ROCK RIVER WATER RECLAMATION DISTRICT
FULLER CREEK PHASE F, PUMP STATION INSTALLATION
CAPITAL IMPROVEMENT PROJECT 1566
MARCH 6, 2018

INDEX OF SHEETS
1. COVER
2. LEGEND, GENERAL NOTES, SUMMARY OF QUANTITIES
3. TEMPORARY UTILITY PLAN
4. SITE DEMOLITION PLAN
5. PROPOSED PLAN & PROFILE
6. PUMP STATION - WET WELL & VALVE VAULT DETAILS
7. EXISTING BUILDING RENOVATIONS
8. ELECTRICAL SITE PLAN
9. ELECTRICAL CONTROL ROOM DETAILS
10. ELECTRICAL CONDUIT & EQUIPMENT SCHEDULES
11. ELECTRICAL SCHEMATIC
12. R.R.W.R.D. STANDARD DETAILS

BOARD OF TRUSTEES
DONALD MASSIER
ELMER JONES
RICHARD POLLACK
JOHN SWEENEY
BEN BERNSTEIN

OFFICIALS
TIMOTHY S. HANSON
CHRISTOPHER T. BAER, PE

Not to be used for bidding purposes.
### GENERAL NOTES

1. The contractor is solely responsible for execution of work to the lines and grades shown on these plans. Contractor is not to vary from plans without district approval.

2. The Rock River Water Reclamation District, municipalities, pertinent roadway authorities, and all affected property owners shall be notified at least 48 hours minimum before construction can commence.

3. All service locations are approximate and may be changed in the field with the approval of the inspector. No additional compensation will be awarded due to revised location.

4. All castings shall be set to final grade per Rock River Water Reclamation District requirements.

5. Sanitary sewer shall be constructed in accordance with the standard specification for sanitary sewer pipe and fittings construction in the state of Illinois, latest edition, and the requirements of the Rock River Water Reclamation District.

6. Sanitary Sewer shall be constructed in accordance with the standard specification for sanitary sewer pipe and fittings construction in the state of Illinois, latest edition, and the requirements of the Rock River Water Reclamation District.

7. The contractor shall verify the location of all utilities in the field prior to commencing construction. The contractor shall notify J.U.L.I.E. System 48 hours prior to the start of construction.


9. The contractor shall notify all affected property owners of the construction plans and specifications and shall inform the inspector of the location of all utilities prior to the start of construction.

10. The contractor is solely responsible for the installation of all utilities as shown on the plans. Contractor is not to vary from plans without district approval.

### SUMMARY OF QUANTITIES

<table>
<thead>
<tr>
<th>No.</th>
<th>ITEM</th>
<th>UNIT</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TEMPORARY UTILITIES, COMPLETE</td>
<td>LS</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>SITE DEMOLITION, COMPLETE</td>
<td>LS</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>BUILDING RENOVATIONS, COMPLETE</td>
<td>LS</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>VALVE VAULT, COMPLETE</td>
<td>LS</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>PROPOSED FIBER OPTIC / CAT6 CABLE</td>
<td>LF</td>
<td>47</td>
</tr>
<tr>
<td>6</td>
<td>ELECTRIC - UNDERGROUND</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>ELECTRIC - OVERHEAD</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>EDGE OF PAVEMENT</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>CURB &amp; GUTTER</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>CABLE - OVERHEAD</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>FENCE - SLT</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>FENCE - TEMPORARY CONSTRUCTION</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>ROADWAY CENTRAL LINE</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>EDGE OF PAVEMENT</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>CABLE - UNDERGROUND</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>ELECTRIC - UNDERGROUND</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>FIBER OPTIC / CAT6 CABLE</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>GAS LINE</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>TELEPHONE - OVERHEAD</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>TELEPHONE - UNDERGROUND</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>PEDESTRIAN CURB &amp; TILES &amp; HANDRAILS</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>SANITARY MANHOLE &amp; SANITARY SEWER</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>SANITARY SERVICE &amp; CLEANOUT</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>SANITARY FORCEMAIN</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>STORM SEWER</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>STORM MAHOLE, CATCH BASIN, GUMP INLET, GUMP SPECIAL</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>27</td>
<td>DEBRIS COLLECTION</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td>WATER MAIN &amp; WATER MAIN VALVE</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>29</td>
<td>WATER SERVICE &amp; WATER SERVICE VALVE</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>FIRE HYDRANT</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>SOIL BORING</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>BENCHMARK</td>
<td>EA</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>MAILBOX</td>
<td>EA</td>
<td>1</td>
</tr>
</tbody>
</table>

