APPENDIX A

Figures
PROPOSED 72" AQUEDUCT

FUTURE 72" AQUEDUCT

EXISTING 84" DAVIS AQUEDUCT

EXISTING ACCESS ROAD

EXISTING BIFURCATION STRUCTURE

PROPOSED VALVE VAULT

PROPOSED NEW ACCESS ROAD

LEGEND:

PROPOSED PERMANENT PIPELINE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION EASEMENT

STATE OF UTAH LAND OWNERSHIP

FEDERAL LAND OWNERSHIP

EXISTING BOR RIGHT-OF-WAY

EXISTING WEBER BASIN EASEMENT

STAGING AREAS:

1. AREA WAS DISTURBED IN THE 1950s AS PART OF THE ORIGINAL CONSTRUCTION.
2. PRIVATE LOT, RESIDENCE WAS TORN DOWN AND REMOVED BY CURRENT OWNER.
3. PRIVATE LOT, MAY OR MAY NOT BE USED FOR STAGING.
4. UDOT, SITE MAY BE USED FOR ACCESS AND STAGING AREA FOR TUNNEL PORTAL.
5. ALL OTHER STAGING WILL BE WITHIN EASEMENTS FROM PARCEL 18, WEBER BASIN'S PROPERTY.

LAND OWNERS:

1. STATE OF UTAH
2. UNITED STATES OF AMERICA
3. COLLINS, JAMES
4. NS GROUP HOLDINGS LLC
5. X MARKS THE SPOT INVESTMENT LLC
6. PETTY, DUSTIN COLT & ANGELA
7. PETTY, WILLIAM P JR & SALLY SMITH
8. RAY, DOUGLAS HAROLD & CINDY SMITH
9. SMITH, EDWIN J & PATRICA JANE
10. WINN FAMILY LP
11. DANIELS, TINA & ROBERT M
12. BAUMGART, HANS PETER
13. SEGOVIA, JESUS F SR & ESTELLA V
13A. UTAH DEPARTMENT OF TRANSPORTATION
14. GUNDERSEN, FRED
15. UTAH DEPARTMENT OF TRANSPORTATION
16. WEBER STATE UNIVERSITY
17. UTAH DEPARTMENT OF TRANSPORTATION
18. WEBER BASIN WATER CONSERVANCY DISTRICT

SCALE: 1" = 600'

DATE: September 13, 2019

WEBWCD DA REACH 1

PROPOSED PIPELINE ALIGNMENT
STA 0+00 TO 120+00 (OVERALL)

Path: P:\Projects\Weber Basin\152858_DA Reach 1 Design And CM\CAD\03-AutoCAD\04-Civil3D\07-Figures
File Name: FIGURE F1
Plot Date: September 13, 2019 10:09 AM
Cadd User: David Davidsen
### GENERAL
- EXISTING EQUIPMENT OR MATERIALS TO BE REMOVED
- NEW FACILITIES (HOLES)
- PROPERTY LINE (PHANTOM LINE OR BOUNDARY LINE)
- CENTERLINE
- HIDDEN LINE OR FUTURE IMPROVEMENT
- FLUID SURFACE ELEVATION

### PROPOSED FACILITIES
- AT
- AND
- ROUND OR DIAMETER
- ANGLE
- CENTERLINE
- PLATE OR PROPERTY LINE
- KEY NOTE DESIGNATION
- WITHOUT

### CROSS REFERENCING SYSTEM
1. PLAN TILES
   - AQUEDUCT
   - ACCESS MANHOLE
   - VERTICAL STRUCTURE
   - AIR VALVE
   -藝術
   - TEST STATION
   - BLOW-OFF

