

MILWAUKEE, WISCONSIN

# Milwaukee Water Works

## PUMPING STATION

### LS-33 PRIMARY FILL LINE FOR WATER STORAGE TANKS

#### DRAWING INDEX

| <u>DRAWING NO.</u> | <u>TITLE</u>                   |
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| LS-33-01           | LOCATION MAP AND DRAWING INDEX |
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| LS-33-03           | DETAILS                        |
| LS-33-04           | STRUCTURAL MODIFICATIONS       |
| LS-33-05           | ELECTRICAL                     |



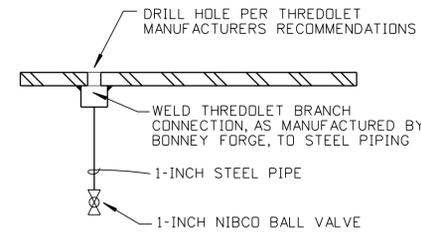
0 0.5 1.0 1.5  
APPROX SCALE IN MILES



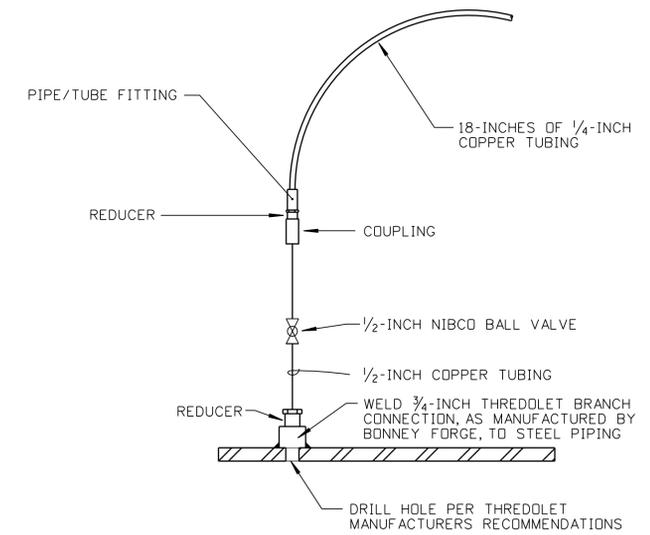
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| Milwaukee<br><b>Water Works</b>                            |             | <b>Water Engineering</b><br>Department of Public Works |   |
| <b>PUMPING STATION</b>                                     |             |  |   |
| <b>LS-33 PRIMARY FILL LINE<br/>FOR WATER STORAGE TANKS</b> |             |  |   |
| <b>LOCATION MAP &amp; DRAWING INDEX</b>                    |             |  |   |
| DESIGNED BY  | MAG         | APPROVED   | DATE  |
| DRAWN BY   | S. MILLER   | <i>Mark J. Scheller</i>                                | 8-5-2013                                    |
| CHECKED BY   | A.J.S.      |  | PLANTS PROJECT ENGINEER                     |
| DATE   | 8-13-2013   | <i>Michael J. Scheller</i>                             | 8-5-2013                                    |
| SCALE  | SEE DRAWING |  | CHIEF DESIGN ENGINEER                       |
| WORK ORDER   | WT450126100 | <i>Chris Lewis</i>                                     | 8-5-2013                                    |
| OFFICIAL NOTICE  | 115-2013    |  | SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS |
| NO.  | BY          | REVISION   | DATE  |
|  |             |  |   |
| FILE NO.   | B-14-2      | DRAWING NO.  | <b>LS-33-01</b>                             |

