

CONSTRUCTION NOTES

- 1. ALL OFF-SITE CONSTRUCTION MATERIAL AND METHODS SHALL COMPLY WITH THE WITH THE LATEST EDITION OF THE STANDARD PLANS OF ALAMEDA COUNTY SPECIFICATIONS AND THE LATEST CALTRANS STANDARDS SPECIFICATIONS.
2. CONTRACTOR SHALL LEAVE AN EMERGENCY PHONE NUMBER WITH THE POLICE AND FIRE DEPARTMENTS.
3. CONTRACTOR SHALL POST ON THE SITE, EMERGENCY TELEPHONE NUMBERS FOR PUBLIC WORKS, AMBULANCE, POLICE, AND FIRE DEPARTMENTS.
4. CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO THE UTILITY UNLESS AN EXCAVATION PERMIT SPECIFIES OTHERWISE.
5. UTILITIES AND UNDERGROUND FACILITIES INDICATED ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH WITH THE APPROPRIATE AGENCIES. NEITHER THE OWNER NOR THE COUNTY NOR THE DESIGN PROFESSIONAL ASSUMES RESPONSIBILITY THAT THE UTILITIES AND UNDERGROUND FACILITIES INDICATED WILL BE THE UTILITIES AND UNDERGROUND FACILITIES ENCOUNTERED.
6. CONTRACTOR TO CONTACT UNDERGROUND SERVICE ALERT U.S.A. 800-227-2600 FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING WORK TO HAVE THE LOCATION OF EXISTING UNDERGROUND UTILITIES MARKED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, LOCATE, AND PROTECT ALL UNDERGROUND FACILITIES.
7. THE CONTRACTOR SHALL HIRE A STREET CLEANING CONTRACTOR TO CLEAN UP DIRT AND DEBRIS FROM CITY STREETS THAT ARE ATTRIBUTABLE TO THE DEVELOPMENT'S CONSTRUCTION ACTIVITIES.
8. ALL MATERIALS, REQUIRED FOR THE COMPLETE EXECUTION OF THE PROJECT, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY DURING THE CONSTRUCTION PERIOD.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY EXISTING IMPROVEMENTS OF UNDERGROUND FACILITIES DAMAGED DURING THE CONSTRUCTION PERIOD.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL ENCROACHMENT, EXCAVATION, CONCRETE, ELECTRICAL, PLUMBING, ETC. PERMITS NECESSARY PRIOR TO BEGINNING CONSTRUCTION FOR ANY WORK.
12. THE CONTRACTOR SHALL HAVE A SUPERINTENDENT OR REPRESENTATIVE ON SITE AT ALL TIMES DURING CONSTRUCTION.
13. STORAGE OF CONSTRUCTION MATERIAL AND EQUIPMENT ON COUNTY STREETS WILL NOT BE PERMITTED.
14. CONSTRUCTION EQUIPMENT SHALL BE PROPERLY MUFFLED. UNNECESSARY IDLING OF GRADING CONSTRUCTION EQUIPMENT IS PROHIBITED.
15. CONSTRUCTION EQUIPMENT, TOOLS, ETC. SHALL NOT BE CLEANED OR RINSED INTO A STREET, GUTTER OR STORM DRAIN.
16. A CONTAINED AND COVERED AREA ON-SITE SHALL BE USED FOR STORAGE OF CEMENT BAGS, PAINTS, FLAMMABLE, OILS, FERTILIZERS, PESTICIDES, OR ANY OTHER MATERIALS THAT HAVE POTENTIAL FOR BEING DISCHARGED TO THE STORM DRAIN SYSTEM BY WIND OR IN THE EVENT OF A MATERIAL SPILL.
17. ALL CONSTRUCTION DEBRIS SHALL BE GATHERED ON A REGULAR BASIS AND PLACED IN A DUMPSTER WHICH IS EMPTIED OR REMOVED WEEKLY. WHEN FEASIBLE, TARPS SHALL BE USED ON THE GROUND TO COLLECT FALLEN DEBRIS OR SPLATTERS THAT COULD CONTRIBUTE TO STORMWATER POLLUTION.
18. ANY TEMPORARY ON-SITE CONSTRUCTION PILES SHALL BE SECURELY COVERED WITH A TARP OR OTHER DEVICE TO CONTAIN DEBRIS.
19. CONCRETE TRUCKS AND CONCRETE FINISHING OPERATIONS SHALL NOT DISCHARGE WASH WATER INTO THE STREET GUTTERS OR DRAINS.
20. CONCRETE, UNLESS OTHERWISE SPECIFIED, SHALL MEET THE REQUIREMENTS OF CALTRANS SPECIFICATIONS. CONCRETE SHALL NOT HAVE LESS THAN 505 LB OF CEMENTATIONS MATERIAL PER CUBIC YARD. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.

EXISTING PIPE PROTECTION NOTE

CONTRACTOR TO USE CAUTION AND PROTECT THE EXISTING, ACTIVE SEWER MAIN WHILE CONSTRUCTING THE NEW EXCAVATIONS AND INSTALLING THE NEW SEWER PIPE. GIVEN THE PROXIMITY OF THE PIPE BURSTING MACHINE TO THE EXISTING SEWER, ADDITIONAL PROTECTION METHODS MAY BE REQUIRED. ALL UTILITY MAINS THAT ARE CROSSING OTHER UTILITIES MUST BE EXPOSED DURING PIPEBURSTING TO ENSURE PROTECTION OF ALL UTILITY MAINS.

DISCREPANCIES

IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWINGS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.

ALAMEDA COUNTY PUBLIC WORKS AGENCY

- 1. AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM ALAMEDA COUNTY PUBLIC WORKS AGENCY PRIOR TO COMMENCEMENT OF ANY WORK WITHIN THE COUNTY'S RIGHT OF WAY FOR THE CONSTRUCTION, MODIFICATION OR CONNECTION TO COUNTY-MAINTAINED FACILITIES. ALL WORKMANSHIP, EQUIPMENT AND MATERIALS SHALL CONFORM TO ALAMEDA COUNTY STANDARDS AND SPECIFICATIONS.
2. ANY OTHER PORTION OF THE EXISTING ROAD IMPROVEMENTS AND FACILITIES THAT WILL BE IMPACTED BY THE PROPOSED WORK WILL HAVE TO BE REPLACED AND/OR RESTORED BY THE CONTRACTOR IN KIND TO ITS ORIGINAL OR BETTER CONDITION TO THE FULL SATISFACTION OF THE ALAMEDA COUNTY CONSTRUCTION INSPECTOR.

ACFCD INSPECTION NOTE

THE CONTRACTOR SHOULD CONTACT THE ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT INSPECTOR IN ORDER TO ARRANGE FOR THE DETAILED CONSTRUCTION AND INSPECTION SCHEDULE AT LEAST TEN (10) WORKING DAYS IN ADVANCE.

SANITARY SEWER NOTES

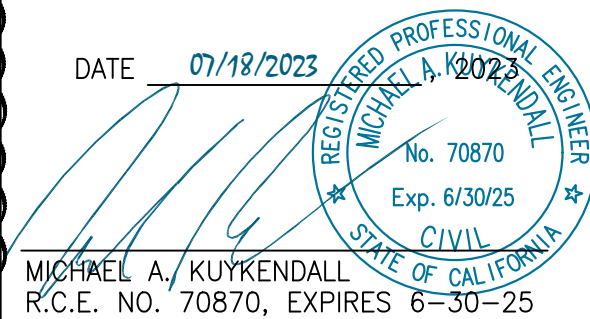
- 1.) SANITARY SEWER CARRIER PIPE SHALL BE HDPE DR 17 WITH THERMAL FUSION TYPE JOINTS. DIAMOND PLASTIC CORPORATION, JM EAGLE, NORTH AMERICAN SPECIALTY PRODUCTS, OR APPROVED EQUAL SEALING GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.
2.) STORAGE - HDPE SHALL BE PROTECTED FROM INJURY OR DAMAGE. STACKING OF POLYETHYLENE PIPE WILL NOT BE ALLOWED.
3.) PIPE INSTALLATION
A. HANDLING OF HDPE PIPE - CARE SHALL BE TAKEN IN HANDLING, TRANSPORTING, AND PLACING PIPE TO PREVENT DAMAGE. NO INTERIOR HOOKS OR SLINGS SHALL BE USED IN LIFTING PIPE, ALL HANDLING OPERATIONS SHALL BE DONE WITH AN EXTERIOR SLING OR WITH A SUITABLE FORK LIFT. NO DAMAGED PIPE WILL BE ACCEPTED AND SHALL BE REPLACED WITH NEW PIPE TO THE NEXT JOINT.
B. PIPE SCRATCHES OR CUTS - PIPE THAT HAS SCRATCHES, NOTCHES, CUTS, OR ANY OTHER ABRASIONS THAT EXCEED 10% OF THE PIPE WALL THICKNESS SHALL BE DISPOSED OF.
C. THE INTERIOR OF THE SEWER PIPE SHALL BE KEPT CLEAN OF DIRT AND DEBRIS AT ALL TIMES. WHEN WORK IS NOT IN PROGRESS, OPEN ENDS OF PIPE AND FITTINGS SHALL BE PLUGGED.
D. THOROUGHLY CLEAN PIPE AND FITTINGS OF DIRT, DUST, AND MOISTURE BEFORE INSTALLATION. INSTALLATION AND JOINING METHODS SHALL BE AS RECOMMENDED BY THE PIPE AND FITTING MANUFACTURERS.
E. CUT PIPE SQUARE FOR GOOD JOINT INTEGRITY, AFTER CUTTING PIPE, REAM INSIDE AND CHAMFER OUTSIDE TO REMOVE BURRS, SHOULDERS, AND RAGGED EDGES.
F. AT MANHOLE CONNECTIONS, CORE DRILL THROUGH EXISTING MANHOLE AS NECESSARY TO ACCOMMODATE THE NEW SEWER PIPE. MANHOLE SEWER CONNECTION SHALL BE INSTALLED WITH A WATER STOP AND NON-SHRINK EPOXY GROUT APPLIED 360 DEGREES AROUND NEW SEWER PIPE IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS.
4.) CLEANING & VIDEO INSPECTION
A. FLUSH SYSTEM PIPELINES, MANHOLES AND RELATED STRUCTURES WITH WATER TO CLEAN. A METAL SCREEN BASKET WITH OPENINGS NO LARGER THAN ONE-HALF INCH SHALL BE PLACED IN THE CHANNEL OF THE LOWER MANHOLE AND SECURED ON THE BOTTOM STEP. CONTRACTOR SHALL FLUSH THE NEW SEWER LINE WITH A HIGH PRESSURE CLEANING NOZZLE AND PULL ALL DEBRIS DOWNSTREAM TO BE CAPTURED IN THE BASKET. REPEAT UNTIL LINE IS CLEAN AND APPROVED BY THE INSPECTOR.
B. AFTER COMPLETION OF THE PIPE INSTALLATION, SERVICE CONNECTIONS, FLUSHING AND CLEANING, AND PRIOR TO PLACEMENT OF PAVEMENT, THE CONTRACTOR SHALL ARRANGE FOR INTERNAL TELEVISION INSPECTION OF SEWER MAINS IN CONJUNCTION WITH THE FINAL AIR TEST. TELEVISION INSPECTION SYSTEM SHALL AT A MINIMUM BE COLOR, PAN AND TILT AND RECORDABLE. TELEVISION INSPECTION SHALL BE OBSERVED BY THE DISTRICT INSPECTION STAFF WHILE IN PROGRESS. ON THE CLOSED-CIRCUIT MONITOR AND AN ELECTRONIC COPY OF THE VIDEO INSPECTION RECORDS ON DVD TO BE GIVEN TO THE DISTRICT'S INSPECTOR. BELL AND SPIGOT JOINTS SHALL SHOW NO OFFSET, "BAND-SEAL" JOINTS SHALL SHOW NOT MORE THAN ONE-EIGHTH-INCH OFFSET IN ANY DIRECTION. DEFECTIVE JOINTS SHALL BE REPAIRED BY EXCAVATION AND REPLACEMENT.
5.) AIR TESTING (PER CVSan DISTRICT CODE, ARTICLE III)
A. PRELIMINARY AIR TEST (PERFORM PRIOR TO BACKFILL)
I.A. ALL BUILDING SEWERS SHALL BE PLUGGED. THE ENDS OF MAINS SHALL ALSO BE PLUGGED AND BRACED.
I.I.B. THE LINE SHALL BE SUPPLIED WITH AIR AS TO MAINTAIN A MIN. OF THREE (3) POUNDS PER SQUARE INCH (3 PSI) OF PRESSURE IN THE LINE.
I.I.C. EACH JOINT, THE ENTIRE SURFACE OF ALL PIPE AND ALL PLUGS SHALL BE CHECKED FOR AIR LEAKAGE IN THE PRESENCE OF THE INSPECTOR.
I.I.V. ALL MATERIAL AND JOINTS FOUND DEFECTIVE SHALL BE REPAIRED AND REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE DISTRICT.
I.I.V.E. IF THE LINE TESTED LEAKS EXCESSIVELY, THE PRELIMINARY TEST MUST BE REPEATED.
W. FINAL MAIN SEWER TEST (AFTER TRENCH HAS BEEN BACKFILLED AND COMPACTED AND BEFORE PAVING)
I.A. ALL BUILDING SEWER SHALL BE PLUGGED. THE ENDS OF MAINS SHALL ALSO BE PLUGGED AND BRACED.
I.I.B. THE LINE SHALL BE SUPPLIED WITH AIR UNTIL FOUR (4) PSI HAS BEEN REACHED AT WHICH TIME THE FLOW TO THE PIPE SHALL BE SHUT OFF. THE INSPECTOR WILL DETERMINE THE TIME OF LOSS OF ONE (1) PSI PRESSURE IN THE RANGE FROM FOUR (4) PSI AND ONE-HALF (1/2) PSI.
I.I.C. THE MINIMUM TEST TIME FOR ALL PIPE LENGTHS SHALL BE NO LESS THAN THE TIME REQUIRED FOR 100 FEET OF PIPE. SEE THE TABLE IN SECTION 3410 FOR THE TIME LOSS OF ONE (1) PSI.

PROJECT SCOPE NOTE

THE SCOPE OF THIS PROJECT IS TO PERFORM VARIOUS UPGRADES AND REPAIRS TO THE CASTRO VALLEY SANITARY DISTRICT SYSTEM. THE UPGRADES INCLUDE THE UPSIZING OF VARIOUS SEWER LINES BY PIPE BURSTING, OPEN TRENCH REPLACEMENT AND VARIOUS SPOT REPAIRS.

ALAMEDA COUNTY PUBLIC WORKS AGENCY PLANS REVIEWED FOR PERMIT ISSUANCE:

BY: FERNANDO B. GONZALES, P.E. SUPERVISING CIVIL ENGINEER DEVELOPMENT ENGINEERING AND PERMITS ALAMEDA COUNTY PUBLIC WORKS AGENCY



LEGEND

Table with columns for EXISTING and PROPOSED. Includes symbols for Sanitary Sewer Main (8" SS), Storm Drain Main (12" SD), Water Main (6" W), Fire Water Main (6" FW), Domestic Water Main (6" DW), Gas Valve, Water Meter, Water Valve, Fire Hydrant, Sanitary Sewer Cleanout, Storm Drain Manhole, Storm Drain Catch Basin, Storm Drain Curb Inlet, and Construction Detail Reference.

ABBREVIATIONS

- FH - FIRE HYDRANT
INV - INVERT ELEVATION
MH - MANHOLE
SF - SILT FENCE
SS - SANITARY SEWER
TYP - TYPICAL
UON - UNLESS OTHERWISE NOTED

UTILITY NOTE

THE TYPES, LOCATIONS, SIZES AND /OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE AND WERE OBTAINED FROM CSM BLOCK MAPS AND RECORD DRAWINGS PROVIDED BY CVSD. OTHER EXISTING UNDERGROUND UTILITIES WERE OBTAINED FROM INFORMATION PROVIDED BY THE CORRESPONDING UTILITY COMPANY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THIS SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND FACILITIES AND UTILITIES BY POTHOLING PRIOR TO COMMENCING CONSTRUCTION.

IT IS POSSIBLE THERE ARE ANODES FOR THE EXISTING WATER MAIN OR SANITARY SEWER FORCE MAIN. CONTRACTOR TO MARK AND LOCATED EXISTING ANODES ADJACENT TO CONSTRUCTION AND PRESENT FINDINGS TO ENGINEER. ANY EXISTING ANODES SHALL BE PROTECTED IN PLACE OR REPAIRED IF DAMAGED BY THE WORK.

TRAFFIC CONTROL

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TRAFFIC CONTROL REQUIRED TO COMPLETE PROPOSED SCOPE INCLUDING TRAFFIC CONTROL PLAN PREPARATION/ IMPLEMENTATION AND NECESSARY PERMITS.
2. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO ALAMEDA COUNTY PUBLIC WORKS AGENCY FOR THEIR REVIEW AND APPROVAL. THE PLAN SHALL SPECIFY THE APPROXIMATE START AND FINISH DATES AND THE PERTINENT WORK DAYS AND WORK HOURS.
3. THE TRAFFIC CONTROL PLAN SHALL INCLUDE AN APPROVED DETOUR PLAN WHERE THE TRAFFIC SIGNAL LANE CONFIGURATION IS CHANGED DURING THE DAYTIME OPERATION AND THE INTERSECTION IS PLACED IN THE FLASHING MODE. NOTE THAT BY STATE LAW, ONLY UNIFORMED OFFICERS CAN DIRECT TRAFFIC THROUGH A WORKING TRAFFIC SIGNAL.
4. AT EVERY INTERSECTION WHERE THE WORK DISRUPTS NORMAL OPERATION OF THE TRAFFIC SIGNAL AND DETECTOR LOOPS, THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY VIDEO VEHICLE DETECTION AT THEIR OWN EXPENSE.

STRIPING REPAIR NOTES

- 1. EXISTING STRIPING SHALL BE REPLACED IN ALL AREAS OF NEW SPOT REPAIRS, LATERAL REPLACEMENTS OR OPEN CUT TRENCH REPLACEMENTS INCLUDING CENTERLINE, EDGE LINE STRIPING, AND ANY PAVEMENT MARKINGS.
2. ANY PROPOSED REMOVAL OF ROADWAY STRIPING WILL NEED TO BE REPLACED FOLLOWING FINAL PAVING.
3. TEMPORARY STRIPING WILL BE NEEDED FOR STRIPING REMOVED MORE THAN THREE (3) DAYS.
4. 'STOP' LINES AND CROSSWALK LINES SHALL BE REPLACED AT THE END OF THE WORK DAY.

Sanitary sewers and appurtenances thereto shall be constructed in accordance with the provisions of the Castro Valley Sanitary District at the time of acceptance and the general provisions and specifications therein set forth which are incorporated herein by reference.

Sanitary facilities as shown on these plans were approved by the Sanitary Board of the Castro Valley Sanitary District on the \_\_\_ day of \_\_\_, 20 \_\_\_, by Resolution No. \_\_\_

CASTRO VALLEY SANITARY DISTRICT

By: Authorized Officer of C.V.S.D.

