



H.R. LaBounty Safety Awards Nomination Form

Nomination Deadlines:

Spring Awards: February 1, 2023

Fall Awards: September 1, 2023

Agency: Calleguas Municipal Water District

Project/Initiative Title: Confined Space Rescue Training Facility

Implementation Date: April 2023

Cost to Implement: \$400,000.00

Staff Time Required: Project was completed in 4 months

Number of Employees/Facilities Impacted: 50

Employee/Department/Committee Nominated:

Name(s): Tori Hren

Job Title/Department: Safety Officer

Nomination Summary

Write a brief summary of your project/initiative. Clearly state the problem/hazard recognized by the nominee and the specific reasons that they initiated corrective action.

To provide a controlled environment to simulate field conditions and enable more extensive training and practice in confined space entry and rescue techniques.

Describe the specific actions taken to resolve the problem(s) or challenge(s). Share the best practices that made this initiative successful for the agency and its impact.

Designing the structure to include multiple appurtenances that would be encountered during a pipeline entry allows for staff to practice all confined space entry requirements. It also provides the opportunity to test new technologies and equipment prior to performing actual time sensitive shutdowns.

State whether the hazard was reduced with engineering controls, introduced a new administrative or work procedure, or relied on personal protective equipment to solve the problem.

The Site was engineered to achieve multiple goals that include pipeline locating equipment verification, confined space entry and rescue techniques, pipeline inspection procedures, and future testing of newly developed equipment as needed.

Describe any extraordinary circumstances that made this nominee's safety accomplishments significant. Describe whether the nominee influenced safety in the workplace, encouraged employee participation in safety efforts, obtained organizational "buy in" to implement the solution.

Operations and Maintenance staff now have a dedicated training facility to better develop all areas of confined space entry, pipeline inspections, and rescue requirements. This increases safety for all employees that perform these activities by verifying proper techniques and practicing them until they are mastered. This allows for increased confidence and efficiency while performing their jobs.

Describe whether the project/initiative addressed a hazard or exposure included in the JPIA Commitment to Excellence Program.

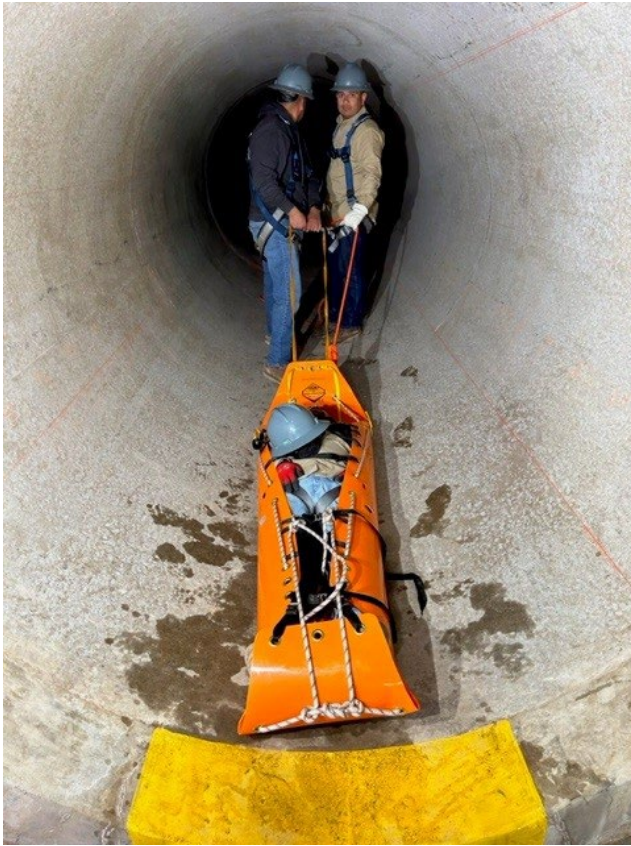
- Office/Field Ergonomics
- Vehicle Operations
- Slip/trip/falls – falls from heights
- Emergency Readiness/Wildfire Prevention
- Other:

List and attach any supporting materials that you feel are important for the reviewers to gain a complete picture of the nomination. Digital photos, supporting documentation, sample forms, etc.

General Manager: Tony Goff

Date:5/1/23

Please email this form with supporting documents and digital photos (jpg) to tlofing@acwaipia.com.









Ship/Bill To: 2100 Olsen Rd
Thousand Oaks, CA 91360

Purchase Order
No. 2022-00000159

DATE 01/14/2022

PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, SHIPPERS, BILL OF LADING AND CORRESPONDENCE

DELIVER BY 04/30/2022

SHIP VIA
FREIGHT TERMS

PAGE 1 of 1

ORIGINATOR: Fernando Baez

Contact

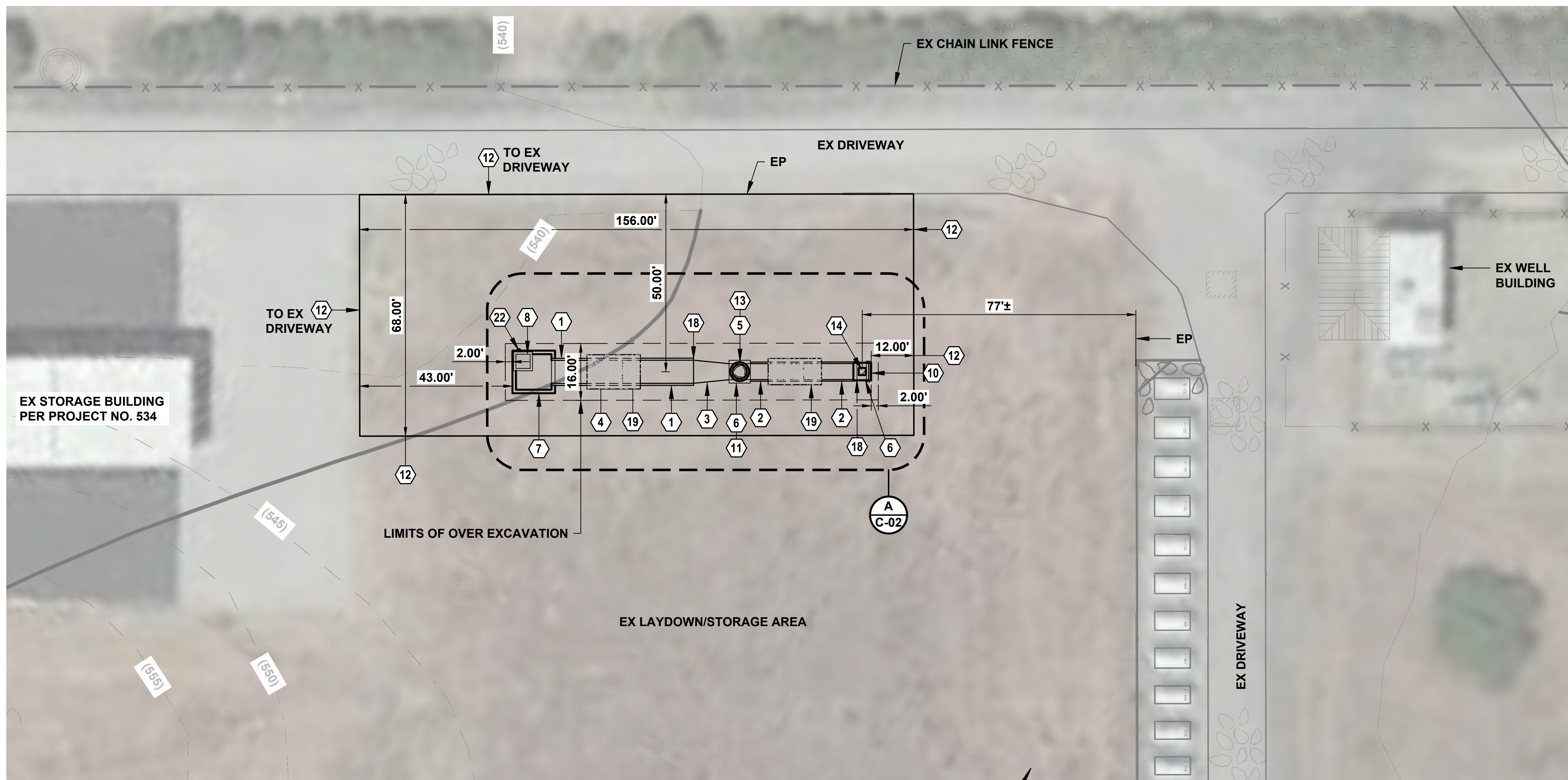
Lash Construction, Inc.
P.O. Box 4640
Santa Barbara, CA 93140

Description: WIP

QUANTITY	UNIT	DESCRIPTION	UNIT COST	TOTAL COST
1.0000	Each	WIP-Construction - WIP Provide all labor, equipment, and materials to construct the Encasement Locating Testing & Confined Space Training Facility, (Project No. 598). Perform all work in accordance with the construction plans dated 12-22-21 and the As-Needed Pipeline Services Agreement.	240,000.0000	\$240,000.00
			TOTAL DUE	\$240,000.00

Authorized Signature

Special Instructions:

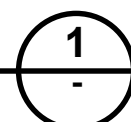


CONSTRUCTION NOTES

- ① LOAD AND TRANSPORT 78-INCH PCCP FROM DISTRICT'S WELLFIELD NO. 2 LOCATED AT 6811 GRIMES CANYON ROAD IN MOORPARK, AND INSTALL AT WELLFIELD NO. 1, 5700 GRIMES CANYON ROAD. SCARIFY TOP 6-INCHES OF SUBGRADE, MOISTURE CONDITION AND RECOMPACT TO 90% RELATIVE DENSITY. TRENCH BACKFILL AS DIRECTED BY THE DISTRICT.
- ② LOAD AND TRANSPORT 51-INCH PCCP FROM DISTRICT'S WELLFIELD NO. 2 LOCATED AT 6811 GRIMES CANYON ROAD IN MOORPARK, AND INSTALL AT WELLFIELD NO. 1, 5700 GRIMES CANYON ROAD. SCARIFY TOP 6-INCHES OF SUBGRADE, MOISTURE CONDITION AND RECOMPACT TO 90% RELATIVE DENSITY. TRENCH BACKFILL AS DIRECTED BY THE DISTRICT.
- ③ CAST IN PLACE REINFORCED CONCRETE PIPE TO PIPE TRANSITION STRUCTURE (78-INCH DIA TO 54-INCH DIA). TRANSITION STRUCTURE TO BE PER SSPWG STD 340-2. LENGTH IS 10-FEET.
- ④ ALL SIDES MAT CONCRETE ENCASMENT. SEE **C-02**.
- ⑤ ENCASMENT OF MANHOLE ACCESS STRUCTURE PER SPEC NO. 111. SEE **A**.
- ⑥ MEASURE, CUT, LOAD AND TRANSPORT 54-INCH DIA CML/C WELDED STEEL PIPE FROM DISTRICT'S WELLFIELD NO. 2 LOCATED AT 6811 GRIMES CANYON ROAD IN MOORPARK, AND INSTALL AT WELLFIELD NO. 1, 5700 GRIMES CANYON ROAD. INSTALL 54-INCH DIA CML/C WELDED STEEL PIPE.
- ⑦ 10 X 10 X 8.5-FOOT PRE-CAST CONCRETE VAULT. SEE **A C-03**.
- ⑧ 4 X 4-FOOT DOUBLE LEAF ALUMINUM, SPRING ASSISTED ACCESS HATCH WITH RECESSED LOCKING HASP. ROUTE HATCH DRAIN LINE THROUGH THE VAULT TO A LOCATION ABOVE GRADE. SEE **C C-02**.
- ⑩ CAST IN PLACE REINFORCED CONCRETE BULKHEAD OVER PIPE OPENING. SEE **C C-03**.
- ⑪ REMOVE SUFFICIENT CEMENT MORTAR LINING AND COATING ON THE 54-INCH DIA WELDED STEEL PIPE AND CUT A 24-INCH DIA OUTLET. REMOVE THE EX 24-INCH DIA TEE FROM THE EX PIPE. CUT THE REMOVED TEE ASSEMBLY BASE TO FIT THE CURVATURE OF THE 54-INCH DIA PIPE. WELD THE TRANSFERRED 24-INCH DIA TEE TO THE 54-INCH DIA PIPE AS SHOWN.
- ⑫ LIMITS OF 4-INCH DEEP PROCESSED MISCELLANEOUS BASE GRAVEL AREA.
- ⑬ CI MANHOLE FRAME AND COVER PER CMWD STD DWG 603, DETAIL B.
- ⑭ BLOWOFF OUTLET PER CMWD STD DWG 501B.
- ⑮ JOIN CML/C AND PCCP PIPES PER CMWD STD DWG 243.
- ⑯ SINGLE MAT CONCRETE ENCASMENT. SEE **F C-02**.
- ⑰ DAVIT ARM SYSTEM WALL MOUNT SLEEVE MODEL NO. 8518504. SEE **5 S1.0**.

SITE PLAN

SCALE: 1" = 20'

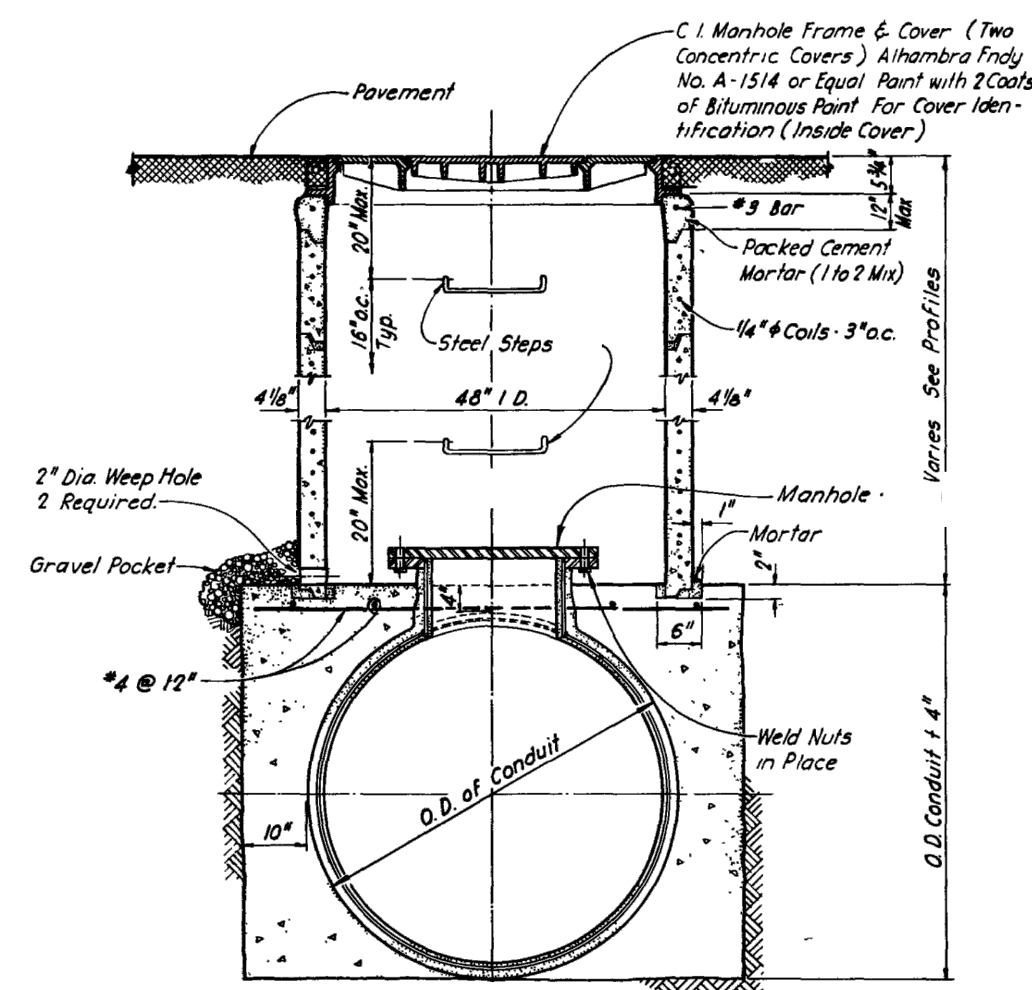


NOTES:

- 1. ALL EXCAVATED SOIL SHALL REMAIN ON SITE AND BE SPREAD IN UNIFORM THICKNESS IN SURROUNDING OPEN SPACE.
- 2. PCC PIPE IS AWWA C301.

