



July 5, 2022

Racine County Development Services  
Sarah Reed-Development Services Specialist  
14200 Washington Avenue  
Sturtevant, WI 53177

RE: Rochester Lift Station Replacement Project  
Western Racine County Sewerage District

Dear Sarah:

Pursuant to our previous discussions, and your email dated June 29<sup>th</sup>, the intent of this letter is to provide additional information on the Rochester Lift Station replacement project. As you know, the existing lift station is located at 300 N. Rochester Street. The proposed replacement site is owned by Racine County and located immediately north of and adjacent to the existing station site. In the fall of 2021, our office employed Wetland and Waterway Consulting, LLC (WWC) to perform a wetland delineation on the property considered for the replacement station. The report prepared by WWC is enclosed for your files. Following the completion of the delineation, our office employed Kapur & Associates, Inc. to locate the flags placed delineating the extent of the wetland on the property. As shown on the plans previously submitted, most of the property adjacent to the existing station is located within a shoreland wetland.

Upon receipt of this information, we reached out to Marty Dillenburg who is the DNR Water Regulation and Zoning Specialist for this area to obtain guidance on proceeding with our intended plan. A copy of this email string has been previously provided.

Practically speaking, the new station needs to be adjacent to the existing station. As there are wetlands on this property, it is implausible to avoid wetland disturbance when developing the site. We have positioned the proposed building immediately adjacent to the existing property line to minimize the wetland disturbance. The building functions best in the north south orientation shown with the wet-well located on the south side and the generator/control room to the north side. In order to minimize the wetland disturbance, silt fence will be placed at the expected toe of slope. This will prevent unnecessary wetland disturbance. All excavated soils will be immediately removed from the project site to avoid spilling into the wetland area. All erosion control measures will be in accordance with the DNR Construction Site Erosion & Sediment Control Technical Standards. The construction is expected to occur in the winter/spring of 2023.

Based on our calculations, the existing site is 6,600 square feet in land area (measured to the riverbank) with approximately 1,325 square feet of impervious surface and the remainder pervious turf/natural area. In the developed condition, the existing improvements will be removed, and replaced with the new building and infrastructure. The new site (which contains the existing site) is 15,705 square feet in land area (also measured to the riverbank) with approximately 3,355 square feet of impervious surface and the remainder pervious turf/natural area. In addition to the impervious area, we expect that approximately 1,900 square feet of land will be disturbed as a result of sloping and grading adjacent to the building and improvements. In total, we estimate that 3,150 square feet of wetland area will be disturbed as a result of this project. Generally speaking, the site will be relatively flat, but adjacent to the building we show steeper slopes (3H: 1 V) necessary to minimize the wetland disturbance.

Please review the information and contact our office with questions, comments, or concerns. We appreciate your assistance on this matter of mutual interest.

Sincerely,  
Applied Technologies, Inc.

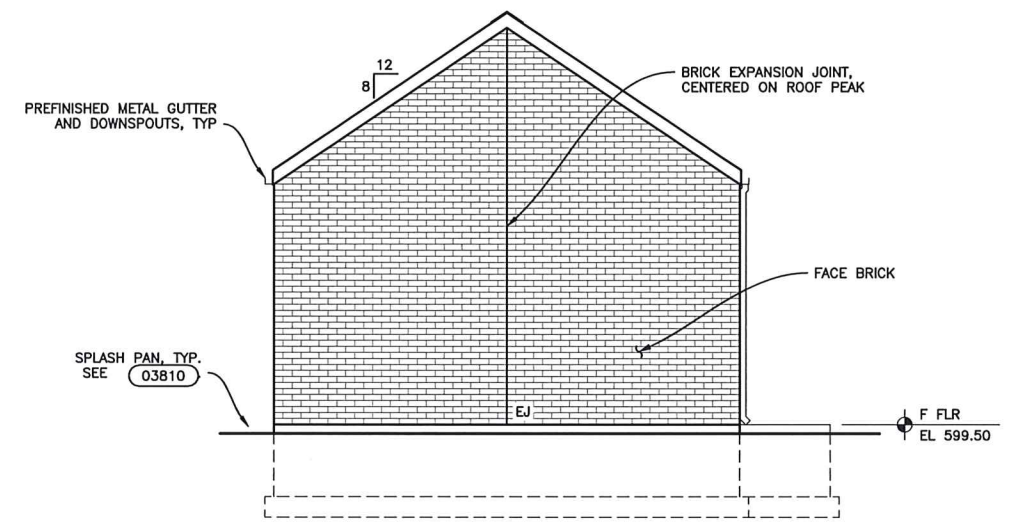


William A. Hein, P.E., P.L.S.  
Project Engineer

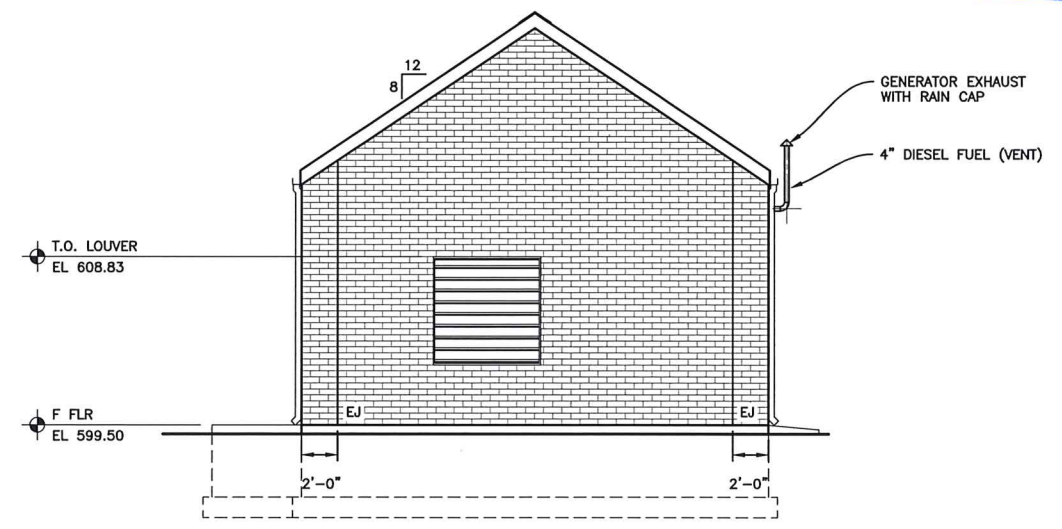
Enclosures

cc: Jeff Bratz-Plant Manager

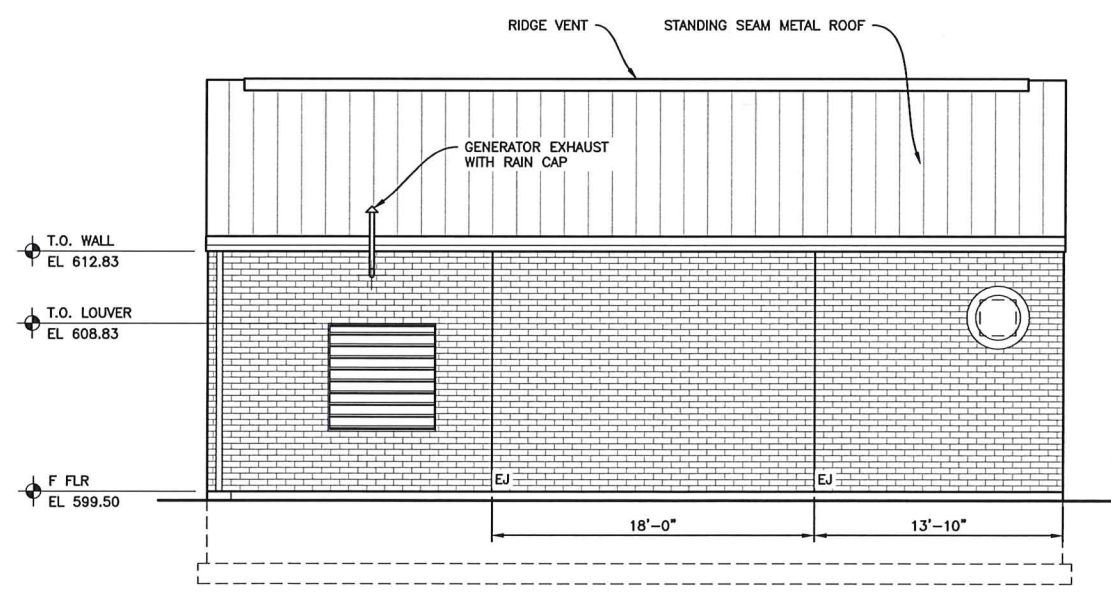
**RECEIVED**  
 JUN 29 2022  
 RACINE COUNTY



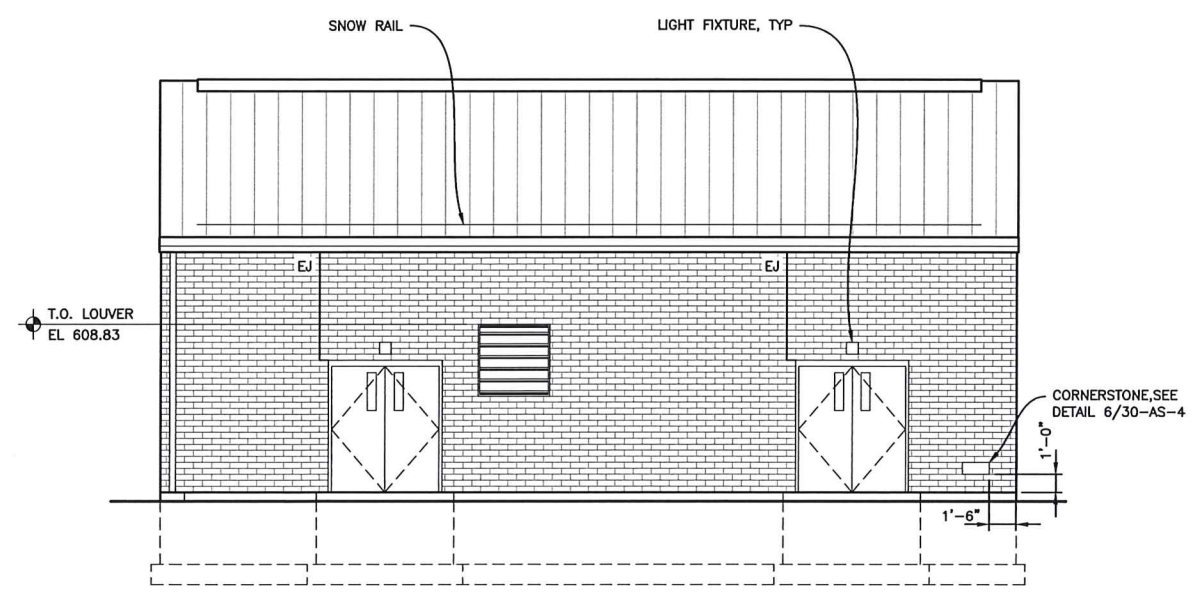
① **SOUTH ELEVATION**  
 3/16" = 1'-0"



② **NORTH ELEVATION**  
 3/16" = 1'-0"



③ **WEST ELEVATION**  
 3/16" = 1'-0"



④ **EAST ELEVATION**  
 3/16" = 1'-0"