CASTRO VALLEY SANITARY DISTRICT INFLOW & INFILTRATION REDUCTION PROJECT



- ENTITIES TO BE NOTIFIED 48 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION WORK:
- EAST BAY MUNICIPAL UTILITIES DISTRICT
- ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
- PACIFIC GAS AND ELECTRIC
- AT&T TELEPHONE
- ALAMEDA COUNTY FIRE DEPARTMENT
- UNDERGROUND SERVICE ALERT
- COMCAST CORPORATION
- VERIZON BUSINESS (MO)
- CROWN CASTLE
- WAVE BROADBAND
- CASTRO VALLEY UNIFIED SCHOOL DISTRICT

EROSION CONTROL NOTE

CONTRACTOR SHALL PROVIDE INLET PROTECTION WITHIN & DOWNSTREAM OF THE AREAS OF WORK AND SHALL PROVIDE STREET SWEEPING AS NEEDED TO MAINTAIN CLEAN STREETS ADJACENT TO WORK AREA.

POTHOLING NOTE

CONTRACTOR SHALL POTHOLE ALL LARGE STORM DRAIN CROSSINGS AND OTHER UTILITY CROSSINGS THAT MAY PRESENT A POTENTIAL CLEARANCE ISSUE.

VIDEO INSPECTION NOTES

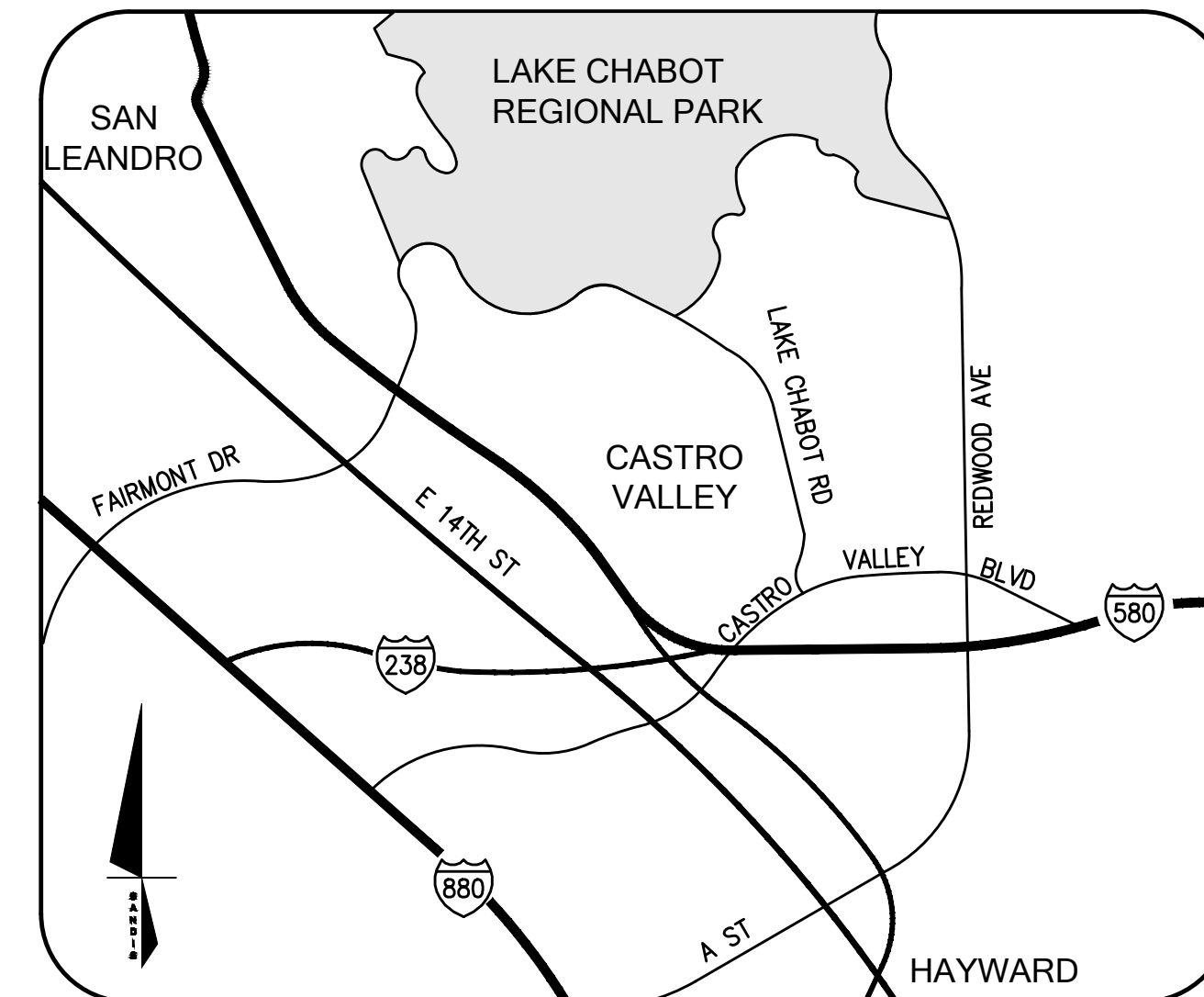
- 1. CONTRACTOR TO VIDEO INSPECT LINE TO CONFIRM DEFECT AND DEFECT LOCATIONS PRIOR TO PERFORMING WORK.
2. CONTRACTOR TO PLUG AND CLEAN REPLACED SEWER LINE PRIOR TO PERFORMING FINAL VIDEO INSPECTION.

GENERAL NOTES

- 1. THE CASTRO VALLEY SANITARY DISTRICT SHALL NOT BE RESPONSIBLE FOR THE DISCREPANCIES THAT MAY ARISE BETWEEN THE INFORMATION SUPPLIED AND ACTUAL FIELD CONDITIONS.
2. THE LOCATION OF ALL LATERAL CONNECTIONS TO THE MAIN SEWER ARE APPROXIMATE AND ARE BASED ON A REVIEW OF TV LOGS PROVIDED BY THE DISTRICT. THE CONTRACTOR SHALL VERIFY ALL SEWER LATERALS AND MAIN LINES AT PIPE CROSSINGS AND TIE IN LOCATIONS BY POT HOLING, IF NECESSARY.
3. THE STATUS OF ALL SEWER LATERALS (ACTIVE/CAPPED) ARE BASED ON A REVIEW OF THE TV LOGS PROVIDED BY THE DISTRICT. CONTRACTOR SHALL VERIFY THE STATUS OF ALL LATERALS PRIOR TO COMMENCEMENT. CONTRACTOR MAY REVIEW TV LOGS TO VERIFY.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING UNDERGROUND SERVICE ALERT (U.S.A.) TO MARK UTILITIES PRIOR TO CONSTRUCTION.
5. ALL SANITARY SEWER FACILITIES ARE TO BE INSTALLED ACCORDING TO CASTRO VALLEY SANITARY DISTRICT CODE AND STANDARD SPECIFICATIONS.
6. CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO RESIDENTS AT LEAST 48 HOURS IN ADVANCE BEFORE SEWER LATERALS ARE DISCONNECTED AND BYPASSED..
7. ALL NEW PAVED AREAS SHALL BE STRIPED TO MATCH EXISTING CONDITIONS. TEMPORARY STRIPING WILL BE NEEDED FOR STRIPING REMOVED MORE THAN 3 DAYS. 'STOP' LINES AND CROSSWALK LINES SHALL BE REPLACED AT THE END OF THE WORK DAY.
8. THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM ALAMEDA COUNTY PUBLIC WORKS AGENCY BEFORE COMMENCEMENT OF WORK.
9. THE ACTUAL LOCATION OF THE EXISTING UTILITIES IN THE FIELD MAY VARY FROM WHAT IS SHOWN. CONTRACTOR TO VERIFY ACTUAL LOCATIONS.
10. MAKE ALL ARRANGEMENTS WITH PROPERTY OWNERS FOR THE USE OF PRIVATE LAND FOR BYPASSING AND FOR ANY OTHER PURPOSE, AND HOLD THE COUNTY AND THE DISTRICT FROM ANY LIABILITY INCURRED THROUGH THE USE OF SUCH PRIVATE PROPERTY.
11. TRAFFIC CONTROL SHALL BE IMPLEMENTED FOR THE DURATION OF CONSTRUCTION IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA MUTCD.

CIVIL SHEET INDEX

- C-0.1 COVER SHEET, NOTES, LEGEND, AND ABBREVIATIONS
C-0.2 KEY PLAN
C-1.1 SANTA MARIA AVE. AND SHELDON CT.
C-2.1 KINNEY CT.
C-2.2 OMEGA AVE.
C-2.3 OMEGA AVE.
C-2.4 OMEGA AVE.
C-2.5 TOPAZ CT., WATSON ST.
C-2.6 CAMERON ST.
D-0.1 CONSTRUCTION DETAILS
D-0.2 CONSTRUCTION DETAILS



PIPE BURSTING NOTES

- 1. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR REVIEW AND APPROVAL. SUBMITTAL SHALL INCLUDE CALCULATIONS, MATERIALS, METHODS AND EQUIPMENT.
2. CONTRACTOR SHALL MARK AND DETERMINE THE PRESENCE OF ALL EXISTING UTILITIES THAT COULD BE AFFECTED BY THE PIPE BURSTING OPERATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FLOWS WITHIN THE SYSTEM. THIS SHALL INCLUDE ALL INDIVIDUAL SERVICES AND LATERALS WHICH WILL REQUIRE BYPASSING.
4. THE SIZE, LOCATION AND METHOD OF EXCAVATION OF ALL PITS SHALL BE DETERMINED PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL LOCATE, EXCAVATE AND EXPOSE ALL SEWER LATERALS PRIOR TO COMMENCEMENT OF PIPE BURSTING. ALL PROPERTY OWNERS SHALL BE NOTIFIED. ALL LATERALS SHALL BE DISCONNECTED FROM THE MAIN PRIOR TO COMMENCEMENT.
6. ALL PIPE SHALL BE PREPARED PER TECHNICAL SPECIFICATIONS 02750 SECTION 3.03 (A).
7. NEW HDPE SHALL BE INSTALLED PER TECHNICAL SPECIFICATIONS 02750 SECTION 3.03 (B AND C) AND SECTION 3.04.
8. AFTER COMPLETION OF THE PIPE INSTALLATION, THE NEW LINE SHALL BE TESTED, LATERALS RECONNECTED, BACKFILLED AND ALL SURFACES RESTORED PER CONTRACT SPECS.



CASTRO VALLEY INFLOW & INFILTRATION REDUCTION PROJECT

Description/Location COVER SHEET, NOTES, LEGEND, AND ABBREVIATIONS

Table with columns for SIZE, DATE, DRAWING NO., REV, SCALE, N.T.S., DRAWN BY, SEC, CHECKED BY, NGA, APPROVED BY, MAK, SHEET. Values include 05/19/2023, C-0.1, 2, N.T.S., and SHEET.

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	BID ADDENDUM 1	06/27/2023	
	2	BID ADDENDUM 2	07/17/2023	

### LEGEND

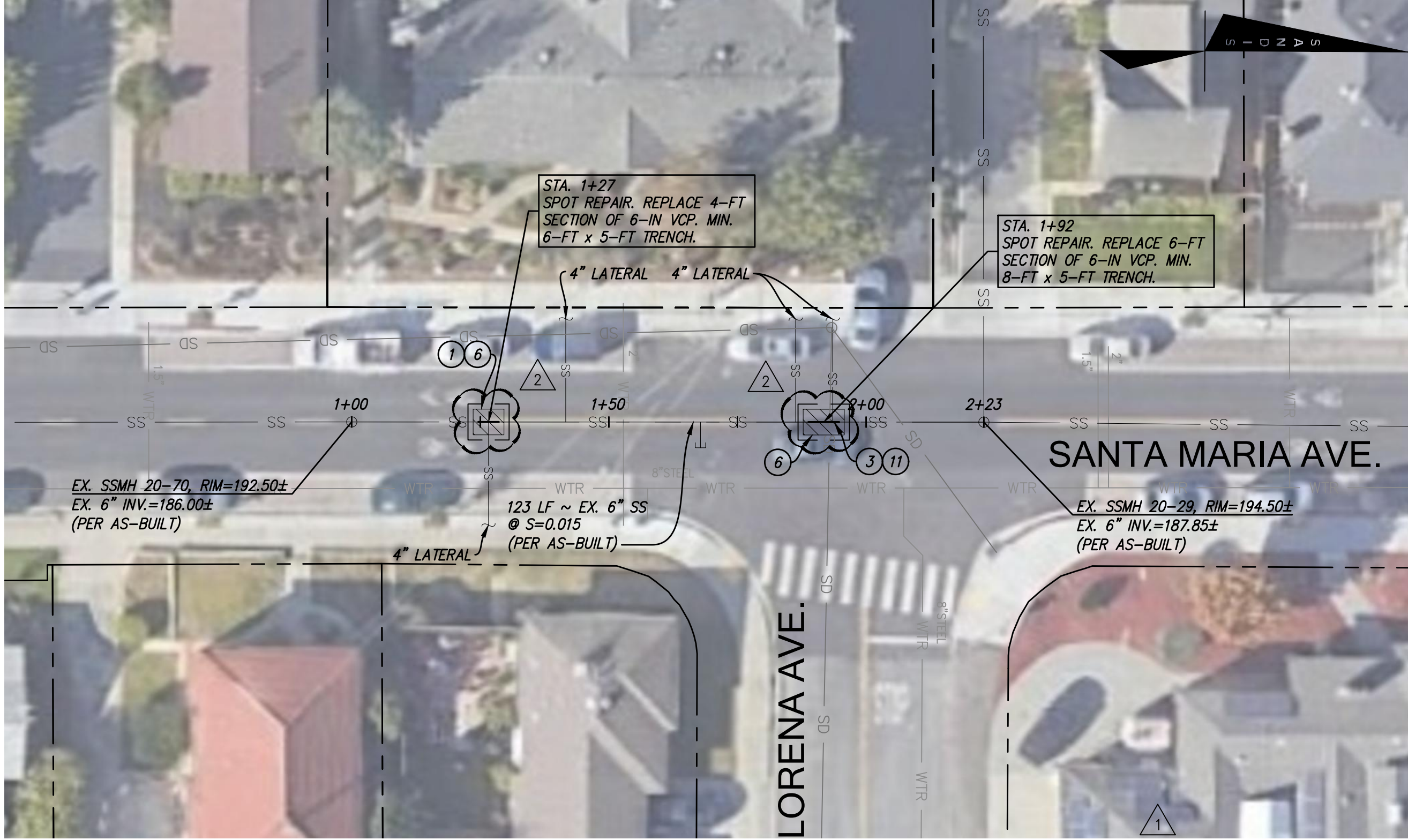
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN CHANNEL
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- OPEN CUT REPLACEMENT SPOT REPAIR, PAVEMENT REPLACEMENT EXTENDS 12" BEYOND EXCAVATION.
- PIPE BURSTING
- STATION LINE - STARTS AT APPROXIMATE CENTER OF MANHOLE

## ALAMEDA COUNTY PUBLIC WORKS AGENCY

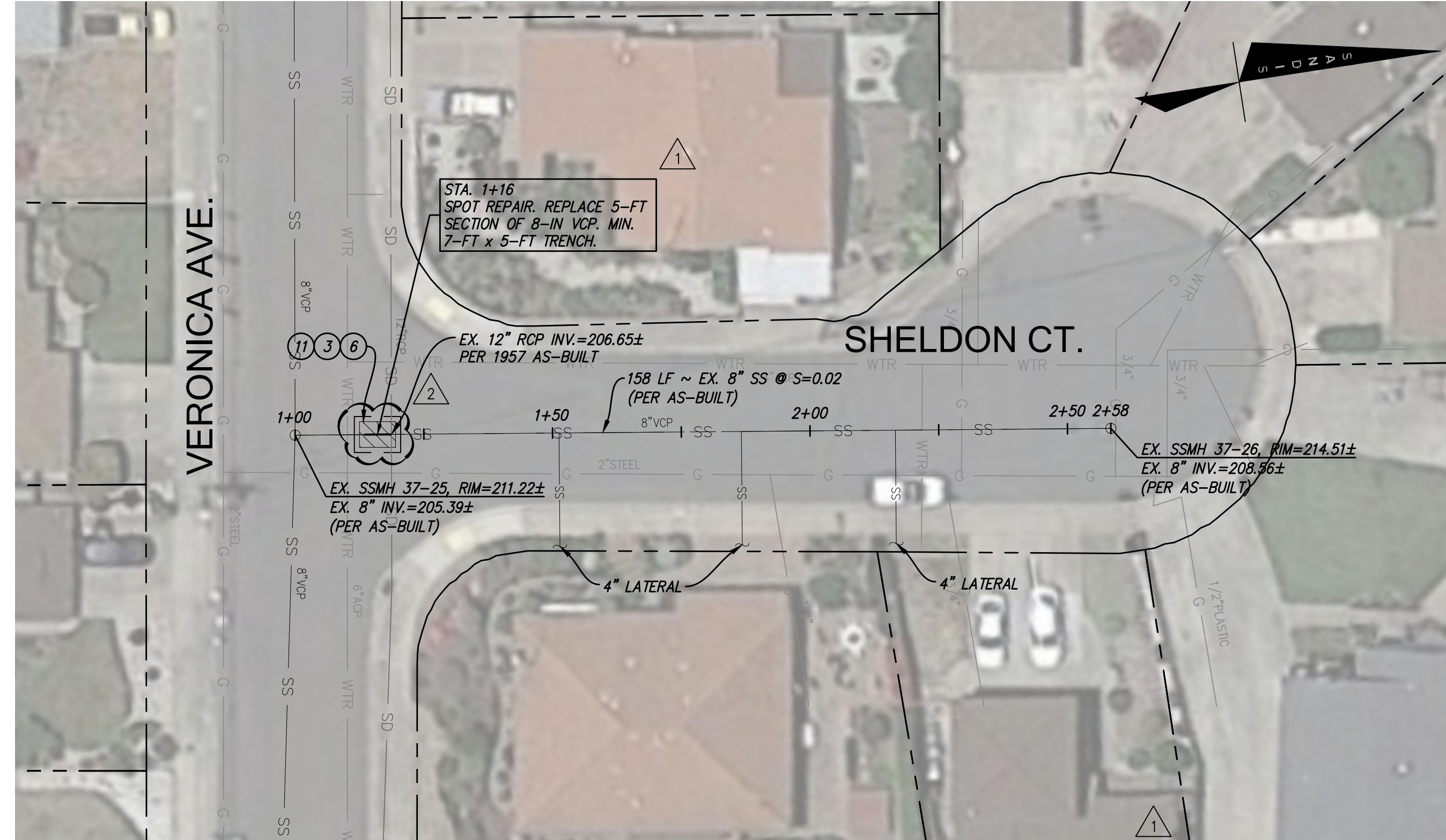
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### SHEET NOTES:

- RECONNECT SEWER LATERAL. SEE DETAIL TYP. SANITARY SEWER LATERAL CONNECTION, SHEET D-0.1. USE EXCAVATION PIT DETAIL FOR LATERAL CONNECTION. SEE DETAIL, SHEET D-0.1.
- CAPPED LATERAL TO BE ABANDONED IN PLACE.
- POTHOLE EXISTING STORM DRAIN CROSSING. SEE DETAIL 2, SHEET D-0.2.
- SANITARY SEWER LINE INSTALLATION BY PIPE BURSTING.
- SANITARY SEWER LINE INSTALLATION BY OPEN CUT REPLACEMENT.
- SANITARY SEWER LINE REPLACEMENT BY SPOT REPAIR. SEE DETAIL, SHEET D-0.1.
- CONNECT NEW PIPE TO EXISTING MANHOLE. SEE DETAIL, SHEET D-0.1.
- APPROXIMATE LOCATION OF EXISTING UTILITY CROSSING BASED ON BLOCK MAP. PROTECT IN PLACE.
- EXCAVATION PIT FOR PIPE BURSTING EQUIPMENT AND NEW HDPE PIPE. SEE DETAIL, SHEET D-0.1.
- TRADITIONAL OPEN TRENCH INSTALLATION SHALL BE REQUIRED FROM THE BORE PIT TO THE EXISTING UPSTREAM SANITARY SEWER MANHOLE.
- BACKFILL SPOT REPAIR AT SD PIPE WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) PER DETAIL 1.B ON SHEET D-0.2.