2. SECTION OUTLINE
   - DRAWING WHERE SECTION IS SHOWN

3. SECTIONS TITLES
   - SECTION NUMBER
   - DETAIL LETTERS TO BE CONSISTENT THROUGHOUT THE DRAWING SUB-AREA

4. DETAIL TITLES
   - DETAIL LETTERS TO BE CONSISTENT THROUGHOUT THE DRAWING SUB-AREA

5. DETAIL CALLOUT
   - A. BY CALLOUT
   - DETAIL LETTERS TO CONSISTENT THROUGHOUT THE DRAWING SUB-AREA

   B. BY NOTE: SEE DETAIL B-001

### PIPING DESIGNATIONS
- NEW PIPING
- PIPE SIZE

### NOTES:
1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS SHOWN HARNESS MAY NOT BE USED IN OTHER CONSTRAINTS.
2. 30% DESIGN SUBMITAL
3. SYMBOLS ARE SHOWN ON SPECIFIC DRAWINGS AND ARE CALLED OUT IN DESIGNATION SYSTEM. SYMBOLS MAY BE USED ON ANY PROJECT UNDER THE EASTERN AREA.
1. WELDED STEEL PIPE SHALL HAVE DOUBLE WELDED LAP JOINTS AS SHOWN ON DETAIL X ON SHEET C-XXX.
2. WELDED STEEL PIPE SHALL HAVE FULL PENETRATION BUTT WELDS AS SHOWN ON DETAIL X ON SHEET C-XXX.
3. WELDED STEEL PIPE SHALL BE MORTAR LINED AND COATED IN ACCORDANCE WITH SPECIFICATION XXXX.
4. INSTALL TRENCH PLUGS DETAIL X ON SHEET C-XXX AT LOCATIONS WHERE THE SLOPE CHANGES MORE THAN 5 DEGREES AND BE SPACED ALONG THE SLOPE AS SPECIFIED BELOW:
   - SLOPE                  SPACING
   - 0 TO 5%               NO TRENCH PLUGS REQUIRED
   - 5% TO 15%            150 FEET
   - 15% TO 30%          100 FEET
   - 30% OR MORE      50 FEET
5. SEE TRENCH DETAIL 1 ON SHEET C-00-500.
6. SEE TRENCH DETAIL 2 ON SHEET C-00-500.
GENERAL NOTES:

1. WELDED STEEL PIPE SHALL HAVE DOUBLE WELDED LAP JOINTS AS SHOWN ON DETAIL X ON SHEET C-XXX.
2. WELDED STEEL PIPE SHALL HAVE FULL PENETRATION BUTT WELDS AS SHOWN ON DETAIL X ON SHEET C-XXX.
3. WELDED STEEL PIPE SHALL BE SMOOTH LAND AND COATED IN ACCORDANCE WITH SPECIFICATION XXXX.
4. INSTALL TRENCH PLUGS PER DETAIL 2 ON SHEET C-XXX.
5. TRENCH PLUGS SHALL BE PLANTED IN LOCATIONS WHERE THE SLOPE CHANGES FROM 5% TO 15% AND BE SPACED ALONG THE SLOPE AS SPECIFIED BELOW.
   - SLOPE           SPACING
     0 TO 5%          NO TRENCH PLUGS REQUIRED
     5% TO 15%        150 FEET
     15% TO 30%       100 FEET
     30% OR MORE      50 FEET
6. SEE TRENCH DETAIL 1 ON SHEET C-XXX.
7. SEE TRENCH DETAIL 2 ON SHEET C-XXX.
8. CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION SURVEY FROM STA 27+75 TO STA 88+00 IN ACCORDANCE WITH SPECIFICATION XXXX.

KEY NOTES:

1. APN 132950002 NS GROUP HOLDINGS LLC
2. WELDED STEEL PIPE SHALL HAVE DOUBLE WELDED LAP JOINTS AS SHOWN ON DETAIL X ON SHEET C-XXX.
3. WELDED STEEL PIPE SHALL HAVE FULL PENETRATION BUTT WELDS AS SHOWN ON DETAIL X ON SHEET C-XXX.
4. INSTALL TRENCH PLUGS PER DETAIL 2 ON SHEET C-XXX.
5. TRENCH PLUGS SHALL BE PLANTED IN LOCATIONS WHERE THE SLOPE CHANGES FROM 5% TO 15% AND BE SPACED ALONG THE SLOPE AS SPECIFIED BELOW.
   - SLOPE           SPACING
     0 TO 5%          NO TRENCH PLUGS REQUIRED
     5% TO 15%        150 FEET
     15% TO 30%       100 FEET
     30% OR MORE      50 FEET
6. SEE TRENCH DETAIL 1 ON SHEET C-XXX.
7. SEE TRENCH DETAIL 2 ON SHEET C-XXX.
8. CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION SURVEY FROM STA 27+75 TO STA 88+00 IN ACCORDANCE WITH SPECIFICATION XXXX.