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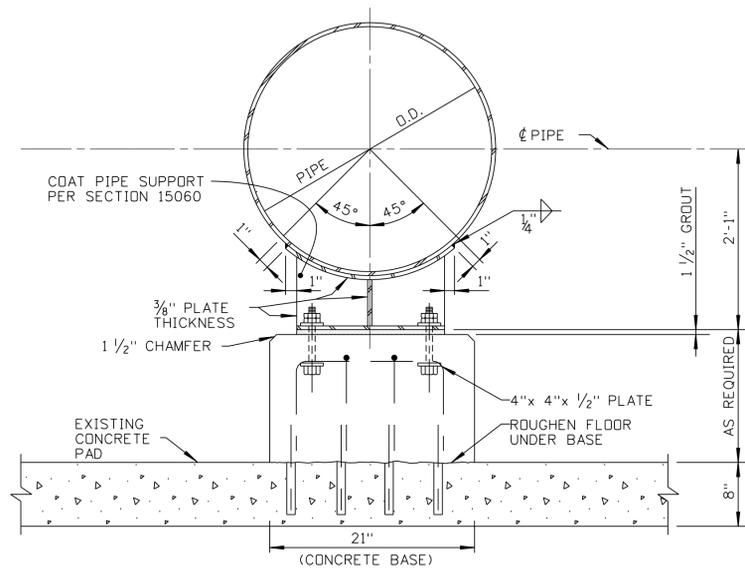




