
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MANCHESTER AVE POTABLE WATER
PIPELINE REPLACEMENT PROJECT
CONSTRUCTION PHASING PLAN

SCALE: HOR. 1" = 100' VERT. NONE
W.A. XXXX R.S. XXXX
SHEET_04 OF 11 SHEETS

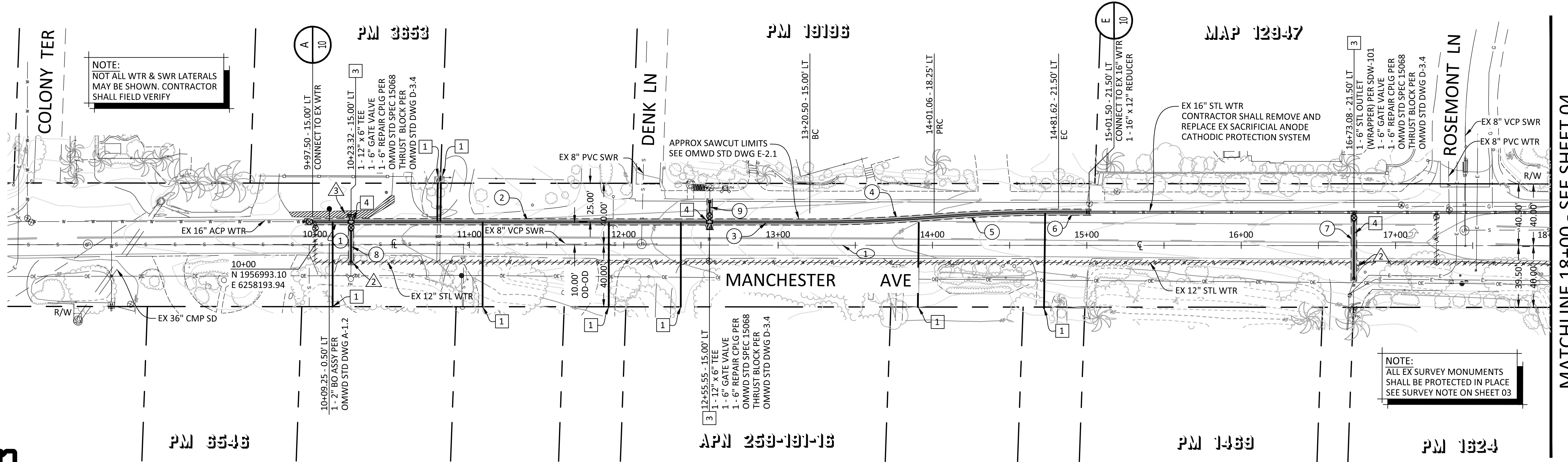
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PROFILE SCALE:
HORIZ: 1" = 40'
VERT: 1" = 4'

MATCHLINE 18+00 - SEE SHEET 04

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WATERLINE ALIGNMENT TABLE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 16°02'10" E	-	25.67'	12" PVC (DR18)
2	N 16°02'10" E	-	232.23'	12" PVC (DR18)
3	N 16°02'10" E	-	64.96'	12" PVC (DR18)
4	04°37'14"	1000'	80.64'	12" PVC (DR18)
5	04°37'14"	1000'	80.64'	12" PVC (DR18)
6	N 16°02'10" E	-	19.88'	12" PVC (DR18)
7	N 73°57'50" W	-	40.00'	6" PVC (DR18)
8	N 73°57'50" W	-	26.00'	6" PVC (DR18)
9	N 73°57'50" W	-	13.00'	6" PVC (DR18)

* PIPELINES ARE MEASURED FROM CENTERLINE OF FITTINGS

DEMOLITION NOTES:

- 1 CUT, PLUG & ABANDON EXIST 12" & 16" STL PIPELINE IN PLACE PER OMWD STD SPEC 02222
- 2 REMOVE AND DISPOSE EX TEE AND GATE VALVE
- 3 REMOVE EX CONC DRAINAGE CHANNEL AS NECESSARY FOR CONSTRUCTION AND REPLACE IN KIND

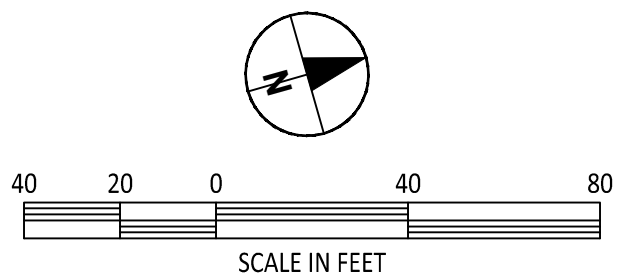
CONSTRUCTION NOTES:

- 1 CONNECT 1" WATER SERVICE LATERAL TO EX METER PER OMWD STD DWG B-1.1
- 2 ALL IN-LINE GATE VALVES SHALL INCLUDE CONCRETE ANCHOR BLOCKS PER OMWD D-2.3
- 3 ALL TEES, BENDS, AND VALVES CONNECTING TO PLAIN END PIPE SHALL USE FLANGE COUPLING ADAPTERS (FCA)
- 4 CONNECTIONS TO EX FIRE HYDRANT ASSEMBLIES WITH TEE, PIPE SPOOL AND REPAIR COUPLING SHALL BE PER OMWD STD DWG C-1.2

MATCHLINE 18+00 - SEE SHEET 04



CONSTRUCTION BASELINE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 16°02'10" E	-	800.00'	CALC'D ROAD CENTERLINE



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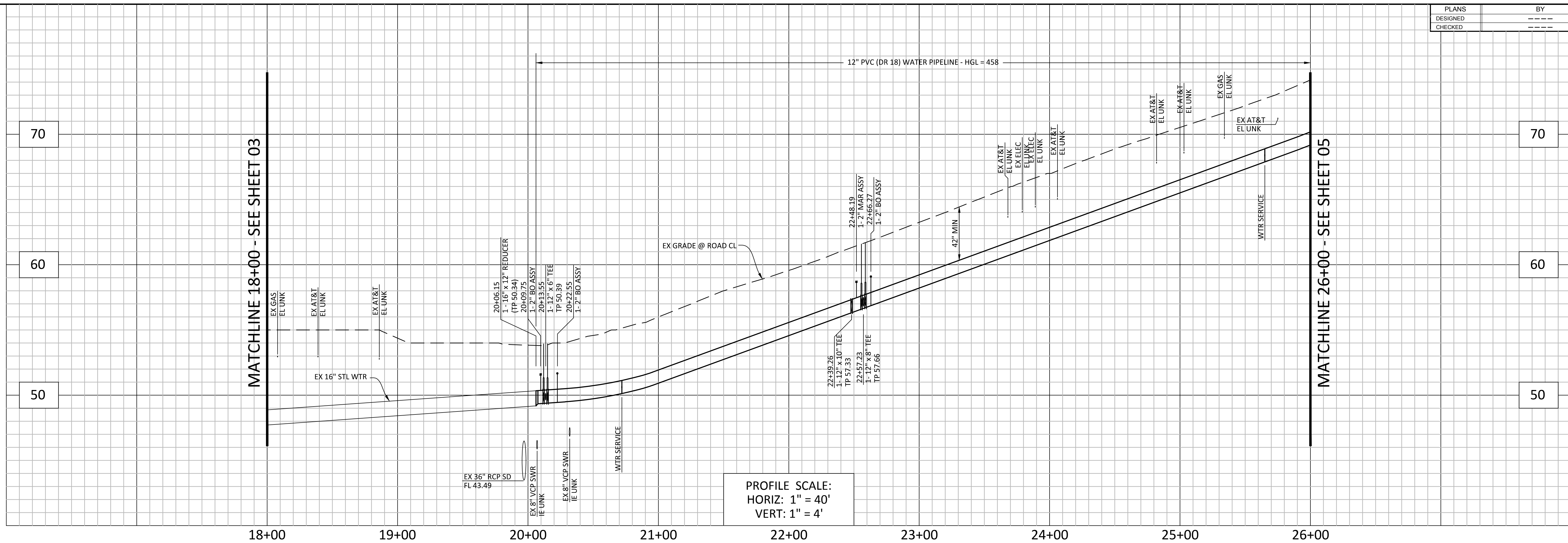
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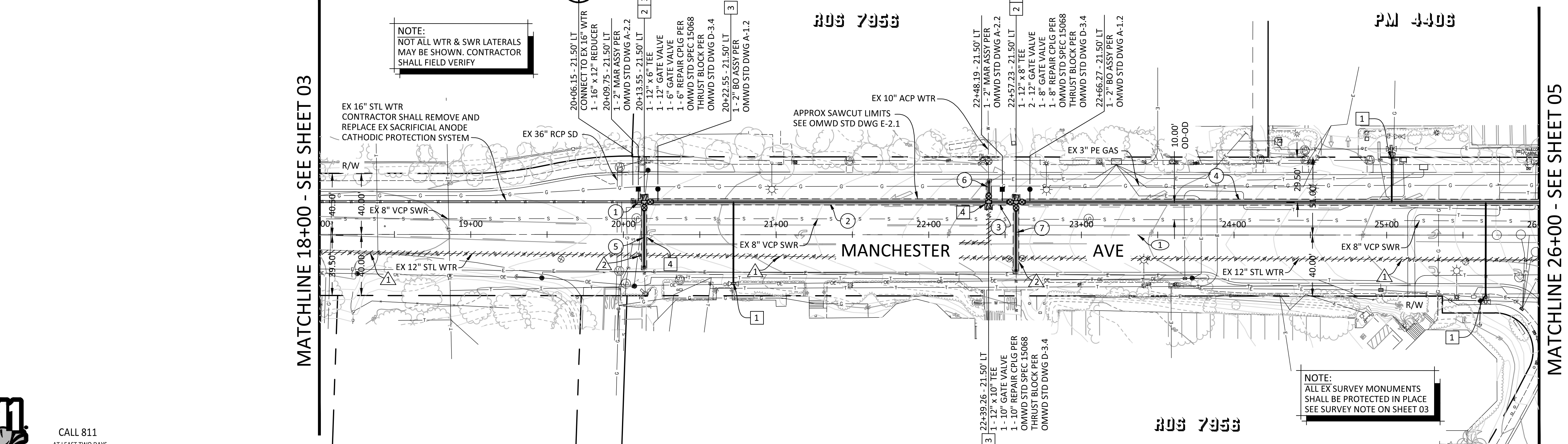
MANCHESTER AVE POTABLE WATER PIPELINE REPLACEMENT PROJECT
WATER PIPELINE STA 10+00 TO STA 18+00