AQUEDUCT PLAN & PROFILE STA 32+00 TO STA 39+50

PLAN
SCALE: 1" = 40'

PROFILE
SCALE: 1" = 40'
GENERAL NOTES:

1. WELDED STEEL PIPE SHALL HAVE FULL PENETRATION BUTT WELDS AS SHOWN ON DETAIL A ON SHEET C-XXX.
2. BUTTJOINT DETAIL 7 AS SHOWN ON DETAL X ON SHEET C-XXX.
3. PIPELINE TO BE INSTALLED IN ACCORDANCE WITH SPECIFICATION XXXX.
4. CONTRACTOR SHALL SUBMIT RELOCATION PLANS AND AS SHOWN ON SHEET C-XXX.
5. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACROSS WELDS AS SHOWN ON DETAIL X ON SHEET C-XXX.
6. PROFILE FOR CASING IS SHOWN ON DETAIL A ON SHEET C-XXX.
7. SEE CASING SECTION A ON SHEET C-00-501.
8. PROFILE FOR CASING IS SHOWN ON DETAIL A ON SHEET C-00-501.
9. CANAL SHALL BE RESTORED PER SPECIFICATIONS AND AS SHOWN ON SHEET C-XXX.
10. CONTRACTOR SHALL SUBMIT RELOCATION PLANS AND AS SHOWN ON SHEET C-XXX.
11. THE CONTRACTOR SHALL SUBMIT RELOCATION PLANS AND AS SHOWN ON SHEET C-XXX.
12. CANAL SHALL BE RESTORED PER SPECIFICATIONS AND AS SHOWN ON SHEET C-XXX.
13. CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION SURVEY WHERE SHOWN TO STA 56+00 IN ACCORDANCE WITH SPECIFICATION XXXX.

AQUEDUCT PLAN & PROFILE STA 47+00 TO STA 56+00

KEY NOTES:

- BLOWOFF VAULT
- BLOWOFF DRAIN
- PIPELINE TO BE INSTALLED IN ACCORDANCE WITH SPECIFICATION XXXX.
- AQUEDUCT PLAN & PROFILE STA 47+00 TO STA 56+00
- CONTRACTOR SHALL SUBMIT RELOCATION PLANS AND AS SHOWN ON SHEET C-XXX.
- CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION SURVEY WHERE SHOWN TO STA 56+00 IN ACCORDANCE WITH SPECIFICATION XXXX.
- WELDED STEEL PIPE SHALL HAVE FULL PENETRATION BUTT WELDS AS SHOWN ON DETAIL X ON SHEET C-XXX.
- BUTTJOINT DETAIL 7 AS SHOWN ON DETAL X ON SHEET C-XXX.
- PIPELINE TO BE INSTALLED IN ACCORDANCE WITH SPECIFICATION XXXX.
- CONTRACTOR SHALL SUBMIT RELOCATION PLANS AND AS SHOWN ON SHEET C-XXX.
GENERAL NOTES:

1. WELDED STEEL PIPE SHALL HAVE DOUBLE WELDED LAP JOINTS AS SHOWN ON DETAIL A IN SHEET C-XXX.
2. WELDED STEEL PIPE SHALL HAVE FULL PENETRATION BUTT JOINTS AS SHOWN ON DETAIL X IN SHEET X-XX.
3. WELDED STEEL PIPE SHALL BE SHIPPED FROM MANUFACTURER AND DELIVERED TO THE SITE.
4. FOR PAVING DETAILS SEE DETAIL D ON SHEET C-XXX.
5. FOR TREMEX SEE DETAIL 1 ON SHEET C-XXX.
6. ALL LOCATIONS OF UTILITIES SHOWN ARE APPROXIMATE.
7. CONTRACTOR SHALL FIELD VERIFY PHYSICAL LOCATION, ELEVATION, AND ORIENTATIONS. INFORMATION SHOWN IS APPROXIMATE. ORIENTATIONS ARE BILLED ON NAVD 88.
8. ALL PIPE LOCATIONS ARE CENTER OF MANHOLE TO CENTER OF PIPE CENTERLINE.
9. SEWER SERVICE LATERALS ARE NOT ALL SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING LATERALS PRIOR TO COMPLETION OF THE WORK.
10. SEWER SERVICE LATERALS ON THE CONTRACTOR TO INSTALL ALL COUPLING, ADJUSTMENTS, AND TRENCHES REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE PHYSICAL LOCATION, ELEVATIONS, AND INVERTS. INFORMATION SHOWN IS APPROXIMATE. INVERTS ARE BILLED ON NAVD 88.
11. CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION SURVEY FROM STA 27+75 TO STA 88+00 IN ACCORDANCE WITH SPECIFICATION XXXX.
12. THE CONTRACTOR SHALL MAINTAIN STORM/IRRIGATION SYSTEMS AND UTILITIES.
13. CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION SURVEY FROM STA 27+75 TO STA 88+00 IN ACCORDANCE WITH SPECIFICATION XXXX.