SHEET INDEX

SHT. NO.	DWG. NO.	DESCRIPTION
1	C-01	SITE PLAN
2	C-02	DETAIL AND SECTION SHEET
3	C-03	DETAIL SHEET
4	S0.2	TYPICAL DETAILS
5	S1.0	PLAN AND SECTION



MANHOLE ACCESS STRUCTURE DETAIL
NOT TO SCALE
DETAIL FROM SPEC NO. 111

SCALE: 1" = 20'



DWG: C:\Users\asmith\OneDrive\Work\Projects\CCNB\CCNB Broken Backs_Site.dwg
 USER: ASmith
 DATE: Jan 13, 2022 4:25pm
 XREFS: PC - BORDER CMWD Broken

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY

REVISIONS			
REV.	DESCRIPTION	BY	DATE
①	BACKFILL AND PRECAST VAULT REVISIONS		12/22/21

DESIGNED BY: JMT
 DRAWN BY: ADS
 CHECKED BY: JMT

PREPARED BY:
 PHOENIX CIVIL ENGINEERING, INC.
 935 E. MAIN STREET
 SANTA PAULA, CA 93060
 (803) 658-6800

REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA
 EXP. 03/31/22

6/30/22
 03/31/21
 DATE

CALLEGUAS MUNICIPAL WATER DISTRICT

REVIEWED BY: *R. McLaughlin*
 03/31/21
 DATE

MANAGER OF ENGINEERING
 CALLEGUAS MUNICIPAL WATER DISTRICT

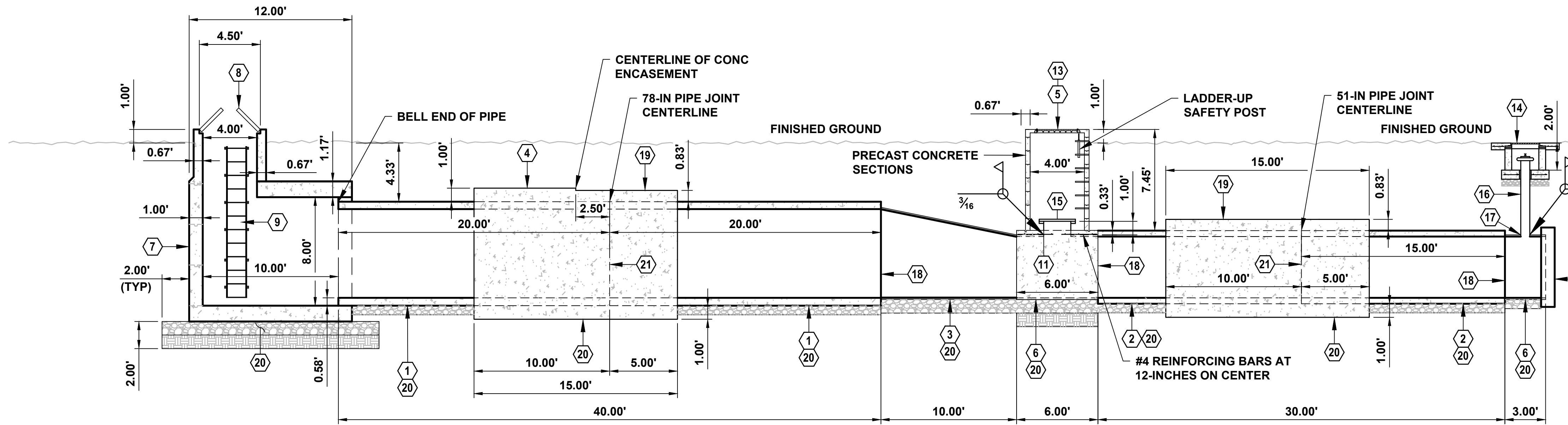
**CCNB BROKEN BACKS, PHASE 4
 ENCASMENT LOCATING TESTING & CONFINED
 SPACE TRAINING FACILITY
 PROJECT NO. 598**

SITE PLAN

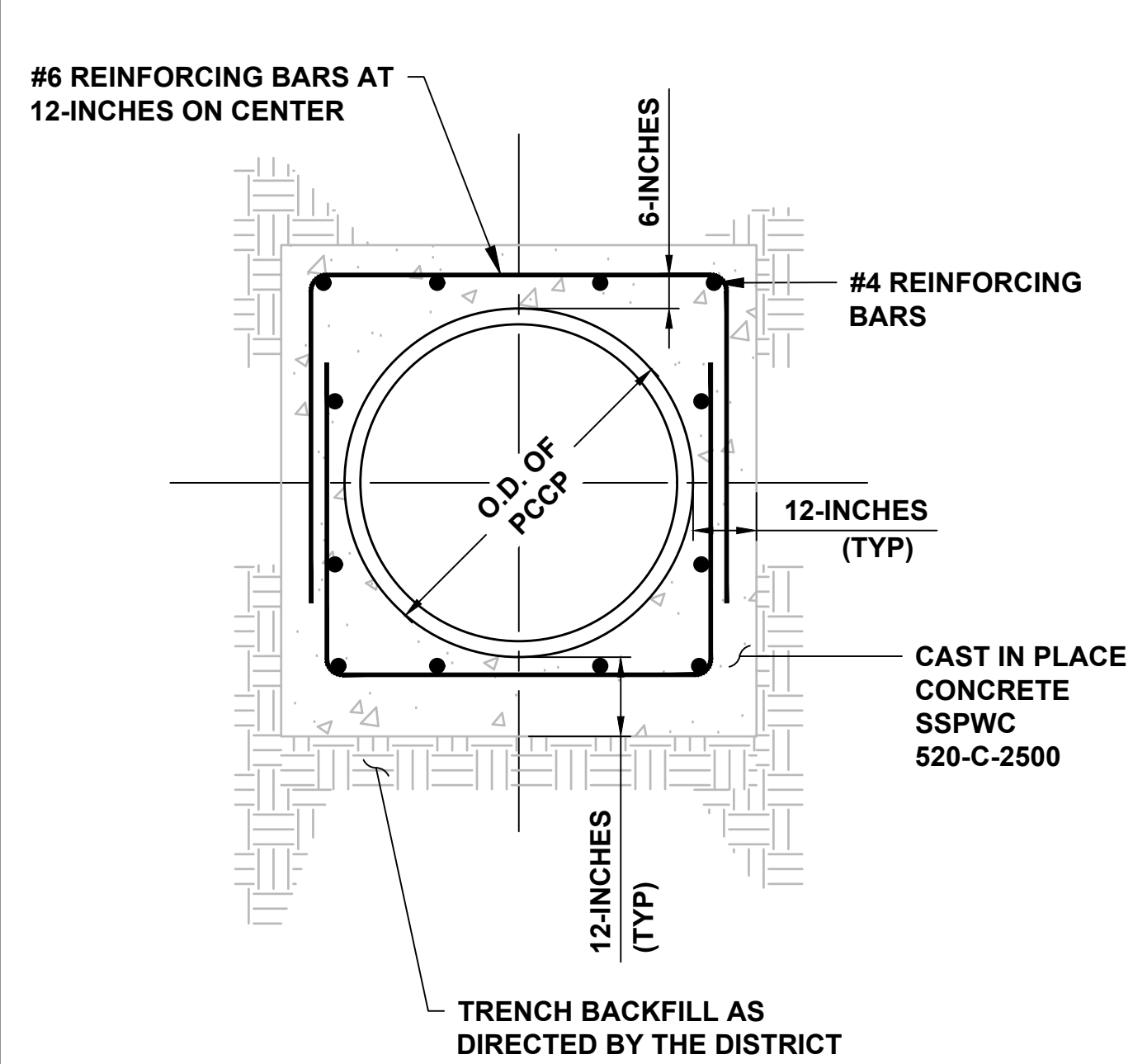
DRAWING NO. **C-01**
 JOB NO.
 SHEET 1 OF 3

CONSTRUCTION NOTES

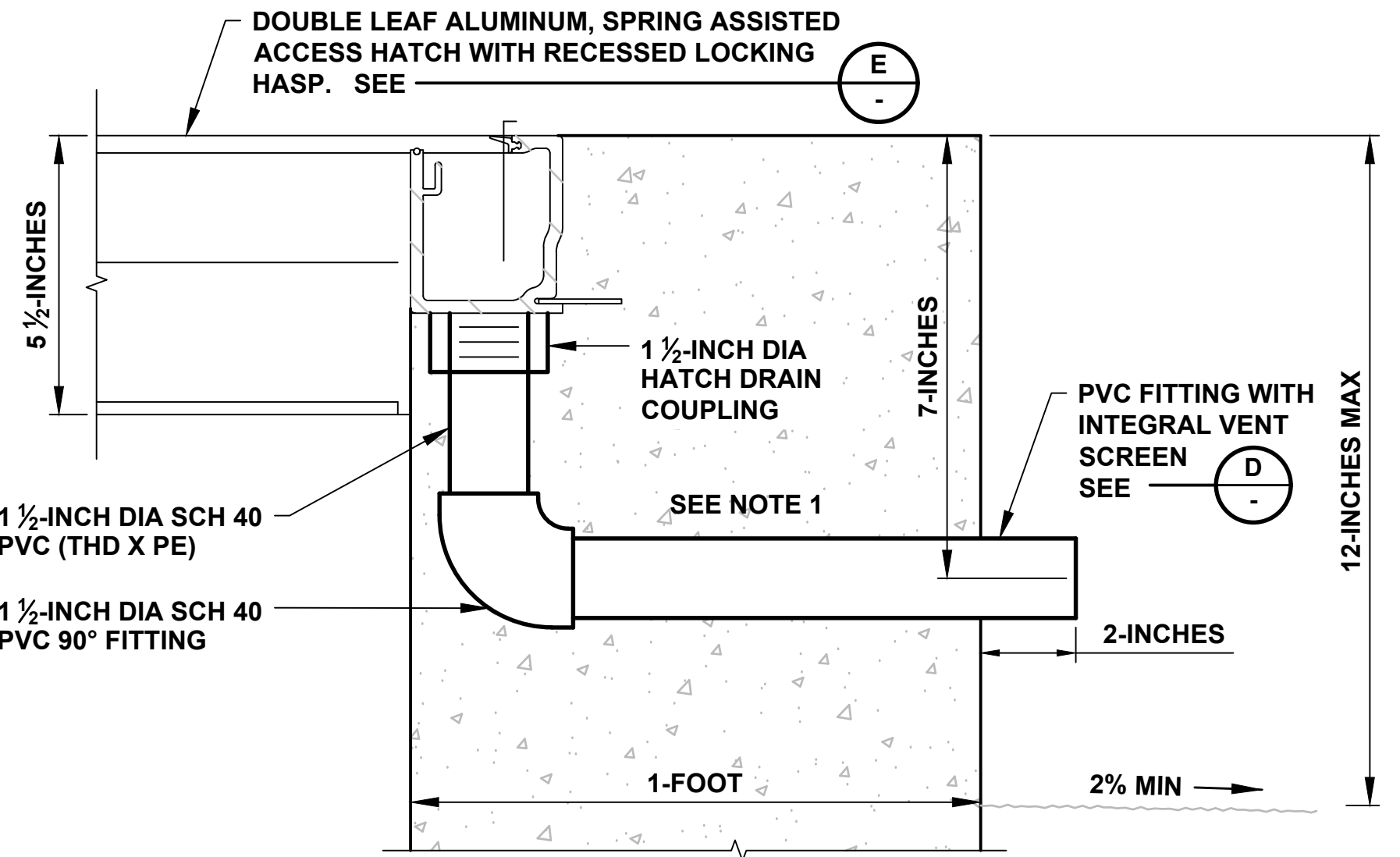
- 1 INSTALL OWNER FURNISHED 78-INCH PCCP (78-INCH ID, 92-INCH OD).
- 2 INSTALL OWNER FURNISHED 51-INCH PCCP (54.25-INCH ID, 64.75-INCH OD).
- 3 CAST IN PLACE REINFORCED CONCRETE PIPE TO PIPE TRANSITION STRUCTURE (78-INCH DIA TO 54-INCH DIA). TRANSITION STRUCTURE TO BE PER SSPWC STD 340-2. LENGTH IS 10-FEET.
- 4 ALL SIDES MAT CONCRETE ENCASUREMENT. SEE **B**.
- 5 ENCASUREMENT OF MANHOLE ACCESS STRUCTURE PER SPEC NO. 111. SEE **A** **C-01**.
- 6 INSTALL OWNER FURNISHED 54-INCH DIA CML/C WELDED STEEL PIPE.
- 7 10 X 10 X 8.5-FOOT PRE-CAST CONCRETE VAULT. SEE **A** **C-03**.
- 8 4 X 4-FOOT DOUBLE LEAF ALUMINUM, SPRING ASSISTED ACCESS HATCH WITH RECESSED LOCKING HASP. ROUTE HATCH DRAIN LINE THROUGH THE VAULT TO A LOCATION ABOVE GRADE. SEE **C**.
- 9 INSTALL LADDER WITH SAFETY POST PER CMWD DWG NO. 705.
- 10 CAST IN PLACE REINFORCED CONCRETE BULKHEAD OVER PIPE OPENING. SEE **C** **C-03**.
- 11 REMOVE SUFFICIENT CEMENT MORTAR LINING AND COATING ON THE 54-INCH DIA WELDED STEEL PIPE AND CUT A 24-INCH DIA OUTLET. REMOVE THE EX 24-INCH DIA TEE FROM THE EX PIPE. CUT THE REMOVED TEE ASSEMBLY BASE TO FIT THE CURVATURE OF THE 54-INCH DIA PIPE. WELD THE TRANSFERRED 24-INCH DIA TEE TO THE 54-INCH DIA PIPE AS SHOWN.
- 13 CI MANHOLE FRAME AND COVER PER CMWD STD DWG 603, DETAIL B.
- 14 BLOWOFF OUTLET PER CMWD STD DWG 501B.
- 15 DISTRICT TO PROVIDE WELDED STEEL PIPE FOR THE 24-INCH DIA OUTLET. PROVIDE BLIND FLANGE ON WSP 24-INCH OUTLET. PROVIDE LIFTING HANDLES, BOLTS, NUTS AND GASKET PER CMWD STD DWG 218. OMIT THE BALL VALVE AND ID PLATE.
- 16 LOAD AND TRANSPORT 6-FEET ± OF 8-INCH DIA CML/C WELDED STEEL PIPE (FLG X PE) FROM DISTRICT'S WELLFIELD NO. 2 LOCATED AT 6811 GRIMES CANYON ROAD IN MOORPARK, AND INSTALL AT WELLFIELD NO. 1, 5700 GRIMES CANYON ROAD.
- 17 REMOVE SUFFICIENT CEMENT MORTAR LINING AND COATING ON THE 54-INCH DIA WELDED STEEL PIPE AND CUT A 8-INCH DIA OUTLET. WELD THE 8-INCH DIA CML/C WELDED STEEL PIPE AS SHOWN.
- 18 JOIN CML/C AND PCCP PIPES PER CMWD STD DWG 243.
- 19 SINGLE MAT CONCRETE ENCASUREMENT. SEE **F**.
- 20 SCARIFY SUBGRADE TO A DEPTH OF 6-INCHES, MOISTURE CONDITION AND RECOMPACT TO 90% RELATIVE DENSITY. BACKFILL UNDER THE STRUCTURE SHALL CONSIST OF ONE FOOT OF NATIVE SOIL MATERIAL, MOISTURE CONDITIONED TO WITHIN 2% OF OPTIMUM, COMPACTED TO 90% RELATIVE DENSITY AND ONE FOOT OF CRUSHED MISCELLANEOUS BASE COMPACTED TO 90% RELATIVE DENSITY ABOVE. TRENCH BACKFILL PER CMWD STD DWG 301A AND AS DIRECTED BY THE DISTRICT. MANHOLE ACCESS STRUCTURE AND PIPELINES BACKFILL SHALL BE MODIFIED TO INSTALL SAND EXTENDING 12-INCHES BEYOND THE PIPE AND STRUCTURES ON THE SIDES AND 12-INCHES OVER THE TOP OF THE PIPE. MANHOLE ACCESS STRUCTURE AND PIPELINES BACKFILL SHALL BE MODIFIED TO 8-INCHES OF CRUSHED MISCELLANEOUS BASE DIRECTLY ON THE RECOMPACTED SUBGRADE. CONCRETE ENCASUREMENTS TO BE INSTALLED DIRECTLY ON THE COMPACTED SUBGRADE.
- 21 TACK WELD JOINTS AT 8-INCH MIN EVENLY SPACED LOCATIONS AND MORTAR JOINT TO MATCH ADJACENT EXISTING MORTAR LINING AND COATING.