SCALE: HOR: 1" = 40' VERT: 1" = 4'
W.A. XXXX R.S. XXXX
SHEET 05 OF 11 SHEETS

PLANS	BY	DATE
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CONSTRUCTION BASELINE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 16°02'10" E	-	800.00'	CALC'D ROAD CENTERLINE

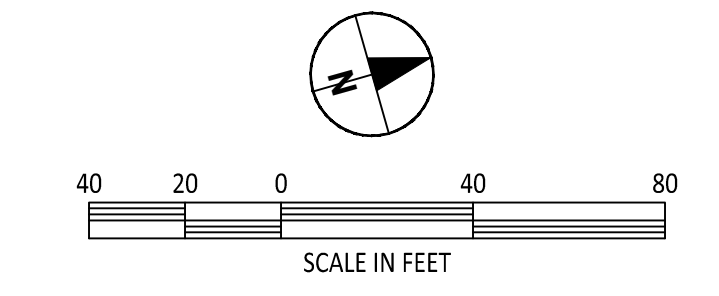


WATERLINE ALIGNMENT TABLE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 16°02'10" E	-	7.40'	12" PVC (DR18)
2	N 16°02'10" E	-	225.70'	12" PVC (DR18)
3	N 16°02'10" E	-	17.90'	12" PVC (DR18)
4	N 16°02'10" E	-	342.84'	12" PVC (DR18)
5	N 73°57'50" W	-	40.00'	6" PVC (DR18)
6	N 73°57'50" W	-	14.00'	10" PVC (DR18)
7	N 73°57'50" W	-	45.00'	8" PVC (DR18)

* PIPELINES ARE MEASURED FROM CENTERLINE OF FITTINGS

- DEMOLITION NOTES:**
- 1 CUT, PLUG & ABANDON EXIST 12" & 16" STL PIPELINE IN PLACE PER SSPWC (GREENBOOK) SECTION 306-3.3
 - 2 REMOVE AND DISPOSE EX TEE AND GATE VALVE

- CONSTRUCTION NOTES:**
- 1 CONNECT 1" WATER SERVICE LATERAL TO EX METER PER OMWD STD DWG B-1.1
 - 2 ALL IN-LINE GATE VALVES SHALL INCLUDE CONCRETE ANCHOR BLOCKS PER OMWD D-2.3
 - 3 ALL TEES, BENDS, AND VALVES CONNECTING TO PLAIN END PIPE SHALL USE FLANGE COUPLING ADAPTERS (FCA)
 - 4 CONNECTIONS TO EX FIRE HYDRANT ASSEMBLIES WITH TEE, PIPE SPOOL AND REPAIR COUPLING SHALL BE PER OMWD STD DWG C-1.2



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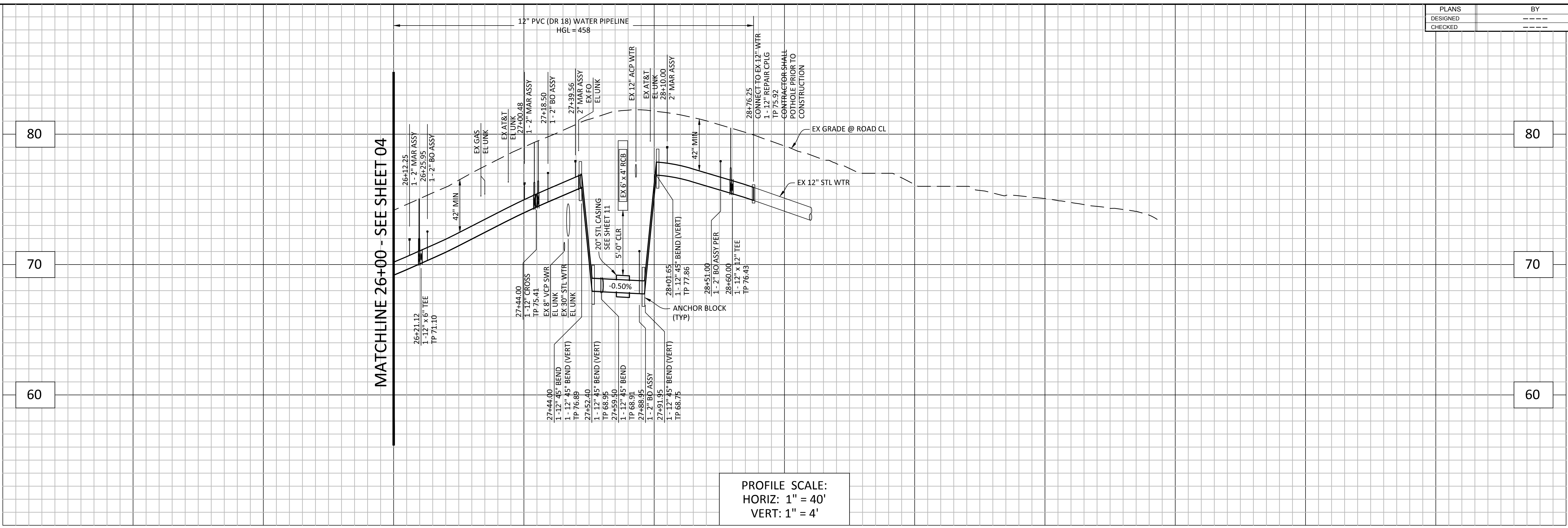
MANCHESTER AVE POTABLE WATER PIPELINE REPLACEMENT PROJECT
 WATER PIPELINE STA 18+00 TO STA 26+00

SCALE: HOR. 1" = 40' VERT. 1" = 4'
 W.A. XXXX R.S. XXXX
 SHEET_06 OF 11 SHEETS

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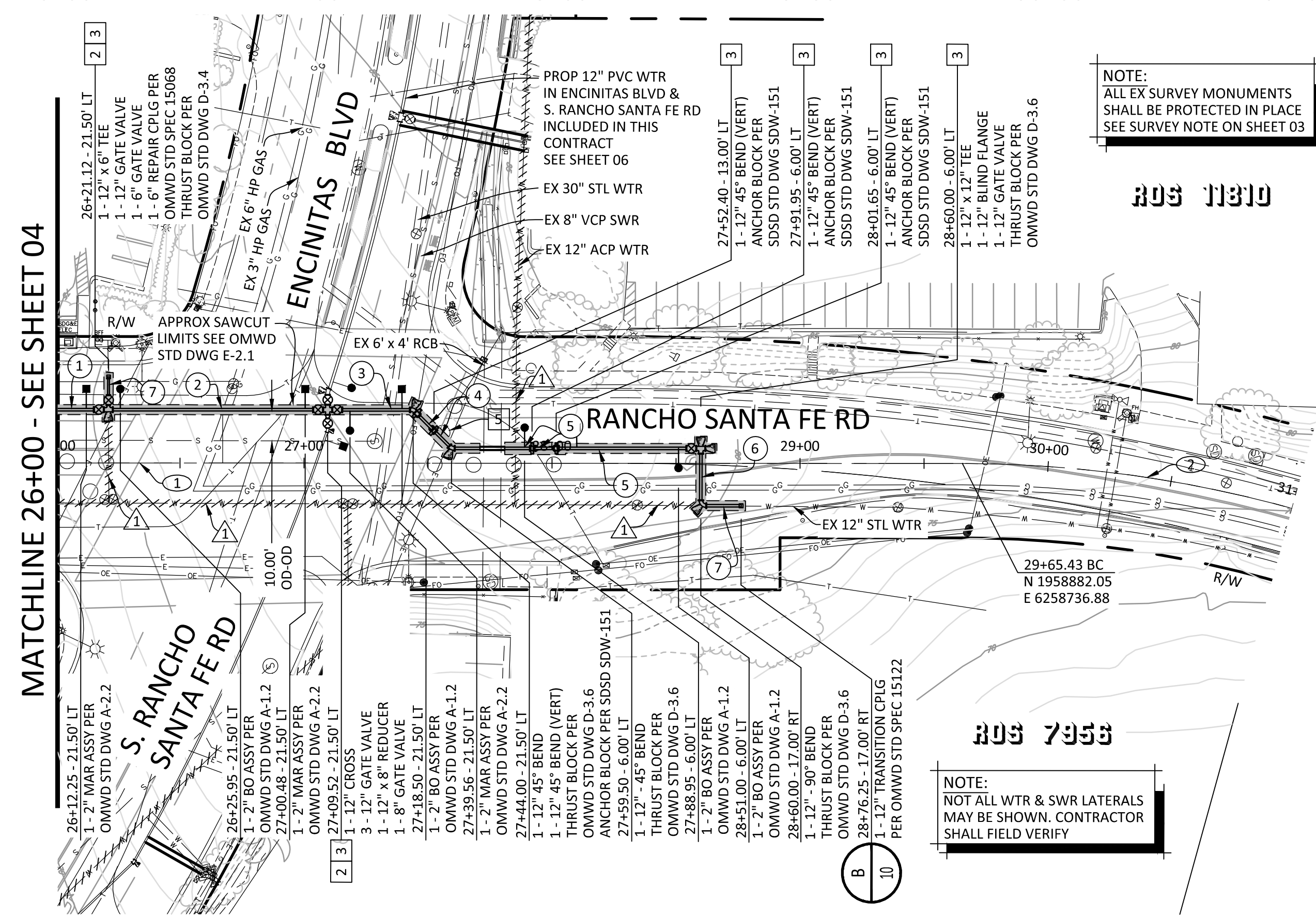
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PROFILE SCALE:
HORIZ: 1" = 40'
VERT: 1" = 4'