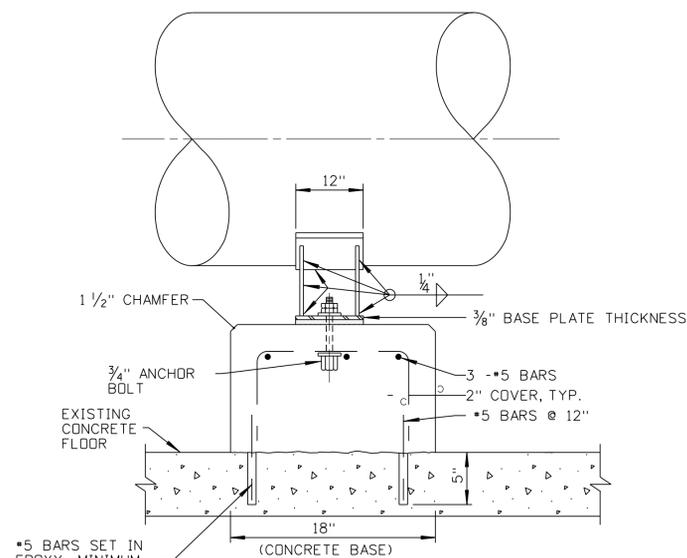
2 DRAIN VALVE  
NOT TO SCALE



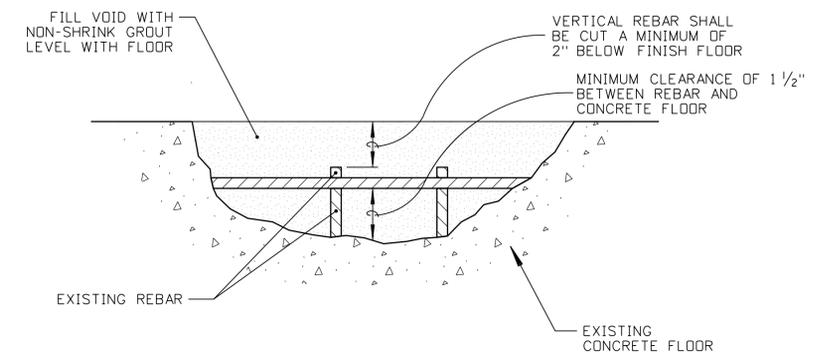
1 TEST PORT  
NOT TO SCALE



3 PIPE SUPPORT - SECTION  
NOT TO SCALE



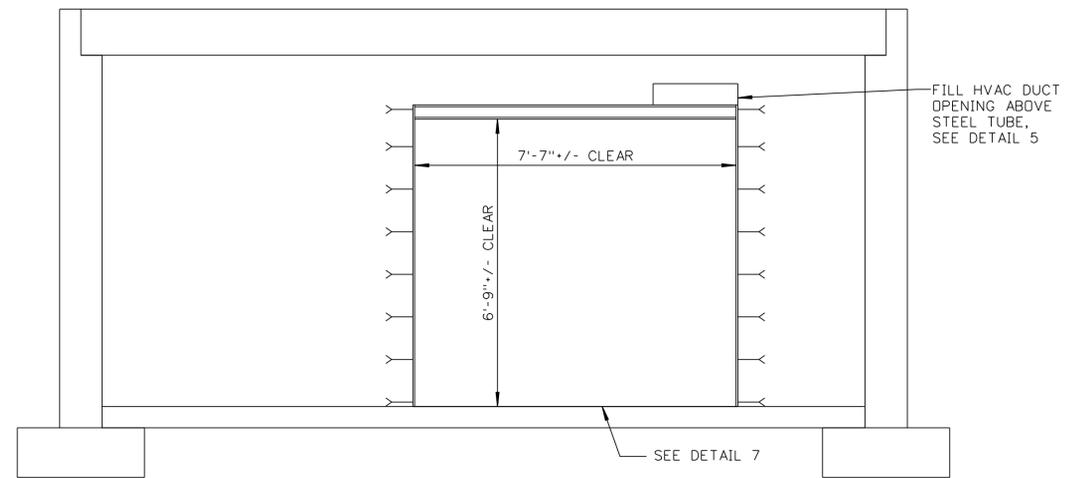
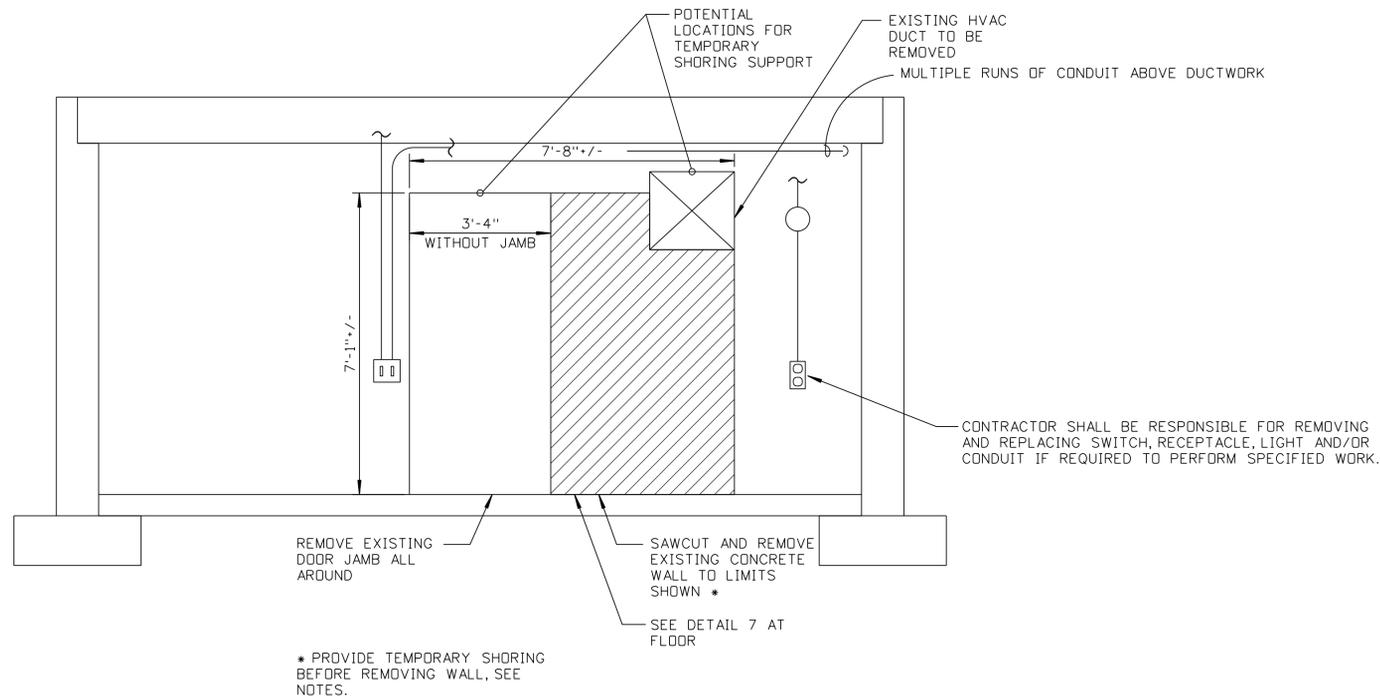
PIPE SUPPORT - ELEVATION