### ABBREVIATIONS

- **SLT**:聖人
- **FM**:護理
- **SF**: FIRE HYDRANT
- **W**: WATER MAIN & WATER MAIN VALVE
- **X**: WATER SERVICE & WATER SERVICE VALVE
- **CO**: MAILBOX
- **DI**: CEMENT, CONCRETE
- **C.O.**: CEMENT, CONCRETE
- **C.B.**: CURB INLET, INLET SPECIAL
- **RCP**: CORRUGATED METAL PIPE
- **ABD.**: TURF
- **VCP**: VITRIFIED CLAY PIPE
- **DI**: DI
- **D.M.**: DI
- **SHT**: LUMP SUM
- **HMA**: CORRUGATED METAL PIPE
- **SHT**: LUMP SUM
- **SHT**: LUMP SUM
- **CH**: CH
- **RIP RAP**: RUP RAP
- **PAVEMENT REPLACEMENT**: RUP RAP
- **EROSION CONTROL BLANKET**: RUP RAP
- **SOIL BORING**: RUP RAP
- **LEGEND, GENERAL NOTES, & SUMMARY OF QUANTITIES**

### Sheet No.

<table>
<thead>
<tr>
<th>Sheet No.</th>
<th>2 OF 12</th>
</tr>
</thead>
</table>

**Not to be used for bidding purposes**
EXISTING PERIMETER CHAIN-LINK FENCE

PUMP POWER TO EFFLUENT SAMPLING OUT SOURCE EX. UP X = DB 3 CONDUCTOR #12 CU THHN

A CONVENIENT LOCATION TO BE DETERMINED IN CONSTRUCTION.

CONTRACTOR SHALL NOT CUT/REMOVE EXISTING CABLE. CABLE SHALL BE INSTALLED FROM CURRENT CONTROL PANEL (AS DRAWN). CONTRACTOR SHALL MAINTAIN ACCESS TO PUMP OPERATOR USE. CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY SLUDGE LOADING AREA. CONTRACTOR SHALL MAINTAIN TEMPORARY SLUDGE LOADING AREA. DISTRICT PERSONNEL WILL ACCESS TEMPORARY FORCE MAIN FOR LOADING/UNLOADING SLUDGE FROM EXISTING SLUDGE TANK. ACCESS TO THIS AREA THROUGHOUT CONSTRUCTION.

PREVIOUS TO BEGINNING DEMOLITION, CONTRACTOR SHALL RE-ROUTE EXISTING UNDERGROUND ELECTRIC FROM SLOVER BUILDING TO WWTP.

NEW UNDERGROUND ELECTRIC JUNCTION BOX. 24" PVC MINIMUM DIMENSIONS. SPLICE NEW AND EXISTING 3 COND. 350 MCM CABLE WITH BURNDY SPLICE OR EQUAL.

EXISTING SLUDGE STORAGE TANK

EX. MH 700-001 (E) 24" PVC INV IN: 848.06 (W) 24" PVC INV OUT: 847.97 21" PIPE SOUTH OVER FLOWS TO EX. HIGH FLOW PUMP STATION

CONSTRUCTION NOTES

1. PRIOR TO BEGINNING REMOVALS, CONTRACTOR SHALL COMPLETE ALL TEMPORARY UTILITY INSTALLATIONS. PLUG THE 24" PIPE OUT OF EXISTING MH 700-001 AND CONFIRM WITH THE DISTRICT THAT EXISTING WWTP IS OPERATIONAL WITH TEMPORARY UTILITIES IN SERVICE.

