Oro Valley Water Utility Standards

Production Details

2021
ORO VALLEY WATER UTILITY

STANDARD DETAILS – PRODUCTION

2021 EDITION

PREFACE

The Oro Valley Water Utility Standard Design Details can be found online at:
https://www.orovalleyaz.gov/Government/Departments/Water-Utility/Potable-Water-
Standard-Specification

Tucson Water Standards Specifications and Details can be found online at:
www.tucsonaz.gov/water/spec-book

Pima County Association of Governments (PAG) Standard Specifications and Details for Public
Improvements can be found online at: http://apps.pagnet.org/standardsspecifications/

All or any part of the book may be downloaded in adobe file format. Oro Valley maintains a
current Engineering Directives link at the webpage with updates, changes, and additions to the
current specifications.

Users of these documents are requested to send any noted errors or omissions, as well as
comments and suggestions, for clarification or amendment of the Standard Specifications and
Details to the following address:

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RECOMMEND

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CONCUR

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Director of Oro Valley Water Utility
PRODUCTION STANDARD DETAILS

OVWU 100  24” ASME HINGED ACCESS HATCH
OVWU 200  5,000 GALLON HYDROPNEUMATIC PRESSURE TANK
OVWU 201  1” COMBINATION AIR RELEASE VALVE
OVWU 202  ¾” HOSE BIBB INSTALLED ON HP TANK HEAD
OVWU 203  4” TANK DRAIN ASSEMBLY
OVWU 204  AIR COMPRESSOR TO HYDRO TANK SYSTEM CONNECTION
OVWU 205  LIQUID LEVEL ASSEMBLY
OVWU 206  PRESSURE CONTROL ASSEMBLY HYDRAULIC CONNECTION
OVWU 207  PRESSURE GAUGE/ SWITCH
OVWU 208  RECIRCULATION ASSEMBLY
OVWU 209  SAFETY RELIEF VALVE
OVWU 500  AIR COMPRESSOR MOUNTING PAD AND ENCLOSURE
OVWU 501  COMBINATION AIR VALVE
OVWU 502  FLEXIBLE COUPLING AND HARNESS ASSEMBLY DETAIL
OVWU 503  OIL RESERVOIR ASSEMBLY
OVWU 504  PRESSURE CONTROL ASSEMBLY
OVWU 505  SAFETY SHOWER INSTALLATION DETAIL
OVWU 506  SECONDARY CONTAINMENT DISINFECTION BLDG.
OVWU 507  WELL PUMP AND BASE DETAILS
OVWU 550  COAX SURGE PROTECTOR INSTALLATION DETAIL
OVWU 551  CONTROL BUILDING INTRUSION DETAIL
OVWU 552  RESERVOIR CONTROL FLOAT DETAIL
OVWU 553  ELECTRICAL RACK INTRUSION DETAIL WITH CONCRETE BASE AND FIBERGRATE
OVWU 554  FLOWMETER TRANSMITTER DETAIL
OVWU 555  JUNCTION BOX INSTALLATION
OVWU 556  RADAR LEVEL TRANSDUCER DETAIL
OVWU 557  RADIO ANTENNA CONCRETE BASE DETAIL
OVWU 558  RADIO ENCLOSURE W/ EQUIPMENT
OVWU 559  TANK HATCH INTRUSION SWITCH DETAIL
OVWU 560  PRESSURE TRANSMITTER DETAIL
OVWU 700  DISINFECTION BUILDING AND SECONDARY CONTAINMENT INSTALLATION DRAWING
OVWU 701  ELECTRICAL FOR DISINFECTION BUILDING
OVWU 800  10’ X 10’ CONTROL BUILDING PLAN
OVWU 801  TYPICAL 5,000 GALLON HORIZONTAL TANK SUPPORTS
OVWU 802  TYPICAL 500 GALLON VERTICAL TANK SUPPORTS
OVWU 803  TYPICAL TANK WELDS
OVWU 804  VERTICAL 500 GALLON HYDROPNEUMATIC LOW PROFILE PRESSURE TANK
OVWU 900  SURVEY MARKER CONCRETE PAD
KEY NOTES:

1. 2" BLIND FLANGE
2. LIQUID LEVEL ASSEMBLY PER (DETAIL 0 ON SHEET 0).
3. PRESSURE GAUGE PER (DETAIL 0 ON SHEET 0).
4. TANK FOUNDATION. THIS IS TO BE DESIGNED PER TANK BY A CERTIFIED STRUCTURAL ENGINEER.
5. 3/4" HOSE BIBB PER (DETAIL 0 ON SHEET 0).
6. TANK SUPPORT PER (DETAIL 0 ON SHEET 0).
7. AIR COMPRESSOR INLET PER (DETAIL 0 ON SHEET 0).
8. 1" COMBINATION AIR RELEASE PER (DETAIL 0 ON SHEET 0).
9. NEW 24" DIA. ASME MANHOLE AT THE VERTICAL CENTER OF THE TANK PER (DETAIL 0 ON SHEET 0).
10. FLANGED OUTLET SHALL BE EITHER 8" OR 12".
11. 14" x 18" ASME MANHOLE
13. PRESSURE CONTROL ASSEMBLY PER (DETAIL 0 ON SHEET 0).
14. SAFETY RELIEF VALVE PER (DETAIL 0 ON SHEET 0).
15. LIFTING LUG PER (DETAIL 0 ON SHEET 0).
16. 90-DEGREE BEND, DIMENSIONED AS SHOWN.
17. 3/8" STEEL PLATE REINFORCING PAD PER (DETAIL 0 ON SHEET 0).
18. 4" TANK DRAIN ASSEMBLY PER (DETAIL 0 ON SHEET 0). FOR HIGHER PROFILE TANKS PER (DETAIL 0 ON SHEET 0).
19. 1/4" STEEL PLATE BAFFLE, CONTINUOUSLY WELDED ON BOTH SIDES. (SEE NOTE 0).
20. RE-CIRCULATION LINE PER (DETAIL 0 ON SHEET 0).

GENERAL NOTES:

A. ALL LIQUID LEVEL ASSEMBLY COUPLINGS SHALL BE ORIENTED PARALLEL TO THE CENTERLINE OF THE LONG AXIS. HOLD DIMENSION MUST BE ACCURATE TO 2" BEYOND THE COUPLING CONNECTION.

B. ALL HYDROPNEUMATIC TANKS SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO THE CURRENT REQUIREMENTS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) CODE FOR UNIFIED PRESSURE VESSELS, SECTION VIII, DIVISION 1.

C. ALL HYDROPNEUMATIC TANKS SHALL BE COATED WITH 100% SOLIDS EPOXY COATING TO COMPLY WITH THE NEW NSF/ANSI 61 STANDARDS EFFECTIVE IN 2023 AND NSF 60.

D. SITES THAT HAVE SEDIMENTATION PROBLEMS (TYPICALLY WELLSITES) SHOULD HAVE BAFFLES OR OTHER APPROPRIATE SEDIMENTATION MITIGATION.