KEY NOTES:

1. 30% DESIGN SUBMITTAL

DATE DESCRIPTION

APPROVED: CHECKED: DRAWN:

CTV TEL CTB

DATE DESCRIPTION

APPROVED: CHECKED: DRAWN:

CTV TEL CTB

AQUEDUCT PLAN & PROFILE STA 80+00 TO STA 88+00

C-00-111

30% DESIGN SUBMITTAL

WEWER BASIN WATER CONSERVANCY DISTRICT

DEAIUACET REACH 1

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GENERAL NOTES:

1. WELDED STEEL PIPE SHALL HAVE DOUBLE WELDED LAP JOINTS AS SHOWN ON DETAIL X ON SHEET C-XXX.
2. WELDED STEEL PIPE SHALL HAVE FULL PENETRATION BUTT WELDS AS SHOWN ON DETAIL X ON SHEET C-XXX.
3. WELDED STEEL PIPE SHALL BE MORTAR LINED AND COATED IN ACCORDANCE WITH SPECIFICATION XXXX.
4. FOR TUNNEL SEE DETAIL V ON SHEET C-XXX.
5. FOR TRENCH SEE DETAIL T ON SHEET C-00-50.

KEY NOTES:

1. WELDED STEEL PIPE SHALL HAVE DOUBLE WELDED LAP JOINTS AS SHOWN ON DETAIL X ON SHEET C-XXX.
2. WELDED STEEL PIPE SHALL HAVE FULL PENETRATION BUTT WELDS AS SHOWN ON DETAIL X ON SHEET C-XXX.
3. WELDED STEEL PIPE SHALL BE MORTAR LINED AND COATED IN ACCORDANCE WITH SPECIFICATION XXXX.
4. FOR TUNNEL SEE DETAIL V ON SHEET C-XXX.
5. FOR TRENCH SEE DETAIL T ON SHEET C-00-50.

PROFILE

SCALE: 1" = 40'

PLAN

SCALE: 1" = 40'

AQUEDUCT PLAN & PROFILE STA 96+00 TO STA 103+50
TYPICAL EXCAVATION & BACKFILL
STA XX+XX TO STA XX+XX

NOTE:
1. BACKFILL SHALL ACHIEVE 95% COMPACTION WHEN WITHIN 12" OF THE BOTTOM OF PAVED STREET AND 18" BELOW UDOT PAVING

TYPICAL TRENCH PLUG
STA XX+XX TO STA XX+XX

NOTE:
1. THE GEOTEXTILE SHALL MEET THE REQUIREMENTS OF AASHTO M-288-06 FOR CLASS 1 APPLICATIONS. THE GEOTEXTILE SHALL BE USA FABRIC INC. - NON WOVEN GEOTEXTILE, US205NW OR APPROVED EQUAL.

NATIVE BACKFILL
PIPE ZONE BACKFILL
WIDTH OF EXCAVATION
6"
12" MIN
NATURAL GROUND SURFACE
OR STREET SURFACE
BACK FILL TO NATURAL GROUND SURFACE
UNLESS OTHERWISE SHOWN ON PROJECT
PLAN AND PROFILE DRAWINGS
VERTICAL SLOPED
EXCAVATION EXCAVATION
GABION EROSION CONTROL BASKETS.
BASKETS SHALL BE FILLED WITH 4 TO 8 INCH ROCK AND WRAPPED IN GEOTEXTILE MATERIAL WHERE INDICATED ON PLAN AND PROFILE DRAWINGS