2. 24" PLUG SHALL BE RESTRAINED/BRACED TO ENSURE THE PLUG DOES NOT WASH DOWN STREAM. CONTRACTOR SHALL MAINTAIN APPROPRIATE PRESSURE IN THE PLUG TO ENSURE NO WASTEWATER IS RELEASED.

TEMPORARY SUBMERSIBLE GRINDER SLUDGE PUMP MINIMUM CAPACITY = 100 GPM @ 40' TDH

CONTRACTOR SHALL INSTALL SUBMERSIBLE SLUDGE PUMP OVER EXISTING MI5 PS #12 HIGH FLOW PUMP STATION. PUMP SHALL BE INSTALLED FROM CURRENT CONTROL PANEL (AS DRAWN). CONTRACTOR SHALL CONFIRM TEMPORARY CABLE COMMUNICATION IS ESTABLISHED TO MAINTAIN EXISTING WWTP CONTROL COMMUNICATION FOR THE DURATION OF CONSTRUCTION.

CONTRACTOR SHALL PROVIDE TWO (2) TEMPORARY 120V WEATHER PROOF CONVENIENCE RECEPTACLES FOR DISTRICT USE DURING CONSTRUCTION.

SOURCE OF POWER SHALL BE EXISTING LIGHT PANEL UP X ".

TEMPORARY WIRE AND RECEPTACLES SHALL BE REMOVED UPON PROJECT COMPLETION.

PLUG 24" PVC INV OUT PRIOR TO BEGINNING DEMOLITION. DISTRICT WILL OPERATE EXISTING HIGH FLOW PUMP STATION THROUGHOUT CONSTRUCTION.
Not to be used for bidding purposes.
PRECAST CONCRETE WET WELL; CAST IN PLACE VALVE VAULT

ALL DETAILS 2:1 UNLESS NOTED OTHERWISE

*SOME DETAILS MAY BE SHOWN OUT OF SECTION FOR CLARITY*

CONSTRUCTION NOTES

1. SEE SPECIFICATIONS FOR ADDITIONAL DETAIL AND COMPONENT REQUIREMENTS.
2. ALL PRESSURE PIPE PENETRATIONS SHALL BE SEALED WITH A DOUBLE LINK SEAL OR DISTRICT APPROVED EQUAL. REFER TO THE STANDARD DETAIL SHEET FOR GRAVITY PIPE PENETRATION SEALS.
3. ALL PIPING THROUGH VALVE VAULT SHALL BE PROPERLY SUPPORTED BY CAST IN PLACE CONCRETE OR STAINLESS STEEL SUPPORTS. INCIDENTAL TO VALVE VAULT CONSTRUCTION AND COMPATIBLE WITH APPROVED PUMP.
4. FLOOR OF VALVE VAULT SHALL BE SLOPED TO DRAIN TO PROPOSED SUMP.
5. REFER TO SPECIFICATIONS AND DETAILS FOR AIR RELEASE VALVE INSTALLATION REQUIREMENTS.
6. CONTRACTOR SHALL ROTATE VENTILATION PIPING AS REQUIRED TO ENSURE GOOSENECK DOES NOT EXTEND BEYOND EXTERIOR PERIMETER OF VAULT OR WET WELL. FINAL ALIGNMENT WILL BE AS APPROVED BY THE DISTRICT.
7. PROPOSED PUMP STATION PAY ITEM INCLUDES ALL ITEMS DETAILED ON THIS SHEET, INSTALLED INCLUDING DUCTILE IRON PIPE, EXCAVATION, BACKFILL AND FINISH GRADING AND RASTERIZATION.

ELECTRICAL EQUIPMENT

SEE SHEETS 8-11 FOR ADDITIONAL DETAIL.

WET WELL:

2. TWO (2) 25 HP SUBMERSIBLE PUMPS
1. PMC VERSALINE VL2000 SERIES OR EQUAL.

LEVEL TRANSDUCER:

2.5. TWO (2) FLOW METER TRANSDUCERS, GREYLINE MODEL DFM 5.1.A OR EQUAL.
2.4. TWO (2) DUPLEX GFI RECEPTACLES (VAPOR PROOF).
2.3. ONE (1) FANTECH FKD8XL EXHAUST FAN OR EQUAL.
2.2. ONE (1) ABS/ROBUSTA 100 SUMP PUMP OR EQUAL.
2.1. TWO (2) WALL MOUNTED LED LIGHTS; RAB VXBRLED26DG OR EQUAL.