E. ALL TANK APPURtenANCE CONNECTIONS WILL BE 2" SHELL NOZZLES PER (DETAIL 0 ON SHEET 0).

F. STAINLESS STEEL BOLTS, WASHERS AND NYLON INSULATION BETWEEN WASHER AND DISSIMILAR METAL.

G. FOR ALL STAINLESS STEEL THREADED PIPE, ALL THREADED STAINLESS STEEL CONNECTION SHALL USE POLY-TEMP MD PTFE MEDIUM DENSITY ANTI-SEIZE TAP OR APPROVED EQUAL.
**NOTES:**

1. **COMBINATION AIR VALVE SHALL BE AN A.R.I. PER OVWU SPECIFICATIONS OR ENGINEER APPROVED EQUAL (NYLON BODY ONLY). THE CORRECT SEATS NEED TO BE USED TO AVOID LEAKING.**

2. **SCREEN SHALL BE 16 GAUGE STAINLESS STEEL 18 x 18 MESH W/.009 WIRE 150 PSI.**

3. **ALLOW ENOUGH SPACE FOR AIR VALVE TO BE REMOVED INSTALLED WHEN APPLICABLE.**

4. **ALL PIPE FITTINGS SHALL BE 304 S.S.**

5. **5/8” x 2-1/2” 304 S.S. BOLTS AND NUTS WITH ZYLON COATING ON NUTS.**
NOTES:

1. ALL TANK APPURtenANCE CONNECTIONS WILL
   BE 2” SHELL NOZZLES PER (DETAIL 0 ON SHEET 0).

2. DIELECTRIC BUSHINGS TO BE INSTALLED AT ALL
   DISSIMILAR METAL CONNECTIONS.

3. TYPE OF METAL USED FOR FLANGE AND ALL
   ACCESSORIES MUST BE BASED ON THE PARENT
   METAL OF THE APPURtenANCES. STAINLESS STEEL
   SHALL NOT BE USED ON BRASS APPURtenANCES
   AND VICE VERSA.

4. ALL PIPE FITTINGS SHALL BE 304 S.S.

5. 5/8” x 2-1/2” 304 S.S. FLANGE BOLTS AND NUTS
   WITH ZYLON COATING ON NUTS.
NOTE:
1. ALL PIPE FITTINGS SHALL BE 304 S.S.
1. System shall have a "Genie" Unloader (Model: Grainger P/N: 5A703) or approved equal ONLY.

2. For cage details see (Detail 0 on Sheet 00).

3. 1/2" 304 Stainless Steel Fllex hose or approved equal.
   (Harrington P/N 04787075-24 1/4 x 1/4 Female Swivel on both ends)

4. Continue piping as needed for site conditions. Check valve, gauges and
   pressure should run horizontally near ground level. Unistrut with pipe
   clamps shall be used for pipe support as needed.

5. Unistrut with pipe clamps shall be used for pipe support as needed.

6. All pipe fitting shall be 304 S.S.
NOTES:

1. STAINLESS STEEL STILLING WEL W/LEVEL GLASS SIGHT GAUGE; PIPE CAP W/1/2" PLUG; BLIND 
   FLANGE W/1/2" NPT HOE W/1/2" PLUG

2. STILLING WEL SHALL BE MOUNTED PLUMB

3. ALL FITTINGS ON LIQUID LEVEL ASSEMBLY (EXCEPT Y-STRAINER) SHALL BE 304 STAINLESS STEEL

4. Y-STRAINER REPLACEMENT SCREEN 304 STAINLESS STEEL McMASTER-CARR MODEL #4745K55 OR APPROVED EQUAL

5. AIR COMPRESSOR "TURN ON" "TURN OFF" WILL BE PROVIDED BY OVWU (P.M./ENGINEER)

6. VEGA RADAR LEVEL TRANSMITTER MODEL: VEGAPULS 64 P/N PS84.FXTBAHXX.COM OR APPROVED EQUAL

7. ALL PIPE FITTING SHALL BE 304 S.S.

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ISSUED: 09/20
REVISED: 04/21

STANDARD DETAIL

LIQUID LEVEL ASSEMBLY

DETAIL NO. OVWU-205

SHEET 1 OF 1
(ARMACELL AP/ARMAFLEX) BLACK LAPSEAL
(ARMACELL ARMATUFF) LAMINATED SHEET
OR ENGINEER APPROVED EQUAL

1/2" S.S PIPE

1/2" S.S UNION
SEE NOTE 2

1/2" S.S
BALL VALVE

2" SHELL NOZZLE

1/2" x 90° S.S BEND
1/2" S.S PIPE
1/2" HPA
TO PRESSURE
CONTROL ASSEMBLY

2" x 1/2" REDUCING BUSHING

NOTES:

1. SEE (DETAIL 1 ON SHEET 00) FOR CONTINUATION OF ASSEMBLY.

2. A FLEXIBLE UNION, OR COMBINATION OF A FLEXIBLE MATERIAL
AND A UNION SHALL BE INSTALLED TO ELIMINATE VIBRATION
TO THE PRESSURE CONTROL ASSEMBLY.

3. ALL PIPE FITTINGS SHALL BE 304 S.S.
NOT TO SCALE

NOTES:

1. DIMENSION AS REQUIRED. TO ALLOW SWITCHES/GAUGES TO CLEAR TANK END WHEN INSTALLED OR REMOVED.

2. USE THE CORRECT GAUGE RANGE PER THE TANK PRESSURE RATING. I.E. 0-200 FOR A TANK RATING 150 PSI. (MODEL: GRAINGER P/N 30ZV85)

3. 4" LARGE FACED, GLYCERIN FILL GAUGES SHOULD BE INSTALLED WHEN APPLICABLE.

4. ALL PIPE FITTINGS SHALL BE 304 S.S.

PRESSURE SWITCH/GAUGE

3/4" x 1/4" REDUCING BUSHING

3/4" TEE WITH 3/4" PLUG
2" x 3/4" REDUCING BUSHING
2" SHELL NOZZLE

3/4" CORP. VALVE
3/4" TEE

3/4" BALL VALVE
3/4" GATE VALVE

3/4" x 90° BEND
3/4" CHECK VALVE
(150# POUND SPRING LOADED TEFLOFON DISC)

FLOW
FLOW METER

3/4" UNION

EXISTING
GRADE

TO WATER SOURCE

NOTES:
1. RECURRENT ASSEMBLIES ARE ONLY TYPICALLY USED ON SINGLE OUTLET TANKS OR SITES THAT HAVE MULTIPLE HYDROPNEUMATIC TANKS. THIS WOULD TYPICALLY BE INSTALLED IN THE PLACE NOTED ON SHEET 00 OR AS SPECIFIED BY ENGINEER.

