

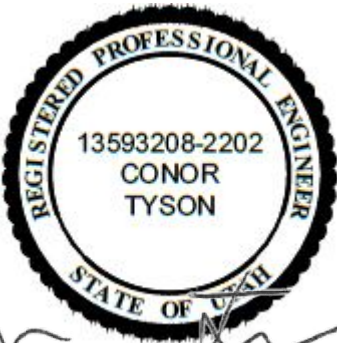


# JORDAN VALLEY WATER CONSERVANCY DISTRICT

## 5500 WEST 4700 SOUTH KEARNS IMPROVEMENT DISTRICT METER VAULT REHABILITATION

NOVEMBER 2023

| SHEET NO. | DRAWING NO. | SHEET TITLE                       |
|-----------|-------------|-----------------------------------|
| 1         | G-1         | COVER SHEET                       |
| 2         | G-2         | GENERAL NOTES                     |
| 3         | D-1         | DEMOLITION PLAN                   |
| 4         | M-1         | MECHANICAL AND ELECTRICAL PLAN    |
| 5         | M-2         | MECHANICAL AND ELECTRICAL DETAILS |



| REVISIONS |             |    |      |
|-----------|-------------|----|------|
| REV.      | DESCRIPTION | BY | DATE |
|           |             |    |      |
|           |             |    |      |
|           |             |    |      |
|           |             |    |      |
|           |             |    |      |



**JORDAN VALLEY WATER  
CONSERVANCY DISTRICT**

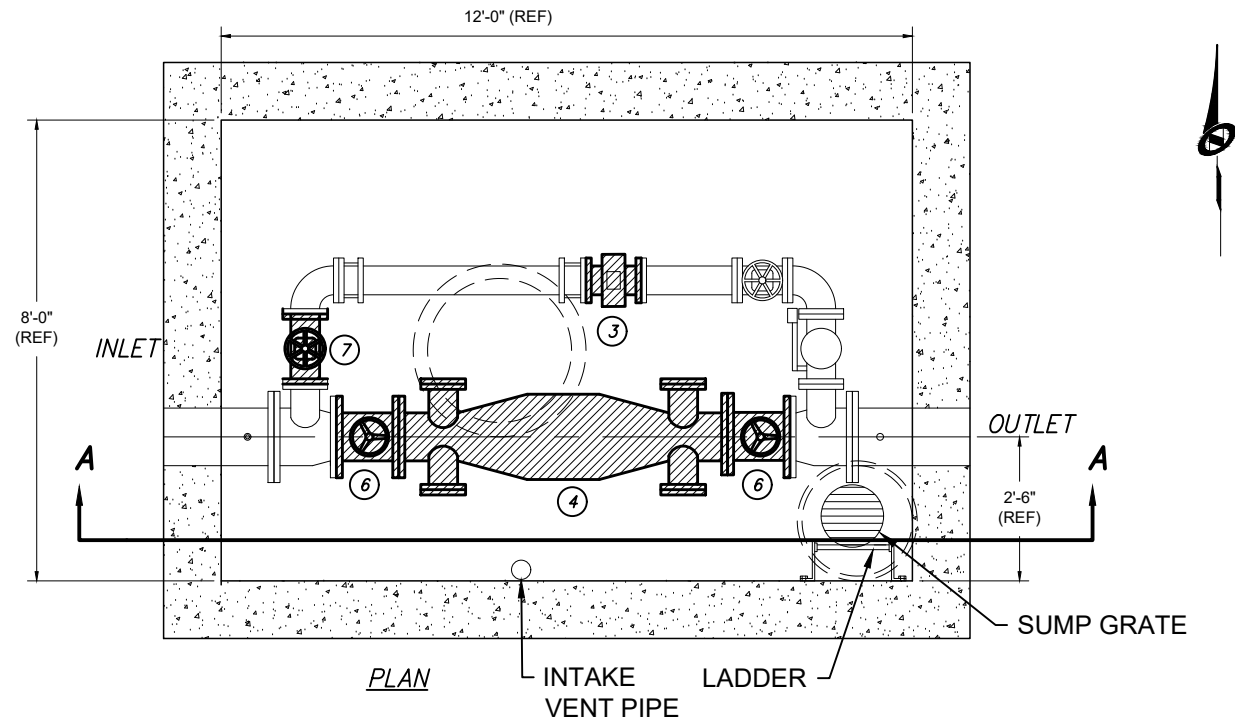
8215 South 1300 West  
West Jordan, UT 84088  
801-565-4300

