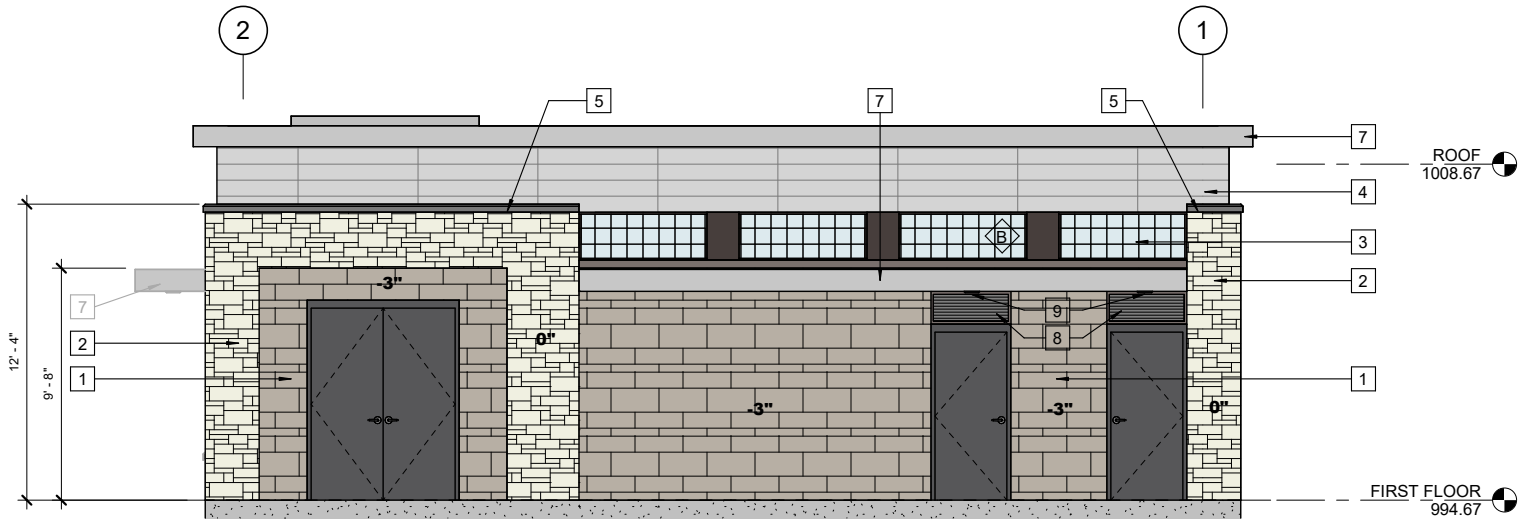
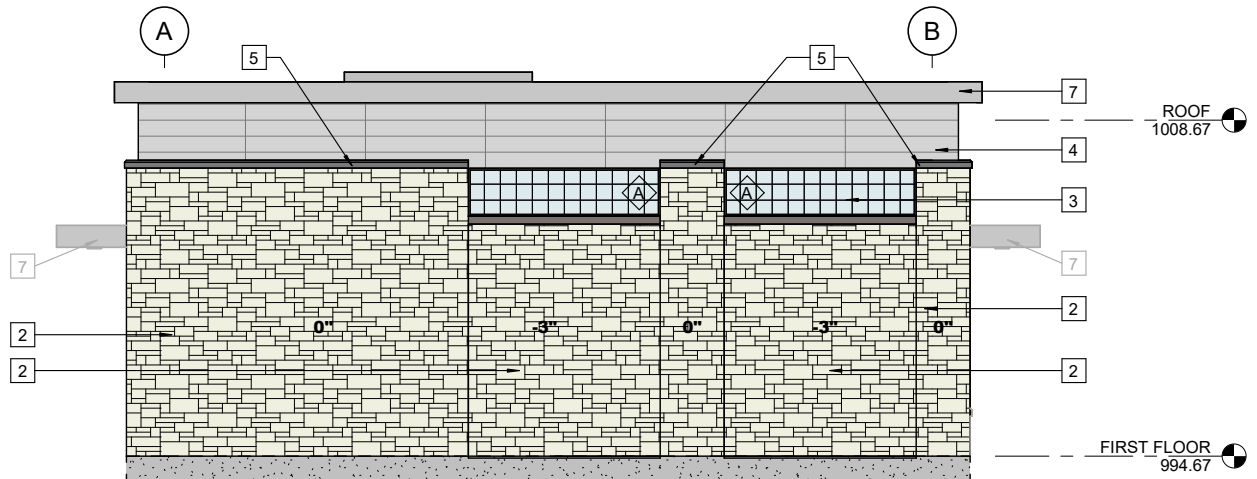


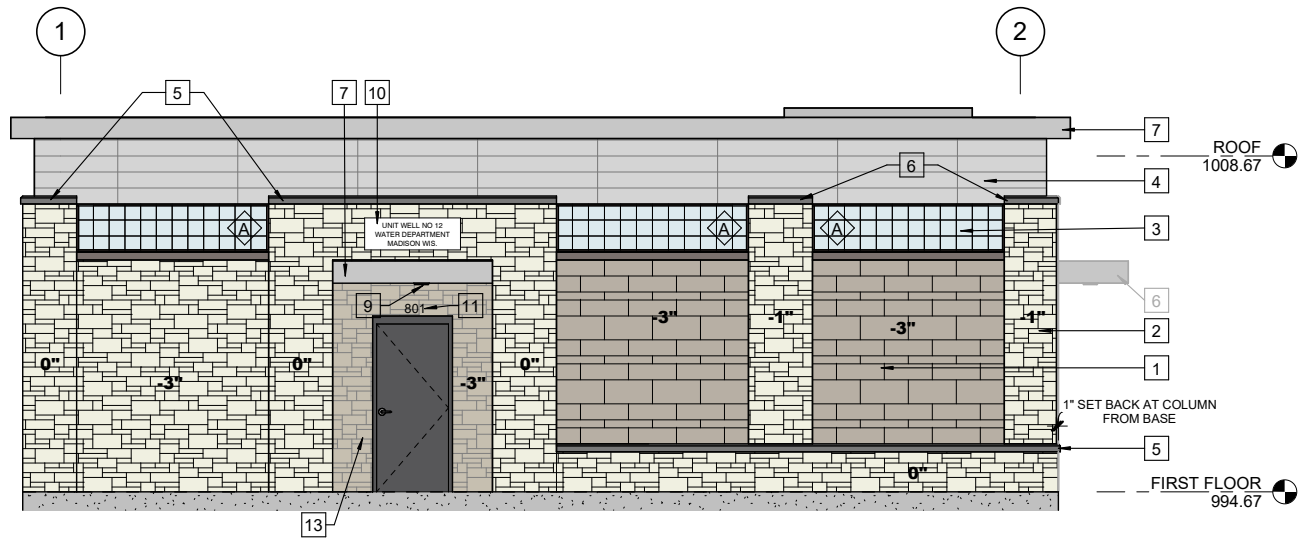
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/24/2025 12:07:50 PM



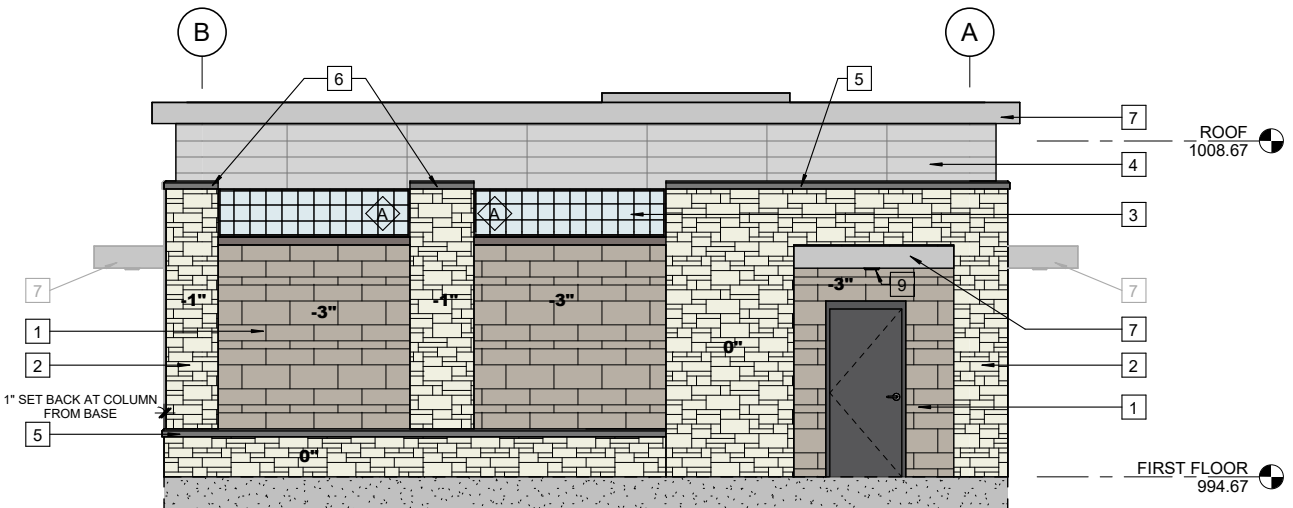
1 EAST ELEVATION
A201 1/4" = 1'-0"



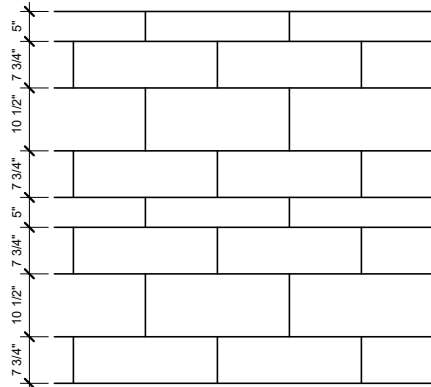
2 NORTH ELLEVATION
A201 1/4" = 1'-0"



3 WEST ELEVATION
A201 1/4" = 1'-0"



4 SOUTH ELEVATION
A201 1/4" = 1'-0"



NOTE: STONE LENGTHS VARY BETWEEN 8" AND 32", STONE HEIGHT COURSING AS SHOWN ABOVE. SEE SPECIFICATIONS FOR STONE TYPE

Exterior Stone Veneer Coursing

GENERAL NOTES:

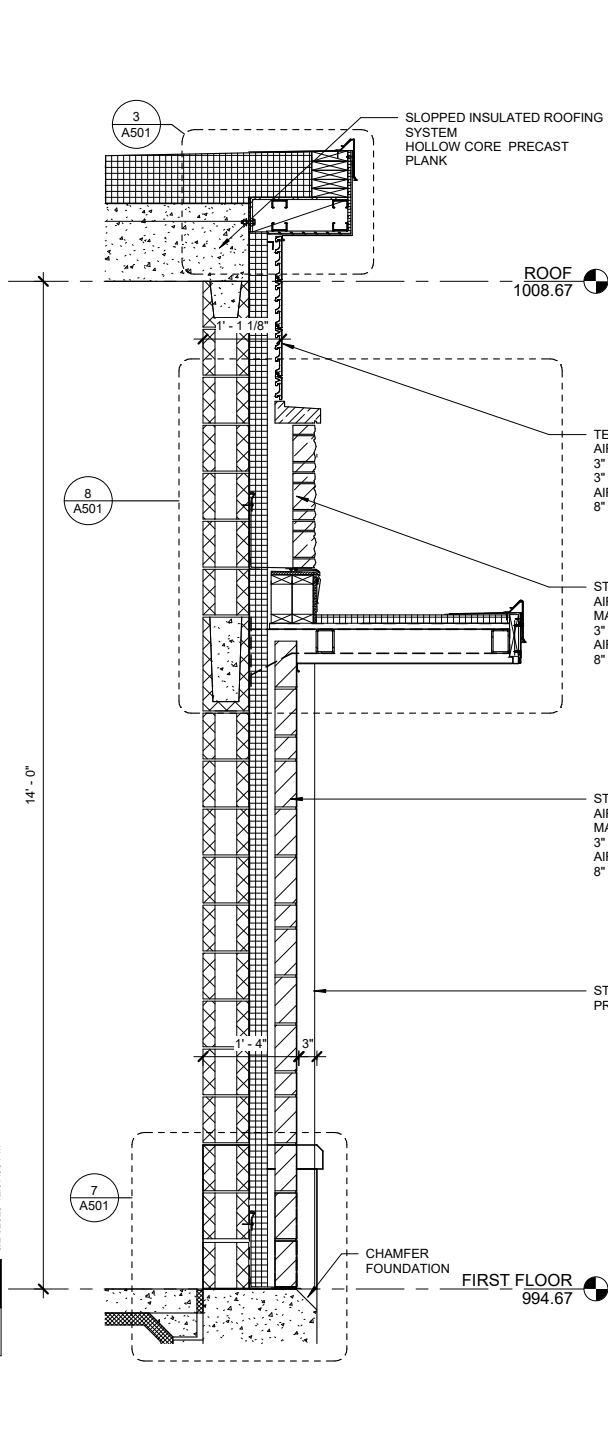
1. ALL CAST STONE COPINGS PROJECT NOMINALLY 1.5" BEYOND FACE OF STONE

KEY NOTES:

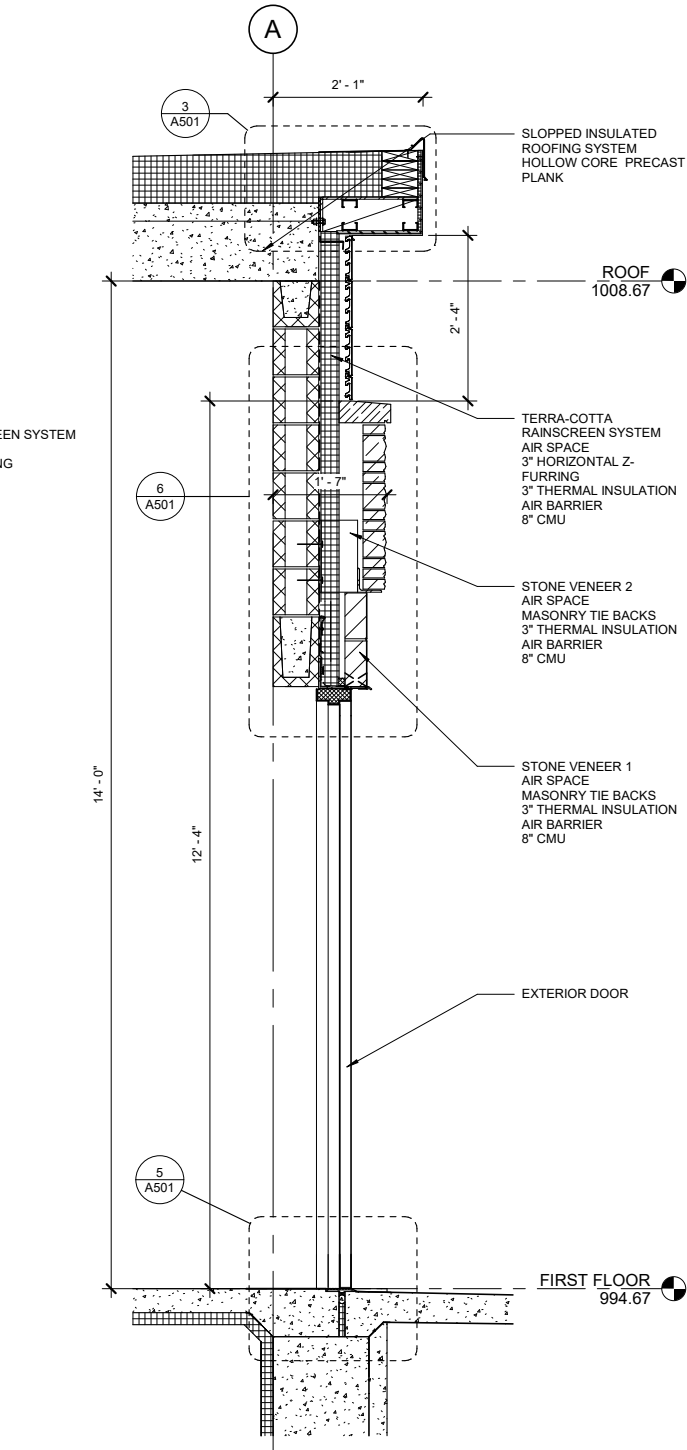
- | | | | |
|---|---|----|--|
| 1 | STONE VENEER 1 | 8 | LOUVER REFER TO DA6 |
| 2 | STONE VENEER 2 | 9 | SOFFIT LIGHT CENTER ON DOOR REFER TO ELECTRICAL DRAWINGS |
| 3 | TRANSLUCENT FIBERGLASS SANDWICH PANEL WALL SYSTEM | 10 | SALVAGED STONE SIGNAGE FROM EXISTING BUILDING. CLEAN STONE AND PAINT RECESSED LETTERING. |
| 4 | 8" H x 5'-0" LONG TERRA COTTA RAIN SCREEN SYSTEM | 11 | BUILDING ADDRESS COORDINATE WITH OWNER |
| 5 | CAST STONE COPING 1 | 12 | SALVAGED STONE VENEER FROM EXISTING. BUILDING. |
| 6 | CAST STONE COPING 2 | | |
| 7 | METAL FASCIA | | |

NOTE: ALL DRAWING SCALES ARE FOR PLANS PRINTED ON 34"x22" SHEETS

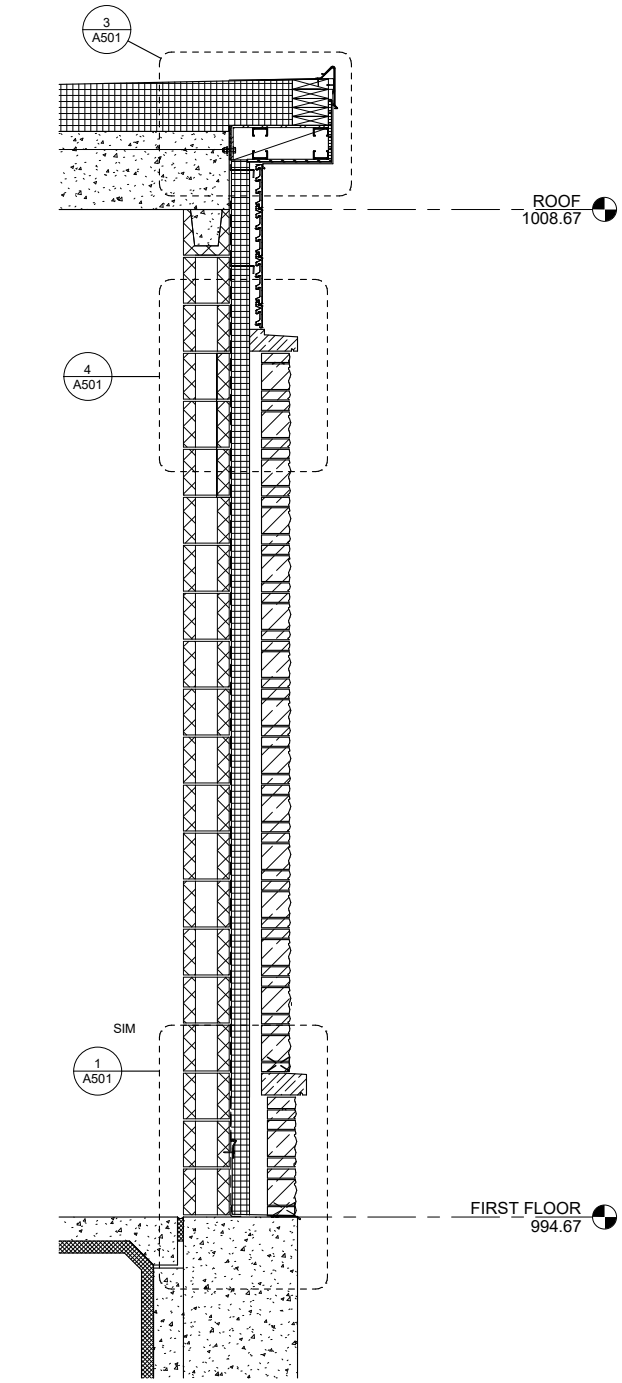
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/24/2025 12:07:50 PM



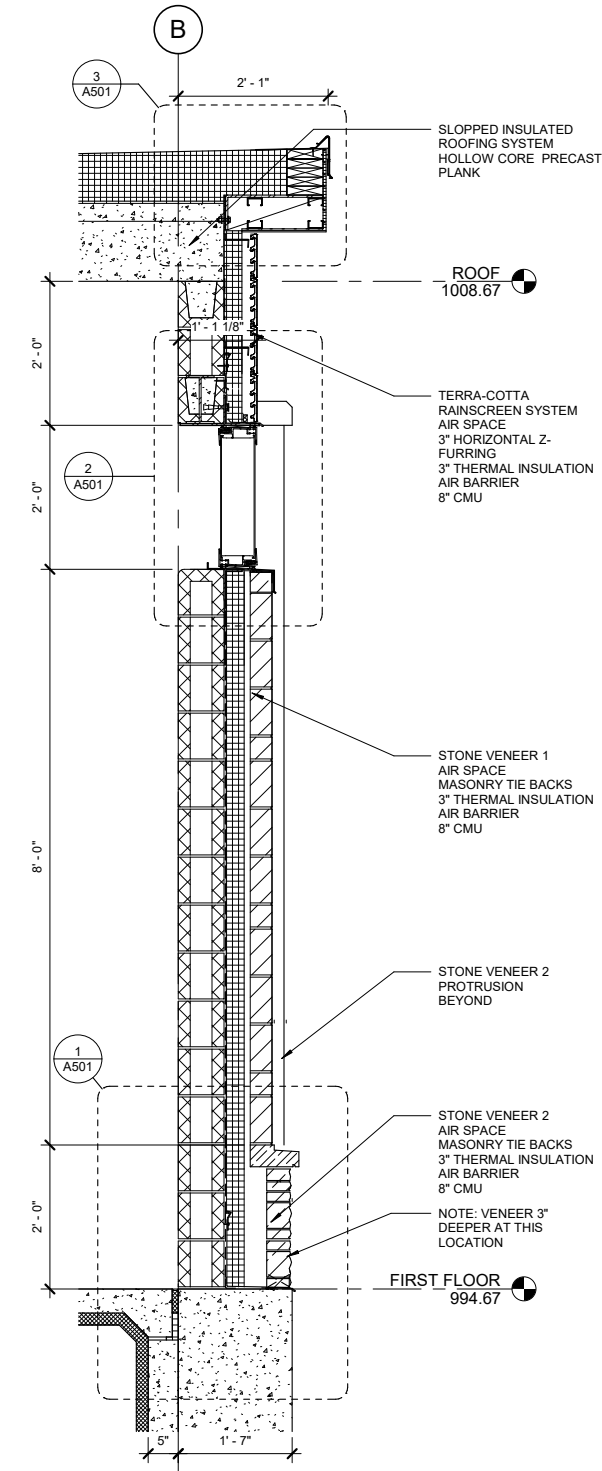
4 WALL SECTION - STONE WALL AT CANOPY
A302 3/4" = 1'-0"



3 WALL SECTION - STONE WALL AT DOOR
A302 3/4" = 1'-0"



2 WALL SECTION - STONE WALL
A302 3/4" = 1'-0"

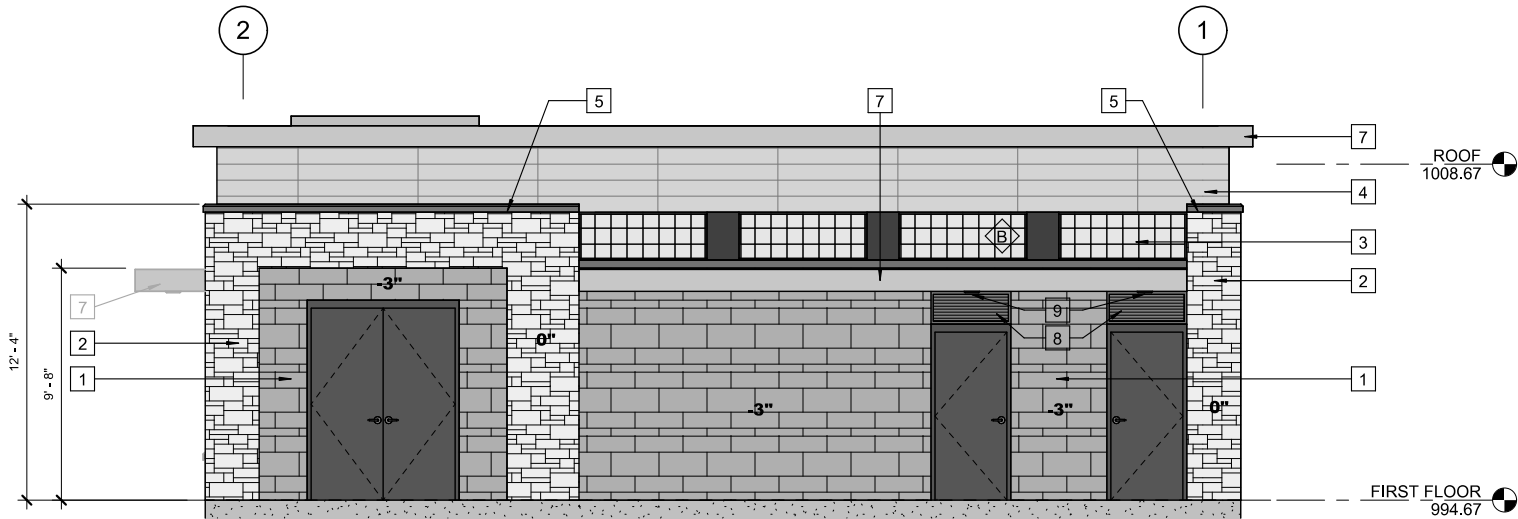


1 SECTION THRU CLERESTORY WINDOW
A302 3/4" = 1'-0"

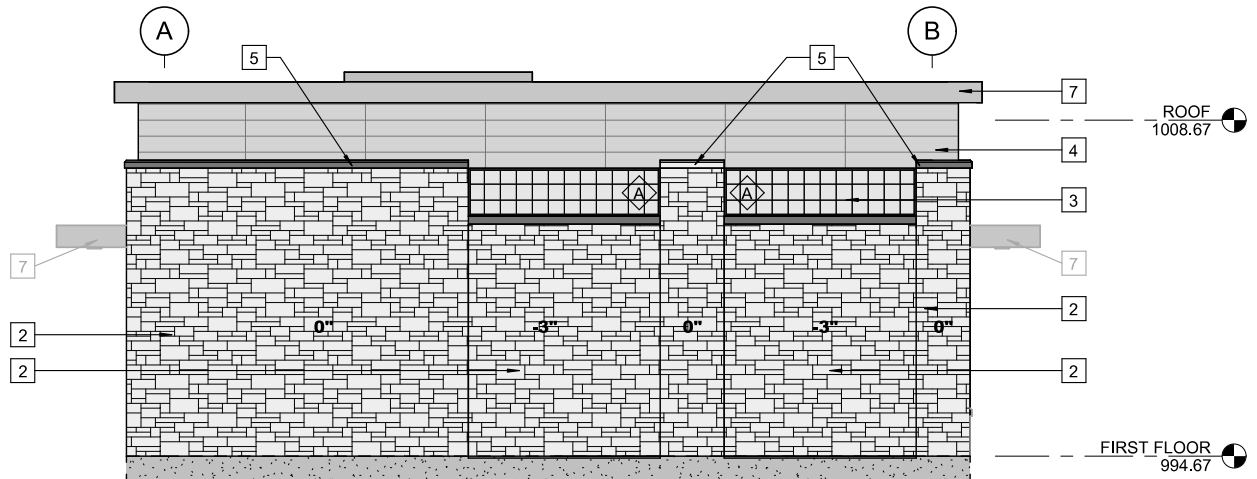
NOTE: ALL DRAWING SCALES ARE FOR PLANS PRINTED ON 34"x22" SHEETS

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

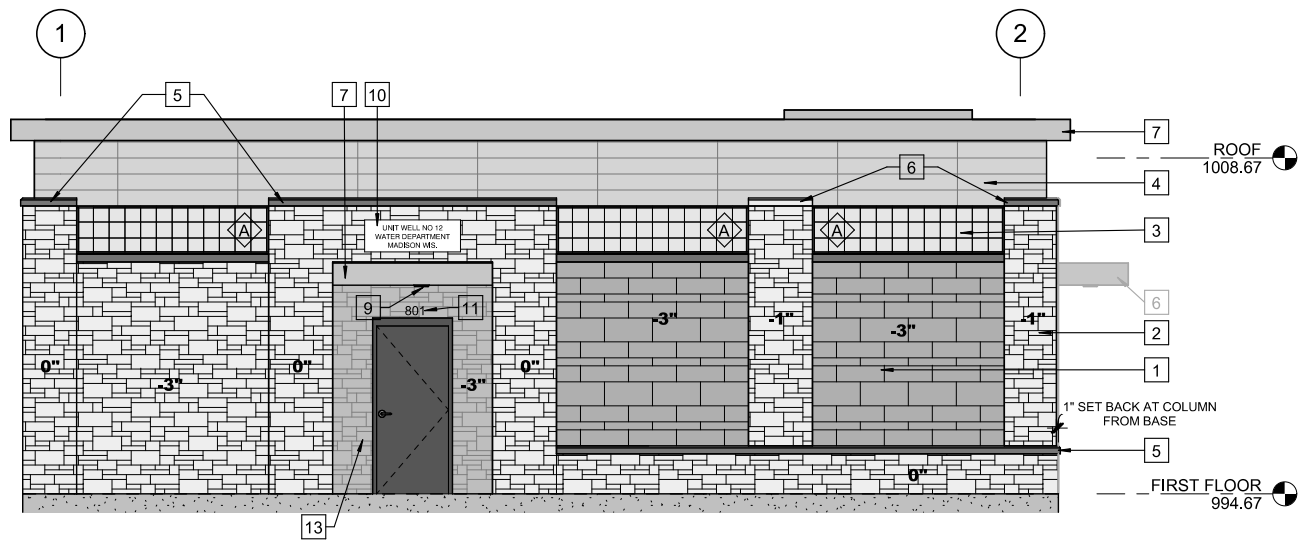
6/24/2025 12:07:50 PM



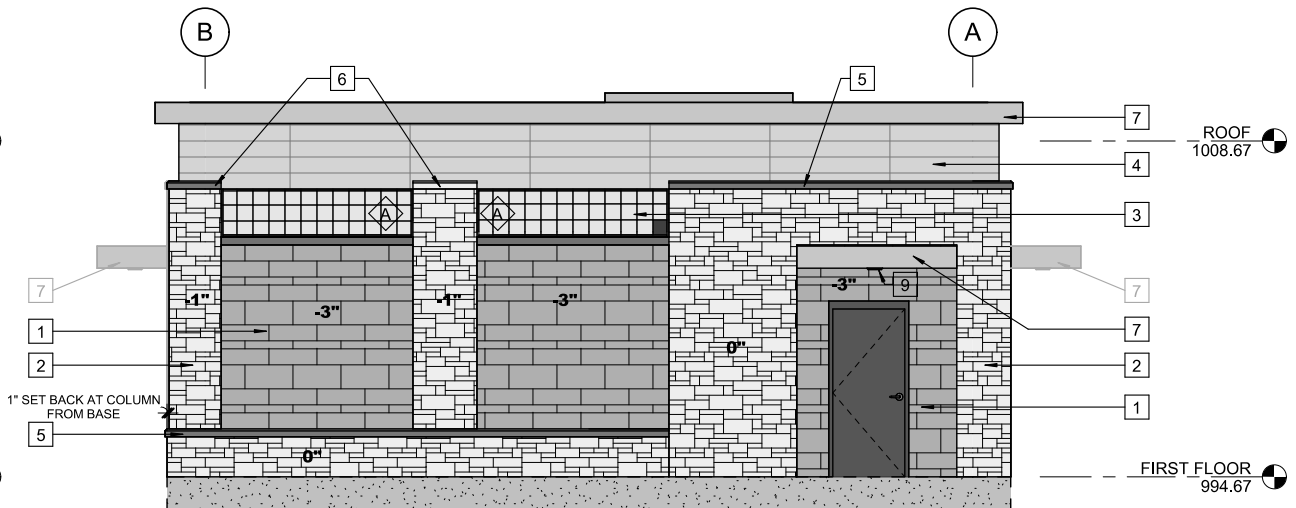
1 EAST ELEVATION
A201 1/4" = 1'-0"



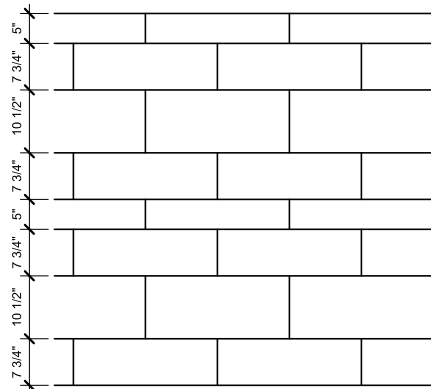
2 NORTH ELLEVATION
A201 1/4" = 1'-0"



3 WEST ELEVATION
A201 1/4" = 1'-0"



4 SOUTH ELEVATION
A201 1/4" = 1'-0"



NOTE: STONE LENGTHS VARY BETWEEN 8\" AND 32\".
STONE HEIGHT COURSING AS SHOWN ABOVE. SEE
SPECIFICATIONS FOR STONE TYPE

Exterior Stone Veneer Coursing

GENERAL NOTES:

1. ALL CAST STONE COPINGS PROJECT
NOMINALLY 1.5\" BEYOND FACE OF STONE

KEY NOTES:

- 1 STONE VENEER 1
2 STONE VENEER 2
3 TRANSLUCENT FIBERGLASS
SANDWICH PANEL WALL SYSTEM
4 8\" H x 5'-0\" LONG TERRA COTTA RAIN
SCREEN SYSTEM
5 CAST STONE COPING 1
6 CAST STONE COPING 2
7 METAL FASCIA
8 LOUVER REFER TO DA6
9 SOFFIT LIGHT CENTER ON DOOR
REFER TO ELECTRICAL DRAWINGS
10 SALVAGED STONE SIGNAGE FROM
EXISTING BUILDING. CLEAN STONE
AND PAINT RECESSED LETTERING.
11 BUILDING ADDRESS COORDINATE WITH
OWNER
12 SALVAGED STONE VENEER FROM
EXISTING, BUILDING.

NOTE: ALL DRAWING SCALES ARE FOR
PLANS PRINTED ON 34\"x22\" SHEETS



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way, Madison
WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Henderson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project 182222
Checked By JRL
Drawn By JRL

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

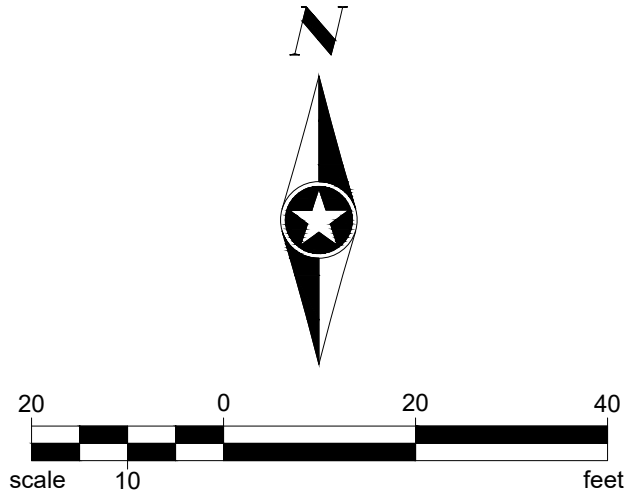
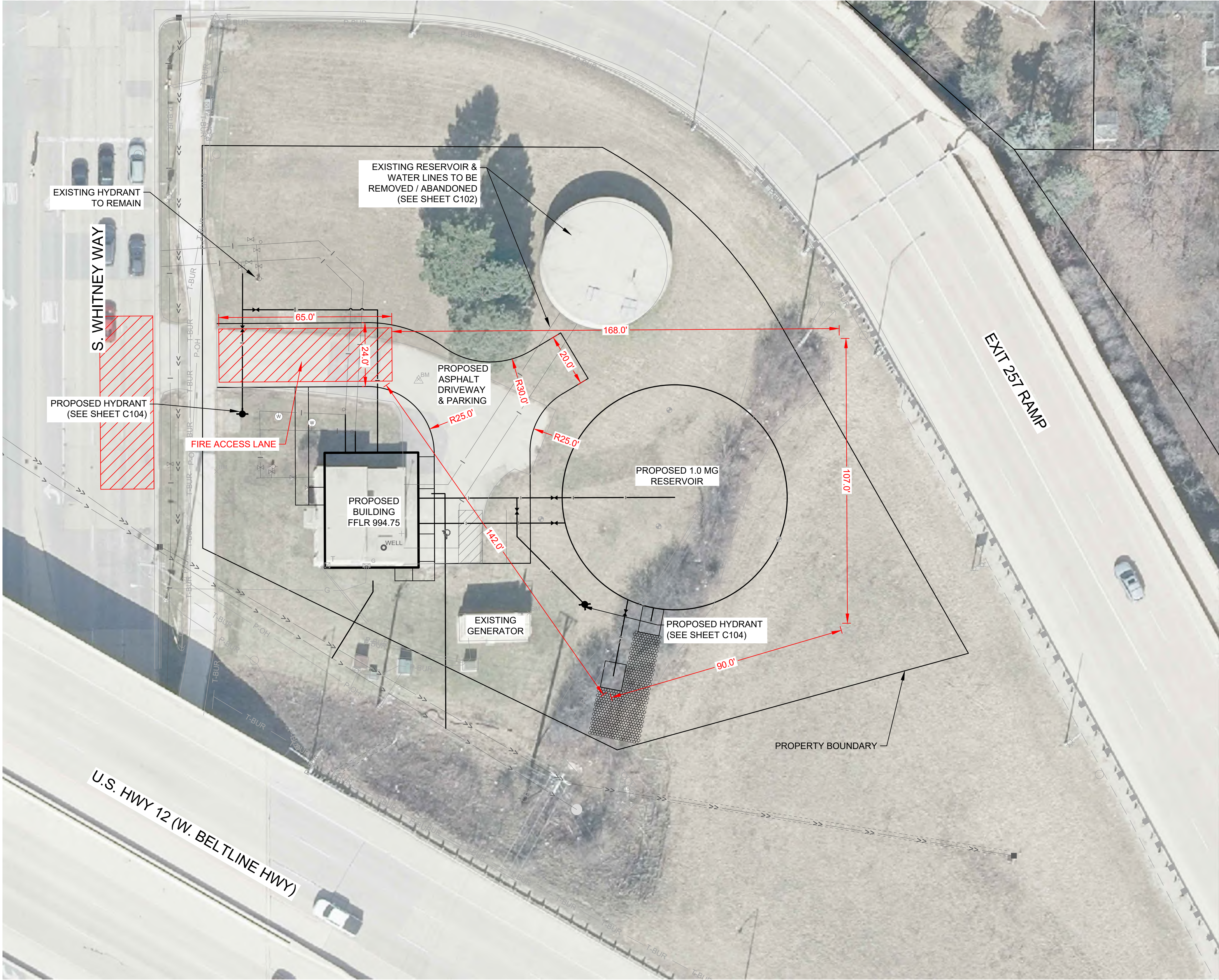
REVISION SCHEDULE
REV. # DESCRIPTION DATE

EXTERIOR ELEVATIONS

01
A201

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

Save: 9/19/2025 2:06 PM noswald Plot: 9/19/2025 5:51 PM X:\O\MMADWU\1822225-final-dsgn\51-drawings\10-Civil\dwg\sheet\MA182222_SP.dwg



Project Owner

MADISON, WISCONSIN UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or related without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project	MADWU_182222
Checked By	KB
Drawn By	PAL

Project Status	Issue Date
DNR SUBMITTAL	06/30/2025
CITY SUBMITTAL	09/22/2025

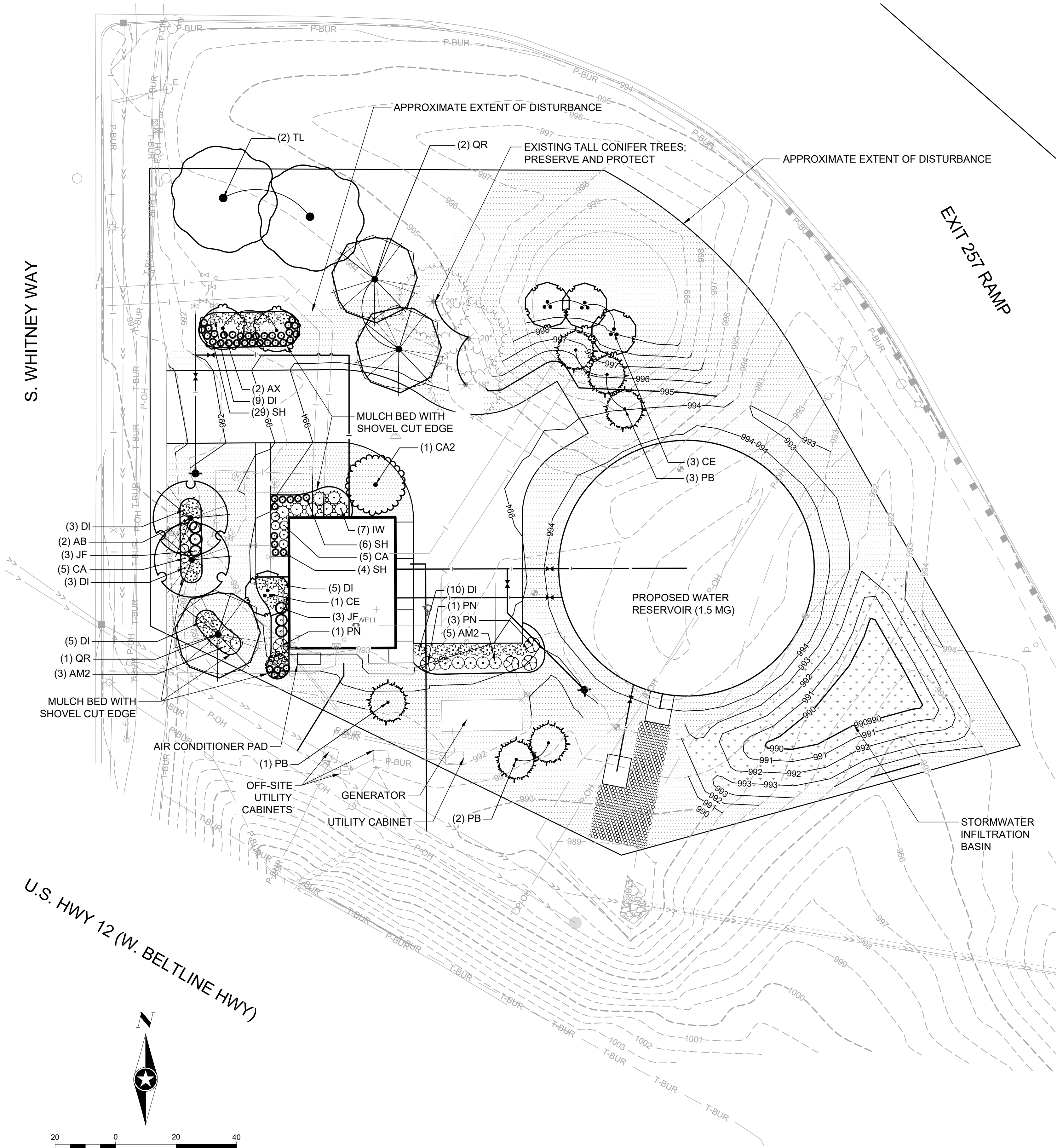
REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

FIRE ACCESS PLAN

C105

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

Save: 9/19/2025 5:49 PM noswald Plot: 9/19/2025 5:52 PM X:\O\MMADWU\182222\5-final-dsgn\51-drawings\25-Plan\A\MA182222_L.dwg



PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	ROOT	QTY
TREES					
		EXISTING CONIFER			3
EVERGREEN TREES					
	PB	Picea glauca densata / Black Hills Spruce	6' Tall	B&B	6
ORNAMENTAL TREES					
	AX	Amelanchier x grandiflora / Apple Serviceberry	1.5" Cal		2
	CA2	Carpinus caroliniana / American Hornbeam	1.5" Cal	B&B	1
	CE	Cercis canadensis / Eastern Redbud Multi-trunk	6' Tall	B&B	4
OVERSTORY TREE					
	AB	Acer saccharum 'Bailsta' / Fall Fiesta® Sugar Maple	2.5" CAL	B&B	2
	QR	Quercus rubra / Red Oak	2" CAL	B&B	3
	TL	Tilia americana / American Linden	2" CAL	B&B	2
SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	ROOT CONDITION	QTY
DECIDUOUS SHRUB					
	AM2	Aronia melanocarpa 'Morton' / Iroquois Beauty™ Black Chokeberry	5 gal.	CONTAINER	8
	CA	Ceanothus americanus / New Jersey Tea	3 gal.	CONTAINER	10
	DI	Diervilla lonicera / Bush Honeysuckle	3 gal.	CONTAINER	35
	HV	Hamamelis virginiana / Common Witch Hazel	36" T/W	CONTAINER	1
	IW	Ilex verticillata / Winterberry	5 gal.	CONTAINER	7
	PN	Physocarpus opulifolius / Ninebark	5 gal.	CONTAINER	5
EVERGREEN SHRUB					
	JF	Juniperus chinensis 'Sea Green' / Sea Green Juniper	5 gal.	CONTAINER	6
PERENNIALS					
	Ac	Asarum canadense / Wild Ginger	1 quart	CONTAINER	12
	SH	Sporobolus heterolepis / Prairie Dropseed	1 gal.	CONTAINER	44
SYMBOL	CODE	BOTANICAL / COMMON NAME			QTY
GROUND COVERS					
		LAWN SEED MIX WisDOT Seed Mix No. 40			21,292 sf
		STORMWATER SEED MIX Prairie Nursery "Detention Basin - Bioswale" Seed Mix, or approved equal. Apply per manufacturer's recommendation, minimum seeding rate 1/4 lb. per 1000 sq. ft.			3,501 sf



MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or related without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

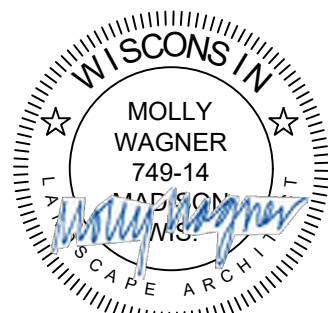
SEH Project
Checked By
Drawn By

MADWU_182222
KB
PAL

Project Status
DNR SUBMITTAL
CITY SUBMITTAL

Issue Date
06/30/2025
09/22/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