CONSTRUCTION BASELINE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 16°02'10" E	-	230.69'	CALC'D ROAD CENTERLINE
2	15°25'14"	500.00'	365.43'	CALC'D ROAD CENTERLINE



WATERLINE ALIGNMENT TABLE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 16°02'10" E	-	21.12'	12" PVC (DR18)
2	N 16°02'10" E	-	96.31'	12" PVC (DR18)
3	N 16°02'10" E	-	44.87'	12" PVC (DR18)
4	N 61°02'10" E	-	23.50'	12" PVC (DR18)
5	N 16°02'10" E	-	100.80'	12" PVC (DR18)
6	N 73°57'50" W	-	23.10'	12" PVC (DR18)
7	N 16°02'10" E	-	16.25'	12" PVC (DR18)

* PIPELINES ARE MEASURED FROM CENTERLINE OF FITTINGS
NUMBERS 4 & 5 INCLUDE VERTICAL PIPELINE LENGTHS

DEMOLITION NOTES:

- 1 CUT, PLUG & ABANDON EXIST 12" PIPELINE IN PLACE PER SSPWC (GREENBOOK) SECTION 306-3.3

CONSTRUCTION NOTES:

- 1 CONNECT 1" WATER SERVICE LATERAL TO EX METER PER OMWD STD DWG B-1.1
- 2 ALL IN-LINE GATE VALVES SHALL INCLUDE CONCRETE ANCHOR BLOCKS PER OMWD D-2.3
- 3 ALL TEES, BENDS, AND VALVES CONNECTING TO PLAIN END PIPE SHALL USE FLANGE COUPLING ADAPTERS (FCA)
- 4 CONNECTIONS TO EX FIRE HYDRANT ASSEMBLIES WITH TEE, PIPE SPOOL AND REPAIR COUPLING SHALL BE PER OMWD STD DWG C-1.2
- 5 TRAFFIC DETECTION LOOPS REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN KIND TO THE OWNER'S SATISFACTION



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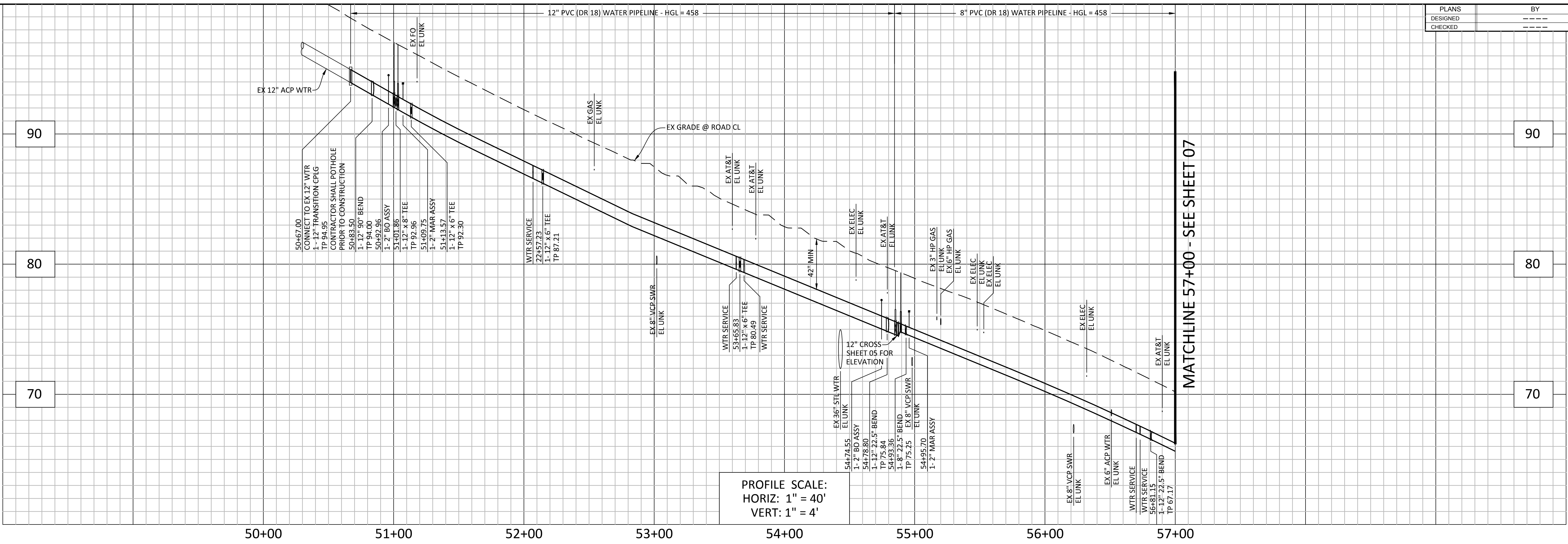
REVISIONS	BY	APPROVED	DATE

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MANCHESTER AVE POTABLE WATER PIPELINE REPLACEMENT PROJECT
WATER PIPELINE STA 26+00 TO STA 31+00

SCALE: HOR. 1" = 40'	VERT. 1" = 4'
W.A. XXXX	R.S. XXXX
SHEET 07 OF 11 SHEETS	

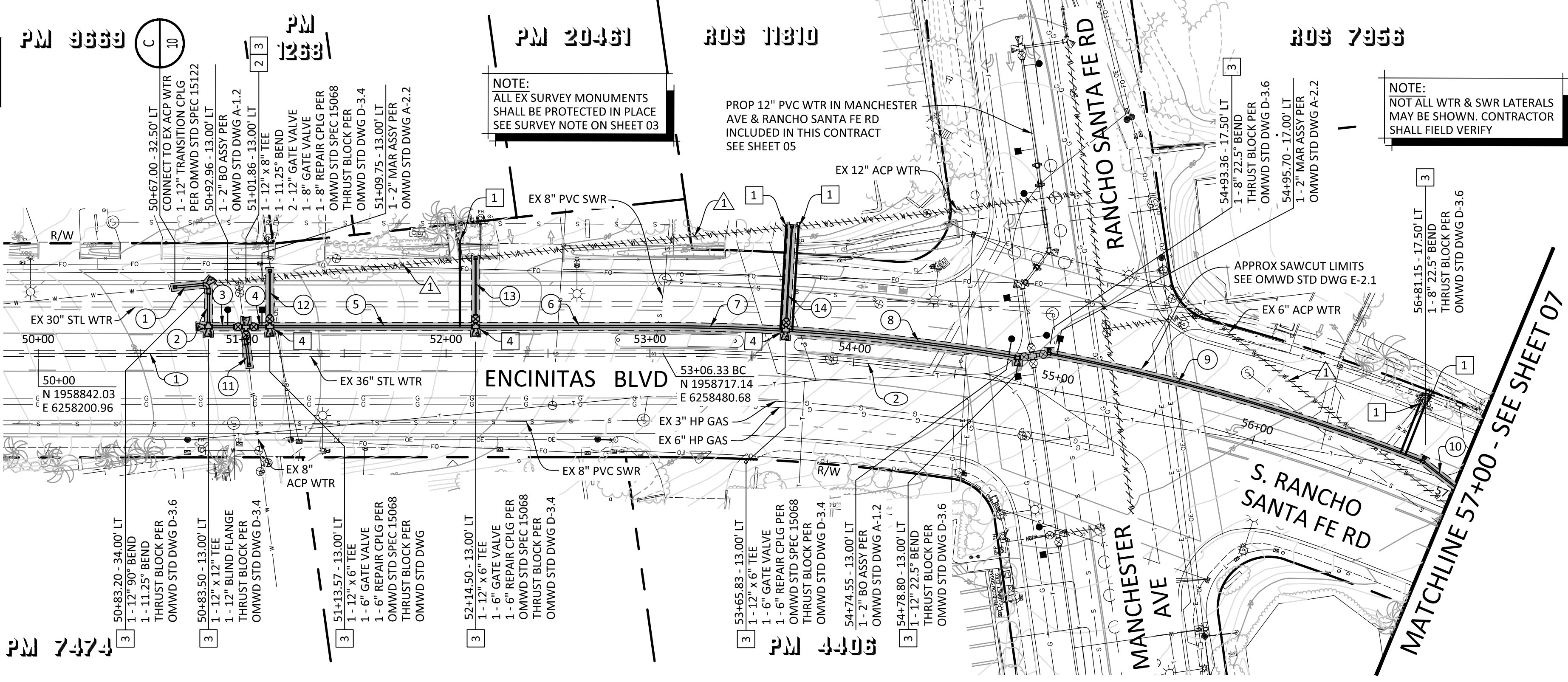
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PROFILE SCALE:
HORIZ: 1" = 40'
VERT: 1" = 4'