|   |                              |
|---|------------------------------|
| LINE IS 1 INCH<br>AT FULL SIZE<br>(IF NOT 1" - SCALE ACCORDINGLY) | ORIGINAL<br>SIZE<br><b>B</b> |
| SCALE: NTS  |                              |
| DESIGN:   | CDT                          |
| DRAWING:  | CDT                          |
| PROJ. MGR:  | CDT                          |
| APPROVAL:   | CDT                          |

|   |                               |
|---|-------------------------------|
| 5400 WEST 4700 SOUTH METER VAULT REHABILITATION | DATE<br>11/17/2023            |
| COVER   | PROJECT NUMBER<br><b>4272</b> |
|   | DRAWING NUMBER<br><b>G1</b>   |
|   | SHEET NUMBER<br><b>1 OF 5</b> |
|   |                               |

T

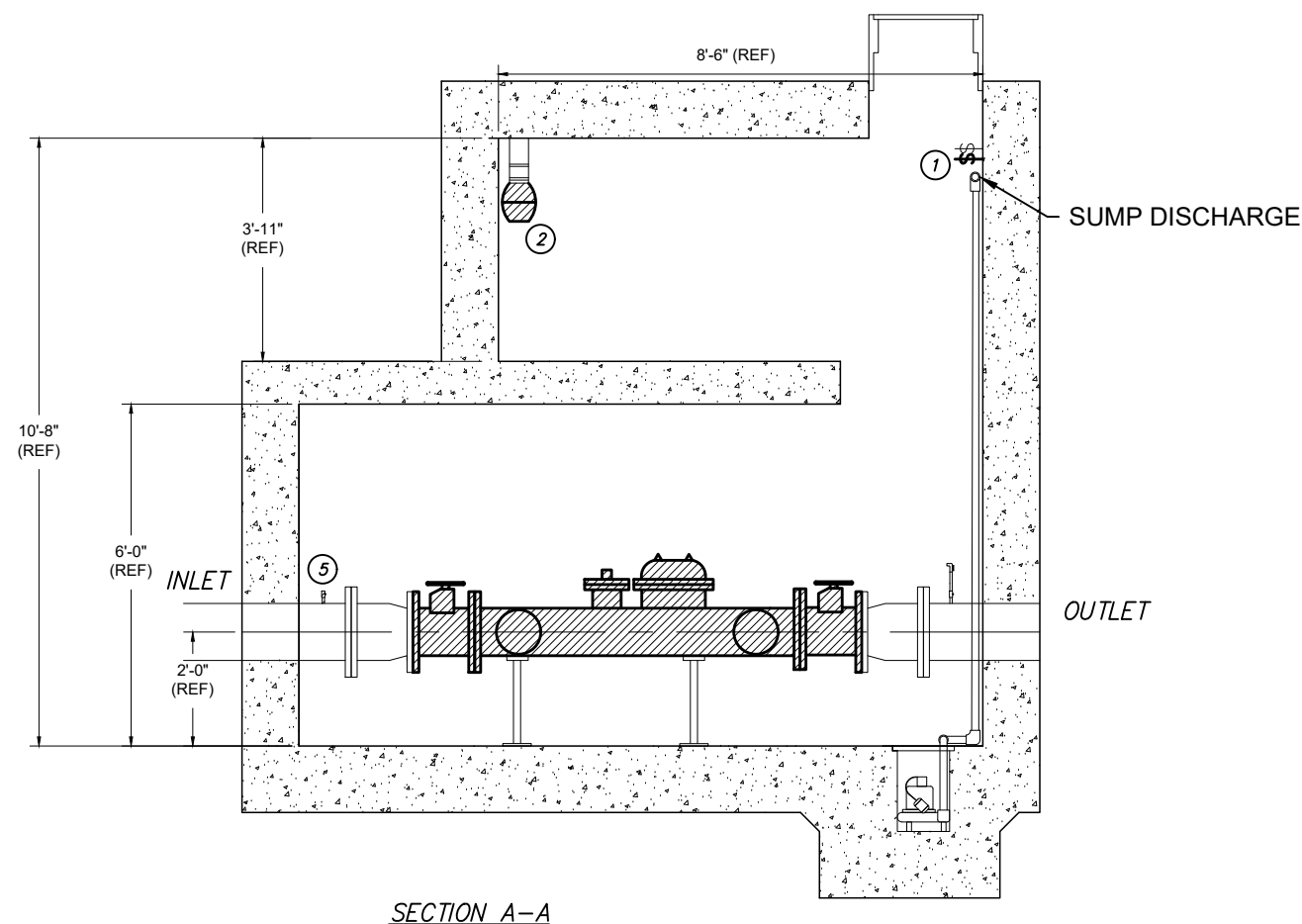
|                |            |
|----------------|------------|
| DATE           | 11/17/2023 |
| PROJECT NUMBER | 4272       |
| DRAWING NUMBER | G2         |
| SHEET NUMBER   | 2 OF 5     |