SYSTEM PER:

6. CONTRACTOR SHALL SUPPLY THREE (3) PUMPS TOTAL, INCLUDING 35' OF POWER AND CONTROL CABLE. TWO (2) PUMPS WILL BE INSTALLED IN THIS PROJECT. THE THIRD PUMP WILL BE STORED ON SITE AS A BACK-UP.
5. PUMPS SHALL BE 25HP, 480V, 60HZ 2-1/2HP. CHOPPER OR NON-CLOG PUMPS CAPABLE OF PUMPING 800GPM @ 80'4" TDH.
4. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
3. ALL PUMPS SHALL BE INSTALLED IN JUNCTION BOX #1 - IDENTICAL TO JUNCTION BOX #1 (LESS DISCONNECTS) SHALL BE INSTALLED ON THE TOP SLAB OF THE VALVE VAULT.
2. CONTRACTOR SHALL SUPPLY LEVEL TRANSDUCER (GREGLINE DFM 5.4), HIGH LEVEL FLOATS, STAINLESS STEEL CABLE, WEIGHT AND APPARATUS. THE CABLE AND WEIGHT TO WHICH LEVEL TRANSDUCER AND HIGH LEVEL FLOAT SWITCH SHALL BE ATTACHED TO THE 50 EYE BOLT DETAILED ON THIS SHEET. SEE SPECIFICATIONS AND ELECTRICAL PLAN SHEETS 8-11 FOR ADDITIONAL DETAIL.
1. SEE SPECIFICATIONS FOR PUMPS AND COMPONENT SUBMITTAL REQUIREMENTS.

PUMP REQUIREMENTS

1. CONTRACTOR SHALL SUPPLY THREE (3) PUMPS TOTAL, INCLUDING 35' OF POWER AND CONTROL CABLE. TWO (2) PUMPS WILL BE INSTALLED IN THIS PROJECT. THE THIRD PUMP WILL BE STORED ON SITE AS A BACK-UP.
2. PUMPS SHALL BE 25HP, 480V, 60HZ 2-1/2HP. CHOPPER OR NON-CLOG PUMPS CAPABLE OF PUMPING 800GPM @ 80'4" TDH.
3. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
4. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
5. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
6. SEE SPECIFICATIONS FOR PUMPS AND COMPONENT SUBMITTAL REQUIREMENTS.
7. CONTRACTOR SHALL SUPPLY LEVEL TRANSDUCER (GREGLINE DFM 5.4), HIGH LEVEL FLOATS, STAINLESS STEEL CABLE, WEIGHT AND APPARATUS. THE CABLE AND WEIGHT TO WHICH LEVEL TRANSDUCER AND HIGH LEVEL FLOAT SWITCH SHALL BE ATTACHED TO THE 50 EYE BOLT DETAILED ON THIS SHEET. SEE SPECIFICATIONS AND ELECTRICAL PLAN SHEETS 8-11 FOR ADDITIONAL DETAIL.

CONSTRUCTION NOTES

1. SEE SPECIFICATIONS FOR ADDITIONAL DETAIL AND COMPONENT REQUIREMENTS.
2. ALL PRESSURE PIPE PENETRATIONS SHALL BE SEALED WITH A DOUBLE LINK SEAL OR DISTRICT APPROVED EQUAL. REFER TO THE STANDARD DETAIL SHEET FOR GRAVITY PIPE PENETRATION SEALS.
3. ALL PIPING THROUGH VALVE VAULT SHALL BE PROPERLY SUPPORTED BY CAST IN PLACE CONCRETE OR STAINLESS STEEL SUPPORTS. INCIDENTAL TO VALVE VAULT CONSTRUCTION.
4. FLOOR OF VALVE VAULT SHALL BE SLOPED TO DRAIN TO PROPOSED SUMP.
5. REFER TO SPECIFICATIONS AND DETAILS FOR AIR RELEASE VALVE INSTALLATION REQUIREMENTS.
6. CONTRACTOR SHALL ROTATE VENTILATION PIPING AS REQUIRED TO ENSURE GOOSENECK DOES NOT EXTEND BEYOND EXTERIOR PERIMETER OF VAULT OR WET WELL. FINAL ALIGNMENT WILL BE AS APPROVED BY THE DISTRICT.
7. PROPOSED PUMP STATION PAY ITEM INCLUDES ALL ITEMS DETAILED ON THIS SHEET, INSTALLED INCLUDING DUCTILE IRON PIPE, EXCAVATION, BACKFILL AND FINISH GRADING AND RASTERIZATION.