### SANTA MARIA AVENUE (DEDUCTIVE ALTERNATE) PIPE REPAIR 20-29 TO 20-70



### SHELDON COURT (DEDUCTIVE ALTERNATE) PIPE REPAIR 37-26 TO 37-25

**SANDIS**  
SANDIS.NET

DATE 07/19/2023

REGISTERED PROFESSIONAL ENGINEER  
MICHAEL A. KUYRENDALL  
No. 70870  
Exp. 6/30/25  
CIVIL  
STATE OF CALIFORNIA  
R.C.E. NO. 70870, EXPIRES 6-30-25

REVIEWED BY:

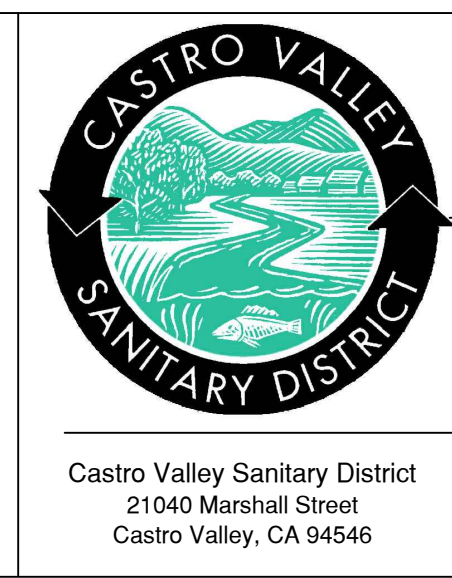
FOR ALAMEDA COUNTY PUBLIC WORKS AGENCY

Sanitary sewers and appurtenances thereto shall be constructed in accordance with the provisions of the Castro Valley Sanitary District at the time of acceptance and the general provisions and specifications therein set forth which are incorporated herein by reference.

Sanitary facilities as shown on these plans were approved by the Sanitary Board of the Castro Valley Sanitary District on the \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by Resolution No. \_\_\_\_\_

CASTRO VALLEY SANITARY DISTRICT

By \_\_\_\_\_  
Authorized Officer of C.V.S.D.



CASTRO VALLEY INFLOW & INFILTRATION REDUCTION PROJECT		Description/Location SANTA MARIA AVE. AND SHELDON CT.	
SIZE D	DATE 05/19/2023	DRAWING NO. C-1.1	REV 2
SCALE 1"=20'	DRAWN BY SEC	CHECKED BY NGA	APPROVED BY MAK

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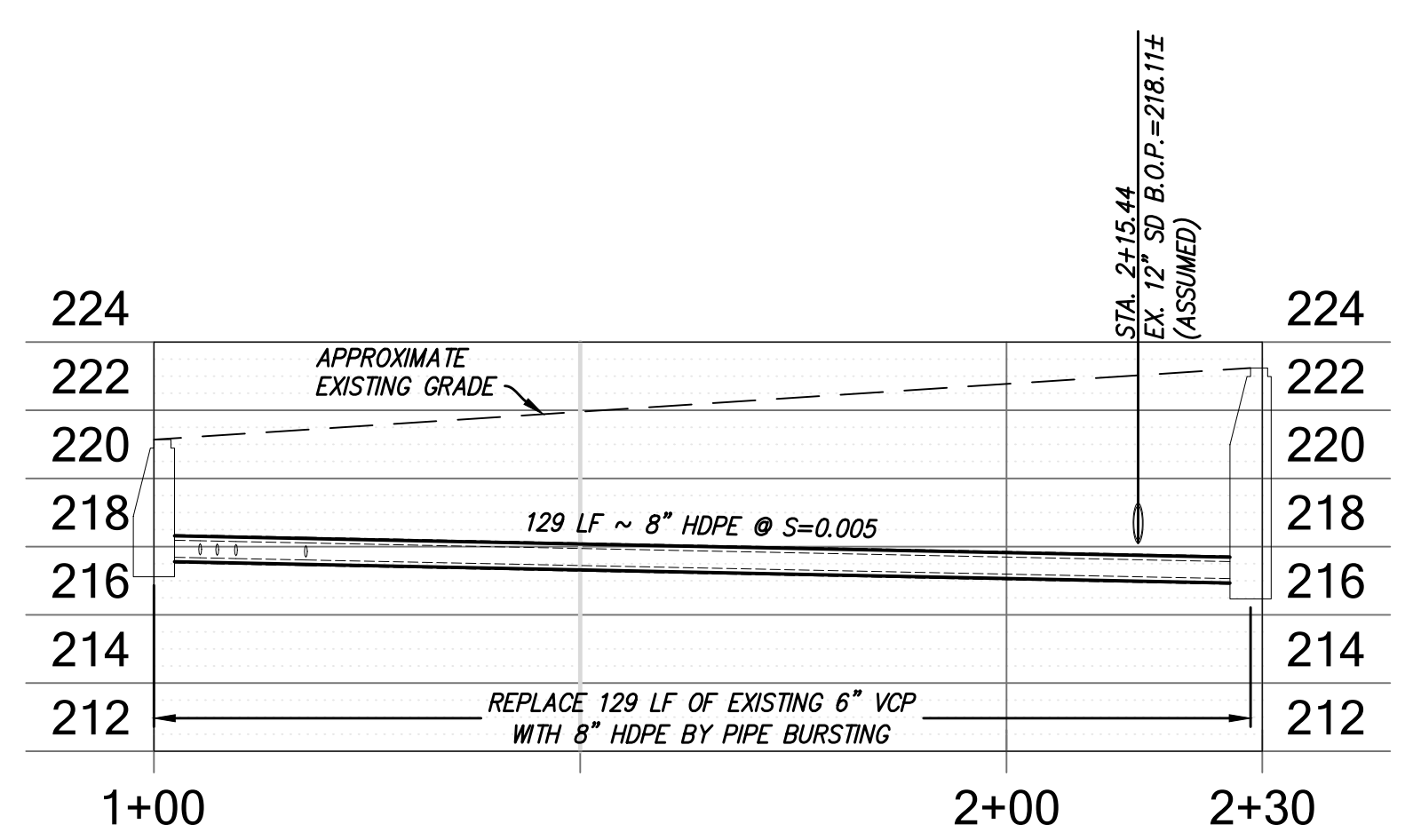
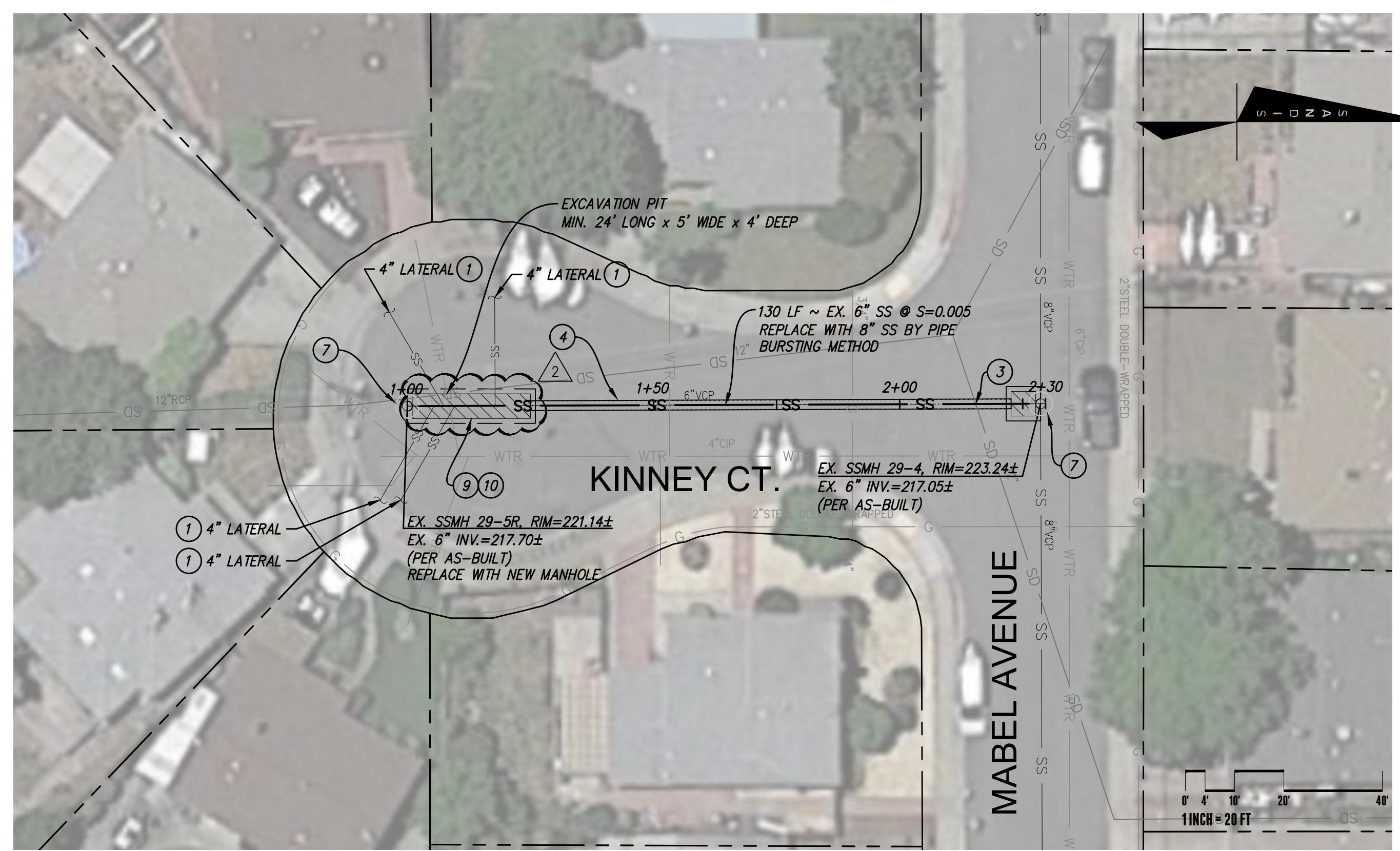
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	BID ADDENDUM 1	06/27/2023	
	2	BID ADDENDUM 2	07/17/2023	

### LEGEND

- SS EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- SD EXISTING STORM DRAIN
- EXISTING STORM DRAIN CHANNEL
- W EXISTING WATER LINE
- G EXISTING GAS LINE
- OHE EXISTING OVERHEAD ELECTRIC
- UHE EXISTING UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- OPEN CUT REPLACEMENT SPOT REPAIR, PAVEMENT REPLACEMENT EXTENDS 12" BEYOND EXCAVATION.
- PIPE BURSTING
- 1+00 STATION LINE - STARTS AT APPROXIMATE CENTER OF MANHOLE

### SHEET NOTES:

- 1 RECONNECT SEWER LATERAL. SEE DETAIL TYP. SANITARY SEWER LATERAL CONNECTION, SHEET D-0.1. USE EXCAVATION PIT DETAIL FOR LATERAL CONNECTION. SEE DETAIL, SHEET D-0.1.
- 2 CAPPED LATERAL TO BE ABANDONED IN PLACE.
- 3 POT HOLE EXISTING STORM DRAIN CROSSING. SEE DETAIL 2, SHEET D-0.2. CONSTRUCTING NEW CROSSING USING REQUIREMENTS ON DETAIL 1, SHEET D-0.2.
- 4 SANITARY SEWER LINE INSTALLATION BY PIPE BURSTING. SEE DETAIL, SHEET D-0.1.
- 5 SANITARY SEWER LINE INSTALLATION BY OPEN CUT REPLACEMENT.
- 6 SANITARY SEWER LINE REPLACEMENT BY SPOT REPAIR. SEE DETAIL, SHEET D-0.1.
- 7 CONNECT NEW PIPE TO EXISTING MANHOLE. SEE DETAIL, SHEET D-0.1. REPLACE EXISTING RISER WITH A NEW MANHOLE. CONNECT NEW PIPE TO NEW MANHOLE. SEE DETAILS ON SHEET D-0.1.
- 8 APPROXIMATE LOCATION OF EXISTING UTILITY CROSSING BASED ON BLOCK MAP. PROTECT IN PLACE.
- 9 EXCAVATION PIT FOR PIPE BURSTING EQUIPMENT AND NEW HDPE PIPE. SEE DETAIL, SHEET D-0.1.
- 10 TRADITIONAL OPEN TRENCH INSTALLATION SHALL BE REQUIRED FROM THE BORE PIT TO THE EXISTING SANITARY SEWER MANHOLE.



### KINNEY COURT PIPE REPLACEMENT 29-5R TO 29-4

**SANDIS**  
SANDIS.NET

DATE 07/19/2023

REGISTERED PROFESSIONAL ENGINEER  
MICHAEL A. KUYRENDALL  
No. 70870  
Exp. 6/30/25  
CIVIL  
STATE OF CALIFORNIA  
R.C.E. NO. 70870, EXPIRES 6-30-25

REVIEWED BY:

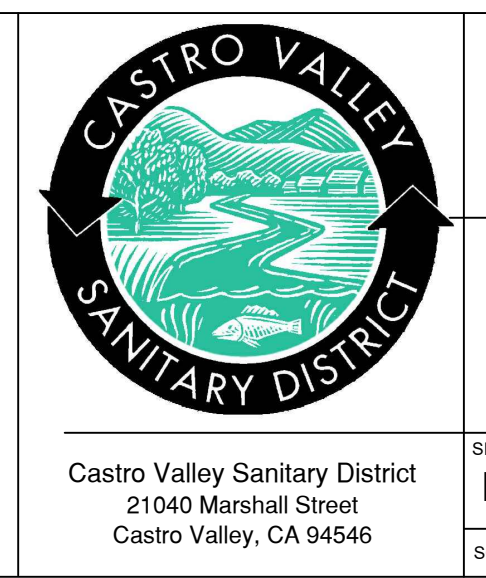
FOR ALAMEDA COUNTY  
PUBLIC WORKS AGENCY

Sanitary sewers and appurtenances thereto shall be constructed in accordance with the provisions of the Castro Valley Sanitary District at the time of acceptance and the general provisions and specifications therein set forth which are incorporated herein by reference.

Sanitary facilities as shown on these plans were approved by the Sanitary Board of the Castro Valley Sanitary District on the \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by Resolution No. \_\_\_\_\_

CASTRO VALLEY SANITARY DISTRICT

By \_\_\_\_\_  
Authorized Officer of C.V.S.D.



CASTRO VALLEY INFLOW & INFILTRATION REDUCTION PROJECT		Description/Location KINNEY CT.	
SIZE D	DATE 05/19/2023	DRAWING NO. C-2.1	REV 2
SCALE 1"=20'	DRAWN BY SEC	CHECKED BY NGA	APPROVED BY MAK

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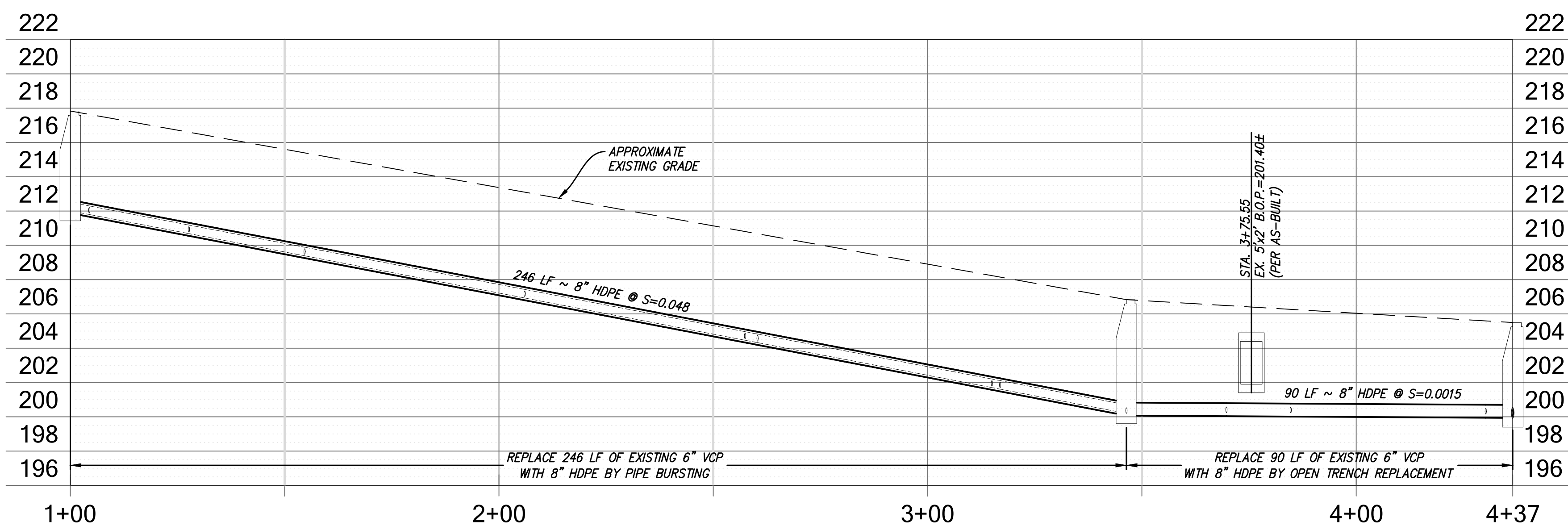
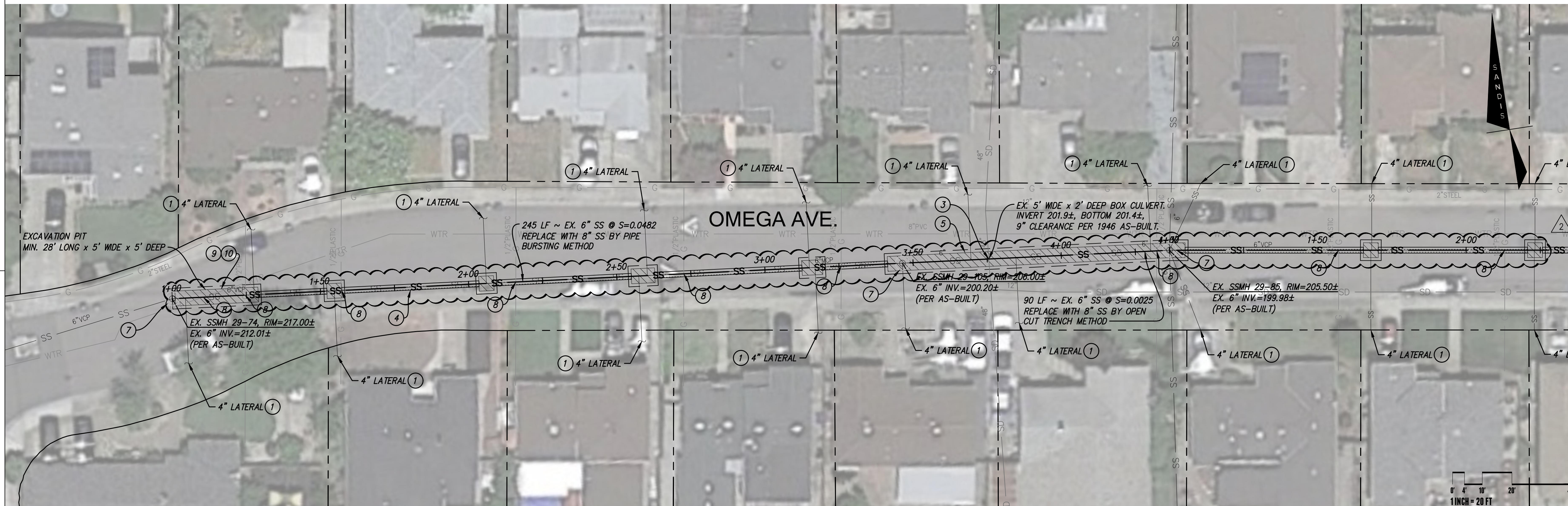
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	BID ADDENDUM 1	06/27/2023	
	2	BID ADDENDUM 2	07/17/2023	

### LEGEND

- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN CHANNEL
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- OPEN CUT REPLACEMENT SPOT REPAIR, PAVEMENT REPLACEMENT EXTENDS 12" BEYOND EXCAVATION.
- PIPE BURSTING
- STATION LINE - STARTS AT APPROXIMATE CENTER OF MANHOLE

### SHEET NOTES:

- 1 RECONNECT SEWER LATERAL. SEE DETAIL TYP. SANITARY SEWER LATERAL CONNECTION, SHEET D-0.1. USE EXCAVATION PIT DETAIL FOR LATERAL CONNECTION. SEE DETAIL, SHEET D-0.1.
- 2 CAPPED LATERAL TO BE ABANDONED IN PLACE.
- 3 POT HOLE EXISTING STORM DRAIN CROSSING. SEE DETAIL 2, SHEET D-0.2. CONSTRUCT NEW CROSSING USING REQUIREMENTS ON DETAIL 1, SHEET D-0.2.
- 4 SANITARY SEWER LINE INSTALLATION BY PIPE BURSTING. SEE DETAIL, SHEET D-0.1.
- 5 SANITARY SEWER LINE INSTALLATION BY OPEN CUT REPLACEMENT.
- 6 SANITARY SEWER LINE REPLACEMENT BY SPOT REPAIR. SEE DETAIL, SHEET D-0.1.
- 7 CONNECT NEW PIPE TO EXISTING MANHOLE. SEE DETAIL, SHEET D-0.1.
- 8 APPROXIMATE LOCATION OF EXISTING UTILITY CROSSING BASED ON BLOCK MAP. PROTECT IN PLACE.
- 9 EXCAVATION PIT FOR PIPE BURSTING EQUIPMENT AND NEW HDPE PIPE. SEE DETAIL, SHEET D-0.1.
- 10 TRADITIONAL OPEN TRENCH INSTALLATION SHALL BE REQUIRED FROM THE BORE PIT TO THE EXISTING SANITARY SEWER MANHOLE.