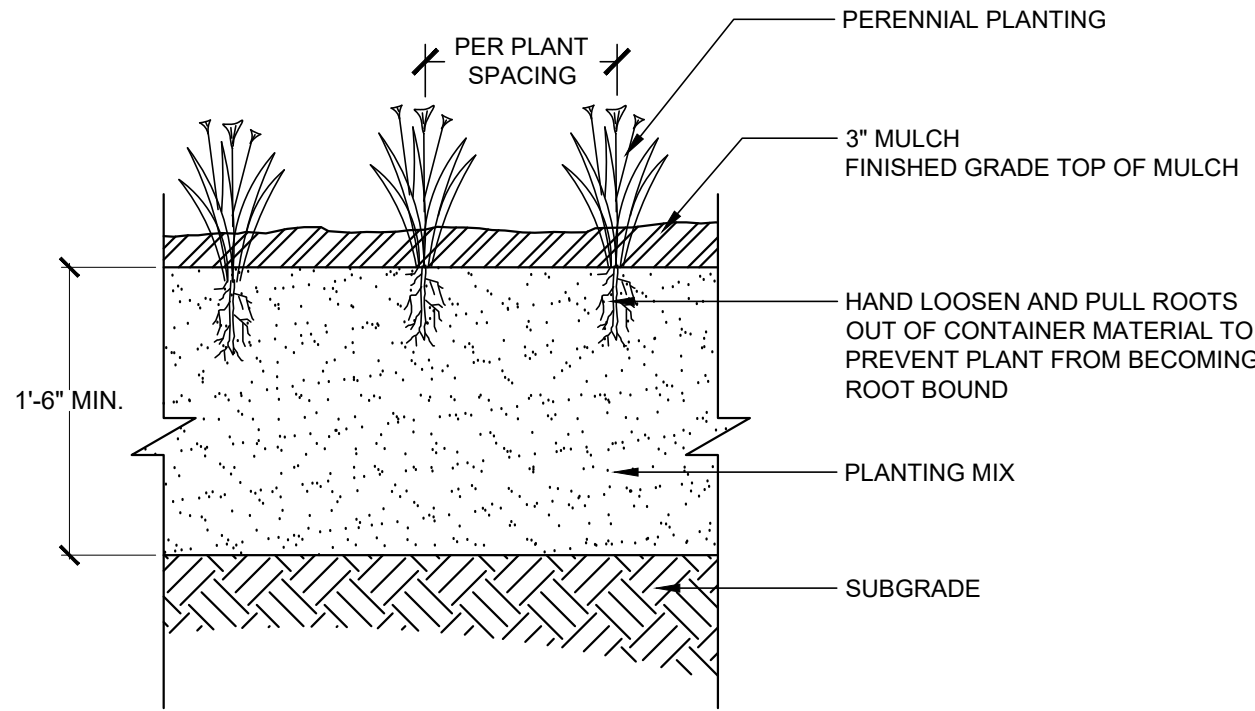


LANDSCAPE PLAN

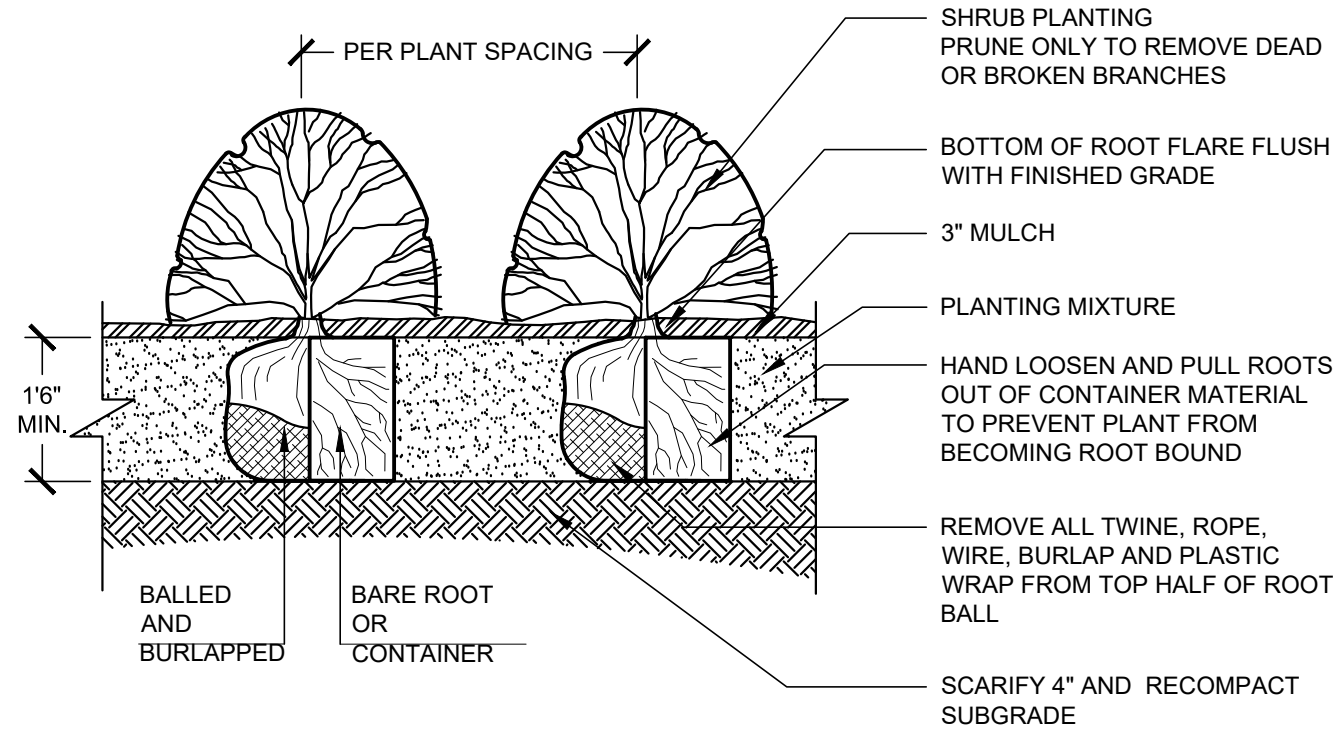
L101

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

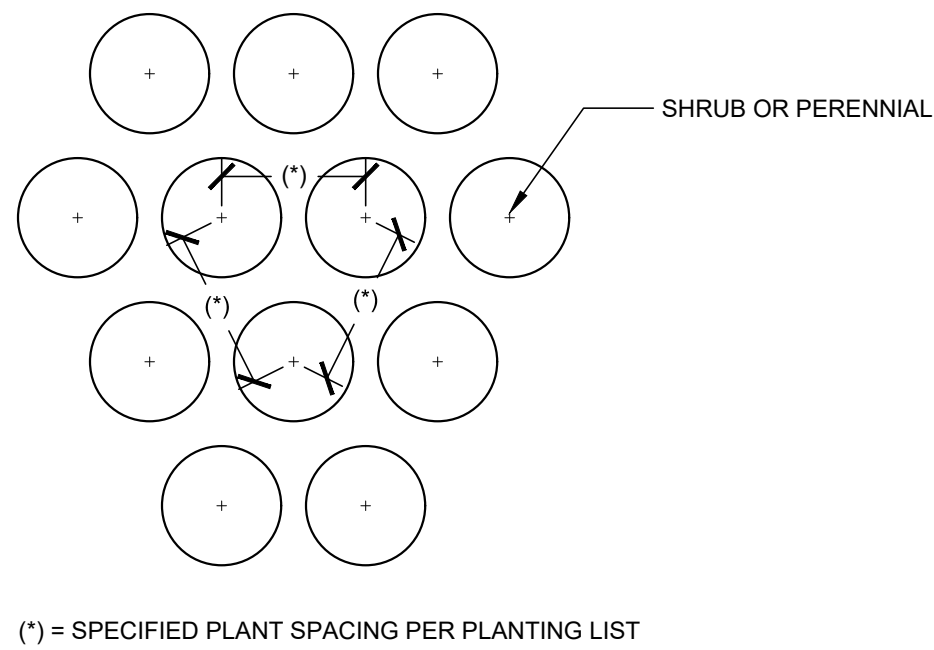
Save: 9/19/2025 5:49 PM noswald Plot: 9/19/2025 5:52 PM X:\O\MMADWU\182222\05-final-dsgn\51-drawings\05-Plan\A\MA182222_L.dwg



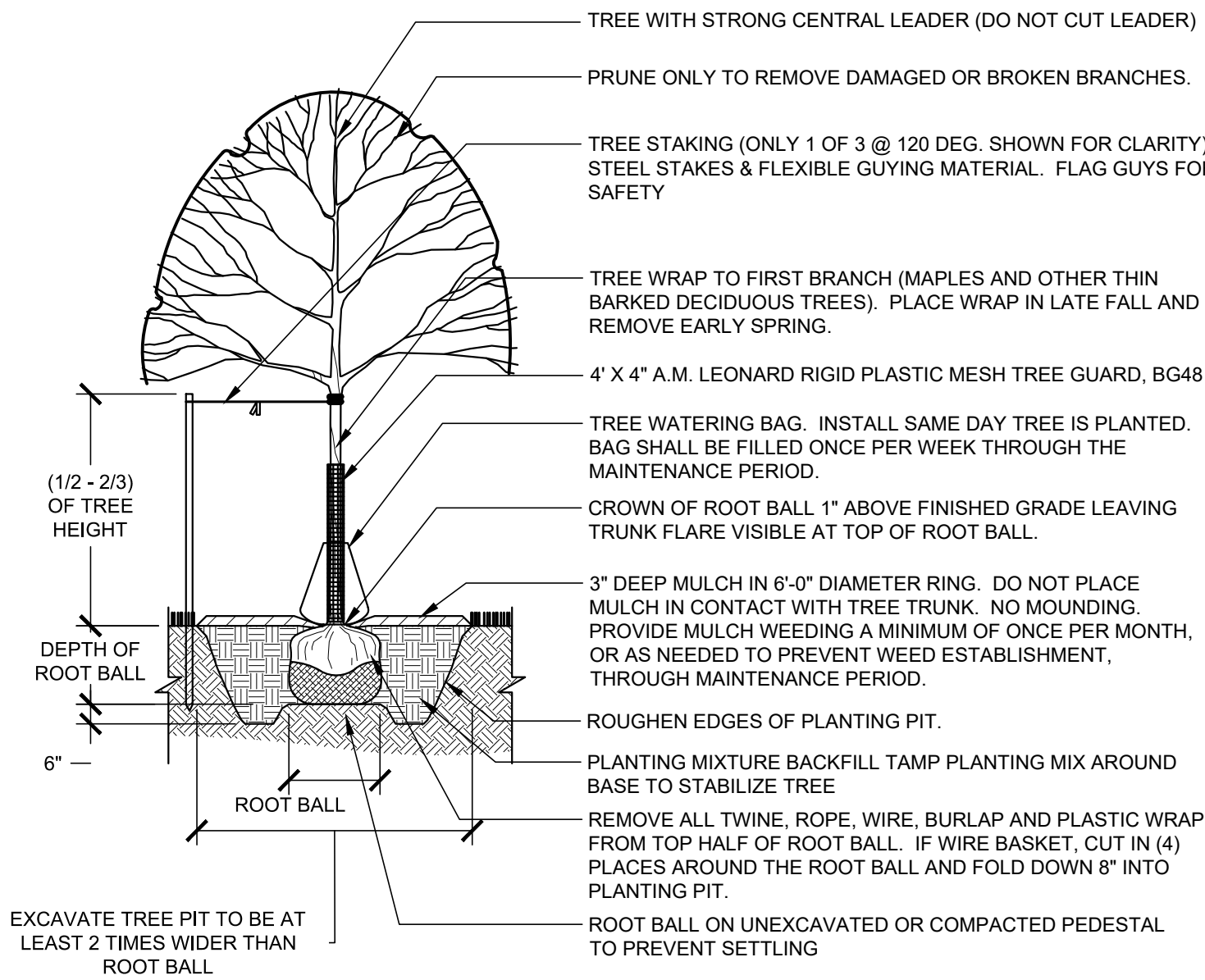
1 PERENNIAL PLANTING DETAIL
1" = 1'-0" 32 93-01



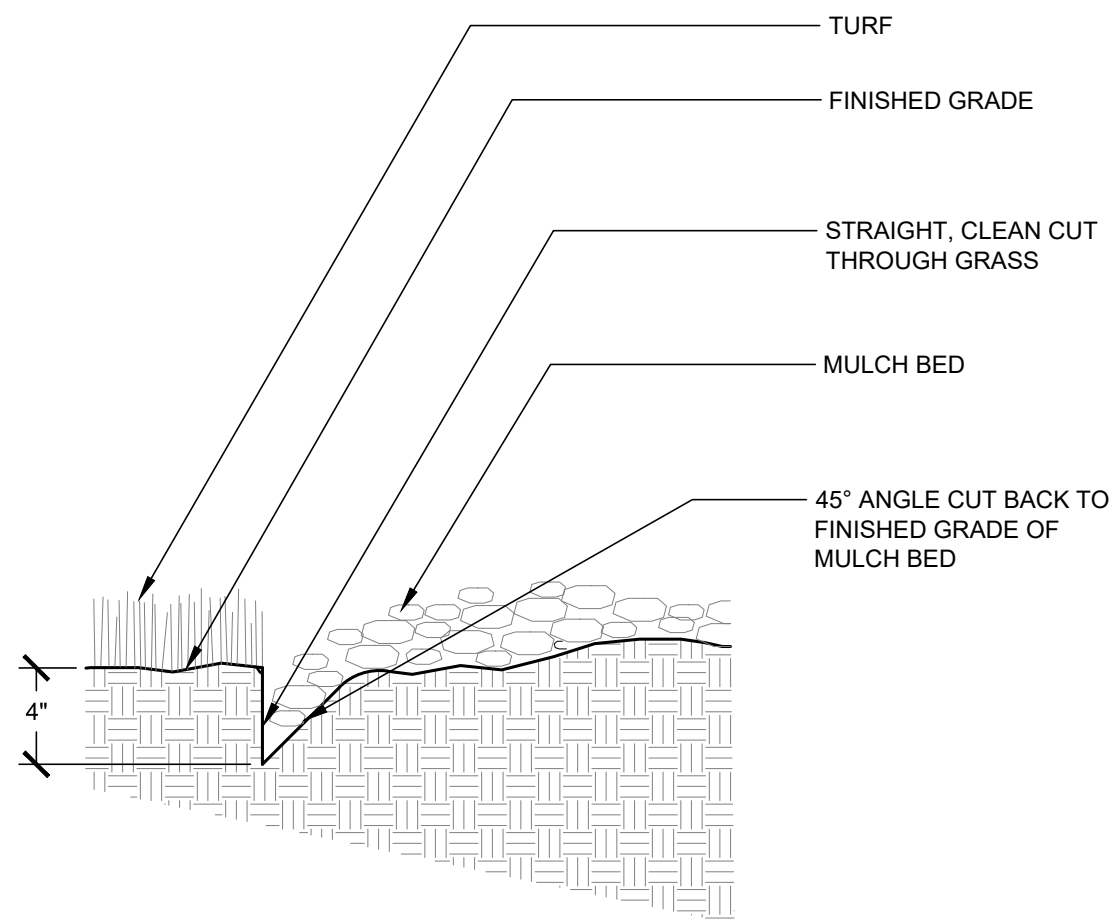
2 SHRUB PLANTING
1/2" = 1'-0" 32 9333.13-08



3 PLANT SPACING DETAIL
1/2" = 1'-0" 32 93-02



4 TREE PLANTING
1/4" = 1'-0" 32 9343-01



5 TRENCHED EDGE DETAIL
N.T.S. 32 9413.23-02

PLANTING NOTES:

1. THE LAYOUT OF ALL PLANTING BEDS AND INDIVIDUAL TREES SHALL BE STAKED BY THE CONTRACTOR IN ADVANCE OF INSTALLATION. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. THE LANDSCAPE ARCHITECT WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAKE MINOR ADJUSTMENTS AS NECESSARY.
2. THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING THE PLANT MATERIAL QUANTITIES REQUIRED BY THE LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
3. AREAS UNDER PLANTING BEDS SHALL NOT CONTAIN COMPACTED AGGREGATE TO ALLOW FOR PROPER DRAINAGE AND GROWTH OF PLANT MATERIAL. REMOVE AGGREGATE AND PERFORM SUBSOILING AS NECESSARY TO OBTAIN LOOSE, FREE DRAINING SUBGRADE BELOW PLANTING BEDS. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS.
4. ALL SEED AREAS SHALL RECEIVE A MINIMUM OF 6" DEPTH OF TOPSOIL
5. ALL PLANTING BEDS SHALL RECEIVE 18" DEPTH OF PREPARED SOIL.
6. NEW SEEDED AREAS TO BE TREATED WITH HERBICIDE TO KILL ALL EXISTING GROUNDCOVER. THERE SHALL BE A MINIMUM OF TWO (2) APPLICATIONS SEPARATED BY 10 DAYS. IF ALL EXISTING GROUNDCOVER VEGETATION IS NOT KILLED WITHIN 10 DAYS OF 2ND APPLICATION, A 3RD APPLICATION IS REQUIRED.
7. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
8. SHOVEL CUT EDGE TYPICAL OF ALL PLANTING BEDS UNLESS OTHERWISE INDICATED.
9. ALL PLANTING BEDS AND PLANTED TREES SHALL BE MULCHED WITH 3" DEEP SHREDDED HARDWOOD MULCH PER PLANTING DETAILS. MULCH SHALL BE CONSIDERED INCIDENTAL TO PLANT MATERIALS
10. NO PLANT MATERIAL SUBSTITUTIONS WILL BE ACCEPTED UNLESS APPROVAL BY THE LANDSCAPE ARCHITECT. ALL PLANT MATERIAL AND SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION.
11. CONTRACTOR IS RESPONSIBLE FOR ON-GOING MAINTENANCE OF ALL NEWLY INSTALLED MATERIALS UNTIL TIME OF OWNER ACCEPTANCE. ANY ACTS OF VANDALISM OR DAMAGE WHICH MAY OCCUR PRIOR TO OWNER ACCEPTANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR
12. PROVIDE 1 YEAR WARRANTY ON ALL PLANT MATERIAL.
13. LAWN SEED SHALL BE ESTABLISHED BY THE CONTRACTOR TO A DENSE, GREEN CONSISTENT LAWN VOID OF ANY BARE OR PATCHY AREAS LARGER THAN 3"x3"
14. SEED PRIOR TO OCT. 15. IF SEEDED AFTER OCT. 15, MAINTAIN AND ESTABLISH LAWN UNTIL SPRING REVIEW
15. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INCLUDING IRRIGATION LINES PRIOR TO DIGGING. CONSULT DIGGERS HOTLINE.
16. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES AND LICENSES NECESSARY FOR THE INSTALLATION OF THIS PLAN.
17. DRAWINGS ARE INTENDED FOR THE INSTALLATION OF PLANT MATERIAL ONLY.



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project MADWU_182222
Checked By KB
Drawn By PAL

Project Status Issue Date
DNR SUBMITTAL 06/30/2025
CITY SUBMITTAL 09/22/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE



LANDSCAPE DETAILS

L102

Tabulation of Points and Credits Developed site area: 38,513 sf x 5pt/300sf = 642 points required

Use the table to indicate the quantity and points for all existing and proposed landscape elements.

Plant Type/ Element	Minimum Size at Installation	Points	Credits/ Existing Landscaping		New/ Proposed Landscaping	
			Quantity	Points Achieved	Quantity	Points Achieved
Overstory deciduous tree	2½ inch caliper measured diameter at breast height (dbh)	35		(5) trees installed as street frontage trees, (2) trees installed as general landscaping		245
Tall evergreen tree (i.e. pine, spruce)	5-6 feet tall	35			(6)	210
Ornamental tree	1 1/2 inch caliper	15		(2) ornamental trees installed as street frontage trees, (5) trees installed as general landscaping		105
Upright evergreen shrub (i.e. arborvitae)	3-4 feet tall	10				
Shrub, deciduous	#3 gallon container size, Min. 12”-24”	3			(66)	198
Shrub, evergreen	#3 gallon container size, Min. 12”-24”	4			(6)	24
Ornamental grasses/ perennials	#1 gallon container size, Min. 8”-18”	2			(44)	88
Ornamental/ decorative fencing or wall	n/a	4 per 10 lineal ft.				
Existing significant specimen tree	Minimum size: 2 ½ inch caliper dbh. *Trees must be within developed area and cannot comprise more than 30% of total required points.	14 per caliper inch dbh. Maximum points per tree: 200	(2) 20" cal. (1) 18" cal. evergreen tree	812 total points, 192 points (30% of development requirement) applied to developed site area		
Landscape furniture for public seating and/or transit connections	* Furniture must be within developed area, publically accessible, and cannot comprise more than 5% of total required points.	5 points per “seat”				
Sub Totals				192		870

Total Number of Points Provided 1062

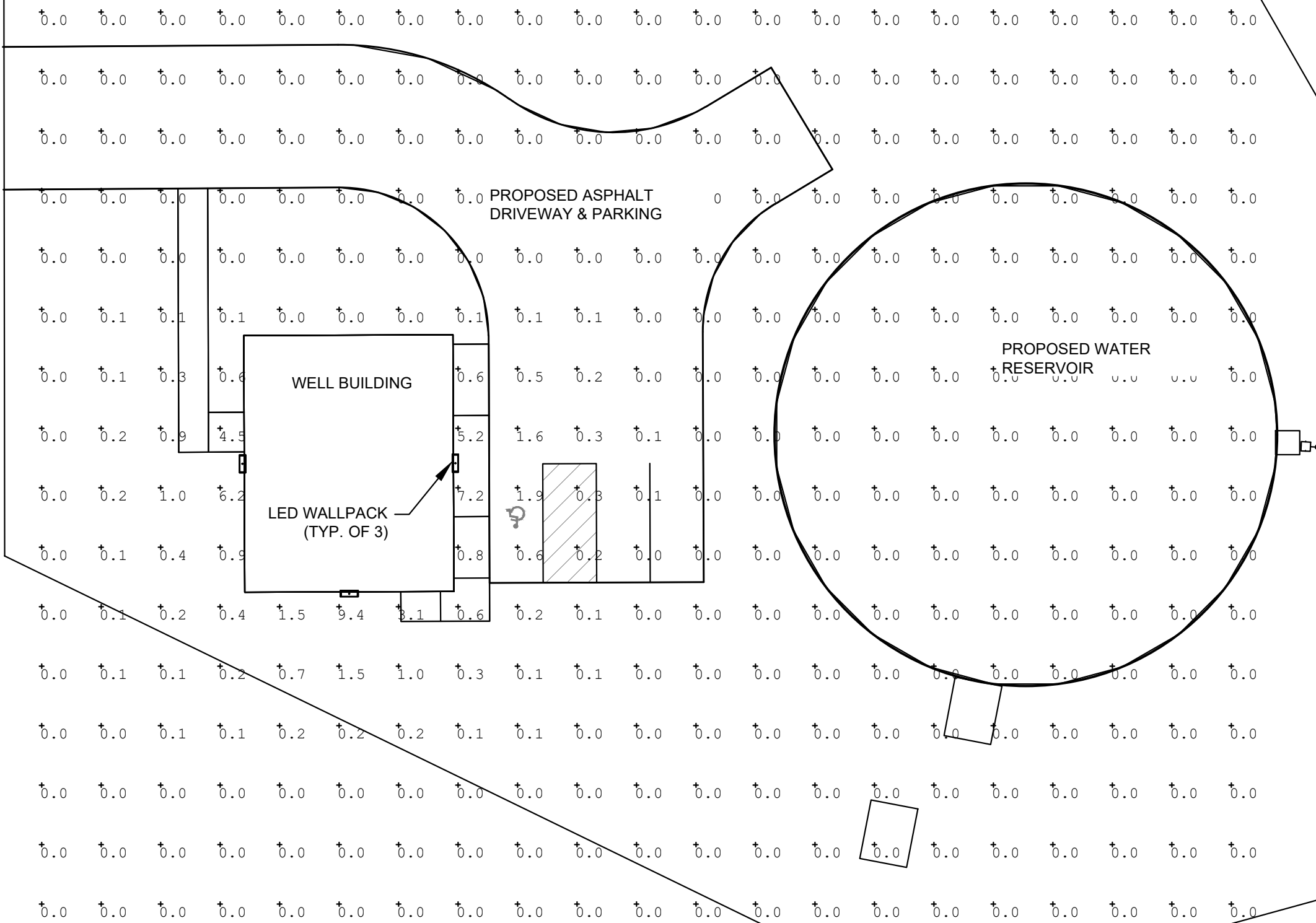
* As determined by ANSI, ANLA- American standards for nursery stock. For each size, minimum plant sizes shall conform to the specifications as stated in the current American Standard for Nursery Stock.

Save: 8/22/2025 1:38 PM d:\chland\Plot: 8/22/2025 1:38 PM X:\KOM\MADWU11822225-5\ne-dgn\51-drawings\35-Elec\SL - Site Lighting Photometric.dwg

S. WHITNEY WAY

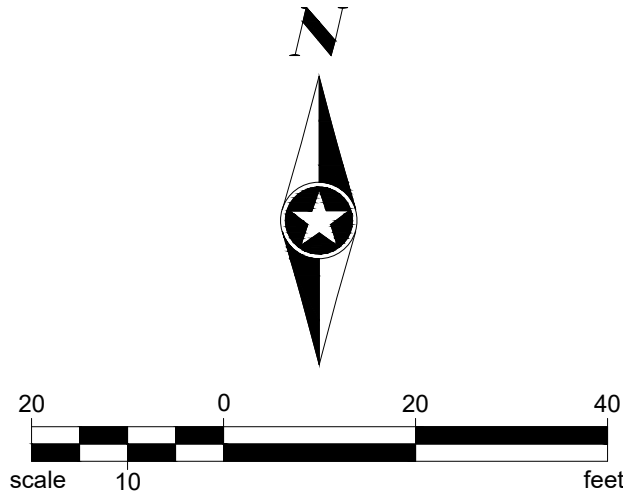
U.S. HWY 12 (W. BELTLINE HWY)

Luminaire Schedule							
Symbol	Qty	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	Mounting Height
⬡	3	HLWPC2 P10 40K XX ASYDF XXXXX 80CRI	0.900	2631	28	84	8



PROPERTY BOUNDARY

EXIT 257 RAMP



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison, WI 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project	MADWU 182222
Checked By	JAM
Drawn By	DDH

Project Status	Issue Date
DNR SUBMITTAL	6/30/2025

SITE LIGHTING PHOTOMETRIC
PLAN

SL

Catalog Number	
Notes	Type

HLWPC2

Wallpack® Full Cutoff LED



Mechanical

- Heavy grade A360 cast aluminum (aluminum with <1% copper)
- Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering
- Mounts to a standard junction box
- Wet location listed
- IP65 rated housing, down light only
- 3/4" painted threaded entry (3/4" - 14 NPT) on each side and on top, accepts 3/4" and 1/2" conduit
- 3/4" threaded plugs are painted on each side
- Vibration tested to 1.5G per ANSI C136.31.

Electrical

- Certified by UL or CSA
- Rated for -40°C (-40°F) minimum ambient
- A programmable electronic driver with 0-10V control leads
- Available in: 120-277V 50/60 Hz and 347-480V 50/60 Hz,
- Standard: 3000K, 4000K and 5000K CCT (>70 CRI)
- Optional >80 CRI (3000K, 4000K and 5000K CCT)
- Internally mounted emergency battery backup for operation in an ambient temperature ranging from -20°C (-4°F) to 30°C (86°F), available with P10 thru P40 performance packages, non CEC compliant
- All surge protection meets ANSI/IEEE C62.41.2 10kV/10kA
- Standard surge protection is 20kV/10kA per ANSI C136.2
- Optional surge protection is 10kV/5kA per ANSI C136.2

Optical

- Light engine housing is IP66 rated
- Acrylic optical system
- Type V: E (entry), M (medium), R (rectangle) & W (wide)
- Asymmetric

Controls

- Field adjustable output (AO)
- Button style photocontrol (PE)
- Motion sensor & ambient photocontrol combination for mounting low (8-15') (MASL) and high (15-30') (MASH) mounting heights

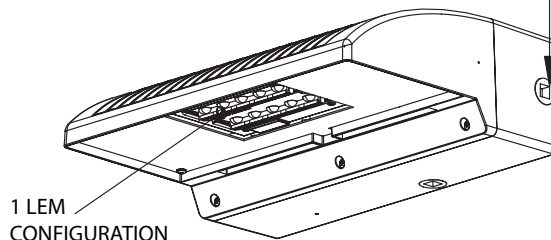
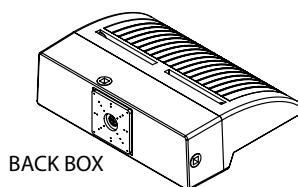
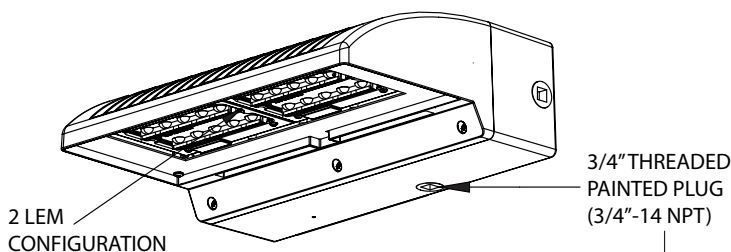
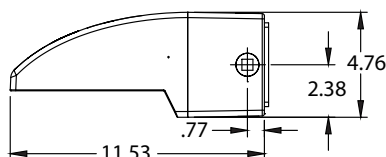
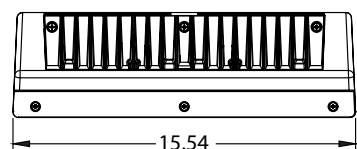
Certification and Standards

- Luminaire is CSA listed, US and Canada
- Suitable for operation in an ambient temperature up to 40°C/104°F per UL or CSA certification
- Design lights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- LM-79 compliant
- The projected LED Lumen Maintenance shall be based only on IES LM-80-08 and TM-21

Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



Note: Maximum weight 22 lbs.

HLWPC2

Wallpack® Full Cutoff LED



ORDERING INFORMATION

Example: HLWPC2 P20 40K MVOLT T3M BZSDP

Series	Lumen Package	Color Temperature	Voltage	Optics	Color	CRI
HLWPC2 Wallpack Full Cutoff LED	1 LEM Package	AMB True Amber	120 120 volts	T2S Type 2 Short	BKSDP Black	Blank 70 CRI (STD)
	P10 3,100 lm	30K 3,000 K CCT	208 208 volts	T2M Type 2 Medium	BZSDP Bronze	80CRI 80 CRI
	P20 5,600 lm	40K 4,000 K CCT	240 240 volts	T3S Type 3 Short	GYSDP Grey	
		50K 5,000 K CCT	277 277 volts	T3M Type 3 Medium	WHSDP White	
	2 LEM Package		347 347 volts	T4M Type 4 Medium		
	P30 7,800 lm		480 480 volts	TFTM Forward Throw Medium		
	P40 9,900 lm		HVOLT 347/480 volts	ASYDF Asymmetric Diffuse		
	P50 11,700 lm		MVOLT 120-277 volts	SYMDF Symmetric Diffuse		
	(Nominal Lumens, 4000K)					

Options:

Adjustable/Programmable Options

A0 Field Adjustable Output

Circuit Options

2CI 2 Independent Circuits

Control - Motion Sensor Options

MASL^{1,2} Motion / Ambient Sensor, 8-15' Mounting Height Ambient Sensor Enabled at 5 FC

MASH^{1,2} Motion / Ambient Sensor, 15-30' Mounting Height Ambient Sensor Enabled at 5 FC

Control - Photocontrol Options

PE Button Style Photocontrol

P3 N.E.M.A. Twistlock Receptacle Mount -3 PIN

P7 N.E.M.A. Twistlock Receptacle Mount -7 PIN

PCLL DTL Long Life Twistlock Photocontrol for Solid State

PSC Shorting Cap

Fuse Option

SF Single Fuse

DF Double Fuse

Safety Option

EM Integral Emergency Battery

TP Tamper Resistant Hardware

Surge Protection Option - 20kV/10kA is Standard

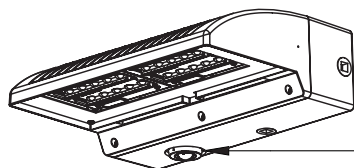
10KV 10kV/5kA Surge Protection, in place of 20kV/10kA

Notes

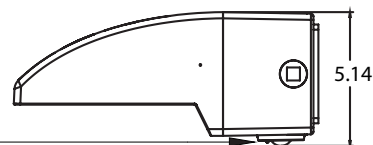
- MASL and MASH sensors are not allowed with P10 lumen package option selected.
- MASL and MASH options reduce luminaire light output to roughly 30% (not full OFF) when no motion is detected. When motion is detected, light output temporarily increases to 100%.

Options Location

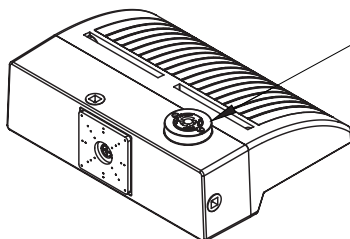
Motion/Ambient Sensor mount options for Low (8-15') (MASL) and Height (15-30') (MASH) applications



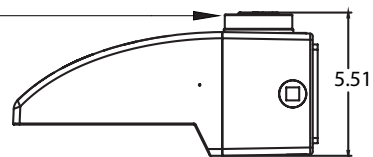
MASL or MASH



N.E.M.A. Twistlock Receptacle P3 and P7 Options, P7 Shown

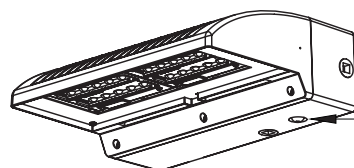


PR3 or PR7



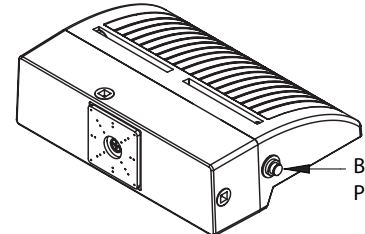
Internal Emergency Battery Test Button - EM Option

Test Button - EM Option



Emergency Test Button

Button Style Photocontrol - PE Option



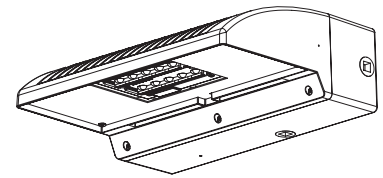
Button Style Photocontrol



Driver & LEM Configuration Based on Circuit Options

Number of LEMs & Drivers / Circuit		Single Circuit (std.)		Two Circuit (2CI option)	
		LEMs	Drivers	LEMs	Drivers
Lumen Maintenance Factor	P10	1	1	-	-
	P20	1	1	2	2
	P30	2	1	2	2
	P40	2	1	2	2
	P50	2	1	-	-

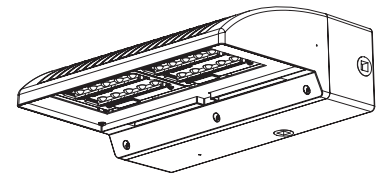
1 LEM Luminaire



SPD Based on Circuit Options

Number of LEMs & Drivers / Circuit		Single Circuit (std.)				Two Circuit (2CI option)			
		LEMs	Drivers	No. of SPDs	SPD	LEMs	Drivers	No. of SPDs	SPD
Lumen Maintenance Factor	P10	1	1	1	20kV/10kA	-	-	-	-
	P20	1	1	1	20kV/10kA	2	2	2	10kV/5kA
	P30	2	1	1	20kV/10kA	2	2	2	10kV/5kA
	P40	2	1	1	20kV/10kA	2	2	2	10kV/5kA
	P50	2	1	1	20kV/10kA	-	-	-	-

2 LEM Luminaire



Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platform noted in a 25°C ambient, based on 6,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

The italicized data is extrapolated beyond the TM-21 standard.

$$E = (LM) \times (CU) \times (LAT) \times (LLD)$$

LM and CU are obtained from published photometry.

Operating Hours (Standard)		0	25,000	30,000	36,000	45,000	50,000	60,000	75,000	100,000
Lumen Maintenance Factor	P10	1	0.98	0.97	0.96	0.96	0.95	0.95	0.94	0.92
	P20	1	0.97	0.95	0.94	0.93	0.92	0.90	0.88	0.85
	P30	1	0.98	0.97	0.96	0.96	0.95	0.95	0.94	0.92
	P40	1	0.97	0.95	0.94	0.93	0.92	0.90	0.88	0.85

Operating Hours (2CI Option)		0	25,000	30,000	36,000	45,000	50,000	60,000	75,000	100,000
Lumen Maintenance Factor	P10	1	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
	P20	1	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
	P30	1	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	P40	1	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Single Circuit Application

Ambient	P10	P20	P30	P40	P50
0°C 32°F	1.02	1.03	1.03	1.04	1.05
10°C 50°F	1.01	1.02	1.02	1.03	1.03
20°C 68°F	1.01	1.01	1.01	1.01	1.01
25°C 77°F	1.00	1.00	1.00	1.00	1.00
30°C 86°F	0.99	0.99	0.99	0.99	0.99
40°C 104°F	0.98	0.97	0.98	0.97	0.97

Optional Two Independent Circuit (2CI) Application

Ambient	P20	P30	P40
0°C 32°F	1.02	1.02	1.02
10°C 50°F	1.01	1.01	1.02
20°C 68°F	1.00	1.01	1.01
25°C 77°F	1.00	1.00	1.00
30°C 86°F	0.99	0.99	0.99
40°C 104°F	0.98	0.98	0.98

Electrical Load

Single Circuit Application

LEDs	Drive Current (mA)	System Watts/Circuit	Current (A)					
			120	208	240	277	247	480
P10	700	28	0.23	0.13	0.12	0.10	0.08	0.06
P20	1400	47	0.41	0.24	0.20	0.18	0.14	0.10
P30	1050	71	0.63	0.37	0.32	0.29	0.22	0.18
P40	1420	95	0.78	0.45	0.40	0.35	0.27	0.20
P50	1720	115	0.95	0.55	0.48	0.42	0.33	0.24

Optional Two Independent Circuit (2CI) Application

LEDs	Drive Current (mA)	System Watts/Circuit	Current (A)					
			120	208	240	277	247	480
P10	-	-	-	-	-	-	-	-
P20	700	22	0.10	0.06	0.05	0.04	-	-
P30	1000	32	0.14	0.08	0.07	0.06	-	-
P40	1250	47	0.18	0.10	0.09	0.08	-	-
P50	-	-	-	-	-	-	-	-

Operating Characteristics

LED Package	Distribution	System Watts	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P10	T2S	28	2,904	104	1	0	1	3,128	112	1	0	1	3,168	113	1	0	1
	T2M	28	2,887	103	1	0	1	3,110	111	1	0	1	3,149	112	1	0	1
	T3S	28	2,964	106	1	0	1	3,194	114	1	0	1	3,234	116	1	0	1
	T3M	28	2,801	100	1	0	1	3,017	108	1	0	1	3,055	109	1	0	1
	T4M	28	2,858	102	1	0	1	3,079	110	1	0	1	3,118	111	1	0	1
	TFTM	28	2,979	106	1	0	1	3,209	115	1	0	1	3,250	116	1	0	1
	SYMDF	28	2,771	99	1	0	1	2,986	107	1	0	1	3,023	108	1	0	1
P20	ASYDF	28	2,756	98	1	0	1	2,969	106	1	0	1	3,007	107	1	0	1
	T2S	47	5,303	113	1	0	1	5,713	122	1	0	1	5,785	123	1	0	1
	T2M	47	5,272	112	1	0	2	5,680	121	1	0	2	5,751	122	1	0	2
	T3S	47	5,414	115	1	0	2	5,832	124	1	0	2	5,906	126	1	0	2
	T3M	47	5,115	109	1	0	2	5,510	117	1	0	2	5,580	119	1	0	2
	T4M	47	5,220	111	1	0	2	5,623	120	1	0	2	5,694	121	1	0	2
	TFTM	47	5,440	116	1	0	2	5,861	125	1	0	2	5,935	126	1	0	2
P30	SYMDF	47	5,062	108	2	0	2	5,453	116	2	0	2	5,522	117	2	0	2
	ASYDF	47	5,033	107	1	0	1	5,422	115	2	0	1	5,491	117	2	0	1
	T2S	71	7,319	103	2	0	2	7,884	111	2	0	2	7,984	112	2	0	2
	T2M	71	7,276	102	2	0	2	7,838	110	2	0	2	7,937	112	2	0	2
	T3S	71	7,472	105	1	0	2	8,049	113	2	0	2	8,151	115	2	0	2
	T3M	71	7,059	99	2	0	2	7,604	107	2	0	2	7,700	108	2	0	2
	T4M	71	7,203	101	2	0	2	7,760	109	2	0	2	7,858	111	2	0	2
P40	TFTM	71	7,508	106	1	0	2	8,088	114	2	0	2	8,190	115	2	0	2
	SYMDF	71	6,985	98	2	0	2	7,525	106	3	0	3	7,620	107	3	0	3
	ASYDF	71	6,946	98	2	0	2	7,483	105	2	0	2	7,578	107	2	0	2
	T2S	95	9,320	98	2	0	2	10,041	106	2	0	2	10,168	107	2	0	2
	T2M	95	9,266	98	2	0	2	9,982	105	2	0	3	10,108	106	2	0	3
	T3S	95	9,515	100	2	0	2	10,251	108	2	0	2	10,381	109	2	0	2
	T3M	95	8,989	95	2	0	2	9,684	102	2	0	2	9,807	103	2	0	2
P50	T4M	95	9,174	97	2	0	2	9,883	104	2	0	3	10,008	105	2	0	3
	TFTM	95	9,561	101	2	0	2	10,300	108	2	0	2	10,431	110	2	0	2
	SYMDF	95	8,896	94	3	0	3	9,583	101	3	0	3	9,705	102	3	0	3
	ASYDF	95	8,846	93	2	0	2	9,530	100	2	0	2	9,650	102	2	0	2
	T2S	115	10,972	95	2	0	2	11,820	103	2	0	2	11,969	104	2	0	2
	T2M	115	10,908	95	2	0	3	11,751	102	2	0	3	11,900	103	2	0	3
	T3S	115	11,202	97	2	0	2	12,067	105	2	0	2	12,220	106	2	0	2
P50	T3M	115	10,582	92	2	0	2	11,400	99	2	0	3	11,544	100	2	0	3
	T4M	115	10,799	94	2	0	3	11,634	101	2	0	3	11,781	102	2	0	3
	TFTM	115	11,256	98	2	0	2	12,126	105	2	0	2	12,279	107	2	0	2
	SYMDF	115	10,472	91	3	0	3	11,282	98	3	0	3	11,424	99	3	0	3
	ASYDF	115	10,414	91	2	0	2	11,219	98	3	0	2	11,361	99	3	0	2

Use the following to
scale 70CRI to 80CRI.

CCT	Multiplier
3000K	0.909
4000K	0.886
5000K	0.865

All IES files available on
product web page

Operating Characteristics (continued)

LED Package	Distribution	System Watts	30K + 2CI Option (3000K, 70 CRI)					40K + 2CI Option (4000K, 70 CRI)					50K + 2CI Option (5000K, 70 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P20	T2S	49	5,015	102	1	0	1	5,402	110	1	0	1	5,471	112	1	0	1
	T2M	49	4,985	102	1	0	2	5,371	110	1	0	2	5,439	111	1	0	2
	T3S	49	5,120	104	1	0	1	5,515	113	1	0	2	5,585	114	1	0	2
	T3M	49	4,837	99	1	0	2	5,210	106	1	0	2	5,276	108	1	0	2
	T4M	49	4,936	101	1	0	2	5,317	109	1	0	2	5,385	110	1	0	2
	TFTM	49	5,144	105	1	0	2	5,542	113	1	0	2	5,612	115	1	0	2
	SYMDF	49	4,786	98	2	0	2	5,156	105	2	0	2	5,222	107	2	0	2
	ASYDF	49	4,760	97	1	0	1	5,127	105	1	0	1	5,192	106	1	0	1
P30	T2S	70	6,769	97	1	0	1	7,293	104	2	0	2	7,385	106	2	0	2
	T2M	70	6,730	96	2	0	2	7,250	104	2	0	2	7,342	105	2	0	2
	T3S	70	6,911	99	1	0	2	7,445	106	1	0	2	7,539	108	1	0	2
	T3M	70	6,529	93	2	0	2	7,033	100	2	0	2	7,123	102	2	0	2
	T4M	70	6,663	95	2	0	2	7,178	103	2	0	2	7,269	104	2	0	2
	TFTM	70	6,945	99	1	0	2	7,481	107	1	0	2	7,576	108	2	0	2
	SYMDF	70	6,461	92	2	0	2	6,960	99	2	0	2	7,049	101	2	0	2
	ASYDF	70	6,425	92	2	0	2	6,922	99	2	0	2	7,009	100	2	0	2
P40	T2S	89	8,370	94	2	0	2	9,017	101	2	0	2	9,131	103	2	0	2
	T2M	89	8,321	93	2	0	2	8,964	101	2	0	2	9,078	102	2	0	2
	T3S	89	8,545	96	2	0	2	9,205	103	2	0	2	9,322	105	2	0	2
	T3M	89	8,073	91	2	0	2	8,696	98	2	0	2	8,807	99	2	0	2
	T4M	89	8,238	93	2	0	2	8,875	100	2	0	2	8,987	101	2	0	2
	TFTM	89	8,586	96	2	0	2	9,250	104	2	0	2	9,367	105	2	0	2
	SYMDF	89	7,989	90	3	0	3	8,606	97	3	0	3	8,715	98	3	0	3
	ASYDF	89	7,944	89	2	0	2	8,558	96	2	0	2	8,666	97	2	0	2

Use the following to scale 70CRI to 80CRI.

CCT	Multiplier
3000K	0.909
4000K	0.886
5000K	0.865

All IES files available on product web page

LED Package	Distribution	System Watts	AMB (Wavelength)					LED Package	Distribution	System Watts	AMB (Wavelength)				
			Lumens	LPW	B	U	G				Lumens	LPW	B	U	G
P10	T2S	28	1,061	38	0	0	1	P30	T2S	28	1,975	71	0	0	1
	T2M	28	1,054	38	0	0	1		T2M	28	1,964	70	0	0	1
	T3S	28	1,083	39	0	0	1		T3S	28	2,016	72	0	0	1
	T3M	28	1,023	37	0	0	1		T3M	28	1,905	68	0	0	1
	T4M	28	1,044	37	0	0	1		T4M	28	1,944	69	0	0	1
	TFTM	28	1,088	39	0	0	1		TFTM	28	2,026	72	0	0	1
	SYMDF	28	1,012	36	1	0	1		SYMDF	28	1,885	67	1	0	1
	ASYDF	28	1,007	36	0	0	1		ASYDF	28	1,875	67	0	0	1

Options Matrix

Parameters		LED AMB	Options (Start with SF, DF, 2CI or EM if being used)													
			PE	P3	P7	PSC	PCLL	MASH	MASL	SF	DF	TP	10kV	AO	2CI	EM
LED Performance Package	P10	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y
	P20	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	P30	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	P40	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	P50	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Voltage	A5	Y	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
	AH	Y	N	Y	Y	Y	N	N	N	N	N	Y	Y	Y	N	N
	12	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
	20	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
	24	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
	27	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
	34	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	N	N
	48	Y	N	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	N
Options	PE	Y		N	N	N	N	N	N	Y	Y	Y	Y	Y	N	Y
	P3	Y	N		N	M	Y	N	N	Y	Y	Y	Y	N	N	N
	P7	Y	N	N		M	Y	N	N	Y	Y	Y	Y	N	N	N
	PSC	Y	N	M	M		N	N	N	Y	Y	Y	Y	N	N	N
	PCLL	Y	N	Y	Y	N		N	N	Y	Y	Y	Y	N	N	N
	MASH	Y	N	N	N	N	N		N	Y	Y	Y	Y	N	N	N
	MASL	Y	N	N	N	N	N	N		Y	Y	Y	Y	N	N	N
	SF	Y	Y	Y	Y	Y	Y	Y	Y		N	Y	Y	Y	Y	Y
	DF	Y	Y	Y	Y	Y	Y	Y	Y	N		Y	Y	Y	Y	Y
	TP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
	10kV	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	M	M
	AO	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y		N	N
	2CI	Y	N	N	N	N	N	N	N	Y	Y	Y	M	N		N
	EM	Y	Y	N	N	N	N	N	N	Y	Y	Y	M	N	N	

Notes

I = Included with option

M = Must have: one of these must be installed for the luminaire to operate

N = Combination Not available

P30 = Valid Option Combination, not available with P10 Performance Packabe

Y = Valid Option Combination

HLWPC2

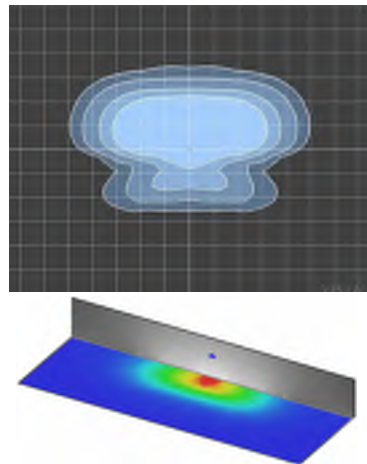
Wallpack® Full Cutoff LED

Photometric Diagrams

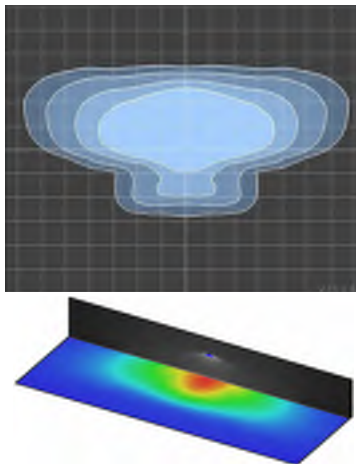
To see complete photometric reports or download .ies files for this product, visit the [Holophane's Wallpack FCO LED homepage](#). Isofootcandle plots for the HLWPC2 P30 40K. Distance are in units of mounting height (12"). Grid is 10'x10'.

0.1 fc 1 fc 0.2 fc 0.5 fc

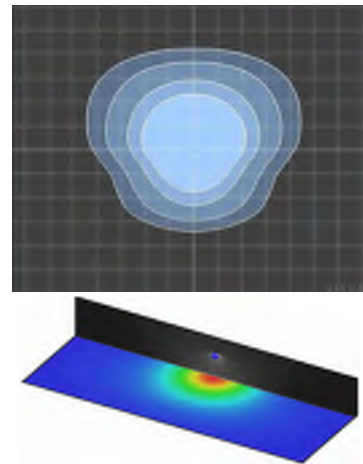
HLWPC2 P30 40K XX T2S



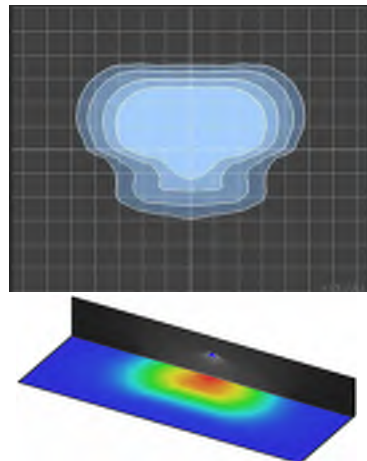
HLWPC2 P30 40K XX T2M



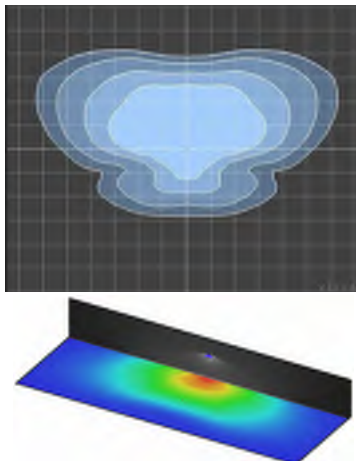
HLWPC2 P30 40K XX ASYDF



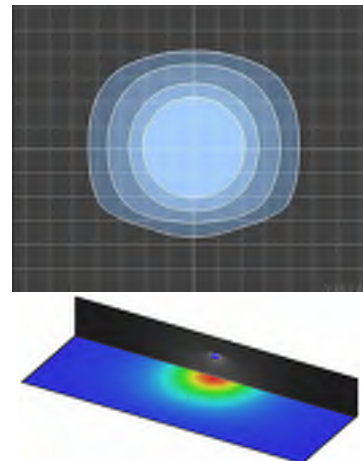
HLWPC2 P30 40K XX T3S



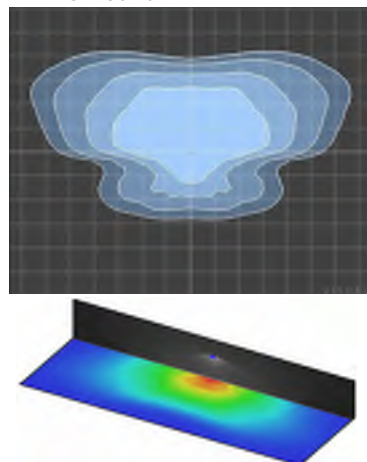
HLWPC2 P30 40K XX T3M



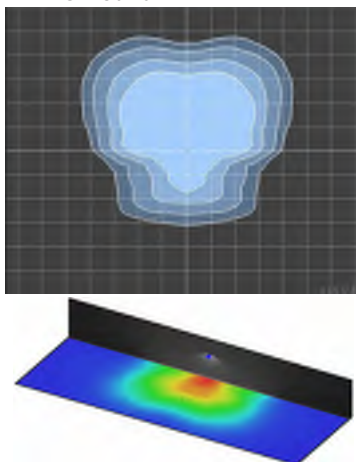
HLWPC2 P30 40K XX SYMDF



HLWPC2 P30 40K XX T4M



HLWPC2 P30 40K XX TFTM

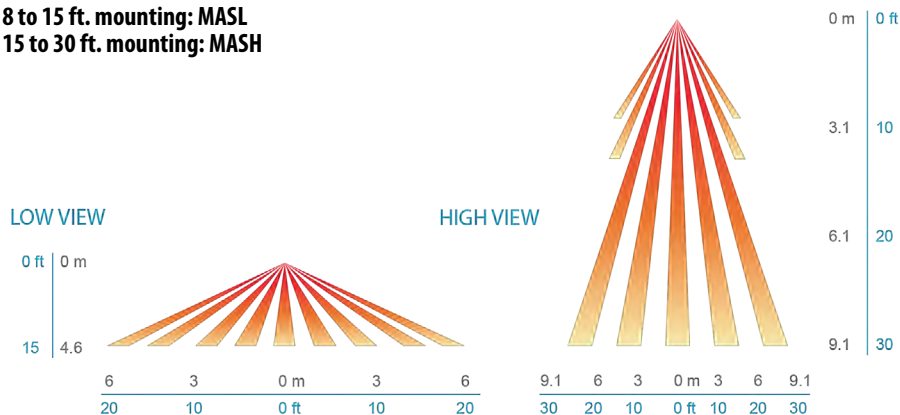


HLWPC2

Wallpack® Full Cutoff LED

Coverage Pattern

8 to 15 ft. mounting: MASL
15 to 30 ft. mounting: MASH



Control Options

Button Style Photocontrol

PE



N.E.M.A. Receptacle

P3

P7



Motion & Ambient Combined Sensor

MASL/MASH



MASL and MASH options reduce luminaire light output to roughly 30% (not full OFF) when no motion is detected. When motion is detected, light output increases to 100%.