MATCHLINE 57+00 - SEE SHEET 07

CONSTRUCTION BASELINE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 65°56'26" W	-	306.33'	CALC'D ROAD CENTERLINE
2	22°33'20"	1000.00'	393.67'	CALC'D ROAD CENTERLINE



WATERLINE ALIGNMENT TABLE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 71°29'51" W	-	16.52'	12" PVC (DR18)
2	N 24°03'34" E	-	21.07'	12" PVC (DR18)
3	N 65°56'26" E	-	18.38'	12" PVC (DR18)
4	N 65°56'26" W	-	11.72'	12" PVC (DR18)
5	N 65°56'26" W	-	100.93'	12" PVC (DR18)
6	N 65°56'26" W	-	91.83'	12" PVC (DR18)
7	03°24'32"	1013'	60.27'	12" PVC (DR18)
8	06°28'22"	1013'	114.44'	12" PVC (DR18)
9	10°45'33"	1017.50'	191.07'	8" PVC (DR18)
10	N 27°50'49" W	-	18.16'	8" PVC (DR18)
11	N 16°56'12" E	-	11.50'	8" PVC (DR18)
12	N 24°03'34" E	-	27.35'	6" PVC (DR18)
13	N 24°03'34" E	-	34.20'	6" PVC (DR18)
14	N 27°28'06" E	-	51.00'	6" PVC (DR18)

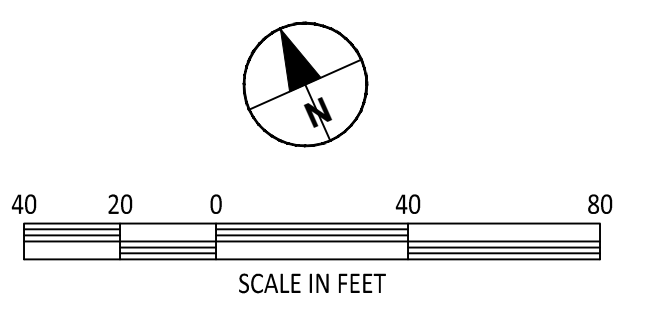
* PIPELINES ARE MEASURED FROM CENTERLINE OF FITTINGS

DEMOLITION NOTES:

- 1 CUT, PLUG & ABANDON EXIST 12" ACP & 6" ACP PIPELINE IN PLACE PER SSPWC (GREENBOOK) SECTION 306-3.3

CONSTRUCTION NOTES:

- 1 CONNECT 1" WATER SERVICE LATERAL TO EX METER PER OMWD STD DWG B-1.1
- 2 ALL IN-LINE GATE VALVES SHALL INCLUDE CONCRETE ANCHOR BLOCKS PER OMWD D-2.3
- 3 ALL TEES, BENDS, AND VALVES CONNECTING TO PLAIN END PIPE SHALL USE FLANGE COUPLING ADAPTERS (FCA)
- 4 CONNECTIONS TO EX FIRE HYDRANT ASSEMBLIES WITH TEE, PIPE SPOOL AND REPAIR COUPLING SHALL BE PER OMWD STD DWG C-1.2



OLIVENHAIN MUNICIPAL WATER DISTRICT
DEPARTMENT OF ENGINEERING
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5675 RUFFIN ROAD, SUITE 305
SAN DIEGO, CA 92123 (858) 431-9767
www.hochconsulting.com

REVISIONS	BY	APPROVED	DATE

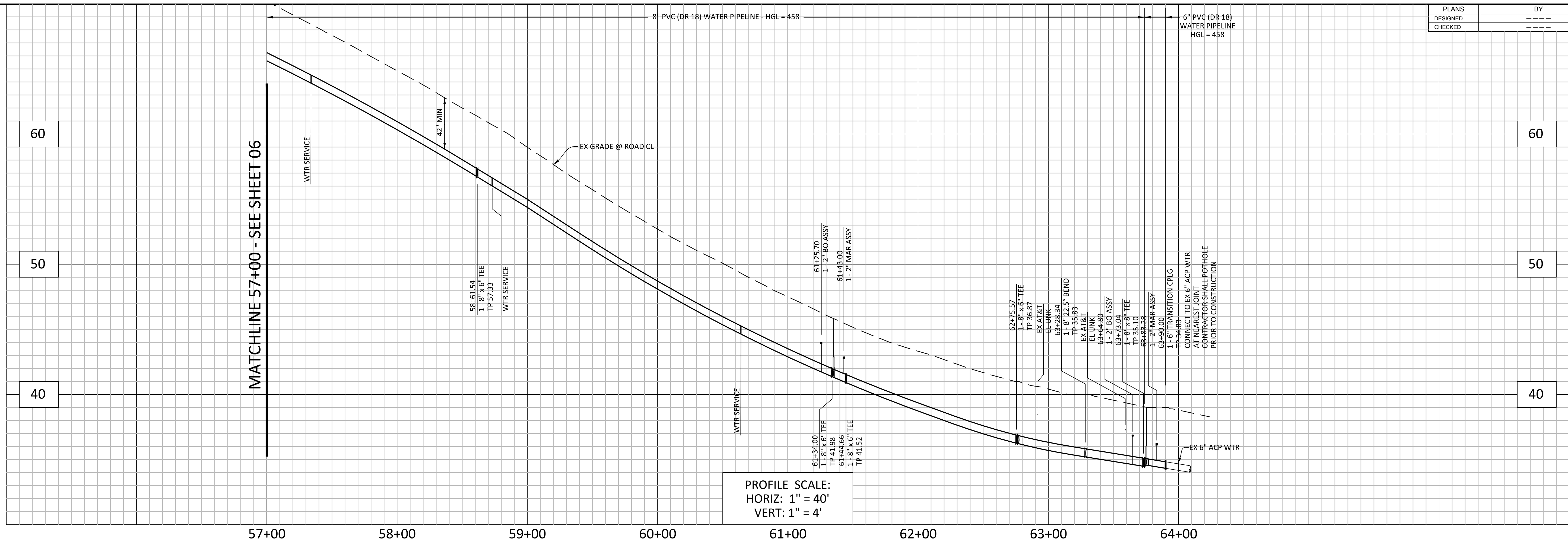
COORDINATE INDEX	
XXXX N	XXXX E
CONST. COMPL.	
FIELD REVISIONS	

MANCHESTER AVE POTABLE WATER PIPELINE REPLACEMENT PROJECT
WATER PIPELINE STA 50+00 TO STA 57+00

SCALE: HOR. 1" = 40'	VERT. 1" = 4'
W.A. XXXX	R.S. XXXX
SHEET 08 OF 11 SHEETS	

90% SUBMITTAL - NOT FOR CONSTRUCTION

PLANS	BY	DATE
DESIGNED	---	---
CHECKED	---	---



PROFILE SCALE:
HORIZ: 1" = 40'
VERT: 1" = 4'

MATCHLINE 57+00 - SEE SHEET 06

MATCHLINE 57+00 - SEE SHEET 06

90% SUBMITTAL - NOT FOR CONSTRUCTION

ROS 7953

NOTE:
NOT ALL WTR & SWR LATERALS
MAY BE SHOWN. CONTRACTOR
SHALL FIELD VERIFY

NOTE:
ALL EX SURVEY MONUMENTS
SHALL BE PROTECTED IN PLACE
SEE SURVEY NOTE ON SHEET 03

WATERLINE ALIGNMENT TABLE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	N 27°50'49" W	-	160.09'	8" PVC (DR18)
2	N 27°50'49" W	-	270.60'	8" PVC (DR18)
3	N 27°50'49" W	-	10.66'	8" PVC (DR18)
4	N 27°50'49" W	-	130.90'	8" PVC (DR18)
5	N 50°20'49" W	-	54.88'	8" PVC (DR18)
6	N 27°50'49" W	-	44.70'	8" PVC (DR18)
7	N 39°05'49" W	-	10.50'	6" PVC (DR18)
8	N 62°09'11" E	-	12.00'	6" PVC (DR18)
9	N 62°09'11" E	-	12.00'	6" PVC (DR18)
10	N 62°09'11" E	-	12.00'	6" PVC (DR18)
11	N 62°09'11" E	-	12.00'	6" PVC (DR18)
12	N 62°09'11" E	-	12.00'	8" PVC (DR18)