CONFINED SPACE ENTRY TRAINING SITE
SCALE: 1" = 5'

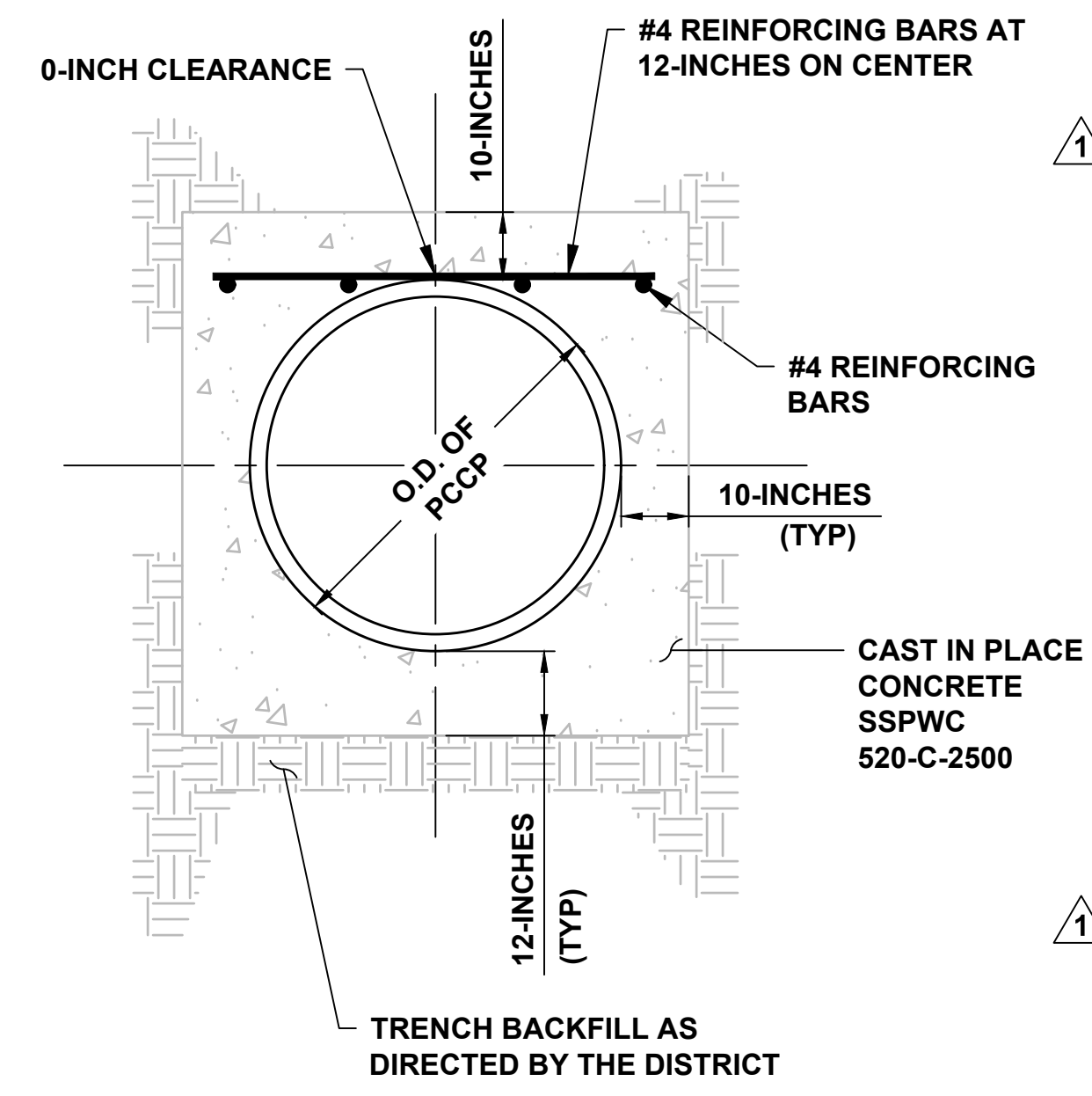


ALL SIDES MAT ENCASUREMENT DETAIL
SCALE: N.T.S.

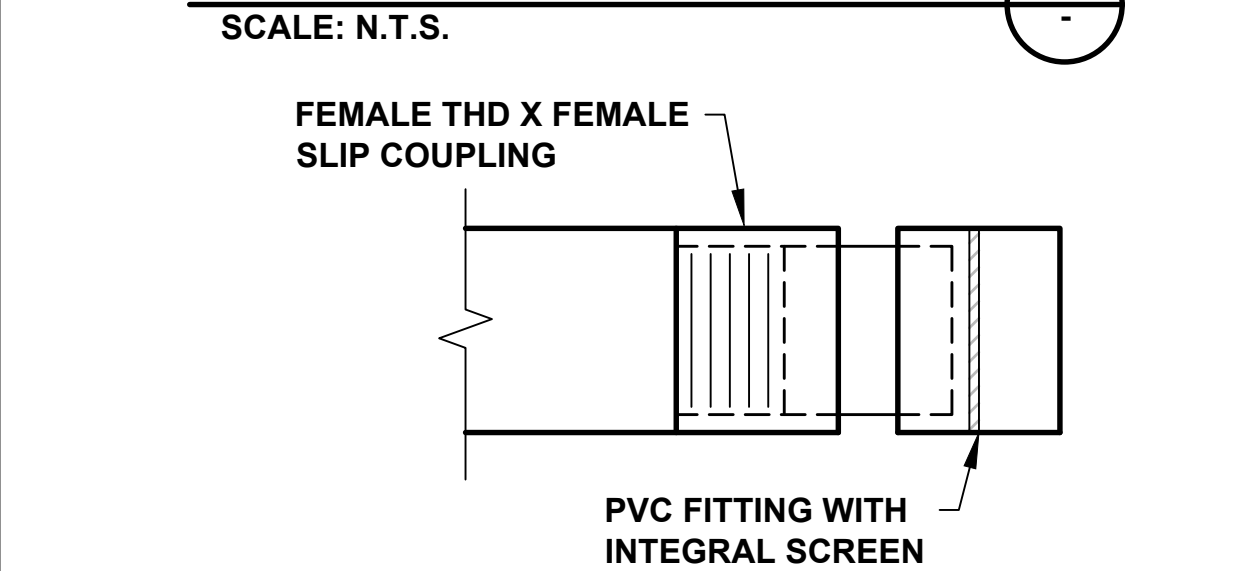


NOTE:
INSTALL 1 1/2-INCH PVC SCHEDULE 40 DRAIN SOLVENT WELDED PIPE FROM BOTTOM OF HATCH FRAME.

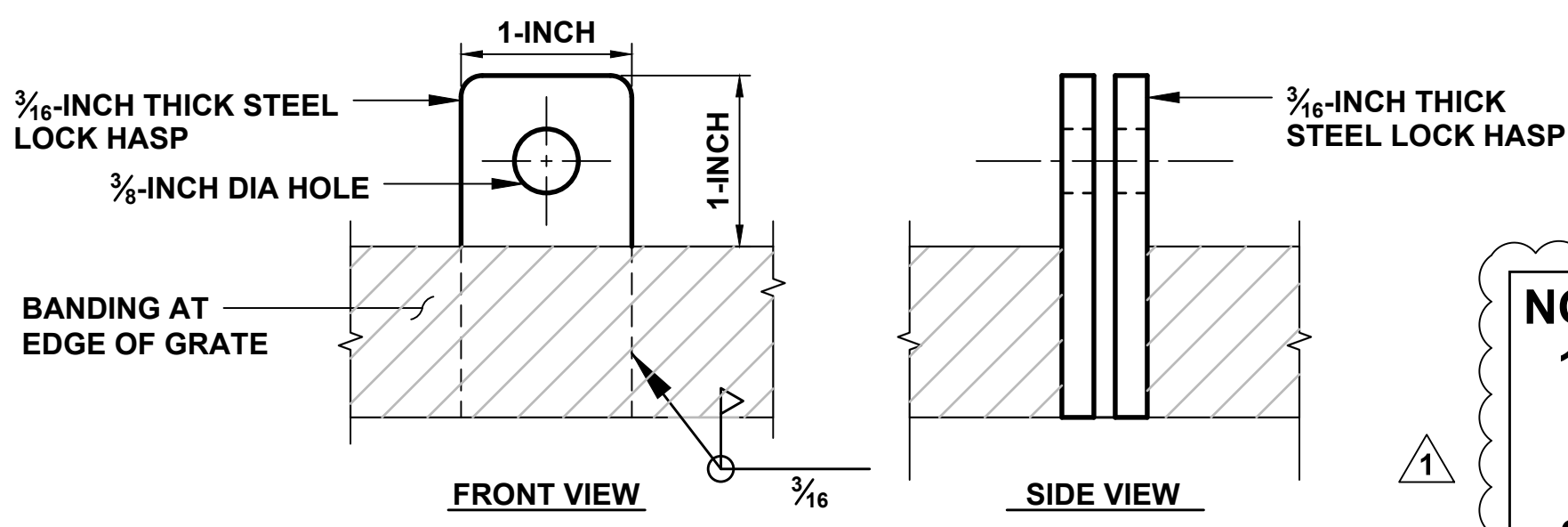
ACCESS HATCH/CURB DRAIN DETAIL
SCALE: N.T.S.



SINGLE MAT ENCASUREMENT DETAIL
SCALE: N.T.S.



INTEGRAL VENT SCREEN
SCALE: N.T.S.



PADLOCK HASP ASSEMBLY DETAIL
SCALE: N.T.S.

NOTES:
1. ALL EXCAVATED SOIL SHALL REMAIN ON SITE AND BE SPREAD IN UNIFORM THICKNESS IN SURROUNDING OPEN SPACE.
2. PCC PIPE IS AWWA C301.

DWG: C:\Users\asmith\OneDrive\Work\Projects\2022\4-256pm\XREFS\PC-BORDER\CMWD Broken Back Sol.dwg
 DATE: Jan 13, 2022 4:25pm
 USER: ASmith

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REV.	DESCRIPTION	BY	DATE
1	BACKFILL AND PRECAST VAULT REVISIONS		12/22/21

DESIGNED BY: JMT
DRAWN BY: ADS
CHECKED BY: JMT

PREPARED BY:
PHOENIX CIVIL ENGINEERING, INC.
535 E. MAIN STREET
SANTA PAULA, CA 93060
(805) 658-6800

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
EXPIRES 03/31/22

6/30/22
03/31/21
DATE

CALLEGUAS MUNICIPAL WATER DISTRICT

REVIEWED BY: *R. McLaughlin*
MANAGER OF ENGINEERING
CALLEGUAS MUNICIPAL WATER DISTRICT

03/31/21
DATE

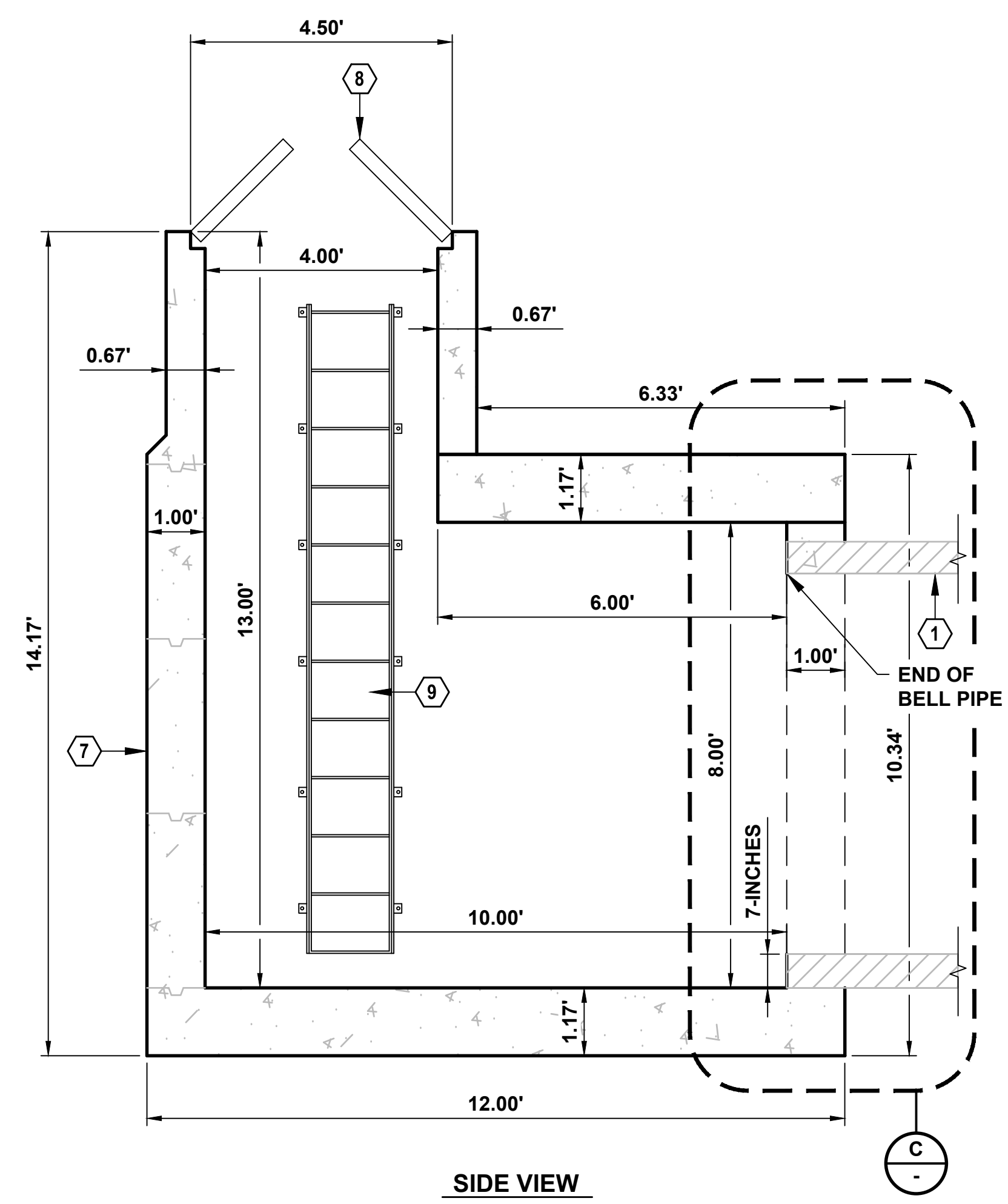
CCNB BROKEN BACKS, PHASE 4 ENCASUREMENT LOCATING TESTING & CONFINED SPACE TRAINING FACILITY PROJECT NO. 598