**GENERAL NOTES:**

1. EJ = BRICK EXPANSION JOINT, SEE DETAIL 04009.

PLOTSCALE: 1 LTSCALE: 1  
 R:\Shared Folders\Projects\6490 - WRCSD - WTP and LS\11.0 Graphics\11.3 Drawings\03-A-1 ELEVATIONS.dwg  
 Last Modified: 20 April 2022 Plotted On: 6/1/2022 7:44 AM by JEFF HARNER  
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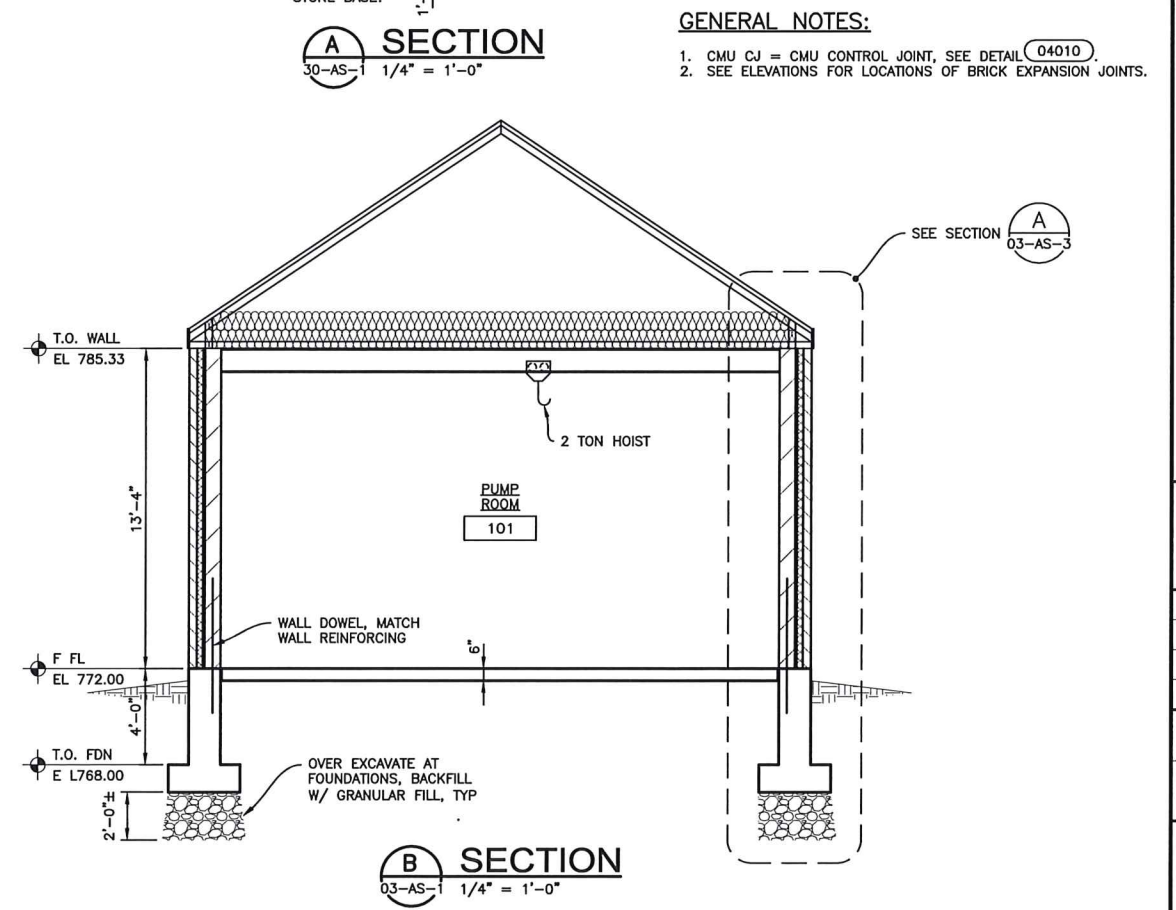
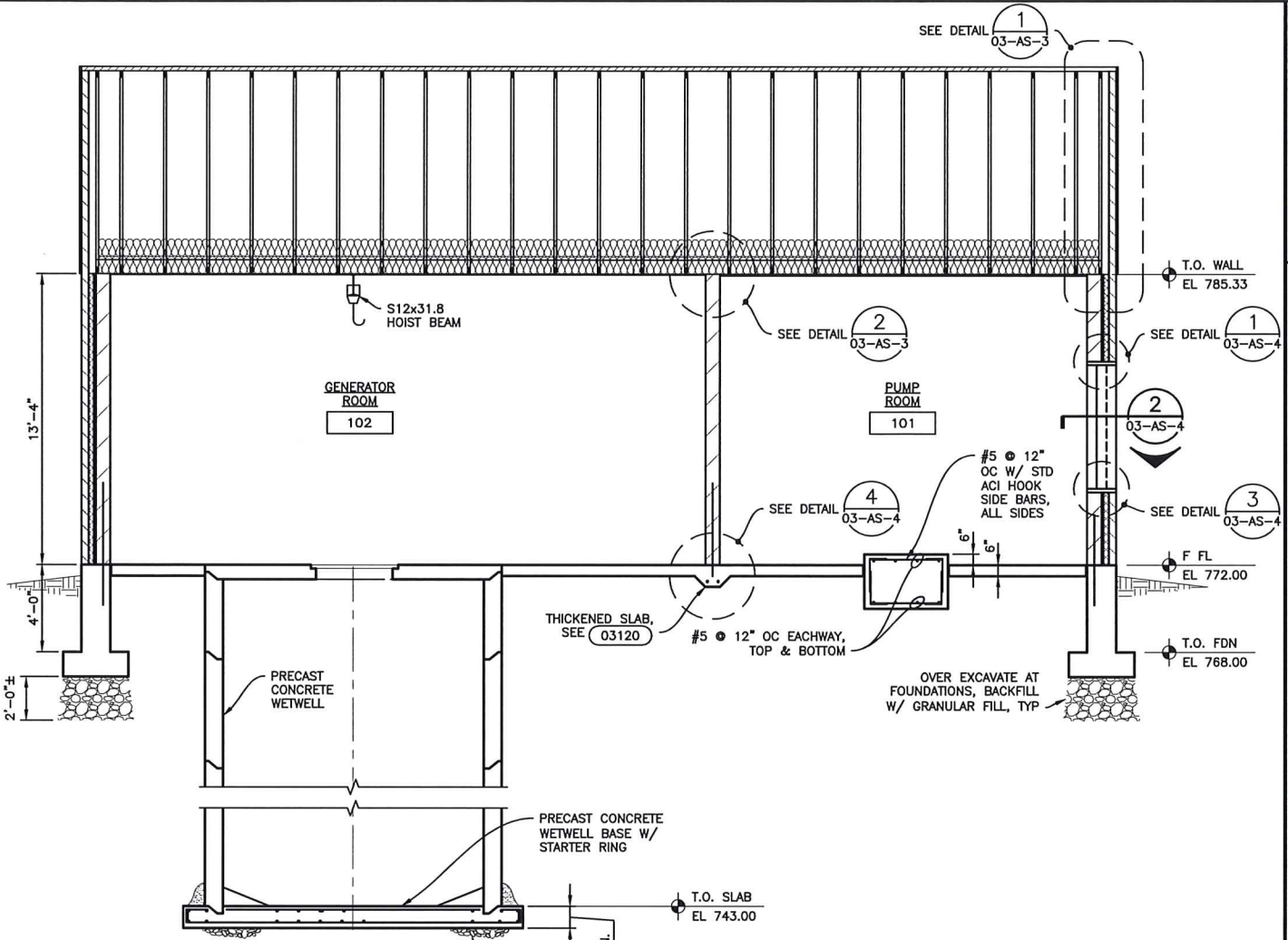
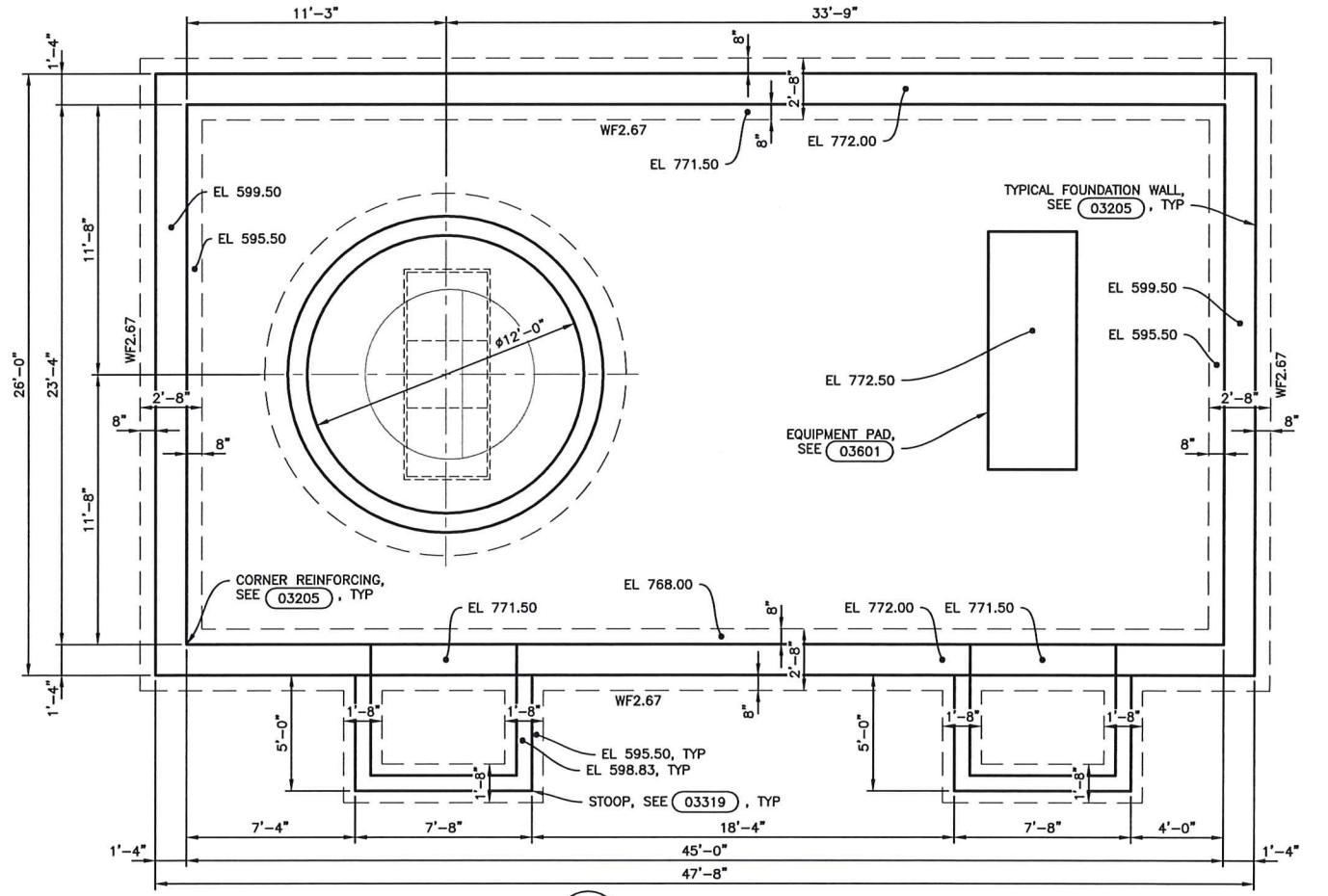
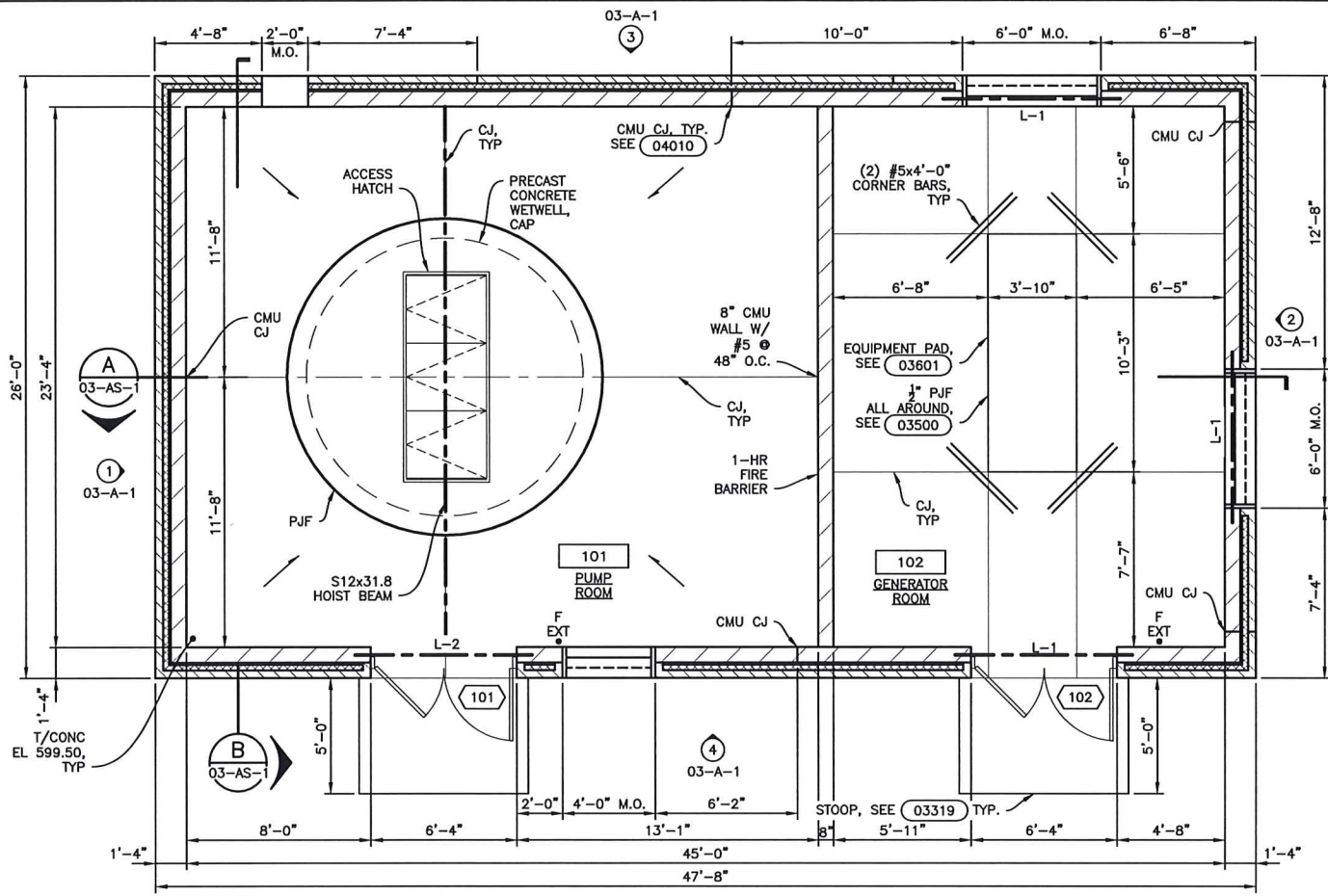
Western Racine County  
 Sewerage District  
 (WRCSD)  
 WRCSD facility is located at 1020  
 North River Road, Rochester, WI  
 Phone 262-534-6237

<b>Applied Technologies</b> <small>Engineers-Architects</small>		BY	APVD
		REVISIONS AND RECORD OF ISSUE	
NO.	DATE	<b>- PRELIMINARY -</b> <b>NOT FOR CONSTRUCTION</b>	

WESTERN RACINE CO. SANITARY DIST.  
 WASTEWATER FACILITIES  
 IMPROVEMENTS  
 ROCHESTER, WI  
 ROCHESTER LIFT STATION & FORCE MAIN  
 ARCHITECTURAL  
 ELEVATIONS

VERIFY SCALES LENGTH OF BAR IS 1" ON ORIGINAL DRAWING
1:2 PLOT SCALE, ADJUST SCALE(S) ACCORDINGLY
DESIGNED BY: B.A.G. DRAWN BY: J.T.H. CHECKED BY: . APPROVED BY: .
PROJECT NO. <b>6490</b>
DATE <b>5-26-2022</b>
DRAWING NO. <b>03-A-1</b>

PLOT SCALE: 1/4" = 1'-0"  
 R:\Shared Folders\Projects\6490 - WRCSD - WTP and LSV11.0 Graphics\11.3 Drawings\03-AS-1 PLAN & SECTIONS.dwg  
 Last Modified: 19 April 2022  
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**GENERAL NOTES:**

1. CMU CJ = CMU CONTROL JOINT, SEE DETAIL 04010.
2. SEE ELEVATIONS FOR LOCATIONS OF BRICK EXPANSION JOINTS.

Western Racine County  
Sewerage District  
(WRCSD)

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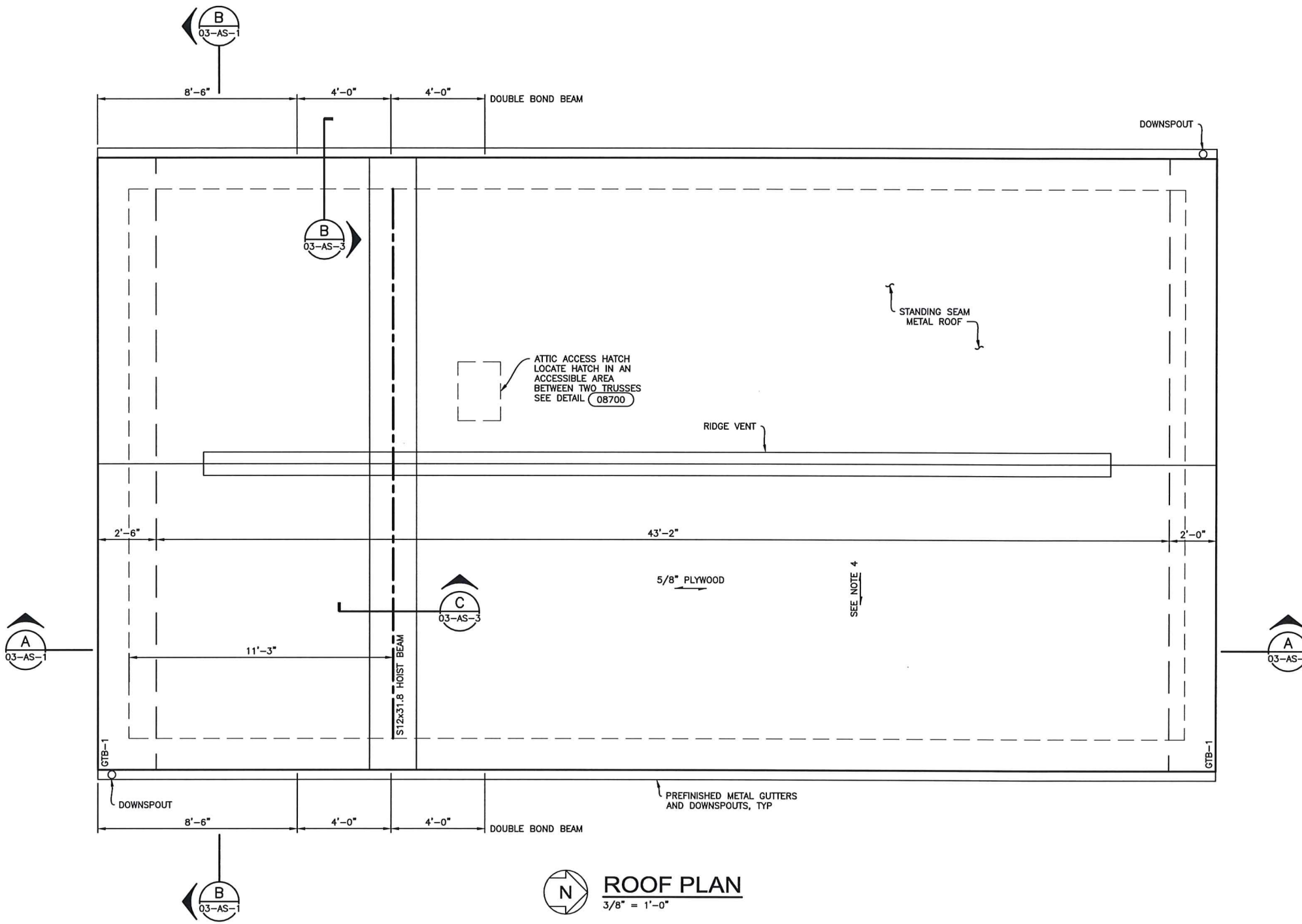
Applied Technologies Engineers-Architects		BY	APVD
NO.	DATE	REVISIONS AND RECORD OF ISSUE	
<b>- PRELIMINARY - NOT FOR CONSTRUCTION</b>			

WESTERN RACINE CO. SANITARY DIST.  
WASTEWATER FACILITIES  
IMPROVEMENTS  
ROCHESTER, WI

ROCHESTER LIFT STATION & FORCE MAIN  
ARCHITECTURAL/STRUCTURAL  
PLAN & SECTIONS

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DESIGNED BY: B.A.G.
DRAWN BY: J.T.H.
CHECKED BY: .
APPROVED BY: .
PROJECT NO. 6490
DATE 5-26-2022
DRAWING NO. 03-AS-1

PLOT SCALE: 1/8" = 1'-0" (3/8" = 1'-0")  
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**ROOF PLAN**  
3/8" = 1'-0"

- GENERAL NOTES:**
- PROVIDE ATTIC VENTILATION OF MINIMUM 595 SQ IN. NFA AT EAVE AND 595 SQ IN. NFA AT RIDGE VENT. NFA AT RIDGE VENT SHALL NOT EXCEED NFA AT SOFFIT.
  - TRUSS SUPPLIER TO VERIFY ANY HANGING MECHANICAL EQUIPMENT AND PIPING FOR HANGER DETAIL SEE (15156).
  - FOR ROOF PENETRATIONS SEE DETAIL (07616).
  - APA RATED SHEATHING, 5/8" MIN THICKNESS SPAN RATING 32116, EXTERIOR, CD GRADE.

**TRUSS PROFILE SCHEDULE**

**TRUSS PROFILE NOTES:**

- TRUSS MANUFACTURER SHALL VERIFY TRUSS SLOPES WITH ROOF PLAN.
- ALL TRUSS TO TRUSS CONNECTIONS TO BE DESIGNED BY TRUSS SUPPLIER.
- GIRDERS TRUSS PROFILES SHALL MATCH TRUSS PROFILES.
- COORDINATE EAVE OVERHANG WITH SECTIONS AND PLANS.
- TRUSS TO STRUCTURE CONNECTION SHALL BE METAL 16 SIMPSON METAL TRUSS ANCHORS. PROVIDE EQUAL NUMBER OF 10d NAILS TO MATCH TRUSS ANCHOR REQUIRED FASTENERS.
- TRUSS PROVIDER MAY PROVIDE ALTERNATE ANCHOR CONNECTION WITH EQUAL OR GREATER UPLIFT CAPACITY AND LATERAL RESISTANCE FOR APPROVAL BY THE ENGINEER.
- PROVIDE VERTICAL MEMBERS AT GABLE END TRUSSES AT 24" MAXIMUM SPACING.
- DESIGN ROOF TRUSSES FOR THE FOLLOWING LOADS:  
 TOP CHORD LIVE LOAD: 20 PSF  
 TOP CHORD DEAD LOAD: 10 PSF  
 BOTTOM CHORD LIVE LOAD: 5 PSF  
 BOTTOM CHORD DEAD LOAD: 10 PSF

**THERMAL ENVELOPE**

WISCONSIN COMMERCIAL BUILDING CODE (IECC 2015)

COMPONENT	PROPOSED ASSEMBLY	THERMAL VALUE
ROOF	8" + 8" BATT INSULATION	R-50
WALLS	3" RIGID INSULATION	R-15
DOORS	INSULATED FRP	U-0.35
LOUVERS	INSULATED DAMPERS	U-0.44
SLAB	2" RIGID INSULATION	R-10

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 Sewerage District  
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 Phone 262-534-6237

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**Applied Technologies**  
 Engineers-Architects

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WESTERN RACINE CO. SANITARY DIST.  
 WASTEWATER FACILITIES  
 IMPROVEMENTS  
 ROCHESTER, WI

ROCHESTER LIFT STATION & FORCE MAIN  
 ARCHITECTURAL/STRUCTURAL  
 PLAN

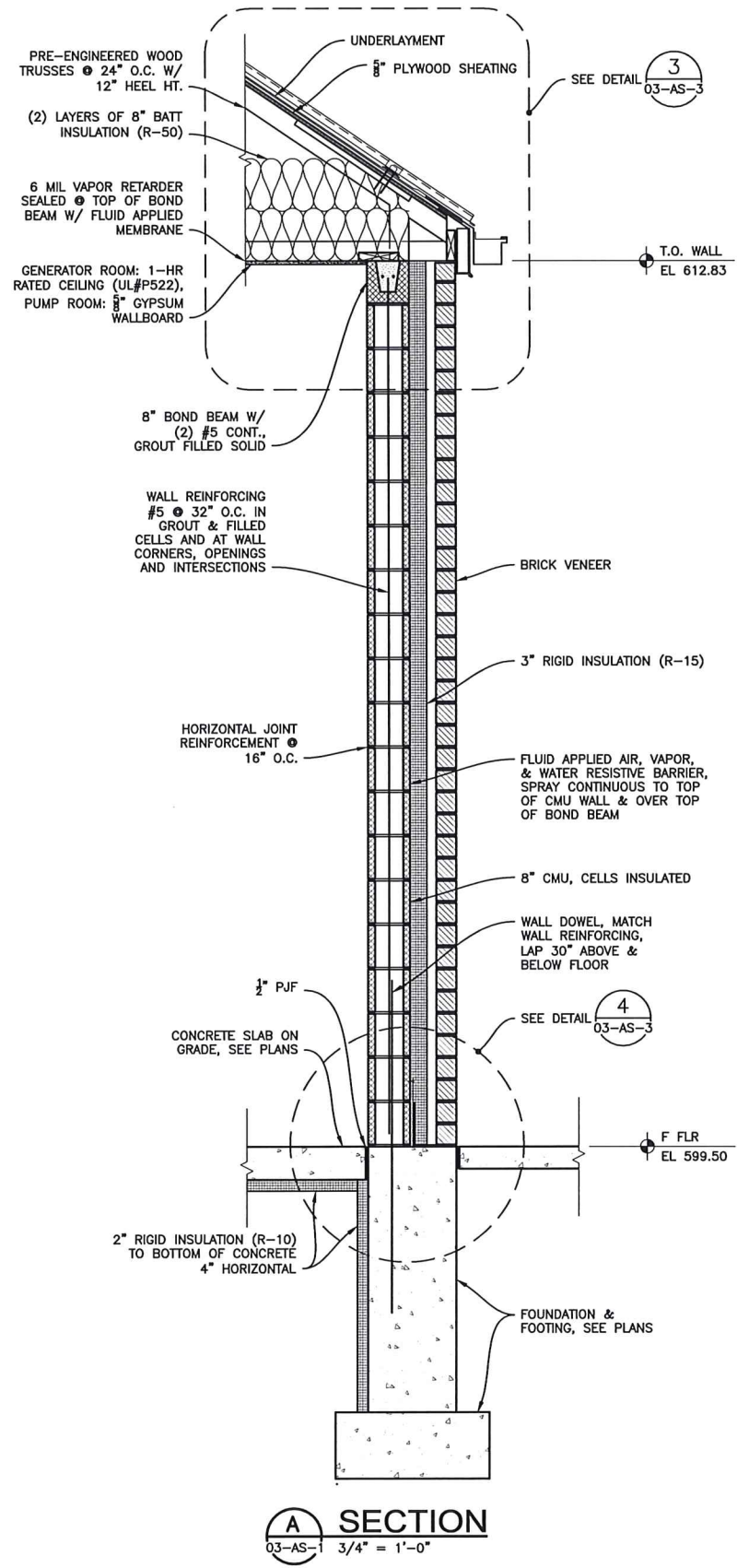
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VERIFY SCALES  
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 ON ORIGINAL DRAWING