TRENCH DETAILS

DAVIS AQUEDUCT
REACH 1

30% DESIGN SUBMITTAL
WEISER BASIN WATER CONSERVANCY DISTRICT

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TOPIC: TRENCH DETAILS

CLIENT PROJECT NUMBER
30% DESIGN
SUBMITTAL
DAVIS AQUEDUCT
REACH 1

TYPICAL EXCAVATION & BACKFILL
STA XX+XX TO STA XX+XX
VAR SCALE: NTS

NOTE:
1. BACKFILL SHALL ACHIEVE 95% COMPACTION WHEN WITHIN 12" OF THE BOTTOM OF PAVED STREET AND 18" BELOW UDOT PAVING

TYPICAL EXCAVATION & BACKFILL
STA XX+XX TO STA XX+XX
VAR SCALE: NTS

NOTE:
1. THE GEOTEXTILE SHALL MEET THE REQUIREMENTS OF AASHTO M-288-06 FOR CLASS 1 APPLICATIONS. THE GEOTEXTILE SHALL BE USA FABRIC INC. - NON WOVEN GEOTEXTILE, US205NW OR APPROVED EQUAL.
1. "t" indicates the thickness of the steel pipe, see project plan and profile drawings.

2. Solid steel plug shall be drilled to allow slight recess in the couplings after installation.

3. After fabrication, cleaning of all clean threads prior to installation of plug. Plug hole with steel plug 3000# steel allthread plug. Field push with cement mortar. All plugs plumb with sealant prior to testing.

4. Steel plug with all around seal. Seal shall be permeant tested.

5. Tap the threads 1/4" deeper than standard. Plug shall be set 1/4" into coupling. Plug shall sit 1/4" below top of coupling to allow seal welding of plug.

6. Welded steel pipe shall be firmly blocked in place to prevent floatation.

7. Space grout connections at 8' on center.

NOTES:

1. See note 1

2. Solid steel plug shall be machined to allow slight recess in the couplings after installation.

3. After fabrication, cleaning of all clean threads prior to installation of plug. Plug hole with steel plug 3000# steel allthread plug. Field push with cement mortar. All plugs plumb with sealant prior to testing.

4. Steel plug with all around seal. Seal shall be permeant tested.

5. Tap the threads 1/4" deeper than standard. Plug shall be set 1/4" into coupling. Plug shall sit 1/4" below top of coupling to allow seal welding of plug.

6. Welded steel pipe shall be firmly blocked in place to prevent floatation.

7. Space grout connections at 8' on center.
NOTE:
1. CAST A V-ANCHOR HOOK 
RECESS RATED AT 5-TON 
LIFTING CAPACITY IN THE 
MANHOLE LID TO FACILITATE 
BLIND FLANGE REMOVAL AND 
REPLACEMENT.

NOTE:
ACCESS HATCH SHALL BE 
RATED FOR H20 LOADING.
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**DRAWING NUMBER**

**SHEET NUMBER**

**AT FULL SIZE**

**CHECKED:**

**APPROVED:**

**DRAWN:**

**DESIGNED:**

**REV**

**CHECKED:**

**C**

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**Davis Aqueduct**

**Reach 1**

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**General Notes:**

**1. 72" Butterfly Valve Plan**

**2. 10" Disruptable Joint Coupling**

**3. 10" Gate Valve Plan**

**4. 10" Mechanical Coupling**

**5. 10" Access Manway, See Detail XXX**

**6. 10" Blind Flange**

**7. 24" Sump, See Detail XXX**

**8. Pipe Wall Penetration, See Detail XXX**

**9. 10" Flexible Coupling Adapter**

**10. 36" Access Manway and Access Valve**

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**Key Notes:**

1. 72" Butterfly Valve FLxFL
2. 72" Disruptable Joint Coupling
3. 10" Gate Valve FLxFL
4. 10" Mechanical Coupling
5. 3# Access Manway, See Detail XXX
6. 10" Blind Flange
7. 24" Sump, See Detail XXX
8. Pipe Wall Penetration, See Detail XXX
9. 10" Flexible Coupling Adapter
10. 36" Access Manway and Access Valve
1. PROVIDE 6" THK. CONCRETE PAD EXTENDING 3' IN FRONT & 6" TO BACK & SIDES OF CABINET. RUN #4 REBAR 9" O.C. EACH WAY. SECURE CABINET TO PAD W/ (4) MIN. 1/2" DIA. x 6" LG. STAINLESS 304 SS BOLTS & SCREW ON CONNECTORS.

2. CUSTOMER SHALL BE RESPONSIBLE TO SIZE ENCLOSURE FOR EQUIPMENT. ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL & SHALL HAVE DOUBLE DOORS W/ PADLOCK HASP.

