CONSTRUCTION DRAWINGS
STANDARDS FOR SUBMERSIBLE SEWAGE PUMP STATIONS
FOR THE
CITY OF GRESHAM, OREGON

LOCATION MAP

PROJECT

VICINITY MAP

DRAWING REFERENCE

1. DRAWINGS ARE CROSSED REFERENCE IN THE FOLLOWING MANNER:
   - SECTION CUT ON DRAWS HOWN AS
     (A) IN DRAWING NUMBER 1
     (B) IN DRAWING NUMBER 2
   - DRAWING FROM WHICH THE SECTION WAS TAKEN

2. PLANS, DETAILS AND ELEVATIONS ARE CROSSED REFERENCE IN A SIMILAR MANNER
3. GENERAL NOTES IN TEXT, "FOR AUTOM" MEANS SEE SECTION 5 OR DETAIL 3 ON DRAWING NUMBER 4.

GENERAL NOTES

1. THESE ARE CONCEPTUAL, SUBMERSIBLE SEWAGE PUMP STATION STANDARDS INTENDED TO DESCRIBE THE CITY OF GRESHAM'S PREFERRED APPROACH TO DESIGN AND CONSTRUCTION. THE STANDARDS SHOULD BE USED FOR THE DESIGN AND CONSTRUCTION OF WASTEWATER PUMP STATIONS FOR THE CITY OF GRESHAM.
2. DESIGN STANDARDS ARE IN COMPLIANCE WITH THE CITY OF GRESHAM'S DESIGN STANDARDS AND OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY "DESIGN STANDARDS FOR THE DESIGN AND CONSTRUCTION OF SUBMERSIBLE PUMP STATIONS".
3. PUMP STATIONS ARE OPERATING UNITS TO PUMP STATIONS WITH DESIGN PUMPS IN THE RANGE OF 250 GPM TO 1,500 GPM.
4. CONTRACTOR SHALL PROVIDE HINTS TO PLANNED ELEVATION, BENCH MARKS, PROPERTY CORNERS, AND CONDITION STATEMENTS.
5. DRAWING AND DESIGN ARCHIVников REQUIRED FROM THE BUILDING DEPARTMENT PRIOR TO CONSTRUCTION PLAN APPROVAL.
6. DIMENSION CONTROL MEASURES ARE REQUIRED FOR THIS PROJECT. ALL WORK MUST COMPLY WITH THE CITY OF GRESHAM'S POSITION PLAN, TECHNICAL EGGENCE HANDSHAKE, AND STORM WATER CONSTRUCTION PROCEDURES FROM DEQ.
7. CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES PRIOR TO BEGINNING CONSTRUCTION.
8. CONTRACTOR SHALL PROVIDE HINTS TO SEWER CONSTRUCTION TO PUBLIC STORM DRAIN.

ABBREVIATIONS

AC: ASBESTOS CONCRETE
AG: AGGREGATE
CE: CEILING
CH: CHIMNEY
CM: CM DESIGN COMPUTER
DO: DOOR
E: ELEVATION
ED: ELEVATION
EL: ELEVATION
ER: ELEVATION
F: FOOTNOTE
FC: FLOOR PLAN
FL: FLOOR PLAN
FR: FLOOR PLAN
G: GROUND
GIV: GROUND LEVEL
GR: GROUND LEVEL
H: HEIGHT
H: HOURS
H: HOURS
LT: LENGTH
LT: LIVELANDING
LV: LEVEL
M: MILE
M: MILE
M: MILE
M: MILE
N: NUMBER
PL: PROPERTY UNIT
PO: PROPERTY UNIT
ST: STORM SEWER
S: SITE PLAN
S: SITE PLAN
T: TIME
T: TIME
U: UNITS
V: VOLUME
W: WATER
W: WATER
X: X-SECTION
Y: Y-SECTION
Z: Z-SECTION

DRAINAGE INDEX

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COMMENT:

PROJECT ENGINEER: DATE:

APPROVED: DATE:

SYDNEY WARD, PE

DEVELOPMENT ENGINEER:

DATE:

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TOP PLAN: VALVE VAULT
1/2" = 1'-0"

1. FPR Cable tray and vents cast into top slab. Provide removable grating per detail. 1/16.

NOTE 1

3. Hinge

NOTE 2

4. Wet well top and bottom slabs are designed for a minimum wet well diameter of 12'-0" and maximum depth of 10'-0".

5. Fill under wet well structure shall be placed up to base concrete, encountered, without exception. All fill above minimum, provide at least 24" of compacted granular drain rock.