4 FLOOR REPAIR  
NOT TO SCALE

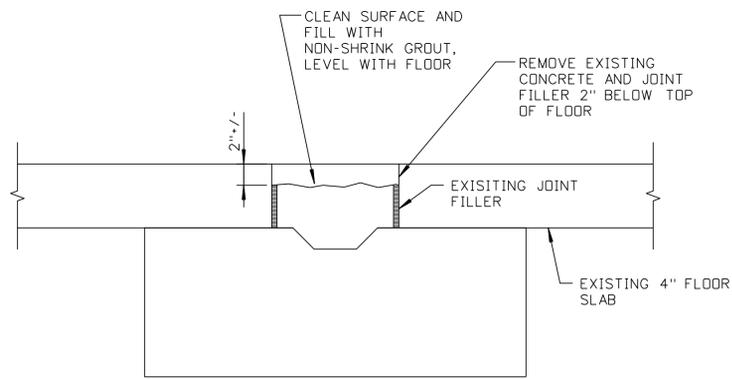
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| <b>Milwaukee Water Works</b>                           |             | <b>Water Engineering</b>    |   |
| Department of Public Works                             |             | Department of Public Works  |   |
| <b>PUMPING STATION</b>                                 |             |                             |   |
| <b>LS-33 PRIMARY FILL LINE FOR WATER STORAGE TANKS</b> |             |                             |   |
| <b>DETAILS</b>   |             |                             |   |
| DESIGNED BY  | MAG         | APPROVED                    | DATE  |
| DRAWN BY   | S. MILLER   | <i>S. Miller</i>            | 8-5-2013                                    |
| CHECKED BY   | M.A.G.      |                             | PLANTS PROJECT ENGINEER                     |
| DATE   | 8-13-2013   | <i>M.A.G.</i>               | 8-5-2013                                    |
| SCALE  | SEE DRAWING |                             | CHIEF DESIGN ENGINEER                       |
| WORK ORDER   | WT450075500 | <i>C. Lewis</i>             | 8-5-2013                                    |
| OFFICIAL NOTICE  | 115-2013    |                             | SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS |
| FILE NO.   | B-14-2      | DRAWING NO. <b>LS-33-03</b> |   |

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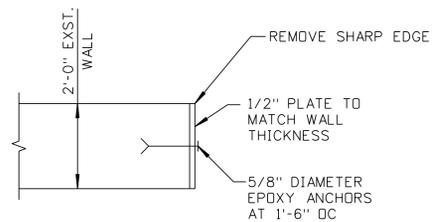


2 WALL ELEVATION  
SCALE = 1/2" = 1'-0"

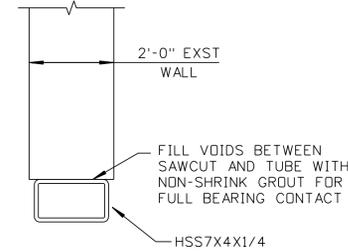
1 WALL ELEVATION - DEMO  
SCALE = 1/2" = 1'-0"



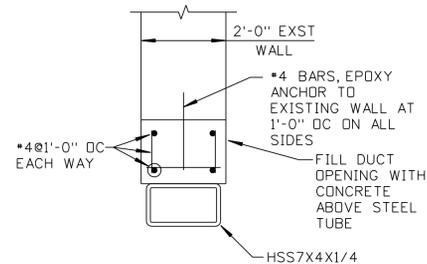
7 FLOOR DETAIL  
SCALE = 1/2" = 1'-0"