ELECTRICAL EQUIPMENT

SEE SHEETS 8-11 FOR ADDITIONAL DETAIL.

WET WELL:

2. TWO (2) 25 HP SUBMERSIBLE PUMPS
1. PMC VERSALINE VL2000 SERIES OR EQUAL.

LEVEL TRANSDUCER:

2.5. TWO (2) FLOW METER TRANSDUCERS, GREYLINE MODEL DFM 5.1.A OR EQUAL.
2.4. TWO (2) DUPLEX GFI RECEPTACLES (VAPOR PROOF).
2.3. ONE (1) FANTECH FKD8XL EXHAUST FAN OR EQUAL.
2.2. ONE (1) ABS/ROBUSTA 100 SUMP PUMP OR EQUAL.
2.1. TWO (2) WALL MOUNTED LED LIGHTS; RAB VXBRLED26DG OR EQUAL.

SYSTEM PER:

6. CONTRACTOR SHALL SUPPLY THREE (3) PUMPS TOTAL, INCLUDING 35' OF POWER AND CONTROL CABLE. TWO (2) PUMPS WILL BE INSTALLED IN THIS PROJECT. THE THIRD PUMP WILL BE STORED ON SITE AS A BACK-UP.
5. PUMPS SHALL BE 25HP, 480V, 60HZ 2-1/2HP. CHOPPER OR NON-CLOG PUMPS CAPABLE OF PUMPING 800GPM @ 80'4" TDH.
4. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
3. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
2. CONTRACTOR SHALL SUPPLY THREE (3) PUMPS TOTAL, INCLUDING 35' OF POWER AND CONTROL CABLE. TWO (2) PUMPS WILL BE INSTALLED IN THIS PROJECT. THE THIRD PUMP WILL BE STORED ON SITE AS A BACK-UP.
1. SEE SPECIFICATIONS FOR PUMPS AND COMPONENT SUBMITTAL REQUIREMENTS.

PUMP REQUIREMENTS

1. CONTRACTOR SHALL SUPPLY THREE (3) PUMPS TOTAL, INCLUDING 35' OF POWER AND CONTROL CABLE. TWO (2) PUMPS WILL BE INSTALLED IN THIS PROJECT. THE THIRD PUMP WILL BE STORED ON SITE AS A BACK-UP.
2. PUMPS SHALL BE 25HP, 480V, 60HZ 2-1/2HP. CHOPPER OR NON-CLOG PUMPS CAPABLE OF PUMPING 800GPM @ 80'4" TDH.
3. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
4. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
5. PUMPS SHALL BE AS MANUFACTURED BY VAUGHAN, ABS/SUZLER, FLYGT, GRUNDFOS, HOMA OR DISTRICT APPROVED EQUVALENT.
6. SEE SPECIFICATIONS FOR PUMPS AND COMPONENT SUBMITTAL REQUIREMENTS.
7. CONTRACTOR SHALL SUPPLY LEVEL TRANSDUCER (GREGLINE DFM 5.4), HIGH LEVEL FLOATS, STAINLESS STEEL CABLE, WEIGHT AND APPARATUS. THE CABLE AND WEIGHT TO WHICH LEVEL TRANSDUCER AND HIGH LEVEL FLOAT SWITCH SHALL BE ATTACHED TO THE 50 EYE BOLT DETAILED ON THIS SHEET. SEE SPECIFICATIONS AND ELECTRICAL PLAN SHEETS 8-11 FOR ADDITIONAL DETAIL.