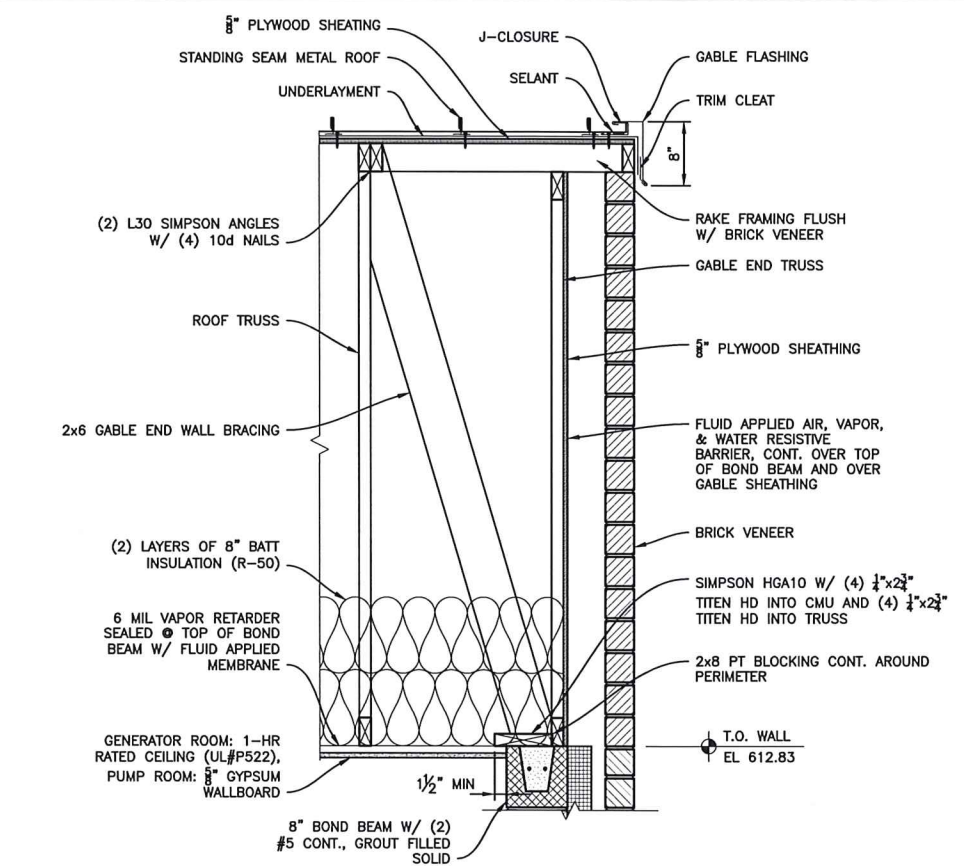
1:2  
 PLOT SCALE, ADJUST  
 SCALE(S) ACCORDINGLY

DESIGNED BY: B.A.G.
DRAWN BY: J.T.H.
CHECKED BY: .
APPROVED BY: .
PROJECT NO. <b>6490</b>
DATE <b>5-26-2022</b>
DRAWING NO. <b>03-AS-2</b>

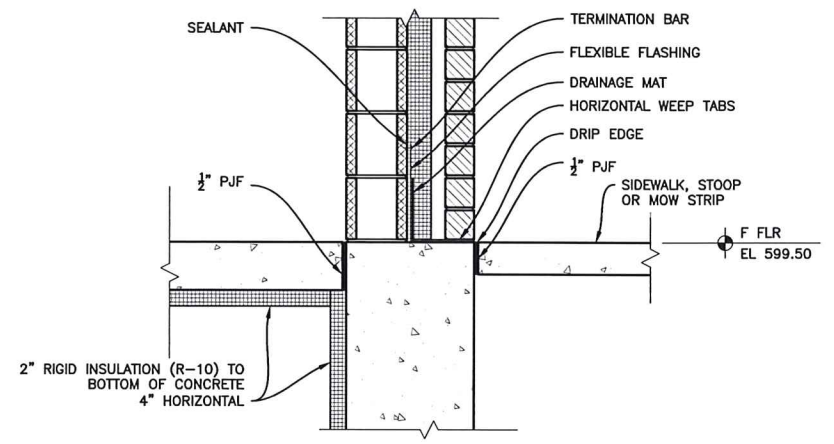
PLOTSCALE: 1/4" = 1'-0" (A) SECTION  
 PLOTSCALE: 1/4" = 1'-0" (B) SECTION  
 PLOTSCALE: 1/4" = 1'-0" (C) SECTION  
 PLOTSCALE: 1/4" = 1'-0" (1) DETAIL  
 PLOTSCALE: 1/4" = 1'-0" (2) DETAIL  
 PLOTSCALE: 1/4" = 1'-0" (3) DETAIL  
 PLOTSCALE: 1/4" = 1'-0" (4) DETAIL  
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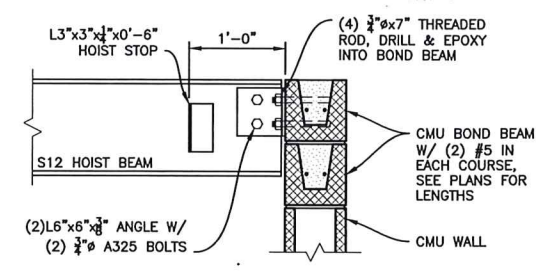
**A SECTION**  
03-AS-1 3/4" = 1'-0"



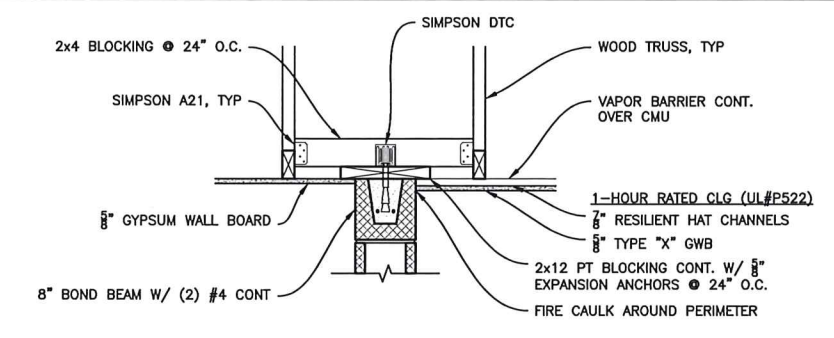
**1 DETAIL**  
03-AS-1 1" = 1'-0"



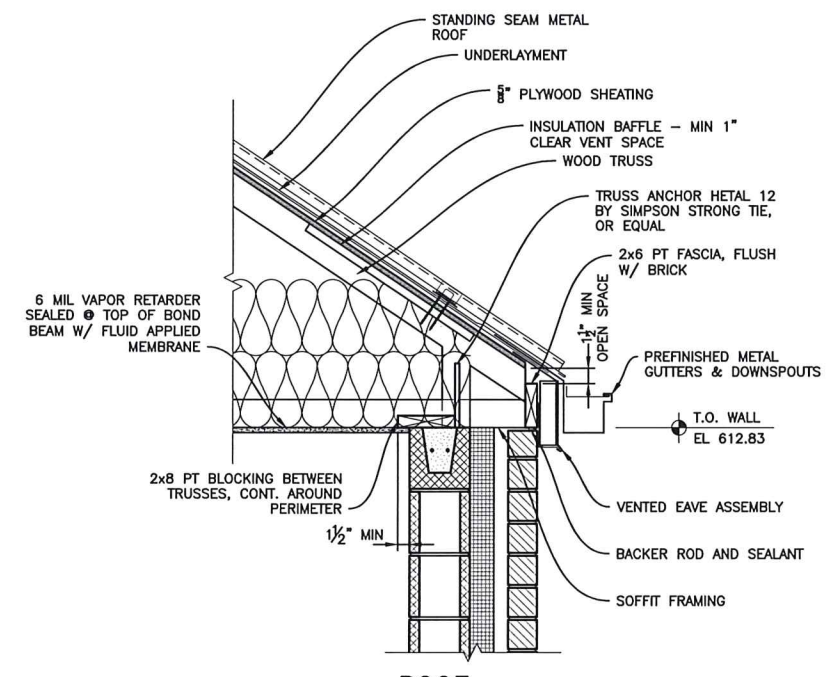
**4 DETAIL**  
03-AS-1 1" = 1'-0"



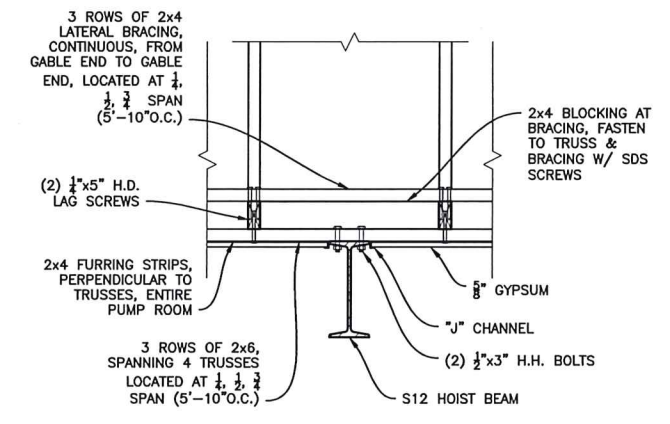
**B SECTION**  
03-AS-2 1" = 1'-0"



NOTE: INSULATION NOT SHOWN FOR CLARITY  
**2 DETAIL**  
03-AS-1 1" = 1'-0"

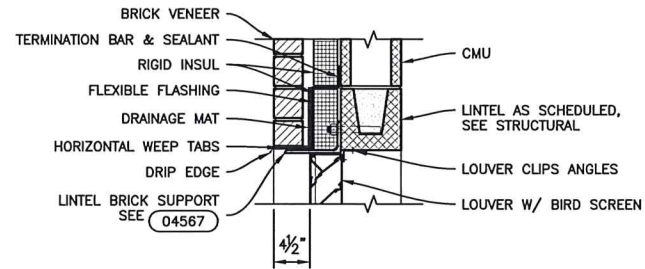


**3 DETAIL**  
03-AS-1 1" = 1'-0"



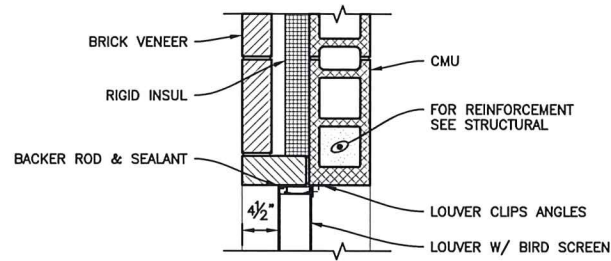
NOTE: HOIST BEAM SHOWN CENTERED BETWEEN TRUSSES, MAY VARY, DEPENDENT ON TRUSS LAYOUT.  
**C SECTION**  
03-AS-2 1" = 1'-0"

<b>Western Racine County Sewerage District (WRCSO)</b>		WRCSO facility is located at 1020 North River Road, Rochester WI Phone 262-534-6237
<b>Applied Technologies</b> Engineers-Architects		<b>- PRELIMINARY - NOT FOR CONSTRUCTION</b>
WESTERN RACINE CO. SANITARY DIST. WASTEWATER FACILITIES IMPROVEMENTS ROCHESTER, WI	REVISIONS AND RECORD OF ISSUE	APVD BY DATE NO.
<b>ROCHESTER LIFT STATION &amp; FORCE MAIN ARCHITECTURAL/STRUCTURAL SECTIONS &amp; DETAILS</b>		
VERIFY SCALES LENGTH OF BAR IS 1" ON ORIGINAL DRAWING 1:2 PLOT SCALE, ADJUST SCALE(S) ACCORDINGLY		
DESIGNED BY: B.A.G. DRAWN BY: J.T.H. CHECKED BY: . APPROVED BY: . PROJECT NO. <b>6490</b> DATE <b>5-26-2022</b> DRAWING NO. <b>03-AS-3</b>		



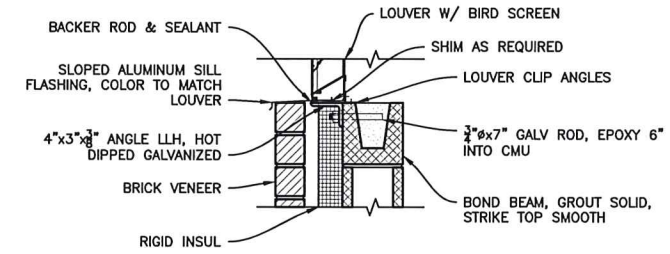
LOUVER HEAD

1 DETAIL  
03-AS-1 1" = 1'-0"



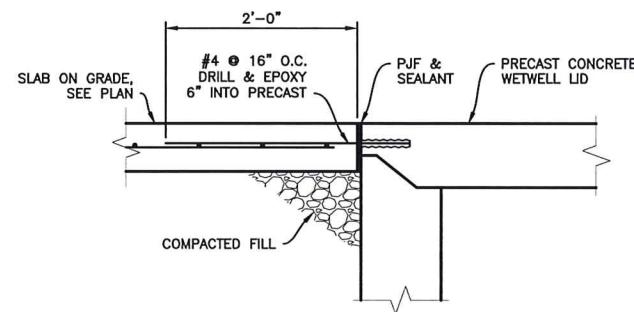
LOUVER JAMB

2 DETAIL  
03-AS-1 1" = 1'-0"

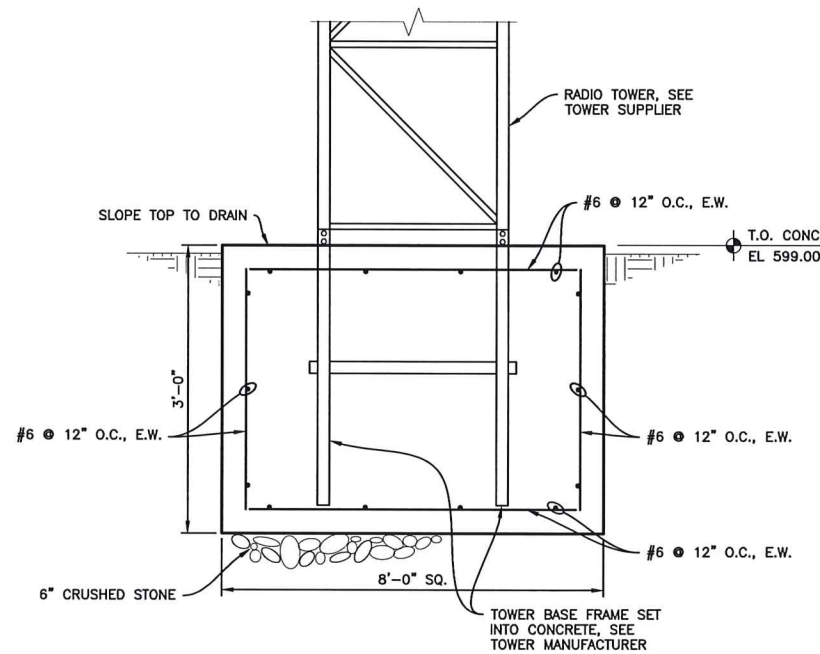


LOUVER SILL

3 DETAIL  
03-AS-1 1" = 1'-0"

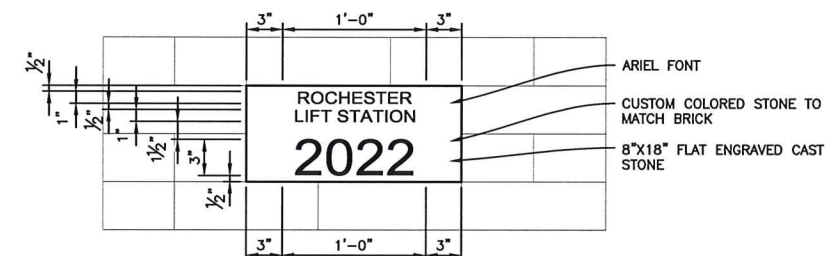


4 DETAIL  
03-AS-1 1" = 1'-0"



RADIO TOWER FOUNDATION SECTION

5 DETAIL  
03-C-1 1" = 1'-0"



CORNERSTONE DETAIL

6 DETAIL  
03-AS-1 1 1/2" = 1'-0"

PLOT SCALE: 1:2  
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Western Racine County  
Sewerage District  
(WRCS)

WRCS facility is located at 1020  
North River Road, Rochester WI  
Phone 262-534-6237

**Applied Technologies**  
Engineers-Architects

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WESTERN RACINE CO. SANITARY DIST.  
WASTEWATER FACILITIES  
IMPROVEMENTS  
ROCHESTER, WI

ROCHESTER LIFT STATION & FORCE MAIN  
ARCHITECTURAL/STRUCTURAL  
DETAILS

VERIFY SCALES  
LENGTH OF BAR IS 1"  
ON ORIGINAL DRAWING  
1:2  
PLOT SCALE, ADJUST  
SCALE(S) ACCORDINGLY

DESIGNED BY: B.A.G.  
DRAWN BY: J.T.H.  
CHECKED BY: .  
APPROVED BY: .  
PROJECT NO.  
6490  
DATE  
5-26-2022  
DRAWING NO.  
03-AS-4

PS:SCALE: 1  
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 Last Modified: 9 May 2022  
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**SANITARY MANHOLES:**

MH-1  
 RIM 772.42  
 27° NE & SW 758.76  
 27° NW 758.50

MH-2  
 RIM 771.55  
 27° SE 751.44  
 27° NW 751.19  
 12° SW 751.44

NEW STRUCTURE LOCATION INDEX			
STRUCTURE NO.	LOCATION POINT	NORTHING	EASTING
03	NW CORNER OF BUILDING	?	?
	NE CORNER OF BUILDING	?	?