Field Adjustable Output Module

The Field Adjustable Output (AO) module is an onboard device that adjusts the light output and input voltage to meet specific requirements, allowing a single fixture configuration to be flexibly applied in many different applications. The AO option is available on the HLWPC2 series.



P10 - AS and AH		
AO Position	% Lumens	% Wattage
8	100%	100%
7	94%	95%
6	83%	82%
5	71%	69%
4	59%	57%
3	46%	45%
2	34%	33%
1	21%	21%

P20 - AS and AH		
AO Position	% Lumens	% Wattage
8	100%	100%
7	95%	94%
6	84%	80%
5	73%	67%
4	61%	54%
3	48%	42%
2	35%	30%
1	21%	18%

P30 - AS and AH		
AO Position	% Lumens	% Wattage
8	100%	100%
7	95%	94%
6	84%	80%
5	73%	67%
4	61%	54%
3	48%	42%
2	35%	30%
1	21%	18%

P40 - AS and AH		
AO Position	% Lumens	% Wattage
8	100%	100%
7	95%	95%
6	85%	82%
5	74%	68%
4	62%	55%
3	49%	43%
2	36%	30%
1	21%	17%

P50 - AS and AH		
AO Position	% Lumens	% Wattage
8	100%	100%
7	96%	95%
6	86%	81%
5	75%	68%
4	64%	55%
3	51%	42%
2	37%	29%
1	22%	17%

City of Madison, Wisconsin Property Map



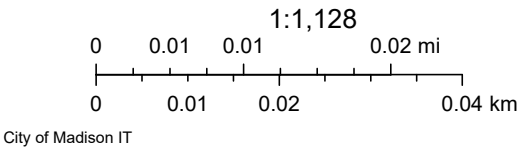
4/21/2025, 11:08:44 AM

- Municipal Limits

AddressPoints

Place Name
- Parcels

Street Names





**Madison
Water Utility**

Madison Water Utility - Unit Well 12 Wellhouse and Reservoir
Project Existing Site Photos
September 22, 2025

Site Location

Address: 801 South Whitney Way

Location/Aerial Map



An aerial view showing the pump house and the reservoir on South Whitney Way, near the Beltline

Existing Photos



View from Whitney Way of the Wellhouse



The rear of the existing Wellhouse.



North east side of Existing Well house.



The south side of the existing Wellhouse.



East side of existing Wellhouse.



Interior of existing Wellhouse.



Interior of existing Wellhouse.



Interior of existing Wellhouse.



Interior of existing Wellhouse.



Interior of existing Wellhouse.



Existing Reservoir to be removed and replaced.



Site Photo – Northeast of Reservoir, near off ramp.



Site Photo – east of existing well house and reservoir.



Site Photo – east of existing reservoir.

CONSTRUCTION DRAWINGS FOR UNIT WELL 12 RECONSTRUCTION FOR MADISON WATER UTILITY MADISON, WISCONSIN



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

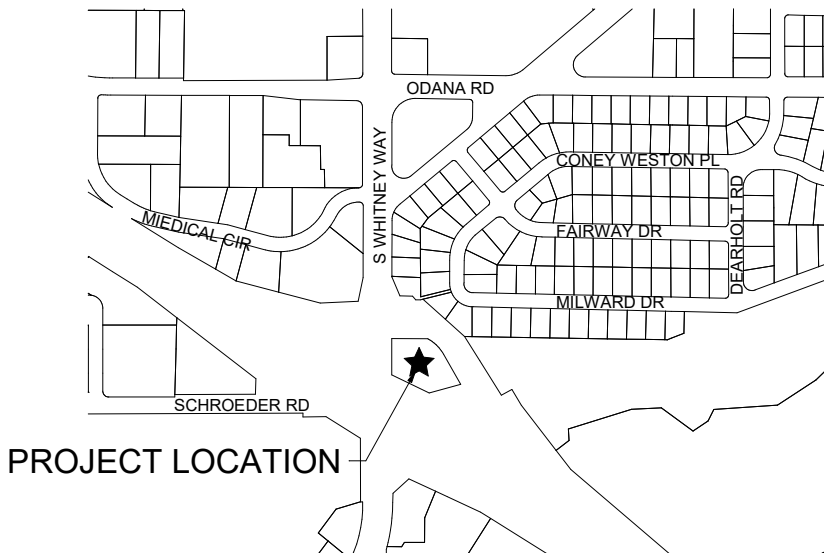
SEH Project MADWU 182222
Checked By IS
Drawn By DD

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

TITLE SHEET

G001



THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

6/30/2025 10:57:00 AM

GENERAL

G001	TITLE SHEET
G002	SHEET INDEX
S001	GENERAL STRUCTURAL ABBREVIATIONS, SYMBOLS AND TABLES
S002	GENERAL STRUCTURAL NOTES
A001	GENERAL INFORMATION AND ABBREVIATIONS
P001	GENERAL PROCESS INFORMATION
P002	HYDRAULIC PROFILE, FLOW SCHEMATIC AND BASIS OF DESIGN
M001	MECHANICAL SYMBOLS AND ABBREVIATIONS
E001	SYMBOLS, ABBREVIATIONS AND NOTES

CIVIL

C101	SITE PLAN
C102	REMOVALS PLAN
C103	GRADING & EROSION CONTROL PLAN
C104	WATER MAIN SYSTEM MAP

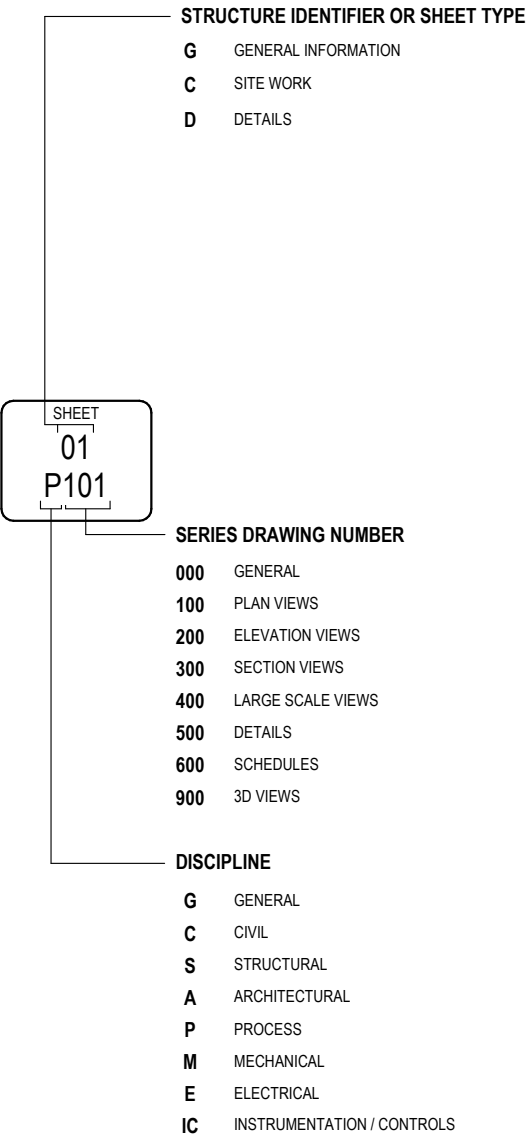
01 WELLHOUSE

01 S101	FOUNDATION PLAN
01 S102	FLOOR PLAN
01 S103	ROOF FRAMING PLAN
01 S201	REINFORCING ELEVATIONS
01 S301	BUILDING SECTIONS
01 S501	CONCRETE DETAILS
01 S502	PRECAST AND MASONRY DETAILS
01 S503	STRUCTURAL DETAILS
01 A002	BUILDING DEMOLITION REFERENCE DRAWING
01 A003	BUILDING DEMOLITION REFERENCE DRAWING
01 A004	CODE PLAN
01 A101	FLOOR PLAN
01 A102	CLERESTORY PLAN
01 A103	ROOF PLAN
01 A201	EXTERIOR ELEVATIONS
01 A301	BUILDING SECTIONS
01 A302	WALL SECTIONS
01 A303	WALL SECTIONS
01 A501	DETAILS
01 A502	DETAILS
01 A601	SCHEDULES AND DETAILS
01 P101	WELLHOUSE FLOOR PLAN
01 P301	WELLHOUSE SECTIONS
01 P302	WELLHOUSE SECTIONS
01 P501	WELLHOUSE PROCESS DETAILS
01 P502	WELLHOUSE PROCESS DETAILS
01 P503	WELL NO. 12 PROFILE & ASSEMBLY DETAILS
01 M101	HVAC PLAN
01 M102	DOMESTIC WATER AND GAS PLAN
01 M103	SANITARY WASTE AND VENT PLAN
01 M104	MECHANICAL ROOF PLAN
01 M105	FIRE PROTECTION PLAN
01 M201	RISER DIAGRAMS
01 M202	RISER DIAGRAMS
01 M301	MECHANICAL SCHEDULES
01 M302	PLUMBING SCHEDULES
01 M303	MECHANICAL DETAILS
01 M304	MECHANICAL DETAILS
01 E071	ELECTRICAL REMOVAL PLAN
01 E101	ELECTRICAL SITE PLAN
01 E201	LIGHTING PLAN
01 E301	POWER AND INSTRUMENTATION PLAN
01 E501	ONE-LINE DIAGRAM
01 E502	ONE-LINE DIAGRAM
01 E601	ELECTRICAL SCHEMATICS
01 E701	SCHEDULES
01 E801	ELECTRICAL DETAILS

02 RESERVOIR

02 P101	WATER STORAGE TANK PLAN & SECTION
02 P301	WATER STORAGE TANK SECTION
02 P302	WATER STORAGE TANK ELEVATIONS & SECTIONS
02 P501	WATER STORAGE TANK STRUCTURAL DETAILS
02 P502	WATER STORAGE TANK INLET, OUTLET, & MIXING SYSTEM DETAILS
02 P503	WATER STORAGE TANK ACCESSORY DETAILS
02 P504	WATER STORAGE TANK ACCESSORY DETAILS
02 P505	WATER STORAGE TANK ACCESSORY DETAILS
02 P506	WATER STORAGE TANK ACCESSORY DETAILS

SHEET NUMBERING LEGEND



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2022
Short Elliott Hendrickson, Inc.
All Rights Reserved.

SEH Project	MADWU 182222
Checked By	IS
Drawn By	DD

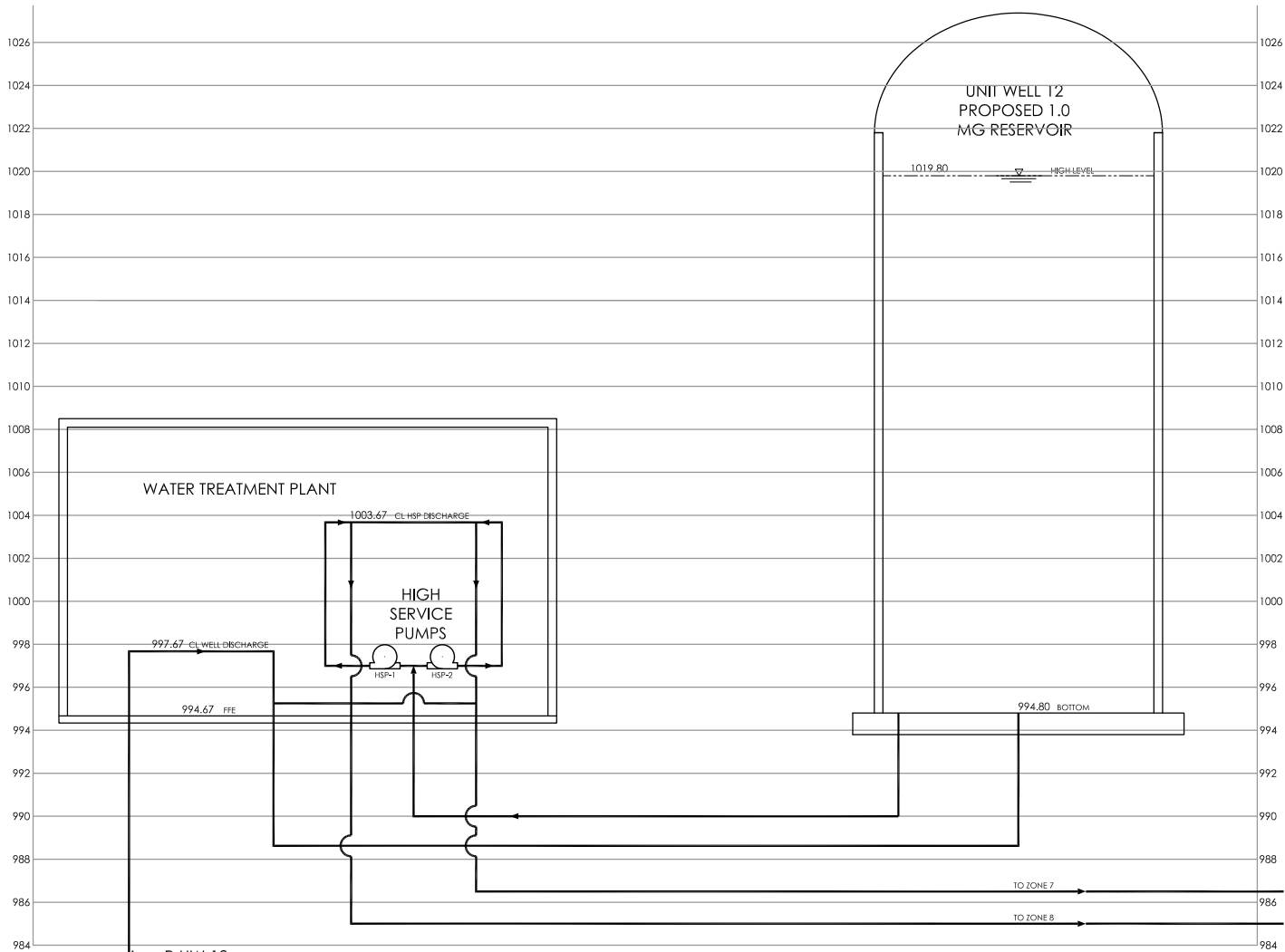
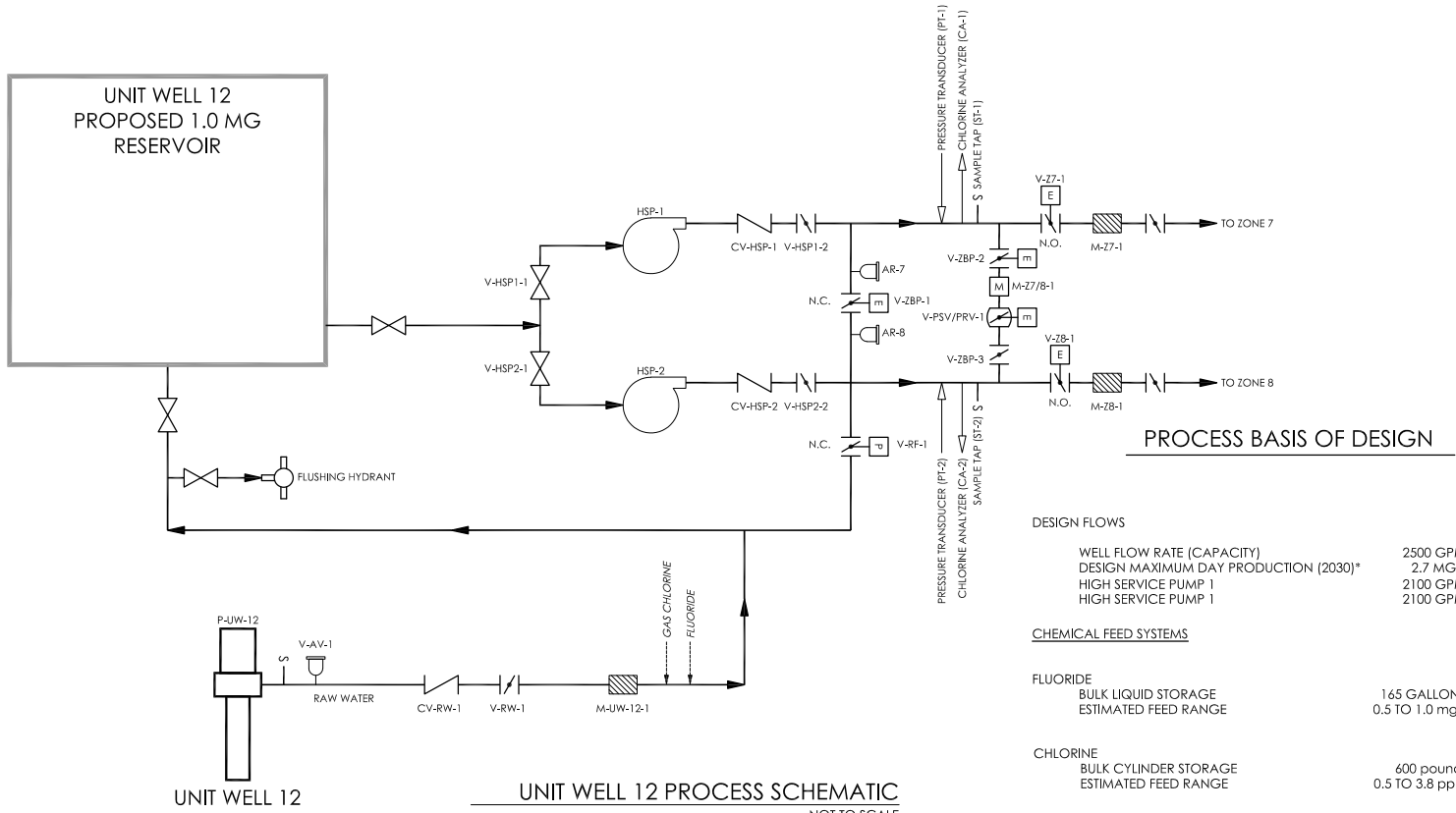
Project Status	Issue Date
DNR SUBMITTAL	6/30/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

SHEET INDEX

G002

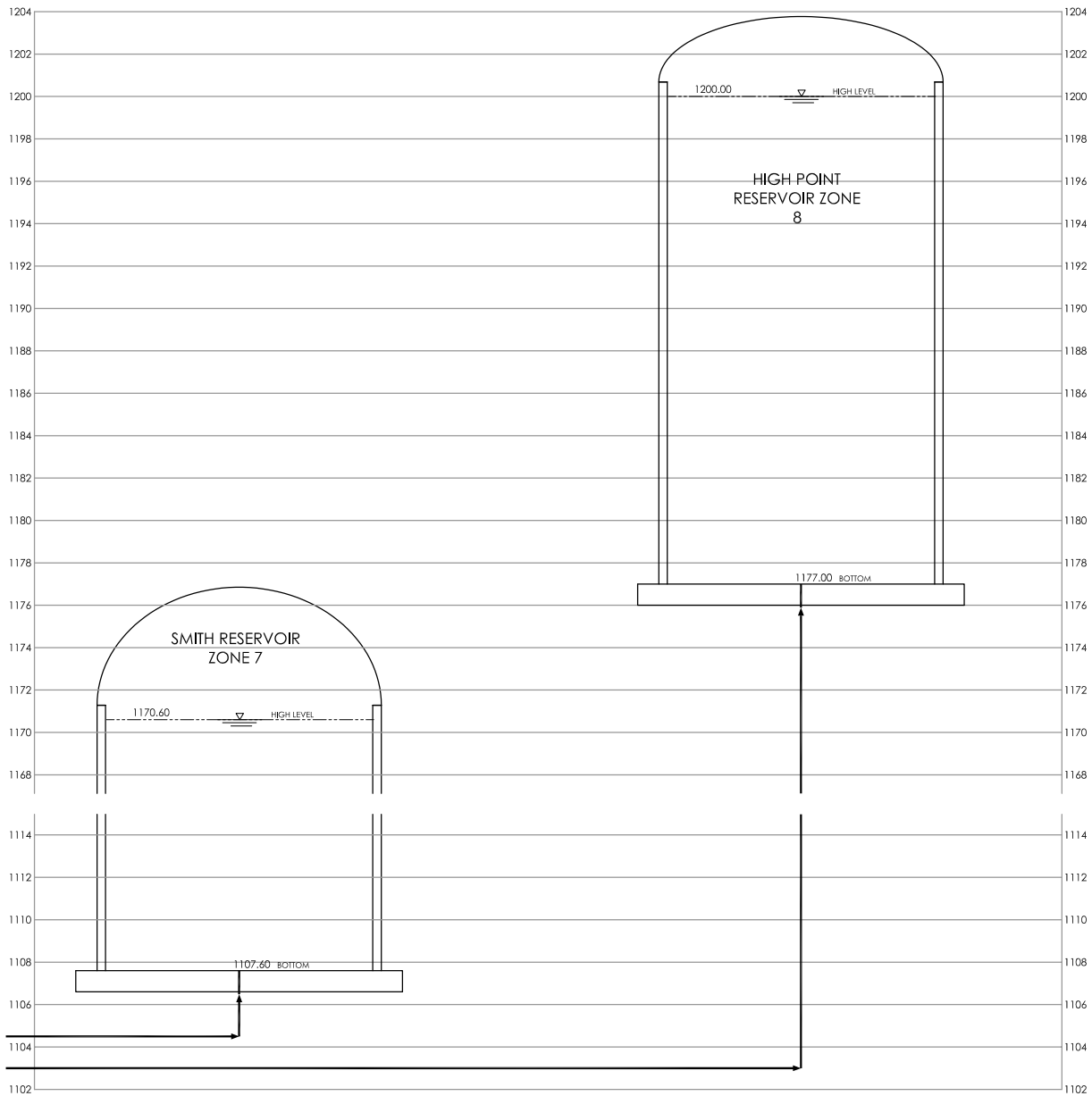
UNIT WELL 12
PROPOSED 1.0 MG
RESERVOIR



NOTE:
HYDRAULIC PROFILE IS INTENDED TO SHOW GENERAL
HYDRAULICS AND IS FOR REFERENCE ONLY. SEE PLANS AND
SECTIONS FOR SPECIFIC ELEVATIONS

UNIT WELL 12 HYDRAULIC PROFILE
NOT TO SCALE

Automated System Process Valves								
Name	Location	Size	Type	Operator	Purpose	Oper. Press.	Fail Pos.	Notes
V-ZBP-1	Bypass Between Zone 7 and 8 Discharge Piping	12-inch	Butterfly	Electric Actuator	Flow Directional Control water flow to each zone.	< 90 psi	Closed	Closed = One pump feeds each zone, Open = Two pumps feed one zone.
V-Z7-1	Discharge to Zone 7	12-inch	Butterfly	Electric Actuator	Controls Water Flow to Zone 7	< 90 psi	Open	
V-Z8-1	Discharge to Zone 8	12-inch	Butterfly	Electric Actuator	Controls Water Flow to Zone 8	< 90 psi	Open	
V-RF-1	Reservoir Fill Piping	8-inch	Butterfly	Electric Actuator	Controls Water Flow Dist. To Reservoir	< 90 psi	Closed	
V-PSV/PRV-1	Connection between Zone 7 and 8	8-inch	Globe	Solenoid	Move flow from Zone 8 to 7 (PRV) or Zone 7 to 8 (PSV)	< 50 psi	Closed	Set to provide a minimum pressure to each side of the valve.
Standard Process Valves								
Name	Location	Size	Type	Operator	Notes			
V-AV-1	Unit Well 12 Wellhead	3-inch	Air Release / Vacuum	Pressure	NPT Threaded			
CV-RW-1	Unit Well 12 Wellhead	12-inch	Swing Check	Counter Weight	Flanged			
V-RW-1	Well 12 Isolation	12-inch	Butterfly	Handwheel	Flanged			
V-HSP1-1	High Lift Pump 1 Suction	8-inch	Butterfly	Handwheel	Flanged			
V-HSP2-1	High Lift Pump 2 Suction	8-inch	Butterfly	Handwheel	Flanged			
CV-HSP1	High Lift Pump 1 Discharge	12-inch	Swing Check	Counter Weight	Flanged			
CV-HSP2	High Lift Pump 2 Discharge	12-inch	Swing Check	Counter Weight	Flanged			
V-HSP1-2	High Lift Pump 1 Discharge	6-inch	Butterfly	Handwheel	Flanged			
V-HSP2-2	High Lift Pump 2 Discharge	6-inch	Butterfly	Handwheel	Flanged			
V-ZBP-3	Isolation (Zone 7/8)	8-inch	Butterfly	Handwheel	Flanged			
V-AR-Z7	Zone 7 Discharge Piping	2-inch	Air Release	Pressure	NPT Threaded			
V-AR-Z8	Zone 8 Discharge Piping	2-inch	Air Release	Pressure	NPT Threaded			



Project Owner

Madison Water Utility
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI 53711

This drawing is an instrument of service and shall remain the property of Short & Eick Handiksson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, copied, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project
Checked By
Drawn By

MADWU 182222
IS
DD

Project Status
DNR SUBMITTAL

Issue Date
6/30/2025

REVISION SCHEDULE

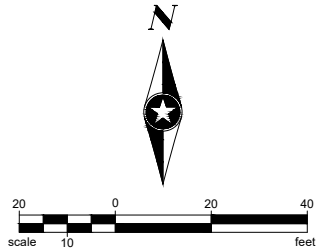
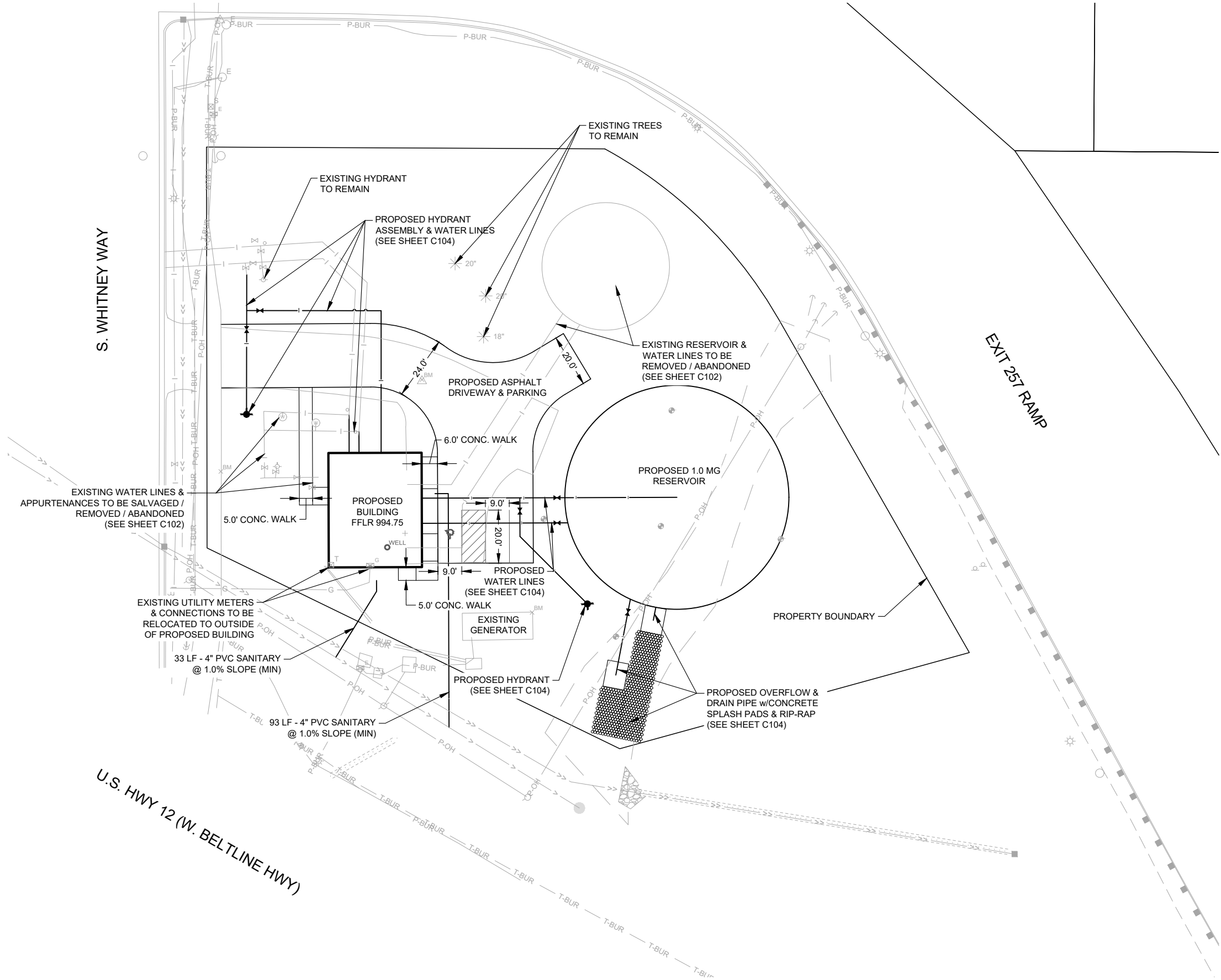
REV.# DESCRIPTION DATE

HYDRAULIC PROFILE, FLOW
SCHEMATIC AND BASIS OF
DESIGN

P002

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

Save: 9/19/2025 2:06 PM noswald Plot: 9/19/2025 5:50 PM X:\O\IM\MADWU\182222\5-final-dgn\51-drawings\10-Civil\cad\dwg\sheet\MA182222_SP.dwg



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

SEH Project MADWU_182222
Checked By KB
Drawn By PAL

Project Status Issue Date
DNR SUBMITTAL 06/30/2025
CITY SUBMITTAL 09/22/2025

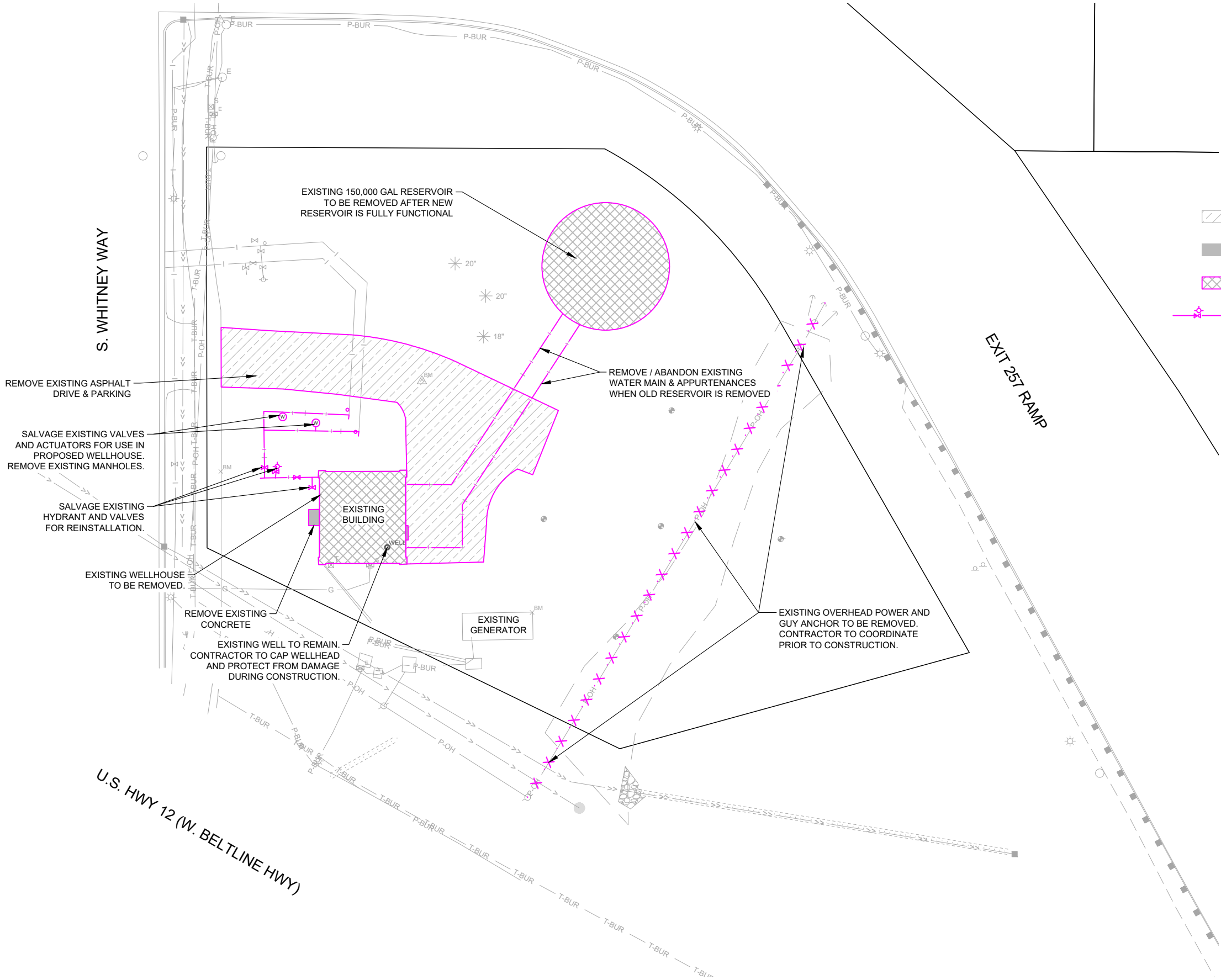
REVISION SCHEDULE
REV. # DESCRIPTION DATE

SITE PLAN

C101

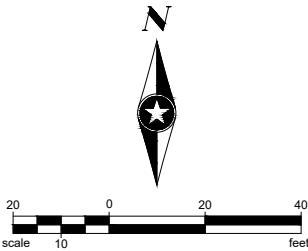
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

Save: 9/19/2025 12:22 PM pilbecki Plot: 9/19/2025 5:50 PM X:\ICOM\MADWU\1822225-final-dgn\51-drawings\10-Civil\cad\dwg\sheet\MA182222_RE.dwg



REMOVALS

-  BITUMINOUS DRIVE REMOVAL
-  CONCRETE PAVEMENT REMOVAL
-  STRUCTURE REMOVAL
-  WATER MAIN & APPURTENANCES REMOVAL



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project MADWU_182222
Checked By KB
Drawn By PAL

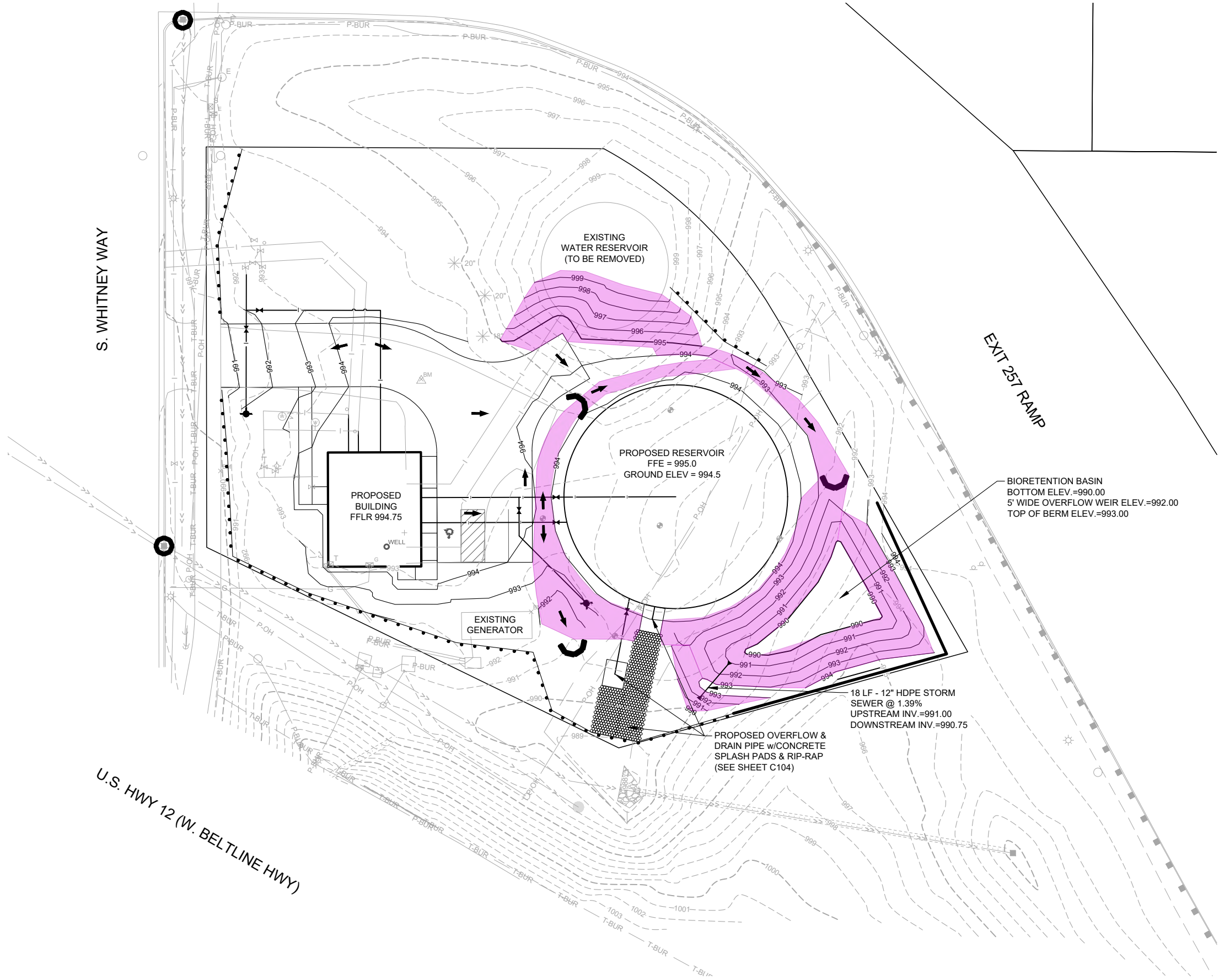
Project Status Issue Date
DNR SUBMITTAL 06/30/2025
CITY SUBMITTAL 09/22/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

REMOVALS PLAN

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

Save: 9/19/2025 2:03 PM noswald Plot: 9/19/2025 5:51 PM X:\OIM\MADWU\182222\5-final-dgn\51-drawings\10-Civil\cad\dwg\sheet\MA182222_GP-EC.dwg



GRADING & EROSION CONTROL LEGEND

- CLASS I - TYPE 'A' ECRM
- DRAINAGE DIRECTION
- INLET PROTECTION
- SEDIMENT LOG DITCH CHECK
- SILT FENCE

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION
801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project	MADWU_182222
Checked By	KB
Drawn By	PAL

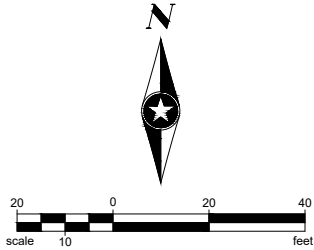
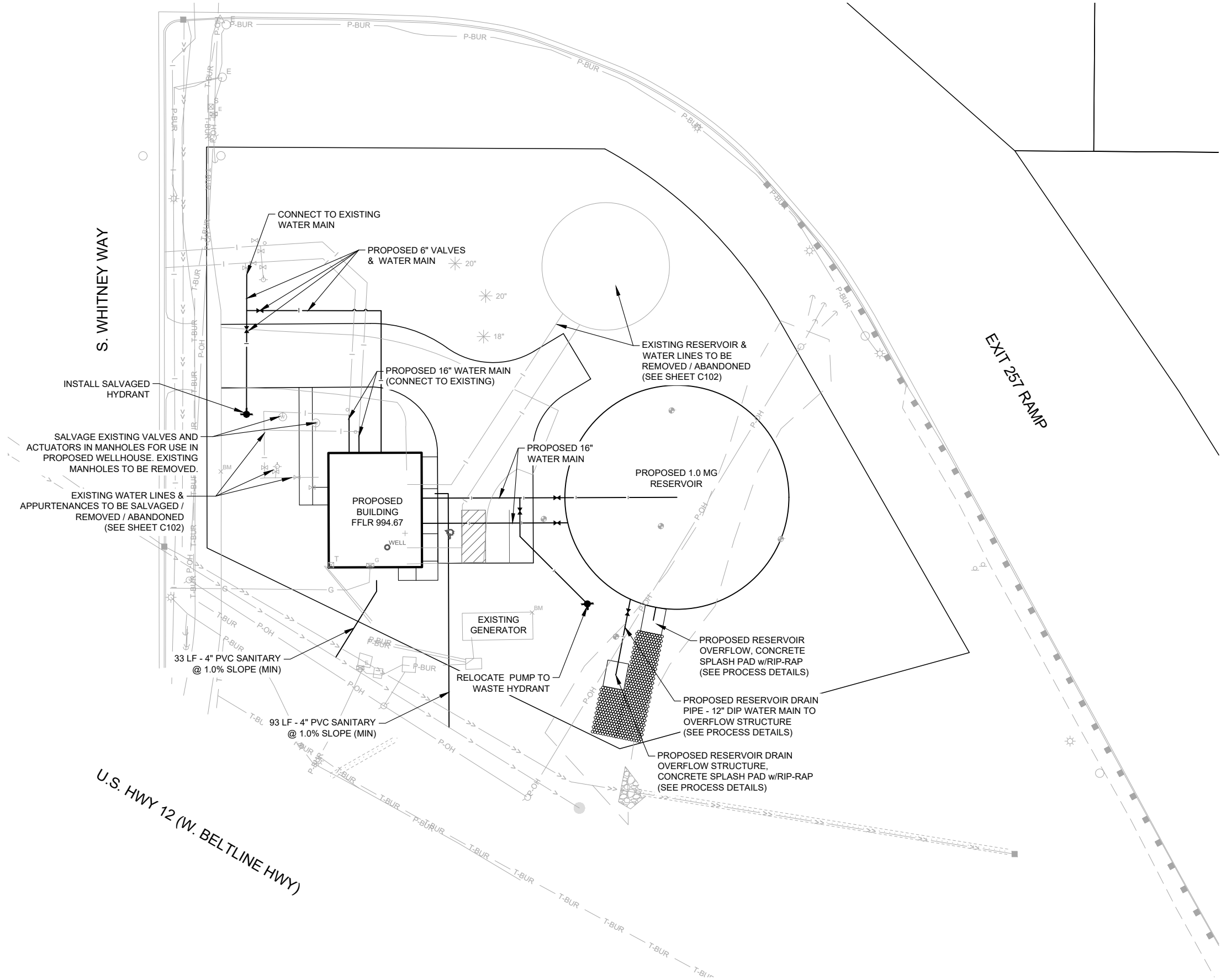
Project Status	Issue Date
DNR SUBMITTAL	06/30/2025
CITY SUBMITTAL	09/22/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

**GRADING & EROSION
CONTROL PLAN**

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

Save: 9/19/2025 12:21 PM pilbecki Plot: 9/19/2025 5:51 PM X:\ICOM\MADWU\1822225-5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\MA182222_PL-WM.dwg



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliot Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliot Hendrickson, Inc.
All Rights Reserved

SEH Project	MADWU_182222
Checked By	KB
Drawn By	PAL

Project Status	Issue Date
DNR SUBMITTAL	06/30/2025
CITY SUBMITTAL	09/22/2025

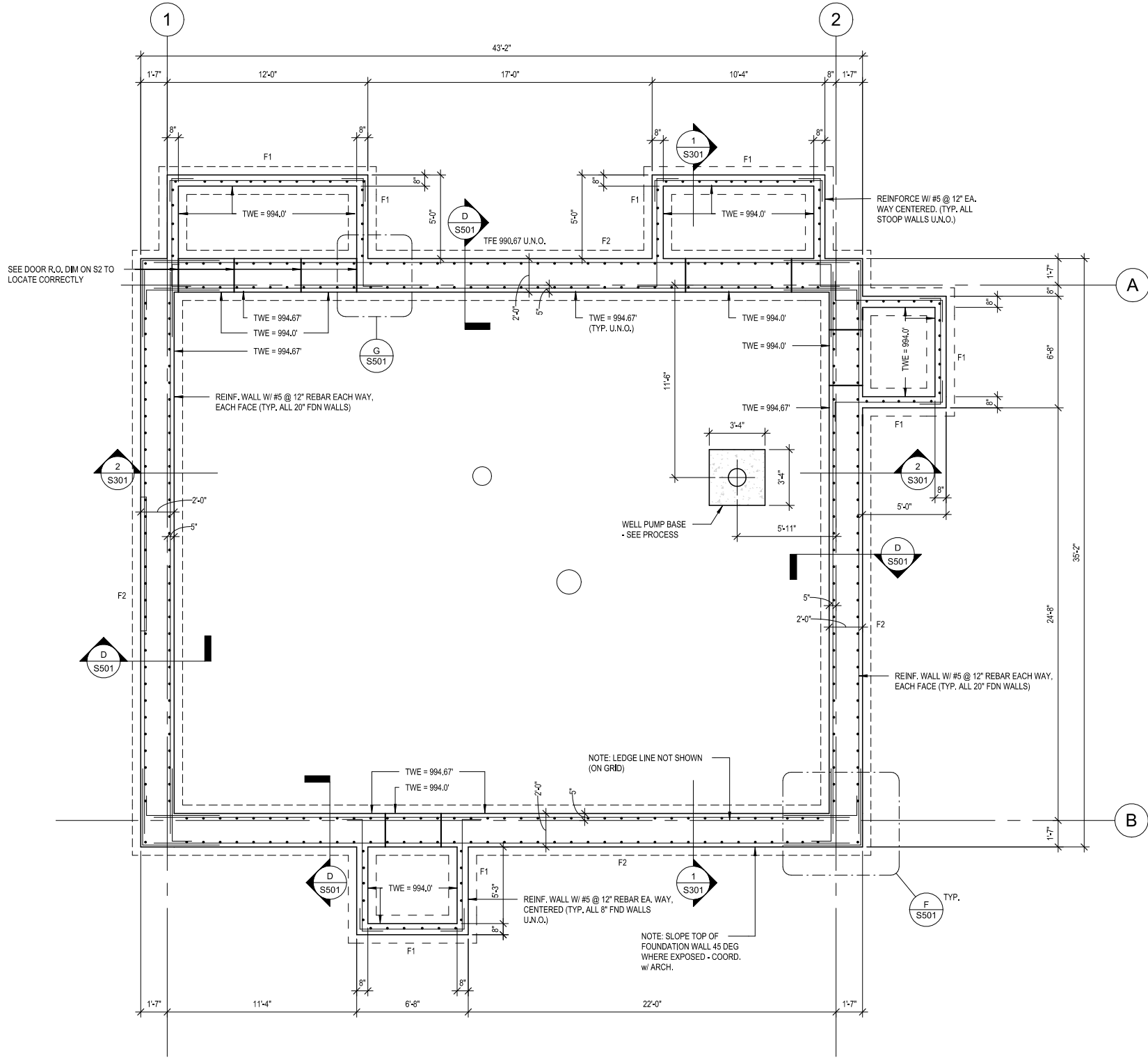
REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

WATER MAIN SYSTEM MAP

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

6/27/2025 4:12:05 PM

1
S101 FOUNDATION PLAN
1/4" = 1'-0"



- PLAN NOTES**
1. TWE = TOP OF FOUNDATION WALL ELEVATION
 2. TFE = TOP OF FOOTING ELEVATION = 990.67 U.N.O.
 3. VERIFY DIMENSIONS, ELEVATIONS, AND MATERIALS WITH ARCHITECTURAL AND PROCESS.
 4. CONTRACTOR OPTIONS AT MECHANICAL & ELECTRICAL LINES THROUGH FOUNDATION - SEE HDS1, JDS1, KDS1, LDS1
 5. 'Fx' DENOTES FOOTING TYPE, REFERENCE SCHEDULE ON THIS SHEET.

FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F1	24" WIDE x 12" DEEP x CONTINUOUS	(2) #5 REBAR, BOTTOM
F2	36" WIDE x 12" DEEP x CONTINUOUS	(3) #5 REBAR, BOTTOM
F3	24" WIDE x 12" DEEP x CONTINUOUS THICKENED SLAB	(2) #5 REBAR, BOTTOM

SEE SHEET S2 FOR LOCATION OF THICKENED SLABS F3.



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project
Checked By
Drawn By

MADWU 182222
BAW
ALC

Project Status
DNR SUBMITTAL

Issue Date
6/30/2025

REVISION SCHEDULE

REV.# DESCRIPTION DATE

FOUNDATION PLAN

01
S101



801 S. Whitney Way
Madison WI, 53711

Project Status	Issue Date
DNR SUBMITTAL	6/30/2024

REV.#	DESCRIPTION	DATE
-------	-------------	------

FLOOR PLAN

01
S102

1. FFE, FINISHED FLOOR ELEVATION = 994.67"
2. TFE, TOP OF FOOTING ELEVATION = 990.67" U.N.O.
3. VERIFY ALL DIMENSIONS, ELEVATIONS, AND MATERIALS WITH ARCHITECTURAL AND PROCESS DRAWINGS.
4. HOIST, TROLLEY, AND LIFTED LOAD 4,000 POUNDS.
5. MASONRY CONTRACTOR SHALL COORDINATE W/ ELECTRICAL CONTRACTOR TO CUT BLOCK NEATLY FOR OPENINGS NEEDED BY ELECTRICAL CONTRACTOR.
6. SEE DETAILS A/D/S1 AND B/D/S1 FOR STANDARD CONCRETE EQUIPMENT PAD & PEDESTAL DETAILS, COORDINATE LOCATIONS AND DIMENSIONS WITH PROCESS, MECHANICAL, AND ELECTRICAL.
7. FOR CONTRACTION JOINTS (C.J.) OR SAWCUT WITHIN 18 HOURS OF CONCRETE PLACEMENT - SEE CIDS1. MAXIMUM SPACING OF CONTRACTION JOINTS TO BE 15'-0".
8. 'FX' DENOTES FOOTING TYPE. SEE SHEET S1 FOR FOOTING SCHEDULE.
9. 'LX' INDICATES LINTEL - SEE LINTEL SCHEDULE ON SHEET S3.
10. D.O. DENOTES DOOR ROUGH OPENING
W.O. DENOTES WINDOW ROUGH OPENING
11. ALL CMU SURFACES EXPOSED TO VIEW ARE GLAZED FACE.
12. BEVEL TOP OF CONCRETE FOUNDATION WALL 3" AT 45 DEG. WHERE EXPOSED TO SHED RAIN WATER, COORDINATE EXTENTS WITH ARCHITECTURAL.