3. PROVIDE & INSTALL 24"x24"x12" HOFFMAN A, G.Q.R.L.P. NEMA 1 ENCLOSURE W/ BACKPLATE FOR RTU, PLC & RADIO.

4. CUSTOMER SHALL FURNISH AND INSTALL RTU, RADIO, ANTENNA & CONNECTIONS. CUSTOMER SHALL PROVIDE GROUNDING ROD & GROUNDING CONDUCTOR ALONG ENCLOSURE STAND. CUSTOMER SHALL PROVIDE TERMINAL STRIP FOR ALL CONNECTIONS TO RTU CABINET FROM FLOW METER CONVERTERS, PRESSURE TRANSDUCER TRANSMITTER TO RTU CONTROL BOX.

5. SEPARATE CONDUITS SHALL BE USED FOR POWER LINES & CONTROL / INSTRUMENTATION LINES.

6. ALL ELECTRICAL CONDUITS IN VAULT SHALL BE GRC OR SCHEDULE 80 PVC.

7. CUSTOMER SHALL PROVIDE 3" CONDUIT FOR MAIN POWER FROM CONTROL BOX METER MAIN TO POWER COMPANY TERMINUS, WITH REQUIRED FITTINGS AND APPURTENANCES AND SHALL PROVIDE A 2" CONDUIT TO GROUND RING IN FOOTING EXCAVATION OF VAULT.

8. CUSTOMER SHALL PROVIDE (2) 1" CONDUITS TO VAULT FOR FLOW METERS AND (1) #16 TSP IN 3/4" CONDUIT FOR 4-20mA-DC SIGNAL FROM PRESSURE TRANSDUCER TRANSMITTER TO RTU. INSTALL OUTLETS & SWITCHES 4' MIN ABOVE FLOOR. PROVIDE (1) 20 AMP 1 PHASE CB & (3) #12 WIRE IN 3/4" CONDUIT FOR SUMP PUMP W/ NEMA 5-15R OUTLET WITH IN-SERVICE COVER OVER SUMP FOR PUMP. PROVIDE (1) 20 AMP 1 POLE CB & (3) #12 WIRE IN 3/4" CONDUIT FOR EXHAUST FAN. PROVIDE 24-HOUR ADJUSTABLE TIMER SWITCH TO CYCLE THE FAN & LIGHTS ON FOR ONE HOUR INCREMENTS TWO TIMES PER DAY. PROVIDE BY-PASS FROM TIMER CONTROL FOR HATCH ACCESS LIGHT SWITCH. ALL OUTLETS TO HAVE GFCI PROTECTION.

9. CUSTOMER SHALL PROVIDE (1) 20 AMP 1 PHASE CB & (3) #12 CONDUCTORS IN 3/4" CONDUITS FOR (2) GFCI OUTLETS IN WEATHERPROOF ENCLOSURES AND IN-USE COVERS INSIDE OF THE VAULT.

10. CONDUIT NUMBER & SIZE SHOWN ON DRAWING DETAIL ARE ONLY REPRESENTATIONAL. ACTUAL NUMBER & SIZE SHALL BE AS REQ'D (2) MIN. ADDITIONAL 2" SPARE CONDUITS SHALL BE INSTALLED FROM THE CONTROL PANEL TO THE VAULT W/ PULL STRINGS.

11. SIZE & PROVIDE HEATER TO MAINTAIN TEMPERATURE FOR INTERNAL EQUIPMENT ABOVE 40°F (5°C).

12. PROVIDE 2" THICK FOAM INSULATION INSIDE OF ENCLOSURE TOP, BOTTOM, BACK, SIDES & DOORS. SECURE INSULATION W/ ADHESIVE.

13. ALL JUNCTION BOXES IN VAULT SHALL BE STAINLESS STEEL NEMA 4X BOXES.

14. ALL WIRE SHALL BE XHHW-2 COPPER WIRE.

NOTES:

- SEE NOTE 1
- SEE NOTE 2
- SEE NOTE 3
- SEE NOTE 4
- SEE NOTE 5
- SEE NOTE 6
- SEE NOTE 7
- SEE NOTE 8
- SEE NOTE 9
- SEE NOTE 10
- SEE NOTE 11
- SEE NOTE 12