CONSTRUCTION NOTES

1. SEE SPECIFICATIONS FOR ADDITIONAL DETAIL AND COMPONENT REQUIREMENTS.
2. ALL PRESSURE PIPE PENETRATIONS SHALL BE SEALED WITH A DOUBLE LINK SEAL OR DISTRICT APPROVED EQUAL. REFER TO THE STANDARD DETAIL SHEET FOR GRAVITY PIPE PENETRATION SEALS.
3. ALL PIPING THROUGH VALVE VAULT SHALL BE PROPERLY SUPPORTED BY CAST IN PLACE CONCRETE OR STAINLESS STEEL SUPPORTS. INCIDENTAL TO VALVE VAULT CONSTRUCTION.
4. FLOOR OF VALVE VAULT SHALL BE SLOPED TO DRAIN TO PROPOSED SUMP.
5. REFER TO SPECIFICATIONS AND DETAILS FOR AIR RELEASE VALVE INSTALLATION REQUIREMENTS.
6. CONTRACTOR SHALL ROTATE VENTILATION PIPING AS REQUIRED TO ENSURE GOOSENECK DOES NOT EXTEND BEYOND EXTERIOR PERIMETER OF VAULT OR WET WELL. FINAL ALIGNMENT WILL BE AS APPROVED BY THE DISTRICT.
7. PROPOSED PUMP STATION PAY ITEM INCLUDES ALL ITEMS DETAILED ON THIS SHEET, INSTALLED INCLUDING DUCTILE IRONPIPE, EXCAVATION, BACKFILL AND FINISH GRADING AND RASTERIZATION.
**CONSTRUCTION NOTES**

1. BUILDING IMPROVEMENTS FOR THIS PROJECT ARE LIMITED TO REPLACEMENT OF EXISTING WINDOWS (6), REPLACING EXISTING DOOR PANELS (2), WORK WITHIN THE EXISTING GENERATOR ROOM, AND ELECTRICAL WORK REQUIRED FOR PROPOSED PUMPING EQUIPMENT AND APPURTENANCES.

2. DIMENSIONS PROVIDED ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING DIMENSIONS PRIOR TO PRODUCT SUBMITTAL AND PURCHASE.

3. ANY EQUIPMENT AND CONDUITS NOT BEING REUSED IN PROPOSED CONSTRUCTION LOCATED IN THE EXISTING GENERATOR ROOM SHALL BE REMOVED. CEILING, WALL, OR FLOOR PENETRATIONS THAT REMAIN SHALL BE GROUTED FLUSH WITH ADJACENT SURFACE.

4. PRIOR TO REMOVAL OF EXISTING GENERATOR AND AUTOMATIC TRANSFER SWITCH, CONTRACTOR SHALL HAVE A PORTABLE, DIESEL DRIVEN STAND BY GENERATOR ON SITE TO SERVE AS BACK-UP POWER FOR THE TREATMENT PLANT WHICH WILL REMAIN IN SERVICE DURING CONSTRUCTION. GENERATOR SHALL BE SIZED APPROPRIATELY FOR THE LOADING PROVIDED IN SPECIFICATIONS.

5. AFTER REMOVALS AND BEFORE ANY NEW EQUIPMENT OR CONDUIT IS INSTALLED IN THE EXISTING GENERATOR ROOM, CONTRACTOR SHALL CLEAN AND PAINT ALL INTERIOR WALLS AND CEILING OF THE GENERATOR ROOM. COLOR SHALL BE AS SELECTED BY THE DISTRICT.