* PIPELINES ARE MEASURED FROM CENTERLINE OF FITTINGS

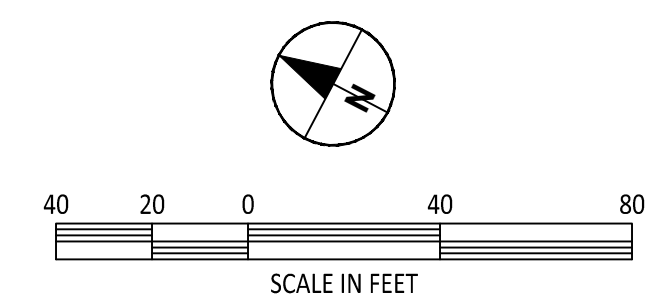
DEMOLITION NOTES:

- 1 CUT, PLUG & ABANDON EXIST 6" ACP PIPELINE IN PLACE PER SSPWC (GREENBOOK) SECTION 306-3.3
- 2 REMOVE AND DISPOSE EX TEE AND GATE VALVE

CONSTRUCTION NOTES:

- 1 CONNECT 1" WATER SERVICE LATERAL TO EX METER PER OMWD STD DWG B-1.1
- 2 ALL IN-LINE GATE VALVES SHALL INCLUDE CONCRETE ANCHOR BLOCKS PER OMWD D-2.3
- 3 ALL TEES, BENDS, AND VALVES CONNECTING TO PLAIN END PIPE SHALL USE FLANGE COUPLING ADAPTERS (FCA)
- 4 CONNECTIONS TO EX FIRE HYDRANT ASSEMBLIES WITH TEE, PIPE SPOOL AND REPAIR COUPLING SHALL BE PER OMWD STD DWG C-1.2

CONSTRUCTION BASELINE				
NO.	BEARING/Delta	RADIUS	LENGTH	REMARKS
1	15° 32' 17"	1000.00'	271.19'	CALC'D ROAD CENTERLINE
2	N 27°50'49" W	-	428.81'	CALC'D ROAD CENTERLINE



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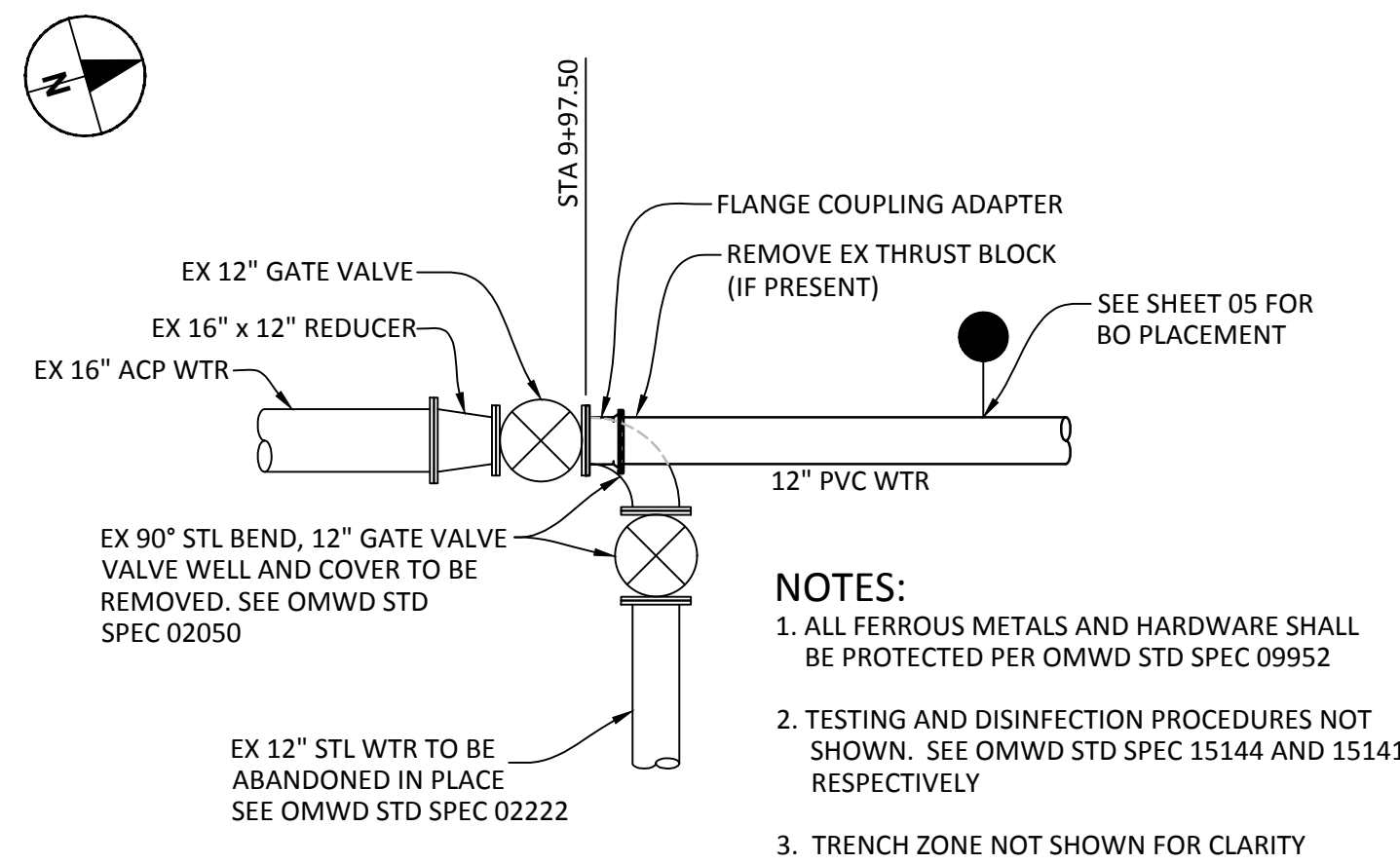
COORDINATE INDEX	
XXXX N	XXXX E
CONST. COMPL.	
FIELD REVISIONS	

MANCHESTER AVE POTABLE WATER PIPELINE REPLACEMENT PROJECT
WATER PIPELINE STA 57+00 TO STA 64+00

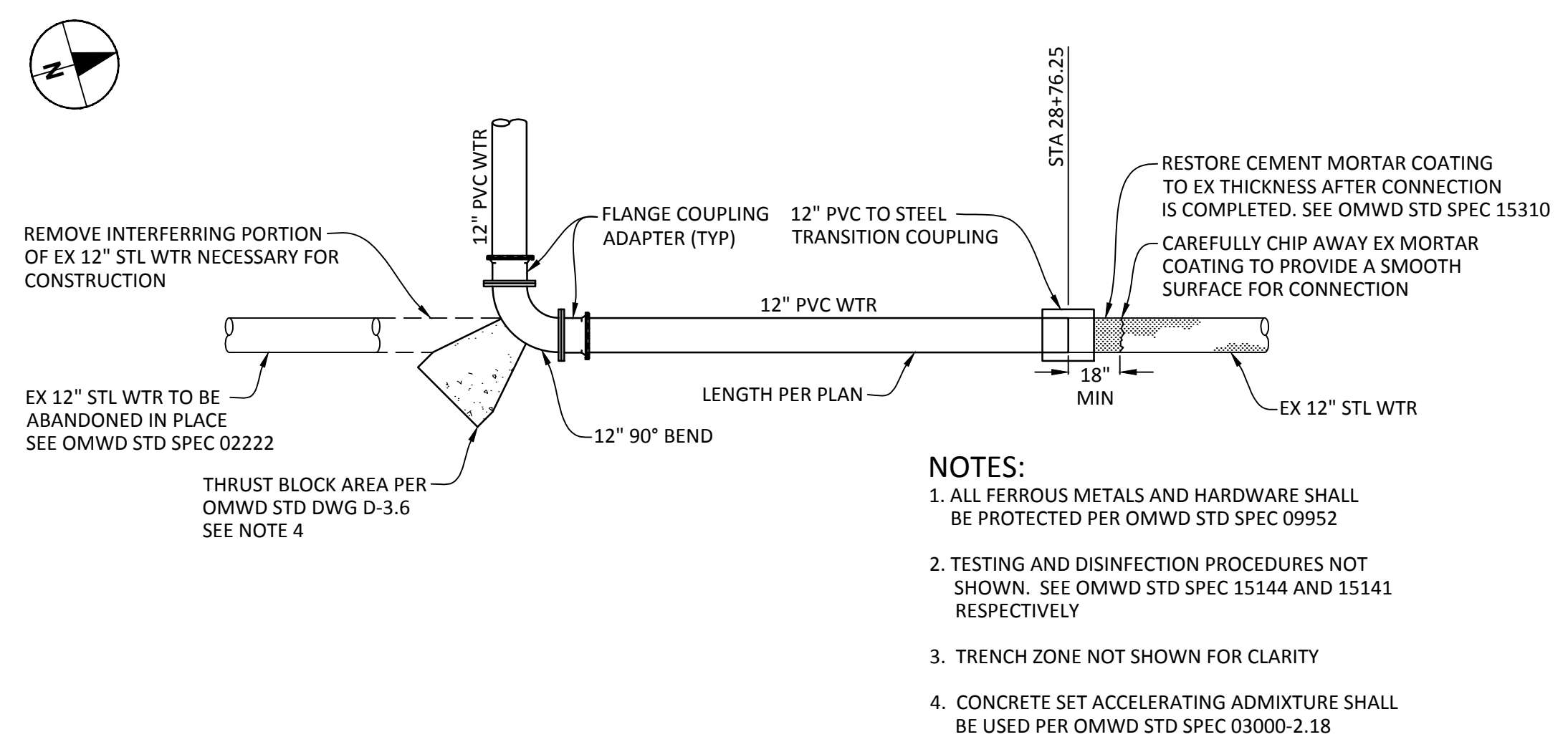
SCALE: HOR. 1" = 40' VERT. 1" = 4'
W.A. XXXX R.S. XXXX
SHEET 09 OF 11 SHEETS