| EQUIPMENT TO DEMO |                        |      |
|-------------------|------------------------|------|
| NUMBER            | DESCRIPTION            | SIZE |
| 1                 | FAN SWITCH             | --   |
| 2                 | FAN                    | 4"   |
| 3                 | FLOW METER             | 6"   |
| 4                 | FLOW METER/CHECK VALVE | 10"  |
| 5                 | CORP STOP              | 1/2" |
| 6                 | GATE VALVES (2)        | 10"  |
| 7                 | GATE VALVES            | 6"   |

**NOTES:**

1. DEMO ALL EQUIPMENT MARKED WITH HATCH LINES IN DRAWING.
2. OWNER WILL DEPRESSURIZE PIPE AND DRAIN. OWNER CANNOT GUARANTEE DRIP-TIGHT SHUT OFF. CONTRACTOR MUST BE PREPARED FOR UP TO 5 GPM NUISANCE WATER.
3. DEMOLISH SALVAGE TO CONTRACTOR.



EXISTING PIPE CONDITION IN VAULT



| REV. | DESCRIPTION | BY | DATE |
|------|-------------|----|------|
|      |             |    |      |
|      |             |    |      |
|      |             |    |      |
|      |             |    |      |



**JORDAN VALLEY WATER**  
CONSERVANCY DISTRICT

8215 South 1300 West  
West Jordan, UT 84088  
801-565-4300

|   |                              |
|---|------------------------------|
| LINE IS 1 INCH<br>AT FULL SIZE<br>(IF NOT 1" - SCALE ACCORDINGLY) | ORIGINAL<br>SIZE<br><b>B</b> |
| SCALE: 1:40   |                              |
| DESIGN: CDT   |                              |
| DRAWING: CDT  |                              |
| PROJ. MGR: CDT  |                              |
| APPROVAL: CDT   |                              |