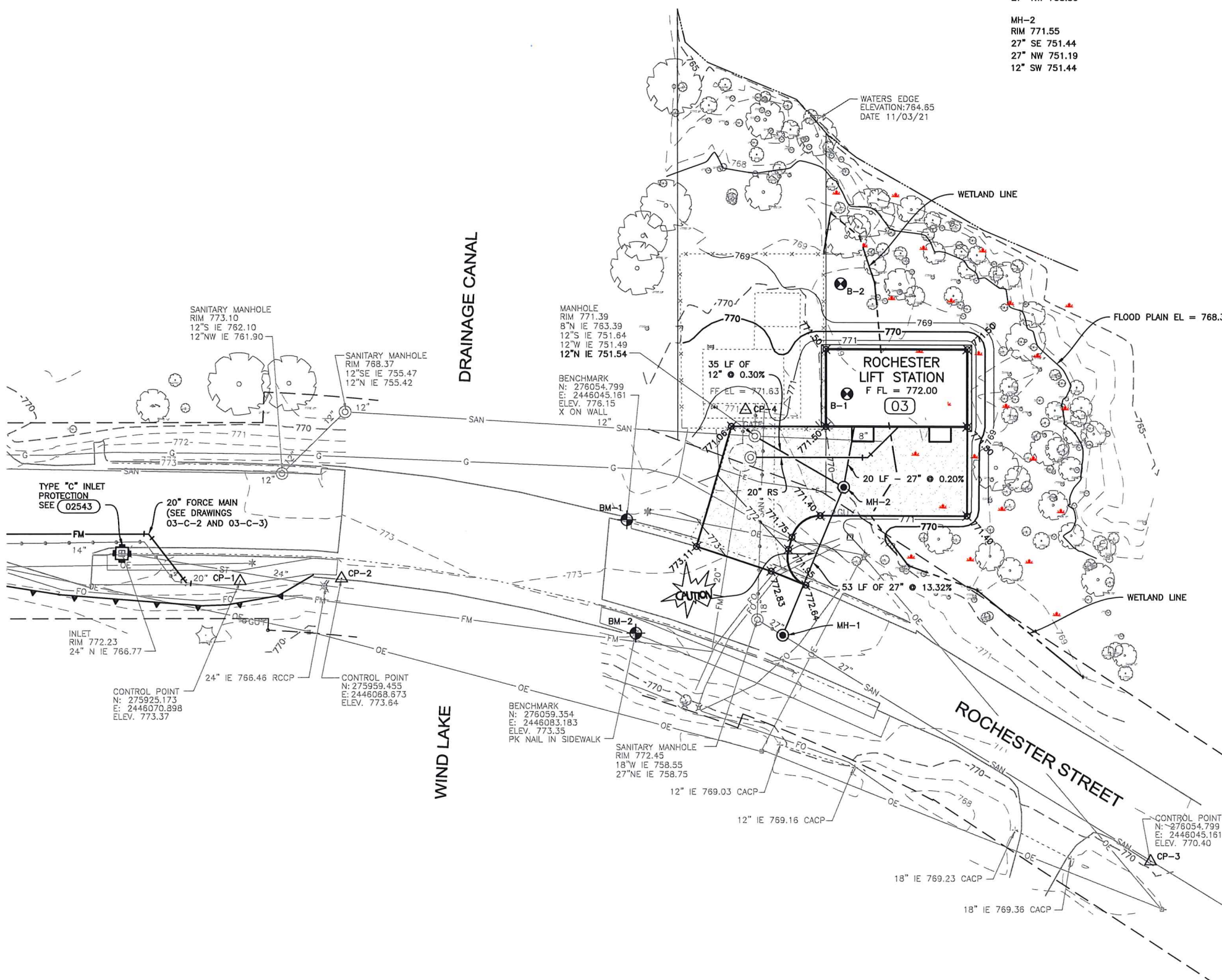
BENCHMARKS				
BM NO.	DESCRIPTION/LOCATION	NORTHING	EASTING	ELEV.
BM-1	CHISELED X IN WALL AT NORTHWEST CORNER OF BRIDGE	276054.80	2446045.16	776.15
BM-2	PK NAIL IN SIDEWALK AT NORTHEAST CORNER OF BRIDGE	276059.35	2446083.18	773.35

CONTROL/CHECK POINTS				
NO.	DESCRIPTION/LOCATION	NORTHING	EASTING	ELEV.
CP-1	PK NAIL IN PAVEMENT	275925.17	2446070.90	773.37
CP-2	SOUTHEAST CORNER OF BRIDGE	275959.46	2446068.67	773.64
CP-3	PK NAIL IN PAVEMENT	276054.80	2446045.16	770.40
CP-4	MARK ON STOOP AT LIFT STATION	276093.40	2446006.65	770.95

HORIZONTAL DATUM: WISCONSIN STATE PLANE COORDINATE SYSTEM NAD 83  
 VERTICAL DATUM: NGVD 88

**NOTES:**

- ALL WORK WILL COMPLY WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, CURRENT EDITION.
- CONTRACTOR SHALL EXPOSE ALL CROSSINGS PRIOR TO INSTALLATION TO ENSURE ADEQUATE SEPARATION IS PROVIDED.
- CONTRACTOR SHOULD SAWCUT AND REMOVE EXISTING PAVEMENT PRIOR TO EXCAVATION.
- GRADED AGGREGATE BACKFILL IN ACCORDANCE WITH TABLE 39 IN CHAPTER 8.4.3.7 OF THE STANDARD SPECIFICATIONS IS REQUIRED FOR ALL PIPE INSTALLED BENEATH EXISTING PAVEMENT OR DRIVEWAYS EXTENDING AT LEAST FIVE FEET BEYOND EDGE.
- SPOIL BACKFILL MAYBE USED BEYOND THE LIMITS DESCRIBED ABOVE.
- WHERE PIPE INSTALLATION PARALLELS THE STREET, THE ENTIRE AFFECTED LANE WILL BE REMOVED AND REPLACED.
- PAVEMENT RESTORATION TO CONSIST OF 10" THICK CRUSHED TB LIMESTONE BASE SURFACED WITH 2 1/4" THICK HMA BINDER AND 1 3/4" THICK HMA SURFACE.
- ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE.
- DISTURBED TURF AREAS SHALL BE SEEDED AND EROSION MATTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- FLOOR ELEVATION FOR NEW BUILDING IS 772.00.



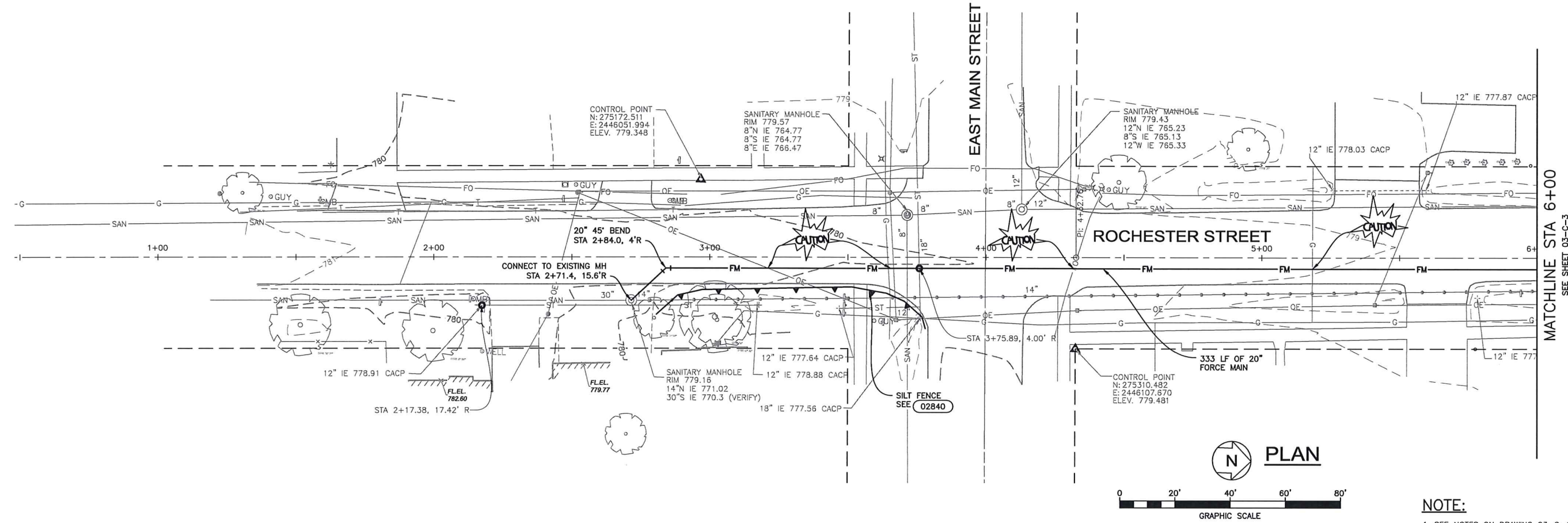
**PLAN**



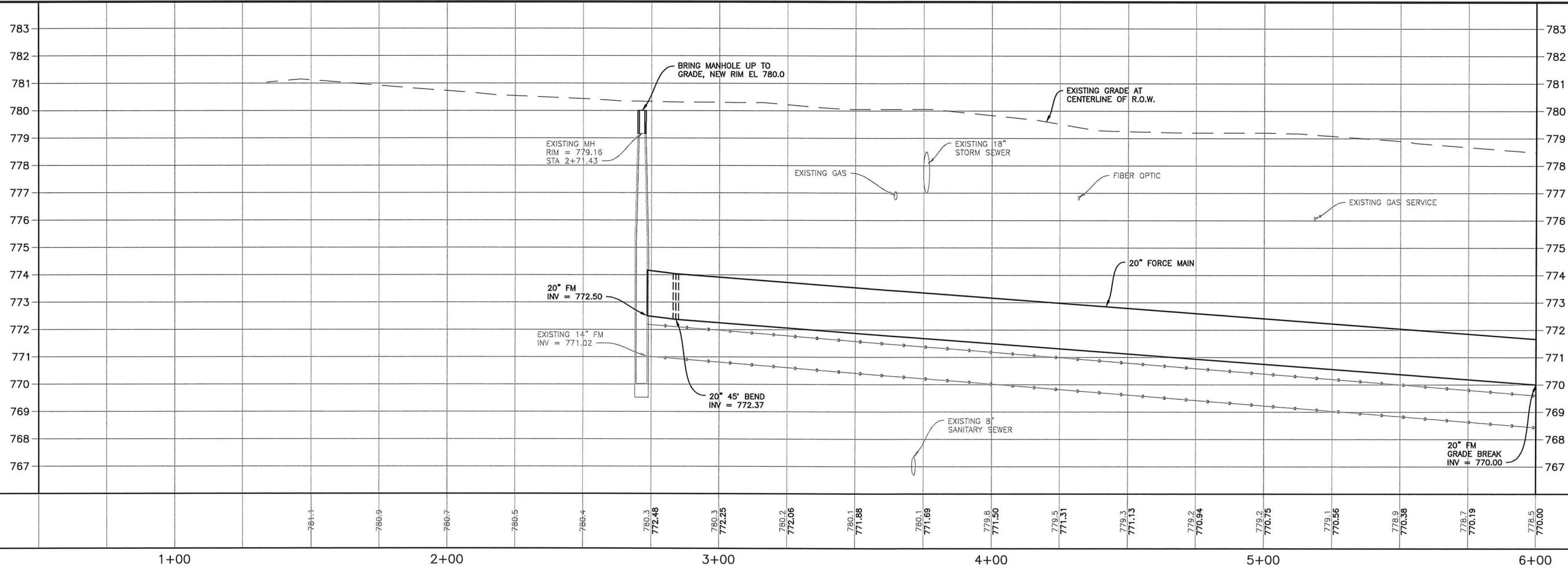
Western Racine County Sewerage District (WRCS)		WRCS facility is located at 1020 North River Road, Rochester WI Phone 262-534-6237	
Applied Technologies Engineers-Architects		BY	APVD
WESTERN RACINE CO. SANITARY DIST. WASTEWATER FACILITIES IMPROVEMENTS ROCHESTER, WI		- PRELIMINARY - NOT FOR CONSTRUCTION	
NO.	DATE	REVISIONS AND RECORD OF ISSUE	
ROCHESTER LIFT STATION & FORCE MAIN CIVIL PLAN		VERIFY SCALES LENGTH OF BAR IS 1" ON ORIGINAL DRAWING	
		1:2 PLOT SCALE, ADJUST SCALE(S) ACCORDINGLY	
DESIGNED BY: W.A.H.			
DRAWN BY: J.C.S.			
CHECKED BY: .			
APPROVED BY: .			
PROJECT NO. 6490			
DATE 5-26-2022			
DRAWING NO. 03-C-1			



PLTSCALE: 1 LITSCALE: 1  
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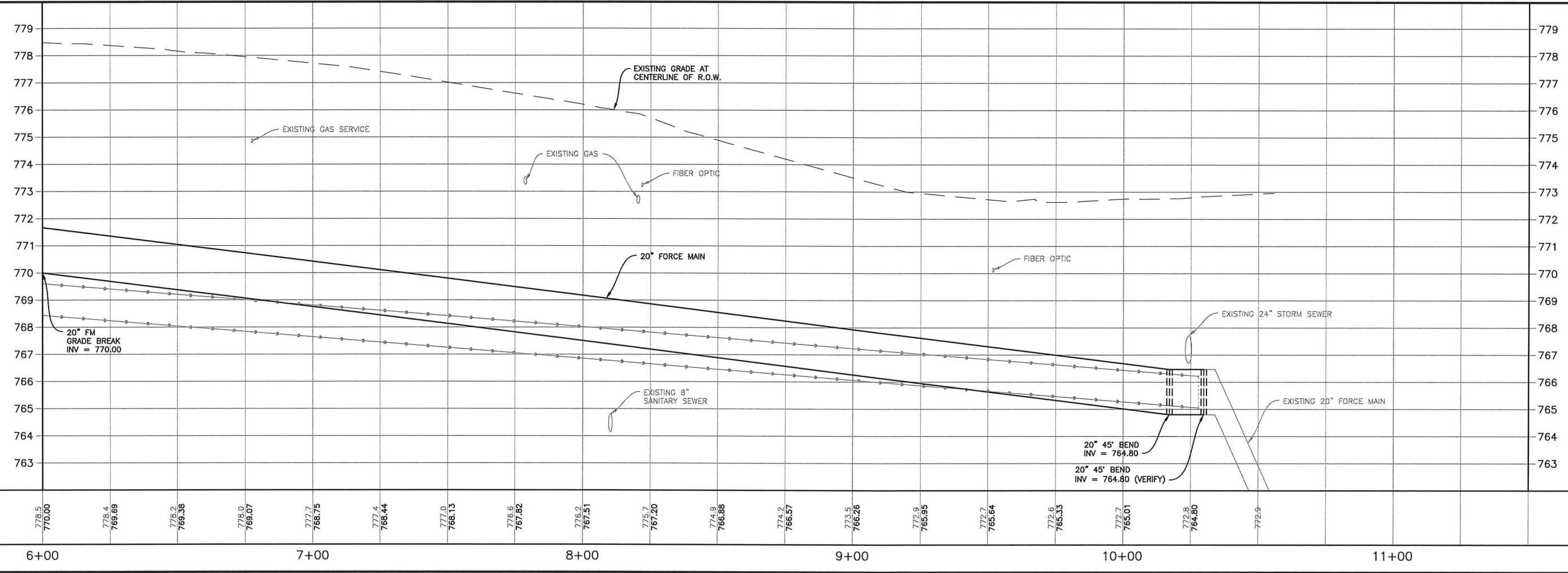
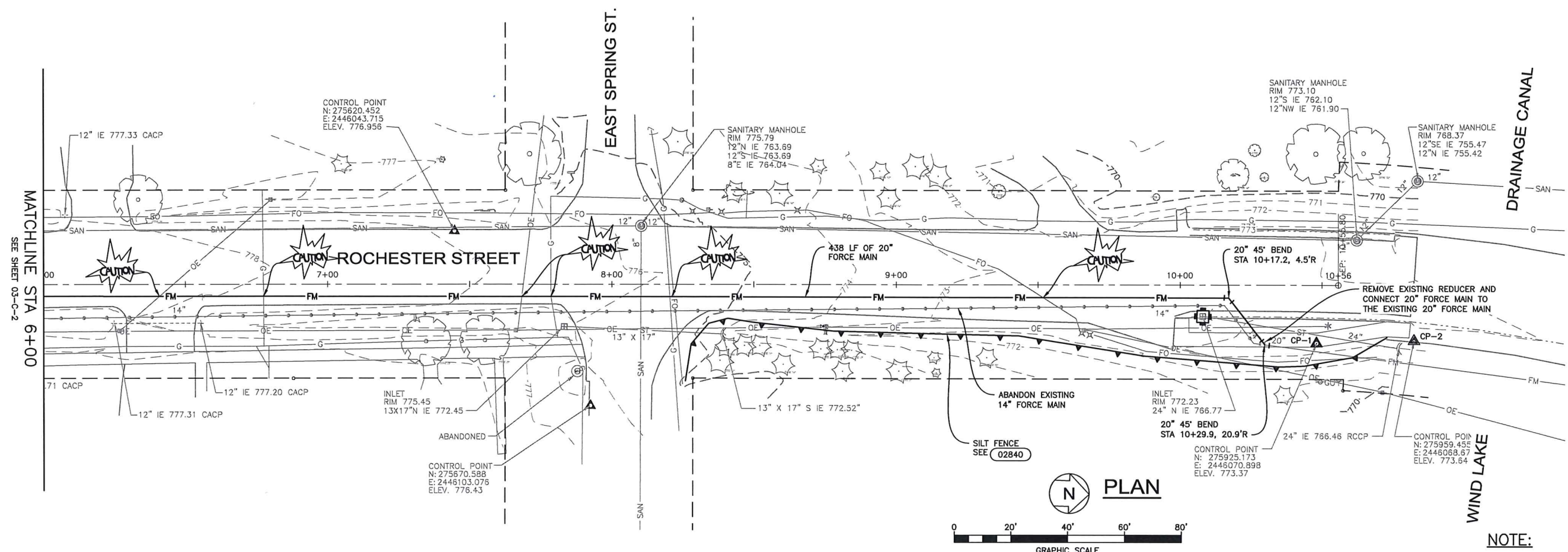
**NOTE:**  
 1. SEE NOTES ON DRAWING 03-C-1