**REMOVE AND REPLACE EXISTING WINDOWS (6 TOTAL) WITH NEW ALUMINUM CLAD, DOUBLE PANE, PICTURE WINDOWS. MAXIMUM U-FACTOR = 0.37. COLOR OF CLADDING SHALL BE SELECTED BY THE DISTRICT.**

**REMOVE AND REPLACE INSULATED STEEL DOOR PANELS WITH NEW. EXISTING FRAME SHALL REMAIN IN PLACE. MAXIMUM U-FACTOR = 0.41. COLOR SHALL BE AS SELECTED BY THE DISTRICT.**

**REMOVE ABANDONED FANS.**

**REMOVE AND REPLACE EXISTING WINDOWS (6 TOTAL) WITH NEW ALUMINUM CLAD, DOUBLE PANE PICTURE WINDOWS. MAXIMUM INSULATING U-FACTOR = 0.37. COLOR OF CLADDING SHALL BE SELECTED BY THE DISTRICT.**

**REMOVE ABANDONED LP GAS LINE. GROUT EXISTING WALL PENETRATIONS FLUSH WITH EXISTING SURFACE.**

**EX. GENERATOR ROOM / PROPOSED CONTROL ROOM.**

**EX. BLOWER ROOM.**

**EX. GENERATOR ROOM.**

**PLAN VIEW.**

**NORTH ELEV.**

**SOUTH ELEV.**

**WEST ELEV.**

**EAST ELEV.**

**ROCK RIVER WATER RECLAMATION DISTRICT**

**3501 KISHWAUKEE STREET**

**ROCKFORD, ILLINOIS 61109**

**(815) 387-7660**

**EX. GENERATOR ROOM / PROPOSED CONTROL ROOM.**

**EX. BLOWER ROOM.**

**EX. GENERATOR ROOM.**

**PLAN VIEW.**

**NORTH ELEV.**

**SOUTH ELEV.**

**WEST ELEV.**

**EAST ELEV.**

**FULLER CREEK PHASE F, PUMP STATION INSTALLATION**

**CAPITAL IMPROVEMENT PROJECT #1566**

**WEST SOPER STREET**

**EXISTING BUILDING RENOVATIONS**

**Date:** 3/1/2018
1. ALL WORK SHALL CONFORM TO NFPA 70, NATIONAL ELECTRIC CODE. IF CONFLICTS EXIST BETWEEN PLANS, SPECIFICATION AND CODE, CODE SHALL GOVERN. ANY MODIFICATION AND/OR ADDITIONS TO THESE PLANS REQUIRED FOR PROPER COMPLIANCE TO APPLICABLE CODES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID.

2. CONTRACTOR SHALL COORDINATE ELECTRICAL WORK WITH INSTALLATION OF WORK BY OTHER TRADES AND MAKE NECESSARY FIELD ADJUSTMENTS AS REQUIRED TO ACCOMMODATE THE ELECTRICAL INSTALLATION. COORDINATION AND FIELD ADJUSTMENTS SHALL BE INCIDENTAL TO WORK.

3. CONTRACTOR SHALL VERIFY ALL COMPONENT MOUNTING ARRANGEMENTS, HEIGHTS AND LOCATIONS PRIOR TO ROUGH-IN. THE DISTRICT RESERVES THE RIGHT TO RELOCATE ANY DEVICE UP TO 10' PRIOR TO ROUGH-IN WITHOUT ANY ADDITIONAL COST.

4. ALL INSTRUMENTS AND EQUIPMENT SHALL BE TESTED AND PROVE TO BE FREE OF ELECTRONIC AND MECHANICAL DEFECTS. THE ELECTRICAL SYSTEM SHALL BE TESTED FOR GROUNDS OR SHORTS AND IF SHORTED OR GROUNDED, ALL SUCH WIRES SHALL BE REMOVED AND REPLACED. IF TROUBLE IS WITHIN CIRCUIT, ALL METERS, CABLES, OR EQUIPMENT NECESSARY FOR PERFORMING REQUIRED TESTS SHALL BE FURNISHED AND PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.

5. CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY WIRING FOR HAND TOOLS AND CONSTRUCTION LIGHTING PER LATEST OSHA STANDARDS AND INCLUDE ALL COSTS IN BID.

6. ALL EQUIPMENT AND/OR DEVICES SHALL BE NEW AND SHALL BEAR THE APPROPRIATE UL OR CSA APPROVED LABELS FOR SPECIFIC PURPOSE.