DETAIL AND SECTION SHEET

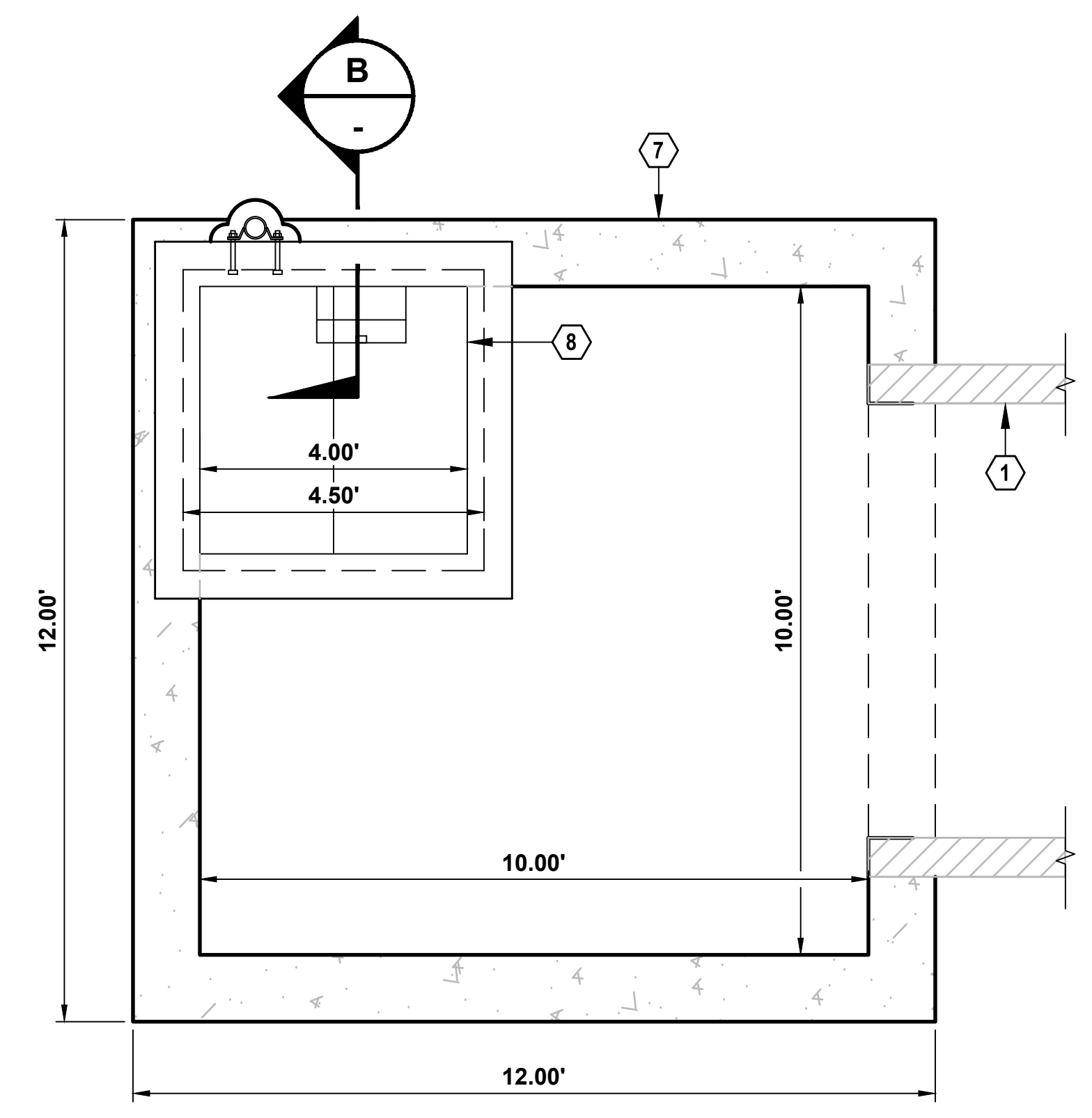
DRAWING NO. **C-02**
JOB NO.
SHEET 2 OF 3

CONSTRUCTION NOTES

- ① INSTALL OWNER FURNISHED 78-INCH PCCP (78-INCH ID, 92-INCH OD).
- ② INSTALL OWNER FURNISHED 51-INCH PCCP (54.25-INCH ID, 64.75-INCH OD).
- ⑦ 10 X 10 X 8.5-FOOT PRE-CAST CONCRETE VAULT. SEE A
- ⑧ 4 X 4-FOOT DOUBLE LEAF ALUMINUM, SPRING ASSISTED ACCESS HATCH WITH RECESSED LOCKING HASP. ROUTE HATCH DRAIN LINE THROUGH THE VAULT TO A LOCATION ABOVE GRADE. SEE C C-02
- ⑨ INSTALL LADDER WITH SAFETY POST PER CMWD DWG NO. 705.



SIDE VIEW



TOP VIEW

PRE-CAST CONCRETE VAULT DETAIL

SCALE: 1" = 2'

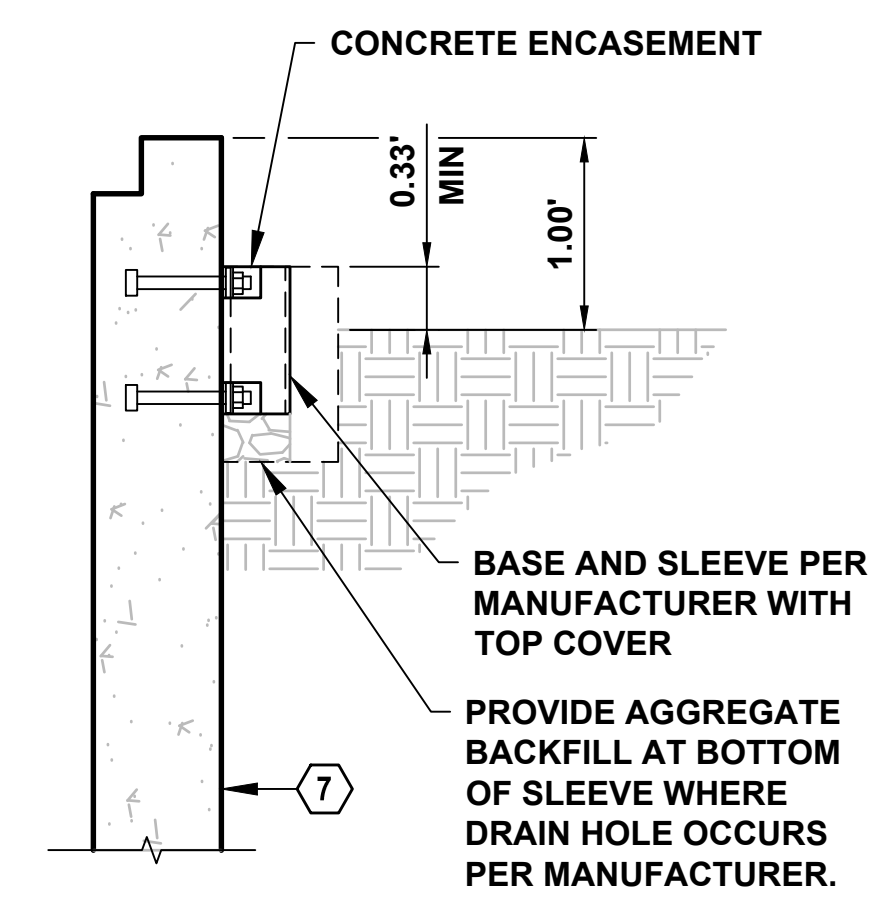
A
C-01

NOTES:

1. PRECAST CONCRETE VAULTS SHALL COMPLY WITH ASTM C585 EXCEPT AS MODIFIED BY THIS SECTION.
2. DESIGN LOADS SHALL BE IN ACCORDANCE WITH ASTM C857 EXCEPT AS MODIFIED BY THIS SECTION. TRAFFIC LOADS, UNLESS OTHERWISE STATED, SHALL CONFORM TO AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (ASSHTO) LOAD DESIGNATION A-16 PER TABLE 1. SOIL LATERAL LOADS SHALL BE AS DETERMINED BY ASTM C857. ALTERNATIVE DESIGN BY THE STRENGTH DESIGN METHOD SHALL INCLUDE FACTOR OF 1.7 TIMES THAT LATERAL EARTH OR HYDROSTATIC PRESSURES.
3. PRECAST VAULT CONSTRUCTION SHALL BE IN THE FORM OF MONOLITHIC WALLS OR HORIZONTAL WALL SECTIONS. DO NOT USE PANEL WALLS.
4. MINIMUM WALL THICKNESS SHALL BE 7-INCHES. DESIGN KNOCKOUT WALL PANELS TO ACCOMMODATE LOADING PRESSURES DEFINED ABOVE.
5. DESIGN THE VAULT TO BE WATERTIGHT WHEN SUBJECTED TO GROUNDWATER OVER THE ENTIRE HEIGHT OF THE VAULT.
6. FLOOR SLAB SHALL BE PRECAST CONCRETE. JOINTS SHALL BE DESIGNED TO ACCEPT A BUTYL RUBBER SEALANT PER ASTM C990.
7. SUBMIT MANUFACTURER'S DESIGN CALCULATIONS AND CERTIFICATION SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA THAT VAULT DESIGN AND CONSTRUCTION COMPLY WITH THE SPECIFIED DESIGN LOAD CONDITIONS AND THE REFERENCED ASTM SPECIFICATIONS.

NOTES:

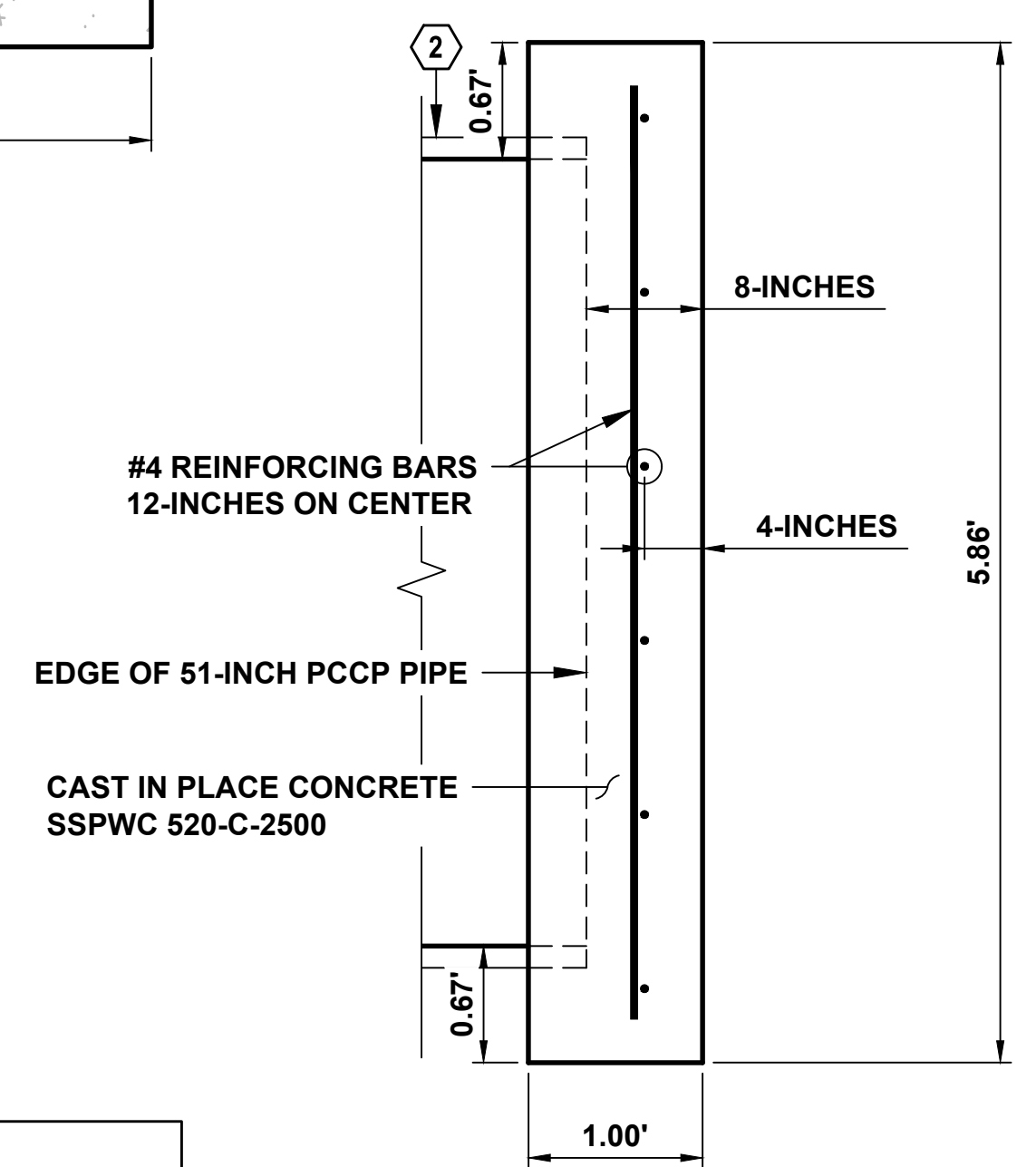
1. ALL EXCAVATED SOIL SHALL REMAIN ON SITE AND BE SPREAD IN UNIFORM THICKNESS IN SURROUNDING OPEN SPACE.
2. PCC PIPE IS AWWA C301.



SECTION B-B

SCALE: 1" = 1'

B



BULKHEAD DETAIL

SCALE: 1" = 1'

C

DWG: C:\Users\asmith\OneDrive\Work\Projects\CCNB\CCNB Broken Back Sol.dwg
 DATE: Jan 13, 2022 4:25pm
 USER: ASmith
 XREFS: PC- BORDER CMWD Broken

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1
 IF NOT ONE INCH ON THIS SHEET,
 ADJUST SCALES ACCORDINGLY

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	BACKFILL AND PRECAST VAULT REVISIONS		12/22/21

DESIGNED BY:	JMT
DRAWN BY:	ADS
CHECKED BY:	JMT

PREPARED BY:
 PHOENIX CIVIL ENGINEERING, INC.
 935 E. MAIN STREET
 SANTA PAULA, CA 93060
 (805) 658-6800
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA
 EXP. 03/31/22

6/30/22
 03/31/21
 DATE

CALLEGUAS MUNICIPAL
 WATER DISTRICT
 REVIEWED BY:
R. McLaughlin
 MANAGER OF ENGINEERING
 CALLEGUAS MUNICIPAL WATER DISTRICT
 03/31/21
 DATE

CCNB BROKEN BACKS, PHASE 4
 ENCASUREMENT LOCATING TESTING & CONFINED
 SPACE TRAINING FACILITY
 PROJECT NO. 598
DETAIL SHEET

DRAWING NO.	C-03
JOB NO.	
SHEET	3 OF 3

From: [Kara Wade](#)
To: [Lee Patton](#)
Cc: [Terry Lofing](#); [Rob Peters](#); [Tony Goff](#)
Subject: RE: Award Nomination for the H.R. LaBounty Safety Awards from Calleguas MWD (Confined Space Rescue Training Facility)
Date: Thursday, May 4, 2023 11:17:28 AM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[Confined Space Program 2022 .pdf](#)
[20230501100111696.pdf](#)

Per Rob Peters, Manager of Operations and Maintenance:

Good morning Lee,

Here is the District's Confined Space Program, entry permit, and photo of monitoring equipment you requested. The gentleman in the orange bump cap is the instructor from LAFD and if you look at the corner of the vault you will see the air monitor as well as the blower. We used monitoring equipment and ventilation at both ends of the structure but I don't have a specific photo that shows that. Most of the photos that day were of staff.

Just to make sure we are on the same page, the submission is for the facility not the training session. I believe the construction design photo and installation should be all that is required to submit for evaluation and program requirements. We added some of the training photos to give examples of how it can be used in the future. We worked with LA County Fire Department Instructor to perform the training for our staff just like previous years. In the future we will be working with other agencies including local fire departments to provide the site so they can train as well.

Hope this helps and if you need anything else just let me know.

Thanks,
Rob

Robert Peters
Manager of Operations and Maintenance
Calleguas Municipal Water District
805-579-7136

Thank you-Kara

Kara L. Wade
Clerk of the Board



Calleguas MWD
(805)579-7111 or (805)796-9395 cell (call or text)
www.calleguas.com



Our mission is to provide the service area with a reliable supplemental supply of regional & locally developed water in an environmentally & economically responsible manner.