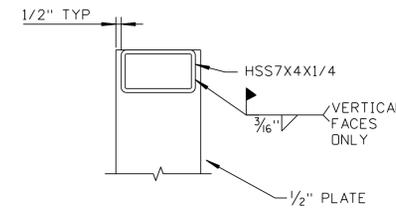
3 SECTION AT WALL  
SCALE = 1/2" = 1'-0"



4 SECTION AT STEEL TUBE  
SCALE = 1/2" = 1'-0"



5 SECTION AT HVAC OPENING  
SCALE = 1/2" = 1'-0"



6 CONNECTION DETAIL  
SCALE = 1/2" = 1'-0"

GENERAL NOTES

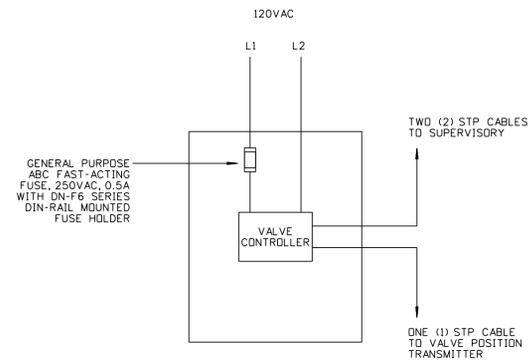
- STEEL PLATES SHALL BE ASTM A36.
- STEEL TUBE SHALL BE ASTM A500, GRADE B.
- STEEL REINFORCEMENT SHALL BE ASTM A615, GRADE 60, EPOXY COATED.
- NEW CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF F'C-3500 PSI OR GREATER.
- NON-SHRINK GROUT SHALL MEET ASTM C1107 REQUIREMENT WITH 28 DAY COMPRESSIVE STRENGTH OF AT LEAST 4000 PSI.
- EPOXY ANCHORS AND ADHESIVE SHALL BE POWERS PE1000+, OR APPROVED EQUAL, WITH A MINIMUM EMBEDMENT OF 5" INTO EXISTING CONCRETE. INSTALL ACCORDING TO MANUFACTURERS REQUIREMENTS.
- DO NOT REMOVE EXISTING CONCRETE WALL BEYOND THE LIMITS SHOWN.
- MAXIMUM 1/8" SURFACE ROUGHNESS TOLERANCE IS ALLOWED FOR SAWCUTS.
- PROVIDE 2" DIAMETER CORED HOLES AT CORNERS OF OPENING TO BE CREATED. CONNECT CORES BY SAWCUTTING TO MINIMIZE OVER CUTTING. REPAIR OVERCUT CONCRETE.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATING STEEL.
- INSTALL TEMPORARY SHORING PRIOR TO SAWCUTTING WALL.
- THE EXISTING WALL MUST BE SUPPORTED WITH SHORING UNTIL THE STEEL TUBE IS WELDED IN PLACE. PLACE SHORES AT 5'-0" O.C. EACH SHORE SHALL HAVE A CAPACITY OF AT LEAST 6000 LBS.

PAINTING NOTES

- STRUCTURAL STEEL AND PLATE SHALL HAVE THE SAME COATING SYSTEM AS THE EXTERIOR OF THE FILL PIPING. SEE SPECIFICATION 15060 PIPES AND PIPE FITTINGS FOR DETAILS.