- 1 PROVIDE ADDITIONAL REINFORCEMENT PER DETAIL D/D/S3 AT ALL RE-ENTRANT CORNERS.
- 2 WELL HEAD AND VERTICAL TURBINE PUMP - SEE PROCESS. PROVIDE 1/2" EXPANSION JOINT MATERIAL AND CAULK BETWEEN FLOOR SLAB AND CONCRETE PUMP BASE.
- 3 4" ELECTRICAL EQUIPMENT PADS - SEE STANDARD DETAIL A/D/S1.
- 4 THICKENED SLAB, SEE DETAIL F/D/S2. SEE FOOTING SCHEDULE ON SHEET S1 FOR THICKNESS, WIDTH, AND REINFORCING.
- 5 MONORAIL ABOVE - SEE DETAIL J/D/S2 AND NOTE 4 ON THIS SHEET. COORDINATE FINAL LOCATION W/ PUMP LIFT POINTS.
- 6 HOUSEKEEPING PAD OR PUMP PEDISTAL - REFERENCE TYPICAL DETAIL A/D/S1 OR B/D/S1.
- 7 8" INTERIOR PARTITION WALLS CONSTRUCTED OF 2 WYTHES 4" CMU - GLAZED. SECURE WYTHES TOGETHER WITH STAINLESS STEEL LADDER REINFORCEMENT AT 8" O.C. VERTICALLY. REINFORCE W/ #3 REBAR AT 32" HORIZ., MORTARED BETWEEN WYTHES. SEE ARCHITECTURAL DRAWINGS
- 8 PIPE PENETRATION THROUGH CONCRETE CAST-IN-PLACE SLAB ON GRADE. PROVIDE ADDITIONAL REINFORCING PER DETAIL H/D/S1, TYP.
- 9 CIP CONCRETE CONTAINMENT CURB.



THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

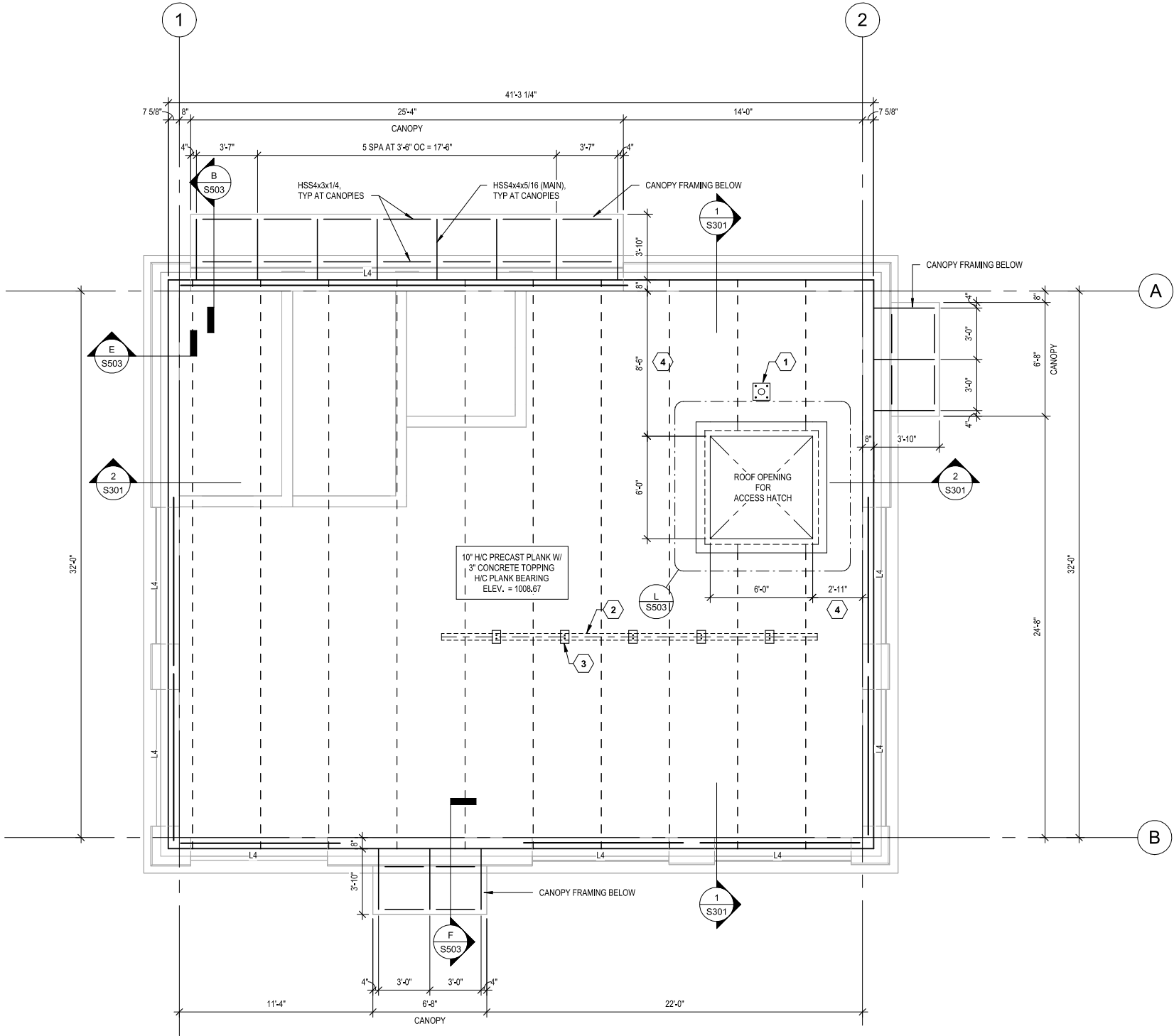
1 FLOOR PLAN
S102 1/4" = 1'-0"

$$1/4'' = 1'-0''$$

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

6/27/2025 4:12:08 PM

1 ROOF FRAMING PLAN
S103 1/4" = 1'-0"



PLAN NOTES

1. TYPICAL 10" HOLLOWCORE PLANK BEARING ELEVATION = 1008.67'
2. SUPERIMPOSED UNIFORM DEAD LOAD: 20 PSF
SUPERIMPOSED UNIFORM LIVE LOAD: 20 PSF
3. 'Lx' INDICATES LINTEL - SEE LINTEL SCHEDULE ON THIS SHEET
4. THIS SHEET SHOWS CONCEPTUAL LAYOUT AT OPENINGS IN HOLLOWCORE SLABS. P/C SUPPLIER IS RESPONSIBLE FOR FINAL DESIGN.
5. P/C = PRECAST CONCRETE
H/C = HOLLOWCORE
H/C PLANK = PRESTRESSED CONCRETE HOLLOWCORE SLABS DESIGNED BY SUPPLIER IN ACCORDANCE WITH PCI STANDARDS. SEE SPECIFICATION.
6. TYPICAL ANCHORAGE OF EXTERIOR CMU WALLS: INSTALL TO H/C PLANK WITH INJECTION ADHESIVE, PROVIDE SCREEN TUBE AS REQUIRED (IF DOWEL GOES INTO HOLES OF H/C PLANK), LAP REBAR MIN. 32" WITH WALL REINFORCING U.N.O. ON DETAILS, REINFORCING EQUAL TO SIZE AND SPACING SHOWN ON REINFORCING ELEVATIONS.
7. HOLLOWCORE PLANK TO BE DESIGNED ASSUMING (1) STRAND CUT.

KEY NOTES

1. TIE-OFF - SEE DETAIL K/DS2, CONFIRM LOCATION WITH OWNER.
2. MONORAIL BELOW
3. MONORAIL SUPPORT - SEE DETAIL J/DS2, SUPPORT REQUIRED AT EACH PLANK.
4. LOCATE BUILDING TO CENTER HATCH ON EXISTING WELL HEAD.

LINTEL SCHEDULE

MARK	SIZE OR DESIGNATION	NOTES
L1	8" W x 8" DEEP CMU LINTEL W/ (2) #5 REBAR, BOTTOM	
L2	8" W x 16" DEEP CMU LINTEL W/ (2) #5 REBAR, TOP & BOTTOM	
L3	8" W x 8" DEEP CMU LINTEL W/ (1) #5 REBAR, BOTTOM	
L4	2-C8x11.5 W/ 5/16" x 15" BOT. PLATE 8" BEARING EA. END	HOT DIP GALVANIZE SEE M/DS2

NOTES:

1. EACH MASONRY LINTEL SHALL BEAR 8" MIN. ON CMU WALL. - CONTINUE HORIZ. REINF. TO END OF BEARING.
2. GROUT AND REINFORCE 2 VERTICAL CORES EACH SIDE OF ALL MASONRY AND STEEL LINTELS U.N.O.
3. BOTTOM REBAR TO BE MAINTAINED 2" MIN. CLEAR FROM BOTTOM OF BOND BEAM LINTEL OR GREATER IF REQ'D FOR FIRE RESISTIVE CONSTRUCTION.
4. SHORE CMU LINTELS FOR ENTIRE LENGTH UNTIL BOND BEAMS ARE IN PLACE AND GROUT IS CURED. ALL BOND BEAM LINTELS SHALL BE CONSTRUCTED OF 8" HIGH BLOCK IN RUNNING BOND. USE POUR-THRU BOND BEAM BLOCK FOR UPPER COURSE(S) IF LINTEL HEIGHT EXCEEDING 8" IS INDICATED.

VENEER LINTEL SCHEDULE

MARK	SIZE OR DESIGNATION	NOTES
VL1	BENT PLATE 7 x 7 x 3/8	HOLES IN VERT LEG AT 12" O.C. FOR 1/2"Ø EXP. ANCHORS TO CMU BOND BEAM

NOTES:

1. EACH LINTEL SHALL BEAR 8" MIN. ON VENEER EA. SIDE OF OPENING.
2. ALL EXTERIOR LINTELS SHALL BE HOT DIP GALVANIZED - SEE STRUCTURAL NOTES.



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project MADWU 182222
Checked By BAW
Drawn By ALC

Project Status DNR SUBMITTAL
Issue Date 6/30/2025

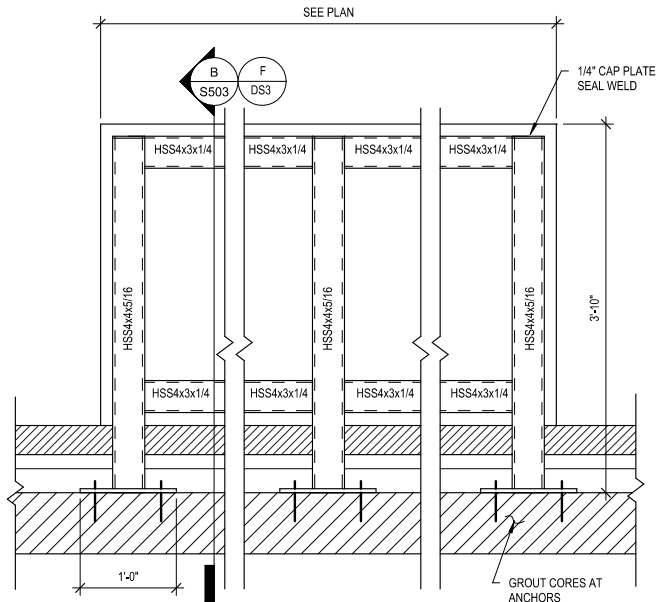
REVISION SCHEDULE

REV.#	DESCRIPTION	DATE
-------	-------------	------

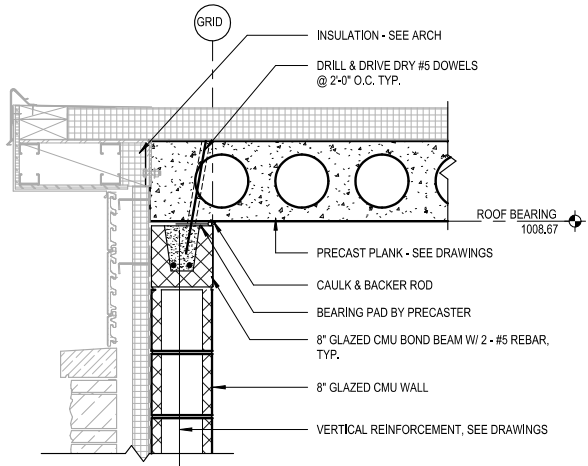
ROOF FRAMING PLAN

01
S103

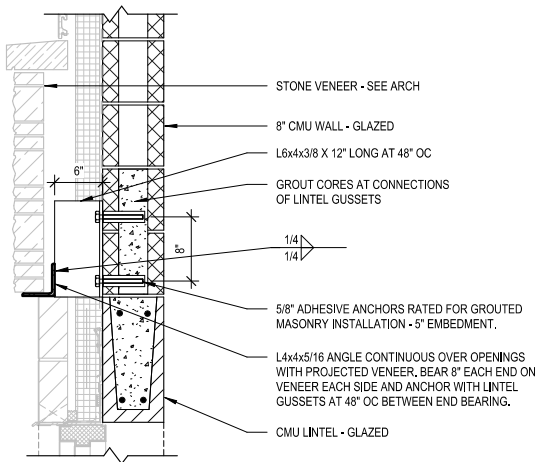
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/27/2025 4:12:17 PM



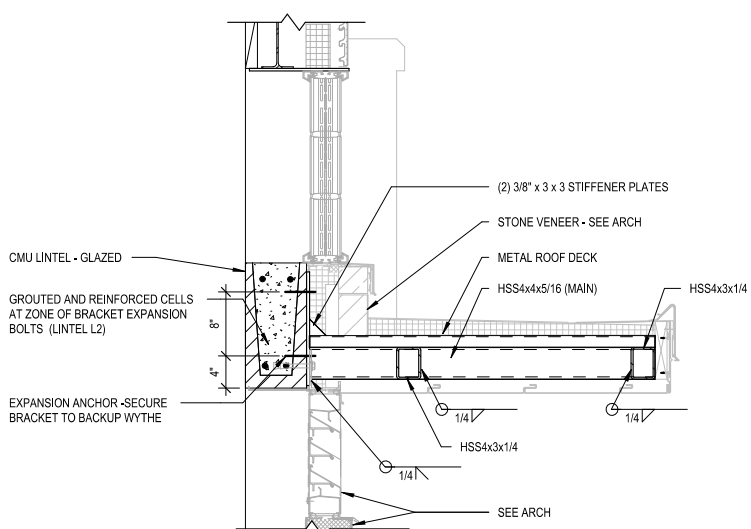
A CANOPY FRAMING PLAN
S503 1" = 1'-0"



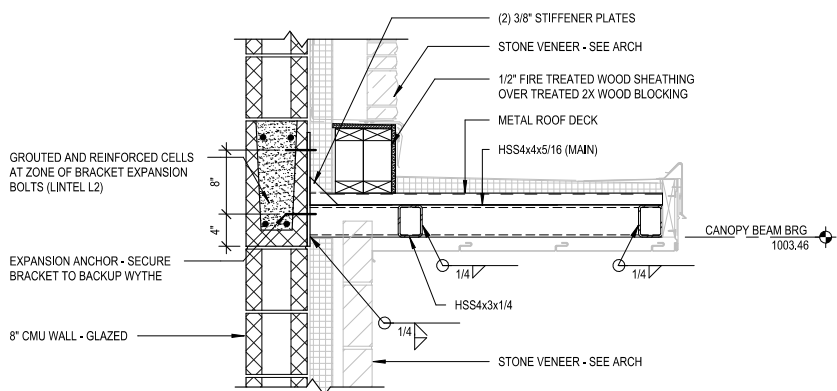
E ROOF PLANK TO WALL CMU SECTION
S503 1" = 1'-0"



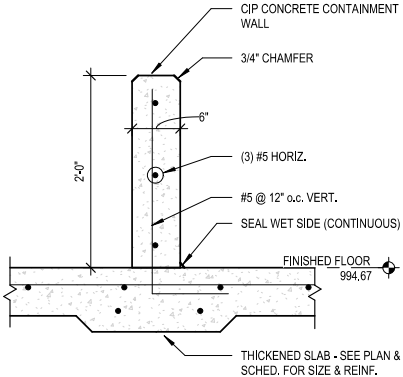
H VENEER SUPPORT DETAIL
S503 1" = 1'-0"



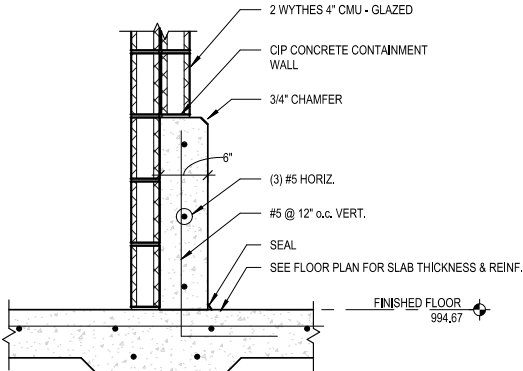
B SECTION THROUGH CANOPY AT LOUVER ASSEMBLY
S503 1" = 1'-0"



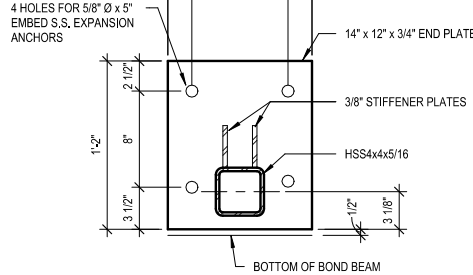
F SECTION THROUGH CANOPY
S503 1" = 1'-0"



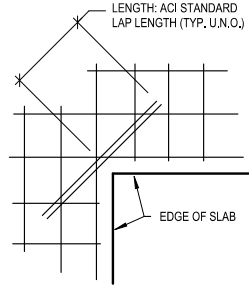
J CONTAINMENT WALL DETAIL
S503 1" = 1'-0"



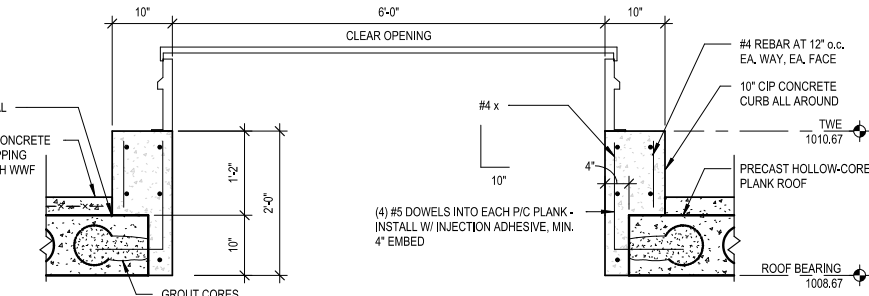
K CONTAINMENT WALL DETAIL AT INTERIOR WALL
S503 1" = 1'-0"



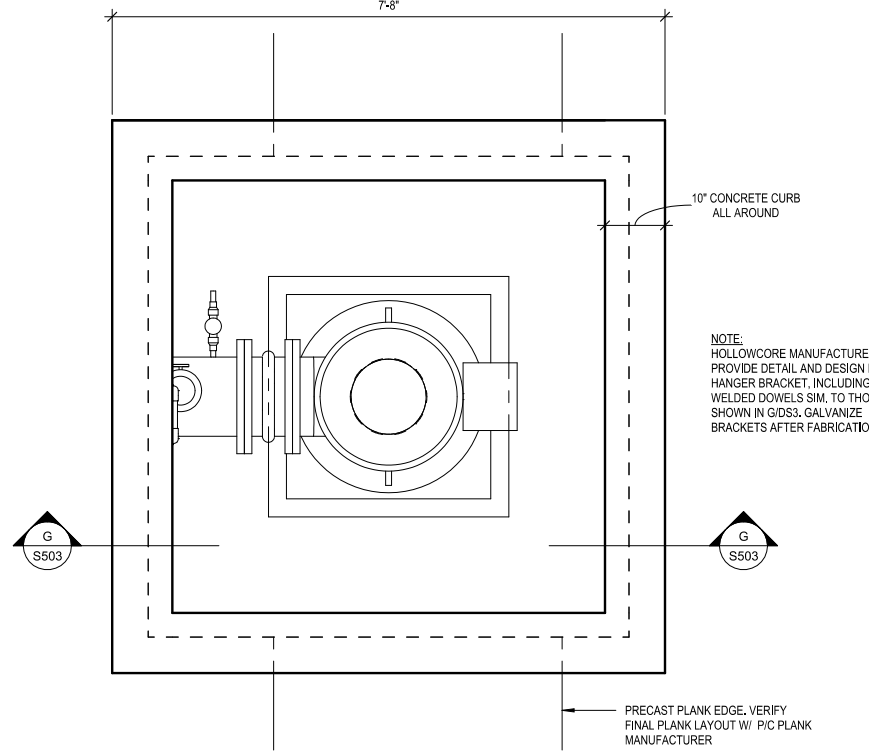
C CANOPY CONNECTION PLATE DETAIL
S503 1 1/2" = 1'-0"



D SLAB REENTRANT CORNER DETAIL
S503 1/2" = 1'-0"



G SECTION THRU ROOF HATCH
S503 3/4" = 1'-0"



L ROOF HATCH PLAN
S503 3/4" = 1'-0"

WALL / SLAB REINF. BARS *	ADDITIONAL CORNER BARS
WWF	2 - #4
#4	2 - #4
#5	2 - #5
#6	2 - #6
#7	2 - #5
#8	2 - #6

* USE LARGEST DIAMETER BAR IN EITHER DIRECTION FOR DETERMINING CORNER BARS.

NOTES:

PROVIDE 2" CLEAR COVER OVER ALL BARS AT OPENINGS

ADDITIONAL CORNER BARS:

WHEN SLAB HAS BOTTOM REINFORCEMENT LAYER ONLY, PLACE DIAGONAL BARS AT MID DEPTH.

WHEN SLAB HAS TOP REINFORCEMENT LAYER ONLY, PLACE DIAGONAL BARS WITH TOP REINFORCEMENT.

WHEN SLAB HAS TOP & BOTTOM REINFORCEMENT LAYERS, PLACE DIAGONAL BARS WITH TOP & BOTTOM REINFORCEMENT.



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

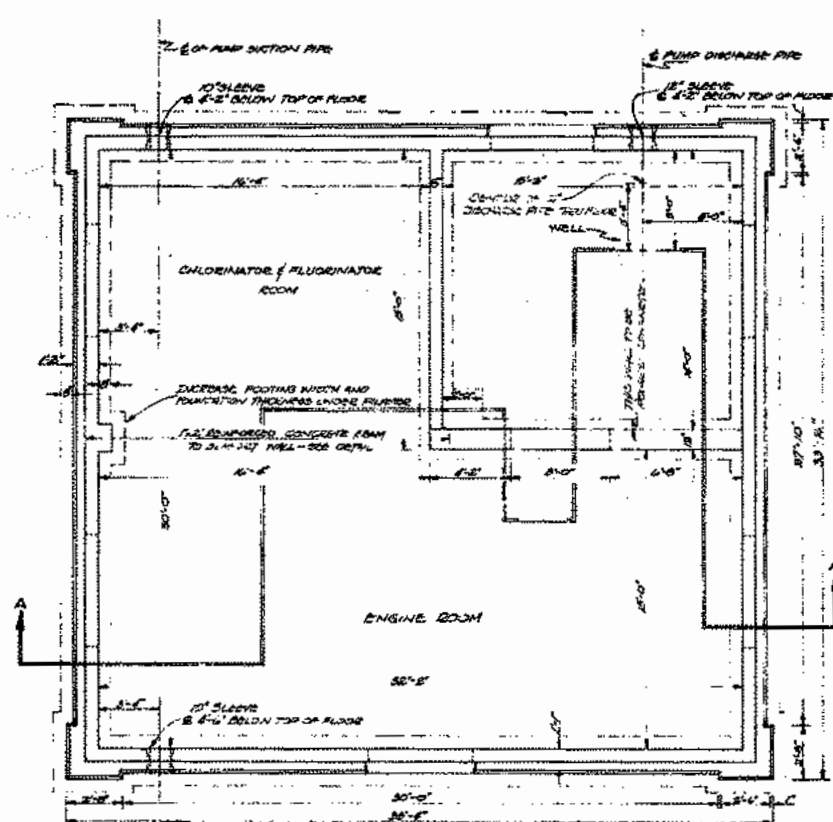
SEH Project MADWU 182222
Checked By BAW
Drawn By ALC

Project Status DNR SUBMITTAL
Issue Date 6/30/2025

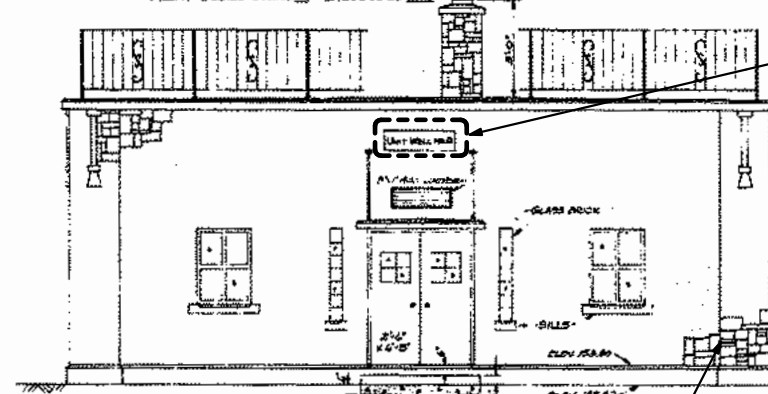
REVISION SCHEDULE
REV.# DESCRIPTION DATE

STRUCTURAL DETAILS

01
S503

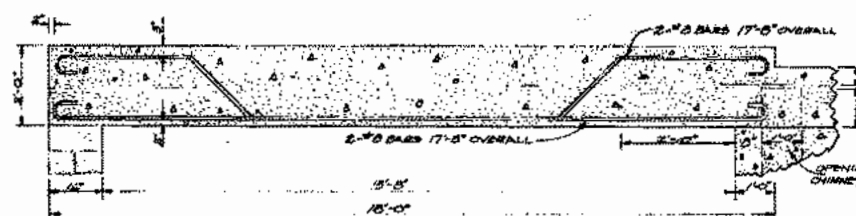


ALL ENGINE ROOM INSET DIMENSIONS ALLOWING OPENING TO WELL ROOM ARE PRIOR TO SETTING WALL TILE FINISHES 2'-2" x 8" BARS, 8" O.C. OVER 8" O.C. BARS
3'-7" BARS, 12" O.C. OVER 8" O.C. BARS
ALL CHLORINATOR & FLUORINATOR ROOM INSET DIMENSIONS ARE PRIOR TO SETTING WALL TILE FINISHES 2'-2" x 8" BARS, 8" O.C. OVER 8" O.C. BARS
3'-7" BARS, 12" O.C. OVER 8" O.C. BARS
ALL CHLORINATOR & FLUORINATOR ROOM INSET DIMENSIONS ARE PRIOR TO SETTING WALL TILE FINISHES 2'-2" x 8" BARS, 8" O.C. OVER 8" O.C. BARS
3'-7" BARS, 12" O.C. OVER 8" O.C. BARS

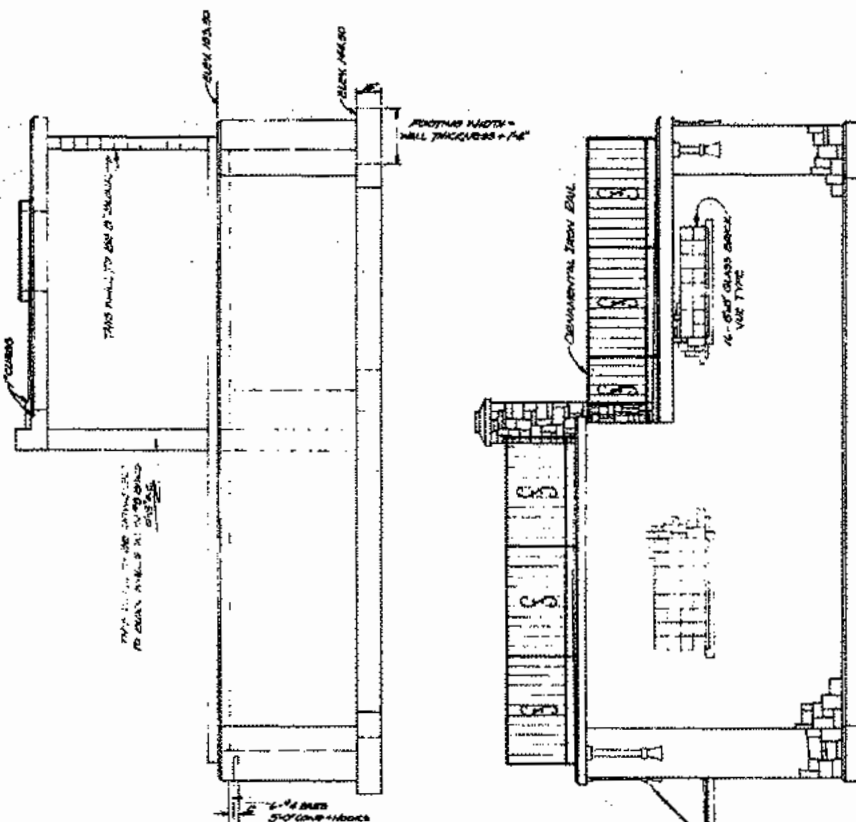


SALVAGE GRANITE PANEL FOR INSTALLATION IN NEW BUILDING

SALVAGE STONE FOR INSTALLATION AT NEW BUILDING ENTRY. REFER TO 2/A4 NOTE 13 FOR REFERENCE.



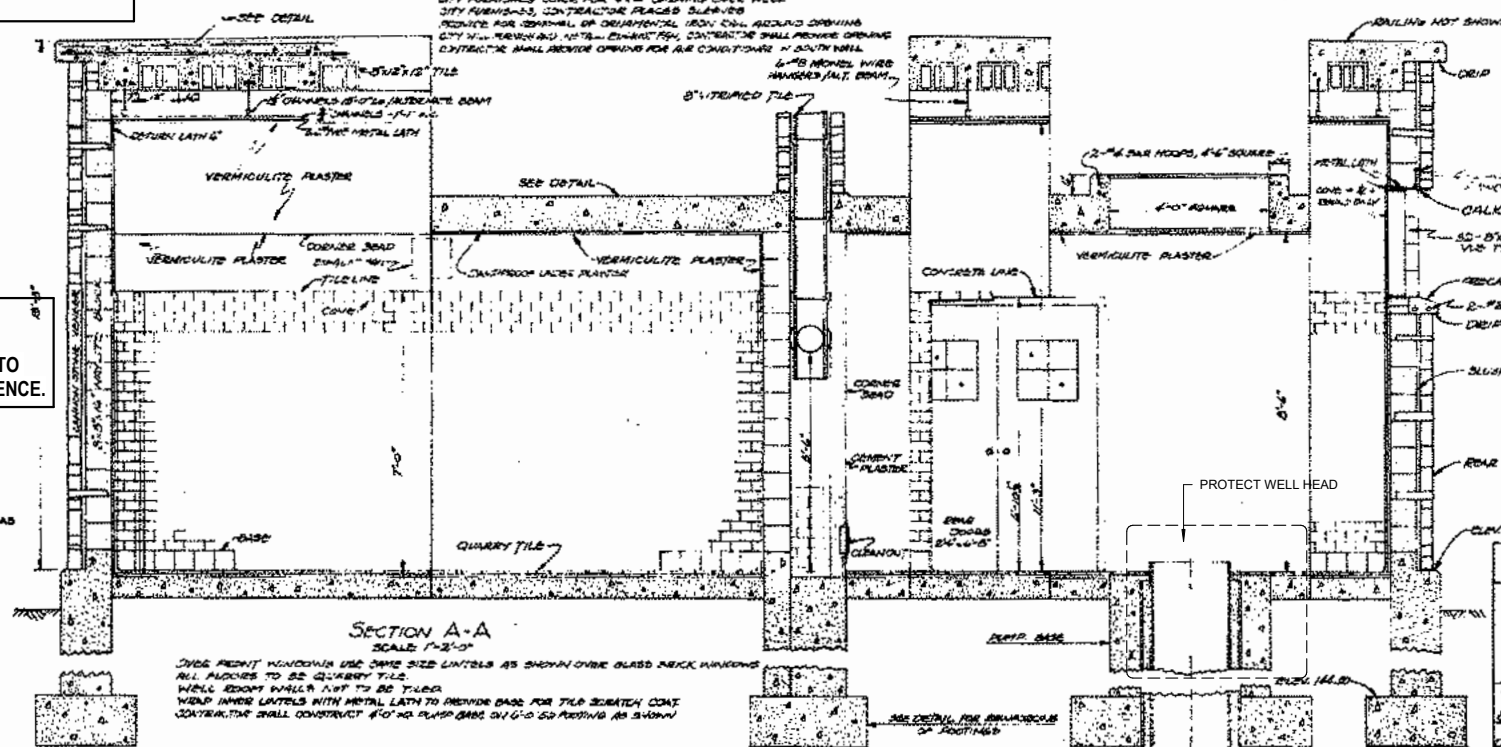
BEAM TO BE POURED WITH LOWER ROOF SLAB AND CURBS



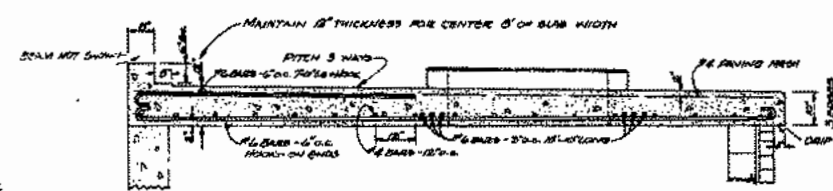
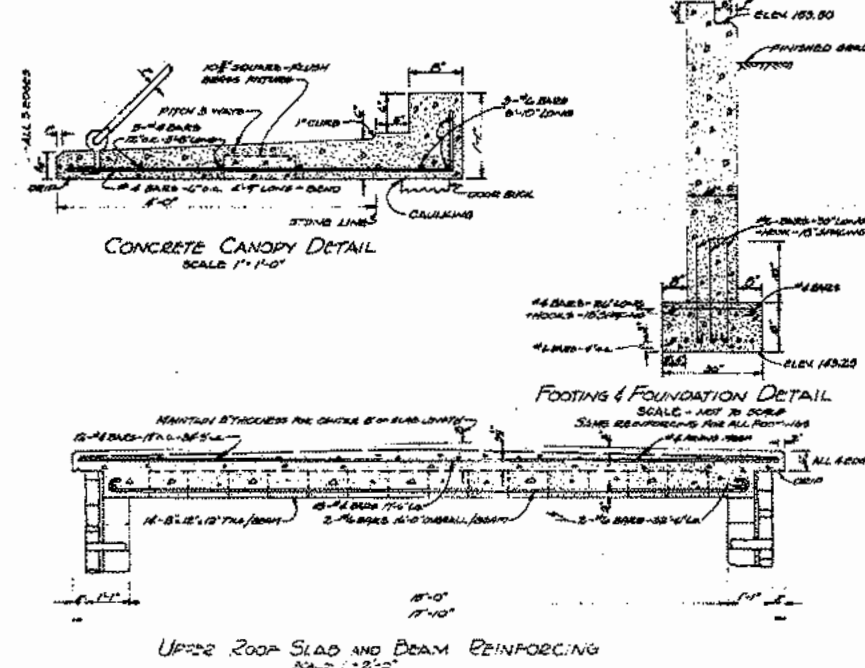
WALK, CHIMNEY, UNDER ROOF SLAB AND CANOPY NOT SHOWN
INCREASE SLAB THICKNESS UNDER ROOF WORK TO PROVIDE MINIMUM CURB AS SHOWN
HEIGHT 2' 6" OVER 8" O.C. BARS

GENERAL

SLAB REINFORCING STEEL TO BE PLACED IN 12" O.C. SPACING
CHIMNEY PLACED IN CONCRETE FOR ROOF SLAB
ADJUST REINFORCING IN CONCRETE FOR ROOF SLAB
WALL TILE TO BE SET IN MORTAR DOOR THICKNESS 8" BARS
8" O.C. BARS, 12" O.C. OVER 8" O.C. BARS
PROVIDE 8" BARS, 12" O.C. OVER 8" O.C. BARS
CITY FINISHES DOOR FOR 8" O.C. OPENING OVER WELL
CITY FINISHES, CONTRACTOR PLACES SLAB-DO
REQUIRED FOR OVERHANG OF CHIMNEY FOR AIR CONDITIONING
CITY WILL REMOVE AND RE-INSTALL FOR CONTRACTOR SHALL PROVIDE OPENING
DISTANCE 1" MINIMUM OVER OPENING FOR AIR CONDITIONING



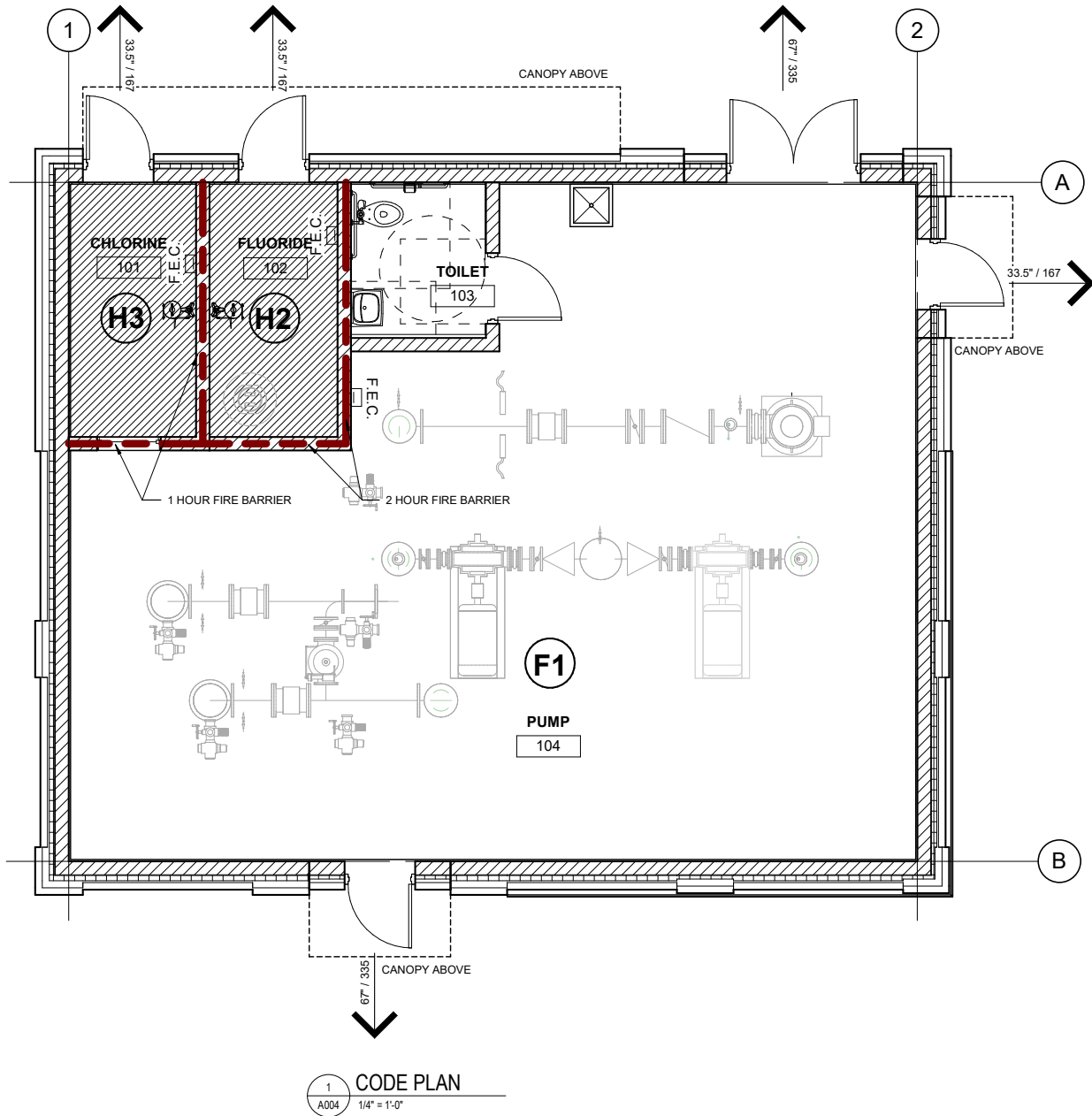
DOOR FRONT WINDOWS USE SAME SIZE UNITS AS SHOWN OVER SLAB DECK WINDOWS
ALL FLOORS TO BE QUARRY TILE
WELL ROOM WALLS NOT TO BE TILED
WELL ROOM WALLS WITH METAL LATH TO PROVIDE BASE FOR TILE SCRATCH COAT
CONTRACTOR SHALL CONSTRUCT 10" x 12" PUMP BASE ON 6" O.C. BARS AS SHOWN



THIS DRAWING PROVIDED TO SHOW DETAILS OF THE BUILDING TO BE REMOVED

CITY OF MADISON, WISCONSIN
WATER DEPARTMENT
UNIT WELL No.12
PUMPHOUSE
SCALE: AS SHOWN
DATE: APRIL 1981
DRAWN BY: GAG
SHEET 2 OF 3

CODE INFORMATION				
UNIT WELL 12 WATER TREATMENT PLANT				
Madison, WI				
General Code Information				
ITEM	INFORMATION	REMARKS		
Design code:	2015 IBC			
Occupancy Type:	Separated Use			
	F-1 Factory Industrial (water treatment)			
	H-2 Hazardous (Fluoride Room)			
	H-3 Hazardous (Chlorine Room)			
Occupancy Separations	Fire Rating			
F-1/H-2	2 hour			
F-1/H-3	1 hour			
H-2/H-3	1 hour			
Construction type:	IB			
Fully Sprinkled?	Yes			
Hazardous Materials				
Chemical	Chemical Classification	Max Control Area Qun.	Actual Quantity *	
Chlorine Gas	Oxidizing Gas, Corrosive, Toxic	300 LB	600 LB	
23% Hydrofluoroalciic Acid	Toxic, Corrosive	1000 LB	1670 LB	
Notes:				
A. Actual quantity is for combined storage and closed systems use.				
B. Control area quantity per 307.1(1) Footnote i.				
General Building Information				
ITEM	ALLOWABLE	ACTUAL		
Building height & no. of stories:				
Stories	2	1		
Building Height	60'	14'		
Area per floor level				
F-1	8,500 SF	1,120 SF		
H-2	3,000 SF	72 SF		
H-3	5,000 SF	72 SF		
		Building Total Area: 1,500 SF		
Means of Egress				
ITEM	REQUIRED	PROVIDED / REMARKS		
Number of Exits	2 per floor	2 provided per floor		
Travel Distances	EXIT ACCESS / COMMON PATH			
F-1	250 FT / 75 FT	OK/OK		
H-2	150 FT / 25 FT	OK/OK		
H-3	150 FT / 25 FT	OK/OK		
Fire Resistances, Suppression and Alarm				
ITEM	REQUIRED	PROVIDED		
Fire Resistance Rating for all Building Components:	0	Per Table 601		
Fire Suppression	Fully Sprinkled	Fully Sprinkled		
Sanitary Fixtures				
Fixtures required per IBC Chapter 3, COMM 62 and table 2902.1				
BUILDING IS NOT NORMALLY OCCUPIED				
Compliance Check	Water Closets	Lavatories	Drinking Fountain	Service Sink
	Male / Female	Male / Female		
Number of fixtures Required	N/A	N/A	N/A	N/A
Number of fixtures Provided	1	1	0	1



CODE LEGEND

Fire barriers shall be permanently identified with stenciling in accessible and concealed locations at intervals not exceeding 30' along the barrier

EXIT WIDTH
OCCUPANT CAPACITY OF EXIT
60"/240

X OCCUPANCY CLASSIFICATION

1-HOUR FIRE BARRIER

2-HOUR FIRE BARRIER



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way, Madison
WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project 182222
Checked By JRL
Drawn By JRL

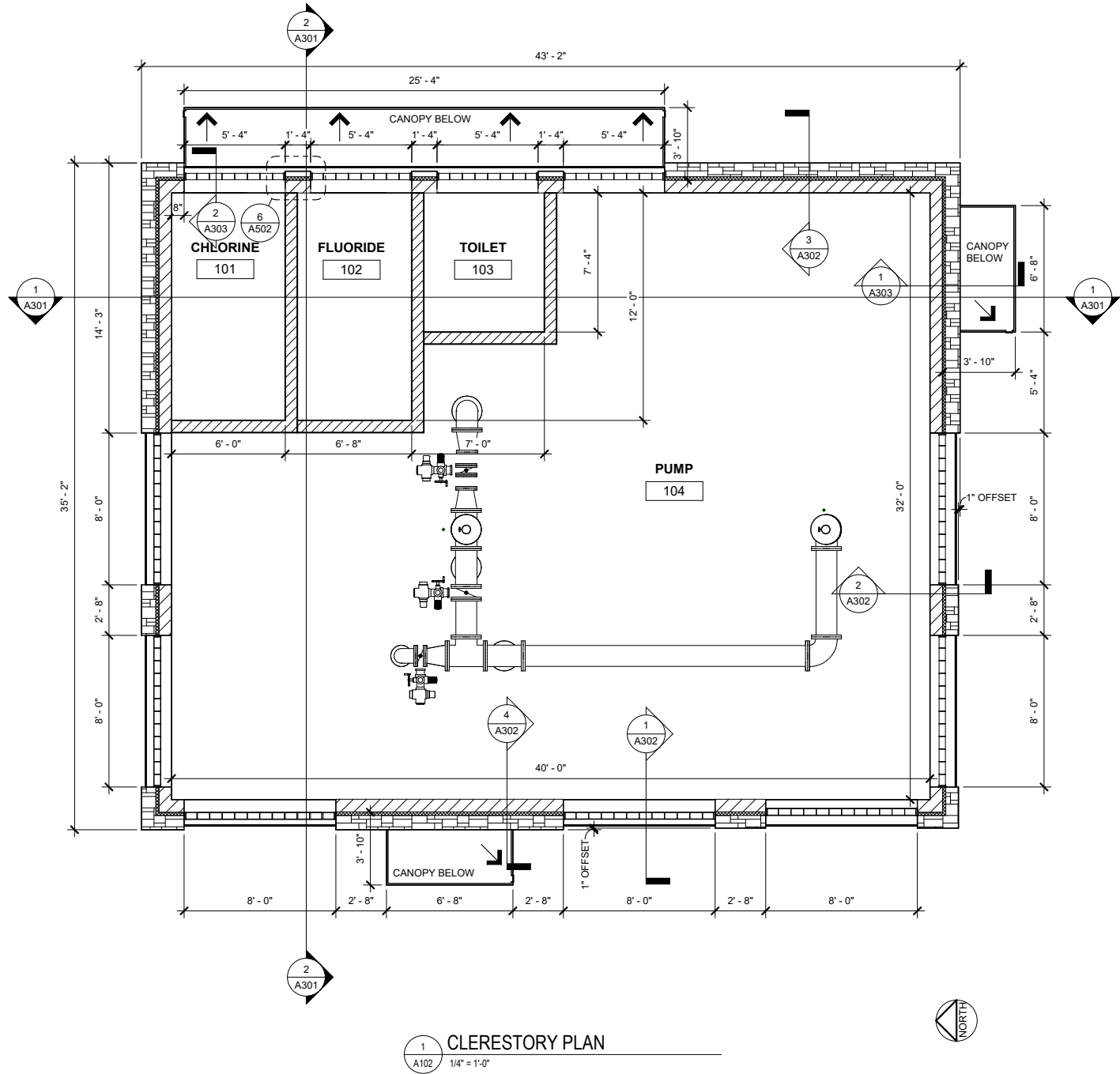
Project Status Issue Date
ONR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

CODE PLAN

01
A004

NOTE: ALL DRAWING SCALES ARE FOR
PLANS PRINTED ON 34"x22" SHEETS



GENERAL NOTES:

1. SEE STRUCTURAL DRAWINGS FOR ALL DETAILS RELATED TO CMU REINFORCING.
2. ALL CMU SURFACES EXPOSED TO VIEW SHALL BE BURNISHED FACED UNITS.
3. PROVIDE BULLNOSE UNITS AT CORNERS AND JAMBS.
4. PROVIDE LINTEL UNITS OVER OPENINGS.
5. PROVIDE BURNISHED SILL UNITS AT SILL CONDITIONS. ALL WALLS HAVE COVED BASE STARTER COURSE.
6. CONSTRUCT WALLS COMMON TO PUMP ROOM SO THAT GOOD SIDE FACES THE PUMP ROOM.
7. SEE OTHER DRAWINGS FOR EQUIPMENT LOCATIONS AND HOUSE KEEPING PADS.
8. REFER TO DIVISION 9 SPECIFICATIONS FOR INTERIOR FINISHES.
9. ARROWS ON CANOPIES DENOTE 1/4" PITCH DIRECTION TOWARDS ROOF EDGE SCUPPERS

Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way, Madison
WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

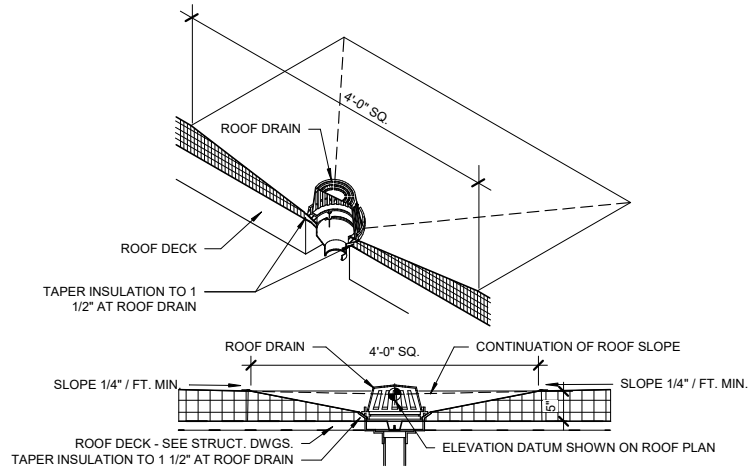
SEH Project 182222
Checked By JRL
Drawn By JRL