CUSTOMER SHALL PROVIDE (1) 20 AMP 1 PHASE CB & (3) #12 CONDUCTORS In 3/4" CONDUIT For (2) VAPOR-TIGHT LED LIGHT FIXTURES INSIDE OF VAULT. INSTALL LIGHT SWITCH W/ WP COVER IN CLOSE PROXIMITY TO HATCH ENTRY. PROVIDE (1) 20 AMP 1 PHASE CB & (3) #12 CONDUCTORS IN 3/4" CONDUIT FOR (2) FLOOR METER READERS INSIDE OF VAULT. PROVIDE (1) 20 AMP 1 PHASE CB & (3) #12 CONDUCTORS IN 3/4" CONDUIT FOR (2) GFCI OUTLETS IN WEATHERPROOF ENCLOSURES AND IN-USE COVERS INSIDE OF THE VAULT.

- NEMA 4X STAINLESS STEEL & PADLOCK HASP. SEE NOTE 2.

- 10' MIN POWER TO VAULT

- 70 FPM TIE TO GROUND RING IN FOOTING EXCAVATION OF VAULT.

-Inflater Inlet Clamp & Screw On Connections

- Power Meter Mounted On Back Facing Street

- 18" Plastic Wireway

- Crossmembers As & Spacing Of

- Concrete Base

- Reinforced

- Seismic Rated Anchor Bolts W/ Min 3" Embedment. Slope Grade To Drain Away From Slab.

- One-Line Diagram

- 30% Design

- Submittal

- Drawing

- Check

- Rev

- Date

- Description

- Approved

- Checked

- Drawn

- Designed

- Client Project Number

- Bcs Project Number

- Project Number

- Weber Basin Water Conservancy District

- Davis Aqueduct Reach 1

- Salt Lake City, UT

- Brown & Caldwell

- Salt Lake City, UT

- Submitter: JOSHUA HOBART CAD USER: 8/9/2019 10:28 AM PLOT DATE: E-00-001 ELECTRICAL DETAILS.DWG
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### Instrument Signal Lines

- **INSTRUMENT SUPPLY, POWER**: PUMP
- **PNEUMATIC SIGNAL**: PUMP
- **ELECTRICAL SIGNAL**: PUMP
- **ELECTROMAGNETIC OR SONIC SIGNAL (GUIDED)**: PUMP
- **ELECTROMAGNETIC OR SONIC SIGNAL (UNGUIDED)**: PUMP
- **SOFTWARE OR DATA LINK**: PUMP

### Process and Signal Cross Reference System

- **INSTRUMENTATION**
- **COMMUNICATIONS**
- **NETWORKING**
- **PROCESS LINES**
- **CONTROL AND MEASUREMENT NOTATIONS**

### Typical Instrument Identification

- **INSTRUMENT TAG AND LOOP IDENTIFICATION**
- **EQUIPMENT IDENTIFICATION SYSTEM**

### General Notes

1. **SYMBOLS** are used on the contract drawings and are shown hereon. Certain symbols may not be used on the contract drawings.
2. **SYMBOLS** are arranged on specific drawings and in categories for convenience. Variables may be used on any of the contract drawings.
### MISCELLANEOUS SYMBOLS

- MCC (Motor Control Center)
- PURGE OR FLUSHING DEVICE
- RESET FOR LATCH-TYPE OPERATOR
- SEAL WATER CONTROL UNIT
- INTERLOCKING OR CONTROL FUNCTION
- INTRINSIC SAFETY BARRIER
- DISCRETE INPUT
- DISCRETE OUTPUT
- ANALOG INPUT
- ANALOG OUTPUT
- VARIABLE FREQUENCY DRIVE
- VARIABLE SPEED DRIVE

### ACTUATORS/MOTORS/POWER

- ADJUSTABLE SPEED DRIVE (MECHANICAL)
- ROTARY PISTON ACTUATORS, VALVE OR GATE
- LINEAR PISTON ACTUATORS, VALVE OR GATE (OR BALANCING)
- SOLENOID ACTUATOR, VALVE
- MANUALLY OR HAND ACTUATOR, VALVE OR GATE (OR EQUIPMENT)
- MOTOR ACTUATOR, VALVE, GATE (OR EQUIPMENT)

### FUNCTION SYMBOLS

- SHARED DISPLAY, PROCESS CONTROL SYSTEM
- SOFTWARE FUNCTIONALITY
- FIELD-OR PANEL DEVICE
- LOCATION AND ACCESSIBILITY MODIFIERS FOR FUNCTION SYMBOLS
- STAND ALONE DEVICE, OPERATOR ACCESSIBLE
- LOCATED ON FRONT OF PANEL OR CONSOLE, OPERATOR ACCESSIBLE
- LOCATED IN REAR OF PANEL OR CONSOLE, OPERATOR INACCESSIBLE