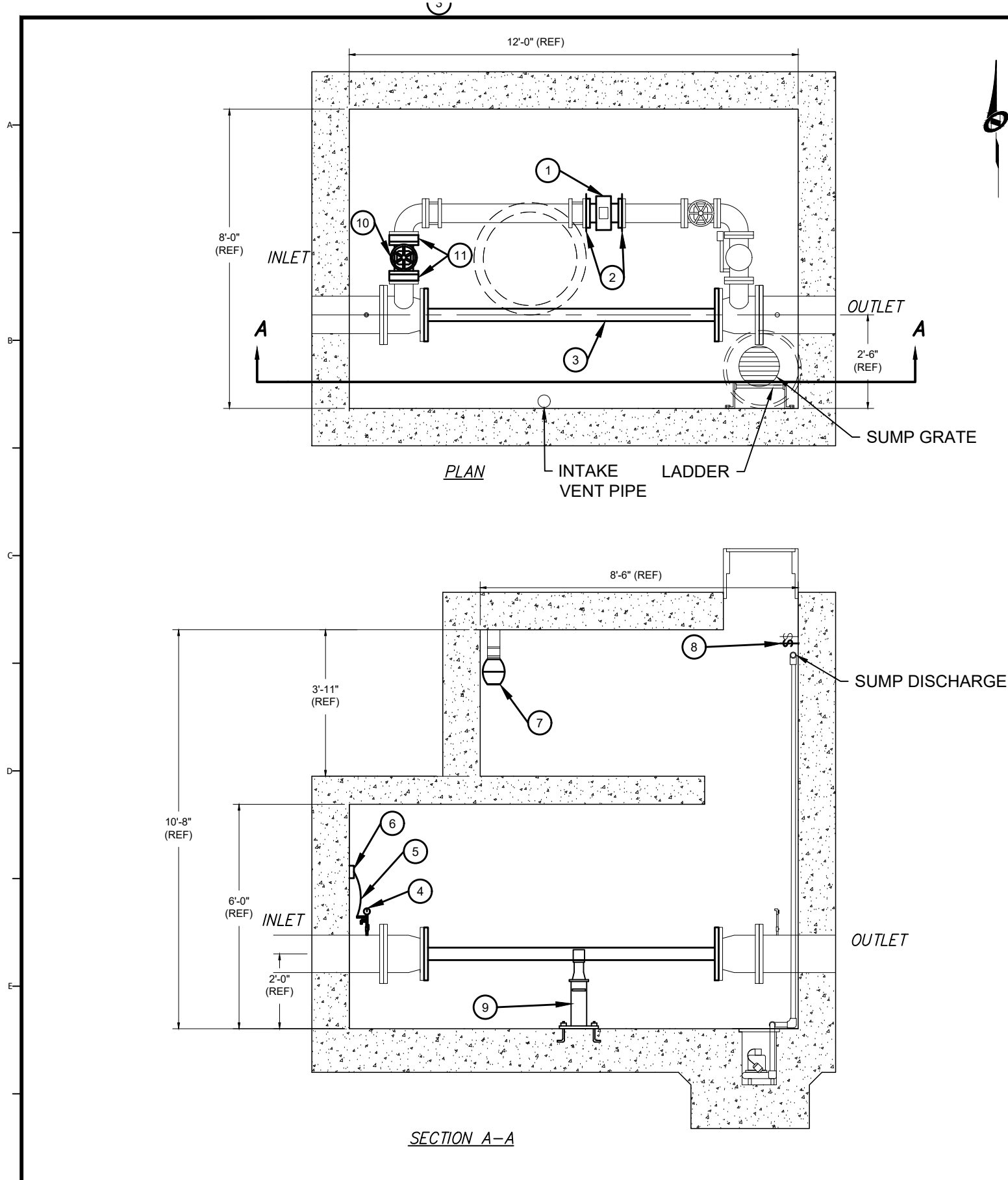
5400 WEST 4700 SOUTH METER VAULT REHABILITATION

DEMOLITION PLAN

DATE  
11/17/2023

PROJECT NUMBER  
**4272**  
DRAWING NUMBER  
**D1**  
SHEET NUMBER  
**3 OF 5**





| NEW EQUIPMENT |                                     |          |                  |  |
|---------------|-------------------------------------|----------|------------------|--|
| NUMBER        | DESCRIPTION                         | SIZE     | CONNECTION       | COMMENTS   |
| 1             | MAGNETIC FLOW METER                 | 6"       | CLASS 150 FLANGE | ROSEMOUNT 8750W OR E+H PROMAG W400. SEE NOTES                                    |
| 2             | FLOW METER GROUNDING                | 6"       | CLASS 150 FLANGE | SEE DETAIL M2-C  |
| 3             | SPOOL                               | 10" X 4" | CLASS 150 FLANGE | 4" STD WALL PIPE WELDED BETWEEN TWO 10" BLIND FLANGES. EPOXY LINED AND COATED    |
| 4             | INLET PRESSURE TEE ASSEMBLY         | 3/4"     | THREAD           | SEE DETAIL M2-A  |
| 5             | PRESSURE TRANSMITTER AND SENSE LINE | --       |                  | ROSEMOUNT 3051, 0-800 PSI, ANALOG OUTPUT. MANIFOLD NOT REQUIRED. SEE DETAIL M2-A |
| 6             | PRESSURE TRANSMITTER JUNCTION BOX   | --       |                  |  |
| 7             | VENTILATION FAN                     | 4"       | --               | FANTECH FR 100 CENTRIF. SEE DETAIL M2-E FOR WIRING.                              |
| 8             | FAN SWITCH                          | --       |                  | SEE DETAIL M2-D  |
| 9             | ADJUSTABLE PIPE SUPPORT             | --       | --               | SEE DETAILS M2-B   |
| 10            | GATE VALVE                          | 6"       | CLASS 150 FLANGE | CLOW VALVE 2639 OR MUELLER VALVE 2631  |
| 11            | SPACER FLANGES                      | 6"       | CLASS 150        | USE TO FIT GATE VALVE IN AVAILABLE LAY LENGTH                                    |