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

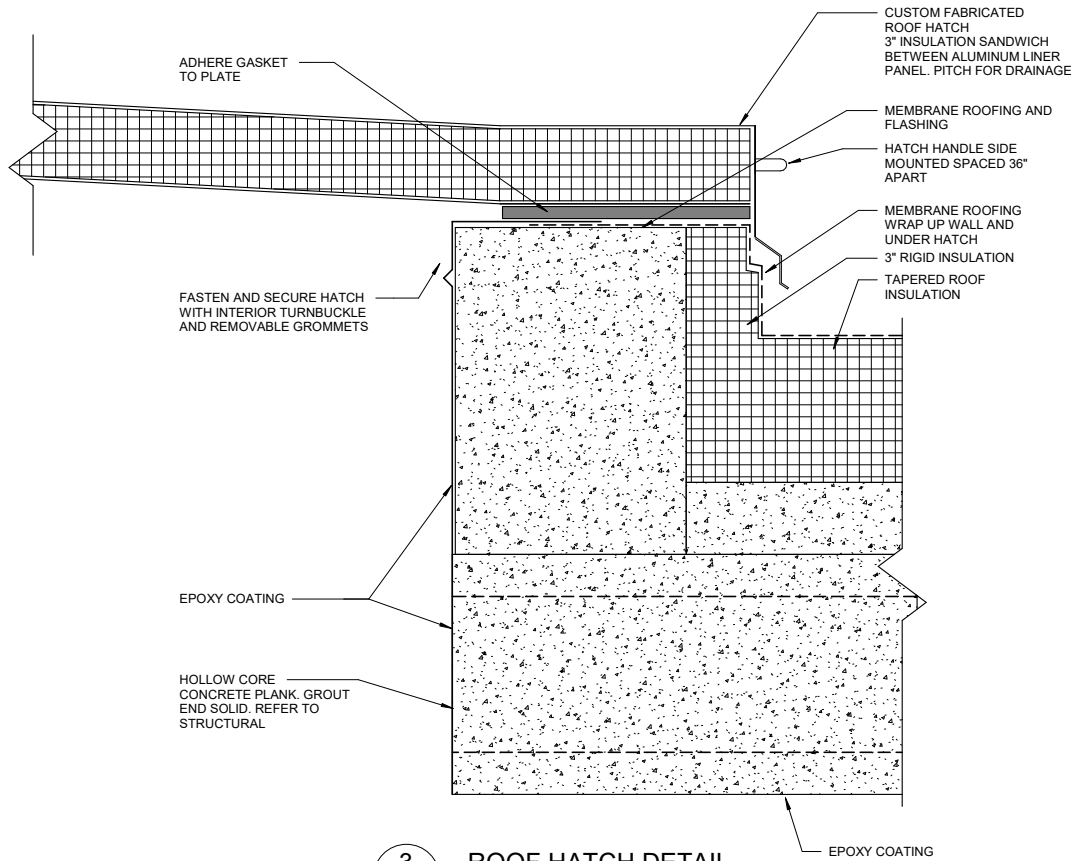
REV. #	DESCRIPTION	DATE
--------	-------------	------

CLERESTORY PLAN

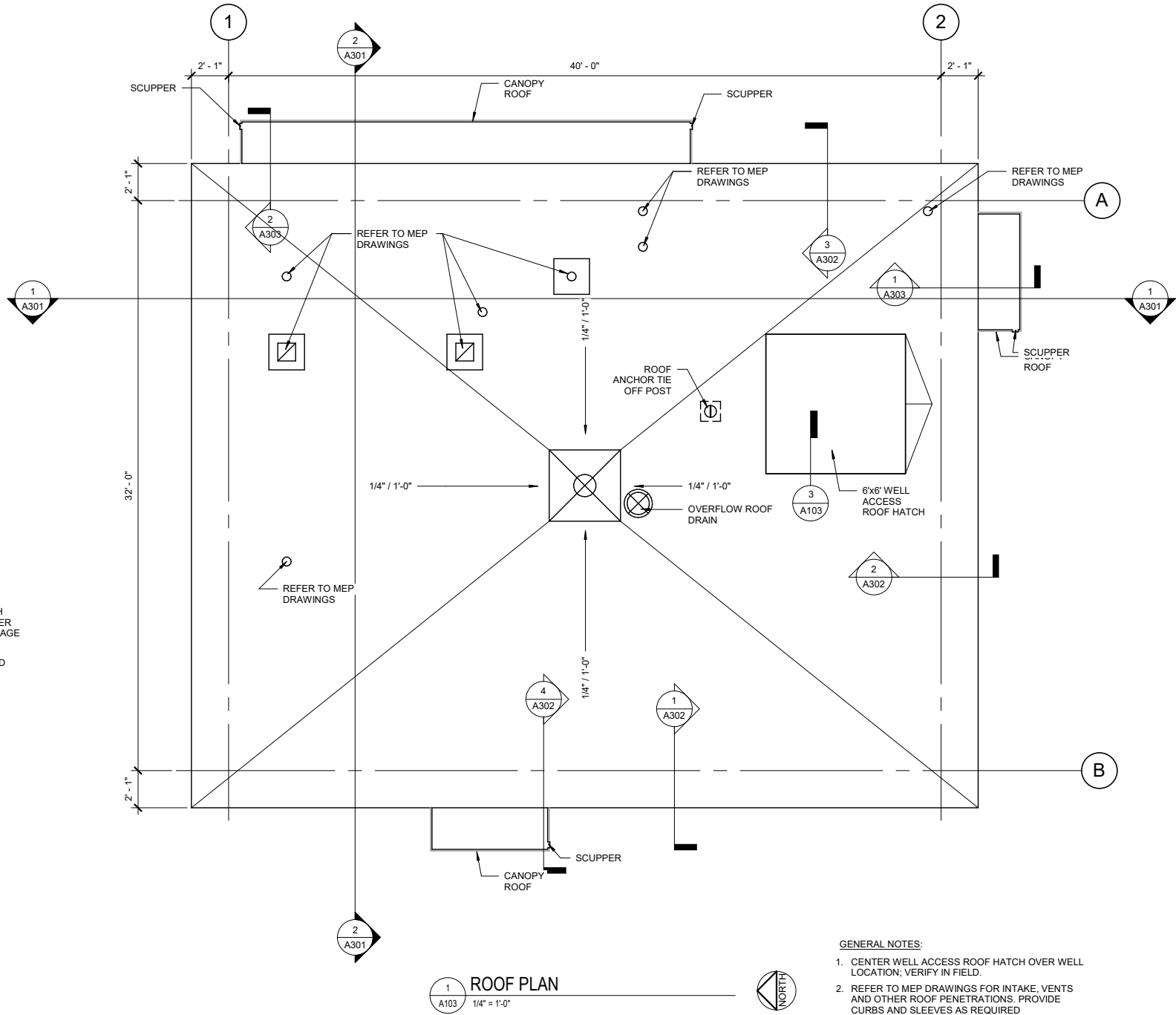
01
A102



2 ROOF DRAIN DETAIL
A103 3/4" = 1'-0"



3 ROOF HATCH DETAIL
A103 3" = 1'-0"



1 ROOF PLAN
A103 1/4" = 1'-0"

- GENERAL NOTES:
1. CENTER WELL ACCESS ROOF HATCH OVER WELL LOCATION; VERIFY IN FIELD.
 2. REFER TO MEP DRAWINGS FOR INTAKE, VENTS AND OTHER ROOF PENETRATIONS. PROVIDE CURBS AND SLEEVES AS REQUIRED

NOTE: ALL DRAWING SCALES ARE FOR PLANS PRINTED ON 34"x22" SHEETS



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way, Madison
WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project 182222
Checked By JRL
Drawn By JRL

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

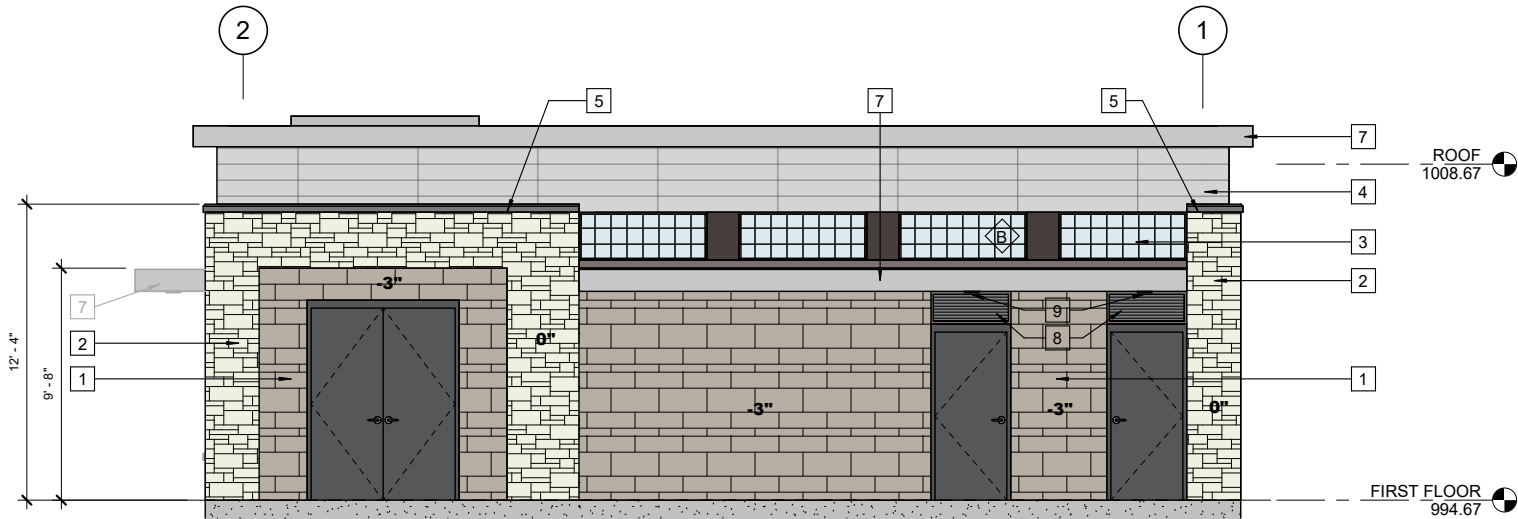
REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
--------	-------------	------

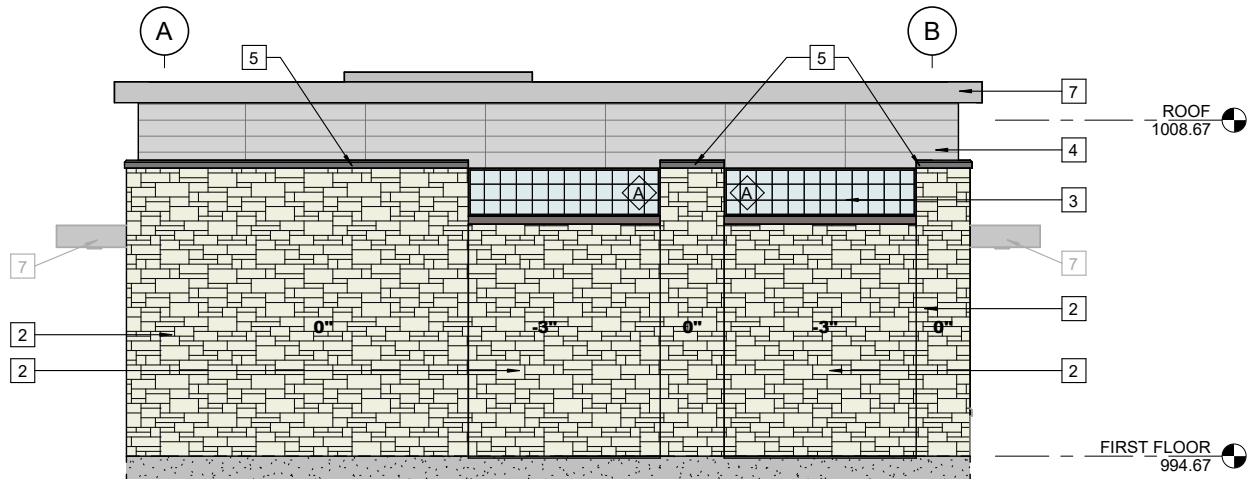
ROOF PLAN

01
A103

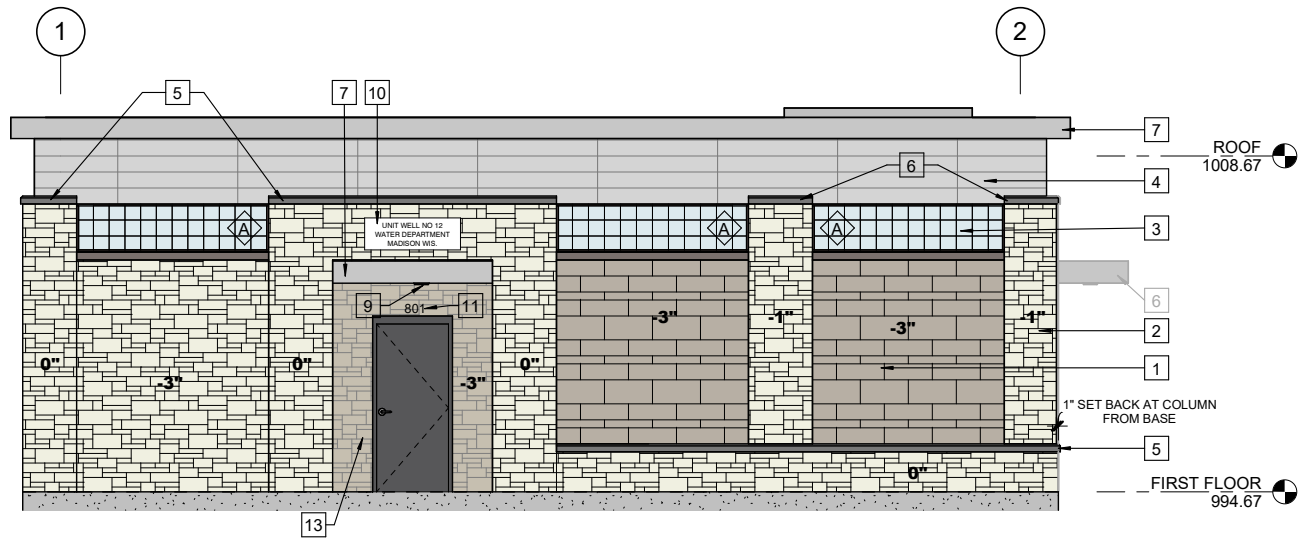
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/24/2025 12:07:50 PM



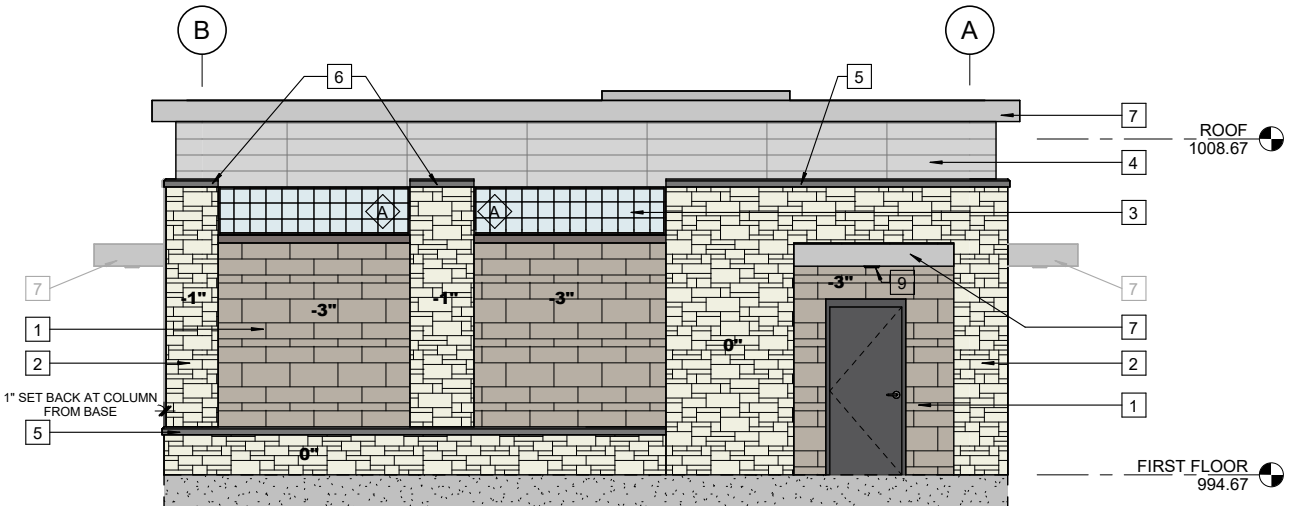
1 EAST ELEVATION
A201 1/4" = 1'-0"



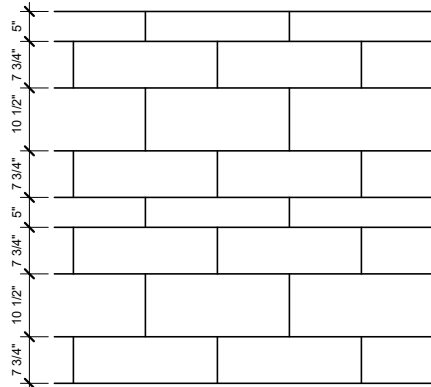
2 NORTH ELLEVATION
A201 1/4" = 1'-0"



3 WEST ELEVATION
A201 1/4" = 1'-0"



4 SOUTH ELEVATION
A201 1/4" = 1'-0"



NOTE: STONE LENGTHS VARY BETWEEN 8" AND 32", STONE HEIGHT COURSING AS SHOWN ABOVE. SEE SPECIFICATIONS FOR STONE TYPE

Exterior Stone Veneer Coursing

GENERAL NOTES:

1. ALL CAST STONE COPINGS PROJECT NOMINALLY 1.5" BEYOND FACE OF STONE

KEY NOTES:

- | | | | |
|---|---|----|--|
| 1 | STONE VENEER 1 | 8 | LOUVER REFER TO DA6 |
| 2 | STONE VENEER 2 | 9 | SOFFIT LIGHT CENTER ON DOOR REFER TO ELECTRICAL DRAWINGS |
| 3 | TRANSLUCENT FIBERGLASS SANDWICH PANEL WALL SYSTEM | 10 | SALVAGED STONE SIGNAGE FROM EXISTING BUILDING. CLEAN STONE AND PAINT RECESSED LETTERING. |
| 4 | 8" H x 5'-0" LONG TERRA COTTA RAIN SCREEN SYSTEM | 11 | BUILDING ADDRESS COORDINATE WITH OWNER |
| 5 | CAST STONE COPING 1 | 12 | SALVAGED STONE VENEER FROM EXISTING. BUILDING. |
| 6 | CAST STONE COPING 2 | | |
| 7 | METAL FASCIA | | |

NOTE: ALL DRAWING SCALES ARE FOR PLANS PRINTED ON 34"x22" SHEETS



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way, Madison
WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project 182222
Checked By JRL
Drawn By JRL

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

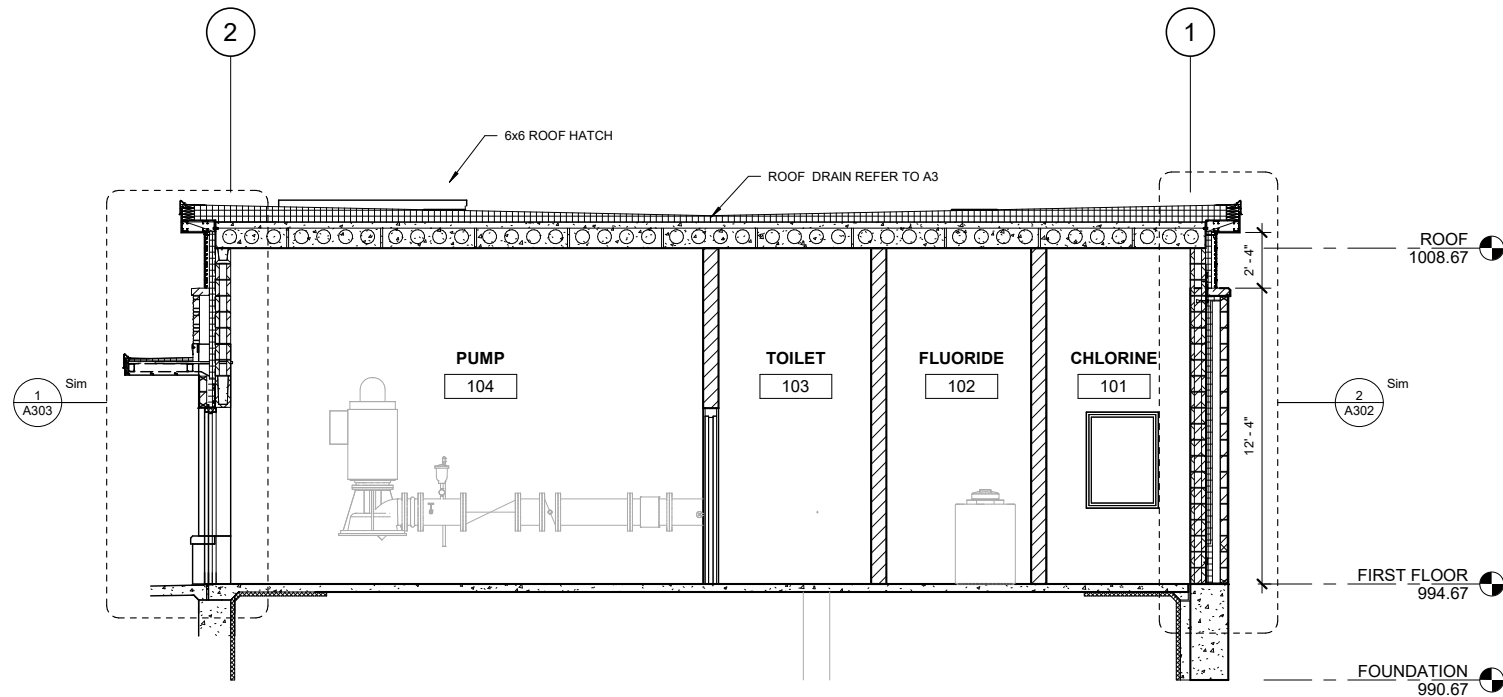
REVISION SCHEDULE
REV. # DESCRIPTION DATE

EXTERIOR ELEVATIONS

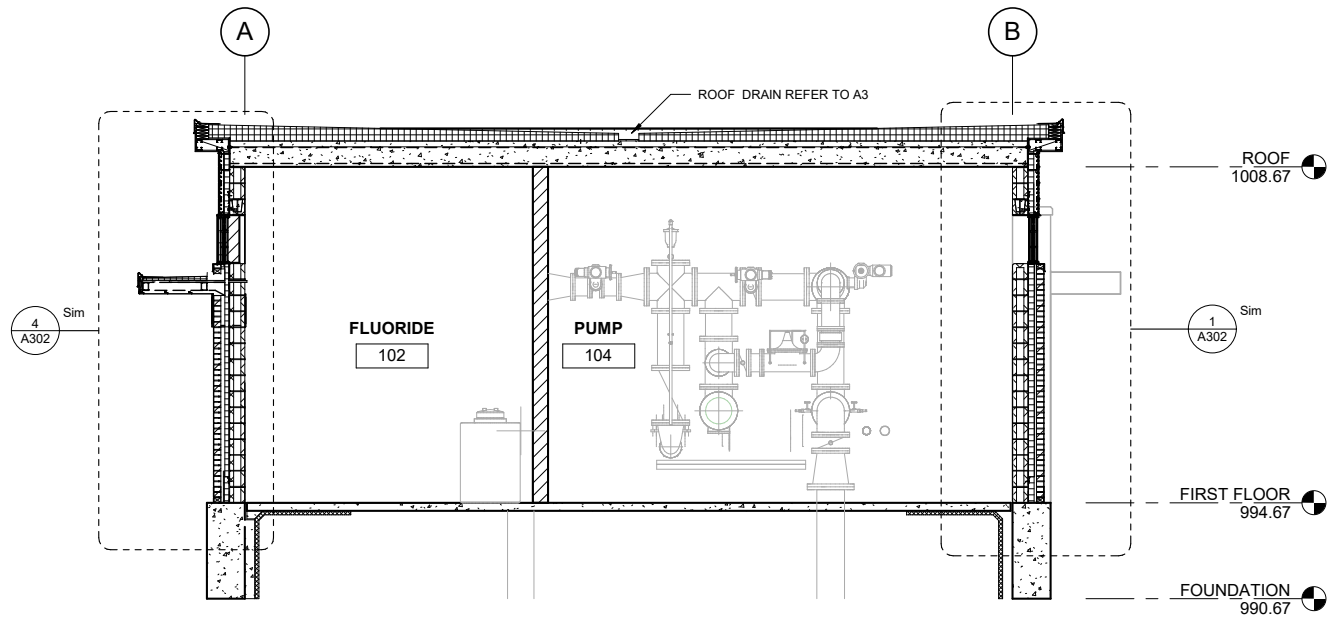
01
A201

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

6/24/2025 12:07:50 PM



1 BUILDING SECTION
1/4" = 1'-0"



2 BUILDING SECTION
1/4" = 1'-0"

NOTE: ALL DRAWING SCALES ARE FOR
PLANS PRINTED ON 34"x22" SHEETS



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way, Madison
WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.
Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project 182222
Checked By JRL
Drawn By JRL

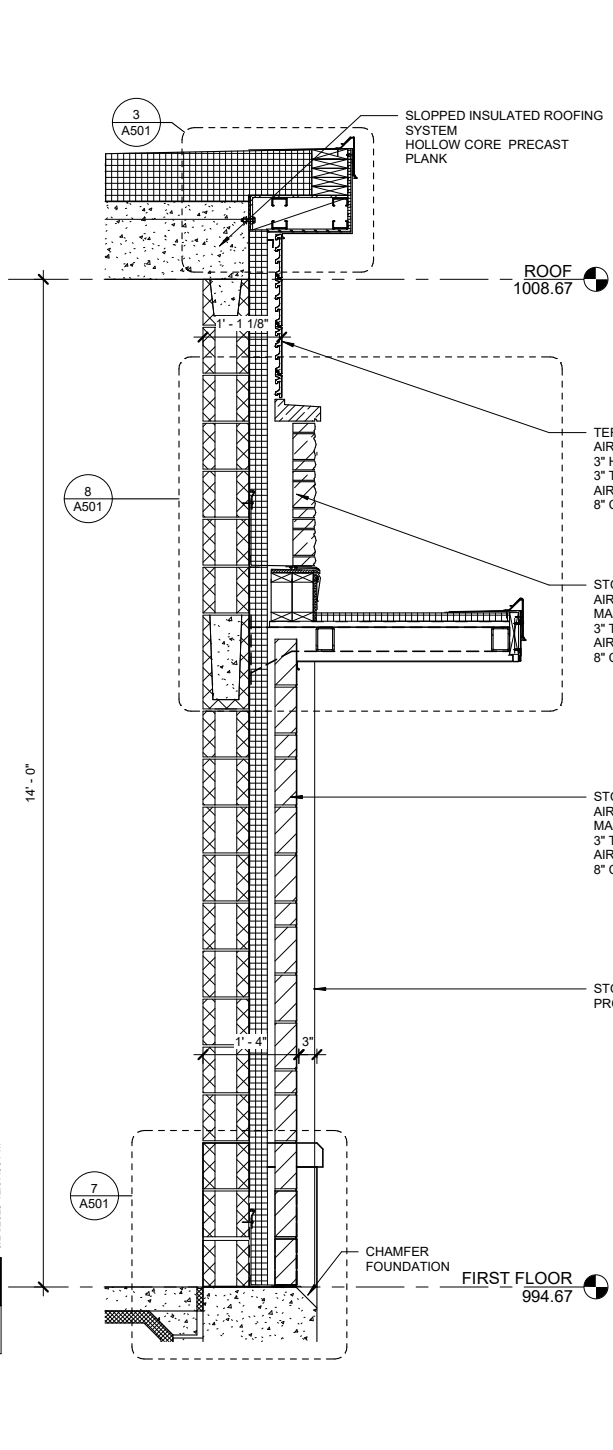
Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

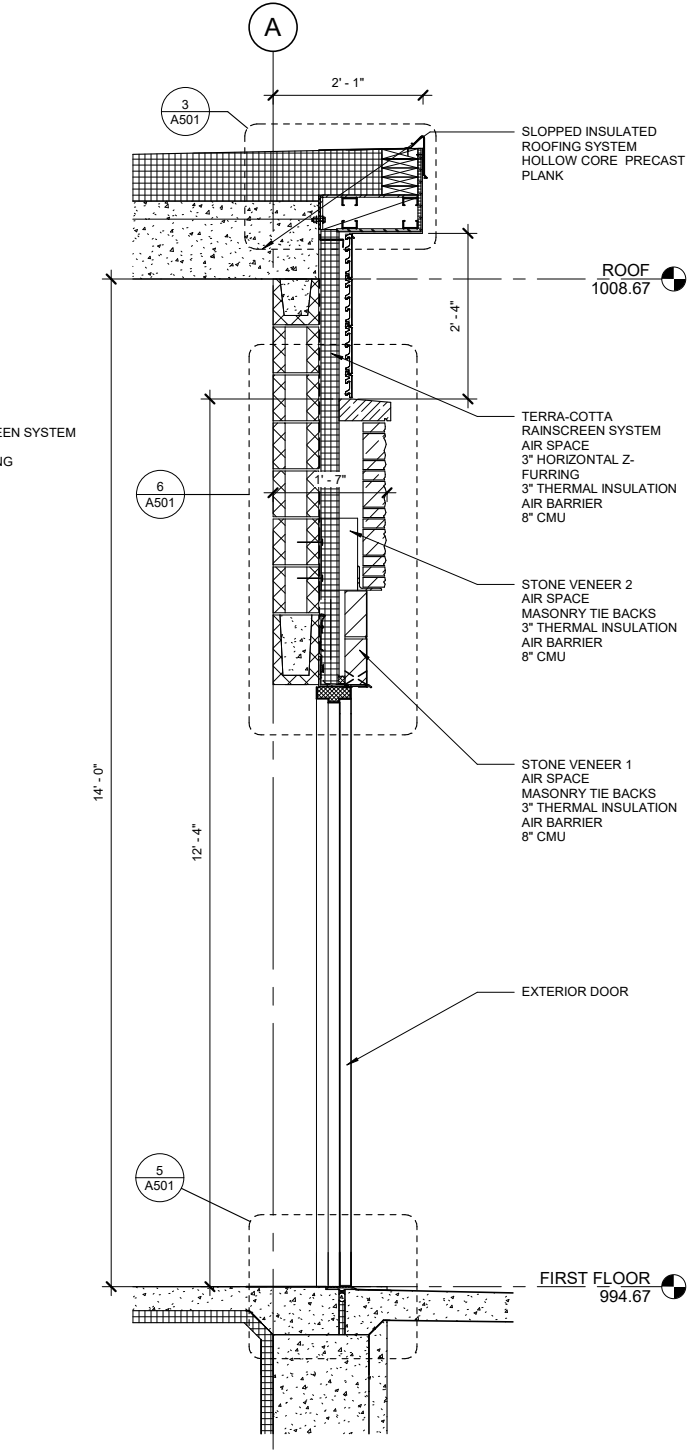
BUILDING SECTIONS

01
A301

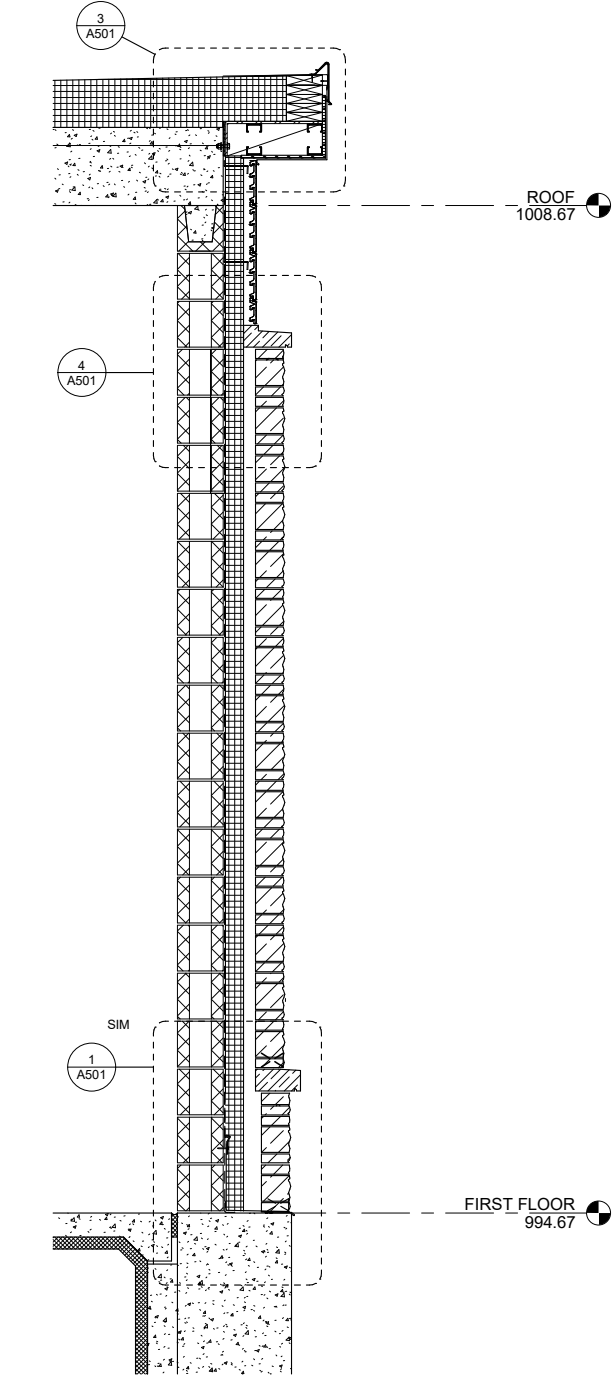
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/24/2025 12:07:50 PM



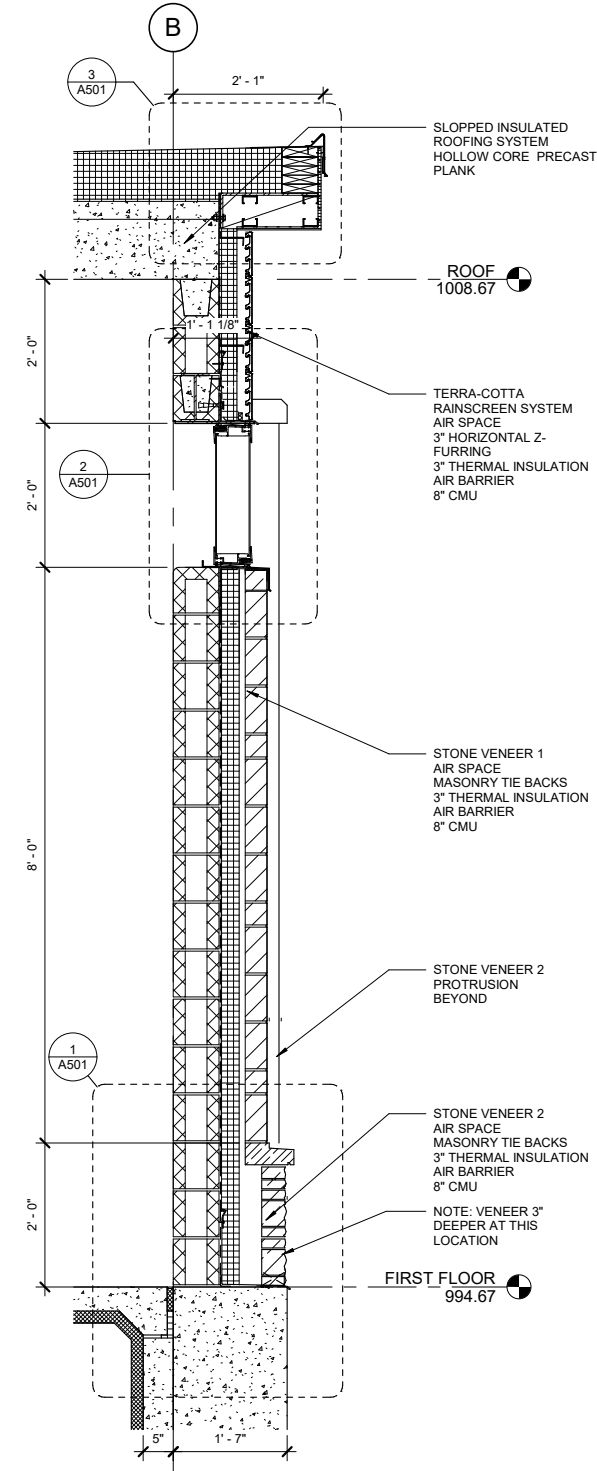
4 WALL SECTION - STONE WALL AT CANOPY
A302 3/4" = 1'-0"



3 WALL SECTION - STONE WALL AT DOOR
A302 3/4" = 1'-0"



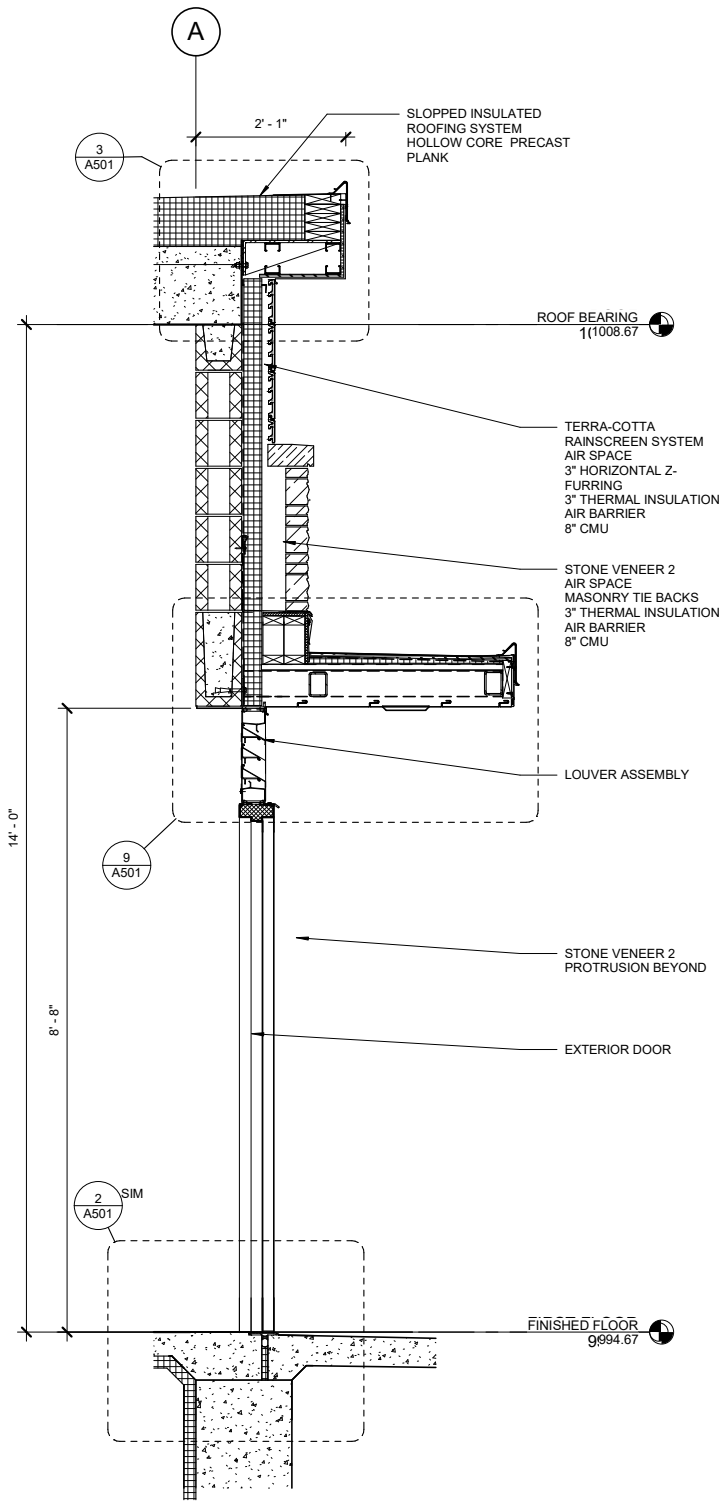
2 WALL SECTION - STONE WALL
A302 3/4" = 1'-0"



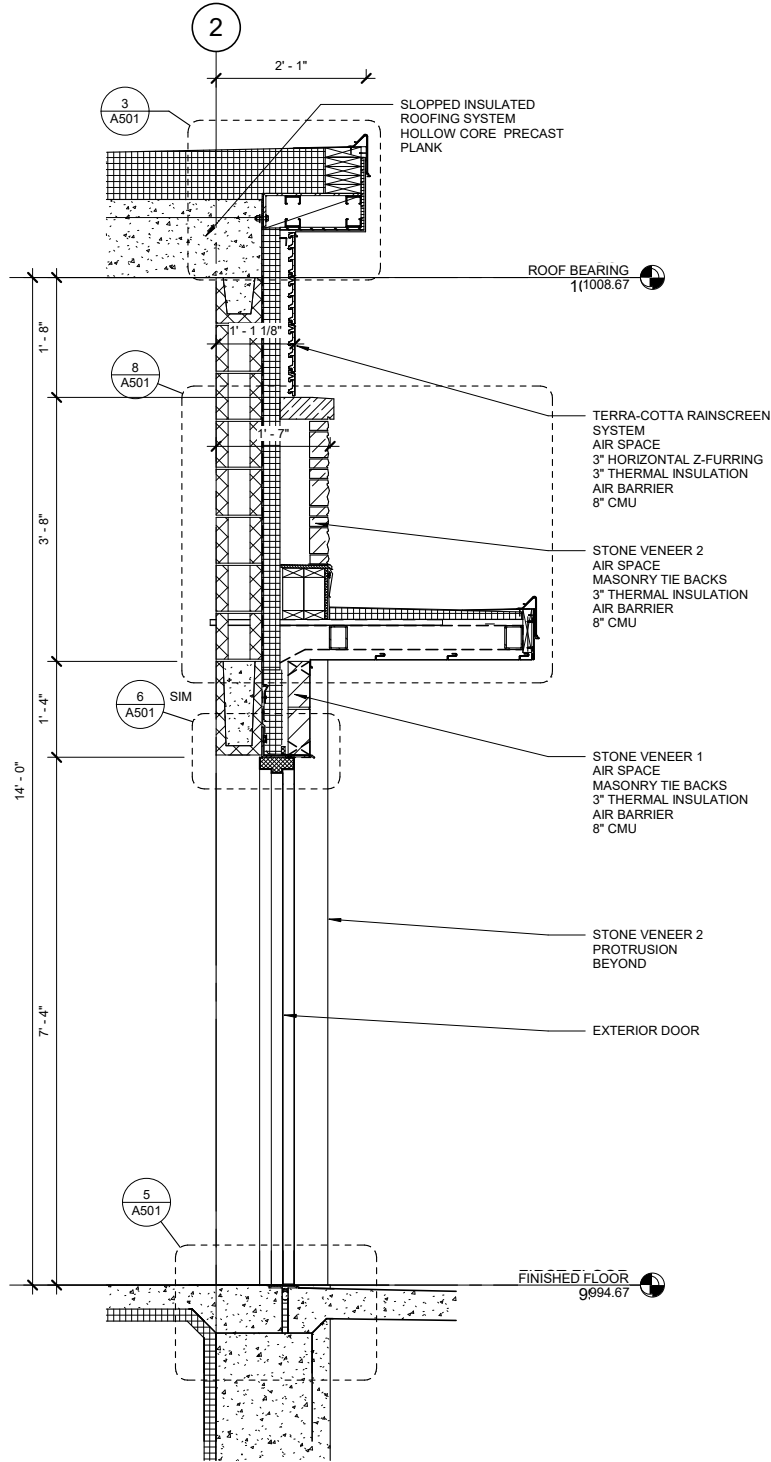
1 SECTION THRU CLERESTORY WINDOW
A302 3/4" = 1'-0"

NOTE: ALL DRAWING SCALES ARE FOR PLANS PRINTED ON 34"x22" SHEETS

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/24/2025 12:07:51 PM



2 WALL SECTION
A303 3/4" = 1'-0"



1 WALL SECTION - ENTRANCE DOOR
A303 3/4" = 1'-0"

NOTE: ALL DRAWING SCALES ARE FOR
PLANS PRINTED ON 34"x22" SHEETS



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way, Madison
WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

SEH Project 182222
Checked By JRL
Drawn By JRL

Project Status Issue Date
ONR SUBMITTAL 6/30/2025

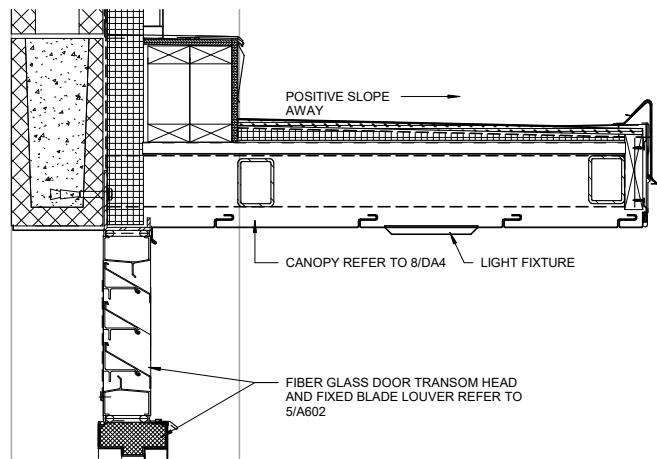
REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
--------	-------------	------

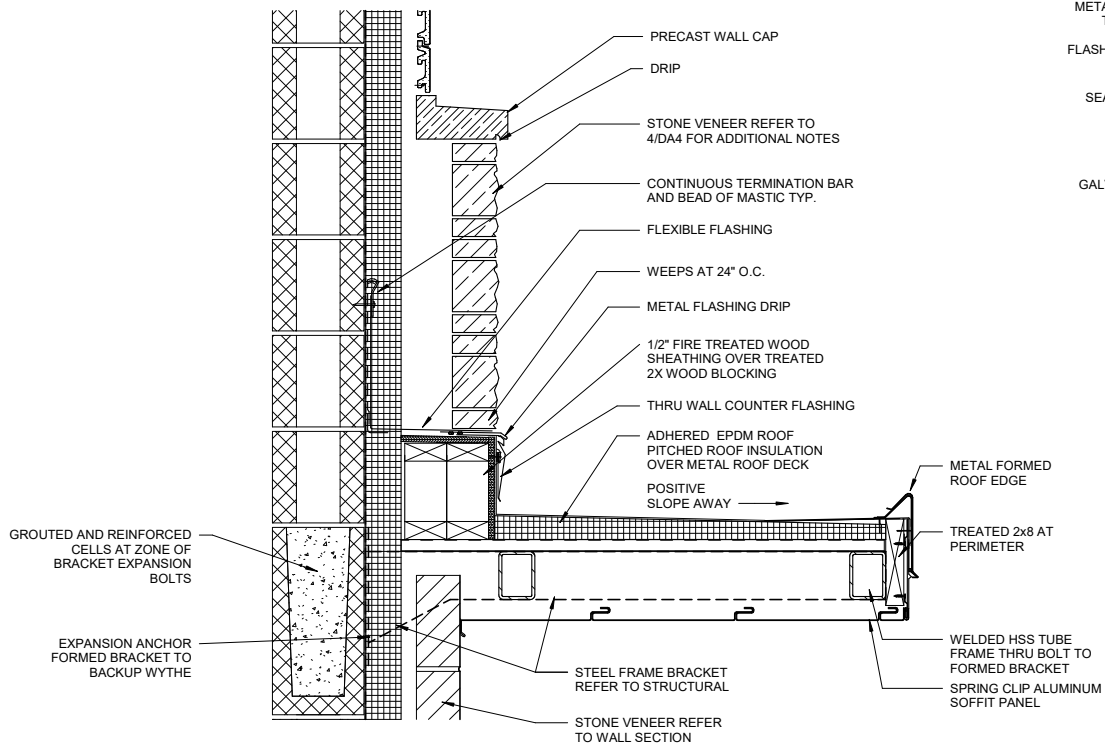
WALL SECTIONS

01
A303

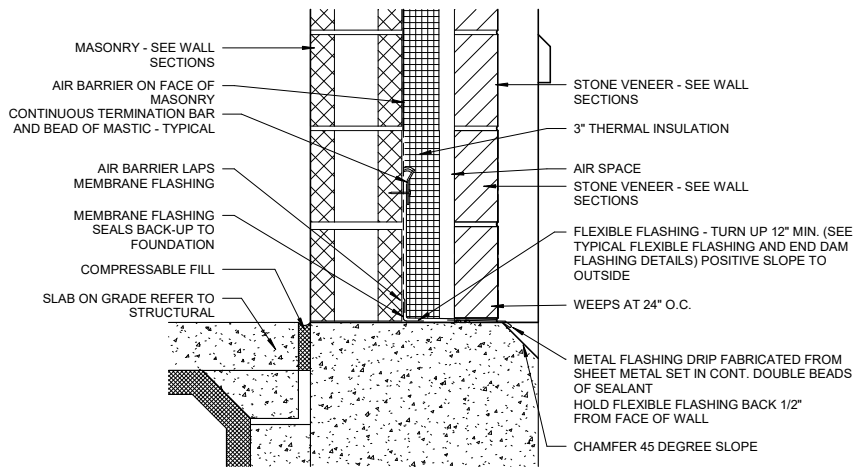
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE



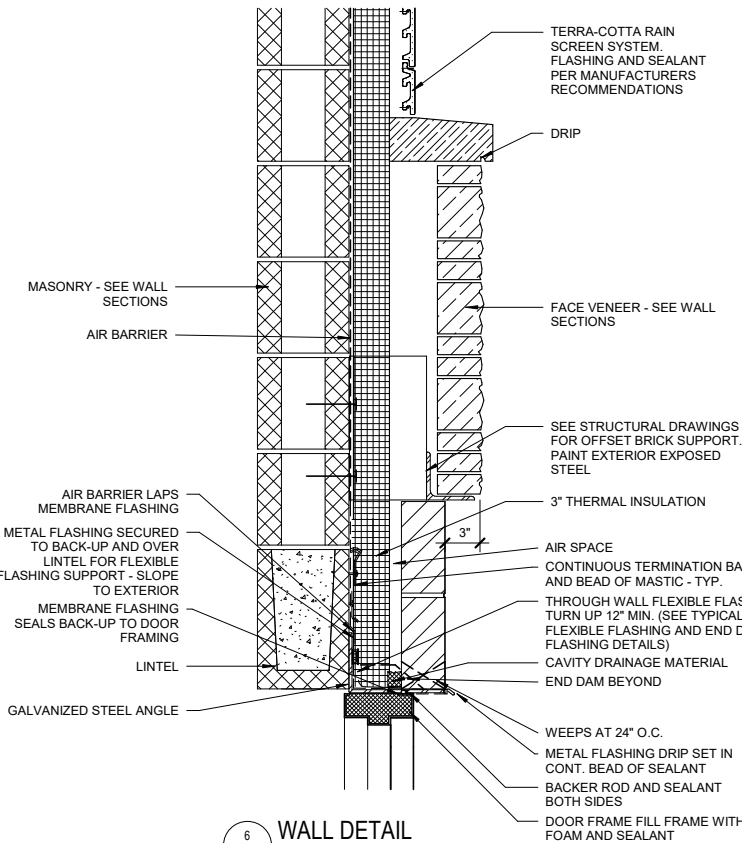
9 CANOPY AT BLADE LOUVER ASSEMBLY
A501 1 1/2" = 1'-0"



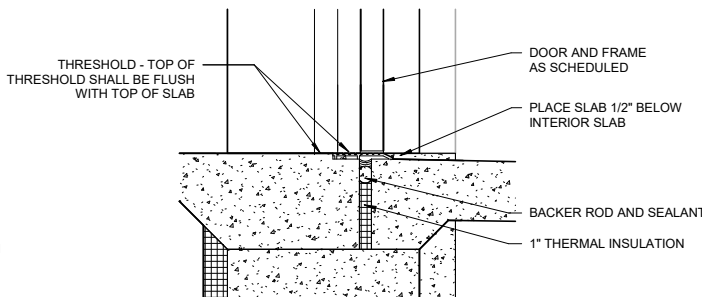
8 WALL DETAIL - CANOPY
A501 1 1/2" = 1'-0"



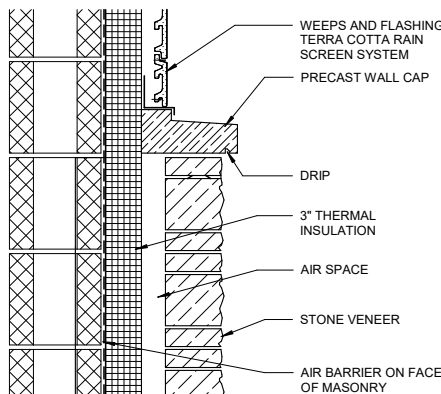
7 WALL DETAIL - BASE
A501 1 1/2" = 1'-0"



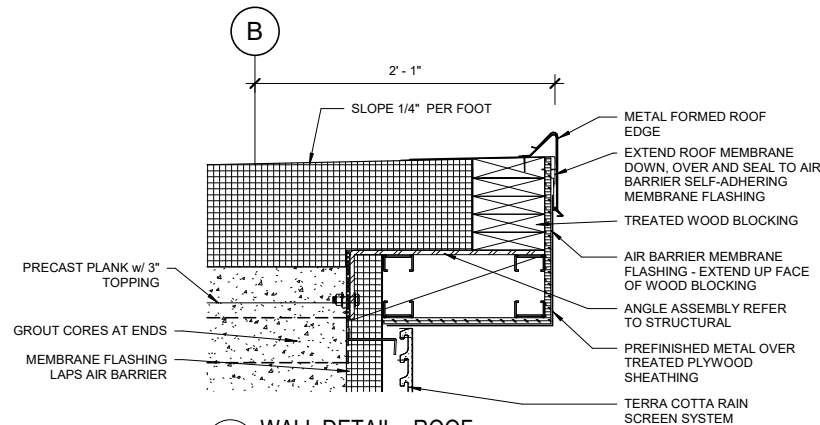
6 WALL DETAIL
A501 1 1/2" = 1'-0"



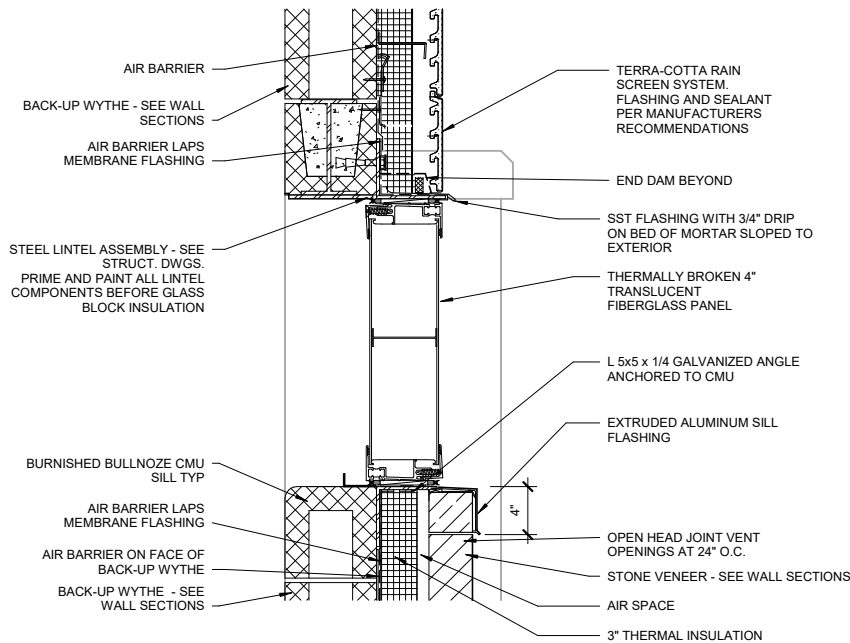
5 WALL DETAIL- DOOR BASE
A501 1 1/2" = 1'-0"



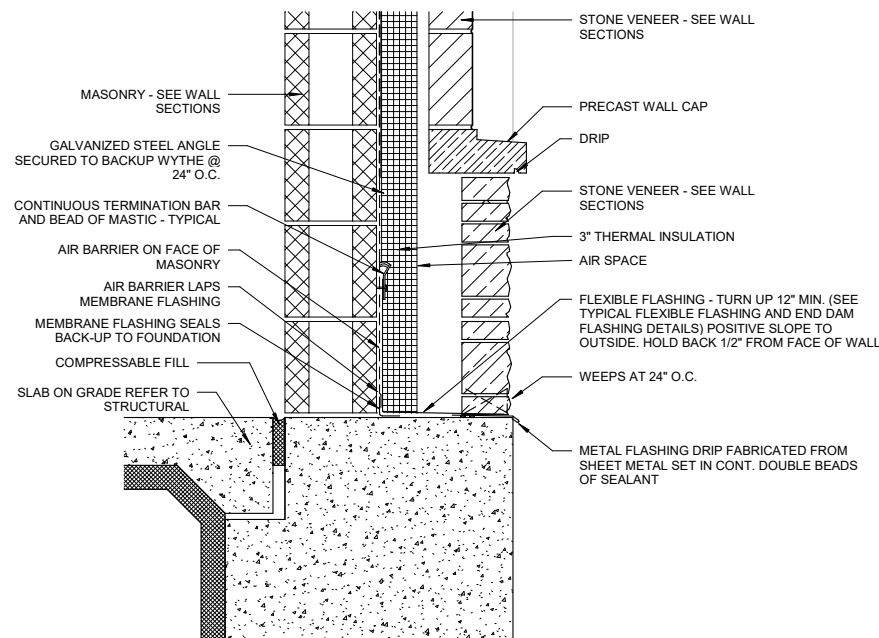
4 WALL DETAIL
A501 1 1/2" = 1'-0"



3 WALL DETAIL - ROOF
A501 1 1/2" = 1'-0"



2 WALL DETAIL - GLASS BLOCK
A501 1 1/2" = 1'-0"

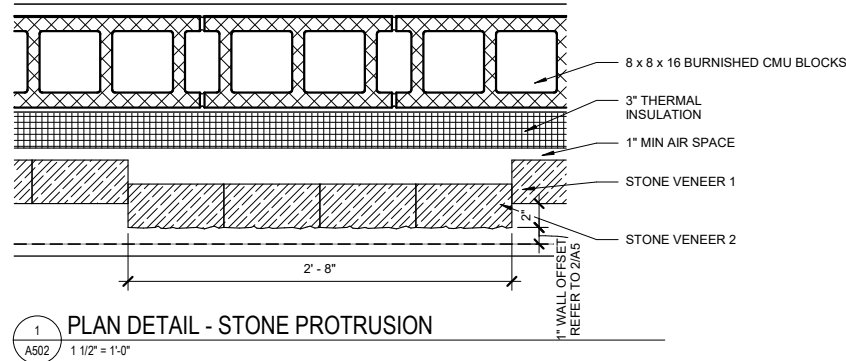


1 WALL DETAIL - WALL FOUNDATION
A501 1 1/2" = 1'-0"

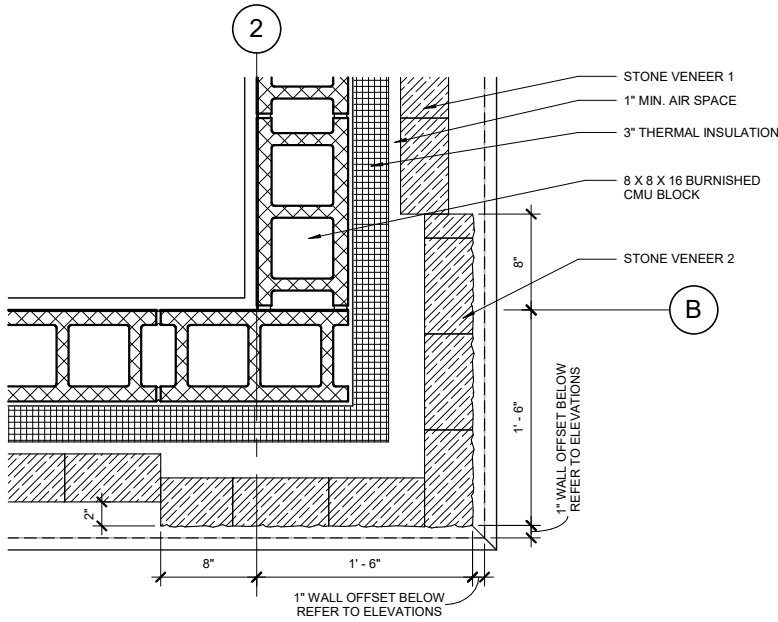
NOTE: ALL DRAWING SCALES ARE FOR PLANS PRINTED ON 34"x22" SHEETS

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

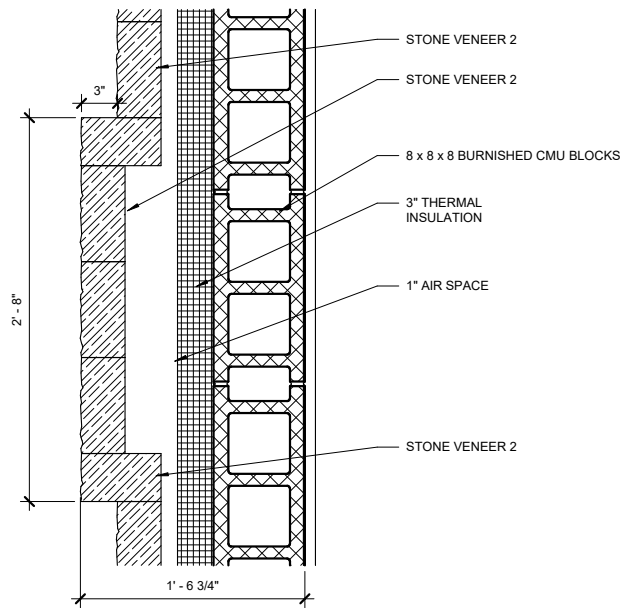
6/24/2025 12:07:51 PM



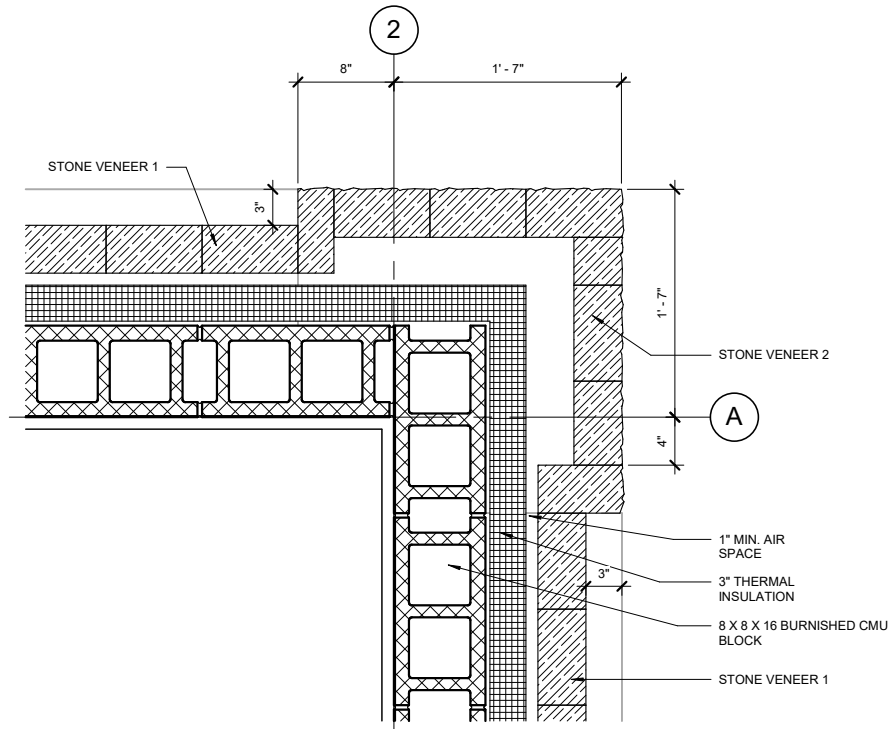
1
A502
PLAN DETAIL - STONE PROTRUSION
1 1/2" = 1'-0"



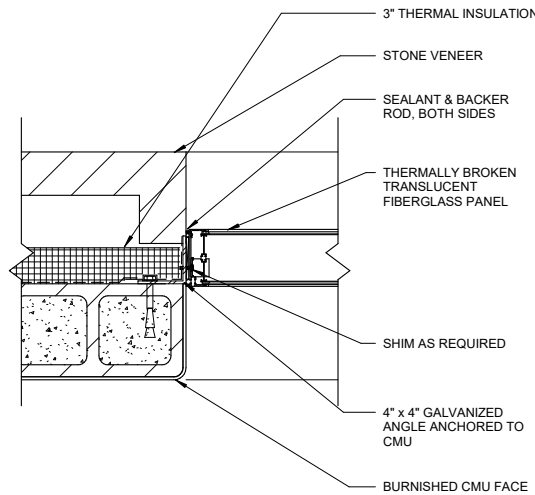
2
A502
PLAN DETAIL - CORNER CONDITION
1 1/2" = 1'-0"



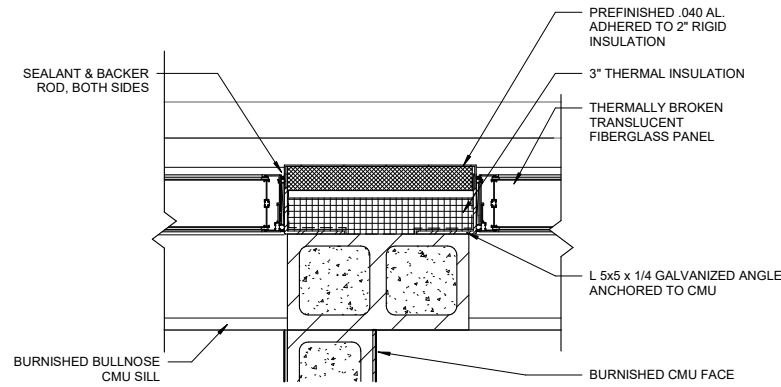
3
A502
PLAN DETAIL - STONE PROTRUSION
1 1/2" = 1'-0"



4
A502
PLAN DETAIL - CORNER CONDITION
1 1/2" = 1'-0"



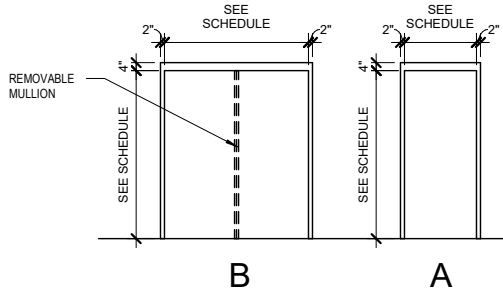
5
A502
FIBERGLASS WINDOW JAMB
1 1/2" = 1'-0"



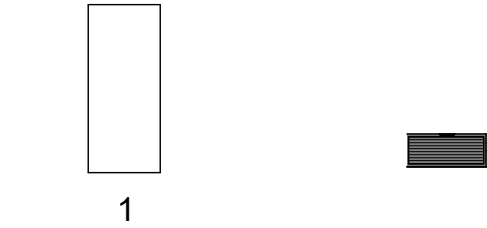
6
A502
FIBERGLASS WINDOW JAMB
1 1/2" = 1'-0"

DOOR AND FRAME SCHEDULE											
DOOR NUMBER	DOOR				FIRE RATING	TYPE	MATL	FRAME			REMARKS
	SIZE	HEIGHT	TYPE	MATL				JAMB	HEAD	SILL	
101A	3' - 0"	7' - 0"	1	FRP	-	A	FRP	13/DA6	14/DA6		
102A	3' - 0"	7' - 0"	1	FRP	-	A	FRP	13/DA6	14/DA6		
103A	3' - 0"	7' - 0"	1	HM	-	A	HM	11/DA6	12/DA6		
104A	6' - 0"	8' - 0"	1	HM	-	A	HM	13/DA6	14/DA6		
104B	3' - 0"	7' - 0"	1	HM	-	A	HM	13/DA6	14/DA6		
104C	3' - 0"	7' - 0"	1	HM	-	A	HM	13/DA6	14/DA6		

HM: HOLLOW METAL
FRP: FIBER REINFORCED PLASTIC



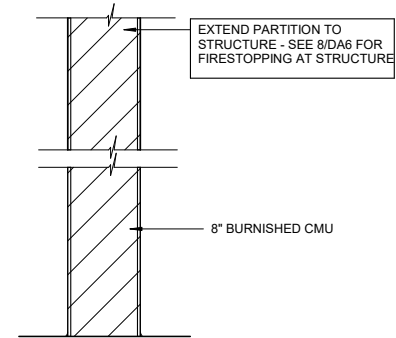
3 FRAME ELEVATIONS
A601 1/4" = 1'-0"



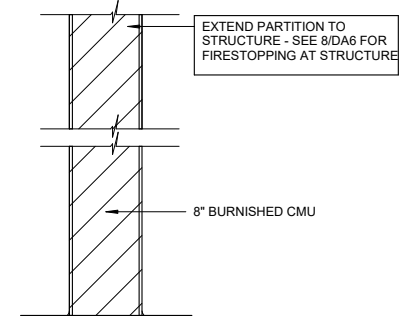
4 DOOR ELEVATIONS
A601 1/4" = 1'-0"



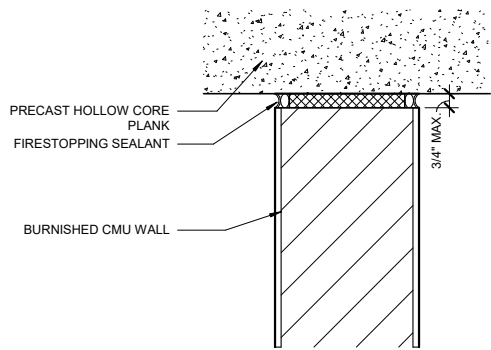
5 LOUVER ELEVATION
A601 1/4" = 1'-0"



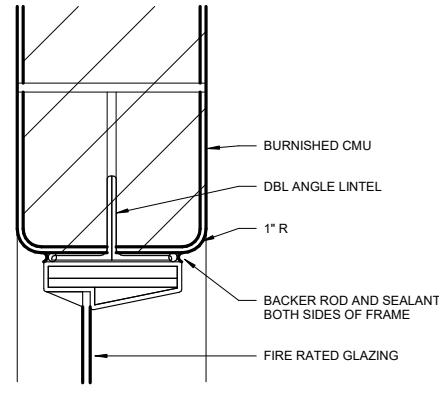
6 PARTITION TYPES M1C/S
A601 1 1/2" = 1'-0"



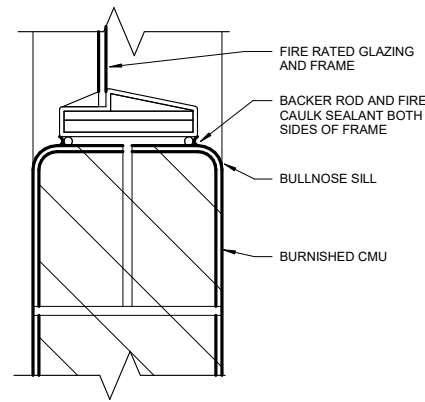
7 PARTITION TYPE M3C/S - 2 HOUR
A601 1 1/2" = 1'-0"



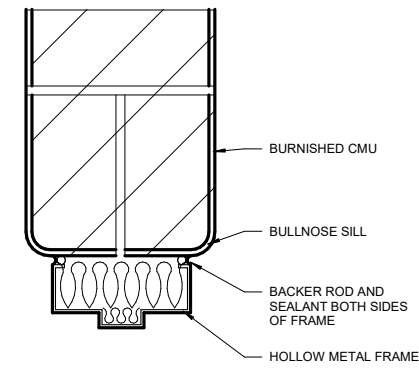
8 FIRESTOPPING AT CMU PARTITION
A601 3" = 1'-0"



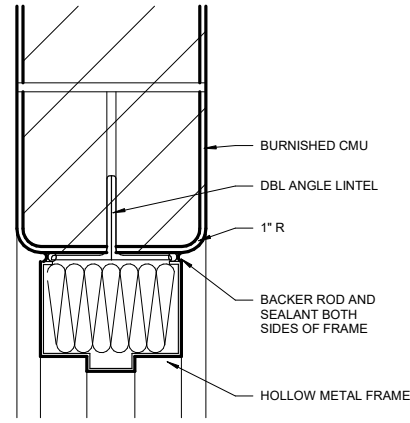
9 FIRE RATED FGL HEAD
A601 3" = 1'-0"



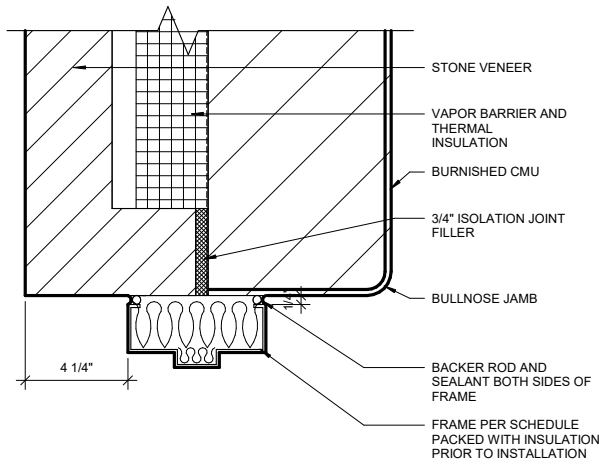
10 FIRE RATED FGL JAMB/SILL
A601 3" = 1'-0"



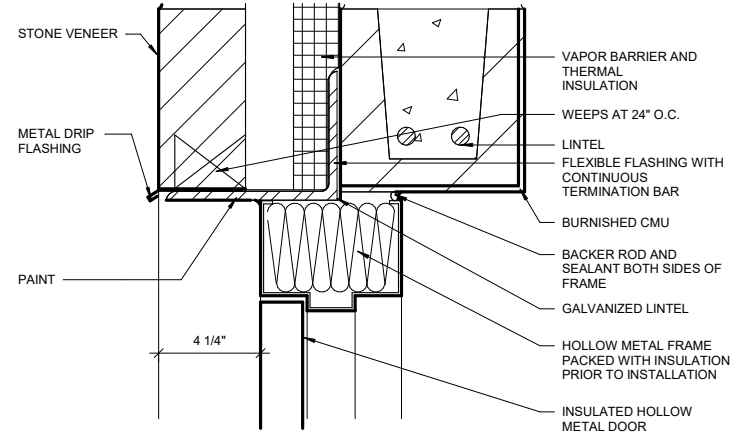
11 TYP. INTERIOR DOOR JAMB
A601 3" = 1'-0"



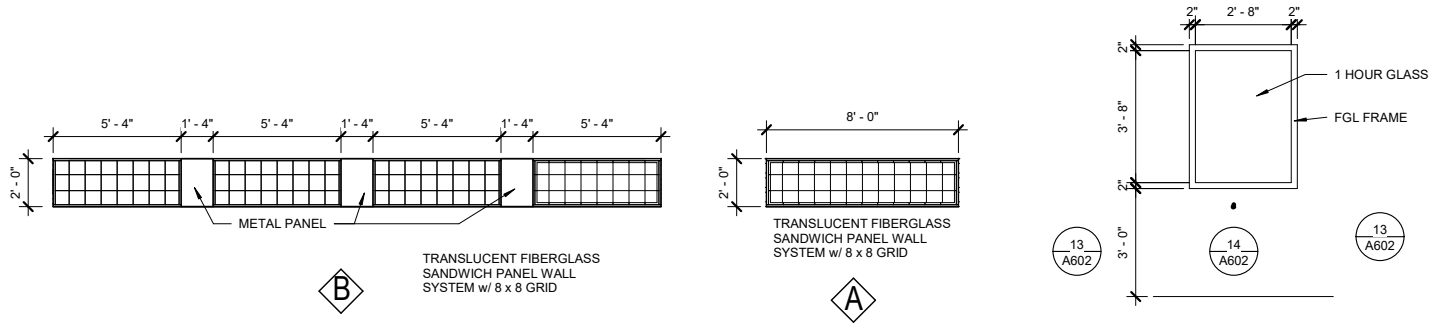
12 TYP. INTERIOR DOOR HEAD
A601 3" = 1'-0"



13 TYP. EXTERIOR DOOR JAMB
A601 3" = 1'-0"



14 TYP. EXTERIOR DOOR HEAD
A601 3" = 1'-0"



1 TRANSLUCENT PANEL ELEVATIONS
A601 1/4" = 1'-0"

2 FIRE RATED INTERIOR WINDOW
A601 3/8" = 1'-0"

ROOM FINISH SCHEDULE										
ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALL FINISH				CEILING		REMARKS
				NORTH	SOUTH	EAST	WEST	FINISH	MATERIAL	
101	CHLORINE	EP	-	BURN	BURN	BURN	BURN	PT	PRECAST	
102	FLUORIDE	EP	-	BURN	BURN	BURN	BURN	PT	PRECAST	
103	TOILET	EP	-	BURN	BURN	BURN	BURN	PT	PRECAST	
104	PUMP	EP	-	BURN	BURN	BURN	BURN	PT	PRECAST	

BURN: BURNISHED CMU
EP: EPOXY QUARTZ
PT: PAINTED PER SPECIFICATION



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way, Madison
WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

SEH Project 182222
Checked By JRL
Drawn By JRL

Project Status Issue Date
ONR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

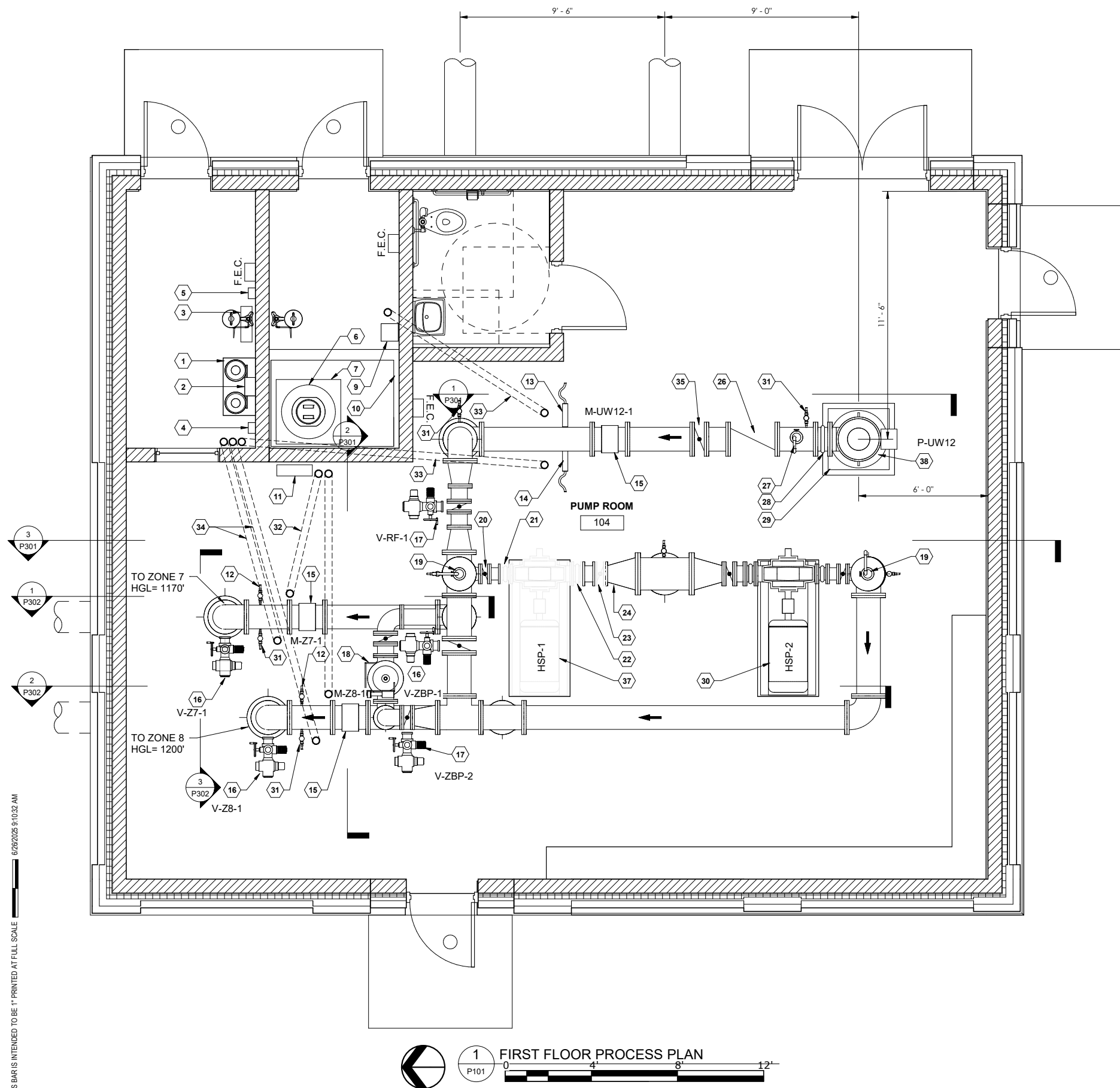
SCHEDULES AND DETAILS

01
A601

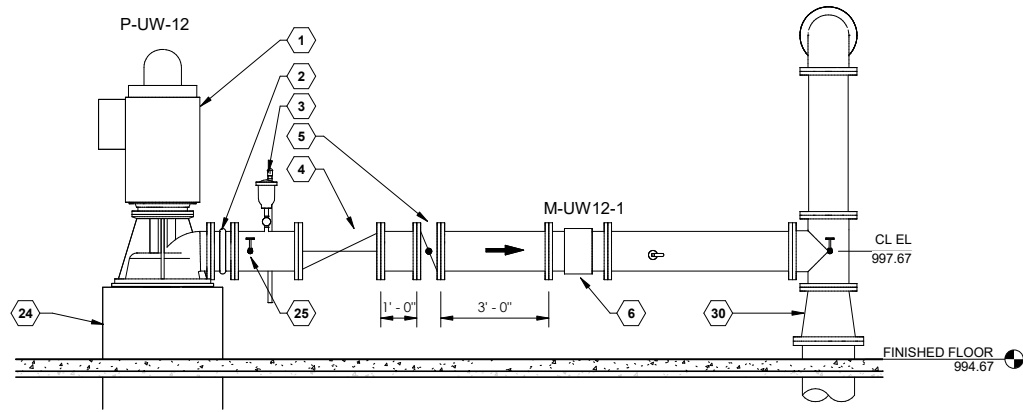
KEYNOTES:

- 1 DUAL CYLINDER PLATFORM WITH INDICATOR
- 2 GAS CHLORINE FEED SYSTEM - SEE DETAIL E/DP1
- 3 EMERGENCY CHLORINE SHUTOFF PANEL
- 4 CHLORINE GAS DETECTOR
- 5 LOSS OF VACCUUM DETECTOR
- 6 165 GALON FLUORIDE TANK
- 7 36" x 36" SCALE PLATFORM
- 8 DIGITAL SCALE INDICATOR
- 9 FLUORIDE METERING PUMP - SEE DETAIL F/DP1
- 10 16" HIGH CHEMICAL CONTAINMENT WALL
- 11 CHLORINE ANALYZER - ROTATE PIPING AS REQUIRED
- 12 TAP PIPE FOR 1/2" CHLORINE ANALYZER SUPPLY - INSTALL 1/2" BALL VALVE - ROUTE PIPE TO CHLORINE ANALYZER
- 13 FLUORIDE INJECTION POINT - SEE DETAIL D/DP1
- 14 CHLORINE INJECTION POINT - SEE DETAIL D/DP1
- 15 12" MAGNETIC FLOW METER (FURNISHED BY OWNER)
- 16 12" BUTTERFLY VALVE W/ELECTRIC ACTUATOR
- 17 8" BUTTERFLY VALVE W/ELECTRIC ACTUATOR
- 18 8" PRESSURE SUSTAINING/PRESSURE REDUCING VALVE (V-PSV/PRV-1)
- 19 AIR RELEASE VALVE - ROUTE VENT TO NEARBY HUB DRAIN SEE DETAIL A/DP1
- 20 6" BUTTERFLY VALVE
- 21 6" EXPANSION JOINT
- 22 8" EXPANSION JOINT
- 23 8" BUTTERFLY VALVE
- 24 16x8 ECCENTRIC REDUCER
- 25 12" BUTTERFLY VALVE
- 26 12" CHECK VALVE
- 27 AIR/VACUUM VALVE - ROUTE VENT TO NEARBY FLOOR DRAIN - SEE DETAIL A/DP1
- 28 12" EXPANSION JOINT
- 29 VERTICAL TURBINE WELL, PUMP, MOTOR AND PUMP BASE - SEE DP3 FOR DETAILS
- 30 HIGH SERVICE PUMP
- 31 SAMPLE TAP - SEE DETAIL B/DP2
- 32 4" CONDUIT WITH LONG SWEEP BENDS UNDER FLOOR FOR CHLORINE ANALYZER TUBING
- 33 4" CONDUIT WITH LONG SWEEP BENDS UNDER FLOOR FOR CHEMICAL FEED TUBING
- 34 4" CONDUIT WITH LONG SWEEP BENDS UNDER FLOOR FOR ALTERNATE CHLORINE FEED
- 35 12" BUTTERFLY VALVE W/HANDWHEEL
- 36 EMERGENCY SHOWER, TYP.
- 37 EXISTING HIGH SERVICE PUMP SALVAGED FROM EXISTING WELLHOUSE
- 38 EXISTING UW 12 DEEP WELL TO REMAIN, PROTECT FROM DAMAGE DURING CONSTRUCTION, SEE PUMP BASE DETAIL.
-CONTRACTOR TO FIELD VERIFY LOCATION

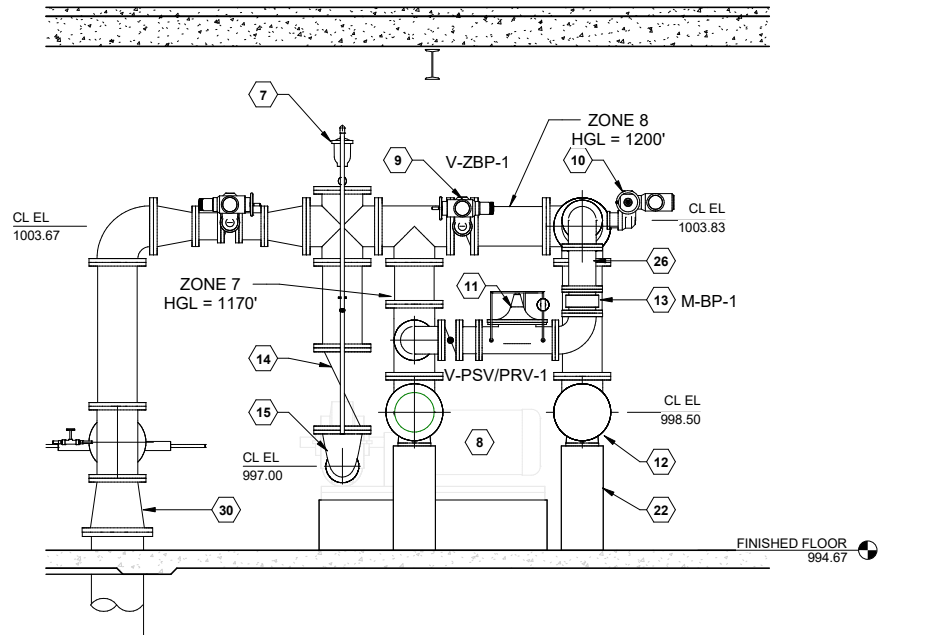
NOTE:
ENCASE BELOW FLOOR PIPING ACCORDING TO DETAIL K/DP1



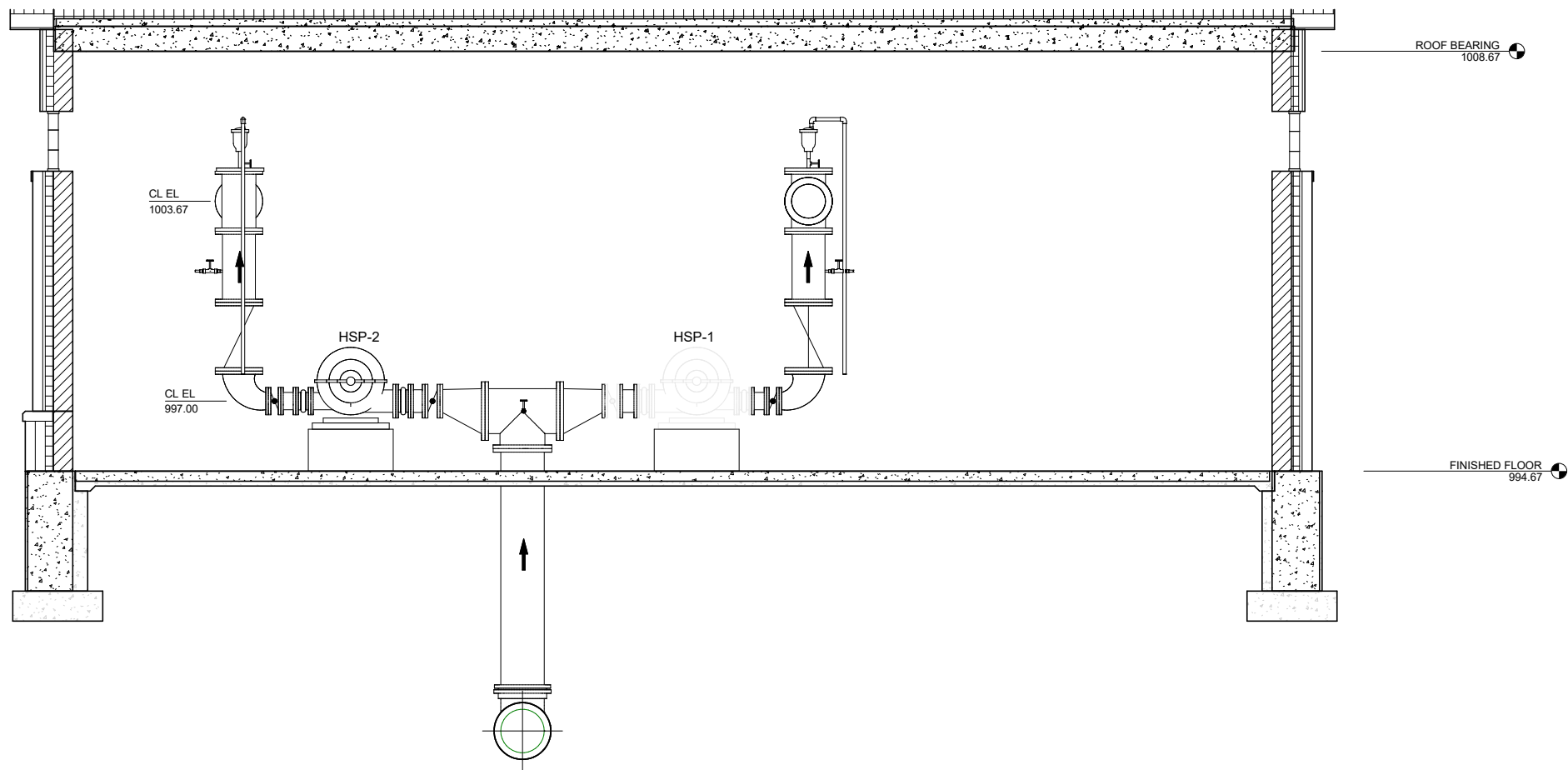
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE



1 SECTION
P301 0 4' 8' 12'



2 SECTION
P301 0 4' 8' 12'



3 SECTION
P301 0 4' 8' 12'

KEYNOTES:

- 1 HIGH SERVICE WELL - SEE DETAILS DP3
- 2 12" EXPANSION JOINT
- 3 AIR/VACUUM VALVE - ROUTE VENT TO NEARBY FLOOR DRAIN - SEE DETAIL A/DP1
- 4 12" CHECK VALVE (CV-RW-1)
- 5 12" BUTTERFLY VALVE W/HANDWHEEL
- 6 12" MAGNETIC FLOW METER (FURNISHED BY OWNER)
- 7 AIR RELEASE VALVE - ROUTE VENT TO NEARBY FLOOR DRAIN - SEE DETAIL A/DP1
- 8 HIGH SERVICE PUMP (TYP OF 3)
- 9 12" BUTTERFLY VALVE W/ELECTRIC ACTUATOR
- 10 8" BUTTERFLY VALVE W/ELECTRIC ACTUATOR
- 11 8" PRESSURE SUSTAINING/PRESSURE REDUCING VALVE (V-PSV/PRV-1)
- 12 12" BASE ELBOW AND PEDISTAL
- 13 8" MAGNETIC FLOW METER (FURNISHED BY OWNER)(M-BP-1)
- 14 12" SWING CHECK VALVE
- 15 12x6 REDUCING ELBOW
- 16 6" BUTTERFLY VALVE
- 17 6" EXPANSION JOINT
- 18 8" EXPANSION JOINT
- 19 8" BUTTERFLY VALVE
- 20 16x8 ECCENTRIC REDUCER
- 21 TAP BLIND FLANGE FOR AHU RETURN WATER - SEE MECHANICAL
- 22 BASE BEND PEDISTAL - SEE DETAIL B/DP1
- 23 THRUST BLOCK AND PIPE ENCASEMENT - SEE DETAIL K/DP1, C/DP2
- 24 CONCRETE PUMP BASE - SEE DETAIL B/DP3
- 25 SAMPLE TAP - SEE DETAIL B/DP2
- 26 8" PIPING AND FITTINGS
- 27 16x16 TEE
- 28 16" FROM RESERVOIR
- 29 TAP TEE FOR PRESSURE GAUGE AND SAMPLE TAP - SEE DETAIL D/DP2
- 30 12" x 16" CONCENTRIC REDUCER

NOTE:
ENCASE BELOW FLOOR PIPING ACCORDING TO DETAIL K/DP1



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

SEH Project MADWJ 182222
Checked By IS
Drawn By DD

Project Status Issue Date
ONR SUBMITTAL 6/30/2025

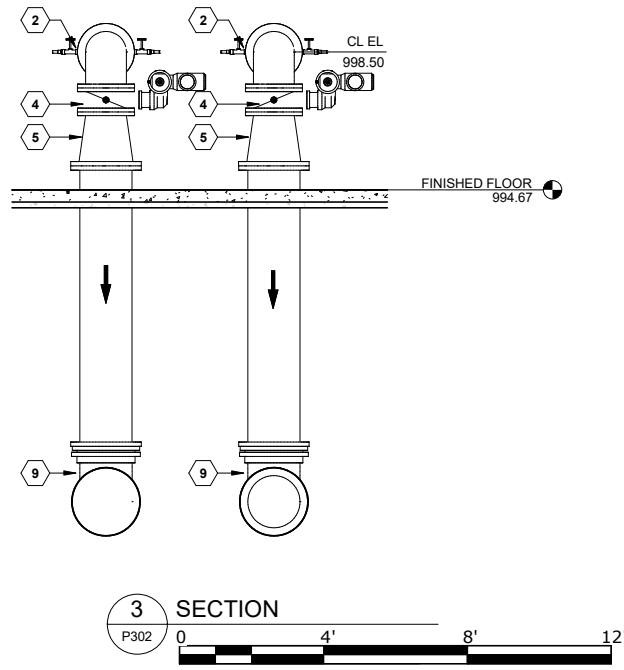
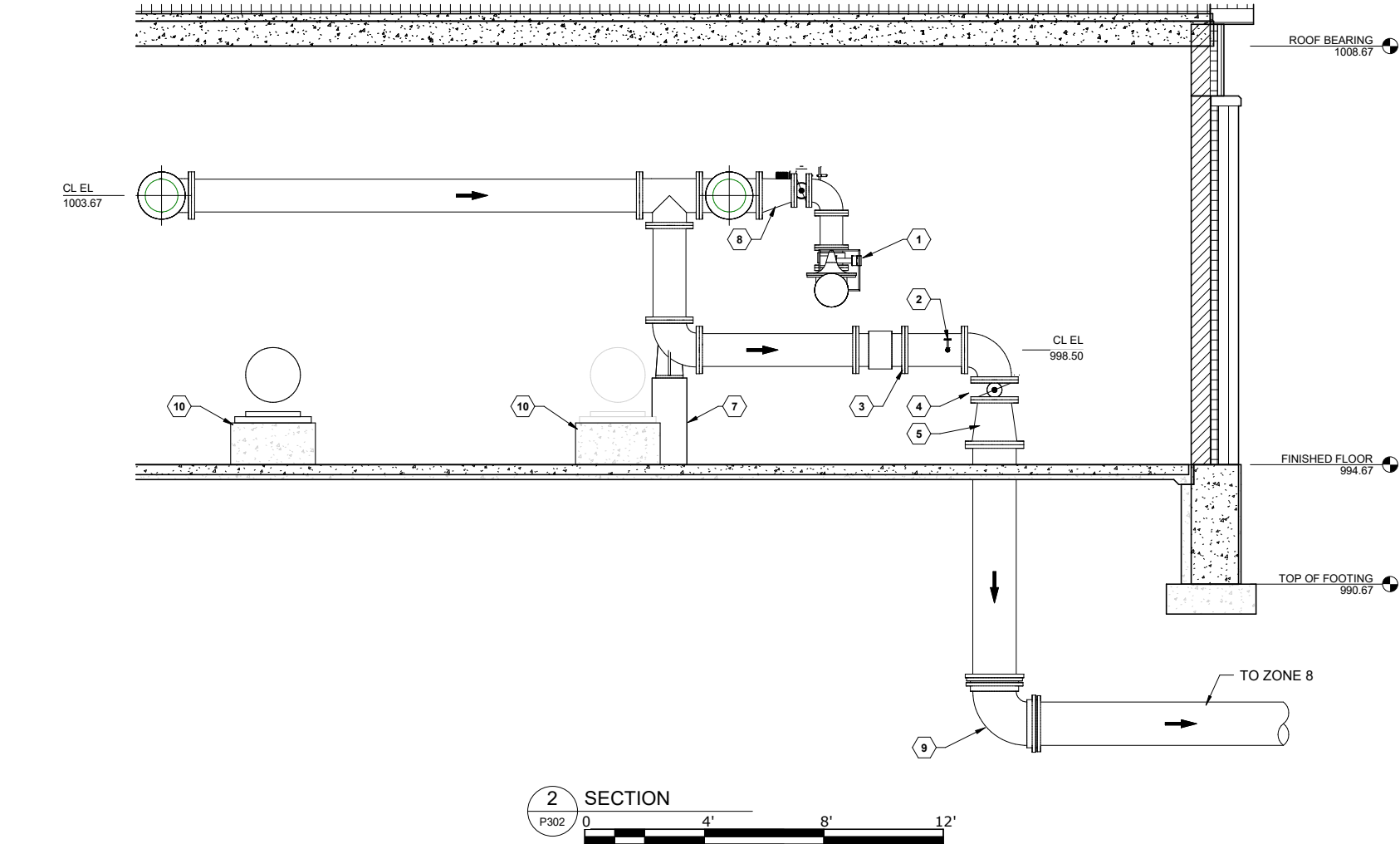
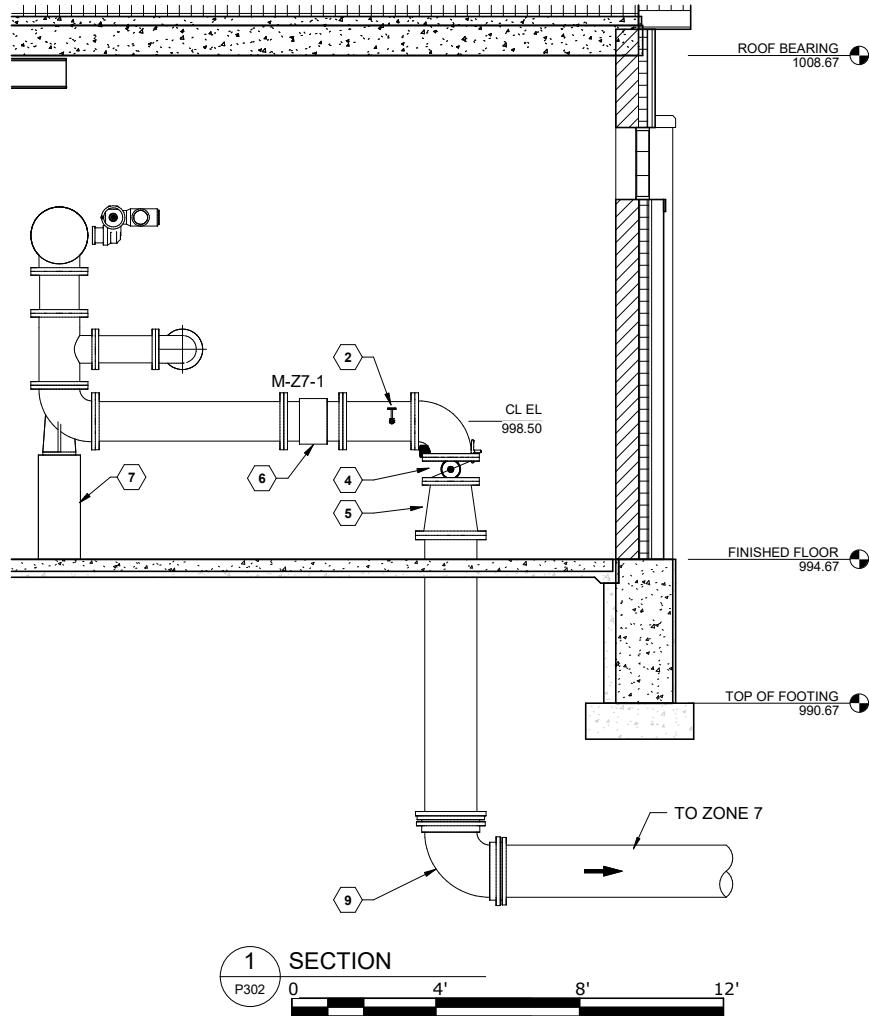
REVISION SCHEDULE
REV. # DESCRIPTION DATE