| NO. | BY | REVISION | DATE |
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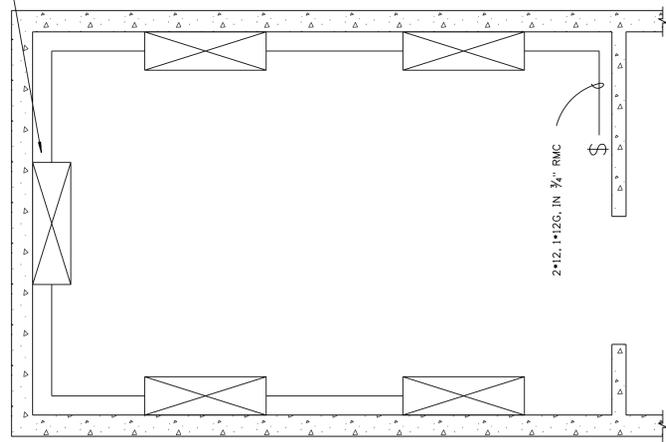
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| <b>Milwaukee Water Works</b><br>Department of Public Works |             | <b>Water Engineering</b><br>Department of Public Works |                         |
| <b>LINCOLN STATION</b>                                     |             |  |                         |
| <b>LS-33 PRIMARY FILL LINE FOR WATER STORAGE TANKS</b>     |             |  |                         |
| <b>STRUCTURAL MODIFICATIONS</b>                            |             |  |                         |
| DESIGNED BY  | J.S.        | APPROVED   | DATE                    |
| DRAWN BY   | S. MILLER   | <i>[Signature]</i>                                     | 8-5-2013                |
| CHECKED BY   | M.A.G.      | <i>[Signature]</i>                                     | PLANTS PROJECT ENGINEER |
| DATE   | 8-13-2013   | <i>[Signature]</i>                                     | 8-5-2013                |
| SCALE  | AS SHOWN    | <i>[Signature]</i>                                     | CHIEF DESIGN ENGINEER   |
| WORK ORDER   | WT450126100 | <i>[Signature]</i>                                     | 8-5-2013                |
| OFFICIAL NOTICE  | 115-2013    | SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS            |                         |
| FILE NO.   | B-14-2      | DRAWING NO. <b>LS-33-04</b>                            |                         |



WEST FILL VALVE  
CONTROLLER CABINET



CONTRACTOR TO FURNISH AND INSTALL FIVE (5) WALL MOUNTED, ENCLOSED, GASKETED, 120V, FLUORESCENT STRIP LUMINAIRE COMPLETE WITH TWO (2) - 32 WATT LAMPS AND MOUNTING BRACKETS. LUMINARIES SHALL BE SIMKAR EN24RPWR232TBEUIEN 2MB OR APPROVED EQUAL.