PLANS	BY	DATE
DESIGNED	----	----
CHECKED	----	----

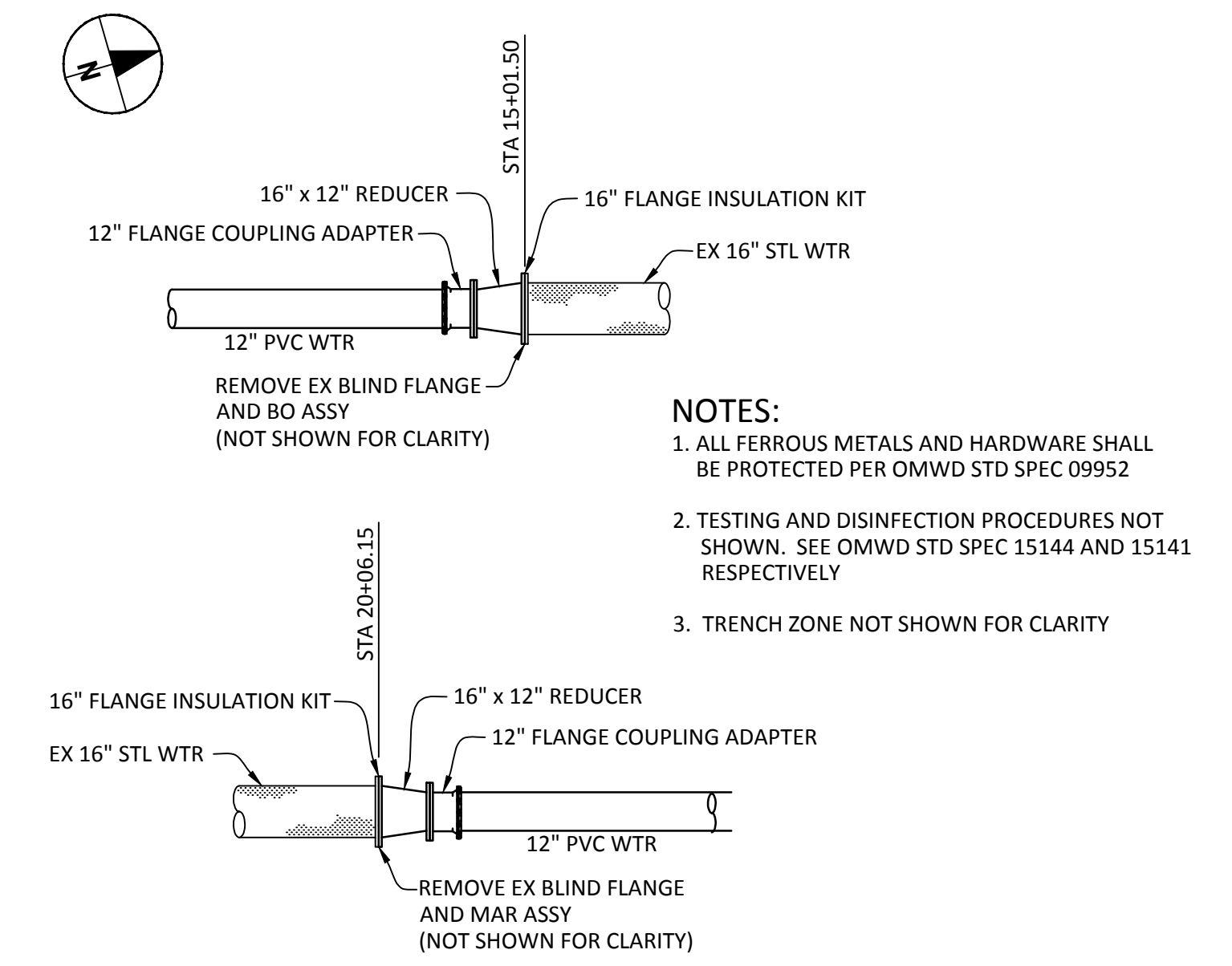
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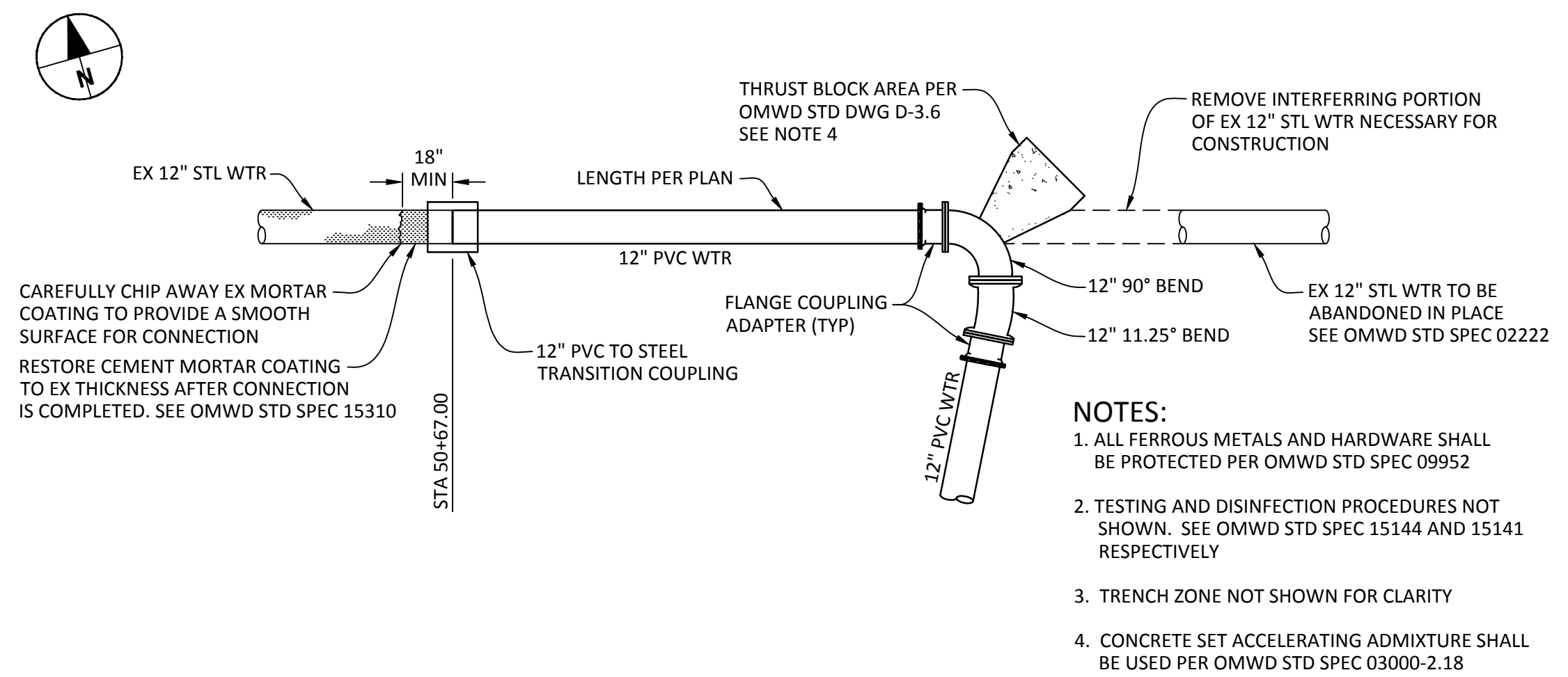
CONNECTION DETAIL AT STA. 9+95.50 **A**
SCALE: 1/4" = 1'-0" **05**