GENERAL NOTES:

- USE STAINLESS STEEL BOLTS AND NUTS
- ALL METAL PIPING, FITTINGS, AND VALVES, EXISTING AND NEW, SHALL BE COATED WITH A HIGH SOLIDS TWO COMPONENT EPOXY COATING SYSTEM. THE EPOXY COATING SHALL BE AMERON, AMERLOCK 400, SAFETY BLUE, OR APPROVED EQUAL.
- CLEAN AND DISINFECT ALL PIPING BEFORE PUTTING INTO SERVICE.
- ALL COMPONENTS IN CONTACT WITH CULINARY WATER SHALL BE NSF-61 APPROVED.

MAGNETIC FLOW METER NOTES:

- TO JWCD SUBMERSIBLE SPECIFICATIONS WITH MOD BUS 485.
- WITH REMOTE DISPLAY
- 150' MINIMUM CABLE, NO SPLICING. TO ACCOMMODATE FUTURE RELOCATION OF CABINET.
- IF ROSEMOUNT 8750W IS SELECTED, DA1 AND DA2 ON OUTPUT
- CONNECT USING EXISTING CONDUITS.
- CONNECTIONS IN RTU CABINET BY OWNER

ELECTRICAL NOTES:

- ALL NEW CONDUITS WITHIN METER VAULT SHALL BE GALVANIZED RIGID STEEL. MINIMUM SIZE OF CONDUIT TO BE 3/4".
- ALL FLEXIBLE CONDUIT SHALL BE LIQUIDTIGHT NON-METALLIC TYPE.
- NEW CONDUIT BODIES AND DEVICE BOXES SHALL BE CAST MALLEABLE IRON, TYPE FS OR FD.
- ALL CONDUCTORS SHALL BE STRANDED COPPER.
- ALL CONDUIT PENETRATIONS INTO JUNCTION BOXES OR ENCLOSURES SHALL USE THREADED WATER TIGHT HUBS (MYERS HUB).
- ALL WIRING DEVICES SHALL BE HEAVY DUTY, BACK WIRED ONLY. STRANDED CONDUCTORS SHALL NOT BE WRAPPED AROUND SCREWS, CRIMP LUGS SHALL BE USED.
- CONTRACTOR SHALL PROVIDE CONDUCTORS AND TERMINATIONS FOR A FULLY FUNCTIONAL SYSTEM.
- CONTRACTOR SHALL PROVIDE 5-FOOT SERVICE LOOP FOR ALL CONDUCTORS IN OWNER'S RTU CABINET. RTU INTERIOR COMPONENTS AND ASSEMBLY BY JWCD.



| REVISIONS |             |    |      |
|-----------|-------------|----|------|
| REV.      | DESCRIPTION | BY | DATE |
|           |             |    |      |
|           |             |    |      |
|           |             |    |      |
|           |             |    |      |
|           |             |    |      |