7. UPON COMPLETION OF WORK CONTRACTOR SHALL REVIEW AND CHECK ALL WORK, CLEAN EQUIPMENT AND DEVICES, REMOVE SURPLUS MATERIALS AND DEBRIS FROM THE PROPERTY, LEAVING THE WORK AREA IN NEAT AND CLEAN ORDER AND IN COMPLETE WORKING CONDITION.

8. ALL INTERIOR CONDUIT SHALL BE RIGID, GALVANIZED STEEL CONFORMING TO ANSI C80.1. EXTERIOR CONDUIT SHALL BE HEAVY WALL SCHEDULE 40 PVC ENCASED IN CONCRETE. CONCRETE SHALL BE MINIMUM 6" THICK AROUND EXTERIOR OF CONDUIT.

9. CONTRACTOR SHALL CONNECT 4/0 GROUND CABLE TO LIGHTNING ARRESTOR.

10. INSTALL FLANDER-STYLE DOOR SWITCH OPERATED BY HATCH DOOR TO CONTROL LIGHTING AND VENTILATION.

11. RTU ANTENNA INSTALLED @ 48' HEIGHT (ANTENEX VOYAGER VG1502 OR EQUAL INCLUDING LIGHTNING ARRESTOR)

12. NEW SANITARY MANHOLE INSTALLED OVER 10" COMPACTED BASE AGGREGATE. INTERIOR CUT-OUT WILL BE MINIMUM 4'X4' AS DIRECTED BY THE DISTRICT.

13. NEW SANITARY MANHOLE INSTALLED IN 4" CONDUIT.

14. RTU ANTENNA INSTALLED @ 48' HEIGHT (ANTENEX VOYAGER VG1502 OR EQUAL INCLUDING LIGHTNING ARRESTOR)

15. SYNTHETIC CPS/EXISTING ELECTRIC SERVICE POLE

16. INSTALL PLUNGER-STYLE DOOR SWITCH FOR LIGHTING AND VENTILATION.

17. ROCK RIVER WATER RECLAMATION DISTRICT

18. WEST SOPER STREET ELECTRICAL SITE PLAN

19. FULLER CREEK PHASE F, PUMP STATION INSTALLATION CAPITAL IMPROVEMENT PROJECT #1566
EXISTING PUMP STATION

EXISTING MCC 1

- 3 ADDITIONAL FUSE, NO LOAD, PREV. ABANDONED EQUIP.
- TRAMP POWER
- SAMPLER UNIT

EXISTING MCC 2

- TRAMP POWER
- SAMPLER UNIT

EXISTING SLUDGE TANKER FILLED, 5 HP SUBMERSIBLE PUMP

RAS BUILDING

EX.
JBOX

GRIT
BUILDING

NEW INTEGRATED POWER CENTER

- NEW NATURAL GAS STANDBY GENERATOR
- A.T.S.

NEW 480V "NF" PANEL

- 400A COMED METER
- 125A
- 50A
- 50A (SPARE)
- 480V
- 208Y/120V
- 75 KVA

PUMP 1

VFD

PUMP 2

VFD

NEW 120V "NQ" PANEL

- 20A SPARE
- 20A SPARE
- 20A SPARE
- 20A SPARE
- 30A (SPARE)

NEW INTEGRATED POWER CENTER

- TEMPORARY POWER TO SAMPLER UNIT

NEW GROUND LOOP; SEE SITE PLAN ON SHEET 8

CONTRACTOR SHALL FURNISH & INSTALL REPLACEMENT FUSES AS REQUIRED FOR TEMPORARY SLUDGE PUMP.

PROPOSED FINAL ELECTRICAL SCHEMATIC

THIS DRAWING IS INTENDED FOR CLARIFICATION AND SHALL BE USED IN CONJUNCTION WITH SITE PLAN AND EQUIPMENT SCHEDULES.

ROCK RIVER WATER RECLAMATION DISTRICT
3501 KISHWAUKEE STREET
ROCKFORD, ILLINOIS 61109
(815) 387-7660

FULLER CREEK PHASE F, PUMP STATION INSTALLATION
CAPITAL IMPROVEMENT PROJECT #1566

WEST SOPER STREET ELECTRICAL SCHEMATIC

Sheet No.
11 OF 12

Date
3/1/2018