2. ALL PIPE AND FITTINGS SHALL BE 304 S.S.

3. SPECIFICATION 0000 FOR 2"Ø OR LESS INSULATION.
1/2" BRASS 3-WAY BALL VALVE
1/2" KINGSTON SAFETY RELIEF VALVE (TYP.)

2" x 1/2" REDUCING BUSHING
1/2" NIPPLE

2" SHELL NOZZLE

TANK

NOTES:

1. VALVE SET TO 175 PSI (MIN.) FOR TYPICAL 5,000 GALLON HORIZONTAL HYDRO TANK.

2. MINIMUM PRESSURE VALUES SHALL BE SET BASED ON TANK SIZE.
### KEY NOTES

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>1/8” STEEL PLATE</td>
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<td>2.</td>
<td>1/8” x 13 GA. FLATTENED EXPANDED METAL</td>
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<td>3.</td>
<td>1” x 1” x 1/8” ANGLE IRON THROUGHOUT.</td>
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<td>4.</td>
<td>2” x 2” x 1/4” ANGLE IRON (2), W/HELD REBAR ANCHORS (4), CAST INTO CONCRETE.</td>
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<td>5.</td>
<td>1/8” DIA. ROUND STEEL STOCK</td>
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<td>6.</td>
<td>2” x 2” x 1/4” ANGLE IRON</td>
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<tr>
<td>7.</td>
<td>24” x 28” x 8” CONCRETE PAD W/ 6 x 6 10/10 WWF CENTERED (LESS 10” CONCRETE)</td>
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<td>8.</td>
<td>3” x 4” x 0.12” BLANK STEEL, FULL SERVICE S.S. Hinges W/TIGHT RING (HEAVY WEIGHT)</td>
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<td>9.</td>
<td>2” x 2” x 1/4” ANGLE IRON</td>
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<td>10.</td>
<td>DRILL (2) 1/2” HOLES &amp; NOTCH THRU BOTTOM OF ANGLE TO ACCOMMODATE AIR, ELECTRICAL LINES TO BE ARRENGED IN PLACE (SEE NOTE 1)</td>
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<tr>
<td>11.</td>
<td>VIBRATION ISOLATION PADS, PER MANUFACTURER’S RECOMMENDATIONS, INSTALLED BETWEEN AIR COMPRESSOR AND CONCRETE PAD (SEE NOTE 3)</td>
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### NOTES

A. LEAVE NO OPENING LESS THAN 1/8” TO PREVENT NESTING OF RODENTS.

B. TURBO AIR COMPRESSOR OR ENGINEER APPROVED FOOT-OR BASE DISH SHALL BE INSTALLED.

C. SPECIFIC COATING REFER TO DIVISION SPECIFICATIONS.

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**ISSUED:** 09/20  
**REVISIONS:** 04/21  
**STANDARD DETAIL:** AIR COMPRESSOR MOUNTING PAD AND ENCLOSURE  
**DETAIL NO.:** OVWU-500
NOTES:

1. COMBINATION AIR VALVE SHALL BE AN A.R.I. PER OVWU SPECIFICATIONS (NYLON BODY ONLY) OR ENGINEER APPROVED EQUAL.

2. SEE SPECIFICATIONS FOR SHELL PAINT COATING.

3. ALL PIPE FITTINGS SHALL BE 304 S.S.
<table>
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<tr>
<th>SIZE</th>
<th>PCD</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>HOLE DIA</th>
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<td>4-1/4&quot;</td>
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KEYNOTES:

A (1) 1/4" 90° STREET ELBOW
B (2) 1/4" x 1" LONG STRAIGHT NIPPLE (1) 1/4" COUPLING
C (1) 1/4" BOSTON BOX W.O.C. 150 W.S.P. OIL RATED
   SMALL VALVE WITH MINI-HANDLE
D (1) 1/4" x 2" LONG STRAIGHT NIPPLE
E SOLNDOIO VALVE ASCO REDHAT
   (P/N: HT826H2022)
F (1) 1/4" N.P.T. x 1/4" COMP. FITTING MALE ELBOW
G (1) 1/4" COPPER TUBING WITH COMPRESSION FITTINGS
   TO BE CONNECTED TO (A), AND OIL LUBRICATION
   CONTROL SYSTEM
H MAGNETIC OIL FILTER PROFESSIONAL PRODUCTS (P/N 381332)
   1/4" N.P.T. FEMALE BOTH END OF INLET/OUTLET
   (TOOL VALVE FIT/N: N473-03)
I (1) 1/4" COPPER TUBING WITH COMPRESSION FITTINGS
   CONNECTED TO OIL INDUSTRIES
   AND ONE OIL LUBRICATION INLET
   (TOOL VALVE FIT/N: N473-03)
J FABRICATED STAINLESS STEEL OIL RESERVOIR
K 8" x 8" x 8" EXTERIOR ELECTRICAL ENCLOSURE BOX WITH LATCH SHALL BE JR RATING.
   THERMO-PROBE BOX (PART NO. H261-4000)
   TEMPCO THERMOSTAT BOX (PART NO. T538-1000)
L 1/8" x 10" x 20" STEEL BACKING PLATE WELDED TO RECTANGULAR STEEL TUBING
M 1/4" x 4" x 2" RECTANGULAR STEEL TUBING
N 72" x 40" x 4" CONCRETE PAD
O (4) HILTI 3/8" W x 3" HFA INSERTS
P 1/4" x 12" x 6" STEEL MOUNTING PLATE
Q (1) 1/4" N.P.T. FEMALE STAINLESS STEEL FITTING HALF COUPLING (TEMPCO)
   CARTRIDGE-HEATER NO. 100220007 (FITTING FLUSH AT BOTTOM OF OIL RESERVOIR TANK)
R 3/8" GALVANIZED U-BOLT
KEYNOTES:

A. LI INDUSTRIES VENTED LIQUID LEVEL GAUGE, MODEL: G214-4
B. BREATHER VENT, FILLER CAP MORRISON BROTHERS 179-3" FEMALE ALUMINUM HINGED LOCKABLE FILLER CAP
C. 3" N.P.T MALE STAINLESS STEEL NIPPLE
D. 1/4" x 4" x 2" RECTANGULAR STAINLESS STEEL TUBING
E. SCHEDULE 10-12" DIAMETER 304 STAINLESS STEEL RESERVOIR
F. (1) 1/4" N.P.T FEMALE STAINLESS STEEL HALF COUPLING (FITTING FLUSH AT BOTTOM OF OIL RESERVOIR TANK)
G. (1) 1/4" N.P.T FEMALE STAINLESS STEEL COUPLING (FITTING PENEPRATES 1" FROM BOTTOM OF OIL RESERVOIR TANK)
H. 1/2" THREADED N.P.T FEMALE STAINLESS STEEL HALF COUPLING
I. 1/4" x 6" x 6" STAINLESS STEEL MOUNTING FLANGE PLATE
J. (4) 1/4" STEEL BOLTS WASHER AND NUT
K. 2" STAINLESS STEEL PLUG
L. 2" N.P.T FEMALE STAINLESS STEEL HALF COUPLING
M. (1) 3/4" N.P.T FEMALE STAINLESS STEEL HALF COUPLING FITTING FLUSH AT BOTTOM OF OIL RESERVOIR TANK WITH PLUG