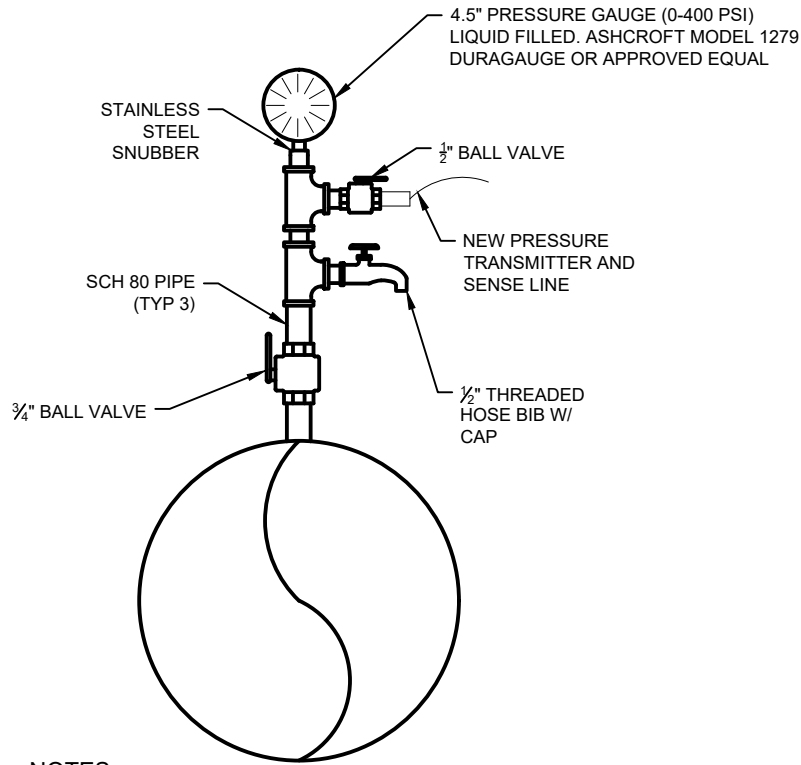


**JORDAN VALLEY WATER**  
CONSERVANCY DISTRICT  
8215 South 1300 West  
West Jordan, UT 84088  
801-565-4300

|   |                        |
|---|------------------------|
| LINE IS 1/8" AT FULL SIZE (IF NOT 1" - SCALE ACCORDINGLY) | ORIGINAL SIZE <b>B</b> |
| SCALE: 1:40   |                        |
| DESIGN:   | CDT                    |
| DRAWING:  | CDT                    |
| PROJ. MGR:  | CDT                    |
| APPROVAL:   | CDT                    |

|   |  |
|---|--|
| 5400 WEST 4700 SOUTH METER VAULT REHABILITATION |  |
| MECHANICAL AND ELECTRICAL PLAN                  |  |

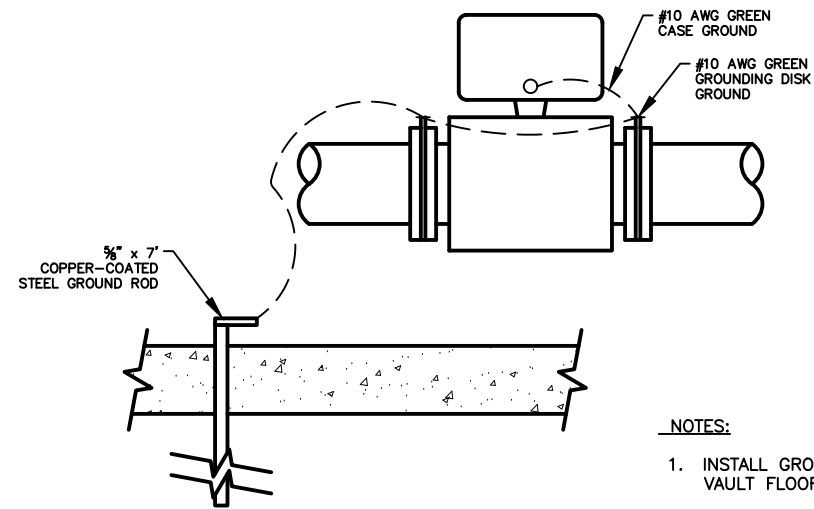
|                |            |
|----------------|------------|
| DATE           | 11/28/2023 |
| PROJECT NUMBER | 4272       |
| DRAWING NUMBER | M1         |
| SHEET NUMBER   | 4 OF 5     |