<b>Applied Technologies</b> Engineers-Architects		Western Racine County Sewerage District (WRCS)
		Western Racine County Sanitary Dist. Wastewater Facilities Improvements Rochester, WI
NO.	DATE	REVISIONS AND RECORD OF ISSUE
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PROJECT NO. <b>6490</b>		
DATE <b>5-26-2022</b>		
DRAWING NO. <b>03-C-2</b>		

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 North River Road, Rochester, WI  
 Phone 262-534-6237

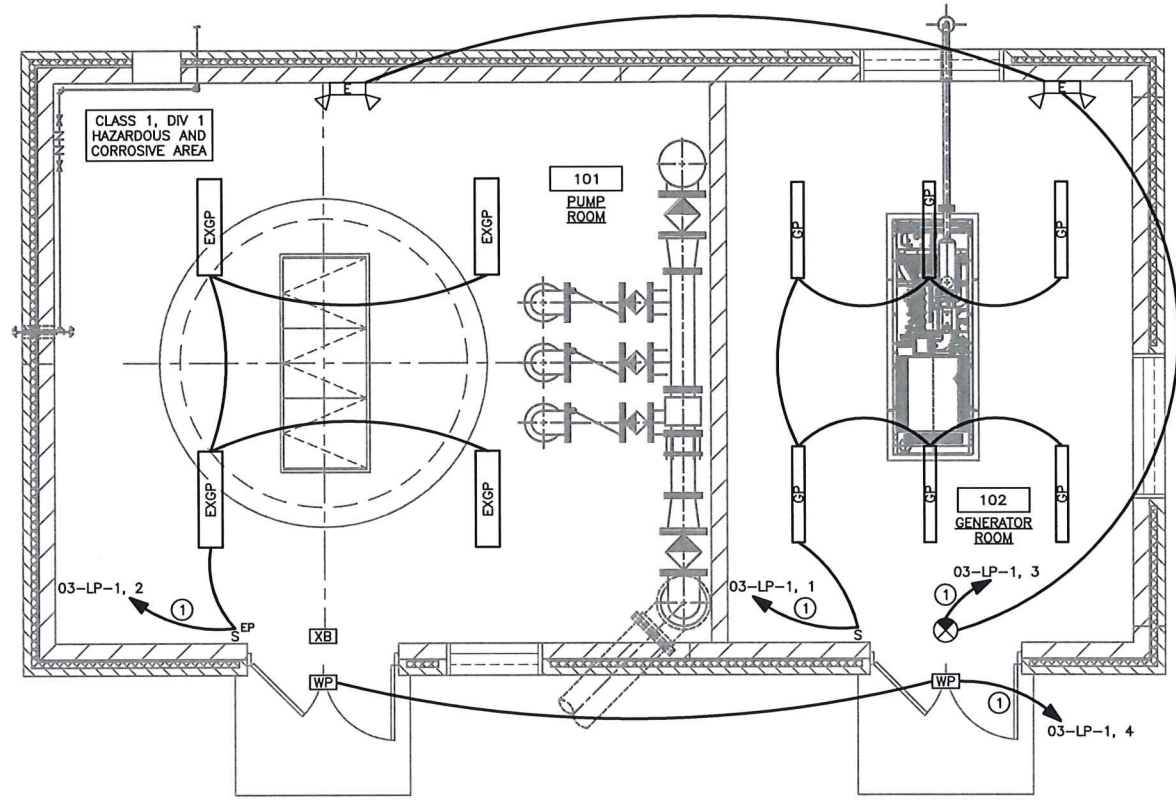
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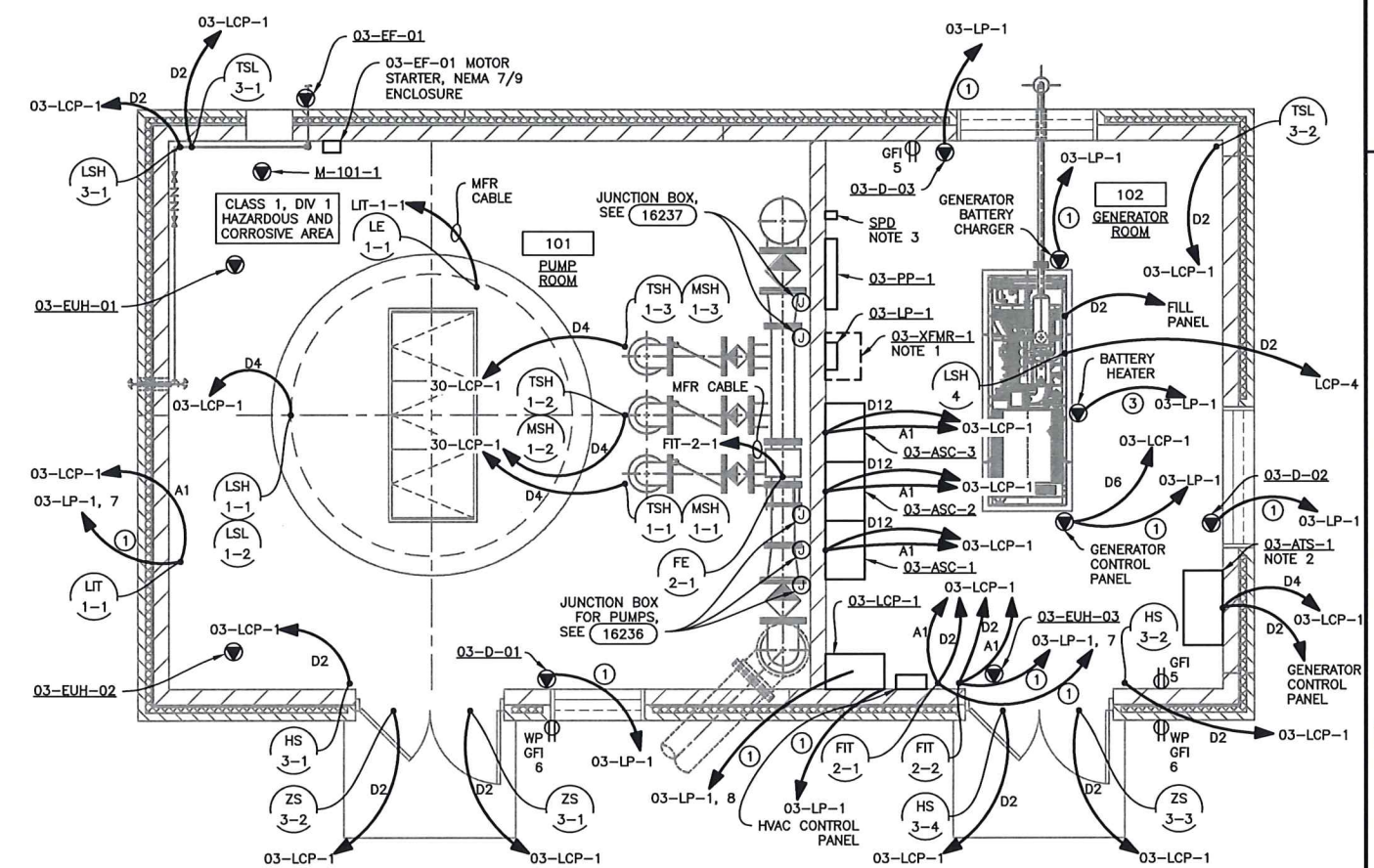
**NOTE:**  
 1. SEE NOTES ON DRAWING 03-C-1

<b>Applied Technologies</b> Engineers-Architects		Western Racine County Sewerage District (WRCSO)
		Western Racine County Sewerage District (WRCSO)
NO.	DATE	REVISIONS AND RECORD OF ISSUE
BY	APVD	PROJECT NO. 6490
WESTERN RACINE CO. SANITARY DIST. WASTEWATER FACILITIES IMPROVEMENTS ROCHESTER, WI		- PRELIMINARY - NOT FOR CONSTRUCTION
ROCHESTER LIFT STATION & FORCE MAIN CIVIL PLAN AND PROFILE		VERIFY SCALES LENGTH OF BAR IS 1 ON ORIGINAL DRAWING
DESIGNED BY: W.A.H. DRAWN BY: J.C.S. CHECKED BY: . APPROVED BY: .		PLOT SCALE, ADJUST SCALE(S) ACCORDINGLY
PROJECT NO. 6490		DATE 5-26-2022
DRAWING NO. 03-C-3		WRCSO facility is located at 1020 North River Road, Rochester WI Phone 262-534-6237

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**LIGHTING PLAN**  
 1/4" = 1'-0"



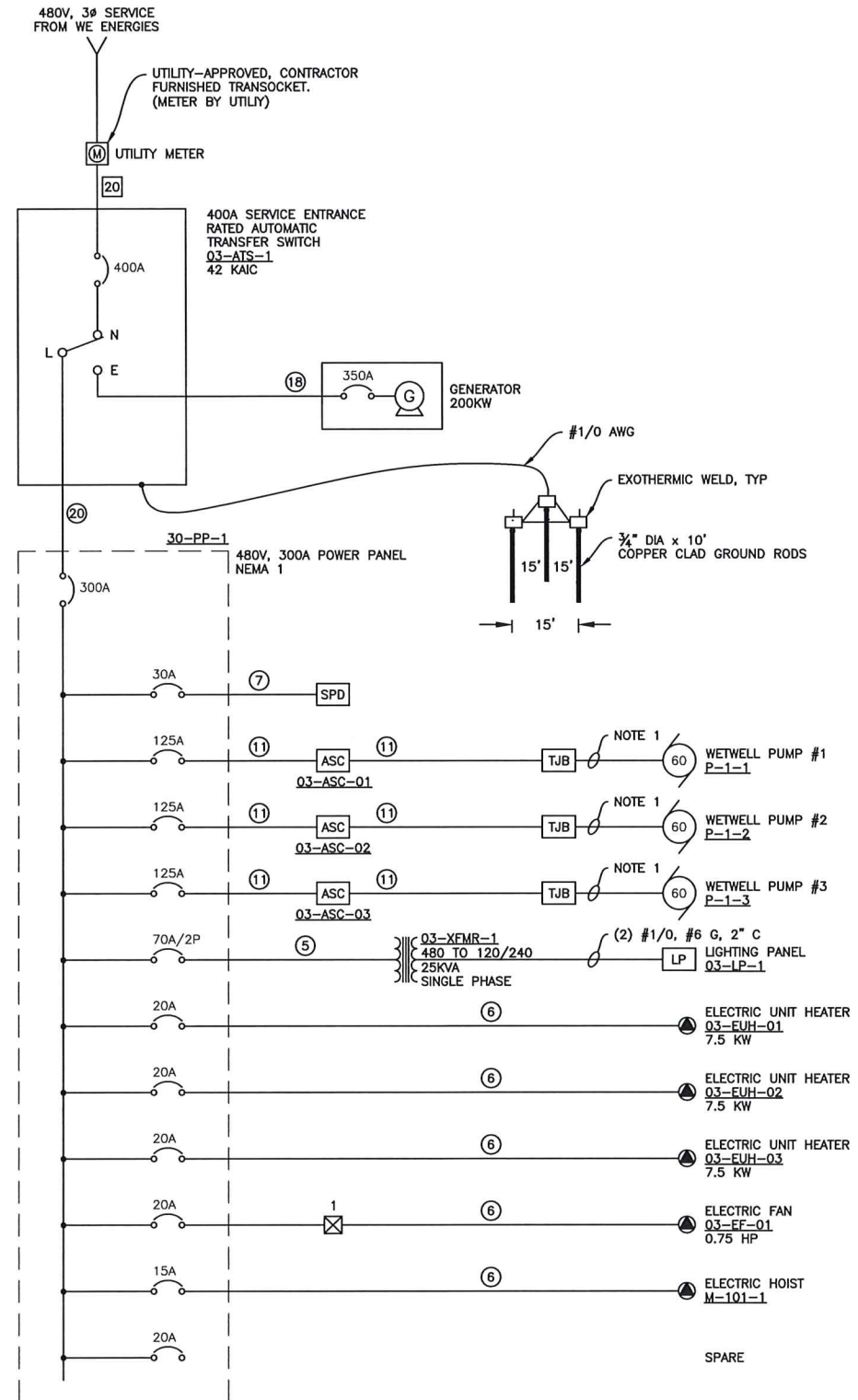
**POWER & SYSTEM PLAN**  
 1/4" = 1'-0"

**NOTES:**

- 30-XFMR-1 TO BE WALL MOUNTED ABOVE 30-LP-1 XFMR SHALL BE POSITIONED A MINIMUM OF 6" IN FRONT OF 30-LP-1, PER INEC. SEE 16000.
- IN ADDITION TO FRONT ACCESS, 30-ATS-1 MAY ALSO REQUIRE ACCESS TO ONE OF THE SIDES. (DO NOT LOCATE ATS IN CORNER OF THE ROOM).
- INSTALL SPD CLOSE TO 30-PP-1 TO MINIMIZE CONDUCTOR LENGTH.

Western Racine County Sewerage District (WRCSO)		WRCSO facility is located at 1020 North River Road, Rochester WI Phone 262-534-6237	
Applied Technologies Engineers-Architects		BY	APVD
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ROCHESTER LIFT STATION & FORCE MAIN ELECTRICAL PLANS		- PRELIMINARY - NOT FOR CONSTRUCTION	
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DRAWN BY: J.T.H.			
CHECKED BY: .			
APPROVED BY: .			
PROJECT NO. <b>6490</b>			
DATE <b>5-26-2022</b>			
DRAWING NO. <b>03-E-1</b>			

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**ONE-LINE DIAGRAM**

PANEL:	BUS AMPS: 225		MAIN CB SIZE: 100A @ 240V	MOUNTING SURFACE	REMARKS:	
	VOLTAGE: 120/240V	PHASE: 1				
03-LP-1	WIRE: 3			FLUSH		
CIRCUIT DESCRIPTION		CB	CKT	CKT	CB	CIRCUIT DESCRIPTION
LIGHTING - GENERATOR ROOM		20A	1	2	20A	LIGHTING - PUMP ROOM
LIGHTING - EMERGENCY & EXIT		20A	3	4	20A	LIGHTING - EXTERIOR
RECEPTACLES - GENERATOR ROOM		20A	5	6	20A	RECEPTACLES - EXTERIOR
INSTRUMENTS - FIT1-1, FIT2-1, FIT2-2		20A	7	8	20A	03-LCP-1
GENERATOR BATTERY CHARGER		20A	9	10	20A	GENERATOR FILL PANEL
GENERATOR ENGINE BLOCK HEATER		20A	11	12	20A	FE/FIT-2-3
(SPARE)		20A	13	14	20A	RADIO TOWER PANEL
HVAC CONTROL PANEL, GEN RM DAMPERS		20A	15	16	20A	(SPARE)
(SPARE)		15A	17	18	15A	(SPARE)
			19	20		
			21	22		
			23	24		
			25	26		
			27	28		
			29	30		

- NOTES:**
- CABLE FURNISHED WITH SUBMERSIBLE PUMP.
  - EQUIPMENT CONDUIT RUNS LEAVING THE CLASSIFIED AREA SHALL HAVE EXPLOSION PROOF SEALS LOCATED ON THE NON HAZARDOUS SIDE OF THE BOUNDARY.

**LIGHTING FIXTURE SCHEDULE**

TYPE	FIXTURE DESCRIPTION	SIZE	MFR	CATALOG NUMBER	LAMP		VOLTS	MOUNTING	REMARKS
					QUANTITY	TYPE			
E	EMERGENCY LIGHT	10" X 11" X5"	COMPASS	CU2WG	NA	LED	120	WALL	
EC	EMERGENCY LIGHT (CORROSIVE)	25.11" X 8.59"	KILLARK	EBS23DH-PNGB	NA	LED	120	WALL	
EXGP	EXLPOSION PROOF GENERAL PURPOSE	51.5"X11.3"X8.5"	PHOENIX	LXFB-LED-4-CW	NA	LED	120	CEILING	
GP	ENCLOSED FIBERGLASS	51 2/3" x 6 7/9" 4 3/8"	COLUMBIA	LXEM4-40ML-RFA-ED U	NA	LED	120	CEILING	
WP	WALL PACK	5.54"X10.16"X6.33"	HUBBELL	LNC2-12LU-4K-3-DB	NA	LED	120	WALL	
X	EXIT	11.6"X8.2"X4.3"	COMPASS	CER	NA	LED	120	WALL	
XB	EXIT	11 3/4" x 9 1/8" x 1 5/8"	HUBBELL	2040-07-20-2-R-WH-MTE	NA	LED	NA	WALL OR CEILING	SELF POWERED(TRITIUM)

**CIRCUIT SCHEDULES**

**SINGLE-PHASE CIRCUIT SCHEDULE**

AMPS	MARK	CONDUIT SIZE	PHASE CONDUCTORS	EQUIPMENT GROUNDING CONDUCTOR
20	(1)	3/4"	2#12	#12
30	(2)	3/4"	2#10	#10
50	(3)	3/4"	2#8	#10
60	(4)	3/4"	2#6	#10
80	(5)	1"	2#4	#8