Please consider the environment before printing this e-mail

From: Lee Patton <lpatton@acwajpia.com>
Sent: Friday, April 28, 2023 12:28 PM
To: Kara Wade <KWade@calleguas.com>
Cc: Terry Lofing <tlofing@acwajpia.com>
Subject: RE: Award Nomination for the H.R. LaBounty Safety Awards from Calleguas MWD (Confined Space Rescue Training Facility)

Hi Kara:

Please send me a copy of Calleguas MWD's Confined Space Program. Also, please confirm that air monitoring procedures were being followed during the entry. If you have a picture of the Attendant on duty during this entry with the air monitor being used, that will greatly enhance this submission. Also, please forward a copy of the Permit used during this entry.

Thanks,

From: Terry Lofing <tlofing@acwajpia.com>
Sent: Friday, April 28, 2023 11:53 AM
To: 'Kara Wade' <KWade@calleguas.com>
Cc: Lee Patton <lpatton@acwajpia.com>
Subject: RE: Award Nomination for the H.R. LaBounty Safety Awards from Calleguas MWD (Confined Space Rescue Training Facility)

Kara,

Thank you for the Safety Award nomination. Lee Patton will review it and he will contact you if he has questions. Thanks for your interest in this program.



Terry Lofing

ACWA JPIA

Administrative Assistant III

(916) 786-5742 (Office) | (916) 774-7050 x3126 (Direct)

tlofing@acwajpia.com | acwajpia.com

Follow us on Social:  

From: Kara Wade <KWade@calleguas.com>

Sent: Wednesday, April 26, 2023 12:09 PM

To: Terry Lofing <tlofing@acwajpia.com>

Cc: Tony Goff <TGoff@calleguas.com>; Rob Peters <RPeters@calleguas.com>

Subject: Award Nomination for the H.R. LaBounty Safety Awards from Calleguas MWD (Confined Space Rescue Training Facility)

Good afternoon,

Attached please find Calleguas H.R. LaBounty Safety Award nomination form and supporting digital photos.

Thank you-Kara

Kara L. Wade
Clerk of the Board



Calleguas MWD
(805)579-7111 or (805)796-9395 cell (call or text)
www.calleguas.com

Our mission is to provide the service area with a reliable supplemental supply of regional & locally developed water in an environmentally & economically responsible manner.



Please consider the environment before printing this e-mail



CONFINED SPACE PROGRAM

July 2022

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1. Management Policy

It is the policy of Calleguas Municipal Water District (District) to implement a safety program that protects employees and the general public from injury and to conform with the Occupational Safety and Health Administration (OSHA) rule to protect the safety of persons entering Confined Spaces. Title 8 of the California Code of Regulations, Section 5157 was established to protect the safety and health of people entering Confined Spaces.

The District will strive to provide proper equipment and working conditions and promote Confined Space safety through training and education programs. An employee's violation of the Confined Space Entry procedures described herein is considered a serious violation of District policy.

The District has the responsibility of training employees in all aspects of Confined Space safety. This includes identification of hazards, atmospheric testing, ventilation, rescue and the understanding, knowledge, and skills necessary for the safe performance of their assigned duties.

Only employees who have been fully trained in the Confined Space Program described herein are allowed to enter a confined space. Employees will receive initial training and refresher training as required. All employees who are designated to enter Confined Spaces and perform rescue tasks must successfully complete the training before being allowed to perform these duties. The District will maintain appropriate training documentation.

This document will be made available to all employees on the District intranet site. Any other documentation developed as part of the Confined Space Program will be provided to any employee upon request to the Safety Officer or the Manager of Operations and Maintenance. Any questions, suggestions for improvement, or concerns about the Program should be directed to the Safety Officer, Manager of Operations and Maintenance, or the employee's supervisor.

2. Responsibilities

The Manager of Operations and Maintenance and the Safety Officer are responsible for the development of the Confined Space Program. These responsibilities include:

- (1) Developing the Confined Space Program.
- (2) Assigning responsibilities within the Program.
- (3) Reviewing Confined Space Entry operations when there is reason to believe that the Program did not provide individuals with adequate protection.
- (4) Revising the Program to correct deficiencies that are found to exist.
- (5) Reviewing the Program at least annually and revising it, as needed, based on hazard surveys, and other pertinent data, to ensure employees are adequately protected from confined space hazards.

The Safety Officer, Manager of Operations and Maintenance, Manager of Engineering, Division Supervisors, designated Entry Supervisors, Attendants, Entrants, and other trained employees share in the responsibility for the proper implementation of the District Confined Space Program.

3. Program Approval and Review

Approved by: _____

Master Signed: _____

Date: _____

4. Definitions

Acceptable Entry Conditions are the conditions that must exist in a Confined Space to allow Entry and to verify employees can safely work within the space.

Air Purifying Respirator (APR) is a respirator mask that uses cartridges to remove specific gasses, vapors and particulates from the air.

Attendant is the person who is stationed outside the Permit Spaces to monitor the authorized Entrants. The Attendant must have received all necessary training and may not enter the space for rescue.

Blanking or blinding is the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a blind flange) that completely covers the opening and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

C5 Alternative Confined Space is a Confined Space that is eligible for CCR Title 8- 5157(C)(5) procedures. This procedure only applies to confined spaces where all of the following conditions can be demonstrated:

- (1) The only hazard posed by the Confined Space is an actual or potential hazardous atmosphere.
- (2) Continuous forced air ventilation alone is sufficient to maintain the Confined Space safe for entry.
- (3) Monitoring and inspection data verify these conditions and it is verified by the Entrant(s).

Confined Space is a space that is:

- (1) large enough and so configured that an employee can bodily enter and perform assigned work;
- (2) has limited or restricted means for entry or exit (such as a tank, vessel, storage bin, vault, or pit); and
- (3) is not designed for continuous employee occupancy.

Controlling employer is the employer who is responsible, by contract or through actual practice, for safety and health conditions on the worksite; i.e., the employer who has the authority for ensuring that the hazardous condition is corrected.

Double block and bleed is the closure of a line, duct or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in line between the two closed valves.

Emergency is an occurrence (including a failure of hazard control or monitoring equipment) or event internal or external to the Permit Space that could endanger Entrants.

Engulfment is a situation in which a person is surrounded and effectively captured by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

Entrant is a person who has received the necessary training and is otherwise qualified to enter a confined space.

Entry is the action by which a person passes through an opening into a permit-required Confined Space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the Entrant's body breaks the plane of an opening into the space.

Entry employer means any employer who directs its employee to enter a permit-required confined space.

Entry Permit (Permit) is the written document that is provided by the employer to allow and control entry into a permit-required confined space.

Entry Supervisor is the person qualified by training to be responsible for determining if acceptable conditions are present at a permit-required confined space where Entry is planned. The Entry Supervisor can also serve as Rescue Personnel, Attendant or Entrant in a permit-required confined space if trained for that role.

Hazardous Atmosphere is one that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a Confined Space), injury, or acute illness from one or more of the following causes:

- (1) Flammable gases, vapors, or mists above 10% of its lower explosive limit (LEL), toxic gases, and vapors (CO above 25 ppm, H₂S above 10 ppm) above the permissible exposure limit (PEL);
- (2) Airborne combustible dust where visibility is obscured at 5 feet;
- (3) Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
- (4) Atmospheric concentration of any substance for which a dose is

published in Group 14 for Radiation and Radioactivity or a PEL is published in section 5155 for airborne contaminants and which could result in employee exposure in excess of its dose or PEL;

- (5) Any other atmospheric condition that is immediately dangerous to life or health.

Immediately dangerous to life and health (IDLH) means any condition that poses an immediate or delayed threat to the life or health of a person or that would interfere with a person's ability to self-rescue from a confined space due to a hazardous confined space condition.

Isolation is the process by which a permit-required confined space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of valves and any other sources of energy; or blocking or disconnecting all mechanical linkages.

Job Hazard Analysis (JHA) is a safety procedure that is developed to integrate accepted safety and health principles and practices into a particular task. Each basic step of the job is looked at to identify potential hazards and to recommend the safest way to do the job. This will also determine the air monitoring, ventilation and PPE needs for the specific job.

Lower explosive limit (LEL) refers to the minimum concentration of a combustible vapor that is required to facilitate its combustion in air.

Non-Permit Confined Space (Non-Permit Space) is a Confined Space that does not contain or have the potential to contain any atmospheric hazard capable of causing death or serious physical harm. Example: An open top vault may be deemed a non-permit confined space if air monitoring determines there isn't an atmospheric hazard and a hazard will not be introduced while in the space.

Permissible Exposure Limit (PEL) is the maximum permitted 8-hour time weighted average concentration of an airborne contaminant.

- (1) Carbon monoxide (CO) is 25 ppm.

- (2) Hydrogen sulfide (H₂S) is 10 ppm.

Permit-Required Confined Space (Full Permit Space) is a Confined Space that has one or more of the following characteristics:

- (1) Contains or has a potential to contain a hazardous atmosphere;

- (2) Contains a material that has the potential for engulfing an entrant;

- (3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section;
- (4) Contains any other recognized serious safety or health hazard;
- (5) A space designated as a permit required confined space by regulation or the District.

Permit-Required Confined Space Program means the employer's overall program for controlling hazards and protecting employees from potential confined space hazards when work will be done inside a confined space.

Rescue Personnel are the personnel designated to rescue employees from permit-required confined spaces and who have received annual training.

Rescue Service is the qualified service hired by Contractors to perform rescue of workers from a Permit-Required Confined Space. A Rescue Service shall have at least one person qualified and assigned to perform each of the following duties: Rescue and Attendant. The Attendant and Entry Supervisor may be the same person if qualified.

Retrieval System is equipment used for non-entry rescue of persons from permit-required confined spaces, such as retrieval lines, body harnesses, lifelines and tripods.

Self-Contained Breathing Apparatus (SCBA) is an apparatus worn by the user with a breathing air tank that supplies air through an airline to a mask.

Testing is the process by which the hazards of a Confined Space are identified and evaluated by an Entrant. Testing includes air monitoring prior to entering.

5. Implementation of the Program

The first step the District used to implement the Program was to evaluate the various types of Confined Spaces at District facilities. The flow chart in **Attachment A** was used to determine if the space is a Permit-Required Confined Space, a C5 Alternative Confined Space or a space that may be a Non-Permit Confined Space. Most of the District infrastructure is below ground. Employees are instructed to monitor the air in all Confined Spaces prior to entering the space.

Structures at District facilities are evaluated using the Confined Space Evaluation Form (**Attachment B**.) Each space was evaluated by location, description, construction type, access, and potential safety and health hazards. A list of the classifications of specific structures types is provided in **Attachment E** and the Treatment Plant entry procedure chart is located in Section L of the Safety and Common Procedures Manual. Any new facilities or structures or non-routine confined space activities will be evaluated by the Safety Officer or Supervisor prior to any Entry operations. District staff are instructed to fill out a Confined Space Evaluation Form for any confined space they are unsure of or want evaluated.

The District has a Ventilation Plan for use when doing Entry operations. The Ventilation plan is provided in **Attachment G** and the written procedure is in the Safety and Common Procedures Manual.

The District has a comprehensive air monitoring program to ensure air monitors are in good condition, calibrated and maintained. This procedure is in the Safety and Common Procedures manual.

6. General Confined Space Responsibilities

The following procedures must be followed for all Confined Space work conducted by District employees. When Confined Space work is scheduled, responsibilities are as follows:

Supervisor Responsibilities

- (1) When work will be done in a permit-required Confined Space, designate employees for the required roles of Entrant, Attendant, Entry Supervisor or Rescue.
- (2) Verify employees have required equipment, knowledge and training for the work being done.
- (3) Ensure work that requires fall protection devices (lifelines, tripods, etc.) is properly staffed.
- (4) Ensure new Confined Spaces or non-routine work done in a Confined Space is evaluated for all hazards and potential hazards prior to allowing employees to enter.
- (5) Ensure employees inspect all safety equipment prior to each use.

Employee Responsibilities

Confirm all of the following equipment is inspected, in good condition and available for use prior to performing Confined Space work:

- (1) A charged and bump tested air monitor,
- (2) Ventilation equipment,
- (3) District issued personnel protective equipment (PPE),
- (4) Traffic control equipment or barriers (if required), and
- (5) Any additional safety equipment and permits required for the Confined Space.

Safety Officer Responsibilities

- (1) Review and update the Confined Space Program annually.
- (2) Provide training & maintain documentation.
- (3) Assist in evaluating new confined spaces.
- (4) Provide safety equipment as needed.

A list of available confined space equipment is located in **Attachment H**.

After confined space operations are completed, employees shall inspect and clean equipment and return it to storage. Notify the Safety Officer and Supervisor if any equipment is in poor condition, broken, or unsafe. This equipment is required to be tagged out with DO NOT USE and repaired or replaced.

7. Training

All District employees that work in confined spaces and whose job duties may include serving as an Entrant, Attendant, Entry Supervisor or Rescue Personnel will receive training that will allow them to acquire the understanding, knowledge, and skills necessary for the safe performance of their assigned duties.

Training will be provided:

- (1) before the employee is first assigned the Confined Space duty,
- (2) on a regular basis (refresher training),
- (3) whenever there is a change in a Confined Space operation that presents a hazard about which an employee has not been previously trained,
- (4) whenever there is a change, other than administrative, to the Confined Space Program, and
- (5) whenever there is reason to believe that employees have deviated from the requirements of the Confined Space Program.

Training will include all of the following topics:

- (1) the effective use of all available safety equipment,
- (2) safe work practices and responsibilities of each assigned duty,
- (3) air monitoring equipment,
- (4) potential atmospheric hazards, and
- (5) symptoms of exposure to hazards.

The training will establish employee proficiency in their duties and will introduce new or revised procedures as necessary.

The District will maintain documentation that the training has been accomplished. Training certification will be maintained for each employee and include:

- (1) Employee's name,
- (2) Signatures or initials of the persons supervising the training,
- (3) Dates of training, and
- (4) Description of training.

8. Entrant Duties and Responsibilities

The Entrant is the person who has received the necessary training and is otherwise qualified to enter a confined space. Duties and responsibilities include:

- (1) Knowing the hazards that may be faced during Entry and the signs, symptoms, and consequences of exposure to potential hazards.
- (2) Knowing the proper use of safety equipment and air monitors.
- (3) Communicating with the Attendant as necessary to monitor status.
- (4) Alerting the Attendant whenever a warning sign of danger is detected.
- (5) Continuously testing for hazardous atmosphere conditions when required.
- (6) For Permit-Required Confined Spaces, Entrants must complete an annual rescue training refresher. Rescue training content is based on the types of confined spaces entered and may differ by Division.
- (7) Immediately exiting the Confined Space whenever:
 - a) the Attendant gives the order for the Entrant(s) to evacuate,
 - b) the Entrant recognizes a dangerous condition,
 - c) the air monitor signals an alarm condition or a failure to provide reliable results,
 - d) the Entrant detects a condition which conflicts with the Permit, or
 - e) an evacuation alarm is activated.

9. Attendant Duties and Responsibilities

The Attendant is the person who is stationed outside the entrance of a Permit-Required Confined Space to monitor the authorized Entrant(s). The Attendant must have received all necessary training. The Attendant may also serve as an Entry Supervisor at a Permit-Required Confined Space but may not be assigned as Rescue Personnel. The Attendant's duties and responsibilities include:

- (1) Knowing the hazards that may be faced during Entry and the signs, symptoms, and consequences of exposures to those hazards.
- (2) Knowing the proper use of the safety equipment and air monitors.
- (3) Being aware of possible behavioral effects of an atmospheric exposure in Entrant(s).
- (4) Continuously maintaining an accurate list of the names of all Entrant(s) in the Confined Space.
- (5) Remaining outside, in the immediate vicinity of the Confined Space, during the entire Entry operation or until relieved by another Attendant.
- (6) Maintaining continuous air monitoring at entry location and maintaining communications with Entrant(s) to monitor status.
- (7) Monitoring activities inside and outside the Confined Space to determine if it is safe for Entrants to remain in the space. Order the Entrants to evacuate the space immediately if:
 - a) an unauthorized condition is detected in the confined space as defined by the Permit,
 - b) a behavioral change in the Entrant(s) is detected,
 - c) a situation outside the space occurs that could endanger the Entrant(s), or
 - d) the Attendant cannot effectively or safely perform all of the required duties.
- (8) Directing rescue operations when self-rescue is not possible and contacting 911 in the event of an emergency medical condition.