ISSUED: 10/20
REvised: 04/21
STANDARD DETAIL OIL RESERVOIR ASSEMBLY
DETAIL NO. OVWU-503
SHEET 2 OF 3
NOTES:
1. ALL FITTING ARE 304 STAINLESS STEEL
2. SEE FOR RESERVOIR DIMENSIONS
3. AFTER FABRICATION EXTERIOR OF OIL RESERVOIR SHALL BE POWDER COATED WHITE
4. OIL RESERVOIR MATERIAL/FITTINGS 304 S.S.
NOTES:

1. ALL HOLES IN BASE SHALL BE SEALED ONCE CONDUITS HAVE BEEN INSTALLED.

2. ALL HOLES IN CABINET BASE (EXCEPT 3/8"Ø FOR U-BOLTS) SHALL BE FIELD LOCATED AND DRILLED ACCORDINGLY.

3. PRESSURE TRANSMITTER (MODEL: ROSEMOUNT P/N: 3051TCJ3A2B21AM404S5Q4)

4. PRESSURE SWITCH (GRAINGER P/N: 5LB45) OR APPROVED EQUAL.

5. ALL PIPE FITTINGS SHALL BE 304 S.S.
30"W x 24"H x 12"D FRONT AND REAR ACCESS 12 GAUGE ENCLOSURE, NEMA 3R/4 RATED. ENCLOSURE SHALL HAVE SIDE ON BOTTOM HINGED FULL LENGTH AND WIDTH FRONT & REAR DOORS, WITH DOOR SUPPORT BRACKET AND LATCHING, NON-KEYED DOOR HANDLES.

2" x 2" x 3/4" HARD RUBBER MOUNTING BLOCK

1/2" x 6" SS NIPPLE THRU HOLE IN CABINET BASE (ATTACH TO #)

LENGTH SHALL BE ADJUSTED AS REQUIRED TO ALLOW OPERATION OF BALL VALVE.

2" SCH80 40 ST PIPE (WELD TO CABINET BOTTOM)

CERTIFIED STRUCTURAL ENGINEER

1/2" x 90° 304 S.S. BEND.

2-WAY VALVE MANIFOLD (MODEL: SWAGELOK P/N: SS-V2BFB).

PRESSURE TRANSMITTER (SEE NOTE 3).

5/16" DIA. U-BOLT (LENGTH AS REQUIRED).

1/2" TEE 304 S.S.

1/2" TO 1/4" 304 S.S. REDUCING BUSHING.

PRESSURE SWITCH.

CLASS "B" CONCRETE FOUNDATION.

1/2" 304 S.S. NIPPLE.

1 FT OF 1/2" STAINLESS STEEL HOSE ASSEMBLY W/STAINLESS STEEL WIRE BRAIDED COVER. HOSE SHALL BE AS MASTERCARR #2733643.

PIPE 316 S.S. OR APPR EQUIVALENT.

ARMACELL AP/ARMADILLO BLACK LAPSEAL WITH INSUL-MATE ALUMINUM JACKETING PIPE INSULATION WITH FACTORY-APPLIED ALL SERVICE VAPOR BARRIER.

SURGE SUPPRESSOR (MODEL: JOSLYN P/N: 166906).

10" x 15" x 1/4" STL PLATE WELDED TO TOP OF 2" SUPPORT POST AND BOLTED TO (1).

CONDUIT TO CONTROL SYSTEM THRU HOLE IN CABINET BOTTOM.

2-WAY VALVE BLEED PORT, W/90° ELBOW AND 1/2" BALL VALVE.

1/2" NIPPLE 304 S.S., LENGTH AS REQUIRED.

1/2" STAINLESS STEEL BALL VALVE.

1/2" x 3/4" 304 S.S. NIPPLE (LENGTH SHALL BE ADJUSTED AS REQUIRED).

1/2" NIPPLE 304 S.S., 1/2" x 90° 316 STAINLESS STEEL BEND, 1/2" S.S.

PIPE, WITH 16 GAUGE BRONZE OR S.S. INSECT SCREEN.

1" (ARMACELL/ARMADILLO) SELF ADHERING ROLL/SHIELD INSULATION SECURE TO COVER PER MANUFACTURER'S INSTALLATION RECOMMENDATION (TYP 5 SIDES-ALL EXCEPT BOTTOM OF INTERIOR).

EXTERIOR PAINTED WHITE.

LOUVER AND FILTER, HOFFMAN MODEL NO.'S AWK44 AND 4FLT44.

1-5/8" UNISTRUT CHANNEL, SECURE TO ENCLOSURE WITH TWO 3/8" x 1-5/8" BOLTS WITH SPRING NUTS. UNISTRUT SHALL BE EMBEDDED IN AN 6" x 6" x 6" CONCRETE BASE.

1/2" HOLE IN ENCLOSURE SIDE
KEYNOTES:

1. HAWS MODEL 300.155-8127C
   OR APPROVED EQUAL USE ONLY
   MANUFACTURER APPROVED PARTS
2. SHOWER HEAD
3. PULL ACTUATOR
4. EYEWASH CATCH BASIN
5. PUSH PLATE
6. DOUBLE STRAP SERVICE CLAMP
7. CORPORATION STOP
8. 1-1/2" TYPE K COPPER PIPE
9. 45° BEND
10. 1-1/2" x 1-1/4" STAINLESS STEEL MPT. REDUCERS
11. TYPE 2 METER BOX
12. 1-1/4" STAINLESS STEEL BALL VALVE
    (MIN 2' ABOVE GRAVEL)
13. 1-1/4" BRONZE BODY PRV (SET AT 60 PSI)
14. 1-1/4" x 18" BRASS PIPE
15. 1-1/4" BRASS UNION
16. BRASS OR COPPER PIPE ONLY IN METER BOX
17. 1-1/2" SCH. 80 PVC
18. 1-1/4" STAINLESS STEEL UNION PVC TO STAINLESS STEEL PAINT
    ABOVE GROUND PVC (GRAY Primer, 80 Paint; PVC SLEEVE TO COVER PVC WATER LINE)
19. 1-1/4" STAINLESS STEEL STEEL SUPPLY LINE
20. ADD 1-1/4" STAINLESS STEEL TEE & CLOSE NIPPLE FOR MODIFIED FEED
21. UNDISTURBED SOIL OR COMPACT TO 95% MIN. OF ASTM D 698
22. GRAVLED PER SPECIFICATIONS
23. 4" OF 3/4" GRAVEL BOTTOM OF METER BOX
24. SECURE WITH BOLTS (3) BOLTS TO BE STAINLESS STEEL
    W/ANTI-SEIZE APPLIED
25. SAFETY SHOWER BASE PAD.(SEE DETAIL 4 THIS SHEET)

