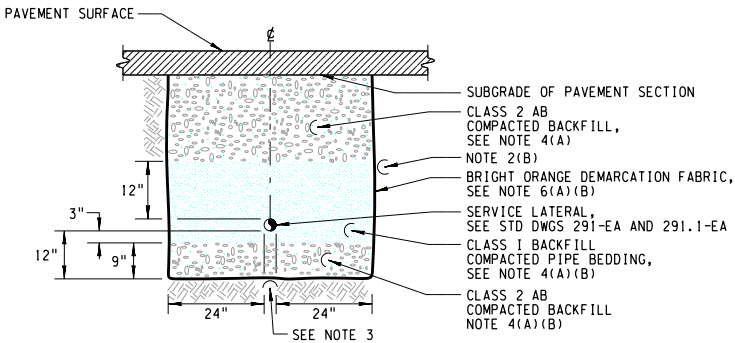


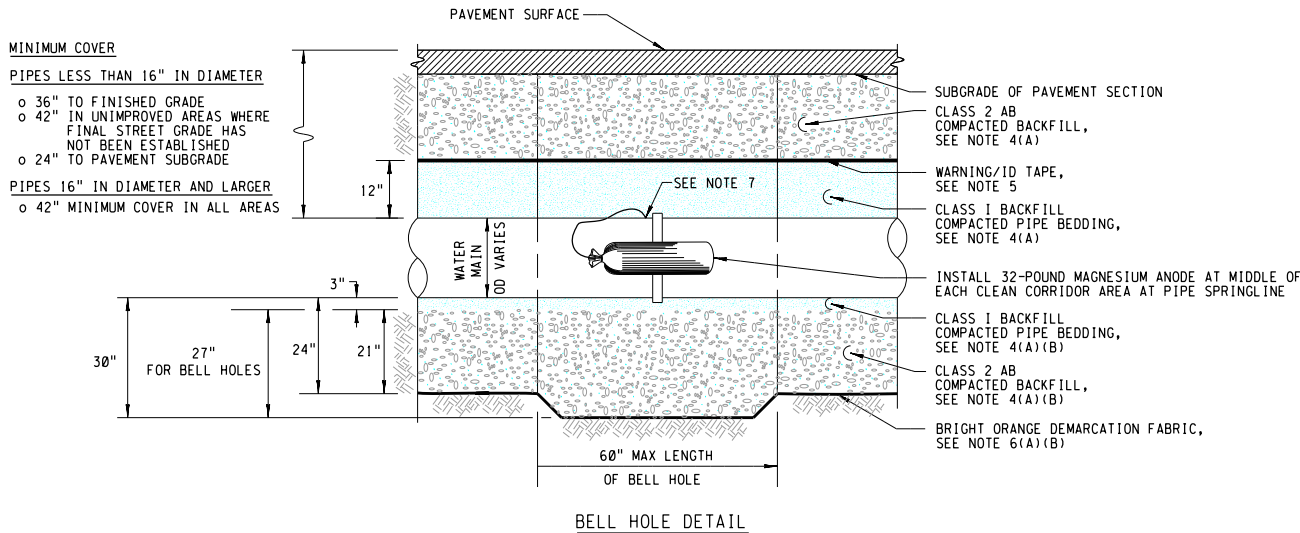
TRENCH SECTION FOR PIPE INSTALLATION

WATER MAINS 20 INCHES OR SMALLER, HYDRANTS, AND SERVICES LATERALS 3 INCHES OR GREATER

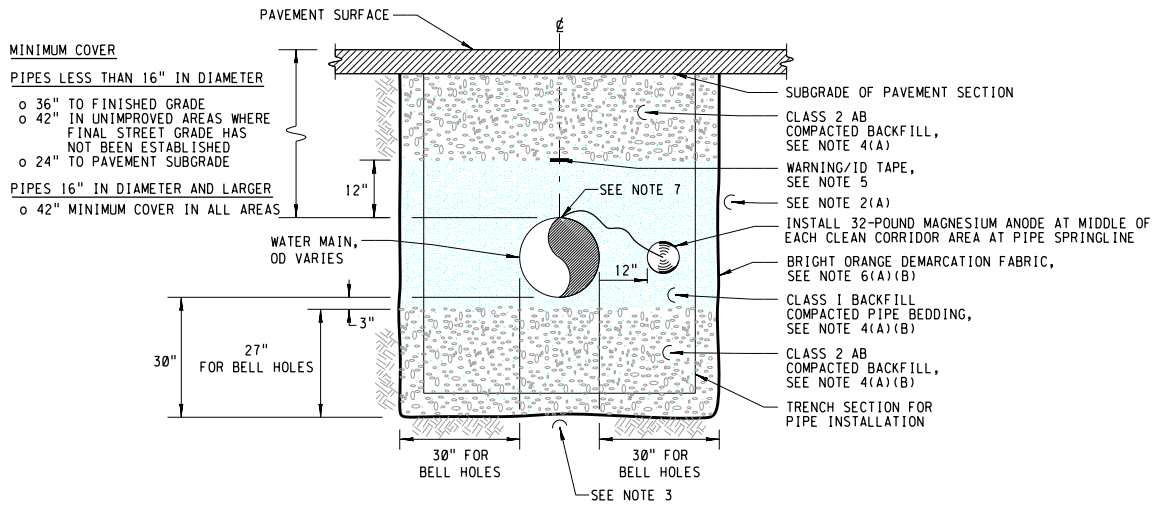


TRENCH SECTION FOR LATERALS INSTALLATION

DOMESTIC SERVICE LATERALS LESS THAN 3 INCHES, AND ANY APPURTENANCES



BELL HOLE DETAIL



TRENCH SECTION FOR BELL HOLES

WATER MAINS 20 INCHES OR SMALLER, HYDRANTS, AND SERVICES LATERALS 3 INCHES OR GREATER

NOTES

INTENTION OF CLEAN UTILITY CORRIDOR (CUC): PROTECT EBMUD STAFF HEALTH AND SAFETY FROM EXPOSURE TO CONTAMINATED MATERIALS DURING INSTALLATIONS, MAINTENANCE, AND EMERGENCY MAIN BREAK REPAIRS.

1. CONFORM TO ALL SAFETY STANDARDS, ORDERS, RULES AND REGULATIONS OF CAL-OSHA AND OTHER AGENCIES HAVING JURISDICTION.

2. FOR CONTAMINANTS OF CONCERN (COC):

(A) CONFIRMATION TESTING IN UNCHARACTERIZED AREAS FOR WATER MAINS 20 INCHES AND SMALLER:

APPLICANT SHALL COLLECT SOIL AND GROUNDWATER SAMPLES FOR THE CUC AT A FREQUENCY OF ONE SAMPLE EVERY 15 FEET ALONG THE PROPOSED UTILITY ALIGNMENT(S). APPLICANT SHALL COLLECT THE SOIL SAMPLES ALONG THE SIDE WALLS AND FLOOR OF THE UTILITY TRENCH, AND GROUNDWATER SAMPLES WHERE GROUNDWATER IS ENCOUNTERED. COMPOSITING OF SIDE WALL AND FLOOR SOIL SAMPLES AND/OR ANY CHANGES TO SAMPLE FREQUENCY REQUIRES EBMUD APPROVAL.

(B) CONFIRMATION TESTING IN UNCHARACTERIZED AREAS FOR SERVICES:

APPLICANT SHALL COLLECT A MINIMUM OF TWO SAMPLES FOR EACH MAIN SERVICE LATERAL, HYDRANT LATERAL, FIRE SERVICE LATERAL, AND ANY APPURTENANCES.

3. IF TRENCH STABILIZATION IS REQUIRED DUE TO GROUNDWATER OR OTHER SITE CONDITIONS, ANY REQUIRED STABILIZATION MATERIALS SHALL BE PLACED OUTSIDE OF THE CUC LIMITS AND DEMARCATION FABRIC.

4. (A) FOR COMPACTION REQUIREMENTS, SEE SPEC SECTION 31 23 33P.

(B) THE APPLICANT'S GEOTECHNICAL ENGINEER SHALL TEST THE COMPACTION OF THE 21" (27" FOR BELL HOLES AND 9" FOR SERVICES LESS THAN 3" IN DIAMETER) OF IMPORTED MATERIALS THAT WILL BE INSTALLED UNDER THE MAINS, HYDRANT RUNS, ANY APPURTENANCES, AND SERVICES BEFORE THE PIPE IS INSTALLED.