**OMEGA AVENUE  
PIPE REPLACEMENT 29-74 TO 29-105**

**OMEGA AVENUE  
PIPE REPAIR 29-105 TO 29-85**

SCALES:  
1"=20' HORIZ.  
1"=5' VERT.

### ALAMEDA COUNTY PUBLIC WORKS AGENCY

1. AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM ALAMEDA COUNTY PUBLIC WORKS AGENCY PRIOR TO COMMENCEMENT OF ANY WORK WITHIN THE COUNTY'S RIGHT OF WAY FOR THE CONSTRUCTION, MODIFICATION OR CONNECTION TO COUNTY-MAINTAINED FACILITIES. ALL WORKMANSHIP, EQUIPMENT AND MATERIALS SHALL CONFORM TO ALAMEDA COUNTY STANDARDS AND SPECIFICATIONS.
2. ANY OTHER PORTION OF THE EXISTING ROAD IMPROVEMENTS AND FACILITIES THAT WILL BE IMPACTED BY THE PROPOSED WORK WILL HAVE TO BE REPLACED AND/OR RESTORED BY THE CONTRACTOR IN KIND TO ITS ORIGINAL OR BETTER CONDITION TO THE FULL SATISFACTION OF THE ALAMEDA COUNTY CONSTRUCTION INSPECTOR.

File: x:\p\16220714\_engineering\2\_plan\_sets\3\_sheet\_set\OFFSITE\C-2.2\_OMEGA AVE.dwg Date: Jul 17, 2023



DATE 07/19/2023  
REGISTERED PROFESSIONAL ENGINEER  
MICHAEL A. KUYRENDALL  
No. 70870  
Exp. 6/30/25  
CIVIL  
STATE OF CALIFORNIA  
R.C.E. NO. 70870, EXPIRES 6-30-25

REVIEWED BY:  
  
FOR ALAMEDA COUNTY  
PUBLIC WORKS AGENCY

Sanitary sewers and appurtenances thereto shall be constructed in accordance with the provisions of the Castro Valley Sanitary District at the time of acceptance and the general provisions and specifications therein set forth which are incorporated herein by reference.  
  
Sanitary facilities as shown on these plans were approved by the Sanitary Board of the Castro Valley Sanitary District on the \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by Resolution No. \_\_\_\_\_  
  
CASTRO VALLEY SANITARY DISTRICT  
  
By \_\_\_\_\_  
Authorized Officer of C.V.S.D.



Castro Valley Sanitary District  
21040 Marshall Street  
Castro Valley, CA 94546

CASTRO VALLEY INFLOW & INFILTRATION REDUCTION PROJECT		Description/Location OMEGA AVE.	
SIZE D	DATE 05/19/2023	DRAWING NO. C-2.2	REV 2
SCALE 1"=20'	DRAWN BY SEC	CHECKED BY NGA	APPROVED BY MAK

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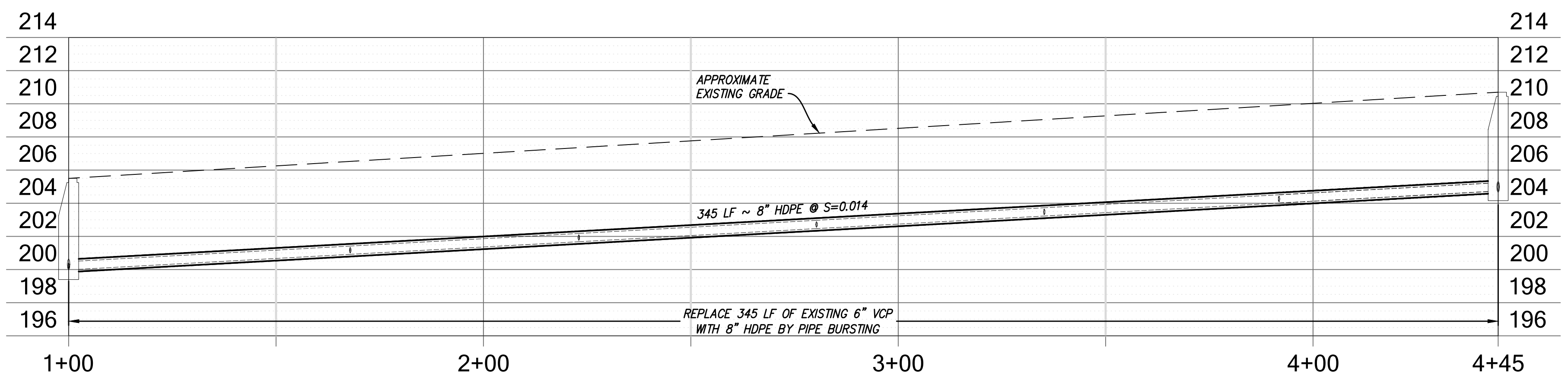
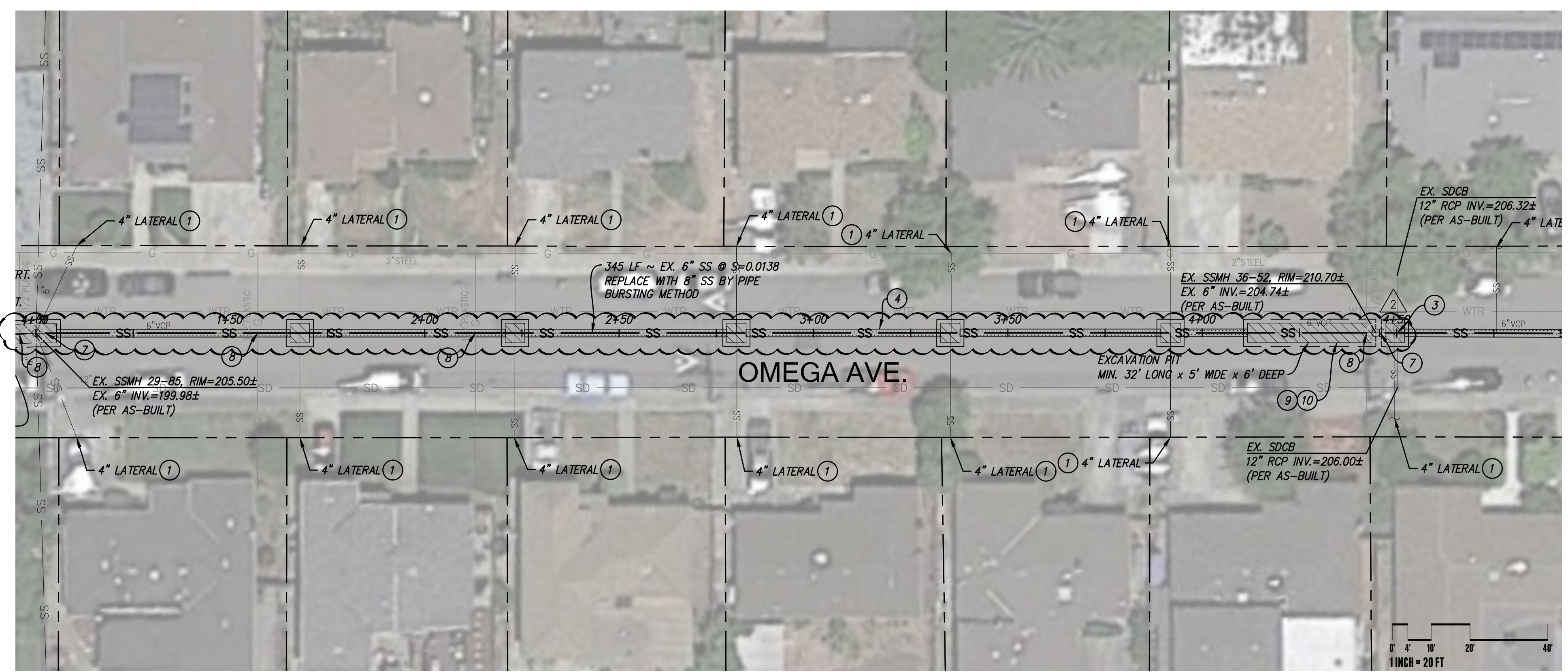
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	BID ADDENDUM 1	06/27/2023	
	2	BID ADDENDUM 2	07/17/2023	

**LEGEND**

- SS ——— EXISTING SANITARY SEWER
- SS ——— PROPOSED SANITARY SEWER
- SD ——— EXISTING STORM DRAIN
- SD ——— EXISTING STORM DRAIN CHANNEL
- W ——— EXISTING WATER LINE
- G ——— EXISTING GAS LINE
- OHE ——— EXISTING OVERHEAD ELECTRIC
- OHE ——— EXISTING UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- ▨ OPEN CUT REPLACEMENT SPOT REPAIR, PAVEMENT REPLACEMENT EXTENDS 12" BEYOND EXCAVATION.
- ▨ PIPE BURSTING
- 1+00 ——— STATION LINE — STARTS AT APPROXIMATE CENTER OF MANHOLE

**SHEET NOTES:**

- 1 RECONNECT SEWER LATERAL. SEE DETAIL TYP. SANITARY SEWER LATERAL CONNECTION, SHEET D-0.1. USE EXCAVATION PIT DETAIL FOR LATERAL CONNECTION. SEE DETAIL, SHEET D-0.1.
- 2 CAPPED LATERAL TO BE ABANDONED IN PLACE.
- 3 POT HOLE EXISTING STORM DRAIN CROSSING. SEE DETAIL 2, SHEET D-0.2. CONSTRUCT NEW CROSSING USING REQUIREMENTS ON DETAIL 1, SHEET D-0.2.
- 4 SANITARY SEWER LINE INSTALLATION BY PIPE BURSTING. SEE DETAIL, SHEET D-0.1.
- 5 SANITARY SEWER LINE INSTALLATION BY OPEN CUT REPLACEMENT.
- 6 SANITARY SEWER LINE REPLACEMENT BY SPOT REPAIR. SEE DETAIL, SHEET D-0.1.
- 7 CONNECT NEW PIPE TO EXISTING MANHOLE. SEE DETAIL, SHEET D-0.1.
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- 9 EXCAVATION PIT FOR PIPE BURSTING EQUIPMENT AND NEW HDPE PIPE. SEE DETAIL, SHEET D-0.1.
- 10 TRADITIONAL OPEN TRENCH INSTALLATION SHALL BE REQUIRED FROM THE BORE PIT TO THE EXISTING SANITARY SEWER MANHOLE.



SCALES:  
1"=20' HORIZ.  
1"=5' VERT.

**OMEGA AVENUE  
PIPE REPLACEMENT 36-52 TO 29-85**

**SANDIS**  
SANDIS.NET

DATE 07/19/2023

REGISTERED PROFESSIONAL ENGINEER  
MICHAEL A. KUYRENDALL  
No. 70870  
Exp. 6/30/25  
CIVIL  
STATE OF CALIFORNIA  
R.C.E. NO. 70870, EXPIRES 6-30-25

REVIEWED BY:

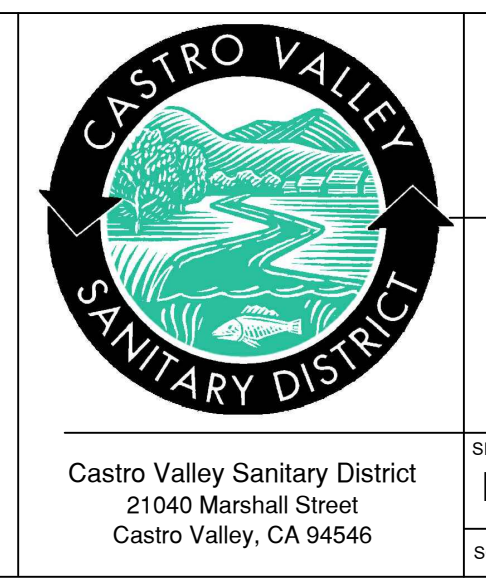
FOR ALAMEDA COUNTY  
PUBLIC WORKS AGENCY

Sanitary sewers and appurtenances thereto shall be constructed in accordance with the provisions of the Castro Valley Sanitary District at the time of acceptance and the general provisions and specifications therein set forth which are incorporated herein by reference.

Sanitary facilities as shown on these plans were approved by the Sanitary Board of the Castro Valley Sanitary District on the \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by Resolution No. \_\_\_\_\_

CASTRO VALLEY SANITARY DISTRICT

By \_\_\_\_\_  
Authorized Officer of C.V.S.D.



CASTRO VALLEY INFLOW & INFILTRATION REDUCTION PROJECT		Description/Location OMEGA AVE.	
SIZE D	DATE 05/19/2023	DRAWING NO. C-2.3	REV 2
SCALE 1"=20'	DRAWN BY SEC	CHECKED BY NGA	APPROVED BY MAK

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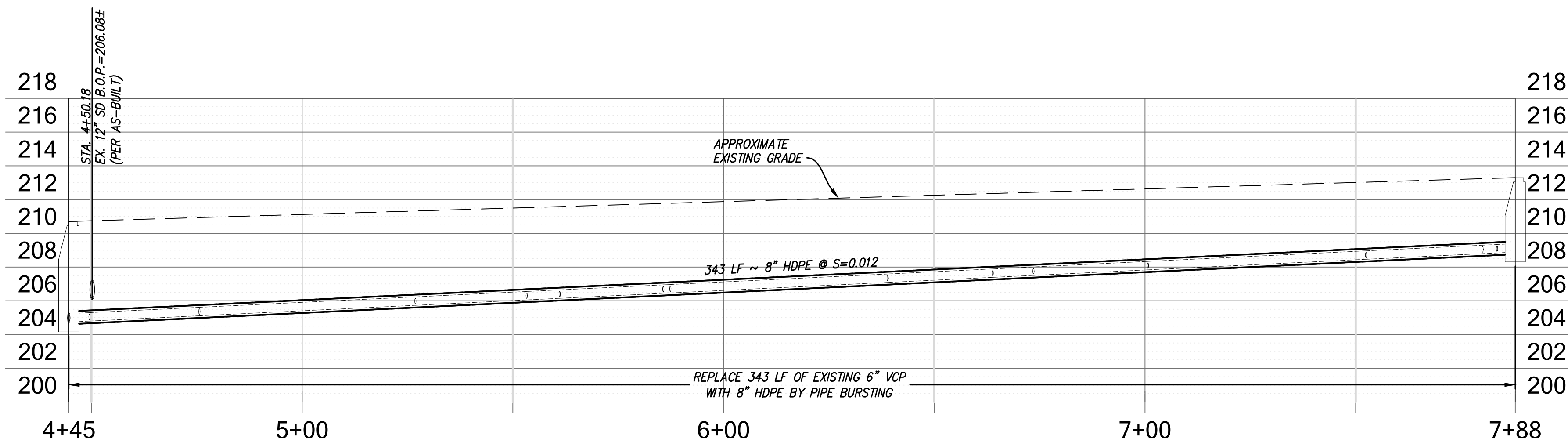
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	BID ADDENDUM 1	06/27/2023	
	2	BID ADDENDUM 2	07/17/2023	

### LEGEND

- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN CHANNEL
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- OPEN CUT REPLACEMENT SPOT REPAIR, PAVEMENT REPLACEMENT EXTENDS 12" BEYOND EXCAVATION.
- PIPE BURSTING
- STATION LINE - STARTS AT APPROXIMATE CENTER OF MANHOLE

### SHEET NOTES:

- 1 RECONNECT SEWER LATERAL. SEE DETAIL TYP. SANITARY SEWER LATERAL CONNECTION, SHEET D-0.1. USE EXCAVATION PIT DETAIL FOR LATERAL CONNECTION. SEE DETAIL, SHEET D-0.1.
- 2 CAPPED LATERAL TO BE ABANDONED IN PLACE.
- 3 POT HOLE EXISTING STORM DRAIN CROSSING. SEE DETAIL 2, SHEET D-0.2. CONSTRUCT NEW CROSSING USING REQUIREMENTS ON DETAIL 1, SHEET D-0.2.
- 4 SANITARY SEWER LINE INSTALLATION BY PIPE BURSTING. SEE DETAIL, SHEET D-0.1.
- 5 SANITARY SEWER LINE INSTALLATION BY OPEN CUT REPLACEMENT.
- 6 SANITARY SEWER LINE REPLACEMENT BY SPOT REPAIR. SEE DETAIL, SHEET D-0.1.
- 7 CONNECT NEW PIPE TO EXISTING MANHOLE. SEE DETAIL, SHEET D-0.1.
- 8 APPROXIMATE LOCATION OF EXISTING UTILITY CROSSING BASED ON BLOCK MAP. PROTECT IN PLACE.
- 9 EXCAVATION PIT FOR PIPE BURSTING EQUIPMENT AND NEW HDPE PIPE. SEE DETAIL, SHEET D-0.1.
- 10 TRADITIONAL OPEN TRENCH INSTALLATION SHALL BE REQUIRED FROM THE BORE PIT TO THE EXISTING SANITARY SEWER MANHOLE.