### INSTRUMENTATION SYMBOLS

- INTEGRAL INSTRUMENT
- CLOSE-COUPLING INSTRUMENT
- SEPARATE OR REMOTE MOUNTED INSTRUMENT
- PRIMARY ELEMENT SYMBOL
- FLANGE OR ELEMENT TAPS
- PIPE TAPS
- COMBINATION TAPS
- MULTI-MODE VARIABLE INSTRUMENT

### SLIDE AND SLICE GATES

- NORMALLY OPEN
- NORMALLY CLOSED
- FLAP GATE
- BUTTERFLY GATE
- STOP GATE
- SLIDE GATE
- SLICE GATE

### GENERAL NOTES:

1. THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS AND IDENTIFICATIONS SHOWN PSEUDOMAY NOT BE USED ON THE CONTRACT DRAWINGS.
2. SYMBOLS ARE ARRANGED ON SPECIFIC DRAWINGS AND IN CATAGORIES FOR CONVENIENCE. ONLY SYMBOLS MAY BE USED ON ANY OF THE CONTRACT DRAWINGS.
PUMPS
- Pump Centrifugal
- Pump Diagram
- Pump Gear
- Pump Metering
- Pump Peristaltic
- Pump Progressing Cavity
- Pump Rotary Lobe
- Pump Submersible
- Pump Jet
- Pump Vertical

BLOWERS/COMPRESSORS
- Blower or Centrifugal, Fan
- Blower or Compressor, Liquid Ring
- Blower or Compressor, Rotary Lobe
- Compressor, Rotary Screw
- Compressor, Rotary Sliding Vane
- Compressor, Piston

PIPE LINE DEVICES
- Trap
- Sediment Trap
- Gas Drop Trap
- Separator/Dryer
- Pipeline Filter
- Rupture Disk
- Connection Between New and Existing Piping
- Union
- Quick Connector
- Cap or Plug
- Blind Flange
- Flex Connector
- Fabric Expansion Joint
- Pulsation Dampener

INSTRUMENTATION
- Instrumentation
- Symbols

GENERAL NOTES:
1. This drawing is general in nature. Some symbols and identifications shown herein may not be used on the contract drawings.
2. Symbols are arranged on specific drawings and in categories for convenience; only symbols may be used on any of the contract drawings.
APPENDIX B

Correspondence
November 19, 2019

Kevin Kilpatrick  
HDR Engineering, Inc.  
2825 East Cottonwood Parkway, Suite 200  
Salt Lake City UT 84121-7077

RE: Paleontological File Search and Recommendations for the Weber Basin Parallel Pipeline Project, Davis County, Utah  
U.C.A. 79-3-508 (Paleontological) Compliance; Request for Confirmation of Literature Search

Dear Kevin:

I have conducted a paleontological file search for the Weber Basin Parallel Pipeline Project in response to your request of November 19, 2019. There are no paleontological localities recorded in our files within or near this project area. Quaternary and Recent alluvial and lacustrine deposits and artificial fill that are exposed along this project right-of-way have a low potential for yielding significant fossil localities (PFYC 1 - 2). Unless fossils are discovered as a result of construction activities this project should have no impact on paleontological resources.

If you have any questions, please call me at (801) 537-3311.

Sincerely,

\[\text{[Signature: \text{Martha Hayden}}}\]

Martha Hayden  
Paleontological Assistant
Kent Kofford  
Area Manager  
Bureau of Reclamation  
302 East 1860 South  
Provo, Utah 84606-7317

RE: The Weber Basin Water Conservancy District Davis Aqueduct Parallel Pipeline Project, Davis County, Utah

For future correspondence, please reference Case No. 20-2019

Dear Mr. Kofford,

The Utah State Historic Preservation Office received your request for our comment on the above-referenced undertaking on May 13, 2020.

We concur with your determinations of eligibility and No Adverse Effect for this undertaking.

This letter serves as our comment on the determinations you have made within the consultation process specified in §36CFR800.4. If you have questions, please contact me at 801-245-7246 or by email at sagardy@utah.gov.

Sincerely,

Savanna Agardy  
Compliance Archaeologist