- (9) In the event an unauthorized person approaches or enters a Permit-Required Confined Space while Entry is underway:
 - a) warn the person to stay away from the space or immediately exit the space; and
 - b) inform the Entrant(s) and a Supervisor if an unauthorized person has entered the space.

10. Entry Supervisor Duties & Responsibilities

The Entry Supervisor is the person qualified by training to be responsible for determining if acceptable entry conditions exist at a Permit-Required Confined Space where Entry is planned. The duties of the Entry Supervisor include:

- (1) Knowing the hazards that may be faced during Entry and the signs, symptoms, and consequences of exposure to those hazards.
- (2) Knowing the proper use of the safety equipment and air monitors.
- (3) Reviewing and verifying that all appropriate testing and documentation have been completed prior to starting the entry and signing the permit authorizing Entry.
- (4) Verifying appropriate safety equipment is available on-site, equipment has been inspected, and required duties have been assigned.
- (5) Verifying that required safety measures are maintained throughout the duration of the Entry.
- (6) Upon completion of the work, terminating the Entry and cancelling the Permit.
- (7) Requesting unauthorized individuals who enter or who attempt to enter the space during Entry operations leave immediately and notifying proper authorities when necessary.
- (8) If there is a change in Entry Supervisors during the permitted Entry period, the original Entry Supervisor is to brief the new Entry Supervisor as to the hazards and operations performed within the space. The new Entry Supervisor is to confirm that the terms of the Permit are in effect and that acceptable Entry conditions exist at the time of transition.
- (9) May also serve as an Attendant or Rescue Personnel in a Permit-Required Confined Space.

11. Rescue Personnel Duties and Responsibilities

The Rescue Personnel are the personnel designated to rescue employees from a Permit-Required Confined Space. Rescue personnel are required to:

- (1) Be trained and proficient in the inspection, use and operations of Confined Space safety & the rescue equipment they will use.
- (2) Meet all of the duties and responsibilities of an Entrant and have the ability to Enter a Permit-Required Confined Space.
- (3) Hold current First Aid and CPR certification.
- (4) Have the ability to assist with moving an injured or ill person out of a Confined Space if they are unable to self-rescue.

In the event of a medical emergency, if it is safe to do so, the Rescue Personnel shall move the person to a location that can be reached by fire rescue or emergency medical personnel.

District personnel shall never enter a Confined Space where an atmospheric IDLH condition exists.

12. Permit-Required Confined Space Procedure

Supervisors must determine the classification of the Confined Space employees will enter. If a Confined Space is not described in **Attachment E**, in another procedure or if there are additional hazards involved, use a Confined Space evaluation form (**Attachment B**) to evaluate the space before assigning the work. If a new hazardous material will be used in a Confined Space, provide the Safety Data Sheet (SDS) sheet to the Safety Officer for evaluation.

PRE-ENTRY PLANNING

Pre-entry coordination and planning is required to ensure the safety of affected District staff, contractors and the public. Supervisors or Managers shall coordinate with affected employees on pre-planning for all Permit-Required Confined Space entry operations. Planning includes the following:

- (1) Preparation of a Rescue Plan, including required equipment and personnel.
- (2) Ventilation Planning, including required equipment and personnel.
- (3) Communication Planning, including signals if communication is lost.
- (4) Preparation of a traffic control plan, including barricades (when applicable).
- (5) Preparation of a lockout/tagout and/or isolation plan for removing all potential energy sources, such as water removal (when applicable).
- (6) Assignment of duties and responsibilities to qualified persons.
- (7) Coordination of necessary flow changes with the Operations Division and verifying they are aware of the location and duration of the planned work.

PRIOR TO ENTRY

Entry Supervisor shall verify all of the following have been completed and acceptable entry conditions exist, prior to allowing Entry operations to begin:

- (1) Verify the Confined Space Permit has been completed (**Attachment C**).
- (2) Verify that all of the necessary safety equipment listed on the Permit and Rescue Plan are on-site, have been inspected and are in good working order. This may include, but is not limited to:
 - a) Air monitor(s)
 - b) Ventilating equipment
 - c) Hand held radio and repeaters
 - d) Lockout/tagout equipment (when applicable)
 - e) Rescue equipment (ex. lifeline and davit arm)
 - f) Vault or tank access equipment (fall protection)
- (3) Review any additional pre-planning documents and verify all plans have been implemented and all required personnel are on-site and available.
- (4) When applicable, verify the Space has been isolated using lockout/tagout and/or isolation procedures.
- (5) Verify the Permit-Required Confined Space is ventilated and all air vents are free of obstructions. Verify exhaust from vehicles and/or back-up generators are located away from ventilation sources.
- (6) Verify atmospheric conditions have been tested in the Confined Space and meet the following criteria:
 - a) Oxygen level between 19.5% and 23.5%.
 - b) combustible gases and vapors below 10% of the LEL, and
 - c) toxic gases and vapors (CO and H₂S) below the PEL

- (7) Ensure the following are posted or immediately available:
 - a) Confined Space Permit,
 - b) Entry log when multiple entrants will be in the space (**Attachment F**), and
 - c) All necessary warning signs and barriers are set up to protect Entrants from external hazards and the public from injury.
- (8) Verify all assigned staff are present and at their posts.
- (9) Notify Fire Dispatch of our location and the anticipated duration of the work.
- (10) Sign the Permit and allow Entry operations to begin.

Attendant shall do all of the following before anyone enters the space:

- (1) Be stationed at the entrance of the Confined Space.
- (2) Establish and maintain communication with the Entrant(s) and have a communication back-up plan in the event of a communication outage.
- (3) Maintain an air monitor outside of the confined space that continuously monitors air inside the space.
- (4) Maintain an accurate entry log for entrants.

Pipeline Entry operations may have multiple Attendants and Rescue Personnel staged at different sections of the pipeline to allow for multiple exit points.

Entrant shall do the following before entering:

- (1) Verify the air monitor shows safe conditions and the ventilation is acceptable for Entry.
- (2) Inspect personal safety gear and PPE.
- (3) Verify personal air monitor is charged and bump tested, head lamp/lighting is adequate and operational, and communication is established and working properly.

Rescue Personnel shall do the following:

- (1) Inspect all necessary rescue equipment to ensure it is ready for use in the event of an emergency,
- (2) Review the Rescue Plan (**Attachment I**) to verify all required equipment is on-site (a written rescue plan is not required for the reservoirs at Springville, Thousand Oaks or Westlake because the rescue equipment is always stationed at these locations).
- (3) Ensure Entrants are aware of the Rescue Plan,
- (4) Don the same level of PPE as the entrant (ex. harness, slip resistant safety boots, hard hat, headlamp, air monitor, radio), and
- (5) Be stationed near the closest access point to the Entrant(s) during the entire operation with all of the rescue gear.

DURING ENTRY

Entry Supervisor verifies that all of the following are maintained:

- (1) Continuous mechanical ventilation is provided and is adequate.
- (2) Atmospheric conditions are continuously monitored and acceptable.
- (3) At least one Attendant is always posted outside the Confined Space.
- (4) Rescue Personnel and equipment are immediately available to the Entrant(s).

Attendant performs all of the following:

- (1) Maintains the security of the entrance to the Confined Space and does not allow unauthorized Entry into the space,
- (2) Continually monitors the air inside the space,
- (3) Maintains communication with Entrant(s),
- (4) Monitors the Entrant(s) for behavioral changes, and
- (5) Immediately evacuates Entrant(s) if the entry conditions change or if an Entrant shows signs of behavioral changes.

Entrant must do all of the following:

- (1) Immediately notify the Attendant if any unforeseen hazards or conditions exist,
- (2) Immediately evacuate the space (self-rescue) if conditions change, when told to by the Attendant or upon an evacuation alarm,
- (3) Pay close attention to how you and other Entrant(s) are feeling and immediately report any unusual symptoms or behavior, and
- (4) In the event of an injury, illness, or unforeseen medical condition, provide as much information as possible to the Attendant. Make every attempt to self-rescue from the Confined Space or to get to the closest access point.

Rescue Personnel shall do all of the following if an Entrant is unable to self-rescue out of a Confined Space due to injury or an emergency medical condition:

- (1) Verify the atmospheric conditions are safe for entry,
- (2) Verify no other unknown health or safety hazards exist,
- (3) Verify the location of the Entrant(s) and the closest location to access the Entrant (equipment inside the Confined Space may be blocking access to the injured/ill Entrant from one direction),
- (4) Obtain as much information as possible on the injury or illness to determine the rescue equipment needed,
- (5) If there are multiple Entrants, determine if they are able to safely transport the injured/ill Entrant to the access location, and
- (6) Assist the injured/ill Entrant to exit the Confined Space.
- (7) NEVER enter a confined space with an IDLH atmospheric condition or when an unknown health or safety hazard is present.
- (8) Call 911 for emergency medical personnel.

COMPLETING THE OPERATION

Once Confined Space operations are completed, the following steps shall

be taken to conclude the process:

- (1) All Entrants will exit the Confined Space, removing any equipment or tools that were taken into the space as part of the operation.
- (2) Close and lock/secure the entrance to the Confined Space to prevent unauthorized access.
- (3) The Entry Supervisor will notify fire dispatch that we have completed the Entry, cancel the Permit, note any problems that occurred during Confined Space operation and return the completed Permit to the Division Supervisor.
- (4) The Permit and any supporting documents shall be provided to the Safety Officer, who will review them and maintain them on file for a minimum of one year.
- (5) Equipment shall be cleaned and any necessary inspections and maintenance performed, then returned to its proper storage location.

PIPELINE OPERATIONS

All pipeline entries are considered Permit-Required Confined Spaces. In addition, pipeline Entries have unique hazards that require additional safety and rescue equipment. The additional equipment used for Entry into a pipeline includes:

- (1) Additional rescue equipment such as, tripod, horizontal retrieval lines, directional pulleys, pipeline bicycles, flat carts (Danny cart), full body harness, and sked sled.
- (2) Communication equipment including, 2-way radios (1 for Entrant, 1 for Attendant, 1 for each ventilation crew), repeater(s) and back-up communication plan.
- (3) Lighting must be provided at a minimum of 5 foot-candles or 54 lumens. In wet conditions or when used in a hazardous atmosphere, see the Lighting section of the Safety and Common Procedures Manual.
- (4) Ventilation equipment (may need to be set up in multiple locations to maintain air flow).
- (5) Bump cap or hard hats.

13. C5 Alternative Confined Space Procedures

A Confined Space is eligible for these procedures only if the following conditions can be demonstrated:

- (1) The only hazard posed by the space is an actual or potential hazardous atmosphere,
- (2) Continuous forced air ventilation alone is sufficient to maintain that the space safe for entry, and
- (3) Air monitoring and inspection data verify safe conditions are established and documented (**ATTACHMENT D**).

Under some circumstances, obtaining the data necessary to justify a C5 classification may require an initial Entry into the space. Any such initial Entry must be made under the Permit-Required Confined Space procedures. Once the verification is made, the procedure may be reduced to the C5 Alternative Confined Space Procedure.

A single person may hold multiple duties in this classification of Confined Space. The exceptions to this is when a Confined Space is located in a public street, in close proximity to a school, in a high pedestrian traffic area or where an entrant observes a hazard and requests an attendant.

PRE-ENTRY

Before making an Entry into the Confined Space, the employee(s) must verify all of the following:

- (1) The C5 Document has been completed (**Attachment D**).
- (2) All necessary safety equipment has been inspected and is on-site, including, but not limited to:
 - a) Air monitor
 - b) Ventilating equipment (unless the space has an operational ventilation system).
- (3) The C5 Alternative Confined Space has been isolated using lockout/tagout procedures when applicable.
- (4) The C5 Alternative Confined Space has adequate ventilation and all air vents (if any) are free of obstructions. In some instances, additional ventilation equipment may be needed when introducing a hazard into a confined space.

- (5) Verify acceptable entry conditions have been tested and meet the following criteria:
 - a) Oxygen level between 19.5% and 23.5%.
 - b) combustible gases and vapors below 10% of the LEL, and
 - c) toxic gases and vapors (CO and H₂S) below the PEL.
- (6) Document the entry conditions and sign the C5 Document (**Attachment D**).
- (7) In public areas, set up barricades, barriers and/or warning signs around the opening of the Confined Space to protect from unauthorized entry.

DURING ENTRY

After confirming acceptable entry conditions, the following procedure shall be followed:

- (1) Continue ventilating the space for the entire entry operation.
- (2) Continue air monitoring the space for the entire entry operation.
 - a) When working alone, after completing the initial air monitoring to verify safe entry conditions, take off the monitoring tube and wear the air monitor into the space to ensure atmosphere conditions do not change.
 - b) When working in pairs, the Attendant will continually monitor the air from outside the space and maintain communication with the Entrant.

COMPLETING THE OPERATION

Once Confined Space operations are completed, the following steps will be taken to conclude the process:

- (1) Exit the Confined Space, removing any equipment or tools that were taken into the space as part of the operation.
- (2) Close and lock/secure the entrance to the Confined Space to prevent unauthorized access.
- (3) Complete the C5 Document, note any problems that occurred during Confined Space operation and return the completed Permit

to the Division Supervisor.

- (4) The C5 Document and any supporting documents shall be provided to the Safety Officer, who will review them and maintain them on file for a minimum of one year.
- (5) Equipment shall be cleaned and any necessary inspections and maintenance performed, then returned to its proper storage location.

14. Other Confined Spaces Procedures

Not all Confined Spaces require a permit but all Confined Spaces are required to be air monitored prior to entering them. If all of the following conditions are met, the Confined Space may be classified as a Non-Permit Confined Space:

- (1) Does not contain an atmospheric hazard,
- (2) Work being done in the space or adjacent to the space will not introduce a hazard,
- (3) The internal configuration is not one that may trap or asphyxiate an Entrant,
- (4) It does not contain a material that may engulf an Entrant,
- (5) The space does not have to be entered to evaluate the hazards, and
- (6) The space doesn't contain any other serious safety or health hazard.

Prior to Entry

Before entering a Confined Space meeting all of the criteria of a Non-Permit Confined Space, the Entrant shall

- (1) Air monitor the space to verify acceptable atmospheric conditions,
- (2) Verify work in the immediate vicinity will not create a hazard, and
- (3) Verify the work being done inside the space will not create a hazard. If the work being done inside the space will create a potential atmospheric hazard, the space shall be elevated to a C5 Alternative Confined Space and the C5 Alternative Confined Space procedures must be followed. Work that may create an atmospheric hazard include:
 - a) Painting and applying coatings,
 - b) Sanding or cutting, and
 - c) Welding

If all of the criteria for a Non-Permit Confined Space are verified, Entry may be made without a Permit or C5 document.

Location Specific Procedures

Air monitoring is required inside all of the following Confined Spaces or enclosed areas due to potential location specific atmospheric hazards. The air shall be monitored for the specific hazards that may be present.

- (1) Confined spaces that are large, will be entered alone or that have a configuration that may hold pockets of an unknown atmosphere conditions, employees shall have an air monitor on their person.
- (2) All underground vaults prior to entering.
- (3) The Treatment Plant has hazardous chemicals in piping and/or tanks in all of the following locations:
 - Clearwell Gallery
 - Filtration Plant
 - Washwater Return Pump Station
 - Ozone Generator Room
 - Ozone Contactor Shelter
 - Chlorinator Rooms
 - Chemical Building
- (4) A chlorine monitor is required to be worn inside the chlorine storage rooms at all times.
- (5) The 5-gas air monitor is required to be used to monitor the designated (labeled) below ground confined spaces downhill and directly adjacent to the chlorine buildings. The 5-gas air monitor is a 4-gas air monitor with an additional sensor for chlorine.