**NOTES:**

1. ALL PIPING, BALL VALVES, AND FITTINGS TO BE STAINLESS STEEL.

**A** INLET PRESSURE TEE ASSEMBLY DETAIL



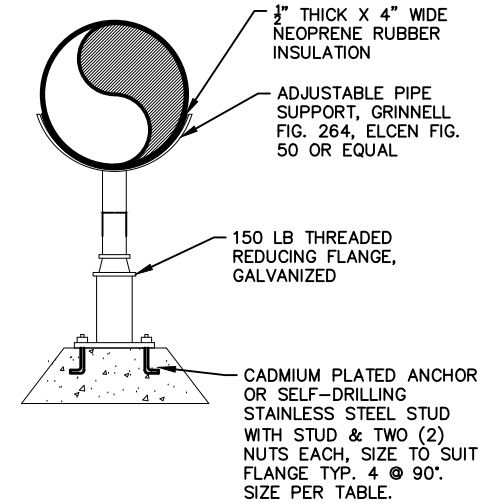
**NOTES:**

1. INSTALL GROUND ROD IN VAULT FLOOR
2. LOCATE GROUND ROD ON NON-MAINTENANCE ACCESS SIDE OF PIPE.
3. CRIMPED WIRE LUGS REQUIRED.

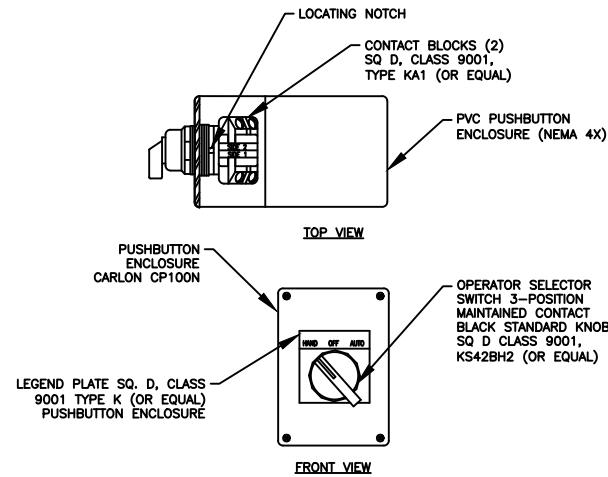
**C** METER GROUNDING DETAIL

**NOTES:**

1. PIPE SUPPORTS TO BE HOT DIP GALVANIZED AFTER FABRICATION.
2. FIELD APPLY GALVANIZED COATING TO EXPOSED THREADED SECTION.



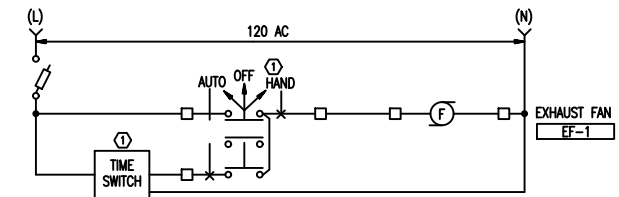
**B** ADJUSTABLE PIPE SUPPORT DETAILS



**NOTES:**

1. PROVIDE A HEAVY DUTY WATERTIGHT "HOA" SELECTOR SWITCH IN A NEMA 4 ENCLOSURE, NEAR THE VAULT ENTRANCE, ACCESSIBLE FROM MANHOLE.

**D** EXHAUST FAN HAND-OFF-AUTO SWITCH



**E** VAULT EXHAUST FAN CONTROL DIAGRAM



| REV. | DESCRIPTION | BY | DATE |
|------|-------------|----|------|
|      |             |    |      |
|      |             |    |      |
|      |             |    |      |
|      |             |    |      |



|  |                        |
|--|------------------------|
| LINE IS 1" INCH AT FULL SIZE (IF NOT 1" - SCALE ACCORDINGLY) | ORIGINAL SIZE <b>B</b> |
| SCALE: NTS   |                        |
| DESIGN: CDT  |                        |
| DRAWING: CDT   |                        |
| PROJ. MGR: CDT   |                        |
| APPROVAL: CDT  |                        |

5400 WEST 4700 SOUTH METER VAULT REHABILITATION

MECHANICAL AND ELECTRICAL DETAILS

DATE 11/17/2023

PROJECT NUMBER 4272

DRAWING NUMBER M2

SHEET NUMBER 5 OF 5