6. Minimum internal height of valve vault is 7'-0".

7. Dimensions left blank to be determined by design engineer based on site-specific loading conditions.

SECTION: WET WELL AND VALVE VAULT
1/2" = 1'-0"

1. Size wet well so maximum pump starts per hour are per AWWA recommendations. Complete in wet well shall depict wet well diameter of 12'-0" and maximum depth of 10'-0" regardless of WTR recommendations.

2. Until backfill is placed around the wet well, the ground water elevation shall be maintained below an elevation to feet above the bottom slab. On wall shall be filled into the wet well.

3. Wet well top and bottom slabs are designed for a minimum wet well diameter of 12'-0" and maximum depth of 10'-0".

4. Fill under wet well structure shall be placed up to base concrete, encountered, without exception. All fill above minimum, provide at least 24" of compacted granular drain rock.

5. Minimum internal height of valve vault is 7'-0".


7. Dimensions left blank to be determined by design engineer based on site-specific loading conditions.
SECTION A-A

DETAIL: PUMP DISCONNECT PANEL
1/2" = 1'-0"

KEYED NOTES:

1. WOMAN AS CHANDED STEEL ENCLOSURE WITH LOCATION (MARK FRONT)
   1. ENC KIT FOR STRIP HEATS
2. 6" SQUARE HEATS
3. NITRONIC 60 STAINLESS STEEL ENCLOSURE (MARK FRONT)
4. 3" SQUARE HEATS
5. NITRONIC 60 STAINLESS STEEL ENCLOSURE (MARK FRONT)
6. CONTROL TERMINAL BLOCKS
7. SUMP PANEL - "PUMP DISCONNECT PANEL", PROVIDE ALL WARNINGS REQUIRED PER UL
8. 6" PANEL, 3-PHASE, 6-HOLE EXIT AND SERRATE RECEPTACLE DEVICES MOUNTED ON PANEL AND MATCHING PLUGS, INSERT BOX CONNECTED TO PUMP CABLES WITH SELF-LAMINATING INSULATION COVER, IS NOT SELF-EXTINGUISHABLE
9. 3" PANEL, 3-PHASE, 6-HOLE EXIT AND SERRATE RECEPTACLE DEVICES MOUNTED ON PANEL AND MATCHING PLUGS, INSERT BOX CONNECTED TO PUMP CABLES WITH SELF-LAMINATING INSULATION COVER, IS NOT SELF-EXTINGUISHABLE
10. INSTALL CIRCUITS TO DISCONNECT PANEL, USING CONTINUOUS SECTION OF PVC-PSD CONDUCT AND PUMP TO TRANSITION UNDERGROUND AT CONSULT BURIAL DEPTH SPECIFIED
11. METAL RIDER BUSHING IN TRENCH TO DISTRIBUTE INCREASINGLY SAFE WORK FROM OTHER WORKS
12. MOUNT BOX TO BOTTOM OF PANEL, MOUNT 4" SQUARE HEATS
13. SUMP PANEL - "PUMP DISCONNECT PANEL", PROVIDE ALL WARNINGS REQUIRED PER UL
14. 6" PANEL, 3-PHASE, 6-HOLE EXIT AND SERRATE RECEPTACLE DEVICES MOUNTED ON PANEL AND MATCHING PLUGS, INSERT BOX CONNECTED TO PUMP CABLES WITH SELF-LAMINATING INSULATION COVER, IS NOT SELF-EXTINGUISHABLE
15. 3" PANEL, 3-PHASE, 6-HOLE EXIT AND SERRATE RECEPTACLE DEVICES MOUNTED ON PANEL AND MATCHING PLUGS, INSERT BOX CONNECTED TO PUMP CABLES WITH SELF-LAMINATING INSULATION COVER, IS NOT SELF-EXTINGUISHABLE
16. WET WELL AND VALVE VAULT, NOT TO SCALE

GENERAL NOTES:
A. THESE ARE CONCEPTUAL ELEMENTS TO SUPPORT THE CITY OF GRESHAM IN PREPARING FOR ITS POTENTIAL IMPROVEMENTS. THE WARNINGS ARE NOT DIRECTLY APPLICABLE TO ANY SPECIFIC INSTALLATION. IT IS THE RESPONSIBILITY OF THE INSTALLER TO REVIEW AND UNDERSTAND THE SPECIFIC PROTECTIVE WARNINGS PRIOR TO INSTALLATION AND USAGE. THE INSTALLER WILL BE RESPONSIBLE FOR THE DESIGN OF SPECIFIC PROJECTS.