If at any time, a Confined Space shows an atmospheric hazard or other potential hazard, immediately exit the space and, depending on the hazard, elevate the space to a C5 Alternative Confined Space or Permit-Required Confined Space.

15. Emergency Rescue and Response

When all the District's Confined Space procedures are followed, the need for an emergency rescue is very low. However, despite all the preparations and precautions, emergencies can occur, such as a slips or personal medical emergencies.

All Permit-Required Confined Space operations require Rescue Personnel or a Rescue Service to be immediately available. Fire rescue personnel are not considered to be immediately available and have restrictions on how far they can travel inside a Confined Space. In an emergency, Entry into a Confined Space by assigned Rescue Personnel is only permitted when there isn't an IDLH atmospheric condition.

Contractor-hired Rescue Services shall be notified of all known hazards and potential hazards inside a District Permit-Required Confined Space they may enter. The Rescue Service shall follow their own Confined Space Program and Rescue Plan.

To ensure District staff can get immediate medical attention in an emergency, affected District personnel are trained in rescue techniques and equipment used for Permit-Required Confined Spaces that their Division enters.

RESCUE PERSONNEL TRAINING

Persons assigned to rescue duties are required to have annual refresher training that includes:

- (1) Inspection and use of PPE and applicable rescue equipment,
- (2) Perform rescue drills to practice self-rescue and assisted rescue from Confined Spaces of the size and configurations that they enter (these will be different for each Division),
- (3) Have Confined Space Training, including all of the duties and responsibilities of an Entrant,
- (4) Have the ability to enter a Permit-Required Confined Space, and
- (5) Be certified in First Aid and CPR.

The Safety Officer, Supervisors and trainer shall evaluate employee's knowledge and ability in performing Rescue duties during the annual training drills.

OTHER RESPONSIBILITIES

Safety Officer shall ensure all of the following:

- (1) Local fire rescue personnel are familiar with Confined Spaces from which rescue may be necessary and facilitate conducting practice rescue drills using District facilities, and
- (2) Affected District employees receive all required training and maintain the training records.

EMERGENCY RESPONSE PROCEDURE

In the event of an emergency in a Permit-Required Confined Space, the following steps will be taken:

- (1) The Attendant, upon recognizing that an emergency situation exists, shall notify Entrant(s) to immediately evacuate the Confined Space and summon the Rescue Personnel.
- (2) The Rescue Personnel shall determine if the Entrant(s) is able to self-rescue.
- (3) If multiple Entry personnel are inside the Confined Space, they shall attempt to move the injured/ill Entrant to the closest access point if it is safe to do so.
- (4) The Rescue Personnel will attempt a "non-entry" rescue from the access point, using appropriate safety equipment and lifelines.
- (5) If "non-entry" rescue is infeasible and IDLH atmospheric conditions do not exist, Rescue Personnel may enter the Confined Space with appropriate rescue equipment to assist with removing the injured/ill Entrant from the Confined Space.
- (6) In the event an Entrant has a medical emergency, serious injury or unconsciousness, the Entry Supervisor will call 911 to get additional assistance from fire rescue/EMT.
- (7) The Attendant will stay at the Confined Space access location and assist the arriving fire rescue by providing them with all known information including:
 - a) Information on the Permit.
 - b) Observations of the situation.

- c) Information provided by the Entrant(s).
 - d) Any other helpful or pertinent information.
-
- (8) The Entry Supervisor will notify the Safety Officer and the Manager of Operations and Maintenance of the situation.
 - (9) The Manager of Operations and Maintenance will coordinate notification and response with the General Manager.
 - (10) The Districts public information officer (PIO) will coordinate any media communications.
 - (11) The Entry Supervisor will immediately cancel the Permit and document the cause and description of the emergency and response.
 - (12) The Permit shall be sent to the employee's Supervisor and the Safety Officer for review and evaluation of the event.

16. Contractors

While the procedures outlined in the Program address all the considerations necessary for Confined Space operations that are conducted by District employees, there may be times when outside contractors will be involved in Confined Space operations either with or without District employees. To protect contractor and District employees, these operations must be coordinated and the following steps will be taken:

DISTRICT RESPONSIBILITIES

Before any contractor is permitted to enter a District Confined Space, the District shall do all of the following:

- (1) Provide the Contractor with the location and description of the confined space,
- (2) Communicate all known hazards or potential hazards in each confined space they will enter,
- (3) Provide the classification of the Confined Space and the reason for the classification,
- (4) Coordinate all work operations with the Contractor when a District employee(s) will be working inside or adjacent to the same Confined Space as a Contractor,
- (5) Provide any procedures that the District has implemented for the protection of District employees working in or near the Confined Space, and
- (6) Verify the contractor has a Confined Space Program.

CONTRACTOR RESPONSIBILITIES

Contractors are required to comply with all Confined Space regulations when work will be done inside a District confined space. Contractors must have a written Permit-Required Confined Space Program that meets or exceeds CCR Title 8, section 1950 – 1962 or Title 8, section 5156 – 5158.

Before a contractor enters a District Confined Space, they must do all of the following:

- (1) Obtain all available information from the District about the Confined Space, including any known hazards or entry procedures,
- (2) Coordinate all entry operations with the District when both District employees and Contractor employees will be in the Confined Space or working near the Confined Space,
- (3) Have a written Permit Confined Space Program that meets or exceeds CCR Title 8, section 1950 – 1962 or Title 8, section 5156 – 5158
- (4) Notify the District of the work that will be done inside the Confined Space, including any hazards that may be created, and
- (5) Provide all of the above information to each entity (sub-contractors) entering or working near the Confined Space.

PRE-ENTRY

Before a Confined Space entry operation begins, each employer that will enter the space shall do the following:

- (1) Obtain all of the controlling employer's information regarding the Confined Space, including known or potential hazards,
- (2) If a hazardous material will be used in the Confined Space, provide SDS sheets to the District and controlling employer,
- (3) Ensure all Entrants are notified of the Entry operations and plan that that will be followed,
- (4) Coordinate how the potential hazards will be controlled,
- (5) Inform the controlling employer of any hazards likely to be created inside the Confined Space, and
- (6) Ensure that qualified Rescue Personnel/Rescue Service are immediately available when Entry is done in a Permit-Required Confined Space.

COMPLETING THE OPERATION

At the completion of the entry operation, the controlling employer shall ensure all entrants are out of the Confined Space and notify the District when the work is complete.

After all entrants have exited the Confined Space:

- (1) The controlling employer and each entity that entered the Confined Space shall hold a debrief regarding the Entry operation including any hazards confronted or created in the Confined Space, and
- (2) The controlling employer shall notify the District of the information exchanged with the entry entities.

If there is no controlling employer present at the worksite, the controlling employer requirements shall be fulfilled by the District or the employer who arranges to have employees of another employer (sub-contractors) perform work that involves Confined Space entry.

17. Variance

In specific cases where it is determined by the Manager of Operations and Maintenance, Safety Officer, and Entry Supervisor that compliance with the Confined Space Program is not feasible and/or poses more of a risk to the Entrant, then a variance may be granted.

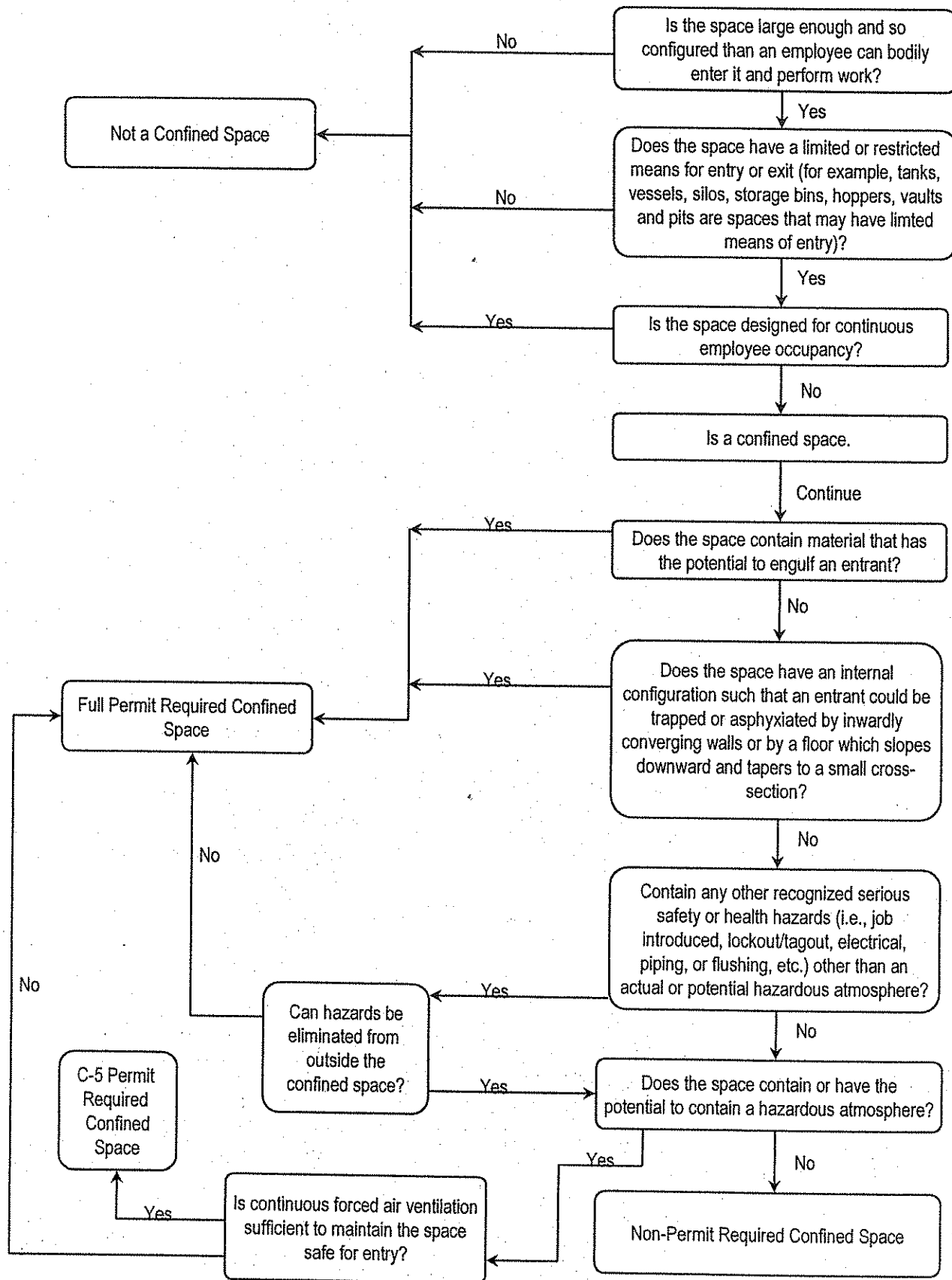
Variances are granted on a case-by- case basis, and subject to input from the Entry Supervisor and the Entrant(s). Unless already contained in this Program, variances must be documented with the reason(s) for the variance, type of variance (Classification or Procedural), and the signatures of the Entry Supervisor and Entrant(s) on the specific Permit for that site. Variances within the Confined Space Program are:

1. Lockout/tagout of the water main is not required for standard maintenance in vaults, such as painting, flushing, or valve adjustments, as there is no potential for engulfment.
2. Additional forced air ventilation is not required for Confined Spaces that have mechanical ventilation installed on-site when the job task isn't introducing a hazard into the space.

PLAN ATTACHMENTS:

- **ATTACHMENT A – Confined Space Flow Chart**
- **ATTACHMENT B – Confined Space Evaluation Form**
- **ATTACHMENT C – Entry permit - Permit Required Confined Space**
- **ATTACHMENT D – C5 Alternative Confined Space**
- **ATTACHMENT E – Site Specific Confined Space Classifications**
- **ATTACHMENT F – Entry log**
- **ATTACHMENT G – Ventilation Plan**
- **ATTACHMENT H – Confined space entry available equipment**
- **ATTACHMENT I – Rescue Plan**

Confined Space Identification Flow Chart



CSE1.ppt

CONFINED SPACE EVALUATION FORM

Location: _____

Description: _____

Specification #: _____

Evaluator: _____ Date: _____

1. Structure description:

Manhole Pipeline Open pit Grate top vault Closed top vault

Wet Well Clear Well Other: _____

2. Structure construction type:

Above Ground Below Ground Partially Below Ground

3. Structure access:

Fixed Ladder Portable Ladder Stairwell Tripod/davit arm

Other: _____

Depth of the structure: _____

4. Other potential safety or health hazards within the space:

Full source isolation or lockout/tagout not possible Engulfment

Inadequate fall protection Unsafe access or internal configuration

Hazardous atmosphere Heat/Cold Noise Electrical High/low voltage

Chemical Inwardly converging walls Traffic hazard Slip hazard

20 feet deep or more Other: _____

5. Will the work being done introduce a hazard? Describe: _____

Structure classification:

Permit-Required Confined Space

C5 Alternative Confined Space

Non-Permit Confined Space

Classification Completed by:

Name/Title: _____ Date: _____

ENTRY PERMIT - PERMIT REQUIRED CONFINED SPACE (FULL)

AGENCY: CALLEGUAS MWD DATE: _____ DURATION: _____
 SPACE ID/LOCATION: _____
 PURPOSE: _____
 SPECIFIC WORK PROCEDURE: _____
 METHOD OF MONITORING THE ATMOSPHERE: _____

ATMOSPHERIC TESTING RESULTS

SUBSTANCE	PERMISSIBLE EXPOSURE LIMIT	RESULT & TIMES							
		PRE-ENTRY	ENTRY	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	TEST 6
OXYGEN	19.5 - 23.5%								
LEL	5%								
CARBON MONOXIDE	25 PPM								
H2S(if applicable by hazard survey)	10 PPM								
OTHER TOXIC									
TIME-RECORDED ON THE ¼ HOUR									
CONDUCTED BY									

Note: LEL is set at 5% to account for the LEL conversion of other flammable gases.