PIPE INSULATION

A. ARMACELL AP/ARMAFLEX BLACK LAP SEAL TUBE INSULATION SHALL MEET
   ASTM C547. INSULATION SHALL BE NONCOMBUSTIBLE;
   1. 1" THICK INSULATION w/K-VALUE NOT GREATER THAN 0.27 @ 75°F
   2. MAXIMUM SERVICE TEMPERATURE: 850°F (454°C)
B. FIELD APPLIED JACETS (FOR ARMACELL AP/ARMAFLEX BLACK LAP SEAL TUBE):
   1. ARMATURE ALUMINUM JACKET: 0.018 INCH (0.045 MM) THICK SHEET,
      EMBOSS END Polyethylene CAP JOINTS AND 2
      INCH (50MM) TAPS, DE SHAPED FITTING COVERS WITH
      FACTORY ATTACHED PROTECTIVE LINER

ISSUED:
09/20

REVISED:
04/21

STANDARD DETAIL

SAFETY SHOWER INSTALLATION DETAIL

DETAIL NO.
OVWU-505

SHEET 1 OF 2
**KEYNOTES:**

1. GRAVLED PER SPECIFICATIONS
2. UNDISTURBED SOIL OR COMPACT TO 95% MIN PER ASTM B99
3. CLASS 'B' CONCRETE
4. THREADED INSERTS LOCATION AND SIZE TO MATCH EXISTING SHOWER BASE. THREADER INSERT MAY BE CASTED IN PLACE OR DRILLED IN.
5. 3/4" CHAMFER
6. 5-#3 BARS @ 4" O.C. BOTH WAYS

**DISINFECTION PIPING NOTES:**


2. THE CONSTRUCTION CONTRACTOR'S PROJECT MANAGER SHALL INSURE THAT THE TANK AND PIPING SUPPLIER IS FURNISHED A COPY OF THIS SET OF THE PLANS SO THAT HE MAY PLACE AN ORDER FOR ALL PARTS NEEDED.

3. THE CONSTRUCTION CONTRACTOR'S PROJECT MANAGER SHALL NOTIFY THE COMPANY SUPPLYING THE TANK AND PIPING PACKAGE AT THE START OF CONSTRUCTION OF THIS PROJECT TO BE PREPAID TO INSTALL THE TANK AND PIPING PACKAGE ON A DATE AS SPECIFIED BY THE CONTRACTOR RESPONSIBLE FOR THIS PROJECT. CONSTRUCTION OF THE TANK AND PIPING CONTRACTOR SHALL BE ALLOWED A MINIMUM OF 3 DAYS TO COMPLETE THE INSTALLATION.

4. THE TANK AND PIPING PACKAGE SHALL BE INSTALLED AFTER THE DISINFECTION BUILDING, DISINFECTION CONTAINMENT VAULT, INJECTION POINT (IF REQUIRED), INTERCONNECTING SECONDARY CONTAINMENT PIPING, AND ELECTRICAL (IF REQUIRED) HAVE BEEN INSTALLED BY THE CONSTRUCTION CONTRACTOR AND ACCEPTED BY THE OVWU PROJECT MANAGER.
NOTES:

1. The Contractor shall install a 3/4" MNPT fabricated injection point (furnished by owner) into the existing pipe tap reducer (see #1 below). Cut length of diffuser such that the diffuser terminates at the center of the water pipe.

2. The Contractor shall install a 3/4" PVC SL-SL TRU-UNION BALL VALVE

3. Install a 1" MNPT x 3/4" FNPT STAINLESS STEEL BUSHING INTO THE THREAD-0-LET.

4. 1-1/2" WYE FITTING AND 45° ELBOW, DISCHARGE HORIZONTAL TO SUMP, POINT FITTING UPWARD. TERMINATE AT FRONT OF VAULT NEAR CENTER.

5. 1-1/2" SCH. 80 PVC LONG RADIUS (ELECTRICAL) ELBOW. OPTION: THE CONTRACTOR MAY BEND THE PIPE USING HEAT. THE MINIMUM BENDING RADIUS SHALL BE 180 D.

6. 1-1/2" PVC SCH. 80 PIPE. TERMINATE AT TOP OF WATER PIPE WITH LOOSE CAP (DO NOT GLUE).

7. CHEMICAL PIPING, CONTAINMENT BOX, AND VALING AND PIPING BY OTHERS.

8. ALL PVC PIPE TO BE SCHEDULE 80. PAINT YELLOW ALL ABOVE GROUND PIPE TO 18" BELOW GRADE.

9. CHEMICAL INJECTION POINT ON WATER PIPE

10. CORE DRILL 1-1/2" HOLE IN VAULT. SEAL SPACE BETWEEN PIPE AND CORE DRILLED OPENING WITH STAINLESS WIRE SNAP SEAL MODULAR SEAL 1/2"-3/4"., WITH EPDM (BLUE) SEALS, COMPOSITE PRESSURE PLATES, AND 316 STAINLESS STEEL BOLTS AND NUTS.

11. PRESSURE TEST THE 1-1/2" SCHEDULE 80 PVC LINE (SECONDARY CONTAINMENT) FOLLOWING PROCEDURES OUTLINED IN THE 2003 UPC FOR GRAVITY SEWER LINES. REPAIR LEAKS AND RE-TEST. TESTING MUST BE WITNESSED AND ACCEPTED BY THE OWVU INSPECTOR.

12. 1" THREAD-0-LET

13. INSTALLATION OF DISINFECTION TUBING BY OTHERS.

14. DISINFECTION CONTAINMENT VAULT, FURNISHED BY OWVU, INSTALLED BY CONTRACTOR.

15. 1-1/2" SCHEDULE 80 PVC TERMINATE PVC AT THE INJECTION POINT ON THE WATER LINE, ALIGNED WITH THE INJECTION POINT AND 10" FROM THE FACE OF THE INJECTION WELL 0-LET TO THE CENTER LINE OF THE PVC. INSURE THE INJECTION WELL 0-LET IS INSTALLED IN THE WATER LINE BEFORE INSTALLING THE 1-1/2" PVC SECONDARY CONTAINMENT.
CONSTRUCTION NOTES:

1. The configuration of the disinfection building and disinfection containment vault are shown on this plan sheet. Shown on this plan sheet are details for installation of the disinfection building and vault, and secondary containment for the chemical line from the pump to the point of injection of the chemical at the water line.

2. Equipment shall be installed where shown on the mechanical plan.

3. The disinfection containment vault shall be provided by O.V.W.U. It is the contractor's responsibility to pick up the disinfection containment vault at O.V.W.U., deliver it to the job site, and install it where indicated on the mechanical drawings. The disinfection building may be attached to the vault.

4. The disinfection building shall be attached to the disinfection containment vault. The contractor shall separate the building from the vault before transporting to the job site. Save the gaskets. The disinfection building shall not be laid on its side at any time.

5. O.V.W.U. will be responsible for the physical condition of the building and vault until the contractor picks up those items for delivery to the job site. At that time the contractor shall be responsible for any damage to the building or vault. O.V.W.U. will retain responsibility for any manufacturing issues with the building or vault.

6. The disinfection building and disinfection containment vault will contain additional pieces supplied by others. These pieces (gasket, bolts, tie, sheet, etc.) shall be re-installed by the contractor doing the work on this project.