5. WARNING/IDENTIFICATION TAPE SHALL BE INSTALLED ABOVE THE PIPE AS SPECIFIED AND RUN CONTINUOUSLY ALONG THE ENTIRE LENGTH OF THE PIPELINE, SEE SPEC SECTION 33 11 13.2IP.

6. TO PROTECT EBMUD STAFF, CUCs SHALL INCLUDE BARRIERS SUCH AS:

(A) PERMANENT DEMARCATION FABRIC (SEE SPEC SECTION 31 23 33P FOR ACCEPTABLE PRODUCTS) OVER CONTAMINATED SOIL TO PREVENT EBMUD STAFF CONTACT WITH SOIL. AT A MINIMUM, BRIGHT ORANGE DEMARCATION FABRIC SHALL BE INSTALLED ON ALL TRENCH FLOORS AND SIDEWALLS DURING PIPE INSTALLATIONS AND DURING BACKFILL.

(B) 10-20 MIL PLASTIC OVER SOIL CONTAMINATED WITH VOLATILE ORGANIC COMPOUNDS (VOCs) TO PREVENT WORKER EXPOSURE TO CONTAMINANTS. THIS MAY BE TEMPORARY.

(C) OTHER BEST MANAGEMENT PRACTICES AS APPROVED BY EBMUD STAFF.

7. FOR ANODE CONNECTION DETAILS SEE STANDARD DWG 286-EA.

8. IF RECOGNIZED ENVIRONMENTAL CONDITIONS (REC) ARE ENCOUNTERED DURING THE CONSTRUCTION OF THE CUC, EBMUD EXPECTS THE REC TO BE REMOVED, IF CONTAMINATION OR RECS RESULT IN ADDITIONAL REMEDIATION AND THE COLLECTION OF CONFIRMATION SAMPLES, THE DETAILS AND SAMPLE RESULTS SHALL BE SHARED WITH EBMUD, DOCUMENTATION OF CONTAMINATION SUCH AS TRENCH LOGS AND ANALYTICAL DATA PACKAGES SHALL BE PROVIDED TO EBMUD.

9. ALL CUC INSTALLATIONS SHALL EXTEND A MINIMUM OF 15 FEET, IN EITHER DIRECTION, PAST THE EXTENT OF CONFIRMED CONTAMINATION. IF THE NEW PIPELINE IS CONNECTING TO AN EXISTING PIPELINE, THE CUC SHALL TERMINATE FIVE FEET BEYOND THAT CONNECTION. THE TERMINATING LOCATION OF THE CUC WILL BE CONFIRMED BY EBMUD UPON RECEIPT OF THE FINAL ANALYTICAL RESULTS. IF THERE IS 30 FEET OR LESS BETWEEN TWO CONTAMINATED AREAS, THE CUC SHALL SPAN 30 FEET PROVIDING FOR A CONTINUOUS CUC BETWEEN THE TWO AREAS.

REDUCED DRAWING

DESIGN	DESIGNED BY	EBMUD	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA	
	DESIGN CHECKED BY	EBMUD	STANDARD DRAWING	
	DRAWN BY	EBMUD		
REVIEW	CORROSION CHECKED BY <i>Keith Packard</i> R.P.E. NO. CR 1888 <small>KEITH A. PACKARD</small>		CLEAN UTILITY CORRIDOR	
	ACTING SR CIVIL ENGINEER R.P.E. NO. C 89874 <i>Hank Williams</i> <small>HANK WILLIAMS</small>			
	RECOMMENDED MGP PIPELINE INFRASTRUCTURE R.P.E. NO. C 57178 <i>Carlton D. Chan</i> <small>CARLTON D. CHAN</small>			
APPROVED DIRECTOR OF ENGINEERING R.P.E. NO. C 44278 <i>Quintin A. Volotti</i> <small>QUINTIN A. VOLOTTI</small>			STRUCTURE OR ZONE DESIGNATION	ALL
			SCALE	NONE
			DATE	22 JUL 2022
			9950-CB	

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