SCALES:  
 1"=20' HORIZ.  
 1"=5' VERT.

## OMEGA AVENUE PIPE REPLACEMENT 36-51 TO 36-52



DATE 07/19/2023  
 REGISTERED PROFESSIONAL ENGINEER  
 MICHAEL A. KUYRENDALL  
 No. 70870  
 Exp. 6/30/25  
 CIVIL  
 STATE OF CALIFORNIA  
 R.C.E. NO. 70870, EXPIRES 6-30-25

REVIEWED BY:

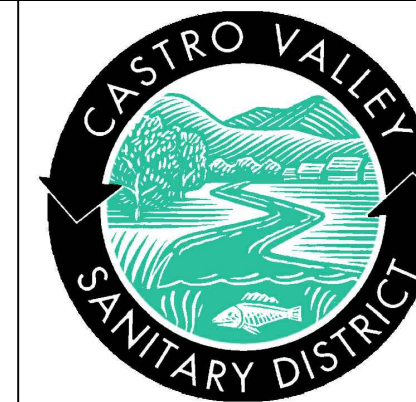
FOR ALAMEDA COUNTY PUBLIC WORKS AGENCY

Sanitary sewers and appurtenances thereto shall be constructed in accordance with the provisions of the Castro Valley Sanitary District at the time of acceptance and the general provisions and specifications therein set forth which are incorporated herein by reference.

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CASTRO VALLEY SANITARY DISTRICT

By \_\_\_\_\_  
 Authorized Officer of C.V.S.D.



Castro Valley Sanitary District  
 21040 Marshall Street  
 Castro Valley, CA 94546

CASTRO VALLEY  
 INFLOW & INFILTRATION  
 REDUCTION PROJECT

Description/Location  
 OMEGA AVE.

SIZE	DATE	DRAWING NO.	REV
D	05/19/2023	C-2.4	2
SCALE	1"=20'	DRAWN BY	SEC
		CHECKED BY	NGA
		APPROVED BY	MAK
			SHEET

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	BID ADDENDUM 1	06/27/2023	
	2	BID ADDENDUM 2	07/17/2023	

### LEGEND

- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN CHANNEL
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- OPEN CUT REPLACEMENT SPOT REPAIR, PAVEMENT REPLACEMENT EXTENDS 12" BEYOND EXCAVATION.
- PIPE BURSTING
- STATION LINE - STARTS AT APPROXIMATE CENTER OF MANHOLE

### SHEET NOTES:

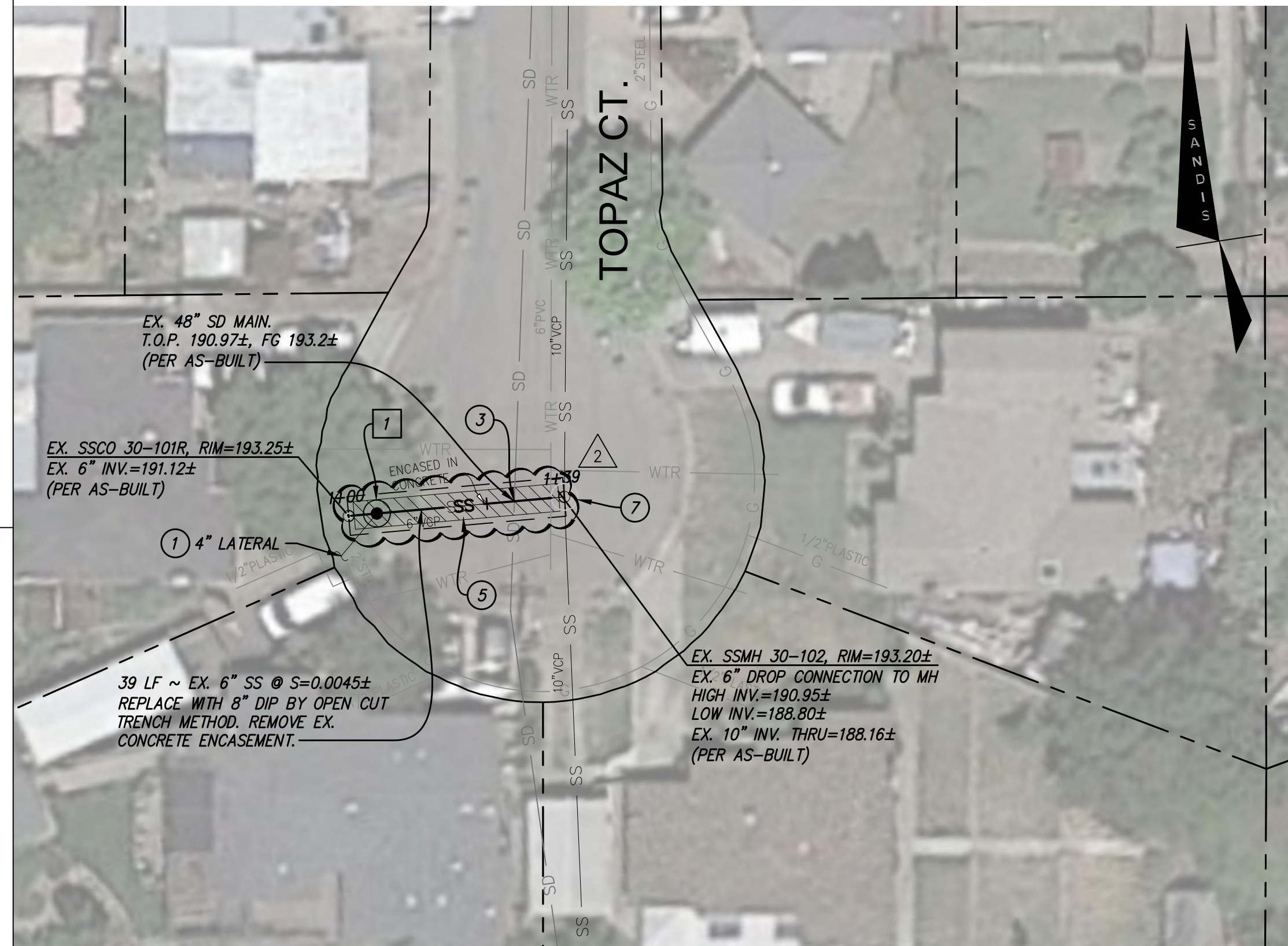
- 1 RECONNECT SEWER LATERAL. SEE DETAIL TYP. SANITARY SEWER LATERAL CONNECTION, SHEET D-0.1. USE EXCAVATION PIT DETAIL FOR LATERAL CONNECTION. SEE DETAIL, SHEET D-0.1.
- 2 CAPPED LATERAL TO BE ABANDONED IN PLACE.
- 3 CONSTRUCT PIPE SADDLE AT SD CROSSING. SEE DETAIL 3, SHEET D-0.2
- 4 SANITARY SEWER LINE INSTALLATION BY PIPE BURSTING. SEE DETAIL, SHEET D-0.1.
- 5 SANITARY SEWER LINE INSTALLATION BY OPEN CUT REPLACEMENT.
- 6 SANITARY SEWER LINE REPLACEMENT BY SPOT REPAIR. SEE DETAIL, SHEET D-0.1.
- 7 CONNECT NEW PIPE TO EXISTING MANHOLE. SEE DETAIL, SHEET D-0.1.
- 8 APPROXIMATE LOCATION OF EXISTING UTILITY CROSSING BASED ON BLOCK MAP. PROTECT IN PLACE.
- 9 EXCAVATION PIT FOR PIPE BURSTING EQUIPMENT AND NEW HDPE PIPE. SEE DETAIL, SHEET D-0.1.
- 10 TRADITIONAL OPEN TRENCH INSTALLATION SHALL BE REQUIRED FROM THE BORE PIT TO THE EXISTING SANITARY SEWER MANHOLE.

### DEDUCTIVE ALTERNATIVE:

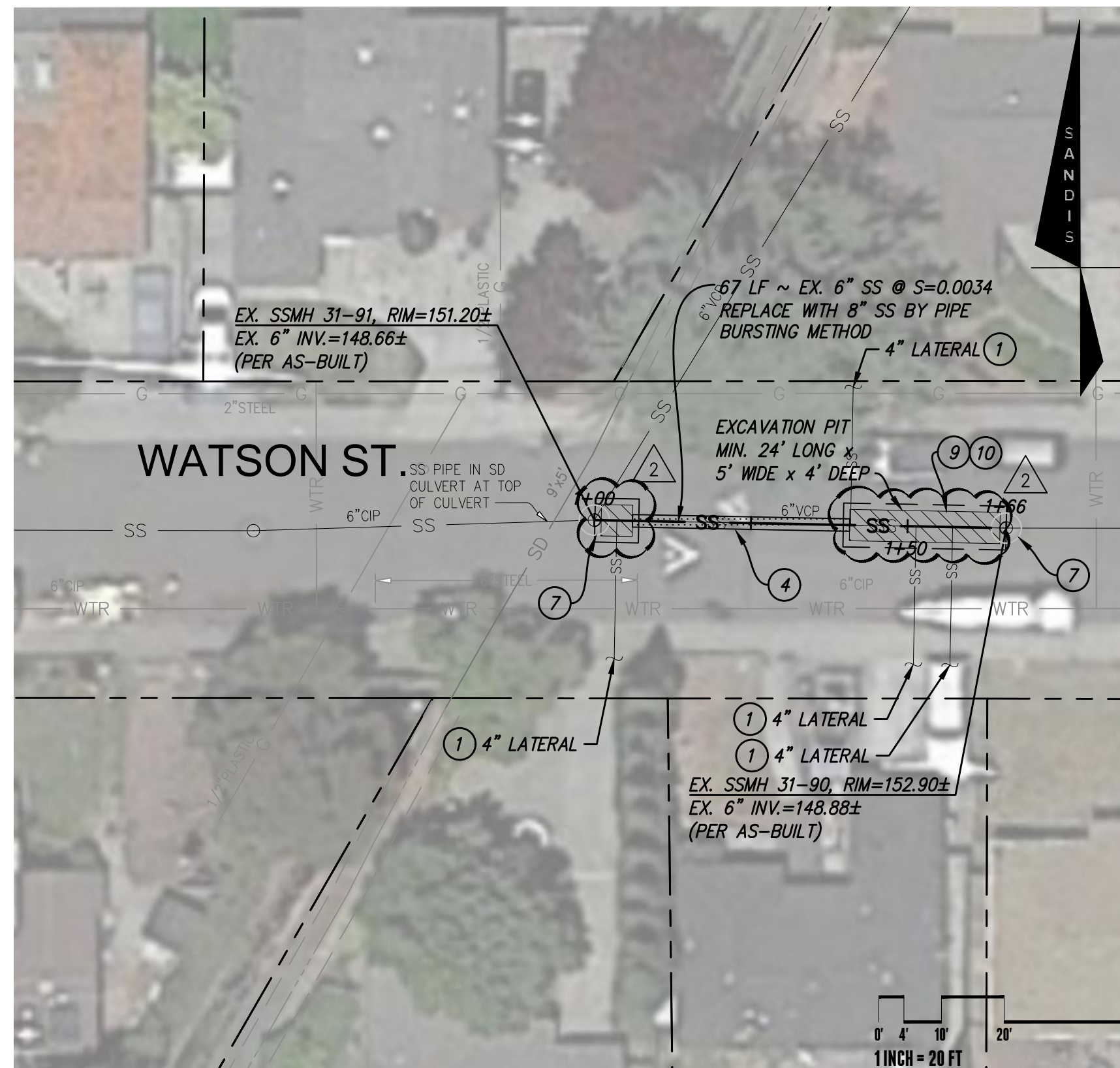
- 1 CONTRACTOR SHALL INCLUDE IN THEIR PROPOSAL A SEPARATE LINE ITEM TO REPLACE THE EXISTING RISER WITH A NEW SEWER MANHOLE. THIS SCOPE MAY BE REMOVED AS A DEDUCTIVE CHANGE ORDER BASED ON FIELD CONDITIONS AT THE DISCRETION OF THE CV SAN CONSTRUCTION REPRESENTATIVE.

### ALAMEDA COUNTY PUBLIC WORKS AGENCY

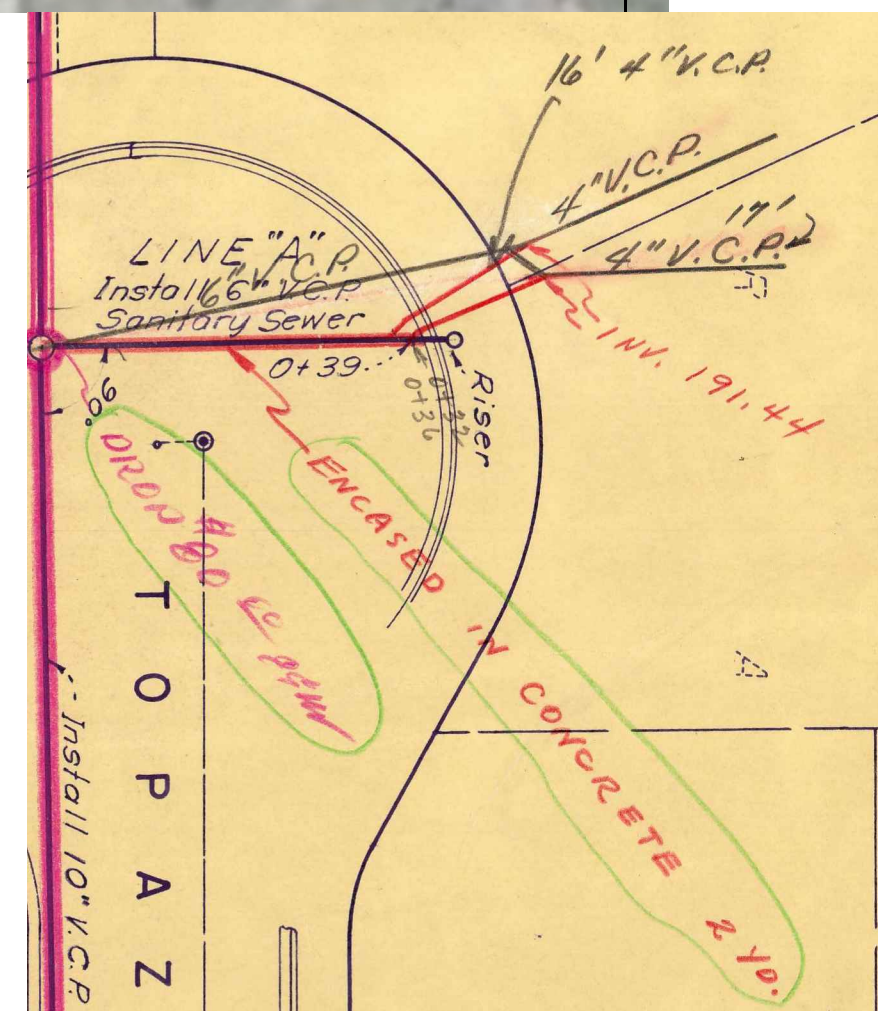
1. AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM ALAMEDA COUNTY PUBLIC WORKS AGENCY PRIOR TO COMMENCEMENT OF ANY WORK WITHIN THE COUNTY'S RIGHT OF WAY FOR THE CONSTRUCTION, MODIFICATION OR CONNECTION TO COUNTY-MAINTAINED FACILITIES. ALL WORKMANSHIP, EQUIPMENT AND MATERIALS SHALL CONFORM TO ALAMEDA COUNTY STANDARDS AND SPECIFICATIONS.
2. ANY OTHER PORTION OF THE EXISTING ROAD IMPROVEMENTS AND FACILITIES THAT WILL BE IMPACTED BY THE PROPOSED WORK WILL HAVE TO BE REPLACED AND/OR RESTORED BY THE CONTRACTOR IN KIND TO ITS ORIGINAL OR BETTER CONDITION TO THE FULL SATISFACTION OF THE ALAMEDA COUNTY CONSTRUCTION INSPECTOR.



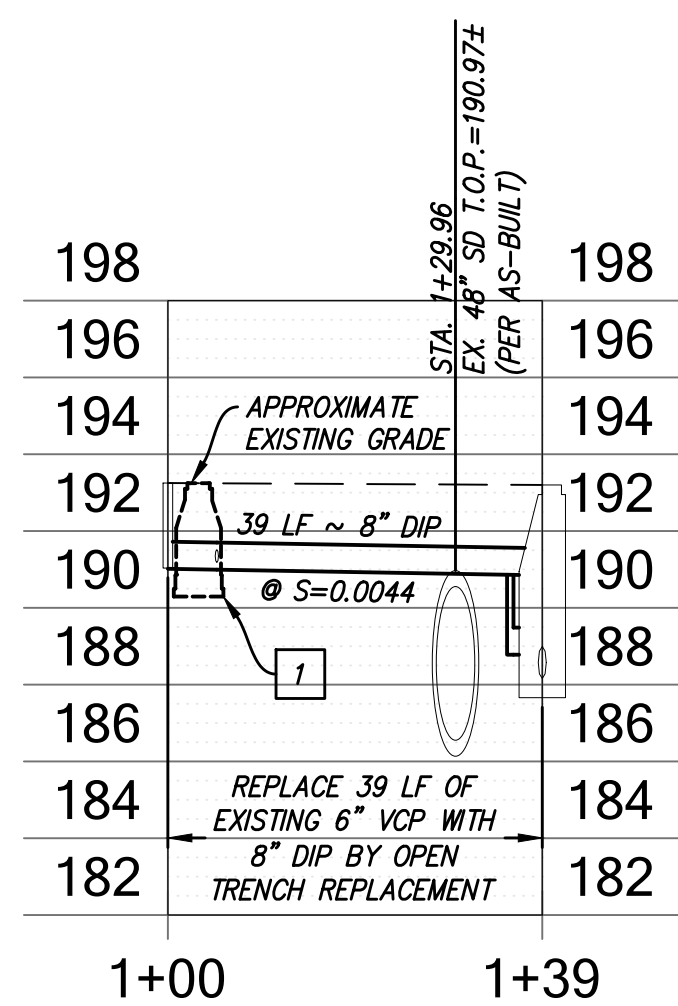
TOPAZ COURT



WATSON STREET

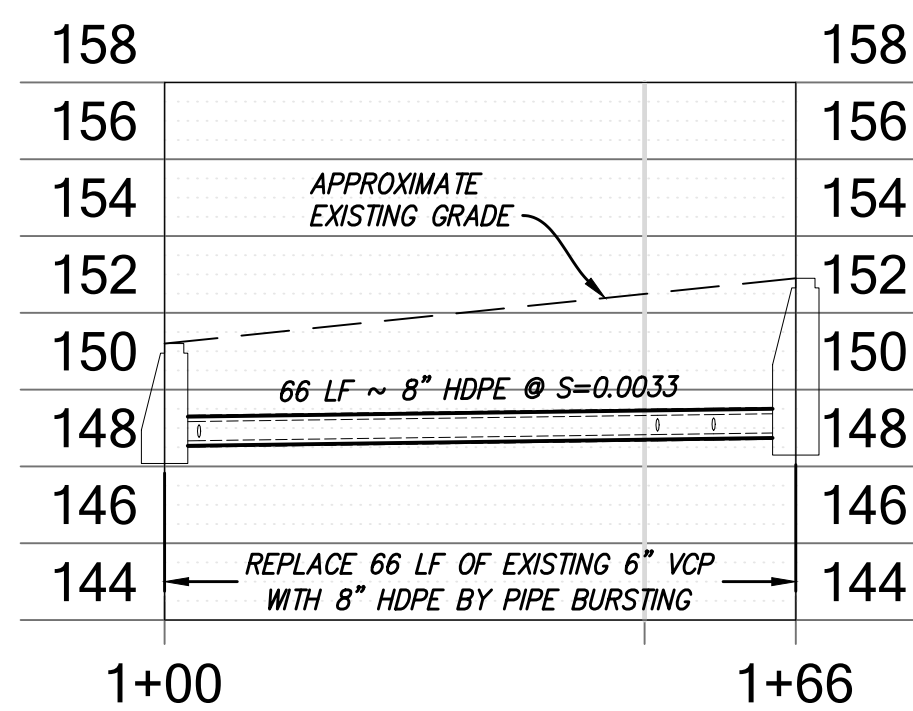


PORTION OF 1958 AS-BUILT PROVIDED FOR CONTRACTOR REFERENCE



SCALES:  
1"=20' HORIZ.  
1"=5' VERT.