METHOD OF VENTILATION: FAN BLOWER
 VOLUME OF VENTILATION (PIPELINE ONLY/MIN. 60 LINEAR FT/MIN) _____
 VARIANCE: YES/NOTYPE _____ CATEGORY _____ INITIALS _____
 EMERGENCY RESCUE METHODS & EQUIPMENT: (Tripod, harness, or other)
 PERSONNEL PROTECTIVE EQUIPMENT (PPE): _____

PROCEDURES

- 1. SAFETY PROCEDURES IN PLACE YES NO
- 2. MSDS & CHEMICAL USE PLAN IN PLACE YES NO N/A
(Whenever atmospheric or other chemical hazards are introduced)
- 3. RESCUE EQUIPMENT AND PROCEDURES IN PLACE. YES NO
- 4. LOCK-OUT/TAG-OUT SYSTEMS IN PLACE YES NO N/A
- 5. ATMOSPHERIC TESTING COMPLETED PRIOR TO ENTRY YES NO
- 6. GAS MONITOR CALIBRATED TO SPECIFICATIONS YES NO
- 7. VENTILATION SYSTEM IN OPERATION (positive pressure if possible) YES NO
- 8. CONTINUOUS AIR MONITORING OF WORK SPACE WHILE WORK IS BEING PERFORMED. YES NO
- 9. USE OF EXPLOSION PROOF EQUIPMENT/NON-SPARKING TOOLS (WHEN POSSIBLE FLAMMABLE ENVIRONMENT/HOT WORK) YES NO N/A
- 10. FIRE EXTINGUISHING MEDIA AVAILABLE YES NO
- 11. CLEAR COMMUNICATION BETWEEN ENTRANT & ATTENDANT YES NO
- 12. APPROPRIATE & REQUIRED PPE FOR ALL EMPLOYEES
- 13. EMERGENCY CALL-IN PROCEDURE COMPLETE YES NO
- 14. PEDESTRIAN/VEHICLE BARRICADE TO PROTECT ENTRANT & FALLS YES NO
- 15. OTHER ANTICIPATED HAZARDS (HOT WORK): YES NO
- 16. **IN EVENT OF EMERGENCY: NOTIFY CONTROL ROOM (805) 579-7137 TO CALL 911**

AUTHORIZED ENTRANTS: 1. _____ 2. _____ 3. _____ 4. _____

ATTENDANT(S) _____

ENTRY SUPERVISOR AUTHORIZING ENTRY UNDER FULL PERMIT:

 PRINT NAME SIGNATURE DATE

MUST BE POSTED AT ENTRY AND/OR IN POSSESSION OF ATTENDANT

C5 ALTERNATIVE CONFINED SPACE
(SEE CONFINED SPACE PROCEDURES FOR RESTRICTIONS ON USE)

Agency: CALLEGUAS MWD Date: _____

Space ID/Location: _____

Purpose: _____

Special work procedures: _____

Methods of monitoring the atmosphere: _____

Permit issue date/time _____ / _____ Permit expiration date/time _____ / _____

Entry supervisor: _____ Attendant (optional) _____

Authorized entrants: _____

IN AN EMERGENCY NOTIFY CONTROL/BASE VIA RADIO TO CALL 911/805-388-4279

- | | | |
|---|-----|----|
| 1. Source isolation and lockout/tagout in place? | Yes | No |
| 2. Free of non-atmospheric hazards (engulfment, configuration, electrical)? | Yes | No |
| 3. Is the space free of any serious job introduced hazards? | Yes | No |
| 4. Is the only hazard posed by the space an actual or potential atmospheric? | Yes | No |
| 5. Will Continuous forced or mechanical ventilation alone be sufficient for safe entry? | Yes | No |
| 6. Has an inspection confirmed that the listed conditions are accurate? | Yes | No |

ATMOSPHERIC TESTING RESULTS

Substance	PEL	Preentry	Entry	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Oxygen	19.5 – 23.5%								
LEL	10%								
CO	25PPM								
H2S	10 PPM								
Other Toxics									
Time									
1/4 hr									
initials									

If any "no" responses, entry is not eligible for a C5 permit (i.e., full permit required)

Gas Tester Name _____ Instrument _____ Model/Serial # _____

Variance (If Any) Yes/No Type _____ Category _____ Initials _____

Emergency Call Procedure In Place: Yes/No Call #: Control room (805) 579-7137

Rescue Equipment: _____

Mechanical Ventilation Method(s) (Positive Pressure If Possible) _____

PPE _____

C5 CERTIFICATION BY ENTRANT/ATTENDANT: I am familiar with the special requirements and conditions under which a permit-required space may be entered under the alternative procedures outlined in 8 CCR 5157 (c)(5) [C5 procedures]. The basis for this conclusion is inspections and testing (with a calibrated direct reading instrument, as noted above). I verify that all necessary per-entry steps have been taken. I verify that the space is safe for entry.

AUTHORIZING ENTRY UNDER C5 CONDITIONS:

PRINT NAME SIGNATURE DATE

CMWD SITE SPECIFIC CLASSIFICATIONS

Permit-Required Confined Spaces (Full Permit): Entry into these spaces require an attendant and rescue person at a minimum.

1. Pipelines
2. Chemical tanks
3. Air and surge tanks
4. Confined Spaces greater than 20 feet in depth where fall protection devices are required. (The reservoirs at Springville, Thousand Oaks and Westlake).
5. Confined Spaces whose atmospheres require a SCBA or APR¹
6. Any confined space where a job introduced hazard or chemical hazard cannot be eliminated through ventilation alone.
7. All reservoirs entered from the top manway.
8. **Water storage tanks** when the tanks contain water in excess of two feet or if the system connecting them cannot be fully locked out. This is defined as a potential engulfment hazard.
9. **Chlorine system** tasks that require the Operator to wear an SCBA.

C5 Alternative Confined Spaces: These spaces must be elevated to a Permit Required Confined Spaces if a job introduced hazard or chemical hazard cannot be eliminated through ventilation alone.

1. Below ground concrete vaults less than 20 feet deep with steel plate covers/hatch doors and mounted ladder access.
2. Pipeline access manholes less than 20' deep
3. Regulating stations with mounted ladder access less than 20' in depth.
4. Pre-ozone contactor hatch access.
5. Reservoirs entered from a side manway
6. Cutting, welding and painting operations in a confined space requires ventilation to remove the hazard. If the confined space has other safety or health hazards then a full Permit is required.

NOTE: These classifications are based upon a hazard survey performed by an Industrial Hygienist (State Compensation Fund) which determined that atmospheric conditions are safe when C-5 Alternative Procedures are followed for these activities. OSHA does not allow pre-classification of confined spaces except for Permit- required confined spaces and therefore each should be evaluated prior to entering.

Other Confined Spaces:

If the confined space does not meet any of the descriptions above, does not have any additional safety or health hazards and air monitoring verifies safe atmospheric conditions, the confined space can be designated as a non-permit confined space and no permit is required.

If the space is found to have a hazardous atmosphere or if the job being done inside the space can create a hazard, the space may only be entered with the C5 Alternative Confined Space procedure or full Permit. The following is a list of some of these spaces:

1. Below ground structures with stairwell accesses and mechanical ventilation (the ventilation fans/systems are not inspected or tested to ensure all atmospheric hazards are removed).
2. Below ground vaults with open grated covers/hatches.
3. Open pits and access areas to pits.
4. Underground Vaults less than 5' in depth with continuous air monitor while in the space.

NOTE: All confined and enclosed spaces have the potential for a hazardous atmosphere. All confined spaces are required to be air monitored (for the potential atmospheric hazard in that space) before entering.

Treatment plant: The following locations have the potential to contain atmospheric hazards. Only authorized and trained employees may enter these locations when the plant is operating. Monitor the air for the appropriate air hazards and have a full-face respirator with appropriate filter in your possession. Prior to entry, verify with the Control Room that alarms are clear and that there are no additional hazards or non-routine activities in progress. The potential hazards for each location are:

1. Clearwell Gallery – chlorine (toxic) and ammonia (toxic).
2. Filtration Building – chlorine (toxic).
3. Wash water Return Pump Station – chlorine (toxic), ammonia (toxic), sulfuric acid (toxic) and enriched oxygen (highly flammable).
4. Ozone Generator Room – ozone (health hazard & oxidizer) and enriched oxygen (highly flammable).
5. Ozone Contactor Shelter – ozone (health hazard & oxidizer) and enriched oxygen (highly flammable).
6. Chlorinator Rooms – chlorine (toxic).

NOTE: The chlorine storage rooms always have chlorine gas stored in them.

- See **Attachment E.1** for a chart on Entry Procedure's at specific types of confined spaces.
- See **Attachment E.2** for a chart on Entry Procedures at the Treatment Plant.

Pipeline Ventilation Plan

Open/Closed

Open/Closed

Open/Closed

Open/Closed

Fan / Entry / Exit

Fan / Entry / Exit

Fan / Entry / Exit

Fan / Entry / Exit



Additional Instructions / Notes

Instructions:

1. On the line below each manhole list the location name of each manhole.
2. Indicate whether the manhole is open or closed. Indicate the location of fans and entry and exit points
3. Indicate the type of ventilation by drawing arrows into or out of the manhole. An "arrow into the manhole" indicates a fan blowing air into the pipe. An "arrow out of the manhole" indicates an fan exhausting out of the pipe.
4. Indicate the location of the work in the pipe, insure that it is between to open manholes.
5. Distribute copies of the plan to each team and insure that a copy is located at each manhole.

CONFINED SPACE ENTRY AVAILABLE EQUIPMENT

PRCS SAFETY EQUIPMENT

- 1) Hard hat/bump cap
- 2) Headlamps/flashlights
- 3) Elbow/knee pads (when needed)
- 4) Air monitors (4 gas) - outside the space and with entry team
- 5) Radios – outside the space and with entry team
- 6) Repeaters
- 7) Ventilation fans/equipment
- 8) Anemometer - verification of adequate ventilation
- 9) Pipeline bicycles & Danny carts (when needed)
- 10) Full body harness
- 11) Slip resistant safety boots
- 12) Barricades & traffic control equipment (when needed)

PRCS RESCUE EQUIPMENT

- 1) Self-retracting lifeline(s) – entrant must be attached to the retrieval line unless the equipment would increase the overall risk of the entrant.
- 2) Tripod(s)/Davit arm, vertical removal.
- 3) Horizontal rope system, pulleys, webbing and carabiners.
- 4) Sked Sled

PRCS DOCUMENTS & PLANS

- 1) Full confined space permit – notify the fire department before entry.
- 2) Rescue plan
- 3) Entry team sign in/sign out sheet
- 4) SDS sheet – if using a hazardous material inside the space
- 5) Lockout/tagout plan & isolation plan, ventilation plan and communication plan – these do not need to be in a separate plan

PRCS PERSONNEL – all positions required to have been trained annually.

- 1) At least 1 standby person immediately available to perform rescue & first aid/CPR.
- 2) Authorized entrant(s).
- 3) Attendant – can not enter space for rescue.
- 4) Entry supervisor

Confined Space Rescue Plan

Work Details

Job description		Location of job	
Site name		Location on site	
Plan developed by		Date	
Related permits/plans	<input type="checkbox"/> Confined Space Entry Permit <input type="checkbox"/> Lockout/tagout <input type="checkbox"/> Hot work permit		

Emergency Communication Details

Emergency phone number: 911 & CONTROL ROOM (805) 579-7137	Phone number of Supervisor/managers:
Nearest hospital:	Emergency staging location:

Potential Rescue Hazards

<input type="checkbox"/> Engulfment <input type="checkbox"/> Height <input type="checkbox"/> Hazardous atmosphere <input type="checkbox"/> Hazardous chem. <input type="checkbox"/> Fire <input type="checkbox"/> Electrical <input type="checkbox"/> Other: _____
Will entry and exit to the work area impact rescue procedures? <input type="checkbox"/> Yes <input type="checkbox"/> No (if YES must address in rescue plan)

Emergency Equipment Needed

<input type="checkbox"/> Harness <input type="checkbox"/> Life / rescue line <input type="checkbox"/> Tripod /rescue wench / davit / anchor points <input type="checkbox"/> Danny Cart <input type="checkbox"/> Bicycle <input type="checkbox"/> Crane	<input type="checkbox"/> First aid kit <input type="checkbox"/> Basket stretcher <input type="checkbox"/> Fire extinguisher <input type="checkbox"/> AED <input type="checkbox"/> Radio / mobile phone <input type="checkbox"/> Repeater	<input type="checkbox"/> SCBA <input type="checkbox"/> 4-gas air monitors <input type="checkbox"/> Lighting <input type="checkbox"/> Ventilation equipment <input type="checkbox"/> Forced <input type="checkbox"/> Natural <input type="checkbox"/> PPE <input type="checkbox"/> Other: _____
Confined Space Entry Signs Placed: _____		
Other rescue equipment requirements: (include pipeline checklist, ventilation plan & lockout tag out plans when required)		

Rescue equipment must be available at the job location prior to commencing the work activity.

Confined Space Rescue Plan

Rescue Plan (insert photo/drawing - and/or notes)

	<p>Include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Entry and exit points <input type="checkbox"/> Location of rescue equipment <input type="checkbox"/> Vertical or horizontal rescue <input type="checkbox"/> Eyewash/showers <input type="checkbox"/> Evacuation point/s <input type="checkbox"/> Emergency staging area <input type="checkbox"/> Identified hazards <input type="checkbox"/> Participants in rescue team <input type="checkbox"/> Role of each participant <input type="checkbox"/> <input type="checkbox"/>
--	---

Briefing Assurance

Participants in the rescue party been briefed on the rescue plan prior to the work commencing	Y <input type="checkbox"/>	Rescue equipment checked	Y <input type="checkbox"/>
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Certification

Entry Supervisor Print Name		Entry Supervisor Signature	
--------------------------------	--	-------------------------------	--

CONFINED SPACE ENTRY PERMIT—C5 PERMIT SPACE

(SEE CONFINED SPACE PROCEDURES FOR RESTRICTIONS ON USE)

AGENCY: CALLEGUAS MWD DATE: 4-18-2023
 SPACE ID/LOCATION: Well field 1
 PURPOSE: rescue training
 SPECIAL WORK PROCEDURES: N/A
 METHODS OF MONITORING THE ATMOSPHERE: 4 gas sniffer
 PERMIT ISSUE DATE/TIME 4/18 / 1:00pm PERMIT EXPIRATION DATE/TIME 4/18 / 3:30pm
 ENTRY SUPERVISOR: Fernando ATTENDANT (optional) Matt, Jerrad
 AUTHORIZED ENTRANTS: Hector, David, Ben, Tito, Juan, Sean, Jovani, Edgar, Alex, Jorge

- | | | | | | | |
|---|-----|-------------------------------------|----|--------------------------|-----|-------------------------------------|
| 1. Source Isolation and lock-out/tag-out in place? | YES | <input type="checkbox"/> | NO | <input type="checkbox"/> | N/A | <input checked="" type="checkbox"/> |
| 2. Free of non-atmospheric hazards (engulfment, configuration, electrical)? | YES | <input checked="" type="checkbox"/> | NO | <input type="checkbox"/> | | |
| 3. Is the space free of any serious job introduced hazards? | YES | <input checked="" type="checkbox"/> | NO | <input type="checkbox"/> | | |
| 4. Is the only hazard posed by the space actual or potential atmospheric? | YES | <input checked="" type="checkbox"/> | NO | <input type="checkbox"/> | | |
| 5. Will continuous forced or mechanical ventilation alone be sufficient for safe entry? | YES | <input checked="" type="checkbox"/> | NO | <input type="checkbox"/> | | |
| 6. Has inspection confirmed that the listed conditions are accurate? | YES | <input checked="" type="checkbox"/> | NO | <input type="checkbox"/> | | |

IN AN EMERGENCY NOTIFY CONTROL/BASE VIA RADIO TO CALL 911

ATMOSPHERIC TESTING RESULTS

SUBSTANCE	PERMISSIBLE EXPOSURE LIMIT	*RESULTS & TIMES								
		PRE-ENTRY	ENTRY	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	TEST 6	
OXYGEN	19.5 - 23.5%	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9
LEL	5 %	0	0	0	0	0	0	0	0	0
CARBON MONOXIDE	25 PPM	0	0	0	0	0	0	0	0	0
H2S (if applicable based on survey)	10 PPM	0	0	0	0	0	0	0	0	0
OTHER TOXIC										
TIME-RECORDED ON THE ¼ HOUR		1:00pm	1:15pm	1:30pm	1:50pm	2:15pm	2:35pm	2:45pm	3:05pm	3:15pm
CONDUCTED BY		FF	FF	FF	FF	FF	FF	FF	FF	FF

*FOR EACH TEST SHOW RESULT AND TIME. Note: LEL is set at 5% to account for the LEL conversion of other flammable gases.
 GAS TESTER NAME Gas Alert Max INSTRUMENT sniffer MODEL/SERIAL # 56
 VARIANCE (IF ANY) YES NO TYPE - CATEGORY - INITIALS FF
 EMERGENCY CALL-IN PROCEDURE IN PLACE YES NO
 MECHANICAL VENTILATION METHOD(S) (Positive Pressure if Possible) FAN BLOWER
 PERSONAL PROTECTIVE EQUIPMENT (PPE) hard hat, harness
 RESCUE EQUIPMENT (IF ANY) tri-pod

IF ANY "NO" RESPONSES, ENTRY NOT ELIGIBLE FOR A C5 PERMIT (I.E., FULL PERMIT REQUIRED)

C5 CERTIFICATION BY ENTRY SUPERVISOR: I am familiar with the special requirements and conditions under which a permit-required space may be entered under the alternative procedures outlined in 8 CCR 5157 (c)(5) [C5 procedures]. The basis for this conclusion are inspections and testing (with a calibrated direct reading instrument, as noted above). I verify that all necessary pre-entry steps have been taken. I verify that the space is safe for entry.
 ENTRY SUPERVISOR AUTHORIZING ENTRY UNDER C5 CONDITIONS:

Fernando Ferrer  4-18-2023
 PRINT NAME SIGNATURE DATE

T



Tri-pod Set up