7. Provide magnetic locator tape for all buried non-metallic piping per standard specification 0210. Tape for chemical piping shall be yellow, printed with "caution - buried gas pipe."

ISSUED: 10/20
REVISED: 04/21
STANDARD DETAIL: SECONDARY CONTAINMENT DISINFECTION (BLDG TO INJECTION POINT)
DETAIL NO.: O VWU-506
SHEET: 2 OF 2
NOTES:
All Galvanized Steel Components Shall Be Hot-Dipped Galvanized.

DISCHARGE HEAD

OIL LUBE TUBE
LINE SHAFT

WELL CASING
COLUMN PIPE
COLUMN COUPLING

1" ACCESS TUBE FOR WATER LEVEL SENSING DEVICES

DETAIL
NOT TO SCALE

1. Manufacturer's cable in 1" flex conduit. Support conduit as required by N.E.C.
2. Manufacturers cable in 1" rigid steel conduit.
3. 1-1/2" 304 Stainless Steel Steel Nipple.
4. 1-1/2" 304 Stainless Steel Steel Union with vent holes as per sensor manufacturer's recommendations.
5. 1-1/2" 304 Stainless Steel Steel Nipple.
6. 1-1/2" Adaptor (304 Stainless Steel Steel).
7. 1-1/2" Schedule 80 PVC Tubs, 20' lengths, drill 1/8" holes on approx. 2" centers, randomly placed over lower 40' of pipe.
8. Install end of 1-1/2" Schedule 80 PVC tubing, 20' above top of borehole, install end of well level sensor 1' from end of 1-1/2" hot-dipped galvanized steel tubing.
9. 1-1/2" to 3/16" Schedule 80 PVC tubing reducing bushing.
10. Junction box with strain relief for manufacturer's cable. Junction box supported with (2) 2 x 1 x 1/4" galvanized steel channel by N.E.C. 314.23. Length as req'd.
11. Open area to access water level sensing device and sounding tube.

KEY NOTES:

WATER LEVEL SENSING DEVICE
NOT TO SCALE

STANDARD DETAIL

WELL PUMP AND BASE DETAILS

ISSUED: 09/20
REvised: 04/21

DETAIL NO.: OVWU-507

SHEET 3 OF 3
NOTES:
1. WEATHERPROOF 1/2" COAX CABLE TO COAX SURGE PROTECTOR CONNECTION POINT USING CONNECTOR/SPlice WEATHERPROOF KIT, ANDREW TYPE 22213, TO SEAL AGAINST MOISTURE.

BOND BEAM WEATHERPROOF OPENING BETWEEN COPPER PLATE & WALL
3/8" S.S. BOLT ONE EACH CORNER (TYP. OF 4)
BOLT BULKHEAD TYPE COAX SURGE PROTECTOR MOUNTED OUTSIDE SPECIFICATIONS TO COPPER PLATE PER MANUFACTURER'S RECOMMENDATION

1/2" COAX CONNECTOR 1/2" HELIFAX TYPE COAX CABLE TO ANTENNA
#1/0 A.W.G. COPPER GROUND WIRE
TO SYSTEM GROUND

EXISTING WALL (BLOCK OR METAL, TYP.)
#4 REBAR
1/4" STEEL LINTEL
INSIDE BUILDING

1/2" COAX CONNECTOR 3/8" SUPERFLEX TYPE COAX TO RADIO CABINET-BULKHEAD CONNECTOR

16" x 16" KNOCKOUT IN WALL

18" x 18" x 1/4" COPPER PLATE MOUNTED ON OUTSIDE OF BUILDING WALL
KEY NOTES:

1. PROTECH PROTECTION TECHNOLOGIES INC.
   MODEL NO. SDI-77XL2V-WC-10550
   OR APPROVED EQUAL

2. CONTROL BUILDING

3. INTRUSION DEFEAT SWITCH
   ALLEN BRADLEY AB CAT. 800T-H31A
   OR APPROVED EQUAL

ISSUED: 10/20
REVISED: 04/21
STANDARD DETAIL
CONTROL BUILDING
INTRUSION DETAIL
DETAIL NO. OVWU-551
SHEET 1 OF 1
NOTES:
1. LENGTH OF FLOATS ARE MEASURED FROM TOP OF TANK FLOOR.
2. STAINLESS STEEL IS ABBREVIATED AS "S.S."
3. CONTRACTOR SHALL FIELD VERIFY ACTUAL OVERFLOW ELEVATION.

KEY NOTES:
1. 1 LB. 2-1/2" DIAMETER MAXIMUM #316 S.S. WEIGHT W/#316 S.S. EYE BOLT. REST WEIGHT ON TANK FLOOR.
2. ATTACH #316 S.S. LOOP CLIP, S.S. CABLE AND S.S. EYE BOLT TOGETHER.
3. WELD #316 S.S. EYE BOLT TO BOTTOM OF NEMA 4X BOX. ATTACH #316 S.S. LOOP CLIP, S.S. CABLE AND S.S. EYE BOLT TOGETHER.
4. 4" S.S. FLANGED OUTLET.
5. S.S. BOLTS AND NUTS WELD BOLTS TO UNEVEN SIDE OF STAINLESS STEEL FLANGE.
6. HOLE(S) THRU NEMA 4X BOX FOR FLOAT CABLES.
7. NEMA 4X BOX, HOEHN (MODEL: 12106CHNFSS) BOLTED TO 4" S.S. FLANGED OUTLET.
8. 1/2" LIQUID TIGHT CONNECTORS, GRAINGER MODEL NO. 20PE4, ONE FOR EACH FLOAT CABLE.
9. 4' OF EXCESS COILED FLOAT CABLES FOR (2) FLOAT CABLES TERMINATED TO #14 AWG WIRES, INSIDE NEMA 4X BOX.
10. 3' OF FLEX CONDUIT.
11. FLEX TO RIGID ADAPTER (J.B. NO. 8).
12. MOUNTED TO ROOF, PROPERLY SUPPORTED PER N.E.C.
13. RIGID CONDUIT.
14. TANK ROOF.
15. TOP OF SHELL WALL.
16. FLOAT #1.
17. 1/4" x #316 S.S. CABLE W/FLOAT CABLES ATTACHED USING S.S. "U" BOLTS.
18. TOP OF TANK FLOOR.
NOTES:
CONDUITS AND WIRING SHALL BE ROUTED AS SHOWN INTO TRANSMITTER

[Diagram of a flow transmitter with labels:
- FLOW TRANSMITTER
- DISPLAY
- 120 VAC FROM SCP
- SIGNALS TO SCP
- COIL
- ELECTRODE
- COIL & ELECTRODE FROM FLOWMETER]
KEYNOTES:

1. FLEXIBLE CONDUIT.
2. JUNCTION BOX, 6"(H) x 6"(W) x 4"(D) (MIN.).
3. 8" x 8" x 8" CLASS "C" CONCRETE SUPPORT.
4. GALV. STL. CONDUIT.
5. 1-5/8" x 1-5/8" PRE-GALVANIZED STEEL POST OR U-CHANNEL SUPPORT LENGTH AS REQ'D. BY NEC 314.23.
KEY NOTES:

1. 8" x 1/8" THICK STAINLESS STEEL BLIND FLANGE WITH APPROPRIATELY SIZED HOLE IN CENTER

2. (4) 304 S.S. BOLTS AND NUTS WITH 1/8" THICK NEOPRENE GASKET, NYLON/PLASTIC WASHER WITH STAINLESS STEEL WASHER BOLTS TO UNDERSIDE OF STAINLESS STEEL FLANGE

3. 8" 150 LB. STAINLESS STEEL FLANGE WITH 1/4" THICK NEOPRENE GASKET

4. WELD (TYP.)

5. 8" STANDARD CARBON STEEL SPOOL PIECE

6. RADAR LEVEL TRANSMITTER WITH TRANSDUCER FACE PARALLEL WITH WATER SURFACE (MODEL: VEGA RADAR LEVEL TRANSMITTER P/N: PS64.FXTBHASXAJXXX)

7. 1/2" FLEXIBLE CONDUIT AND CABLE/WIRE LEAVE ENOUGH CLEARANCE CONDUIT AND CABLE/WIRE TO UNBOLT BLIND FLANGE AND LET 2" QUOTE OF 8" BLIND FLANGE WITHOUT DISCONNECTING CONDUIT AND CABLE/WIRE

8. 8"(W) x 8"(H) x 4"(D) JUNCTION BOX WITH SUB PANEL MOUNTED TO ROOF, PROPERLY SUPPORTED PER NEC, INTERIOR TERMINAL BLOCKS FOR CONNECTION BETWEEN MANUFACTURER'S SENSOR WIRING AND FIELD INSTALLED CABLE

9. 3/4" STAINLESS STEEL HALF COUPLING

10. METAL ROOF

11. CONDUIT CLAMP PER ENGINEER DIRECTION AND APPROVAL

NOTE:

1. FOR ALL STAINLESS STEEL THREADED PIPE: ALL THREADED STAINLESS STEEL CONNECTION SHALL USE POLY-TEMP PTFE PIPE MEDIUM DENSITY ANTI-SEIZE TAP OR APPROVED EQUAL
NOT TO SCALE
NOT TO SCALE

NOTES:
1. COAX GROUNDING KIT, ANDREW TYPE 341088-1, INSTALL AS SHOWN IN KIT, BOLT COPPER WIRE OR BRAIDED COPPER STRAP TO GROUND ROOF.
2. PROVIDE 1/2" ANCHOR BOLT STAINLESS STEEL ROUND NUT ADAPTER TO ATTACH COPPER WIRE TO GROUND ROOF.
3. INSTALL DRAIN PIPES TO PREVENT DAMAGE TO BUILDING AND CARRY AWAY WATER FROM BUILDING.
4. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
5. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
6. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
7. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
8. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
9. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
10. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
11. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
12. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
13. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
14. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
15. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
16. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
17. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
18. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
19. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
20. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
21. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
22. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
23. INSTALL PIPE TO PREVENT FOG AND AIR INHIBITOR IN BUILDING AND CARRY AWAY WATER FROM BUILDING.
KEY NOTES:

1. TANK HATCH COVER
2. TANK HATCH COLLAR
3. HATCH COVER MOUNTED MAGNET, MAGNET AND SWITCH SHALL
   BE MOUNTED WITH A GAP SPACING OF 1/2" MIN.-3" MAX.
   FIELD ADJUST GAP TO ASSURE SWITCH ACTIVATION.
4. HATCH COLLAR MOUNTED MAGNETIC SWITCH
5. STAINLESS STEEL THRU BOLTS WITH VANDAL PROOF HEADS
   AS REQ'D. FOR SWITCHES AND TANK STRUCTURE. FLEXIBLE
   WASHERS SHALL BE USED TO SEAL ALL BOLTS.
6. 1/8" NEOPRENE GASKET
7. LENGTH AS REQ'D. OF STAINLESS STEEL ARMORED CABLE,
   WITH 2-#14 AWG FROM SWITCH TO J.B.
NOTE:
ALL PIPE FITTINGS SHALL BE 304 STAINLESS STEEL

KEY NOTES:
1  PIPE
2  THRED-O-LET
3  1/2" 304 STAINLESS STEEL CLOSE NIPPLE
4  1/2" 304 STAINLESS STEEL BALL VALVE
5  1/2" 304 STAINLESS STEEL TEE W/PLUG
6  PRESSURE TRANSMITTER  
   (MODEL: ROSEMOUNT P/N 3051TG3A2B21AM4045Q4)
7  1/2" FLEXIBLE CONDUIT AND CABLE/WIRE.
8  JUNCTION BOX, 6" (H) x 6" (W) x 4" (D) (MIN).
9  1-5/8" x 1-5/8" PRE-GALVANIZED SOLID STRUT CHANNEL  
   LENGTH AS REQ'D.
10  8" x 8" x 8" CLASS "C" CONCRETE SUPPORT.
11  ARMCELL AP/ARMCELL BLACK LAPSEAL WITH (INSUL-MATE) 
       ALUMINUM JACKETING PIPE INSULATION WITH FACTORY 
       APPLIED ALL SERVICES VAPOR BARRIER.
12  SURGE SUPPRESSOR  
    (MODEL: JOSLYN P/N: 1669-06)
NOTES:

1. DISINFECTION CONTAINMENT VAULT AND DISINFECTION BUILDING
   FURNISHED BY INTEL. INSTALLATION OF THE VAULT WEIGHS APPROXIMATELY 12,000 LBS.
   (NOTE: THE CONTRACTOR WILL NEED TO SEPARATE THE SUMP AND BUILDING FOR TRANSPORT)

2. SECURE BUILDING TO CONTAINMENT VAULT USING 3/4" SS BOLTS SUPPLIED WITH BUILDING AND
   VAULT INTO THE CAST-IN-PLACE FLANGE ANCHORS. REINSTALL 1/2" THICK POUR IN PLACE
   GASKET (PROVIDED WITH BUILDING & VAULT) BETWEEN THE ENCLOSURE FLANGE AND CONCRETE
   CONTAINMENT. SECURE FLANGE TO CONCRETE WITH SS BOLTS & WASHERS WHICH ARE PROVIDED WITH
   THE BUILDING & VAULT PACKAGE

3. LOCATE VAULT AND BUILDING AS SHOWN ON THE MECHANICAL PLAN
KEYNOTES:

1. 6" x 6" x 4" NEMA 3R w/ pullstring in 1" conduit per specifications (from station control panel). Mount 18'-10" A.F.G.

2. 1-5/8" square unistrut (no holes), use spring clamps for conduit support

3. 1" RG5

4. 2 - #14, 1 - #14 ground in 1" conduit per specifications for chemical pump, WP GFI receptacle mounted @ 18'-10" A.F.G. W/ Intermatic model WP101GNC cover. (120 V power from well panel). Label for OL2 only.