TOPAZ COURT  
PIPE REPLACEMENT 30-101R TO 30-102



SCALES:  
1"=20' HORIZ.  
1"=5' VERT.

WATSON STREET  
PIPE REPLACEMENT 31-90 TO 31-91

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**SANDIS**  
SANDIS.NET

DATE 07/19/2023

REGISTERED PROFESSIONAL ENGINEER  
MICHAEL A. KUYRENDALL  
No. 70870  
Exp. 6/30/25  
CIVIL  
STATE OF CALIFORNIA  
R.C.E. NO. 70870, EXPIRES 6-30-25

REVIEWED BY:

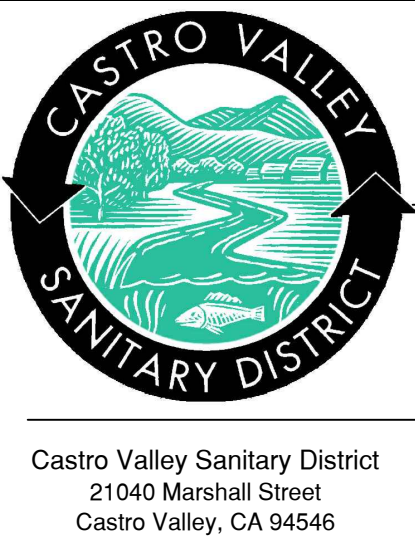
FOR ALAMEDA COUNTY  
PUBLIC WORKS AGENCY

Sanitary sewers and appurtenances thereto shall be constructed in accordance with the provisions of the Castro Valley Sanitary District at the time of acceptance and the general provisions and specifications therein set forth which are incorporated herein by reference.

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CASTRO VALLEY SANITARY DISTRICT

By \_\_\_\_\_  
Authorized Officer of C.V.S.D.



CASTRO VALLEY INFLOW & INFILTRATION REDUCTION PROJECT		Description/Location TOPAZ CT., WATSON ST.	
SIZE D	DATE 05/19/2023	DRAWING NO. C-2.5	REV 2
SCALE 1"=20'	DRAWN BY SEC	CHECKED BY NGA	APPROVED BY MAK

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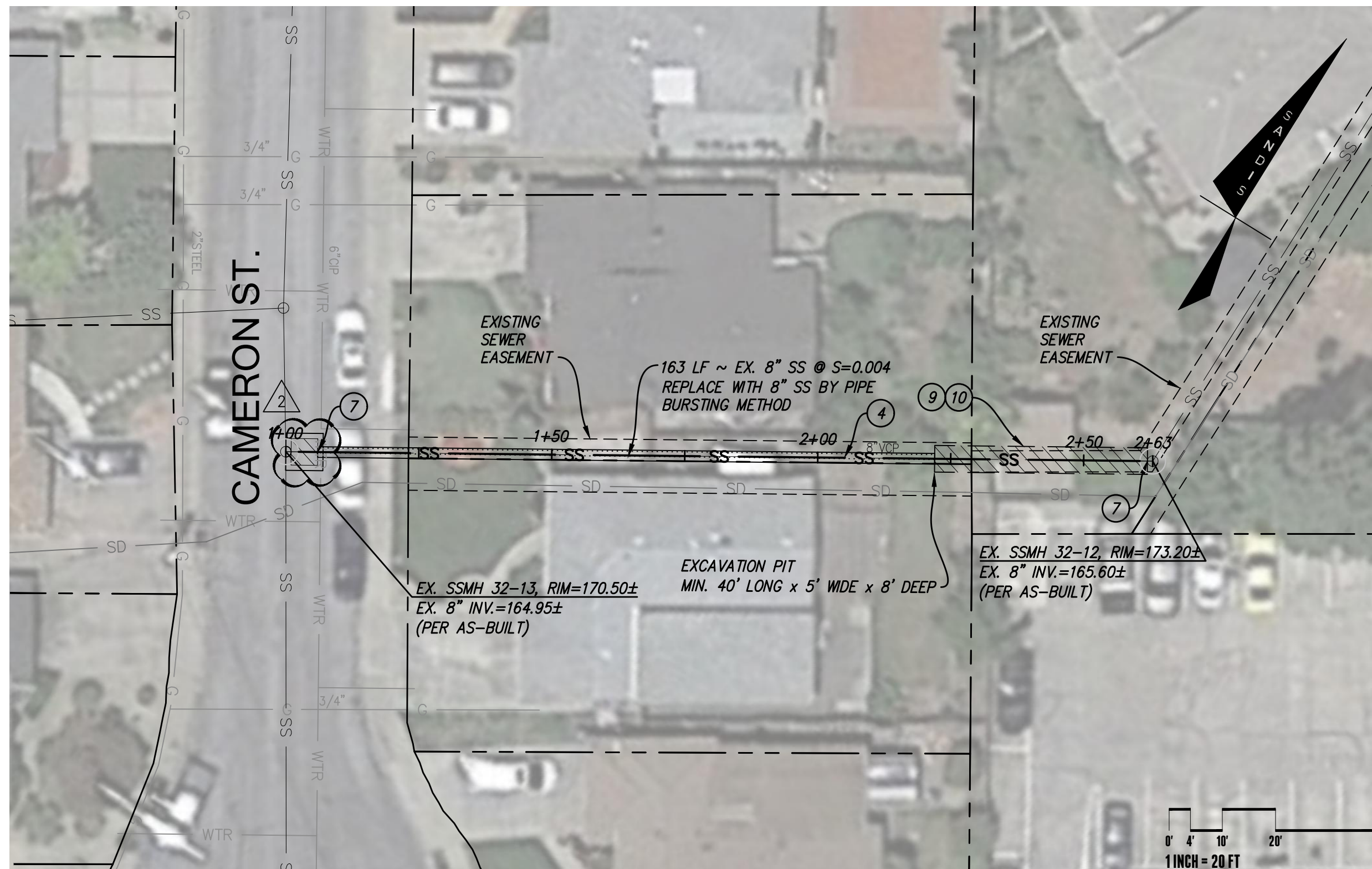
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	BID ADDENDUM 1	06/27/2023	
	2	BID ADDENDUM 2	07/17/2023	

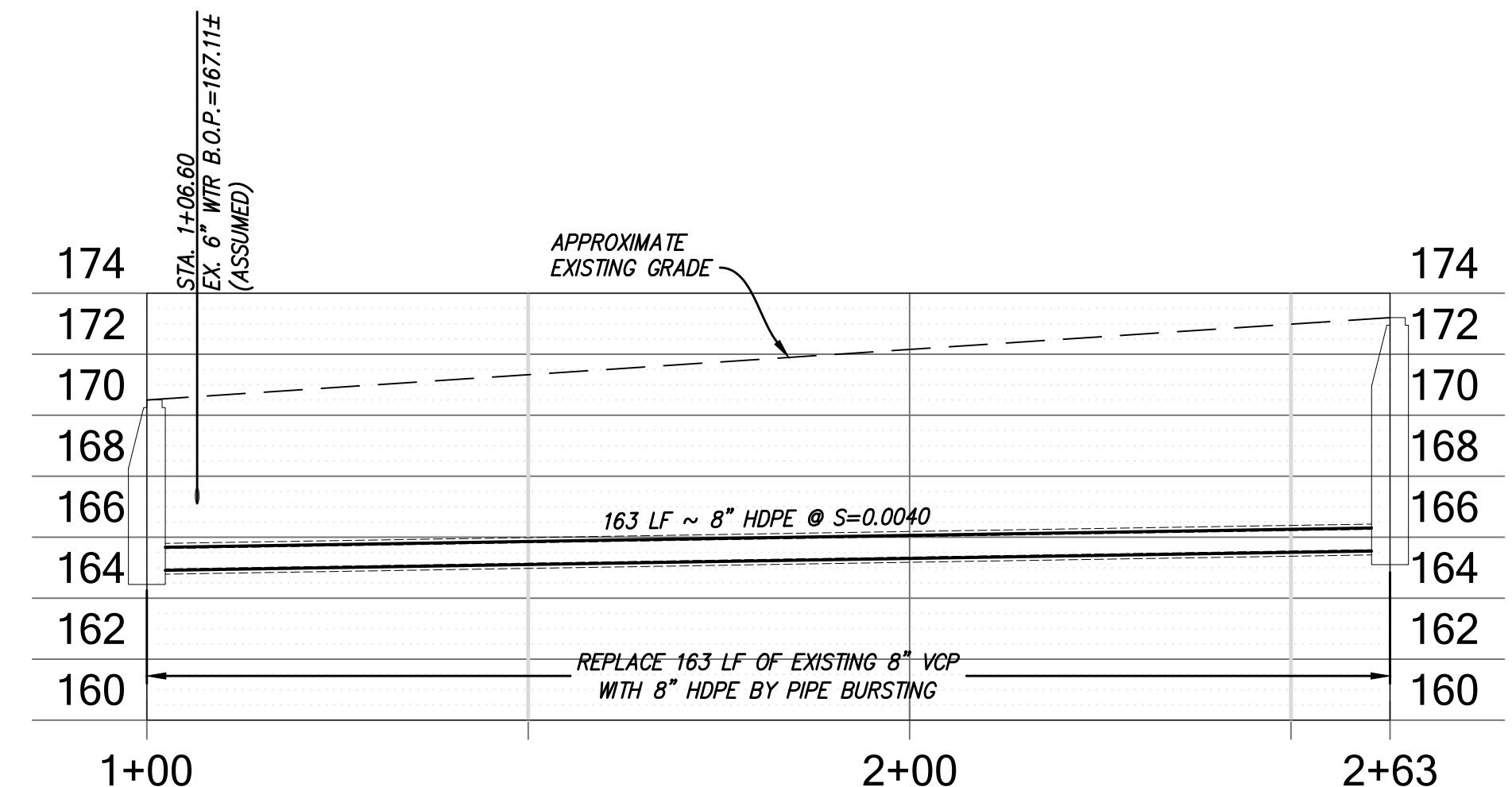
### LEGEND

- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN CHANNEL
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
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- PIPE BURSTING
- STATION LINE - STARTS AT APPROXIMATE CENTER OF MANHOLE



### SHEET NOTES:

- 1 RECONNECT SEWER LATERAL. SEE DETAIL TYP. SANITARY SEWER LATERAL CONNECTION, SHEET D-0.1. USE EXCAVATION PIT DETAIL FOR LATERAL CONNECTION. SEE DETAIL, SHEET D-0.1.
- 2 CAPPED LATERAL TO BE ABANDONED IN PLACE.
- 3 POTHOLE EXISTING STORM DRAIN CROSSING. SEE DETAIL 2, SHEET D-0.2.
- 4 SANITARY SEWER LINE INSTALLATION BY PIPE BURSTING.
- 5 SANITARY SEWER LINE INSTALLATION BY OPEN CUT REPLACEMENT.
- 6 SANITARY SEWER LINE REPLACEMENT BY SPOT REPAIR. SEE DETAIL, SHEET D-0.1.
- 7 CONNECT NEW PIPE TO EXISTING MANHOLE. SEE DETAIL, SHEET D-0.1.
- 8 APPROXIMATE LOCATION OF EXISTING UTILITY CROSSING BASED ON BLOCK MAP. PROTECT IN PLACE.
- 9 EXCAVATION PIT FOR PIPE BURSTING EQUIPMENT AND NEW HDPE PIPE. SEE DETAIL, SHEET D-0.1.
- 10 TRADITIONAL OPEN TRENCH INSTALLATION SHALL BE REQUIRED FROM THE BORE PIT TO THE EXISTING UPSTREAM SANITARY SEWER MANHOLE.
- 11 BACKFILL SPOT REPAIR AT SD PIPE WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) PER DETAIL 1.B ON SHEET D-0.2.



### CAMERON STREET PIPE REPAIR 32-12 TO 32-13

REVIEWED BY:

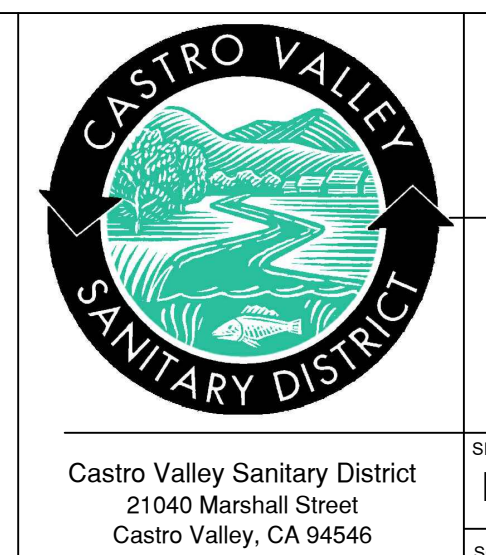
FOR ALAMEDA COUNTY PUBLIC WORKS AGENCY

Sanitary sewers and appurtenances thereto shall be constructed in accordance with the provisions of the Castro Valley Sanitary District at the time of acceptance and the general provisions and specifications therein set forth which are incorporated herein by reference.

Sanitary facilities as shown on these plans were approved by the Sanitary Board of the Castro Valley Sanitary District on the \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by Resolution No. \_\_\_\_\_

CASTRO VALLEY SANITARY DISTRICT

By \_\_\_\_\_  
Authorized Officer of C.V.S.D.



CASTRO VALLEY INFLOW & INFILTRATION REDUCTION PROJECT

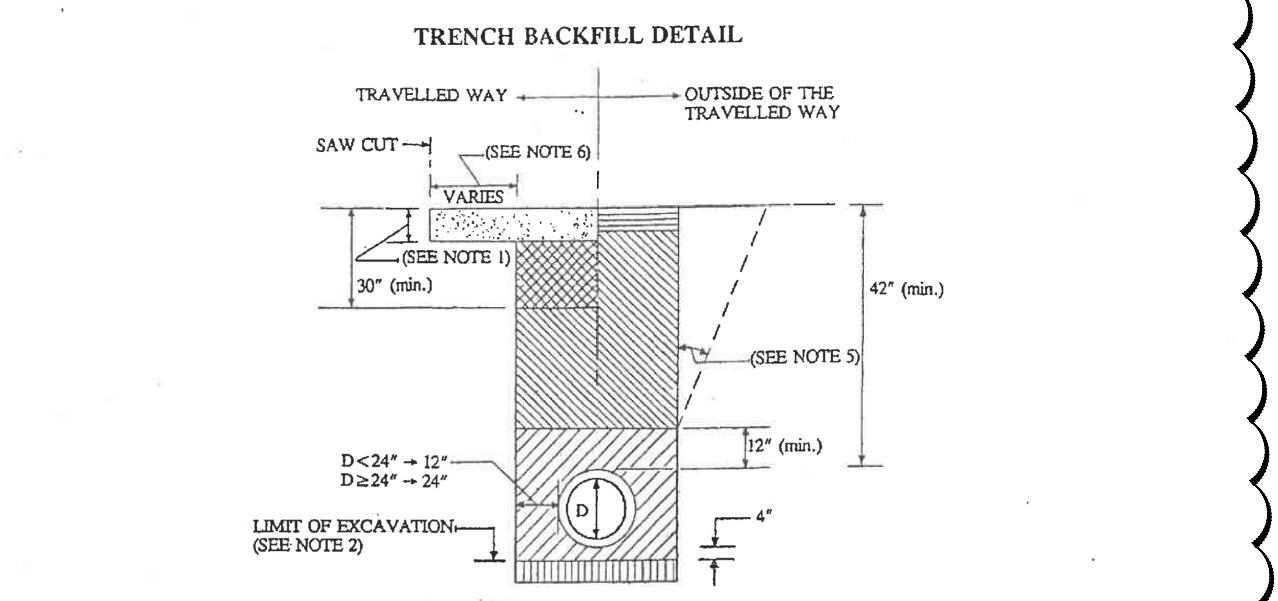
Description/Location  
CAMERON ST.

DATE: 05/19/2023  
SCALE: N.T.S.  
DRAWN BY: SEC  
CHECKED BY: NGA  
APPROVED BY: MAK  
SHEET: 2

File: x:\p\16220714\_engineering\2\_plan\_sets\3\_sheet\_set\OFFSITE\C-2.6 CAMERON ST.dwg Date: Jul 17, 2023

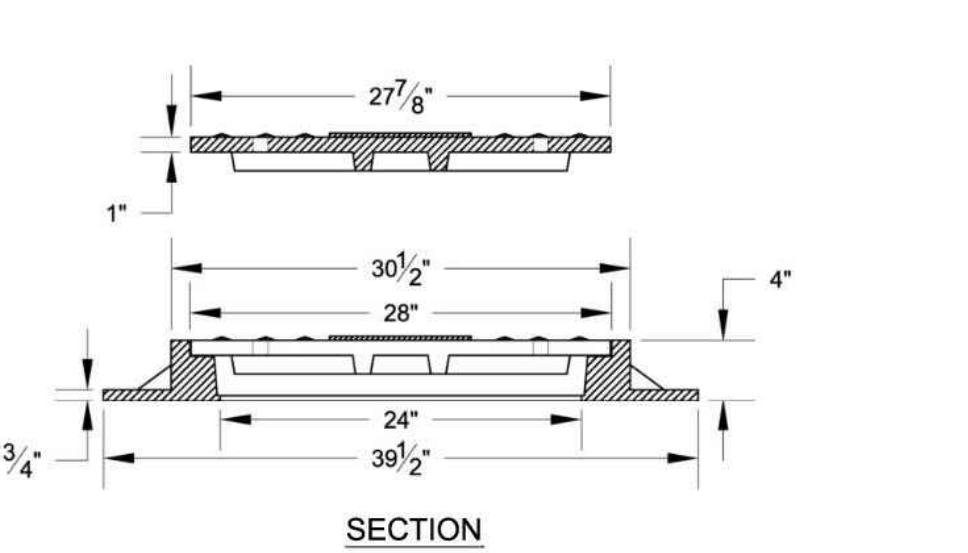
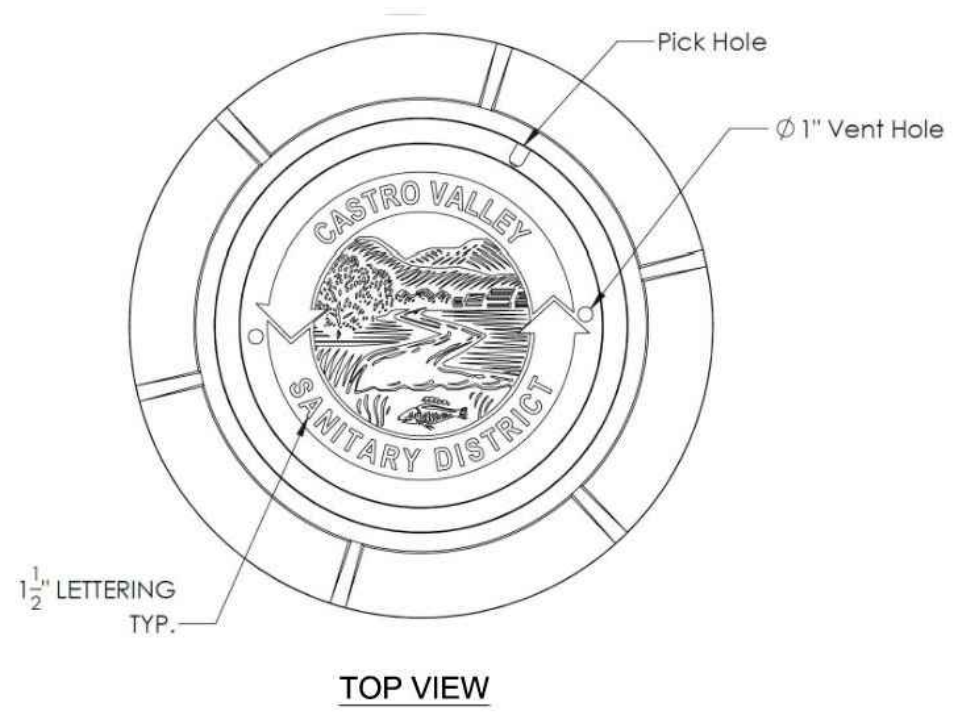


REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	BID ADDENDUM 1	06/27/2023	
	2	BID ADDENDUM 2	07/17/2023	



Backfill Material	Material Requirements		pH Range	Relative Compaction (See Note 3)
	Sieve Size	Percent Passing		
Alameda County Pipe Shading (Material must be approved by the County prior to use)	1/2" #4	100	4.5 < pH < 9.5	95% min.
Caltrans Class 2 Aggregate Base	#20	100		90% min.
AC Pavement Section	#200	<12		95% min.
Surfacing (if required as specified by the engineer)				90% min.
Import Material (Caltrans Class 2 Aggregate Base)				90% min.