**3Ø 3W & 4W CIRCUIT SCHEDULE**

AMPS	3Ø 3W MARK	CONDUIT SIZE	PHASE CONDUCTORS	3Ø 4W MARK	CONDUIT SIZE	PHASE CONDUCTORS	EQUIPMENT GROUNDING CONDUCTOR
20	(6)	3/4"	3#12	(6)	3/4"	4#12	#12
30	(7)	3/4"	3#10	(7)	3/4"	4#10	#10
50	(8)	3/4"	3#8	(8)	3/4"	4#8	#10
60	(9)	1"	3#6	(9)	1"	4#6	#10
80	(10)	1"	3#4	(10)	1-1/4"	4#4	#8
100	(11)	1-1/4"	3#3	(11)	1-1/2"	4#3	#8
110	(12)	1-1/4"	3#2	(12)	1-1/2"	4#2	#6
125	(13)	1-1/2"	3#1	(13)	2"	4#1	#6
150	(14)	2"	3#1/0	(14)	2-1/2"	4#1/0	#6
200	(15)	2"	3#3/0	(15)	2-1/2"	4#3/0	#6
225	(16)	2-1/2"	3#4/0	(16)	3"	4#4/0	#4
250	(17)	2-1/2"	(3) 250 kcmil	(17)	3"	(4) 250 kcmil	#4
300	(18)	3"	(3) 350 kcmil	(18)	3-1/2"	(4) 350 kcmil	#4
350	(19)	3-1/2"	(3) 500 kcmil	(19)	4"	(4) 500 kcmil	#3
400	(20)	3-1/2"	(3) 600 kcmil	(20)	4"	(4) 600 kcmil	#3
450	(21)	(2) 2-1/2"	2 SETS OF (3)#4/0	(21)	(2) 3"	2 SETS OF 4#4/0	#2
500	(22)	(2) 2-1/2"	2 SETS OF (3) 250 kcmil	(22)	(2) 3"	2 SETS OF (4) 250 kcmil	#2
600	(23)	(2) 3"	2 SETS OF (3) 350 kcmil	(23)	(2) 3-1/2"	2 SETS OF (4) 350 kcmil	#1
700	(24)	(2) 3-1/2"	2 SETS OF (3) 500 kcmil	(24)	(2) 4"	2 SETS OF (4) 500 kcmil	#1/0
800	(25)	(2) 3-1/2"	2 SETS OF (3) 600 kcmil	(25)	(2) 4"	2 SETS OF (4) 600 kcmil	#1/0
900	(26)	(3) 3"	3 SETS OF (3) 350 kcmil	(26)	(3) 3"	3 SETS OF (4) 350 kcmil	#2/0
1000	(27)	(4) 2-1/2"	4 SETS OF (3) 250 kcmil	(27)	(4) 3"	4 SETS OF (4) 250 kcmil	#2/0
1200	(28)	(4) 3"	4 SETS OF (3) 350 kcmil	(28)	(4) 3-1/2"	4 SETS OF (4) 350 kcmil	#3/0
1600	(29)	(4) 3-1/2"	4 SETS OF (3) 600 kcmil	(29)	(4) 4"	4 SETS OF (4) 600 kcmil	#4/0
1800	(30)	(6) 3"	6 SETS OF (3) 350 kcmil	(30)	(6) 3"	6 SETS OF (4) 350 kcmil	250 kcmil
2000	(31)	(6) 3"	6 SETS OF (3) 500 kcmil	(31)	(6) 3-1/2"	6 SETS OF (4) 500 kcmil	250 kcmil
2500	(32)	(6) 3-1/2"	6 SETS OF (3) 600 kcmil	(32)	(6) 4"	6 SETS OF (4) 600 kcmil	350 kcmil
3000	(33)	(8) 3-1/2"	8 SETS OF (3) 500 kcmil	(33)	(8) 3-1/2"	8 SETS OF (4) 500 kcmil	400 kcmil
4000	(34)	(10) 3-1/2"	10 SETS OF (3) 600 kcmil	(34)	(10) 4"	10 SETS OF (4) 600 kcmil	500 kcmil

**NOTE:**  
 1. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL CONDUITS INCLUDING SINGLE AND THREE PHASE, 2 WIRE, 3 WIRE AND 4 WIRE CIRCUITS.

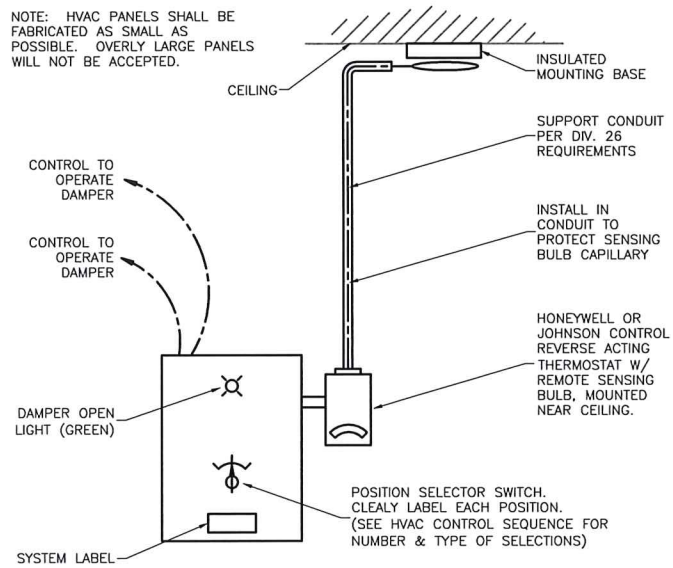
Western Racine County  
 Sewerage District  
 (WRCSD)  
 WRCSD facility is located at 1020 North River Road, Rochester, WI  
 Phone 262-534-6237

Applied Technologies  
 Engineers-Architects  
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 WASTEWATER FACILITIES  
 IMPROVEMENTS  
 ROCHESTER, WI  
 ROCHESTER LIFT STATION & FORCE MAIN  
 ELECTRICAL  
 ONE-LINE DIAGRAM & SCHEDULES

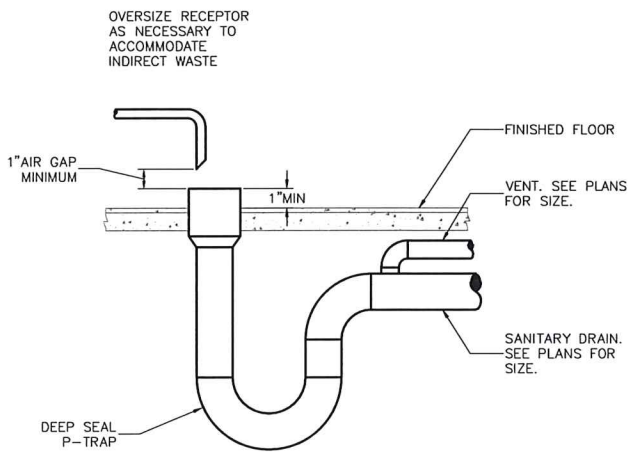
VERIFY SCALES LENGTH OF BAR IS 1" ON ORIGINAL DRAWING  
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 PLOT SCALE, ADJUST SCALE(S) ACCORDINGLY  
 DESIGNED BY: G.A.G.  
 DRAWN BY: J.T.H.  
 CHECKED BY: .  
 APPROVED BY: .  
 PROJECT NO. 6490  
 DATE 5-26-2022  
 DRAWING NO. 03-E-2

PLOT SCALE: 1/4" = 1'-0" L1SCALE: 1/8" = 1'-0" L2SCALE: 1/4" = 1'-0" L3SCALE: 1/8" = 1'-0"  
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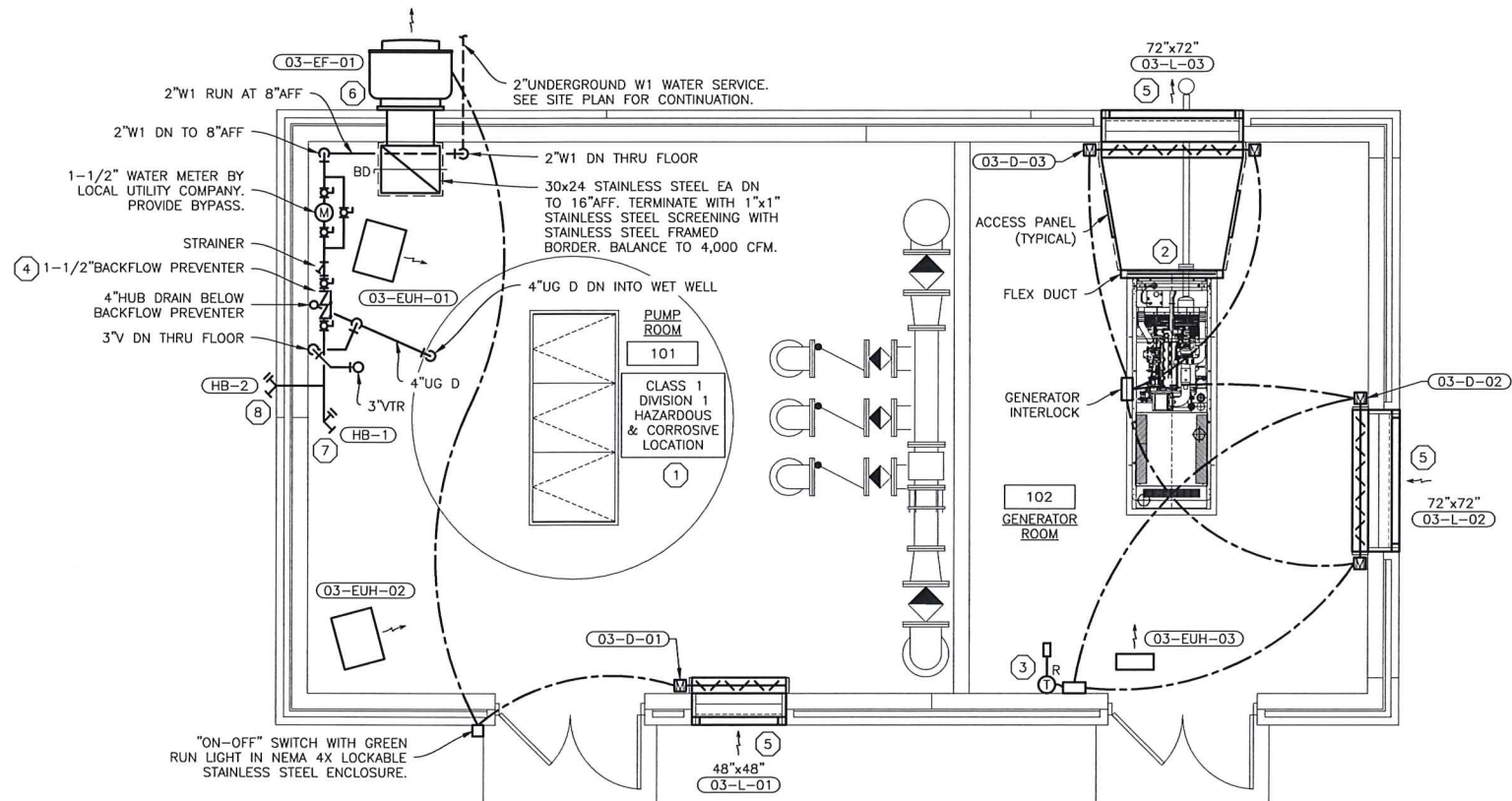
### HVAC CONTROL PANEL DETAIL

NTS



### HUB DRAIN DETAIL

NTS

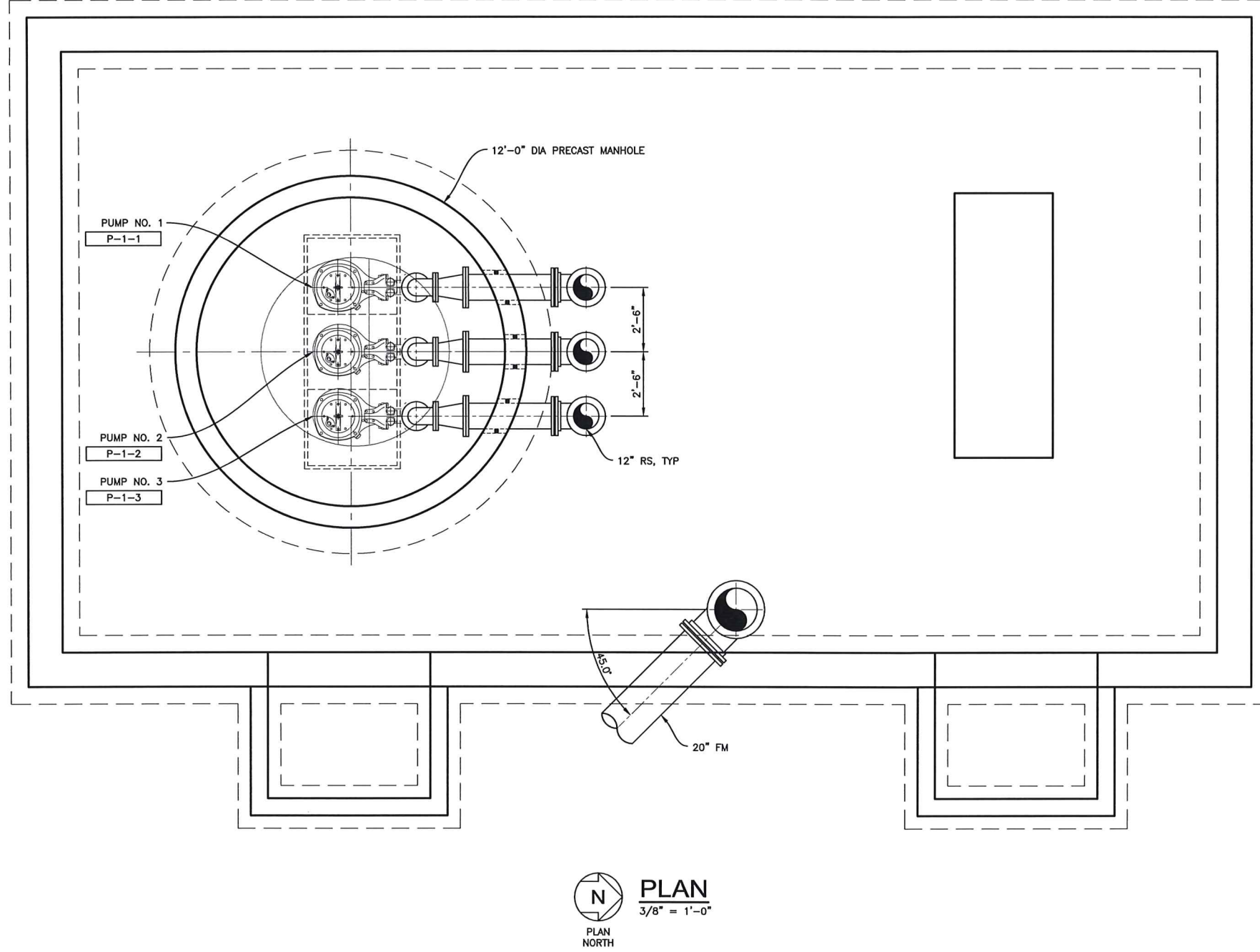


**PLAN**  
 1/4" = 1'-0"

### KEYED NOTES:

- 1 ALL DUCTWORK AND ACCESSORIES LOCATED IN AND/OR SERVING PUMP ROOM SHALL BE STAINLESS STEEL. ALL EXPOSED WATER PIPING SHALL BE SCHEDULE 80 CPVC.
- 2 PROVIDE DUCTED CONNECTION FROM GENERATOR RADIATOR TO LOUVER 30-L-03. COORDINATE RADIATOR CONNECTION SIZE WITH GENERATOR MANUFACTURER. PROVIDE ACCESS PANELS IN DUCTWORK.
- 3 HVAC CONTROL PANEL WITH "ON-OFF-AUTO" SWITCH AND REVERSE ACTING THERMOSTAT WITH SENSING BULB AT CEILING FOR ELECTRIC CONTROL DAMPERS. FIELD VERIFY FINAL LOCATION. SEE THE HVAC CONTROL PANEL DETAIL ON THIS SHEET.
- 4 NEW BACKFLOW PREVENTER SHALL BE WATTS SERIES LF909QT-S. PROVIDE WITH DRAIN LINE AND AIR GAP PIPED TO HUB DRAIN BELOW. PROVIDE WALL MOUNTING BRACKETS FOR MOUNTING BOTH THE BACKFLOW PREVENTER AND WATER METER. BACKFLOW PREVENTER AND WATER METER SHALL NOT BE SUPPORTED BY PIPING.
- 5 TOP OF LOUVER SHALL BE AT A HEIGHT OF 9'-4" AFF.
- 6 TOP OF WALL OPENING SHALL BE AT A HEIGHT OF 10'-8" AFF.
- 7 PROVIDE HOSE BIB (HB-1) SIMILAR TO STANDARD DETAIL 15340.
- 8 PROVIDE HOSE BIB (HB-2) SIMILAR TO STANDARD DETAIL 15352.

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WESTERN RACINE COUNTY Sewerage District (WRCSD) <small>WRCSD facility is located at 1020 North River Road, Rochester WI          Phone 262-534-6237</small>		
<b>VERIFY SCALES</b> LENGTH OF BAR IS 1" ON ORIGINAL DRAWING 1:2 PLOT SCALE, ADJUST SCALE(S) ACCORDINGLY		
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PROJECT NO. <b>6490</b>		
DATE <b>5-26-2022</b>		
DRAWING NO. <b>03-HP-1</b>		



Western Racine County  
 Sewerage District  
 (WRCSO)

WRCSO facility is located at 1020  
 North River Road, Rochester WI  
 Phone 262-534-6237

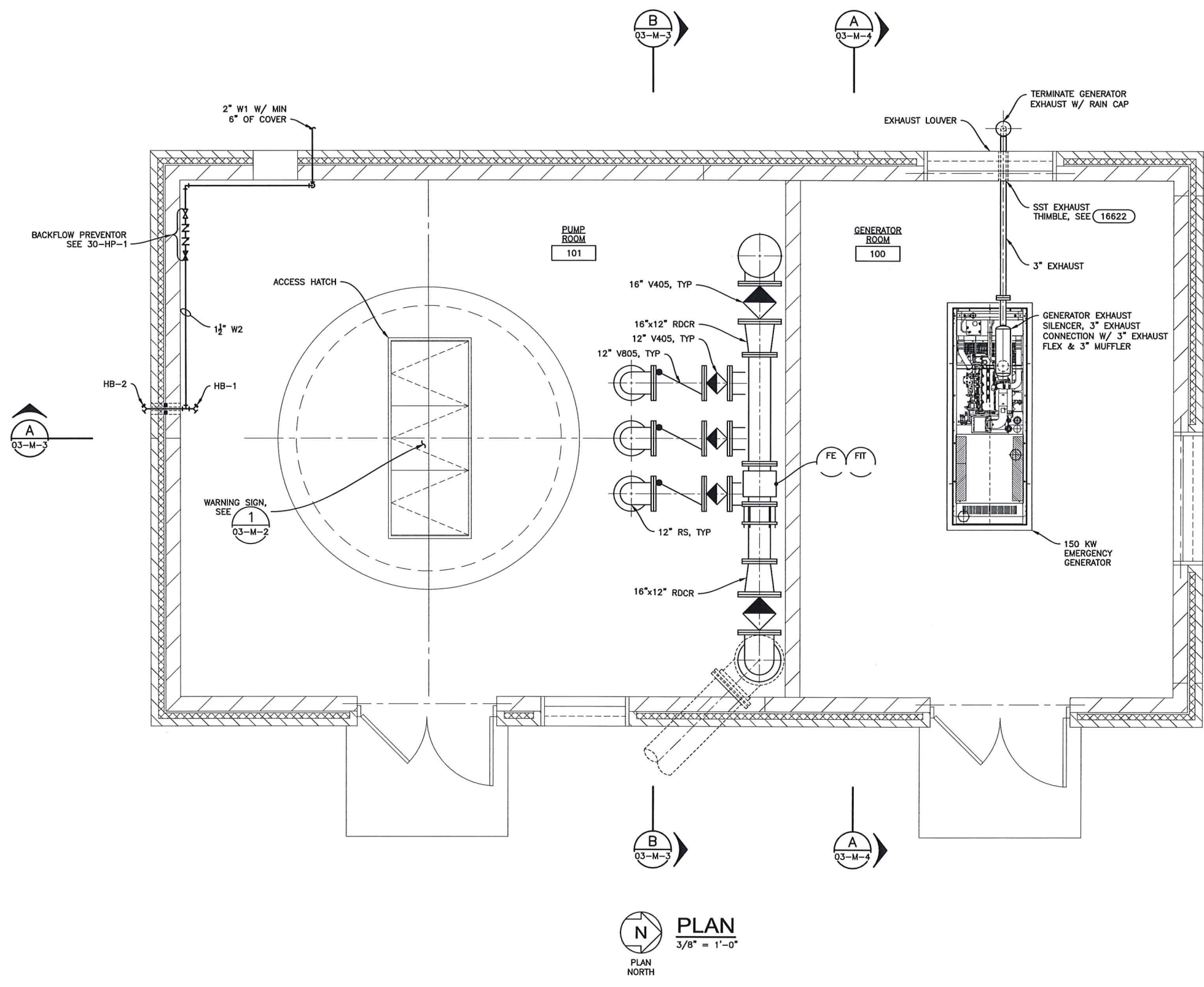
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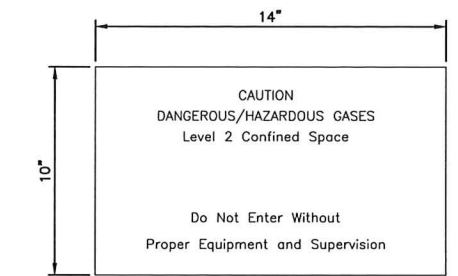
ROCHESTER LIFT STATION & FORCE MAIN  
 MECHANICAL  
 PLAN