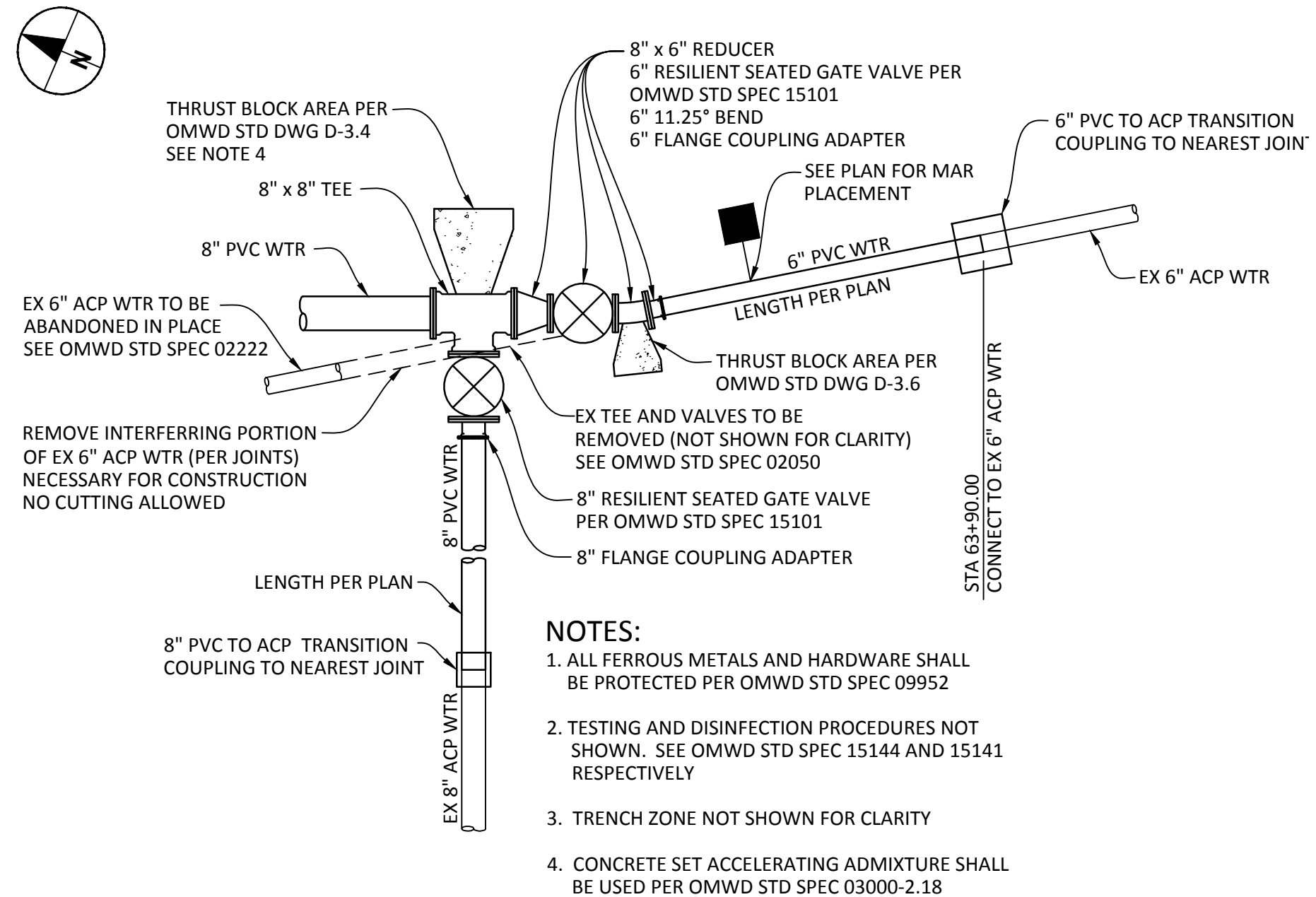
CONNECTION DETAIL AT STA. 28+76.25 **B**
SCALE: 1/4" = 1'-0" **07**



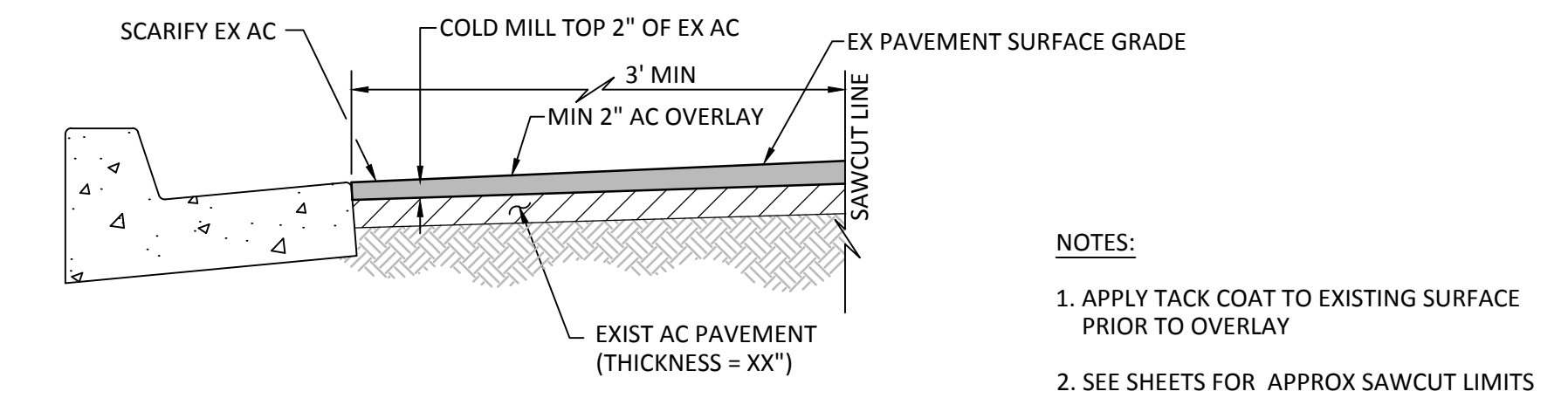
CONNECTION DETAIL AT STA. 15+01.50
CONNECTION DETAIL AT STA. 20+06.15 **E**
SCALE: 1/4" = 1'-0" **05-06**



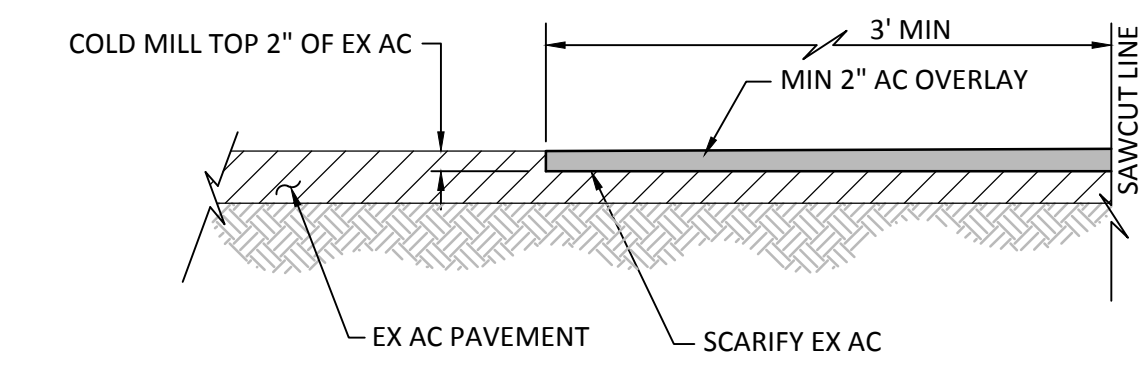
CONNECTION DETAIL AT STA. 50+67.00 **C**
SCALE: 1/4" = 1'-0" **08**