- NOTES:**
- The replacement Structural Section in existing roadways shall match the existing section; however, in no case shall the replacement Section be less than 3" of Asphalt Concrete (AC) (Caltrans Type B, graded for 3/4" maximum, medium) over 8" of Class 2 Aggregate Base (AB) (Caltrans Standard Specification Section 26). If the existing section includes a PCC slab, the replacement Section shall include an equivalent thickness of PCC (Caltrans Class A concrete), dowelled to the adjacent existing PCC, all sides, using #4 grade 60 steel bars 18" o.c., as directed by the Engineer. Downalls shall be embedded a minimum of 6" into concrete with epoxy in drilled holes. Existing paving shall be saw cut to full thickness. If pavement edges have been damaged, the edges shall be re-saw cut again.
  - Unsuitable subgrade material shall be excavated and replaced with compacted imported material Class 2 Aggregate Base, Caltrans Standard Specification Section 26 as specifically directed by the Engineer.
  - Caltrans 216 or 236 or ASTM D1557 are acceptable means of determining relative compaction. All backfill materials (including pipe shading) shall be mechanically compacted to 8" lifts. Lifting is not allowed.
  - In the case of a longitudinal trench in the paved surface of a roadway where the distance from the lip of concrete gutter to the saw cut edge of the trench is less than half of the width of the trench, the remaining pavement between saw cut edge of the trench and the lip of concrete gutter shall be removed and replaced. Paving outside of the trench width damaged by construction shall be removed and replaced or repaired as directed by the Engineer.
  - Trench walls shall be shored on all excavated trenches over 5 feet in depth as required by OSHA standards.
  - Trench width shall be 12" beyond excavation.



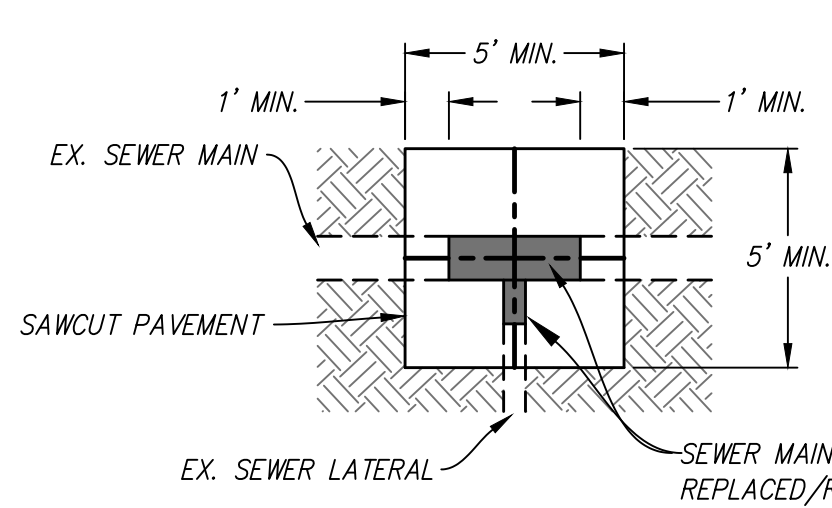
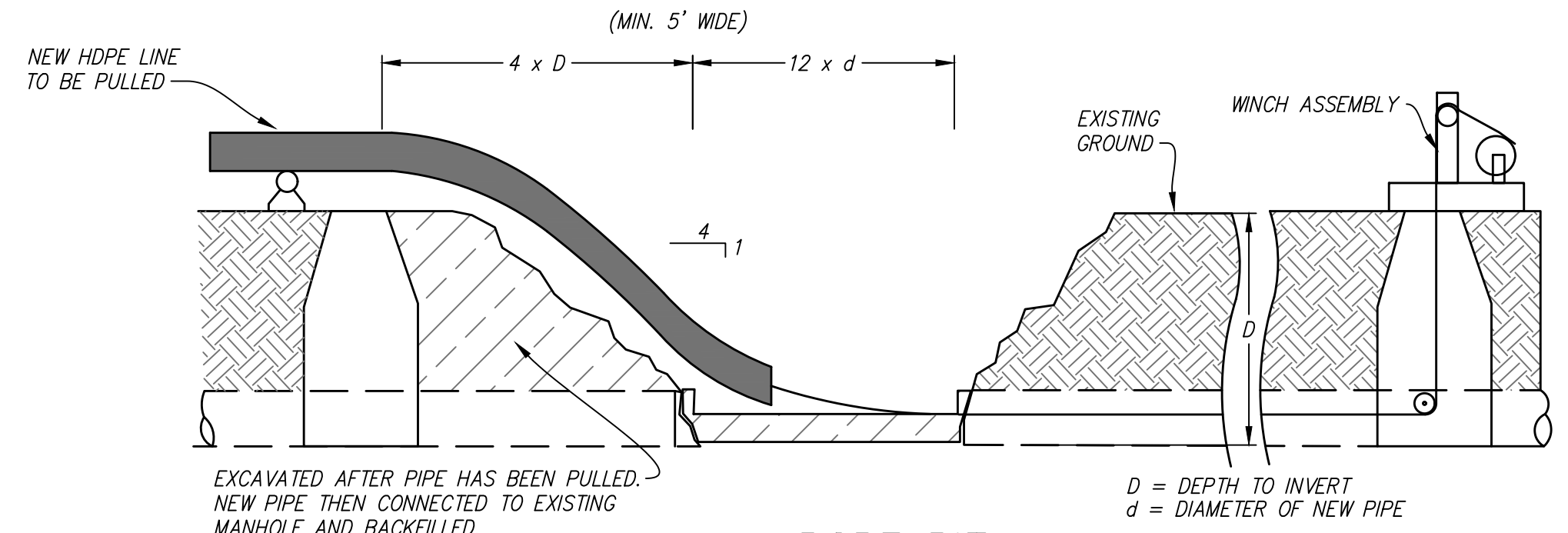
- NOTES:**
- Frame and cover to exceed H-20 wheel loading
  - Casting shall be dipped in bituminous paint prior to being installed
  - Frames and covers shall be by South Bay Foundry, A1985 R-1, or equal

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Castro Valley, CA 94546

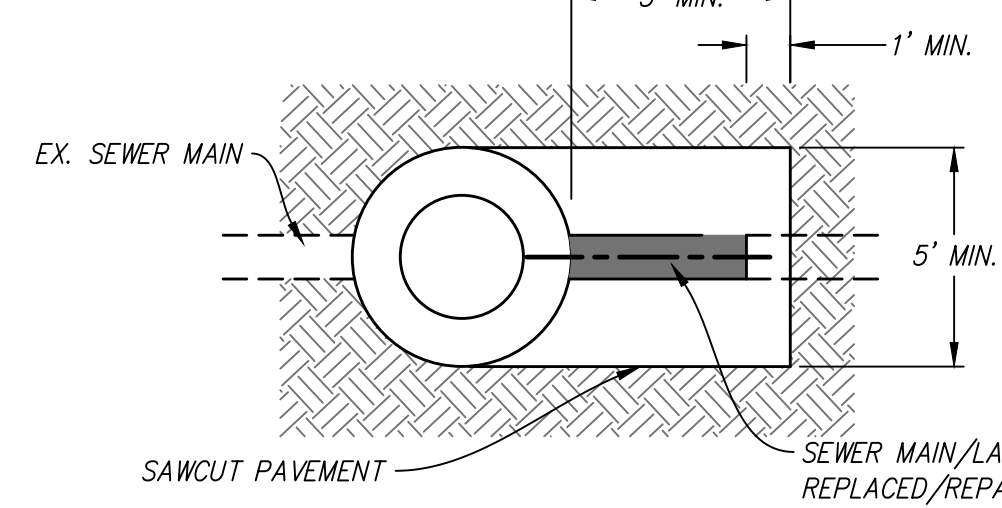
**STANDARD MANHOLE FRAME AND COVER**

Drawn By: MKL  
Date: 04/12/2022  
Checked By: LML  
Approved By: RPW  
Scale: NTS

**Drawing No. 11**

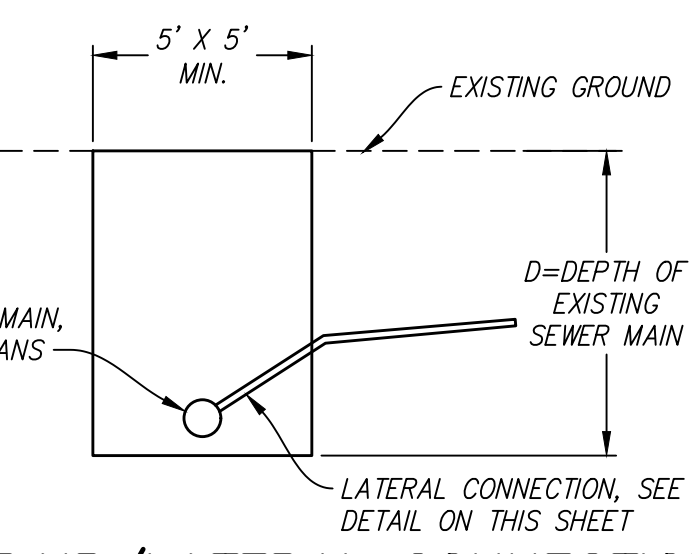


**SPOT REPAIR/LATERAL CONNECTION PLAN VIEW**



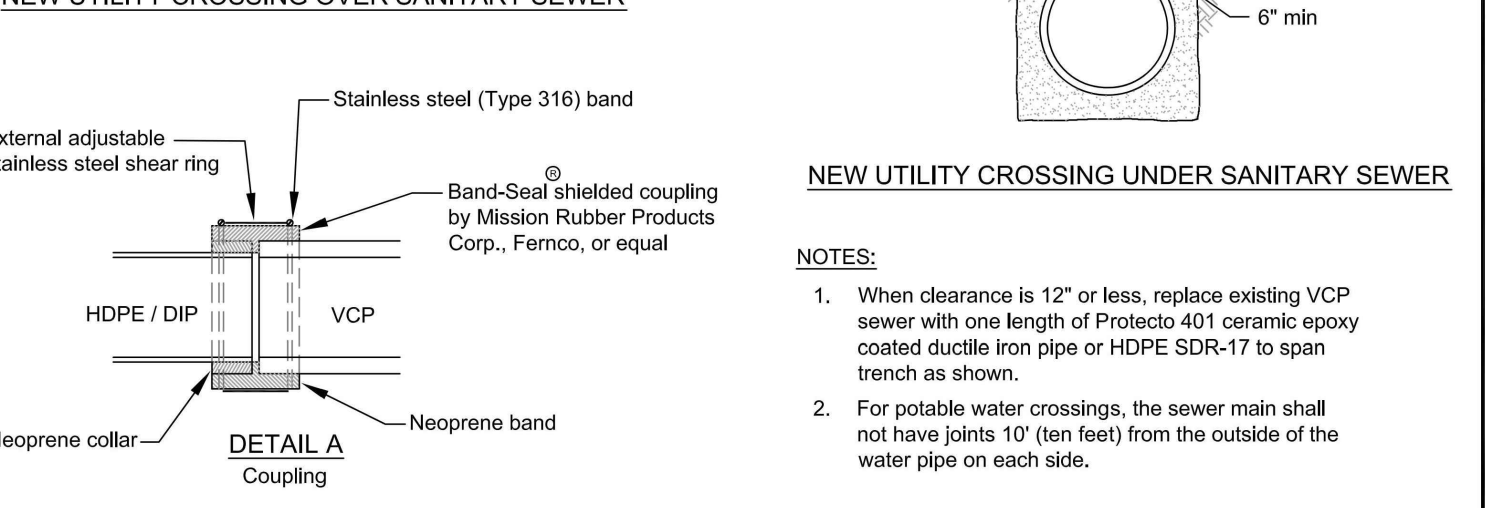
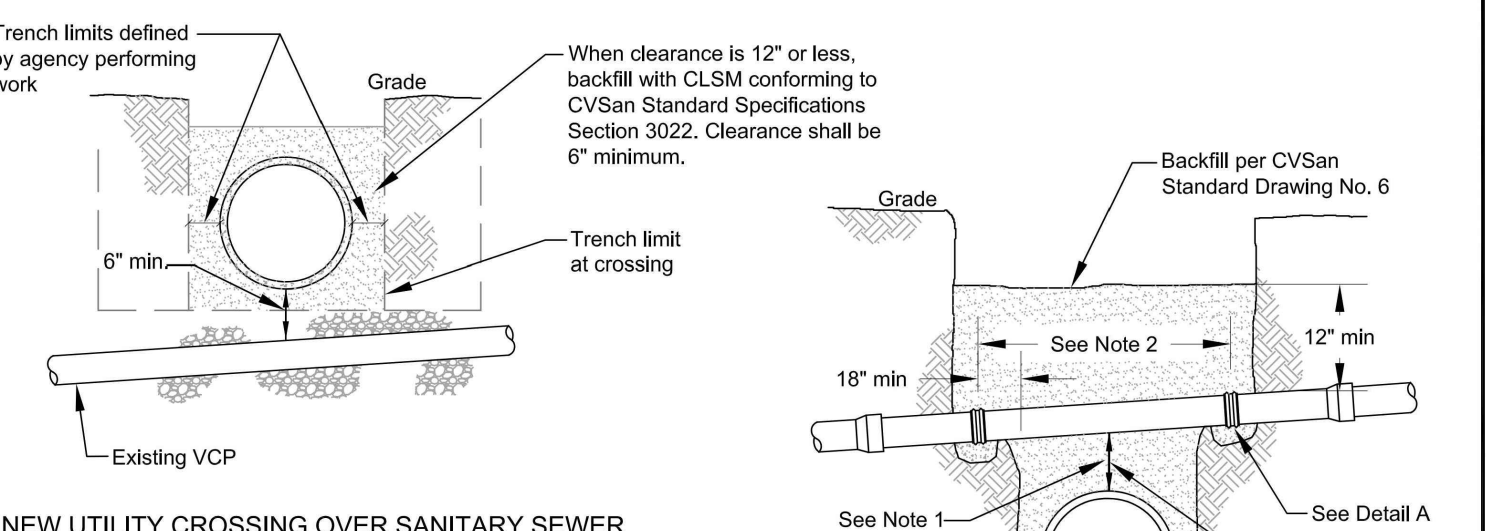
**SPOT REPAIR / CONNECTION AT MANHOLE PLAN VIEW**

**SPOT REPAIR/LATERAL CONNECTION PIT**



**NOTE:** ALL PIT DIMENSIONS SHOWN ON THE PLANS THAT EXCEED THE MINIMUM REQUIRED DIMENSIONS ARE ASSUMED. THE CONTRACTOR SHALL CONFIRM THE REQUIRED AREA TO PERFORM THE WORK.

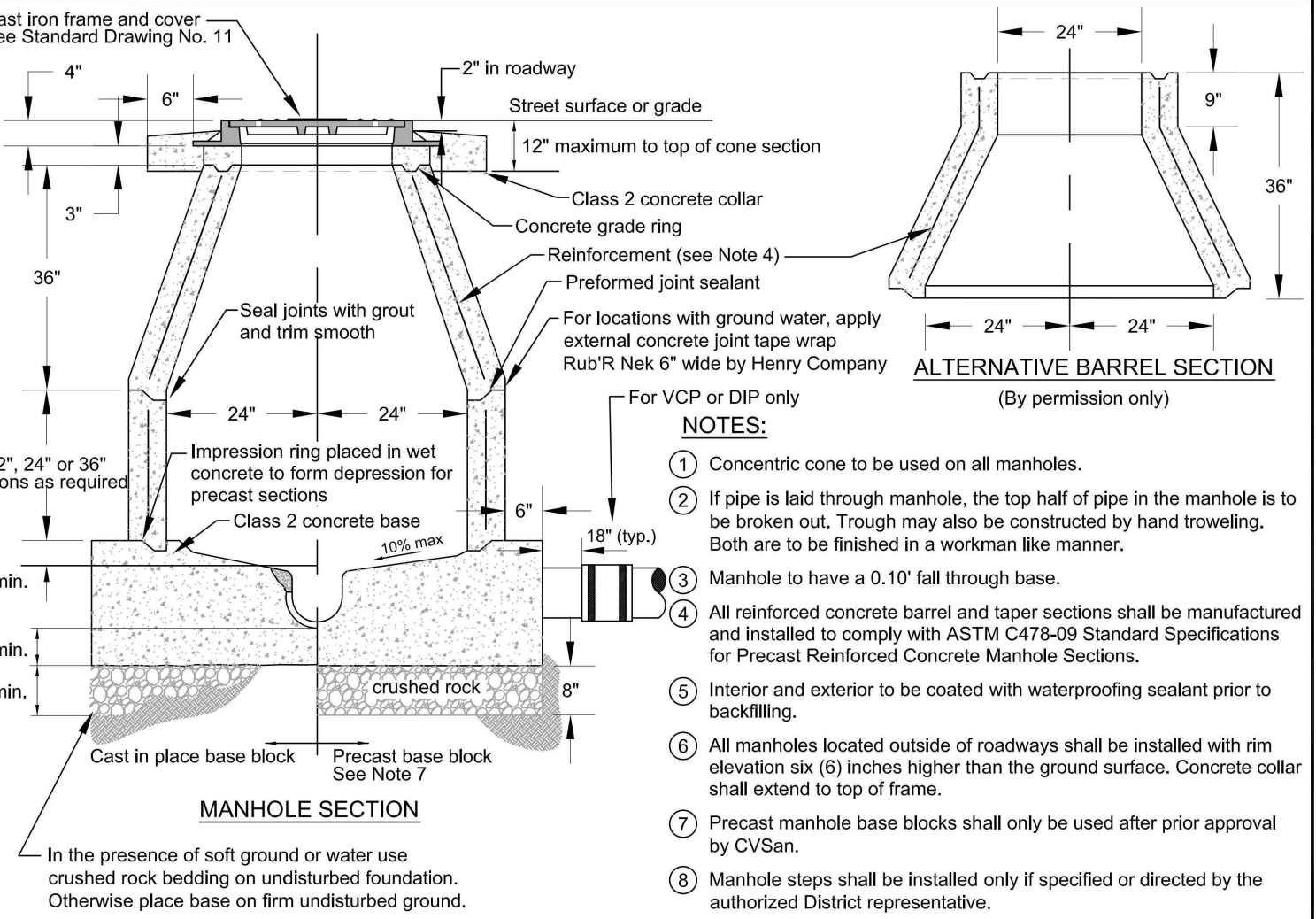
**EXCAVATION PITS**  
N.T.S.