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CHECKED BY: .
APPROVED BY: .
PROJECT NO. 6490
DATE 5-26-2022
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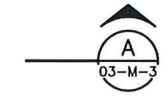


PLAN  
 3/8" = 1'-0"  
 PLAN NORTH



- NOTES:**
- FIBERGLASS OR VINYL MATERIAL
  - MIN LETTER SIZE 1"
  - BLACK PRINT ON YELLOW BACKING
  - FASTEN TO UNDERSIDE OF WETWELL ACCESS HATCH
  - SEE SPEC SECTION 10 14 00 FOR SIGN REQUIREMENTS

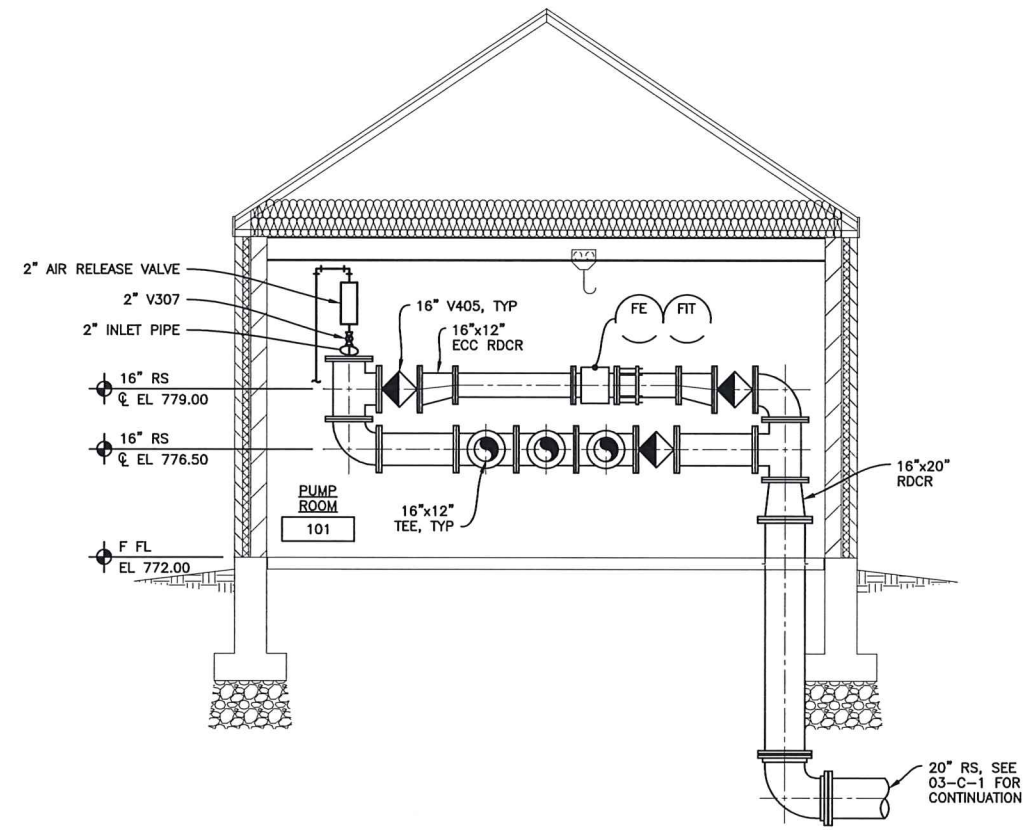
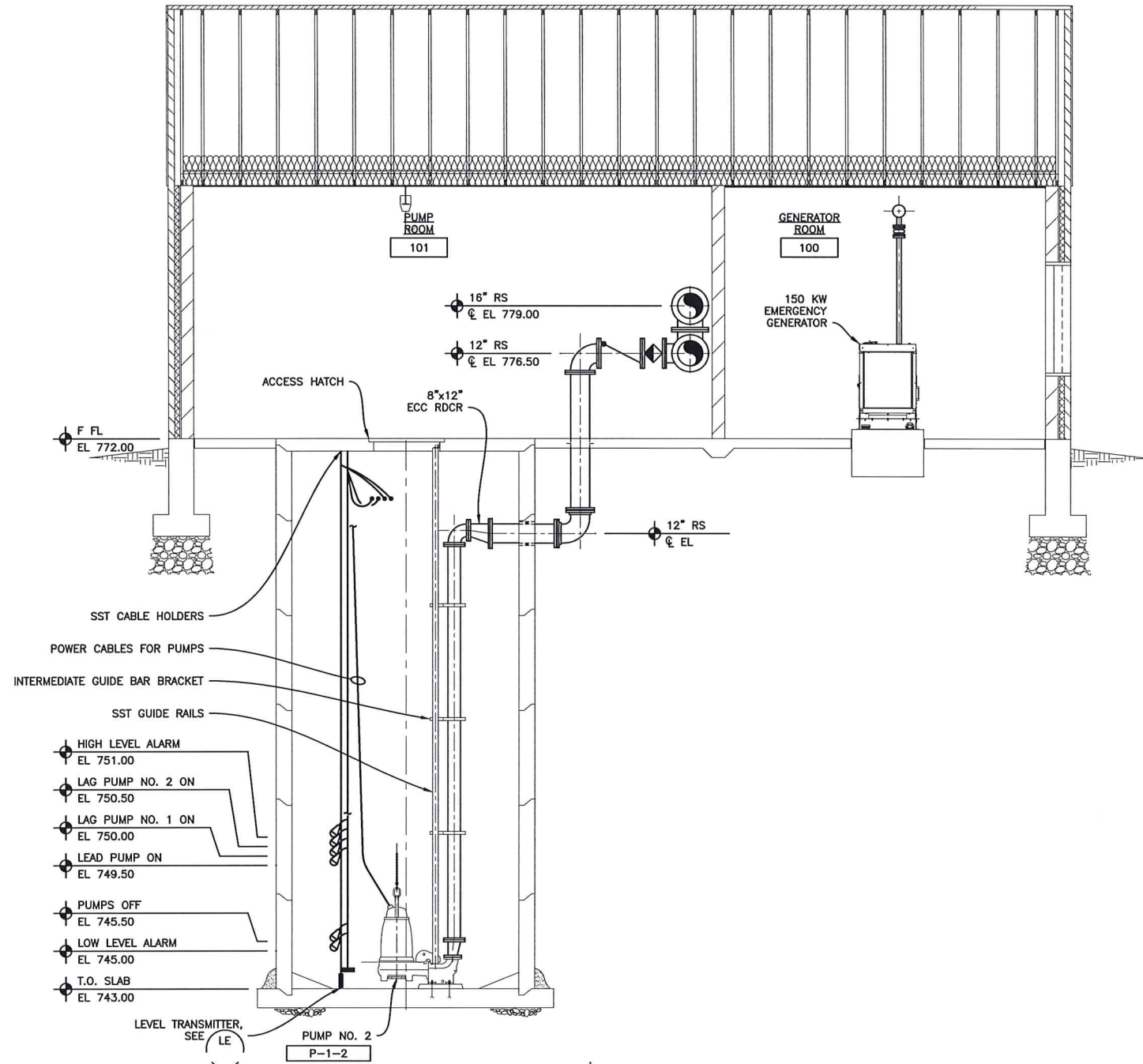
**WARNING SIGN**  
**1** **DETAIL**  
 03-M-2 NTS



- NOTES:**
- CONTRACTORS TO FIELD VERIFY ALL GENERATOR DIMENSIONS, PIPING CONNECTIONS AND CONDITIONS AND MAKE MINOR ADJUSTMENTS AS REQUIRED.
  - HANG GENERATOR EXHAUST SILENCER FROM CEILING, SEE 15156 AND ROUTE EXHAUST TO AVOID CONFLICT WITH LINTEL OVER LOUVER.

Western Racine County Sewerage District (WRCSO)		WRCSO facility is located at 1020 North River Road, Rochester, WI Phone 262-534-6237	
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WESTERN RACINE CO. SANITARY DIST. WASTEWATER FACILITIES IMPROVEMENTS ROCHESTER, WI	DATE	NO.	- PRELIMINARY - NOT FOR CONSTRUCTION
ROCHESTER LIFT STATION & FORCE MAIN MECHANICAL PLAN	VERIFY SCALES LENGTH OF BAR IS 1" ON ORIGINAL DRAWING 1:2 PLOT SCALE, ADJUST SCALE(S) ACCORDINGLY	DESIGNED BY: W.A.E. DRAWN BY: J.T.H. CHECKED BY: . APPROVED BY: .	PROJECT NO. <b>6490</b>
DATE <b>5-26-2022</b>	DRAWING NO. <b>03-M-2</b>		

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 ROCHESTER, WI

ROCHESTER LIFT STATION & FORCE MAIN  
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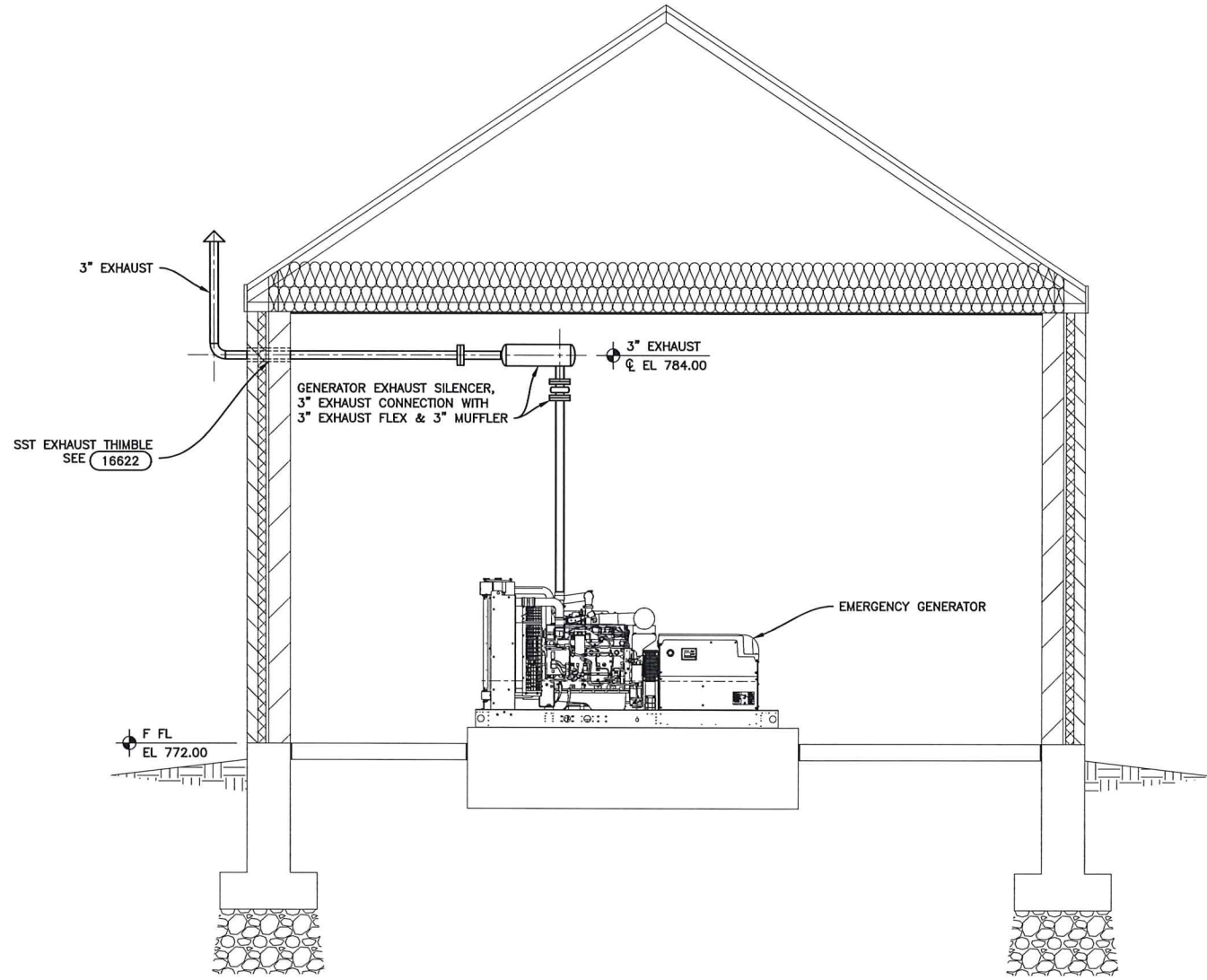
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**6490**

DATE  
**5-26-2022**

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**03-M-3**



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**A SECTION**  
 30-M-2 3/8" = 1'-0"

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ROCHESTER LIFT STATION & FORCE MAIN  
 MECHANICAL  
 SECTIONS

VERIFY SCALES  
 LENGTH OF BAR IS 1'-0"  
 ON ORIGINAL DRAWING

1:2  
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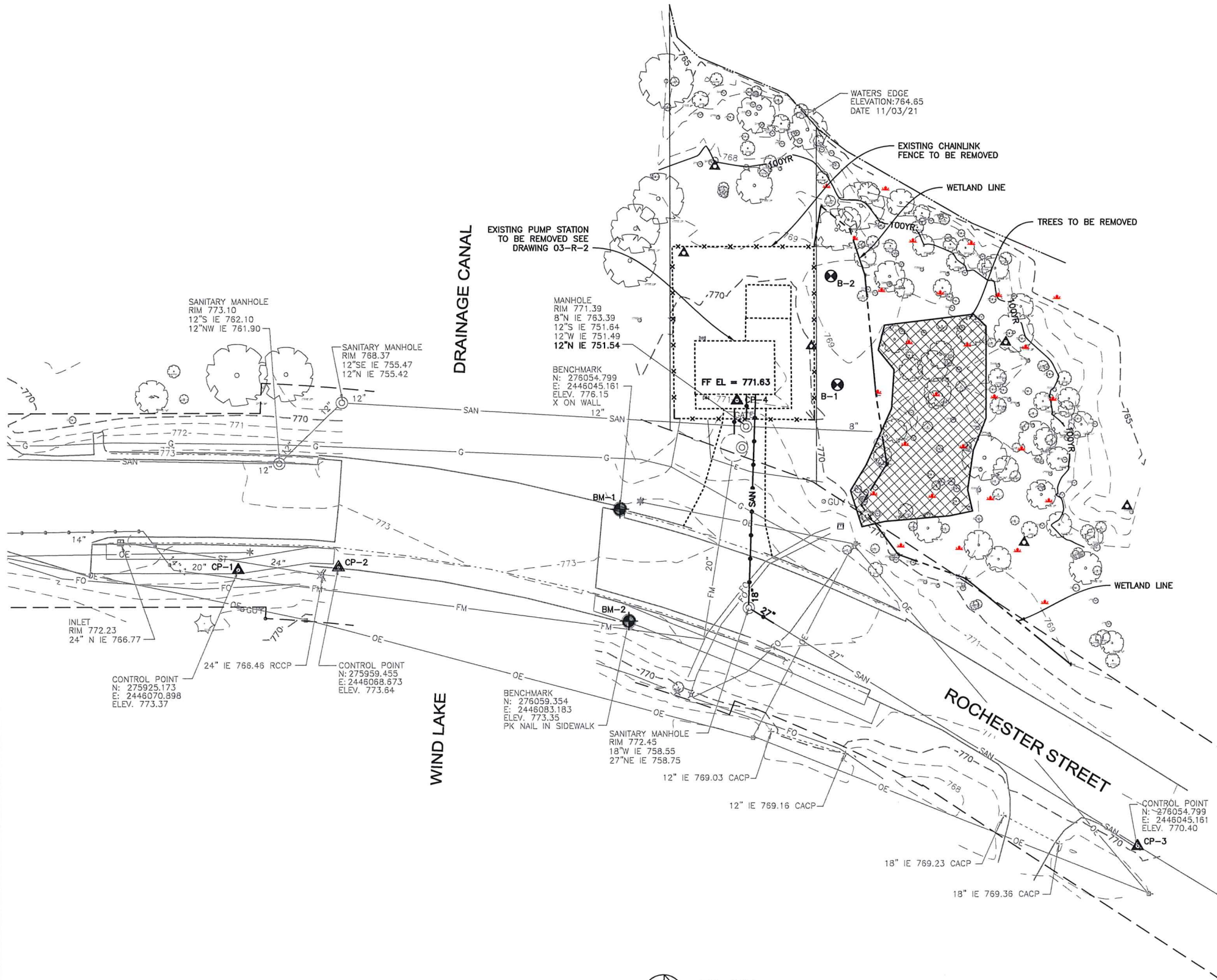
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**6490**

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**5-26-2022**

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**03-M-4**

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WESTERN RACINE CO. SANITARY DIST. WASTEWATER FACILITIES IMPROVEMENTS ROCHESTER, WI		- PRELIMINARY - NOT FOR CONSTRUCTION	
ROCHESTER LIFT STATION & FORCE MAIN REMOVAL PLAN			
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DRAWN BY: J.C.S.			
CHECKED BY: .			
APPROVED BY: .			
PROJECT NO. 6490			
DATE 5-26-2022			
DRAWING NO. 03-R-1			

# **WESTERN RACINE COUNTY SANITARY DISTRICT**

## **ROCHESTER LIFT STATION**

### **CONDITION ASSESSMENT**

---

The condition assessment for the Rochester Lift Station consisted of a capacity analysis, discussions with District staff, and field inspections. The above ground structure, dry well and wet well were entered and observed.