WELLHOUSE SECTIONS

01
P301

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

6/26/2025 9:10:35 AM



KEYNOTES:

- 1 8" PSV VALVE
- 2 TAP PIPE FOR 1/2" CHLORINE ANALYZER SUPPLY - INSTALL 1/2" BALL VALVE
- 3 12" MAGNETIC FLOW METER (FURNISHED BY OWNER)
- 4 12" ACTUATED BUTTERFLY VALVE
- 5 16x12 CONCENTRIC REDUCER
- 6 12" MAGNETIC FLOW METER PROVIDED BY OWNER
- 7 BASE BEND PEDISTAL - SEE DETAIL B/DP1
- 8 12x8 ECCENTRIC REDUCER
- 9 THRUST BLOCK AND PIPE ENCASEMENT - SEE DETAIL K/DP1, C/DP2
- 10 PUMP BASE - SEE DETAIL G/DP1



MADISON, WISCONSIN UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

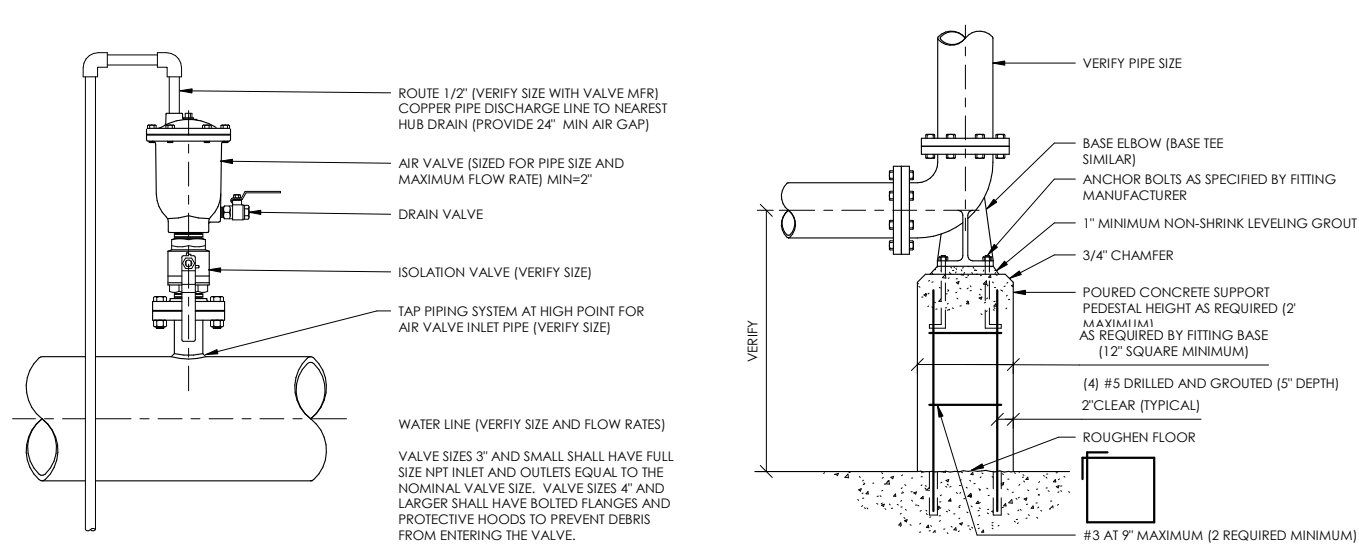
SEH Project MADWU 182222
Checked By IS
Drawn By DD

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

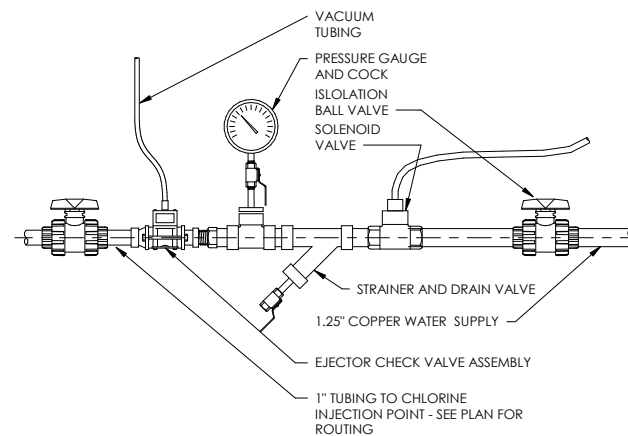
WELLHOUSE SECTIONS

01
P302

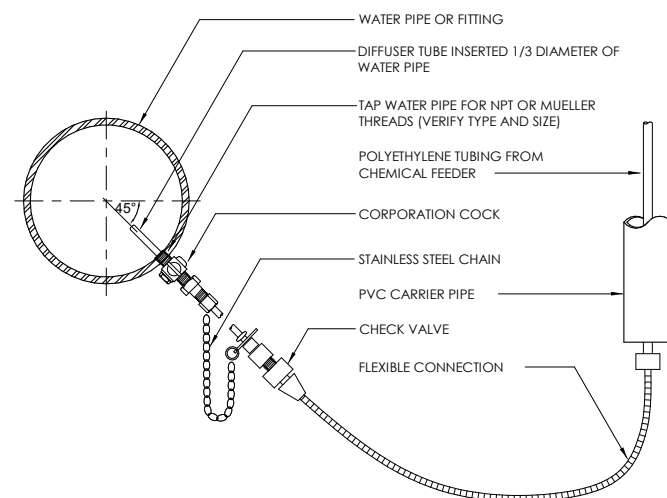


A AIR RELEASE VALVE DETAIL

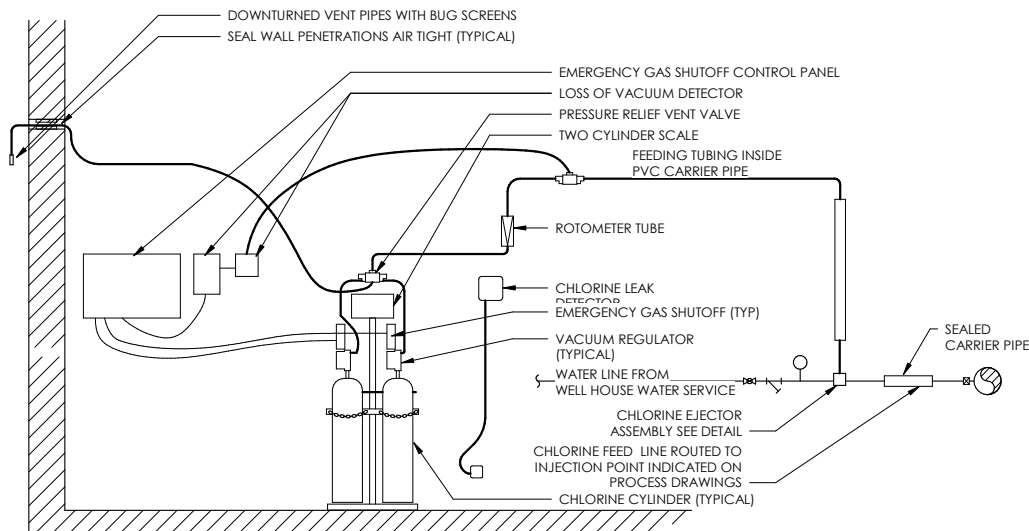
B BASE BEND CONCRETE PEDISTAL DETAIL



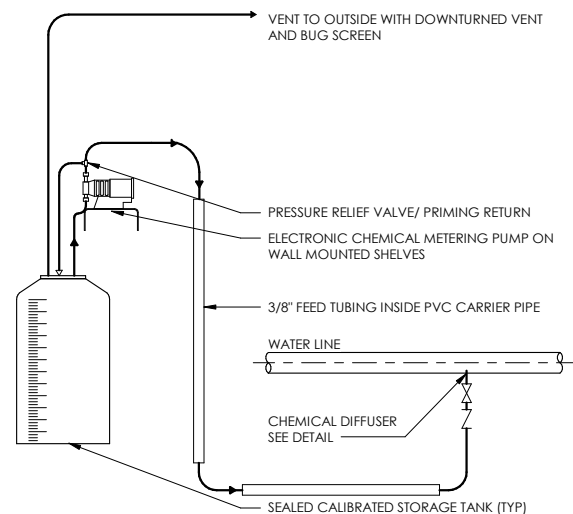
C CHLORINE EJECTOR DETAIL



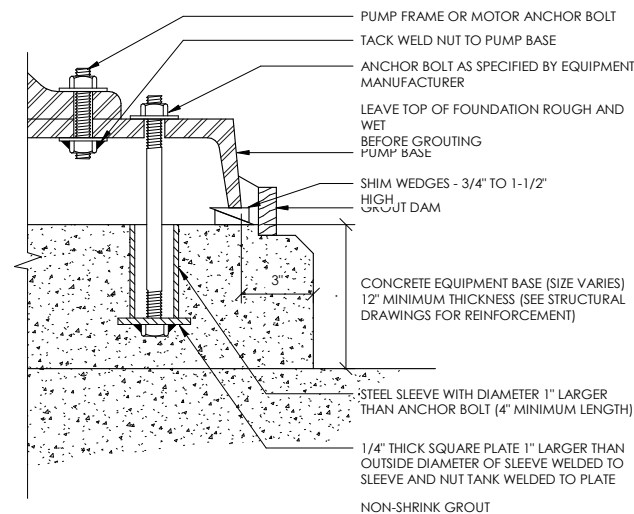
D CHEMICAL FEED DIFFUSER DETAIL



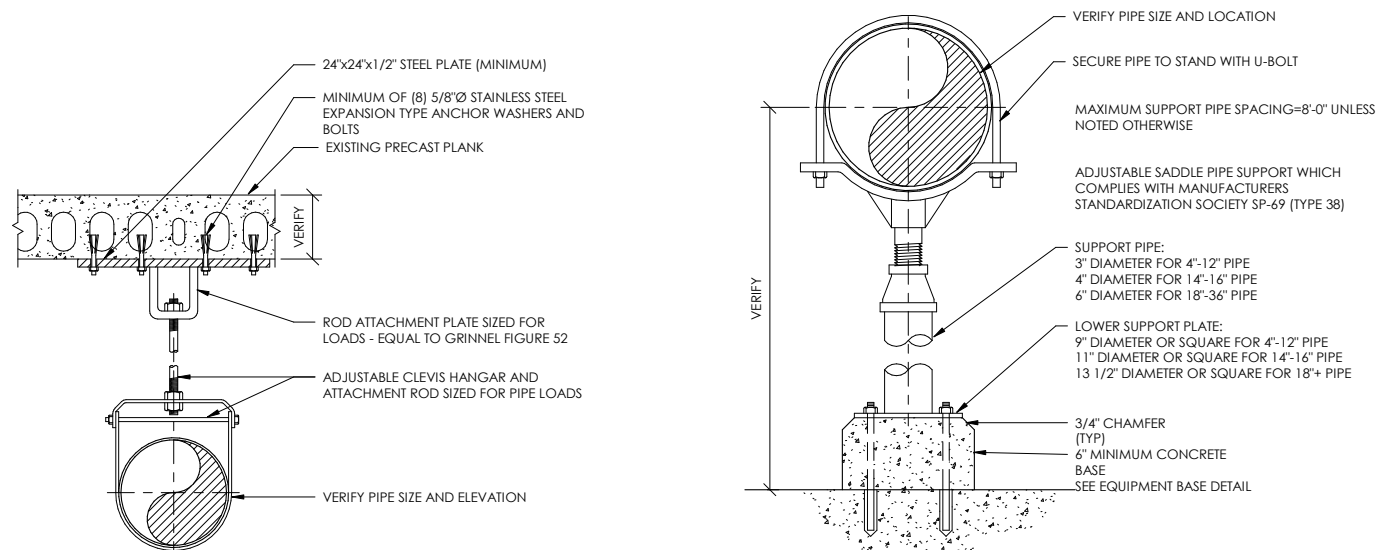
E CHLORINE FEED SYSTEM DETAIL



F FLUORIDE CHEMICAL SYSTEM DETAIL

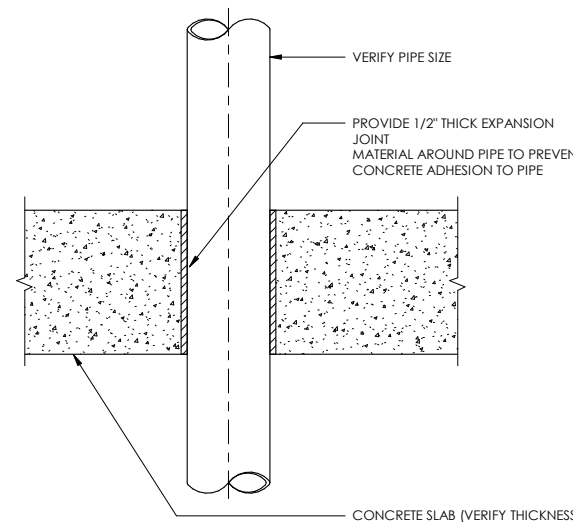


G PUMP BASE DETAIL

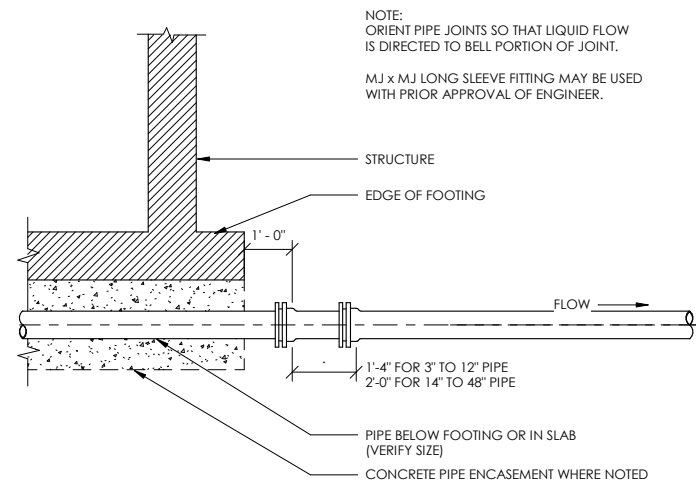


H PIPE SUPPORT FROM CEILING DETAIL

I PIPE SUPPORT FROM FLOOR DETAIL



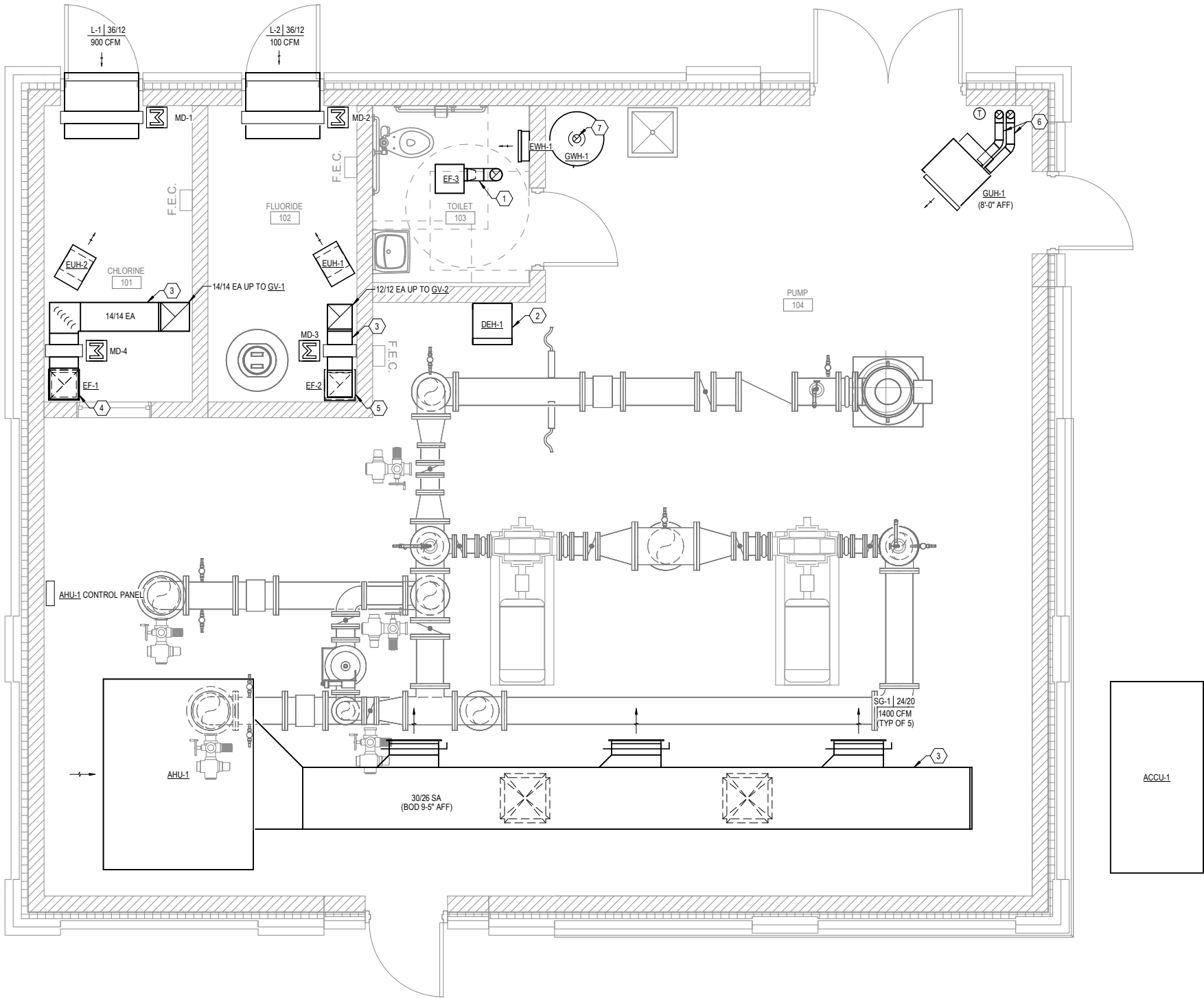
J PIPE THRU FLOOR DETAIL



K PIPE ENCASEMENT DETAIL

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/25/2025 10:55:03 AM

1 HVAC PLAN
M101 3/8" = 1'-0"



KEYNOTES:

1. ROUTE Ø6" EA UP THRU ROOF TO ROOF CAP.
2. ROUTE CONDENSATE TO NEAREST FLOOR DRAIN.
3. DUCTWORK IN PUMP AND CHEMICAL ROOMS TO BE TYPE 3002-H14 ALUMINUM UNLESS NOTED OTHERWISE.
4. 14/14 EA FROM 12" AFF TO EXHAUST FAN EF-1 MOUNTED IN VERTICAL. 14/14 OUTLET UP THRU ROOF TO GRAVITY VENT GV-1.
5. 9/9 EA FROM 12" AFF TO EXHAUST FAN EF-2 MOUNTED IN VERTICAL. 12/12/ OUTLET UP THRU ROOF TO GRAVITY VENT GV-2
6. ROUTE GUH-1 EXHAUST AND COMBUSTION AIR UP TO CONCENTRIC ROOF KIT. CORE DRILL OPENING THRU ROOF. FLASH AND SEAL ROOF PENETRATION.
7. Ø3" SCHEDULE 40 FLUE VENT/COMBUSTION AIR PIPING TO/FROM GWH-1 AND ROOF TERMINATION. SEAL PENETRATIONS WEATHERTIGHT. PROVIDE ROOF TERMINATION KIT.



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.
Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project MADWU 182222
Checked By CAH
Drawn By KML

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

HVAC PLAN

01
M101

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/25/2025 10:55:07 AM

1

M102

DOMESTIC WATER AND GAS PLAN

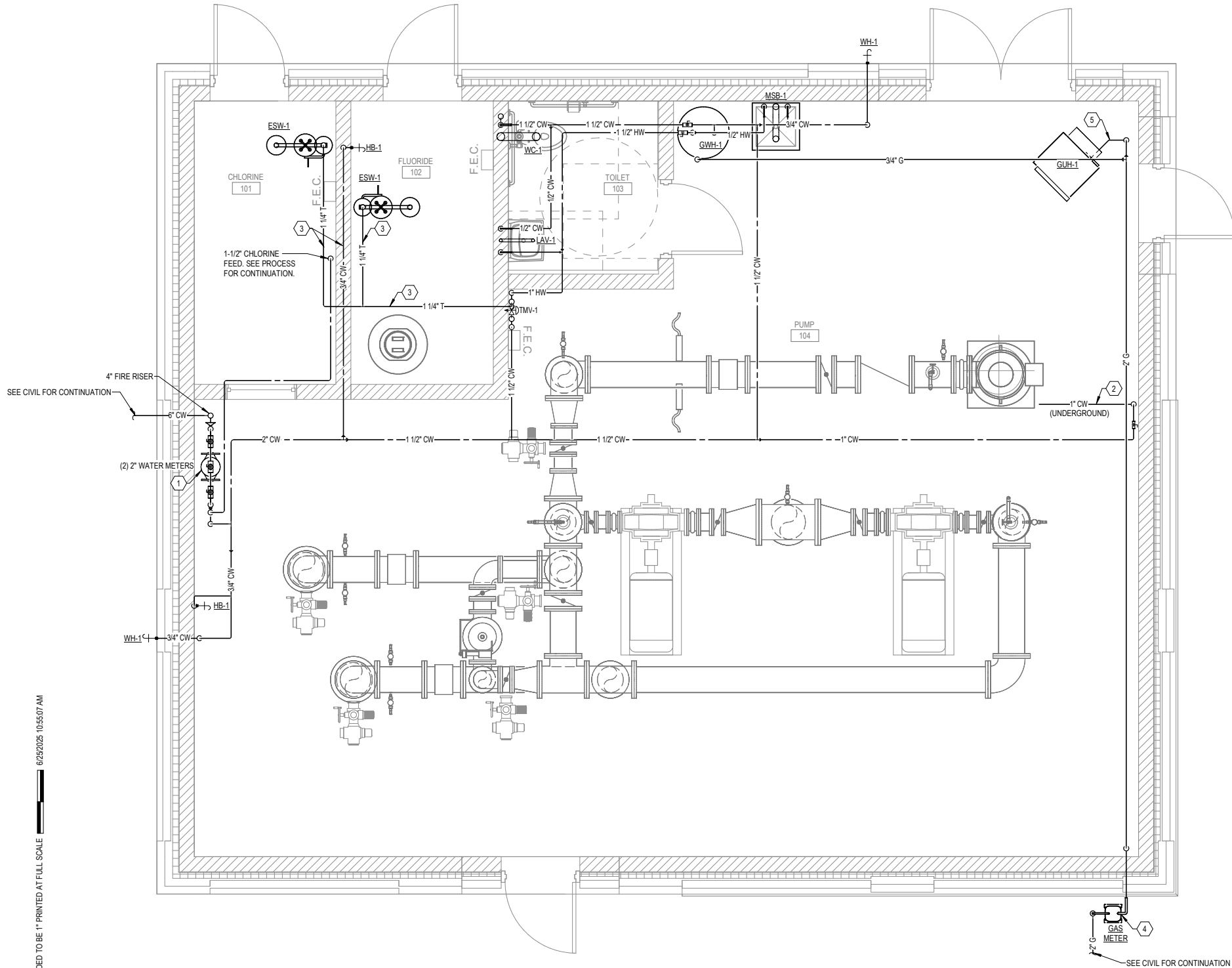
3/8" = 1'-0"

0

2

4

6



- KEYNOTES:**
1. WATER METERS PROVIDED BY OWNER.
 2. TRANSITION TO 1" SCHEDULE 80 CPVC AND ROUTE UNDERFLOOR TO WELL PRE-LUBE SYSTEM.
 3. ALL PIPING, HANGERS AND SUPPORTS IN CHEMICAL ROOMS TO BE CPVC OR EQUIVALENT.
 4. EXISTING GAS METER AND GAS SERVICE BY GAS COMPANY. METER TO HAVE 60 CFH CAPACITY AT 2 PSIG.
 5. 3/4" GAS CONNECTION TO GUH-1 WITH DRIP LEG, PRESSURE REGULATOR, SHUT-OFF VALVE, AND UNION.



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

SEH Project MADWU 182222
Checked By CAH
Drawn By KML

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

DOMESTIC WATER AND GAS
PLAN

01
M102



KEYNOTES:
1. MAINTAIN MINIMUM SEPARATION TO WELL OF 24".



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.
Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

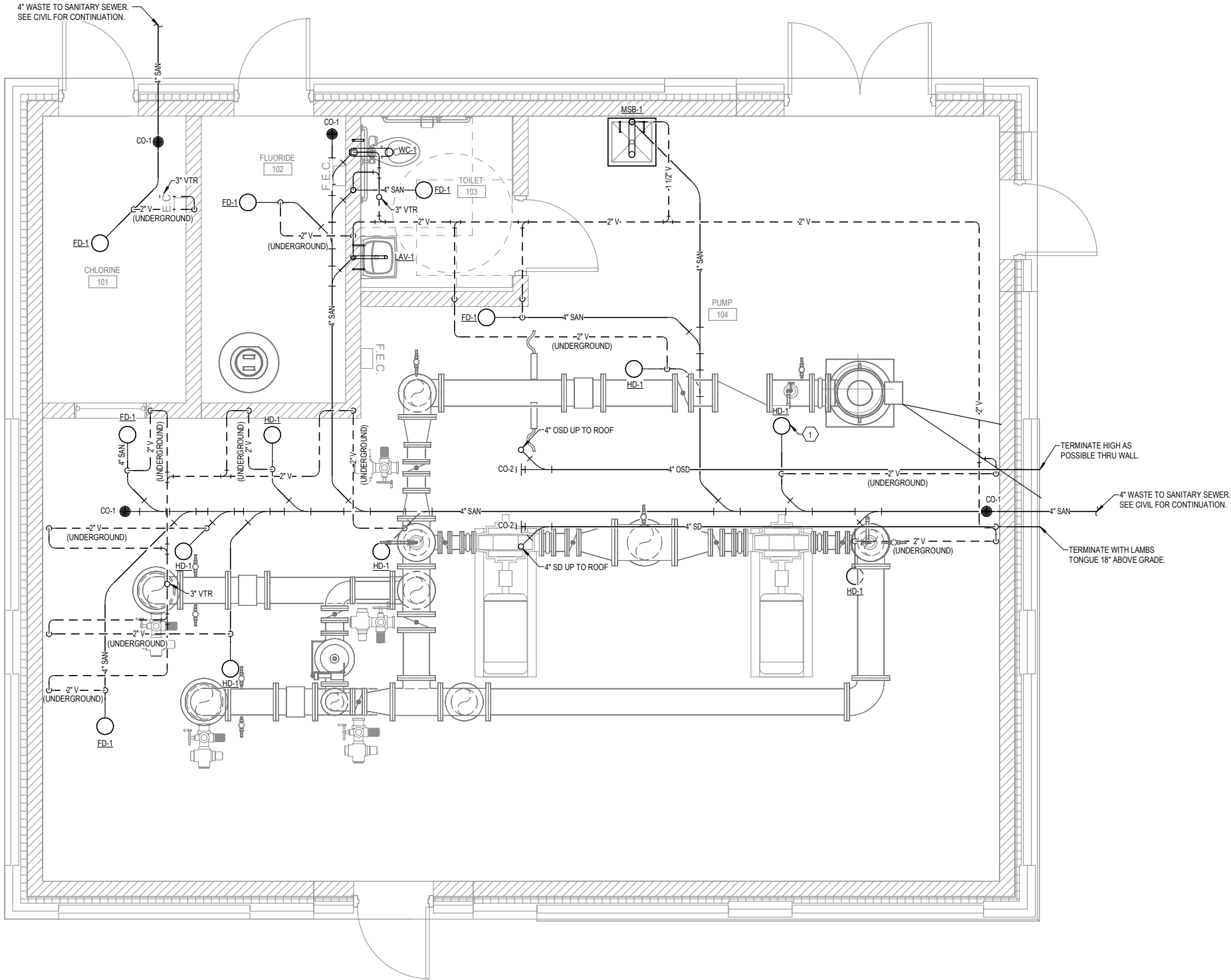
SEH Project MADWU 182222
Checked By CAH
Drawn By KML

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

SANITARY WASTE AND
VENT PLAN

01
M103



THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/25/2025 10:55:10 AM

1
M103
3/8" = 1'-0"

0 2 4 6



THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/25/2025 10:55:11 AM

1

M104

MECHANICAL ROOF PLAN

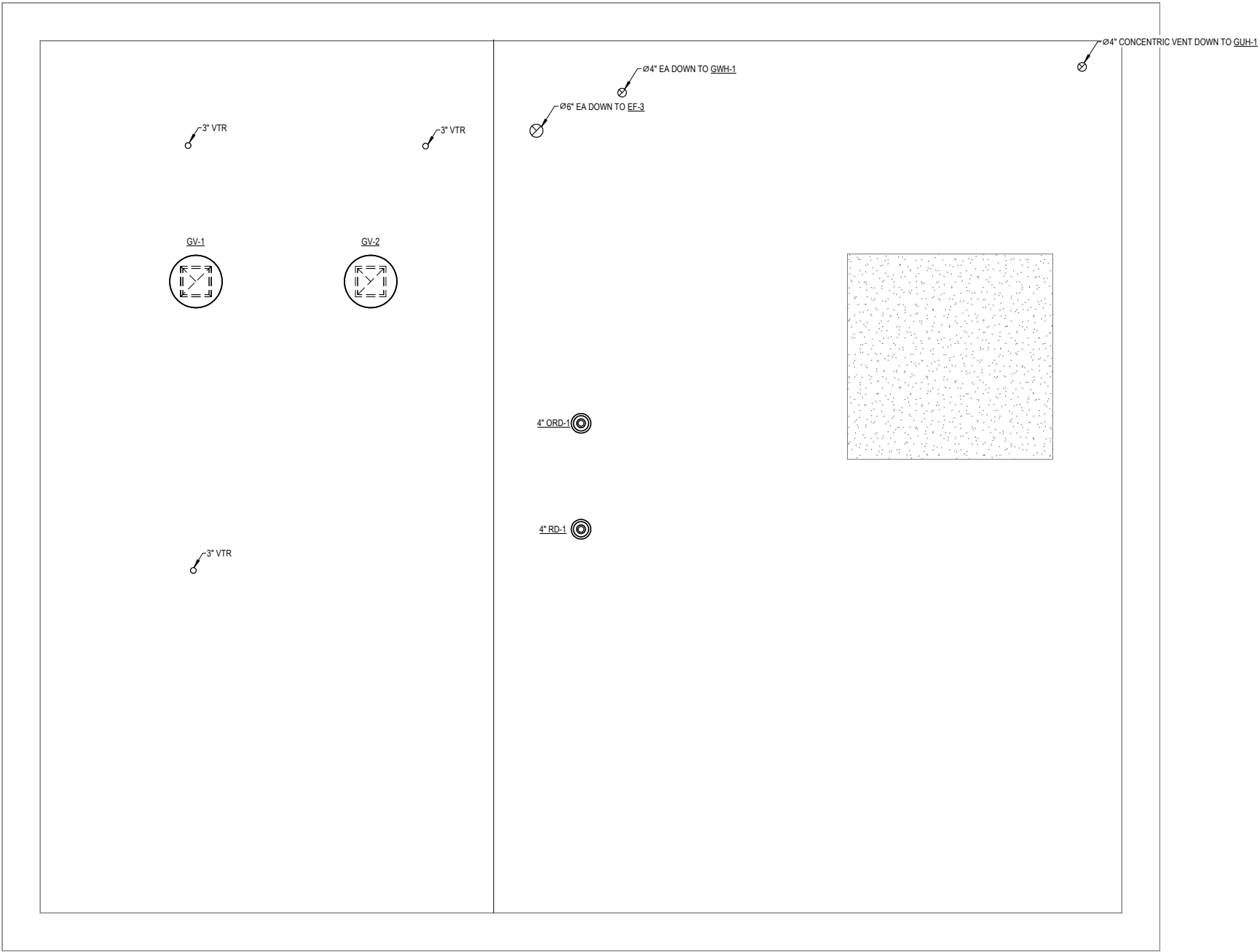
3/8" = 1'-0"

0

2

4

6



- KEYNOTES:
-



MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

SEH Project	MADWU 182222
Checked By	CAH
Drawn By	KML

Project Status	Issue Date
DNR SUBMITTAL	6/30/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

MECHANICAL ROOF PLAN

01
M104

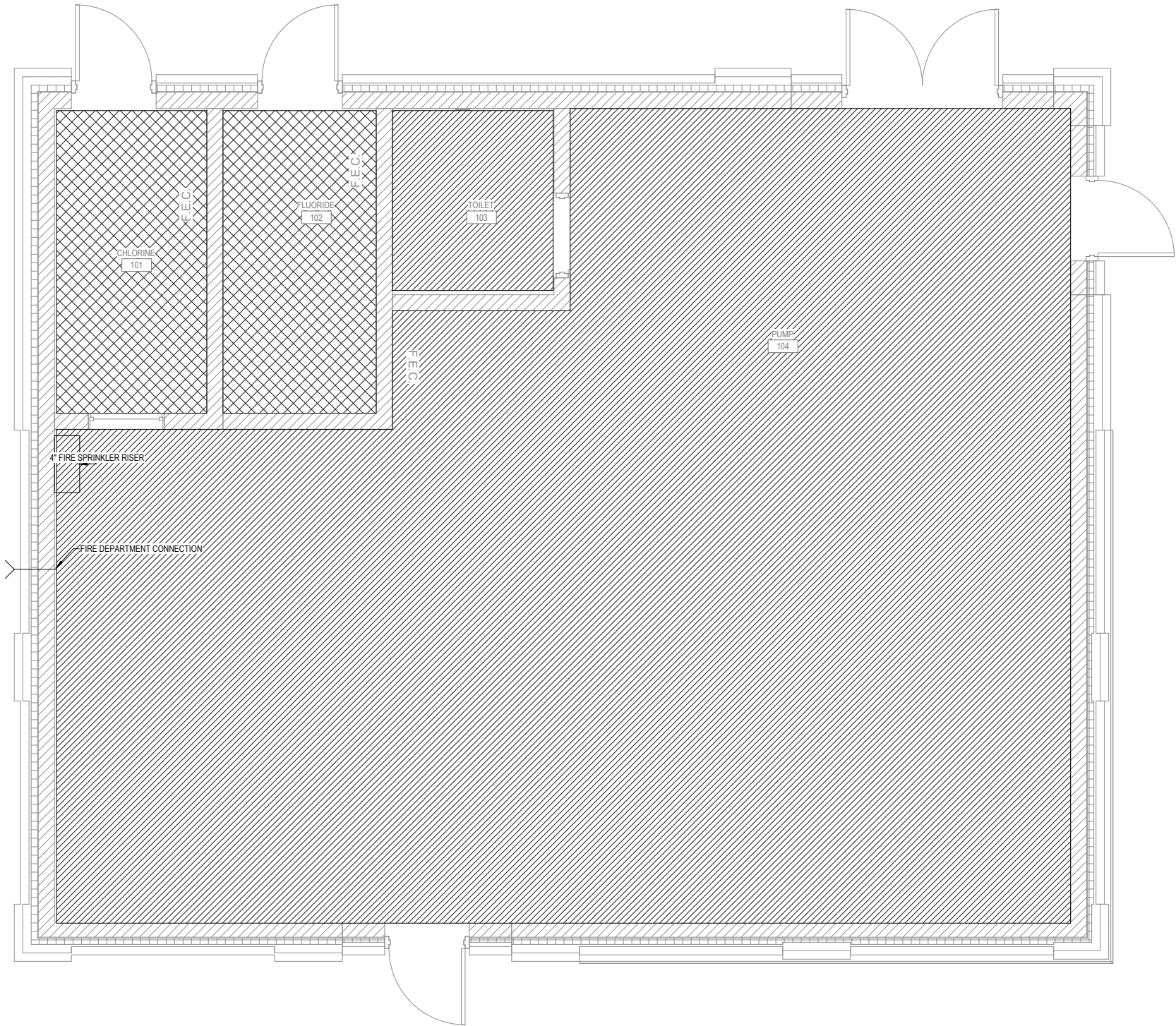


THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE



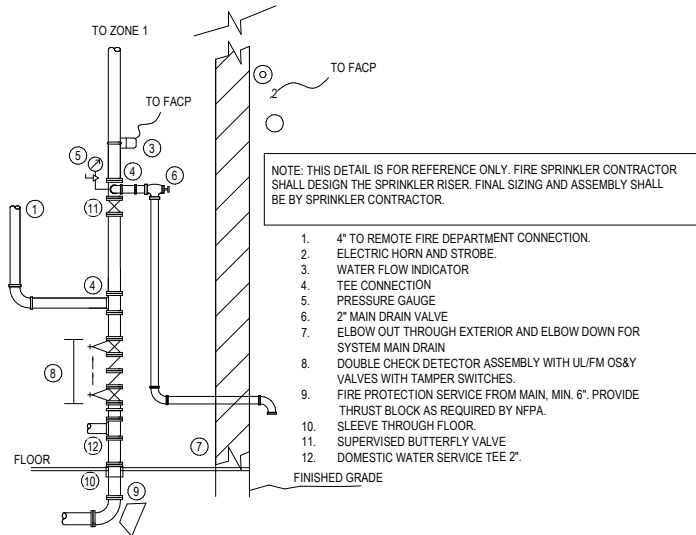
1
M105
3/8" = 1'-0"

FIRE PROTECTION PLAN



GENERAL NOTES:

1. FIRE SPRINKLER PIPING LAYOUT AND SIZING SHALL BE DETERMINED BY HYDRAULIC CALCULATION IN ACCORDANCE WITH NFPA 13 PER SPECIFICATION 21.00.00. FINAL HYDRAULIC CALCULATIONS SHALL BE BASED ON ACTUAL FLOW TEST DATA TO BE PERFORMED BY CONTRACTOR.
2. SPRINKLER SYSTEM SHALL BE DESIGNED AS REQUIRED BY NFPA 13 FOR THE OCCUPANCIES IDENTIFIED. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE ACTUAL NUMBER OF SPRINKLERS AND SPACING REQUIREMENTS TO PROTECT THE AREA IN ACCORDANCE WITH NFPA 13 FOR THE OCCUPANCY HAZARD CLASSIFICATION.
3. RISER TO SERVE THE ZONE SHALL BE COORDINATED WITH THE CONSTRUCTION; DO NOT OBSTRUCT CORRIDORS, DOORWAYS, ETC. INSTALL RISERS AS CLOSE AS PRACTICAL TO ROOM CORNERS, WALLS, ETC. RISER LOCATION SHOWN MAY BE REVISED BY THE CONTRACTOR AS REQUIRED.
4. THE ARCHITECTURAL BACKGROUND PROVIDED ON THIS SHEET IS FOR GENERAL REFERENCE ONLY. CONTRACTOR SHALL VERIFY ALL BACKGROUNDS WITH THE ARCHITECTURAL SHEETS. REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATED WALKWAYS, STAIRWAYS, BRIDGES, ETC.
5. COORDINATE SPRINKLER INSTALLATION IN AREAS WITHOUT CEILINGS. PROVIDE ADDITIONAL SPRINKLERS AS REQUIRED TO AVOID OBSTRUCTIONS TO DISCHARGE FORMED BY DUCT WORK, LIGHT FIXTURES, STRUCTURE, WATER TREATMENT EQUIPMENT, MECHANICAL EQUIPMENT, ETC.
6. PROVIDE SPRINKLER GUARDS ON ALL SPRINKLERS LESS THAN 7'-0" AFF.
7. PROVIDE INSPECTORS TEST CONNECTION AT REMOTE POINT FOR EACH ZONE. ROUTE TEST AND DRAIN PIPES TO GRADE. PIPE SHALL TERMINATE WITH SMOOTHER BORE CORROSION RESISTANT OUTLET.
8. COORDINATE LOCATION OF FIRE DEPARTMENT CONNECTION WITH CITY OF SOUTH ST. PAUL FIRE DEPARTMENT.
9. PROVIDE BALL DRIP VALVE AT BASE OF FIRE DEPARTMENT CONNECTION.
10. INSTALL HIGH TEMPERATURE SPRINKLERS IN CLOSE PROXIMITY TO UNIT HEATERS PER NFPA 13.
11. SPRINKLER HEADS IN CHEM ROOMS SHALL BE WAX COATED AGAINST CORROSION. ALL PIPING SHALL BE FIELD PAINTED IN ACCORDANCE WITH DIVISION 9.
12. SPRINKLER MAINS SHALL BE MINIMUM SCHEDULE 10 STEEL PIPE. BRANCH PIPING SHALL BE MINIMUM SCHEDULE 40 STEEL PIPE. NO THIN WALLED PIPING WILL BE ACCEPTED. REFER TO 21.13.13 FOR DETAILS.
13. ALL PIPING PENETRATIONS SHALL BE SEALED WITH FIRE STOP.
14. AREAS WITH LAY-IN OR GYPSUM CEILINGS SHALL HAVE RECESSED OR SEMI-RECESSED SPRINKLER HEADS.
15. AREAS WITHOUT CEILINGS SHALL HAVE UPRIGHT OR PENDANT TYPE SPRINKLER HEADS.
16. ALL CHEMICAL ROOM SPACES SHALL HAVE WAX COATED UPRIGHT OR PENDANT TYPE SPRINKLER HEADS.



3 FIRE PROTECTION RISER
NOT TO SCALE

SPRINKLER SYSTEM SCHEDULE						
AREA	HAZARD CLASS	MINIMUM DENSITY (GPM/SQ FT)	MINIMUM SPRINKLER HYDRAULIC DESIGN AREA (SQ FT)	HOSE STREAM DEMAND (GPM)	DURATION (MIN)	NOTES
	ORDINARY GROUP 1	0.15	1110	250	90	
	ORDINARY GROUP 2	0.20	150	250	90	



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

SEH Project MADWU 182222
Checked By CAH
Drawn By KML

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
--------	-------------	------

FIRE PROTECTION PLAN

01
M105

801 S. Whitney Way
Madison WI, 53711

Project Status	Issue Date
NR SUBMITTAL	6/30/2025

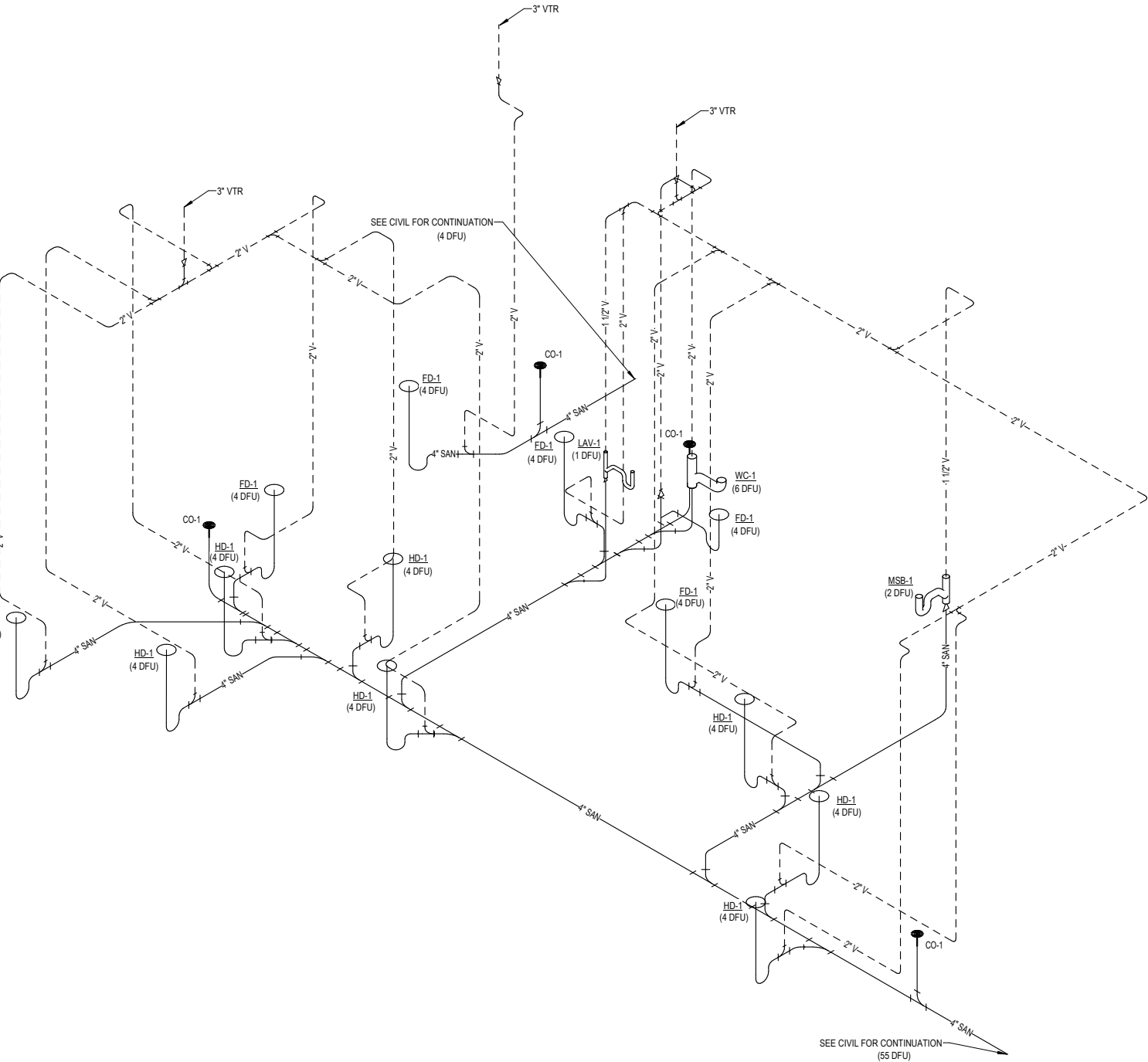
RISE R DIAGRAMS

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/25/2025 10:55:12 AM

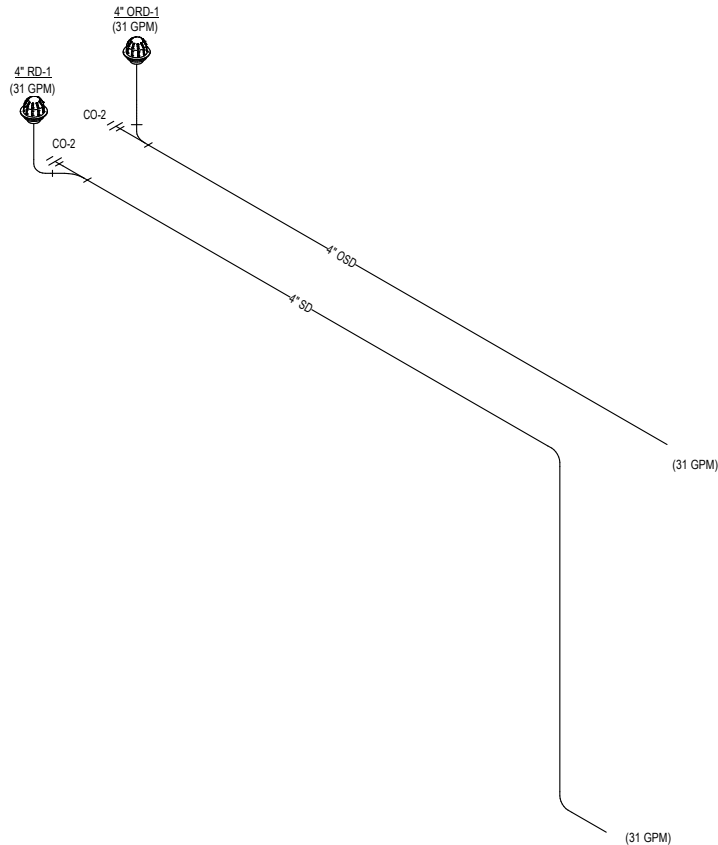


THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/25/2025 10:55:13 AM

1
M202 NOT TO SCALE



2
M202 NOT TO SCALE



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project MADWU 182222
Checked By CAH
Drawn By KML

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
--------	-------------	------

RISER DIAGRAMS

01
M202

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

6/25/2025 10:55:13 AM

AIR HANDLING AND CONDENSING UNIT SCHEDULE																	
EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	SERVES	NOMINAL TONS	CFM	FILTER	ESP (IN. W.G.)	IEER	COOLING		REFRIGERANT PIPING SIZE		MOTOR HP	ELECTRICAL		WEIGHT (LBS)	NOTES
									TOTAL MBH	SENS MBH	LIQUID	SUCTION		MCA	V/PH/CY		
AHU-1	TRANE	TWE240K4BAA	PUMP ROOM	20	7000	MERV 13	1.5	13.2	242	180	5/8"	1-3/8"	5	13	460 / 60 / 3	904	1, 2, 3, 4, 5
ACCU-1		TTA240K4CAA			-									54	460 / 60 / 3	802	
<u>NOTES:</u> 1) HORIZONTAL ORIENTATION INDOOR UNIT 2) WALL MOUNTED DIGITAL PROGRAMMABLE THERMOSTAT 3) R-454B REFRIGERANT 4. HAIL GUARD 5. OUTDOOR UNIT MOUNTED ON CONCRETE PAD																	

DEHUMIDIFIERS SCHEDULE							
EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	CFM	MOISTURE REMOVAL (LB/DAY)	ELECTRICAL		NOTES
					AMPS	V/PH/CY	
D-1	QUEST	HI-E DRY 195	540	192	12	115/60/1	1,2
<u>NOTES:</u> 1) MERV 8 FILTER 2) UNIT MOUNTED HUMIDISTAT							

ELECTRIC HEATER SCHEDULE											
EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	SERVES	FAN			ELECTRIC HEATER		ELECTRICAL		NOTES
				CFM	HP	RPM	KW	AIR TEMP. RISE (F)	V/PH/CY	FLA	
EUH-1	QMARK	QWD	CHLORINE ROOM	2400	-	-	15	21	460/3/60	20	1,2,3,4
EUH-2	QMARK	QWD	FLUORIDE ROOM	700	-	-	15	23	460/3/60	6	1,2,3,4
EWH-1	QMARK	CWH120ZDSAF	TOILET	65	-	-	1.5	-	208/1/60	7.3	5,6
-	-	-	-	-	-	-	-	-	-	-	-
NOTES: 1) FACTORY DISCONNECT 2) FACTORY WALL MOUNTED THERMOSTAT 3) SWIVEL BRACKET 4) WASHDOWN CONSTRUCTION 5) RECESS WALL MOUNT 6) INTEGRAL THERMOSTAT											

FAN SCHEDULE												
EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	TYPE	SERVES	CFM	E.S.P. (IN. W.G.)	SONES	MOTOR				NOTES
								WATTS	HP	RPM	V/PH/CY	
EF-1	GREENHECK	SQ-100-A	INLINE	CHLORINE ROOM	900	0.25	7.1	-	1/4	1283	115/60/1	1,2,3,4
EF-2	GREENHECK	SQ-65-D	INLINE	FLUORIDE ROOM	100	0.25	3.5	-	1/30	1534	115/60/1	1,2,3,4
EF-3	GREENHECK	SP-A190	CEILING	TOILET	140	0.25	1.5	33	-	1254	115/60/1	4,5
NOTES: 1) FACTORY MOUNTED AND WIRED DISCONNECT 2) CORROSION RESISTANT CONSTRUCTION 3) HERESITE COATED 4) SPEED CONTROLLER 5) ROOF CURB AND ROOF CAP												

DIFFUSERS, REGISTERS, GRILLES							
S = SUPPLY			GR = RETURN		GE = EXHAUST		REMARKS
TAG	MANUFACTURER	MODEL No.	TYPE	DAMPER	MOUNTING POSITION	FACE IN INCHES	
SG-1	TITUS	300FL	SUPPLY	NO	SIDEWALL	SEE PLAN	RECTANGULAR REGISTER: STEEL; WHITE ENAMEL; DOUBLE DEFLECTION 3/4" ADJUSTABLE LOUVERS; FRONT BLADES TO BE HORIZONTAL.
NOTES							
1) NECK SIZE SHALL MATCH DUCT CONNECTION SIZE							
2) VERIFY MOUNTING TYPE WITH CEILING TYPE							
3) DAMPER SHALL BE MOUNTED IN DUCT TAKE-OFF							

GAS FIRED UNIT HEATER SCHEDULE											
EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	SERVES	CFM	INPUT (BTU)	OUTPUT (BTU)	GAS CFH	GAS INLET PRESSURE			NOTES
									HP	V/PH/CY	
GUH-1	REZNOR	UDAS60	PUMP ROOM	769	60	49.8	60	2 PSIG	3/100	115/60/1	ALL
<u>NOTES:</u> 1) WALL MOUNTED THERMOSTAT 2) FACTORY MOUNTED AND WIRED DISCONNECT 3) GAS PRESSURE REGULATOR 4) POWER VENTED, SEPARATED COMBUSTION 5) STAINLESS STEEL HEAT EXCHANGER AND BURNER 6) MANUFACTURER'S ROOF CONCENTRIC VENT KIT											

GRAVITY VENTS														
UNIT NO. GV-1	LOCATION ROOF	SERVING CHLORINE ROOM	MODEL NO.	TYPE EXHAUST	CFM	S.P. (TW.G.)	WIDTH (INCHES)	LENGTH (INCHES)	WIDTH (INCHES)	LENGTH (INCHES)	CURB HEIGHT (INCHES)	OVERALL HEIGHT (INCHES)	ACCESSORIES	REMARKS
GV-1	ROOF	CHLORINE ROOM	FGR-1414	EXHAUST	900	0.06	14	14	16-1/2	16-1/2	8	22	ROOF CURB	
GV-2	ROOF	FLUORIDE ROOM	FGR-1212	EXHAUST	100	0.02	12	12	14-1/2	14-1/2	8	22	ROOF CURB	
<u>NOTES:</u> 1)														

LOUVER SCHEDULE											
EQUIPMENT NUMBER	MANUFACTURER	MODEL NUMBER	SERVES	CFM	WIDTH (IN)	HEIGHT (IN)	NET FREE AREA (FT^2)	VELOCITY (FPM)	MATERIAL	SCREEN	NOTES
WL-1	RUSKIN	ELF6375DX	CHLORINE ROOM	900	36	16	2	450	ALUMINUM	INSECT	1
WL-2	RUSKIN	ELF6375DX	FLUORIDE ROOM	100	36	16	2	50	ALUMINUM	INSECT	1
<u>NOTES:</u> 1) KYNAR FINISH. COLOR SELECTED BY ARCHITECT.											