**TYPICAL METHOD OF CROSSING**

Castro Valley Sanitary District  
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Castro Valley, CA 94546

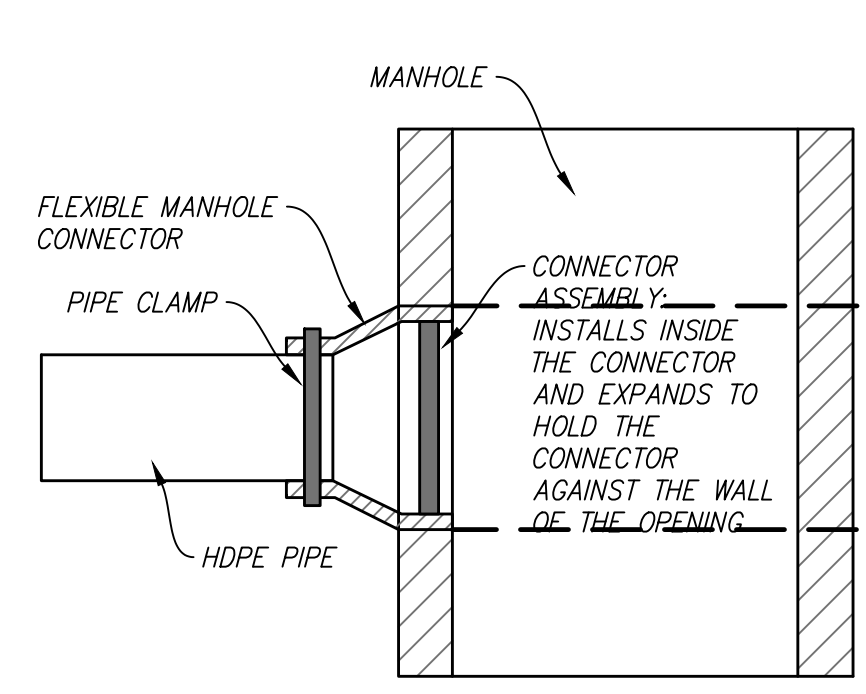
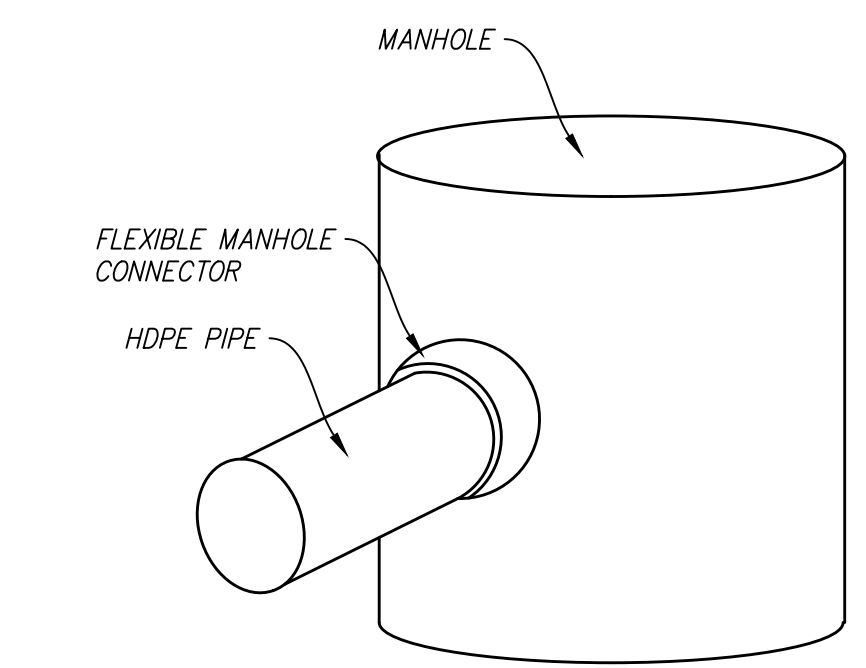
**Drawing No. 5**



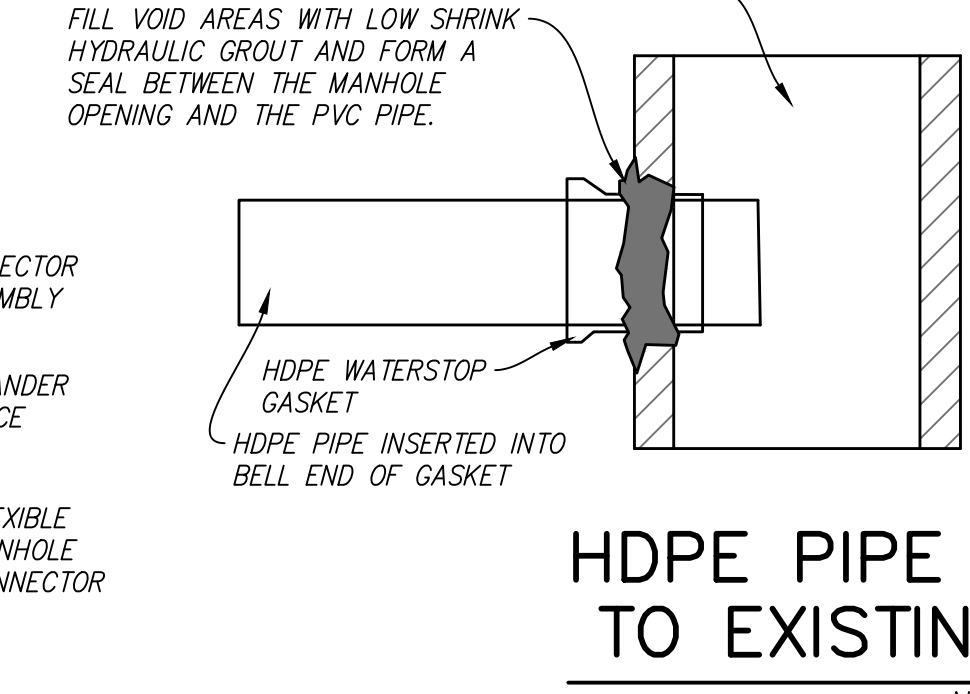
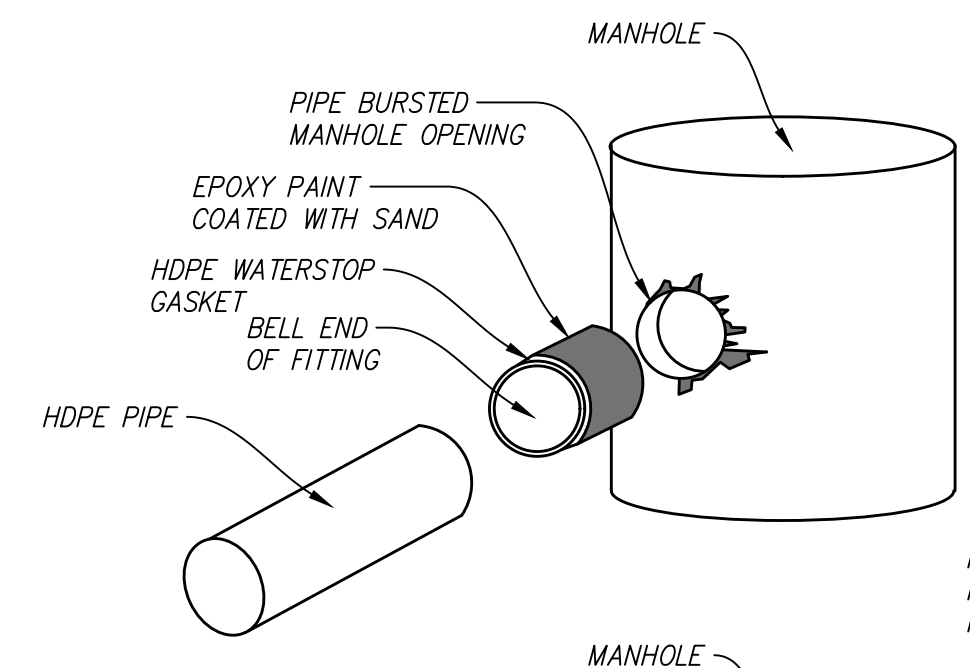
**STANDARD PRECAST MANHOLE WITH CONCENTRIC CONE**

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Castro Valley, CA 94546

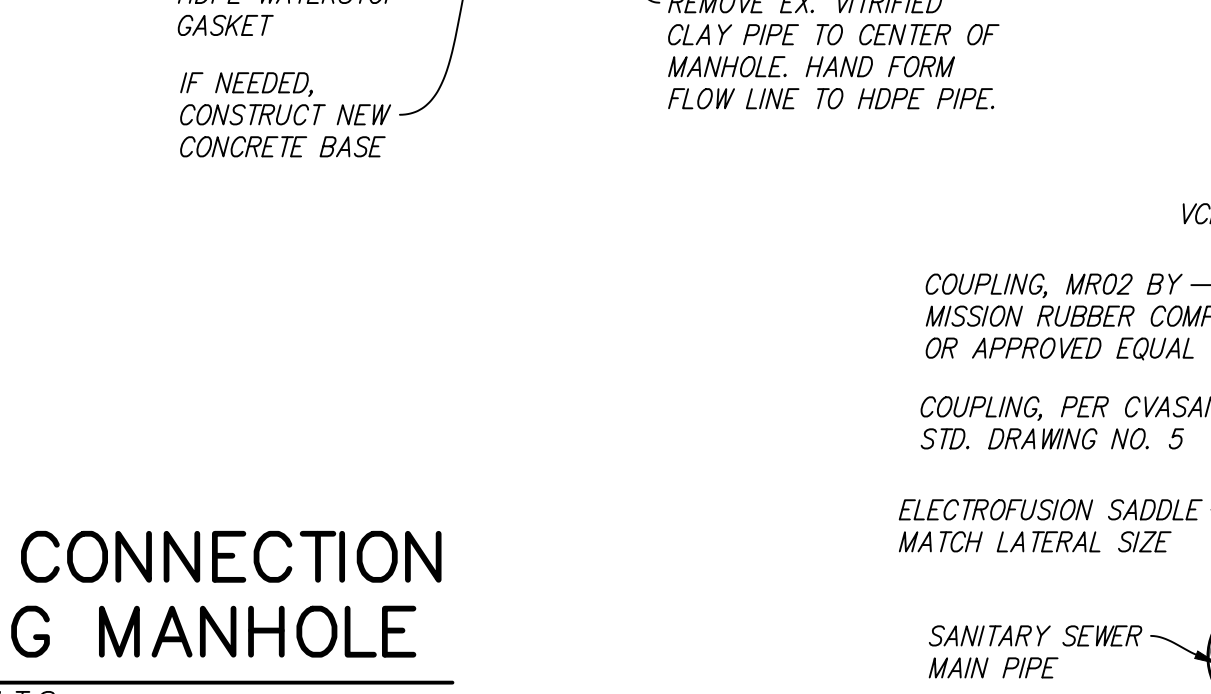
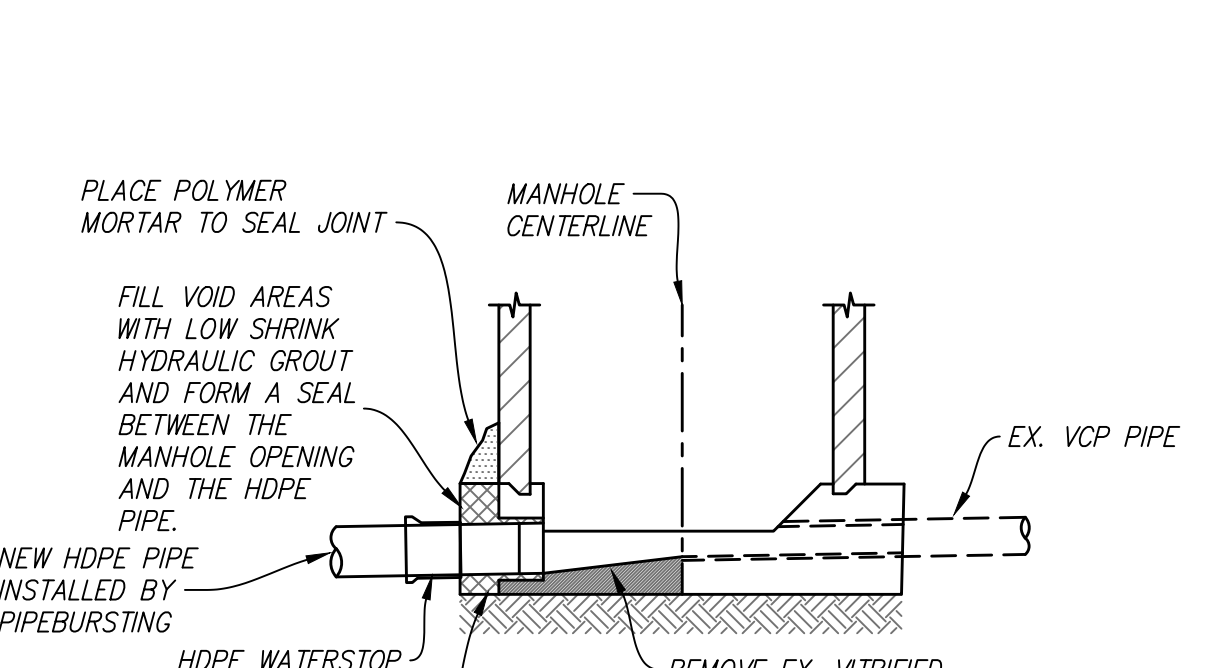
**Drawing No. 13**



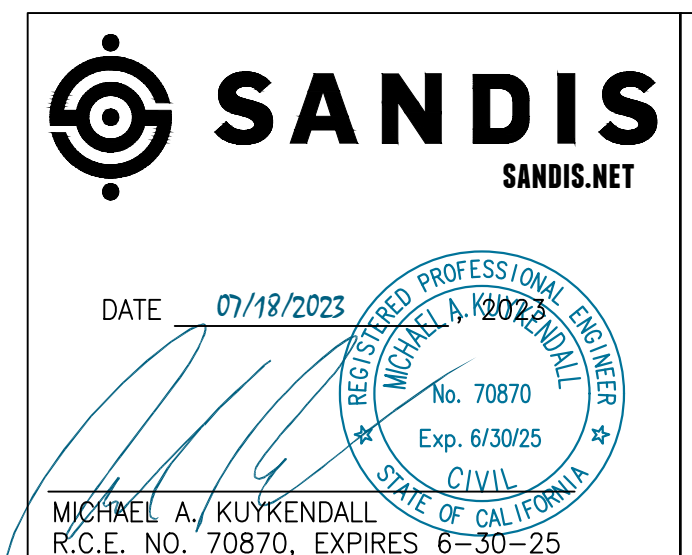
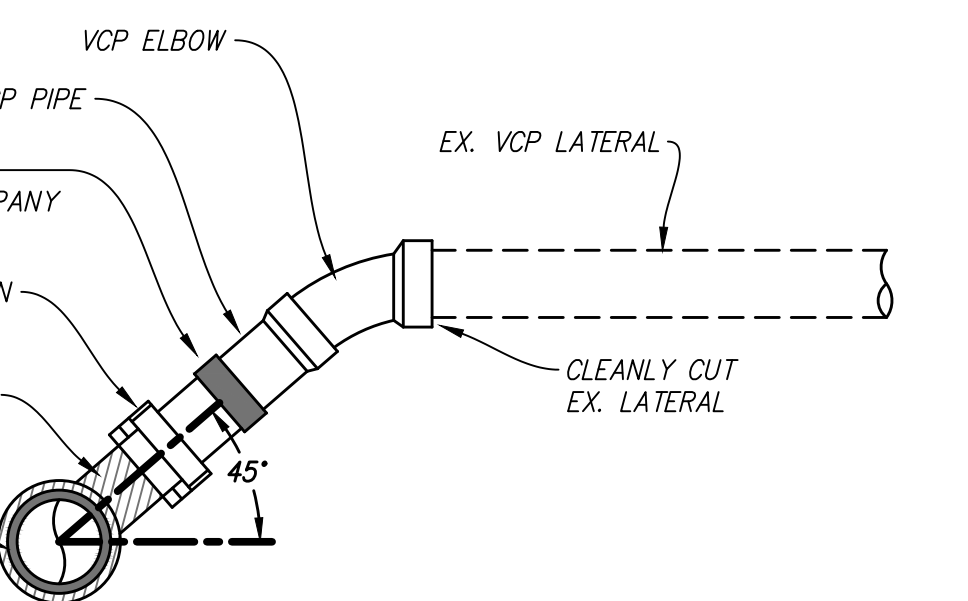
**HDPE PIPE CONNECTION TO NEW MANHOLE**  
N.T.S.



**HDPE PIPE CONNECTION TO EXISTING MANHOLE**  
N.T.S.



**TYP. SANITARY SEWER LATERAL CONNECTION**  
N.T.S.



REVIEWED BY:

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CASTRO VALLEY SANITARY DISTRICT

By \_\_\_\_\_  
Authorized Officer of C.V.S.D.

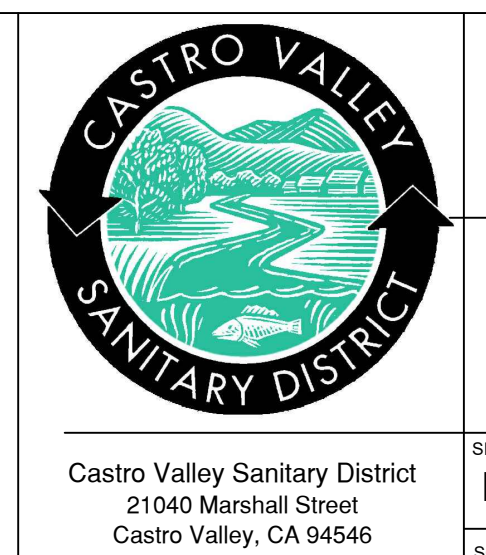
FOR ALAMEDA COUNTY PUBLIC WORKS AGENCY

CASTRO VALLEY INFLOW & INFILTRATION REDUCTION PROJECT

Description/Location  
**CONSTRUCTION DETAILS**

DATE: 05/19/2023  
DRAWING NO.: D-0.1  
REV: 2

SCALE: N.T.S. DRAWN BY: SEC CHECKED BY: NGA APPROVED BY: MAK SHEET



Castro Valley Sanitary District  
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Castro Valley, CA 94546

File: x:\162071\4\_engineering\2\_plan sets\3\_sheet set\OFFSITE\0-0.1\_CONSTRUCTION\_DETAILS.dwg Date: Jul 17, 2023