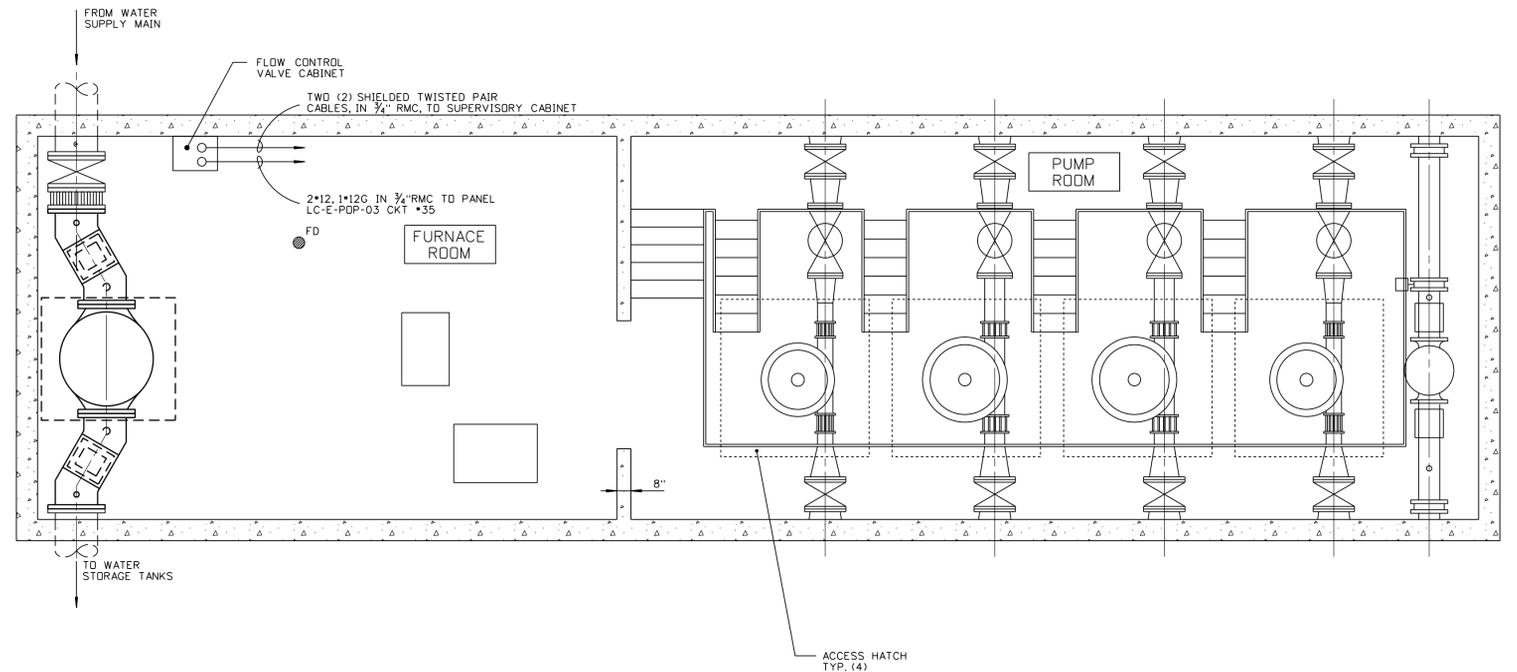


FURNACE ROOM LIGHTING

SCALE = 1/4" = 1' - 0"

NOTES:

1. REMOVE ALL WIRING AND CONDUIT WITH EXISTING WEST FILL VALVE. BACK TO SOURCE AND INSTALL NEW CONDUIT AND WIRING TO NEW WEST FILL VALVE AS INDICATED.
2. REMOVE ALL EXISTING LIGHT FIXTURES, AND ASSOCIATED CONDUIT AND WIRING BACK TO LIGHT SWITCH AND INSTALL NEW LIGHTING FIXTURES, CONDUIT, AND WIRING AS SHOWN.
3. FURNISH AND INSTALL WALL-MOUNTED, NEMA 4X ENCLOSURE WITH HINGED SCREW COVER COMPLETE WITH FILL VALVE CONTROLLER AND ACCESSORIES AS SHOWN.
4. GROUND AND BOND ALL EQUIPMENT PER NEC REQUIREMENTS.
5. FINAL LOCATION OF WALL-MOUNTED LIGHTING AND EQUIPMENT TO BE DETERMINED BY CONTRACTOR, IN CONJUNCTION WITH THE CITY, IN THE FIELD.
6. SUPERVISORY CABINET AND LC-E-PDP-03 ARE LOCATED ABOVE ON 1ST FLOOR. FIELD VERIFY LOCATION.



ELECTRICAL PLAN - BASEMENT

SCALE = 1/4" = 1' - 0"

Milwaukee **Water Works** Water Engineering  
Department of Public Works

LINCOLN STATION

LS-33 PRIMARY FILL LINE  
FOR WATER STORAGE TANKS

ELECTRICAL

|                 |                |          |                         |      |   |
|-----------------|----------------|----------|-------------------------|------|---|
| DESIGNED BY     | A.A.           | APPROVED | <i>Anthony Majumdar</i> | DATE | 8-5-2013  |
| DRAWN BY        | S. MILLER      |          |                         |      | PLANTS PROJECT ENGINEER                                 |
| CHECKED BY      | A.A.           |          |                         |      |   |
| DATE            | 12-5-2012      |          | <i>Ms. J. Hill</i>      |      | 8-5-2013<br>CHIEF DESIGN ENGINEER                       |
| SCALE           | 1/4" = 1' - 0" |          |                         |      |   |
| WORK ORDER      | WT450126100    |          | <i>Cullen</i>           |      | 8-5-2013<br>SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS |
| OFFICIAL NOTICE | 115-2013       |          |                         |      |   |
| FILE NO.        | B-14-2         |          |                         |      |   |

DRAWING NO. LS-33-05

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