CONNECTION DETAIL AT STA. 63+90.00 **D**
SCALE: 1/4" = 1'-0" **09**



AC OVERLAY - MATCH EXIST CURB & GUTTER



AC OVERLAY - MATCH EXIST PAVEMENT

GRIND & OVERLAY PAVEMENT DETAIL **F**
NO SCALE **VAR**

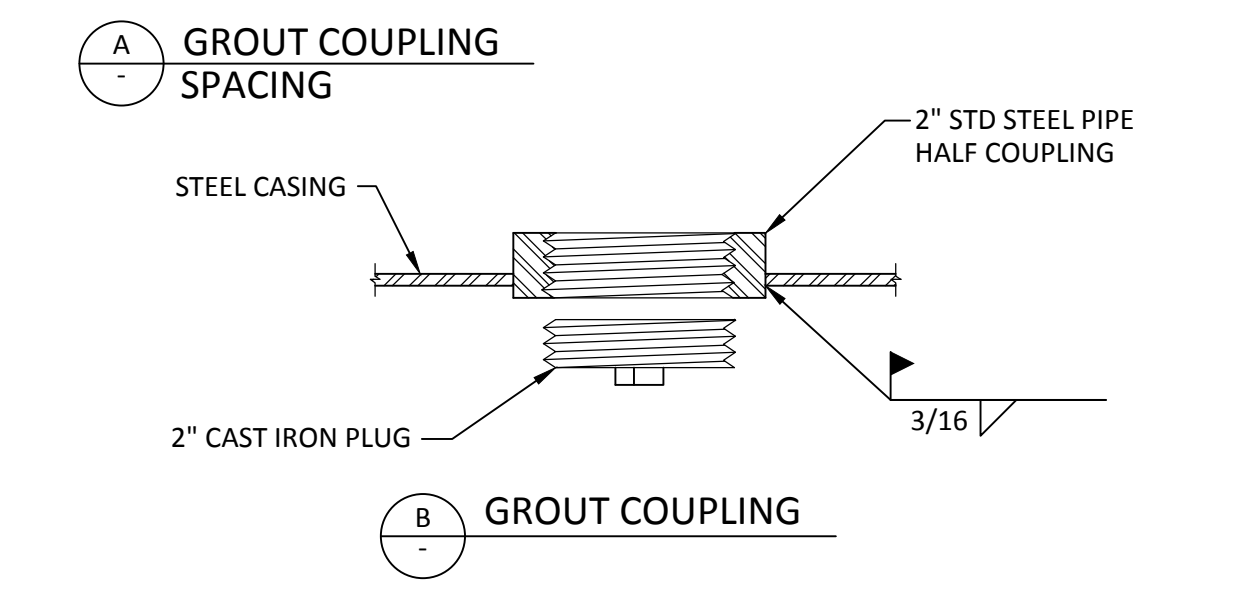
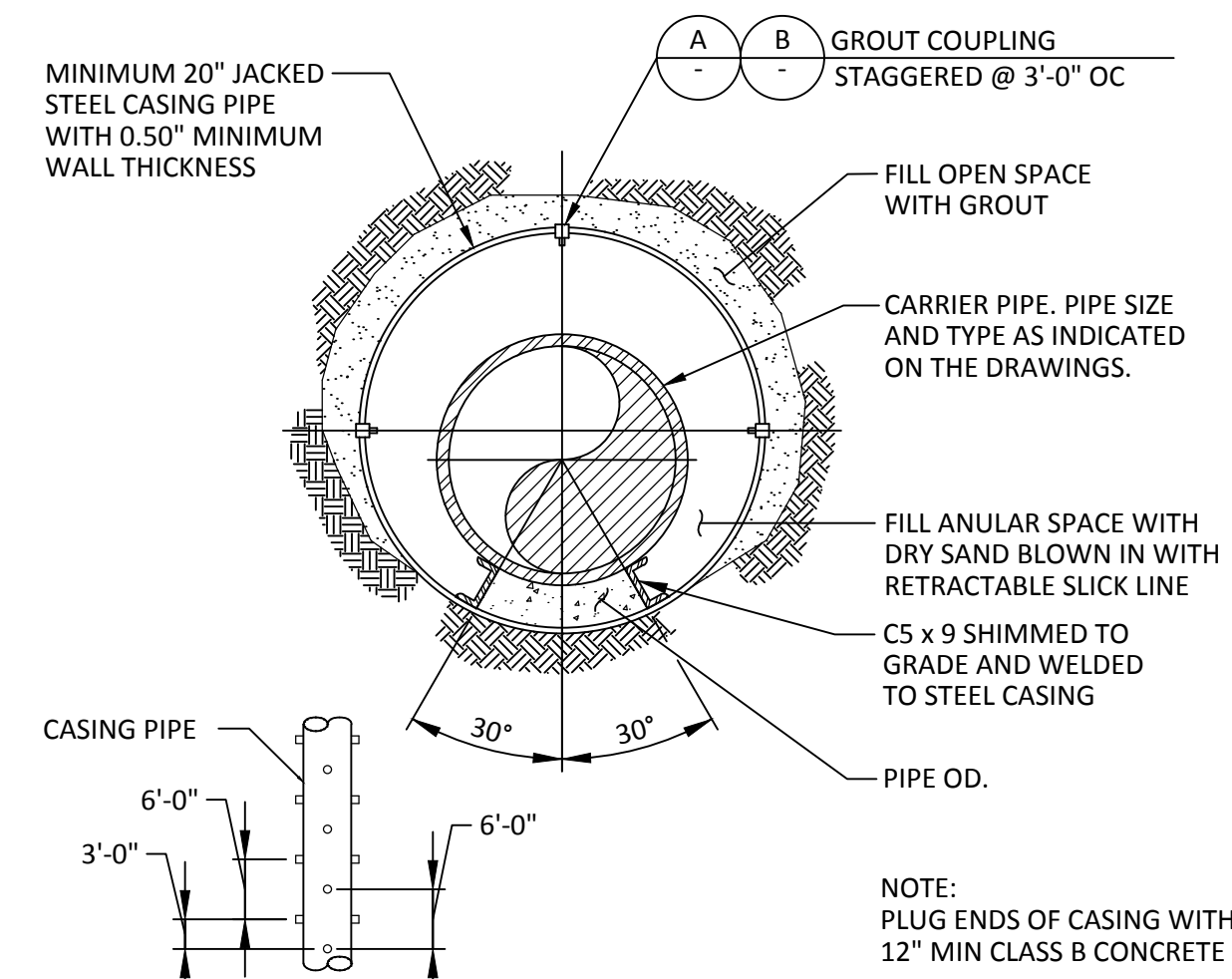


REVISIONS	BY	APPROVED	DATE

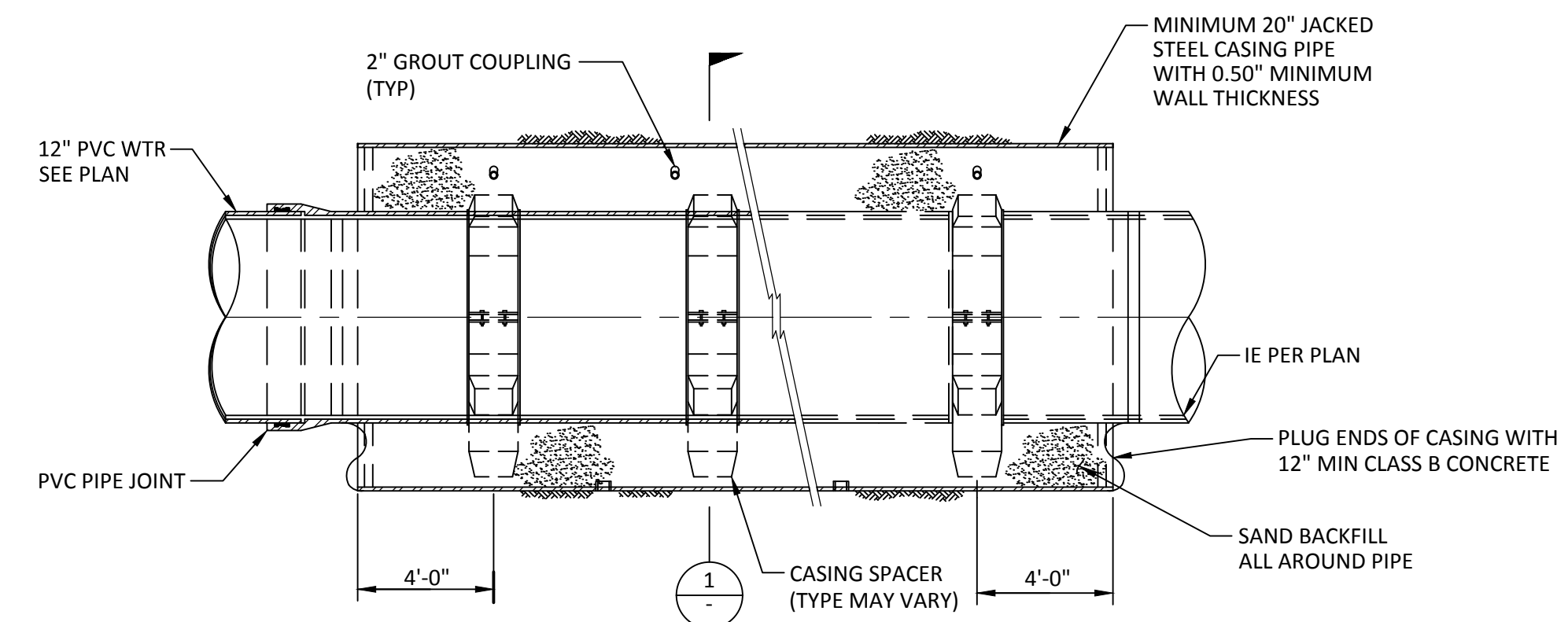
COORDINATE INDEX	
XXXX N.	XXXX E.
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FIELD REVISIONS	

PLANS	BY	DATE
DESIGNED	----	----
CHECKED	----	----

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PIPE IN JACKED STEEL CASING - SAND FILL 1
07
SCALE: NONE



PIPE IN JACKED STEEL CASING - SECTION 2
07
SCALE: NONE



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MANCHESTER AVE POTABLE WATER
PIPELINE REPLACEMENT PROJECT
DETAILS

SCALE: HOR. AS SHOWN VERT. NONE
 W.A. XXXX R.S. XXXX
 SHEET 11 OF 11 SHEETS