5. Crouse Hinds 1"B 3/4"B cast enclosure

6. 3/4" RG5 conduit

7. 3/4" flex connect to fan


9. Carlon Marine drip proof damp & wet locations, EB8TSG.

10. Conduit clamp

11. 1 - #12, 1 - #12 ground in 1" conduit per specifications. Provide WP GFI, convenience recept 15A, 120 V, 120-240V, 15A, 120-240V, 120 V power from distribution panel, Conduit fan switch @ 3'-10" A.F.G.

12. DO NOT install electrical distribution panel or supply distribution panel with building.

13. 2 - #12, 1-12 ground in 3/4" flex to exhaust fan.

14. Chemical feed pump cord, provide protection of cord through building wall. Allow clearance for plug through opening, waterproof opening between cord and building wall with rivet or equal.

15. Electrical box, conduits and wiring may enter on the right side of the chemical building, instead of the left side, depending on the site layout.
KEY NOTES:
1. 8" x 4" x 16" BUFF COLORED CMU SLUMP BLOCK
2. 3-1/2" x 7-2/2" x 1-3/4" HOLLOW METAL DOOR AND FRAMES
3. CONCRETE ROOF DECK WITH "THOROSEAL" WATERPROOF COATING
   TO MATCH COLOR OF CMU, SEE SPECIFICATIONS
4. DROP - 1" WIDE x 1" DEEP GROOVE (TYP. ALL ROOF EDGES)
5. 4" CONCRETE SLAB WITH 6 x 6 - W2.0 x W2.0 ON 4" COMPACTED
   SAND BASE COURSE
6. 4" CONCRETE PAD - 1/4" PER FOOT SLOPE W/ SMOOTH BROOM FINISH
   WITH 6 x 6 - W2.0 x W2.0 ON 4" COMPACTED SAND BASE COURSE
7. 8-1/2" x 1-1/2" x 0-1/2" x 0-1/2" x 0-1/2" LONG (A36) DOUBLE STL. Lintel
   ALTERNATE CMU Lintel
8. 8 x 8 BOND BEAM W/2-#4 CONTINUOUS (CMU CONSTRUCTION)
9. 8 CMU WALL W/ VERTICAL BARS AT 12" CORNERS & OPENINGS
   AND TRUSC TYPE HORIZONTAL REINFORCING @ 16" O.C.
10. ALUMINUM THRESHOLD, SEE SPECIFICATIONS
11. #4 @ 9" O.C. EACH WAY
12. 2-#4 BARS CONTINUOUS (BOTTOM), 1-#4 BAR CONTINUOUS (TOP)
13. #4 BAR, GROUTED SOLID @ TOP, BOTTOM & SIDES OF ALL WALL OPENINGS
   (EXCEPT @ TOP OF DOOR OPENING WHEN STL. Lintel IS PROVIDED)
   BAR SHALL EXTEND 24" BEYOND OPENING
14. A.C. UNIT
15. 1/2" PREMOLD JOINT, TRIM FILLED AND CAULK
16. #4 Dowel @ 48" O.C.
17. #4 Dowel @ 24" O.C.
18. CAULKING
19. H.M. FRAME W/(3) ANCHORS PER JAMB
20. 24 GA. GALVANIZED METAL FLASHING, SOLDER JOINTS WATERTIGHT
21. PAINT TO MATCH WALL COLOR
22. BUILDING GROUND WIRE PER ELECTRICAL PLAN & SPECS
23. #1 STIRRUP - GROUTED SOLID
   PLACE 1/ST STIRRUP 2" FROM EACH END & 6" O.C. THEREAFTER

MECHANICAL NOTES:
1. AIR CONDITIONER, SEE SPECIFICATIONS
2. GROUT ALL EXPOSED CELLS ADJACENT TO A.C. UNIT, FANS
   AND GRILLES
3. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR
   ADDITIONAL INFORMATION

ELECTRICAL NOTES:
1. SEE SHEETS 40 & 40 FOR ELECTRICAL EQUIPMENT BUILDING
   INTERIOR & EXTERIOR LAYOUT, CONDUIT AND WIRING RUNS

NOTE:
THE CONTRACTOR SHALL GROUT SOLID ALL CMU CELLS AS NECESSARY
PROVIDE PROPER SUPPORT FOR MOUNTING OF ALL ELECTRICAL
PANELS, CABINETS AND EQUIPMENT AS SHOWN ON THESE PLANS.
NOTES:
VERIFY BOLT LOCATIONS ON EXISTING CONCRETE TANK FOOTINGS PRIOR TO FABRICATING TANK SUPPORTS
NOTES:
1. NO BACKING STRIP SHALL REMAIN
2. ALL INTERIOR SEAMS SHALL BE WELDED

TYPICAL TANK WELDS

ISSUED: 09/20
REvised: 11/20
STANDARD DETAIL OVWU-803
DETAIL NO.
TYPICAL TANK WELDS
KEY NOTES:

1. 1" COMBINATION AIR RELEASE VALVE PER (DETAIL 4 ON SHEET 5)
2. 2" COUPLING WITH CORPORATION STOP
3. PRESSURE GAUGE PER (DETAIL 2 ON SHEET 5)
4. SAFETY RELIEF VALVE PER (DETAIL 1 ON SHEET 5)
5. 3/4" HOSE BIBB (PER DETAIL 6 ON SHEET 5)
6. PRESSURE GAUGE PER (DETAIL 2 ON SHEET 5)
7. 4" CLASS 150 AWWA BUTTERFLY VALVE OR APPROVED EQUAL
8. SHORT RADIUS 4" x 90° BEND
9. 4" x 4" x 3'-8 1/2" LEGS PER (DETAIL 3 ON SHEET 3)
10. TANK FOOTINGS, THIS IS TO BE DESIGNED PER TANK
     BY A CERTIFIED STRUCTURAL ENGINEER
11. 8" x 8" BASE PLATE
12. AIR COMPRESSOR INLET PER (DETAIL 1 ON SHEET 6)
13. LIQUID LEVEL ASSEMBLY
14. 14" x 18" ASME MANHOLE
15. LIFTING LUG PER (DETAIL 1 ON SHEET 3)
16. NAMEPLATE PER SPECIFICATION AND ASME BOILER &
     PRESSURE VESSEL CODE UC-118 & UC-119
17. 2" DRAIN (SEE DETAIL 4 ON SHEET 6).

GENERAL NOTES:

A. ALL TANK ADEQUATE CONNCTIONS WILL BE:
   2" SHELL NOZZLES PER (DETAIL 1 ON SHEET 3).

NOTES:

A. ALL HYDROPNEUMATIC TANKS SHALL BE DESIGNED AND CONSTRUCTED ACCORDING
   TO THE CURRENT REQUIREMENTS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
   (ASME) CODE FOR UNIFIED PRESSURE VESSELS, SECTION VIII, DIVISION 1.

B. ALL HYDROPNEUMATIC TANKS SHALL BE COATED WITH 100% SOLIDS EPOXY COATING TO
   COMPLY WITH THE NEW NSF/ANSI 61 STANDARDS EFFECTIVE IN 2023.