The following section provides a general description of the lift station and the issues that have been identified. Specific issues observed at the station, as well as recommended actions to correct observed deficiencies, are included in the Condition Assessment Results section.

#### **Design Life and Condition Ranking**

The design life of an asset is the period that the structure or equipment is predicted to operate when properly maintained. Wastewater equipment can often exceed typical design life values, so replacement is not the only option once design life has been reached. However, assets that are at the ends of their design lives should be evaluated and their conditions monitored more closely to prevent failures.

Presented below are the expected useful life values used in this condition assessment. These values are based on ATI's experience with wastewater assets and values published by the U.S. Environmental Protection Agency.

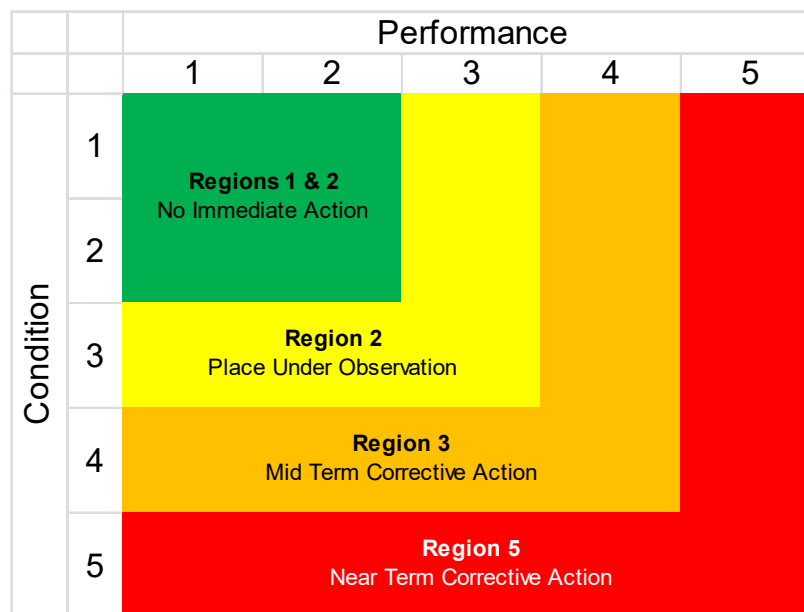
#### Design Life:

- Gravity Sewers and Force Mains: 50 years
- Above Grade Structures: 40 – 50 years
- Below Grade Structures: 30 – 40 years
- Piping and Valves: 40 years
- Process Equipment: 20 years
- Electrical and Instrumentation and Control Equipment: 15 – 20 years

The condition and performance of each asset was ranked using a condition assessment method as shown in Table 1. The asset condition and adjusted performance were then placed into the chart shown in Figure 1 to determine recommended actions.

Table 1 Condition and Performance Rankings	
Condition	
1	Excellent
2	Slight visible degradation
3	Visible degradation
4	Integrity of component moderately compromised
5	Integrity of component severely compromised
Performance	
1	Component functioning as intended
2	In-service, but higher than expected O&M
3	In-service, but function is impaired
4	In-service, but function is highly impaired
5	Component is not functioning as intended
Performance Age Adjustment	
0-50% of design life	→ No adjustment
50-75% of design life	→ Performance (+1)
75-100% of design life	→ Performance (+2)

**Figure 1**  
**Recommended Action Chart**



The Rochester Lift Station (LS) is located on North Rochester Street, alongside the Wind Lake Drainage Canal and the Fox River. The station site is located outside the 100-year flood plain of El 768.3. Rochester LS consists of a brick building over a cast-in-place concrete wet well and dry well, with the wet and dry wells sharing a common wall. The dry well houses three centrifugal pumps, isolation and check valves, and piping.

Rochester LS receives influent from a 27-inch diameter interceptor sewer that reduces to an 18-inch diameter sewer approximately 80 ft prior to the Rochester LS. Rochester LS pumps wastewater through a 260-foot long, 20-inch diameter force main that reduces to a 760-foot long, 14-inch diameter force main that discharges to a manhole on Rochester Street. The lift station has an onsite standby generator on the ground floor of the lift station building, which also houses the lift station's control panel and the pumps' variable frequency drives (VFDs).

The lift station building was constructed in 1967. The pumps, valves, piping, generator and control panel were rehabilitated as part of a 2004 project. The lift station was constructed with two 2,000 gpm pumps, and an additional 2,500 gpm pump was installed in 2004. An odor control system was installed as part of the 2004 project.

The following sections contain detailed condition assessments for the various features of the Rochester Lift Station.

## **INFLUENT SEWER**

### **Capacity**

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The Rochester lift station has two influent sewers, a 12-inch diameter and an 18-inch diameter sewer. Approximately 80 ft before the Rochester LS, a 27-inch diameter gravity interceptor reduces into the 18-inch piping. The 18-inch diameter sewer is undersized for the current influent flows and has caused flow backups into the interceptor. The existing influent piping does not have capacity for future design flows.

- *Replace the 18-inch influent sewer with 27-inch sewer.*

## BUILDING

### Lift Station Building

The lift station building was constructed in 1967. The building has a grade level floor and three below grade levels, block walls with brick exteriors, and a precast plank roof with a flat, rubber membrane. The building was visually inspected for structural defects as part of the lift station site visits.

---

The building roof was last replaced in 2004. The building is in generally good condition with some minor corrosion on the soffits and minor corrosion of electrical junction boxes. The wetwell entry door is severely corroded.

- *Make building repairs during next scheduled roof or station replacement.*

## DRY WELL

### Condition

---

The Rochester lift station dry well is constructed of cast-in-place concrete. The interior walls and floors of the dry wells were examined for surface corrosion. This assessment did not include in-depth structural calculations or evaluation of the soil conditions. The dry well walls and floor are covered in a coating system that is failing. Bare patches were observed, along with a large amount of liquid filled blisters.

- *Remove the existing concrete coating and apply a new protective coating to all concrete surfaces.*



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It is difficult to perform maintenance on the pumps in the dry well, due to the limited space around the equipment.

- *Replace existing station with a submersible lift station.*

## WET WELL

### Condition

The Rochester lift station wet well is constructed of cast-in-place concrete. The interior walls, stairs, and top of the wetwell channel were examined for corrosion and structural defects. This condition assessment did not include in-depth structural calculations or soil condition evaluations.

---

The several levels of the wetwell have repeatedly flooded due to the pumping equipment clogging and being unable to keep up with influent flows.

- *Replace pumping equipment.*

---

The concrete on the lower-level walls shows significant corrosion, with cement was easily removed from the walls with light pressure. Continued exposure to hydrogen sulfide will lead to further concrete degradation

- *Rehabilitate existing concrete by removing the degraded cement and applying a protective coating to all concrete surfaces, or*
- *Replace station with a submersible-type station to contain the odors.*



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The stairs and supports show significant corrosion. The corrosion may be structurally significant.

- *Replace all stairs in the wetwell.*
- *Replace structural supports with corrosion-resistant materials.*

---

The wetwell lighting system shows significant corrosion. The District has already replaced the lighting since the 2004 improvements project due to corrosion.

- *Replace the lighting system as part of station rehabilitation or replacement project.*

### General

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The wetwell is undersized for the influent flows, causing high amounts of pump cycling.

- *Replace wetwell with a larger volume wetwell.*

---

The wetwell is experiencing extreme odors and potentially hazardous atmosphere due to the non-functioning odor control system.

- *Repair or replace odor control system, or*
- *Replace station with a submersible-type station to contain the odors.*

## **PUMPING EQUIPMENT**

The lift station's two 2,000 gpm pumps were rehabilitated during the 2004 improvements, with new drive shafts and motors. The bearing frame and volute are from the original pumps installed in 1967. A third, 2,500 gpm, pump was added during that project. The station has a firm capacity of 4,000 gpm.

### **Capacity**

---

The current average day and maximum day influent flows to each station were calculated using the station's existing flow meter. Flow data for the period of January 2018 through December 2021 were evaluated. The current peak hour flow was based on a peaking factor of 5.0 as estimated in the November 2021 Facilities Plan.

Station Firm Capacity: 5.76 mgd (4,000 gpm)

Current Average Day Flow: 1.02 mgd (710 gpm)

Current Maximum Day Flow: 2.98 mgd (2,070 gpm)

Current Peak Hour Flow: 5.09 mgd (3,540 gpm)

The LS's maximum day flow is 50% of the station's firm pumping capacity and the peak hour flow is 89% of the station's firm pumping capacity.

---

Future design flows were estimated based on the population increases in the Facilities Plan, and the peaking factors from the current station flows.

2040 Average Day Flow: 1.21 mgd (840 gpm)

2040 Maximum Day Flow: 3.52 mgd (2,250 gpm)

2040 Peak Hour Flow: 6.01 mgd (4,180 gpm)

The existing station pumps do not have adequate capacity to meet the required firm capacity of the design flow.

- *Replace pumping equipment with higher capacity pumps.*



## Pump Condition

---

The pumps were visually assessed for corrosion. Severe corrosion is present on the two original pumps.

- *Replace pumping equipment.*
- 

The extended shafts on the pumps require significant maintenance.

- *Replace pumping equipment with direct mounted motors or submersible pumps.*
- 

The existing pumps are prone to clogging with rags and other common sewer debris, which reduces their pumping capacity and leads to significant amounts of maintenance.

- *Replace pumping equipment with non-clogging impeller pumps.*



## Piping and Valves

---

The stations' suction and discharge piping, check valves, and isolation valves were evaluated for surface corrosion. Surface corrosion is not necessarily an issue if the wall thickness of the piping and valves is sufficient for the operating pressure. This condition assessment did not investigate corrosion beyond a visual inspection. The piping and valves were generally assessed as a whole and not as individual components, as they are generally found to be in the same condition and are often replaced at the same time.

The valves and piping also have extensive surface corrosion. The piping and valves on the original pumps have exceeded their design life.

- *Replace protective coating or replace piping and valves.*
- 

The 14-inch diameter force main is too small for the peak hour design flow of 4,200 gpm. The velocity through this section of force main is 8.75 feet per second, which is higher than typical design standards and causes excessive head loss.

- *Replace force main with 20-inch diameter force main.*

## ELECTRICAL

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A visual assessment of the condition of the electrical equipment and panels was performed. An in-depth evaluation of the electrical equipment was not included in the scope of this condition assessment.

The natural gas fueled generator was replaced as part of the 2004 project. The automatic transfer switch was last replaced in the 1990s. The generator and automatic transfer (ATS) switch have a capacity of 150 kW and can run all three pumps at the same time.

The generator is in good condition, with no evidence of corrosion and no reported operational issues; however, it has reached the end of its design life.



District staff have reported that the ATS is unreliable and difficult to obtain replacement parts for due to its age.

- *Replace automatic transfer switch.*
- *Replace generator as part of a station improvements/replacement project.*

## CONTROLS AND COMMUNICATION (SCADA)

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The control panel was installed in the 2004 improvements and is in good condition.

- *No action required.*

A submersible level transducer is used as the primary level control instrumentation. A float switch system is used as backup pump control. Both control systems are operating correctly.

- *No action required.*

The station's flow monitoring consists of a magnetic flow meter on the discharge of the station pumps. An influent flow monitor for the Village of Rochester is also installed and consists of a small Parshall flume. The flume has frequent issues with clogging due to influent debris.

- *Replace the influent flow monitor.*

---

Station SCADA communication uses a modem and communicates through a phone line. Transfer of data to the wastewater treatment facility can take a significant amount of time.

- *Evaluate other communication options.*

## **ODOR CONTROL**

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Due to the long interceptor sewer and extended hydraulic retention time, the station influent has high amounts of hydrogen sulfide in it, causing significant odor issues at the station. A drum scrubber odor control system was installed in the 2004 improvements. However, the odor control system has high operation and maintenance requirements and costs, and has been non-functional for over a year, due to malfunctioning equipment.

- *Repair or replace odor control system, or*
- *Replace station with a submersible-type station to contain the odors.*

## **SITE CONDITIONS**

### **Site Access, Condition, and Security**

Adequate access to lift station sites is required to allow maintenance vehicles, such as vacuum trucks and flatbed trucks, to get to the stations with relative ease. Generally, station access should allow the maintenance vehicles to safely enter and exit the site without requiring extensive maneuvering and with minimal impacts to surrounding properties and roadway traffic.

Site security is recommended to prevent unauthorized persons from accessing electrical and mechanical equipment or gaining access to dangerous areas like wet wells. District staff has not reported any issues with unauthorized access or vandalism at the lift station site.

### **Accessibility**

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The site is accessible to maintenance vehicles.

- *No action required.*

### **Security**

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The site has a security fence and locked gate. All pipe, pump, and electrical components are secured in the generator building. The dry well building door is kept locked, but the wetwell lock core has corroded and is not functional.

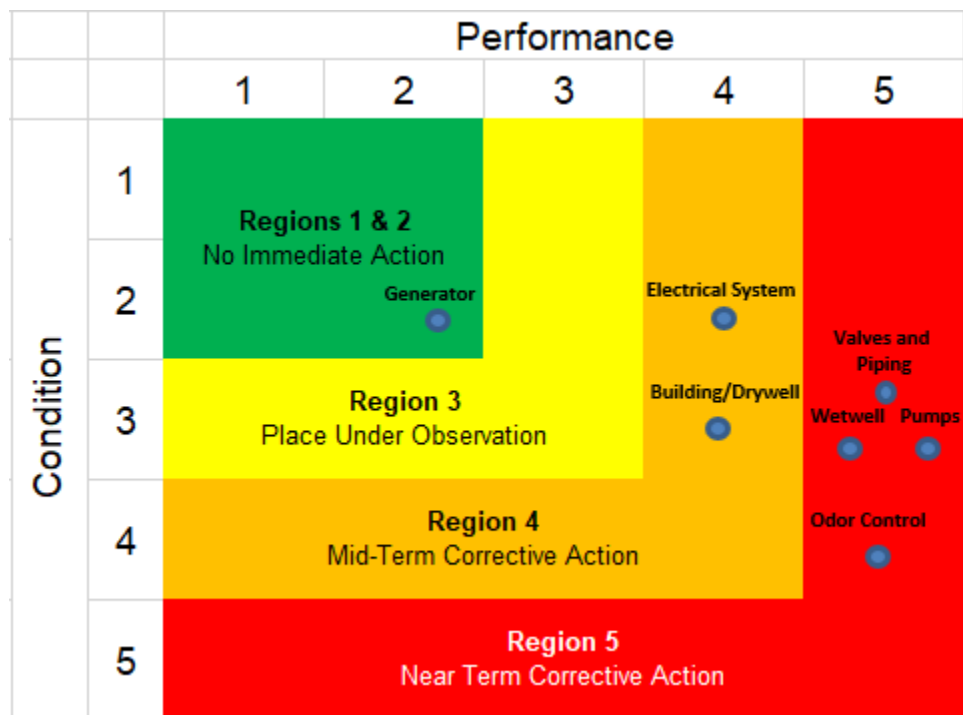
- *Replacement of wet well door lock with corrosion resistant materials.*

## RANKINGS

Table 2 and Figure 2 rank the condition and performance of the Rochester Lift Station's assets, as described under the Design Life And Condition Ranking section of this assessment.

Table 2 Rochester Lift Station Condition and Performance Rankings														
Assessment Type	Building/ Drywell		Wetwell		Pumping		Valves & Piping		Generator		Electrical/ Controls		Odor Control	
	Condition	Performance	Condition	Performance	Condition	Performance	Condition	Performance	Condition	Performance	Condition	Performance	Condition	Performance
Initial	3	2	3	4	3	3	3	3	1	1	2	3	4	5
Age Adjusted	3	4	3	5	3	5	3	5	1	2	2	4	4	5

**Figure 2**  
Rochester Lift Station  
Recommended Action Chart



## RECOMMENDATION SUMMARY

Many components of the Rochester Lift Station are in poor condition and have exceeded their design lives. In addition, the existing pumping equipment is prone to clogging, which has caused flooding inside the wetwell structure, and the pumps do not have adequate capacity to pump future design flows.

It would be difficult to replace the equipment inside the existing station and maintain pumping operations due to a lack of space for staging requirements. Reuse and rehabilitation of the existing building would require a long-term bypass pumping system to be installed. The structure itself has exceeded the design life of both above grade and below grade structures.

For these reasons, it is recommended that the existing dry well station be replaced with a submersible lift station. The recommendations for the lift station are:

- *Replace influent sewer with larger diameter sewer.*
- *Replace the dry well lift station with a submersible lift station.*
- *Replace the force main with a larger diameter force main.*

**Legal Description:**

All that part of the SE ¼ of the SW ¼ of Section 02, T03N, R19E in the Village of Rochester and Racine County, Wisconsin bounded and described as follows:

Commencing at the southeast corner of said SW ¼; thence N02°16'16"W along the east line of said SW ¼, 2334.45 feet to a point on the centerline of East River Road; thence along said centerline the following courses and distances;

S23°59'26"W 313.85 feet;

S24°59'28"W 795.65 feet;

S26°42'48"W 133.00 feet;

S26°51'58"W 194.42 feet;

S30°48'28"W 250.03 feet to a point on the south property line extended for the lands described in Volume 1462 on Page 227 as Document Number 1034854; thence S87°52'24"W along said property line extended 38.36 feet to a point on the westerly right of way line for said East River Road and place of beginning for the lands hereinafter described; thence N30°46'45"E along said right of way line 89.18 feet; thence S87°46'25"W 128.45 feet more or less to the east bank of the Fox River; thence along said east bank the following courses and distances;

S20°43'56"W 24.02 feet;

S27°28'29"W 48.93 feet;

S35°14'35"W 11.76 feet;

S46°09'25"W 16.49 feet;

S20°20'46"W 32.47 feet;

S40°10'26"W 10.12 feet;

S74°25'38"W 11.44 feet to a point on the south line of the property described in Volume 989 on Page 341 as Document Number 841472; thence N87°46'25"E along said south line 144.92 feet to a point on said westerly right of way line; thence N17°34'45"E along said right of way line 51.93 feet; thence N30°46'45"E along said right of way line 1.61 feet to the place of beginning.

Containing an area of 15705.433 square feet as measured to the east bank for the Fox River as described herein.

**PLOT OF SURVEY**  
Western Racine County Sewerage District

RECEIVED  
JUN 29 2022  
RACINE COUNTY