MOTORIZED DAMPER SCHEDULE										
EQUIPMENT TAG	MANUFACTURER	MODEL NUMBER	ROOM NUMBER	SERVING	WIDTH	HEIGHT	CFM	POSITION	NOTES	
MD-1	RUSKIN	CD50	CHLORINE ROOM	EF-1	14	14	900	N.C.	1, 2, 3	
MD-2	RUSKIN	CD50	CHLORINE ROOM	WL-1	36	16	900	N.C.	1, 2, 3	
MD-3	RUSKIN	CD50	FLUORIDE ROOM	EF-2	9	9	100	N.C.	1, 2, 3	
MD-4	RUSKIN	CD50	FLUORIDE ROOM	WL-2	36	16	100	N.C.	1, 2, 4	
<u>NOTES:</u> 1) ALUMINUM, LOW LEAKAGE, OPPOSED BLADE TYPE. 2) 120 V NEMA 4X ACTUATOR, POWER OPEN - SPRING RETURN. 3) PROVIDE BAKED ENAMEL COATING FOR CORROSION PROTECTION.										



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or submitted without the express written approval of SEH. Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project
Checked By
Drawn By

MADWU 182222
CAH
KML

Project Status
DNR SUBMITTAL

Issue Date
6/30/2025

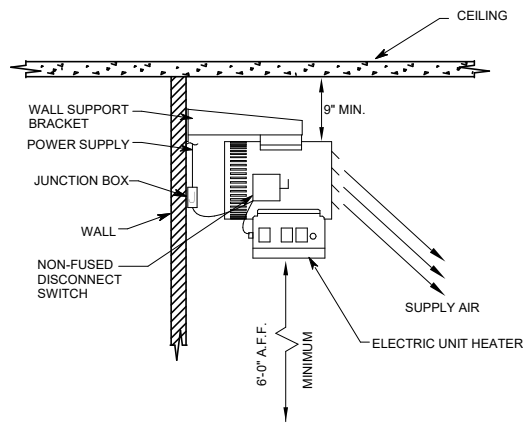
REVISION SCHEDULE
REV. # DESCRIPTION DATE

MECHANICAL SCHEDULES

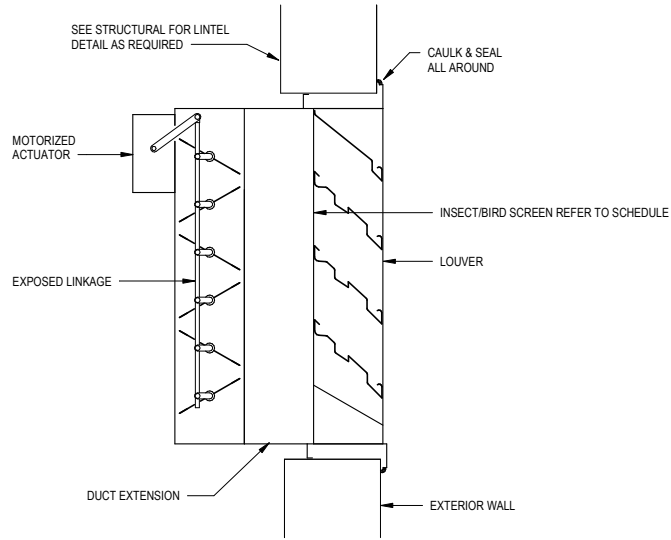
01
M301

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

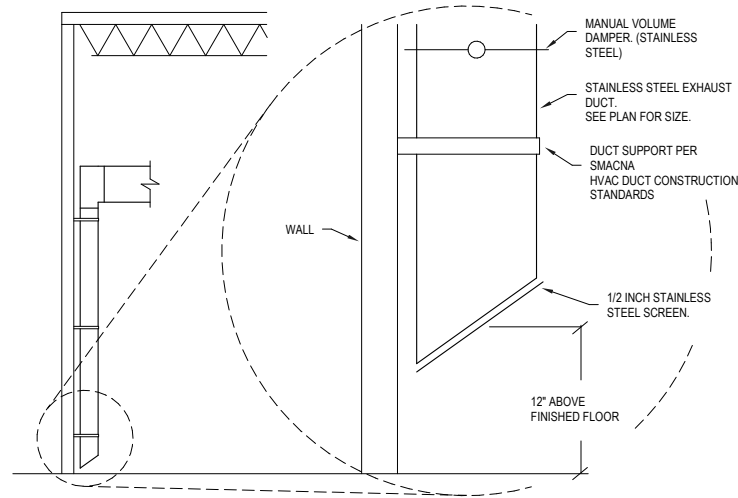
6/25/2025 10:55:14 AM



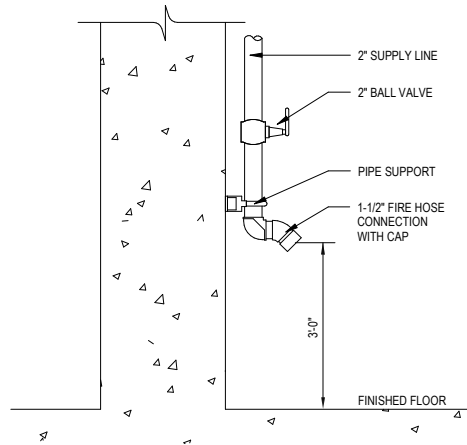
1
M303
WASHDOWN ELECTRIC UNIT HEATER
NOT TO SCALE



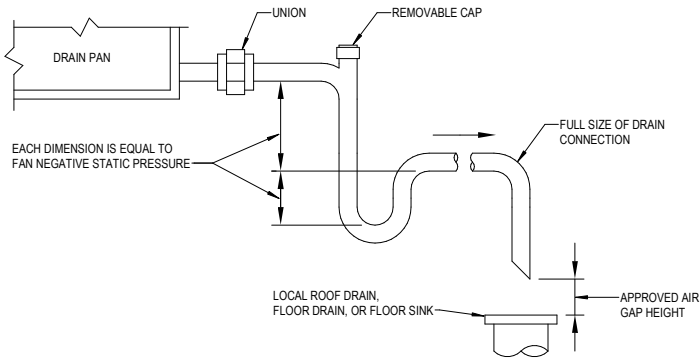
2
M303
LOUVER WITH MOTORIZED DAMPER
NOT TO SCALE



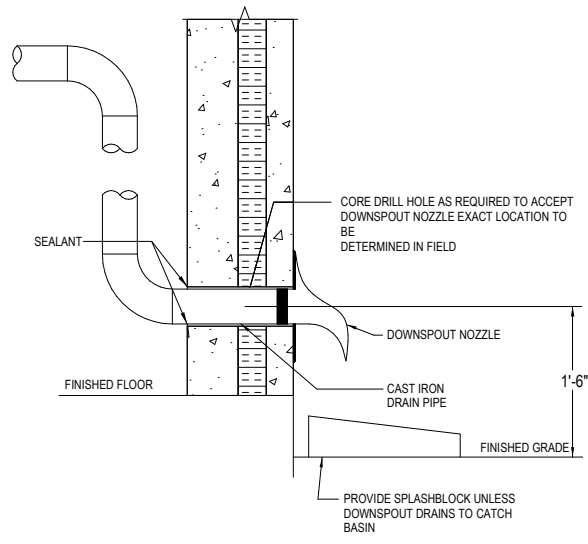
3
M303
EXHAUST DUCT DETAIL
NOT TO SCALE



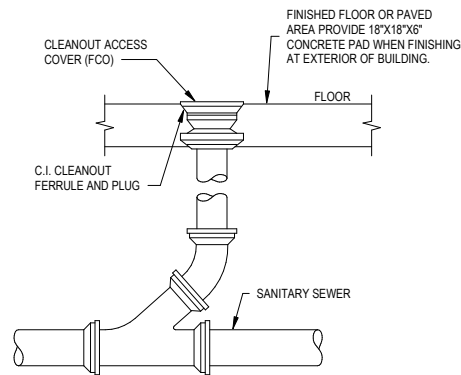
4
M303
1-1/2" HOSE CONNECTION DETAIL
NOT TO SCALE



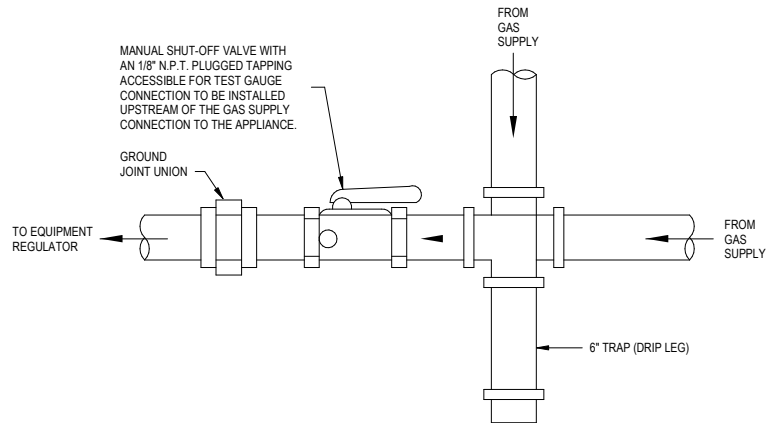
5
M303
CONDENSATE DRAIN
NOT TO SCALE



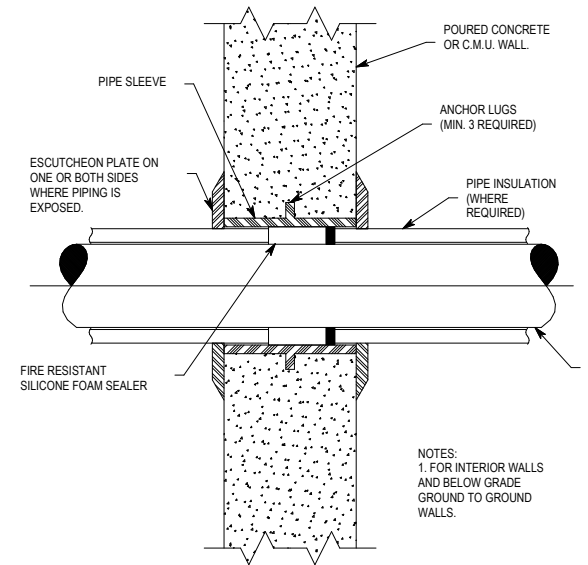
6
M303
OVERFLOW STORM DRAIN TERMINATION
NOT TO SCALE



7
M303
CLEANOUT
NOT TO SCALE



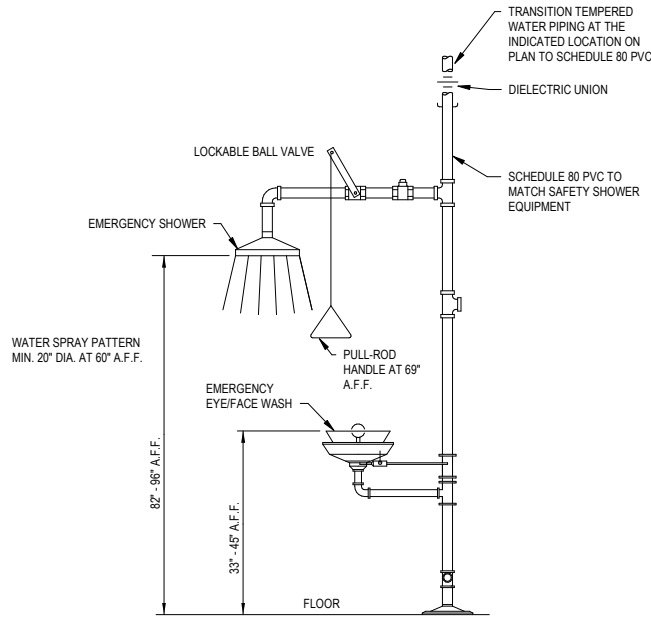
8
M303
GAS CONNECTION TO EQUIPMENT
NOT TO SCALE



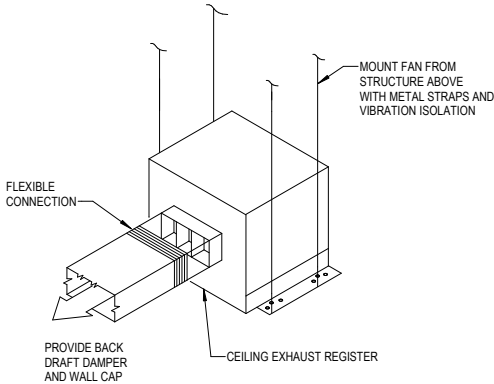
9
M303
PIPE SLEEVE THROUGH WALL
NOT TO SCALE

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

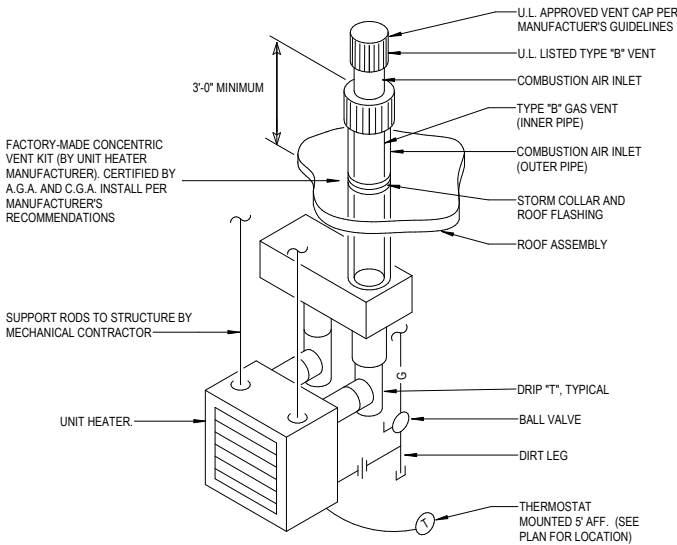
6/25/2025 10:55:15 AM



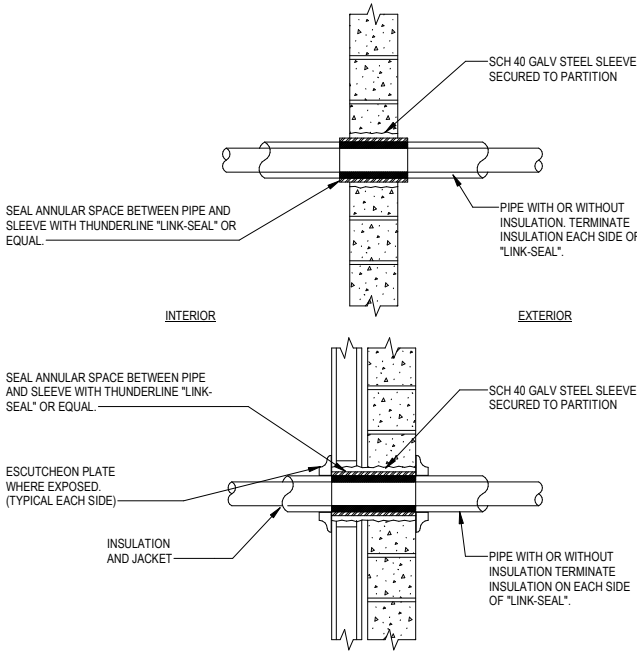
1 SAFETY SHOWER AND EYE WASH
M304 NOT TO SCALE



4 CEILING EXHAUST FAN
M304 NOT TO SCALE

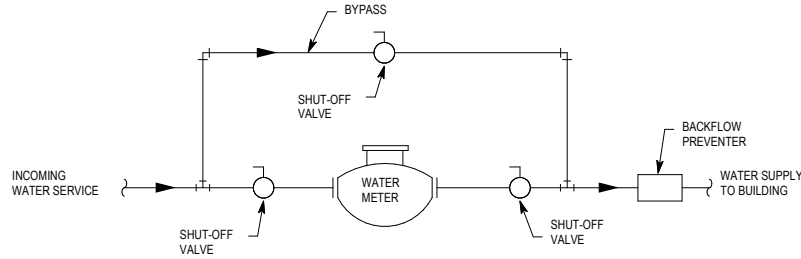


7 GAS FIRED UNIT HEATER
M304 NOT TO SCALE

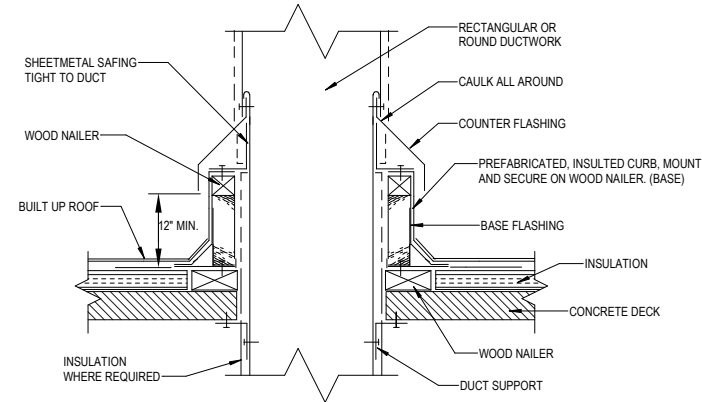


- NOTES:
1. TYPICAL FOR NON-INSULATED PIPING AND CONDUIT.
 2. TYPICAL FOR MASONRY OR CONCRETE WALL.
 3. FOR WALL PENETRATION WITH FIRE RATINGS GREATER THAN (1) HOUR, USE THUNDERLINE "PYRO-PAC" SEALS OR EQUAL.
 4. WHERE PIPING EXPOSED AT FINISHED WALL, FLUSH MOUNT SLEEVE, AND PROVIDE AN ESCUTCHEON PLATE.

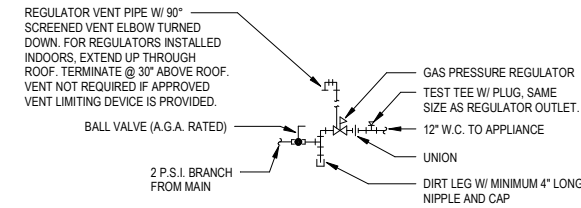
2 PIPE PENETRATION THRU EXTERIOR WALLS
M304 NOT TO SCALE



5 WATER METER INSTALLATION
M304 NOT TO SCALE

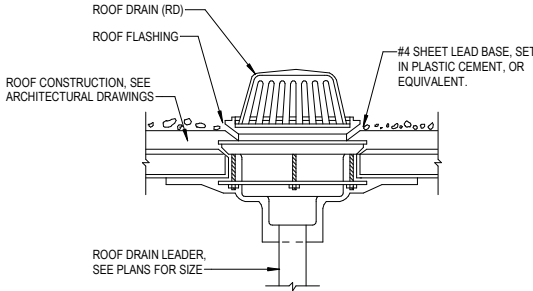


3 DUCT PENETRATION THROUGH ROOF
M304 NOT TO SCALE



6 GAS PRESSURE REGULATOR ASSEMBLY
M304 NOT TO SCALE

- NOTES:
1. LOCATE ROOF DRAINS AT LOW POINTS OF ROOF, AS SHOWN ON PLAN.
 2. ALL ROOF FLASHING WORK AND MATERIALS ARE THE RESPONSIBILITY OF THE ROOFING CONTRACTOR.
 3. ROOFING CONTRACTOR MAY USE AN ALTERNATE FLASHING ARRANGEMENT PROVIDED IT HAS BEEN SUBMITTED TO AND APPROVED BY THE ARCHITECT.



8 ROOF DRAIN
M304 NOT TO SCALE



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

SEH Project MADWU 182222
Checked By CAH
Drawn By KML

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
--------	-------------	------

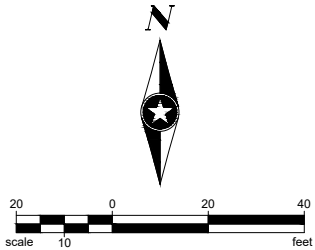
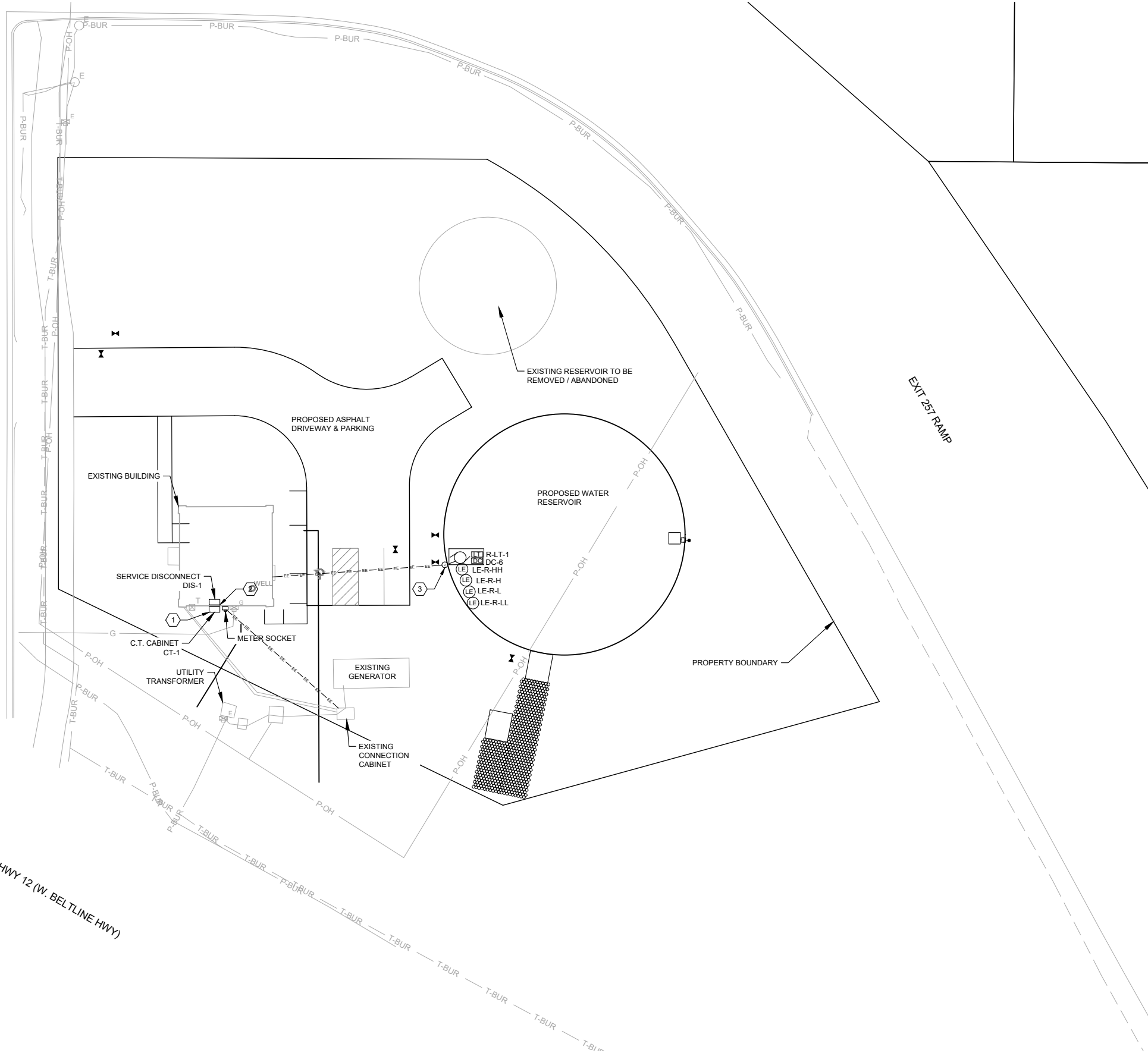
MECHANICAL DETAILS

01
M304

Save: 6/30/2025 3:41 PM renmth Plot: 6/30/2025 3:45 PM X:\KOWMADWU\182225-final-dgn\15-drawings\05-Elect\E101 - Electrical Site Plan.dwg

S. WHITNEY WAY

U.S. HWY 12 (W. BELTLINE HWY)



SITE POWER GENERAL NOTES

- A. ALL CONDUIT SHOWN IS APPROXIMATE. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH ALL OTHER TRADES AND UTILITIES TO AVOID CONFLICTS WITH NEW WORK AND EXISTING CONDITIONS PRIOR TO INSTALLATION.
- B. ALL HANDHOLE LOCATIONS AND QUANTITIES ARE APPROXIMATE. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT HANDHOLE LOCATIONS PRIOR TO INSTALLATION. ELECTRICAL CONTRACTOR SHALL DETERMINE IF ADDITIONAL HANDHOLES ARE REQUIRED DUE TO SITE CONDITIONS OR PULLING REQUIREMENTS. PROVIDE AND INSTALL IF ADDITIONAL HANDHOLES ARE INDEED REQUIRED.
- C. COORDINATE ALL ELECTRICAL SERVICE REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, UTILITY TRANSFORMER, PRIMARY AND SECONDARY CONDUIT AND WIRING, AND METERING WITH ELECTRICAL UTILITY. SEE SPECIFICATION SECTION 26 00 00 FOR MORE INFORMATION.
- D. SEE ONE-LINE DIAGRAMS FOR CONDUIT/WIRE REQUIREMENTS. SEE SHEETS E501 AND E502.
- E. SEE DETAIL 5/E801 FOR DIRECT BURIED CONDUIT DETAILS.

KEYNOTES

- 1. UTILITY TO PROVIDE CONNECTIONS BETWEEN EXISTING CONNECTION CABINET AND NEW C.T. CABINET CT-1.
- 2. PROVIDE CONNECTION BETWEEN C.T. CABINET CT-1 AND SERVICE DISCONNECT DIS-1.
- 3. EMBED CONDUIT IN TANK PLASTER COATING AND RUN UP TANK. SEE PROCESS SHEET'S XXX FOR REFERENCE.

1
E101

ELECTRICAL - SITE PLAN

SCALE: 1"=20'



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison, WI 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project MADWJ 182222
Checked By JAM
Drawn By DDH

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

ELECTRICAL SITE PLAN

E101

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

6/30/2025 3:46:18 PM

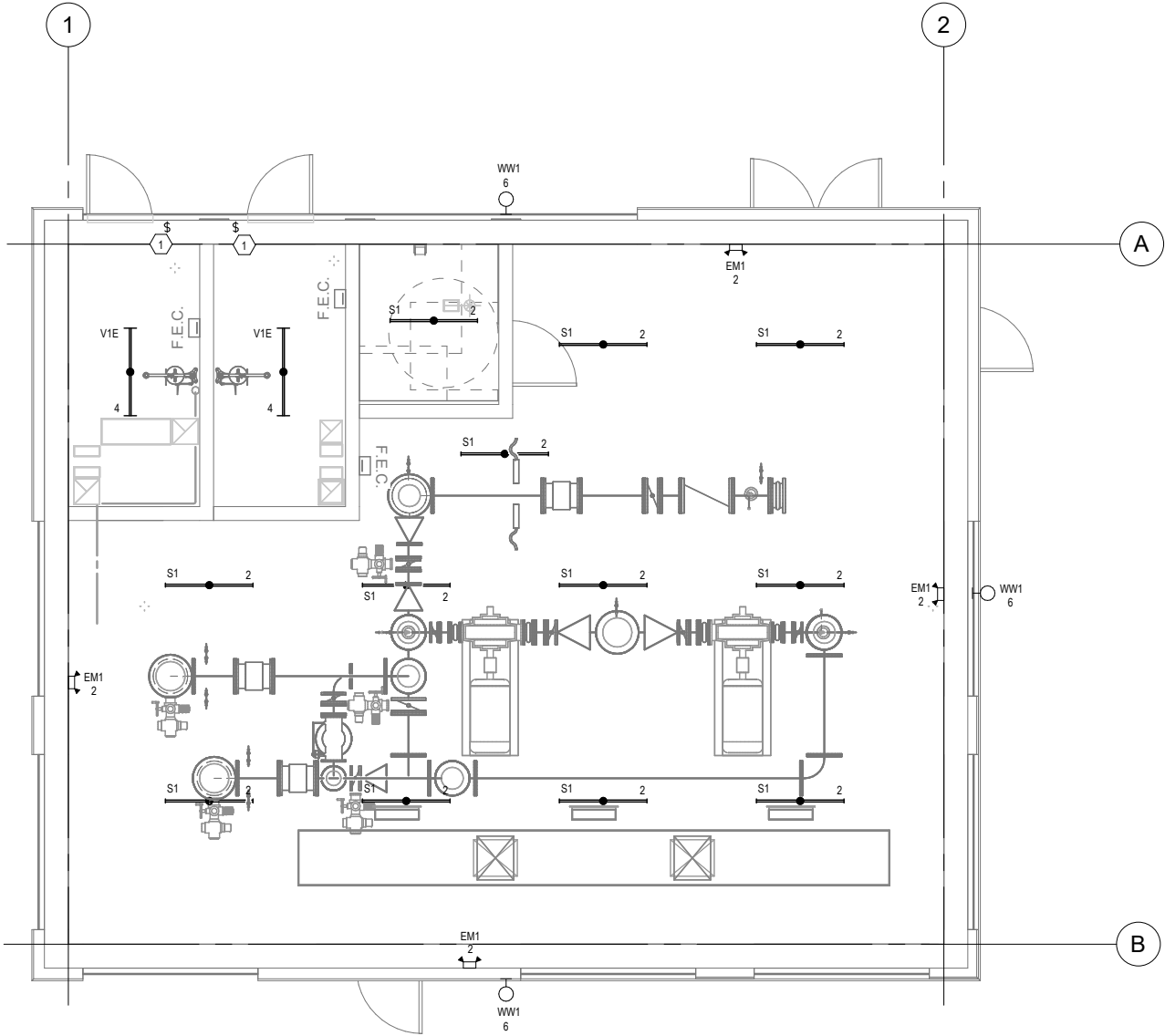
LIGHTING FIXTURE SCHEDULE									
	TYPE	DESCRIPTION	MOUNTING	VOLT	WATT	MFR	CATALOG SERIES	NOTE	Count
	EM1	EMERGENCY LIGHT, THERMOPLASTIC (2) 1.0W LED HEADS (DAMP LOCATION)	WALL	120 V	2 W	LITHONIA	ELUC SD		4
	S1	4' LED STRIP, FROSTED ROUND DROP LENS (ELEC RM/ GENERAL AREAS)	Fixture may be surface mounted (with or without ZSPRG hanger), pendant or stem mounted with appropriate mounting options. Six-point aligner looks in place for easy continuous row mounting.	120 V	30 W		HZL1D L48 3000LM FST MVOLT 40K 80CRI WH		12
	V1E	4' LED VAPORPROOF WIEM BATT, ACRYLIC, LINEAL RIBBED FROSTED LENS	Surface/Suspended	120 V	18 W	LITHONIA	FEM L48 3000LM IMAFL MD MVOLT 40K 80CRI E10WCP		2
	WW1	EXTERIOR LED W/ 90 DEG CUTOFF, PHOTOCELL (MAN DOORS/ 7.5' OR 8' MOUNTING)	WALL	120 V	28 W	HOLOPHANE	HLWPC2 P10 40K AS TFTM BZSDP PE		3

LIGHTING GENERAL NOTES

- A. ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILING GRIDS SHALL BE INSTALLED WITH A 6'-0" LONG FLEXIBLE METAL CONDUIT.
- B. ALL MOUNTING HEIGHTS ARE FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURE UNLESS OTHERWISE NOTED.
- C. REFER TO SPECIFICATION SECTION 26 05 19 FOR MINIMUM CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.
- D. CIRCUIT NUMBERS SHOWN AT LIGHT FIXTURE LOCATIONS CORRESPOND TO PANELBOARD BREAKERS. SEE PANELBOARD SCHEDULES ON SHEET E701.
- E. ALL EMERGENCY LIGHT FIXTURES SHALL BE FED FROM AN UNSWITCHED LEG OF ROOM LIGHTING CIRCUIT.
- F. WIRE FOR CIRCUIT CONDUCTORS NOT SHOWN. PROVIDE PROPER NUMBER OF CONDUCTORS TO ACHIEVE CIRCUIT AND SWITCHING CONNECTIONS SHOWN.
- G. SEE LIGHT FIXTURE SCHEDULE ON THIS SHEET.

KEYNOTES

1. INTER-LOCK EXHAUST FAN WITH ROOM LIGHTING. REFER TO SCHEMATIC 4/E601 FOR ADDITIONAL INFORMATION.



1
E201
LIGHTING PLAN
1/4" = 1'-0"



PROJECT
NORTH



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

SEH Project 182222
Checked By JAM
Drawn By NDS

Project Status Issue Date
DNR SUBMITTAL 06/30/2025

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
--------	-------------	------

LIGHTING PLAN

01
E201

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

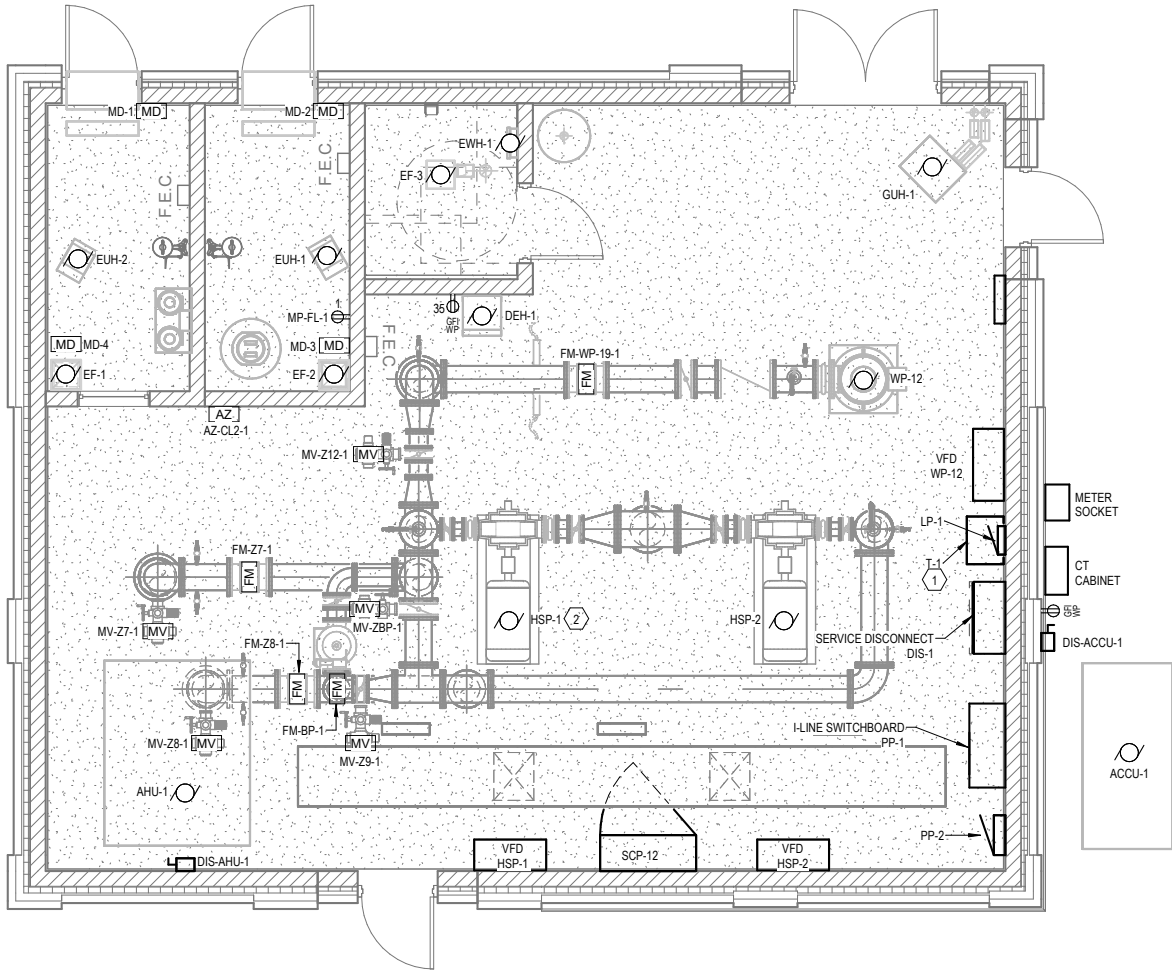


6/30/2025 3:46:20 PM

1
E301 POWER PLAN

1/4" = 1'-0"

0 2' 4' 8'



POWER GENERAL NOTES

- PROVIDE HOUSE KEEPING PADS FOR ALL FLOOR AND GRADE MOUNTED ELECTRICAL EQUIPMENT. MINIMUM REQUIREMENTS: 4" HIGH, 4" WIDER AND LONGER THAN EQUIPMENT TO BE PLACED ON IT, 4% AIR ENTRAINED, POLYFIBER REINFORCED CONCRETE.
- REFER TO SPECIFICATION SECTION 26 05 19 FOR MINIMUM CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.
- CIRCUIT NUMBERS SHOWN AT GENERAL RECEPTACLE, ELECTRICAL EQUIPMENT, AND MECHANICAL EQUIPMENT LOCATIONS CORRESPOND TO PANELBOARD BREAKERS. SEE PANELBOARD SCHEDULES ON SHEET E701.
- SEE ONE-LINE DIAGRAMS FOR CONDUIT AND WIRING REQUIREMENTS. SEE SHEETS E501 AND E502.
- SEE PANELBOARD SCHEDULES ON SHEET E701 FOR CONDUIT AND WIRING REQUIREMENTS.
- SEE MECHANICAL PLANS AND SCHEDULES FOR ALL HVAC AND PLUMBING POWER REQUIREMENTS AND DETAILS.

KEYNOTES

- WALL MOUNT TRANSFORMER ABOVE LP-1.
- SALVAGED PUMP.



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved.

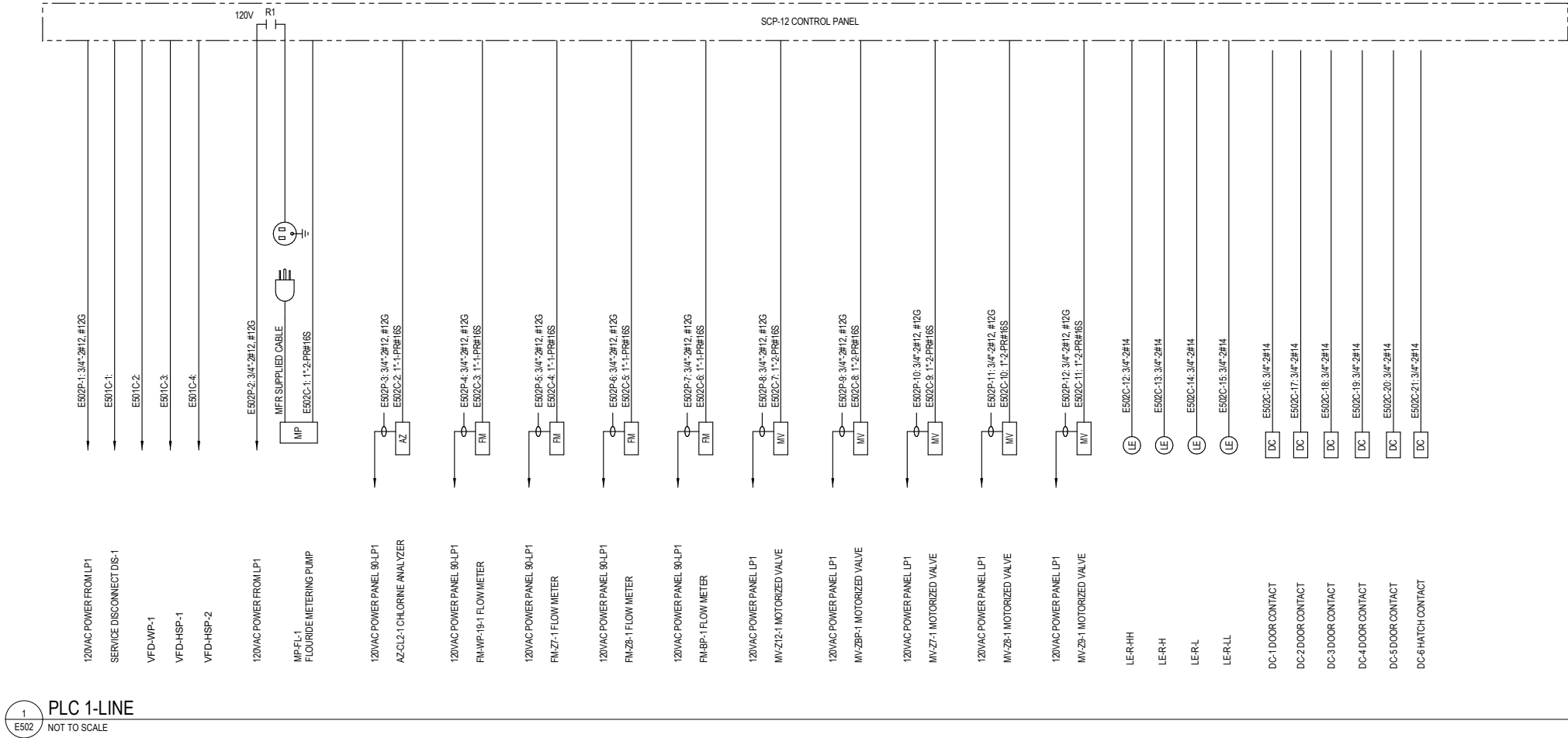
SEH Project 182222
Checked By JAM
Drawn By NDS

Project Status Issue Date
DNR SUBMITTAL 06/30/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

POWER AND
INSTRUMENTATION PLAN

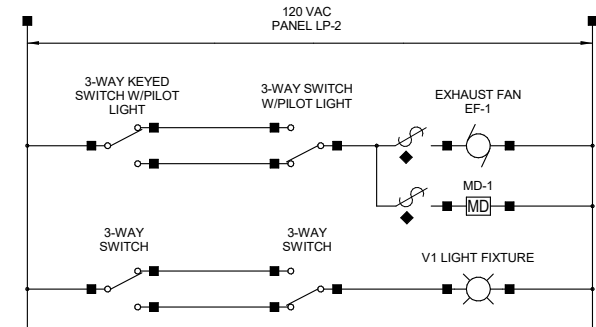
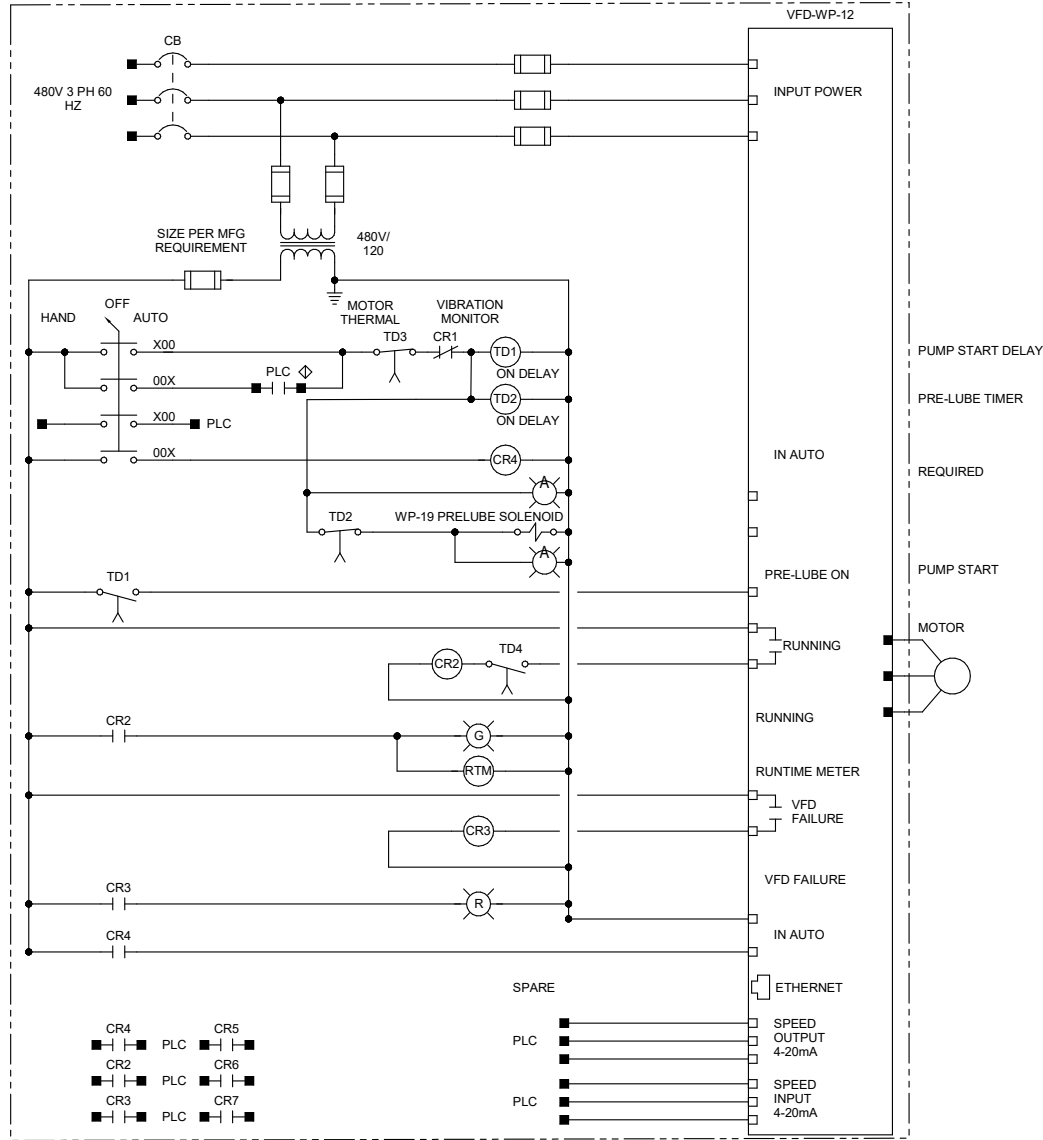
01
E301



THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

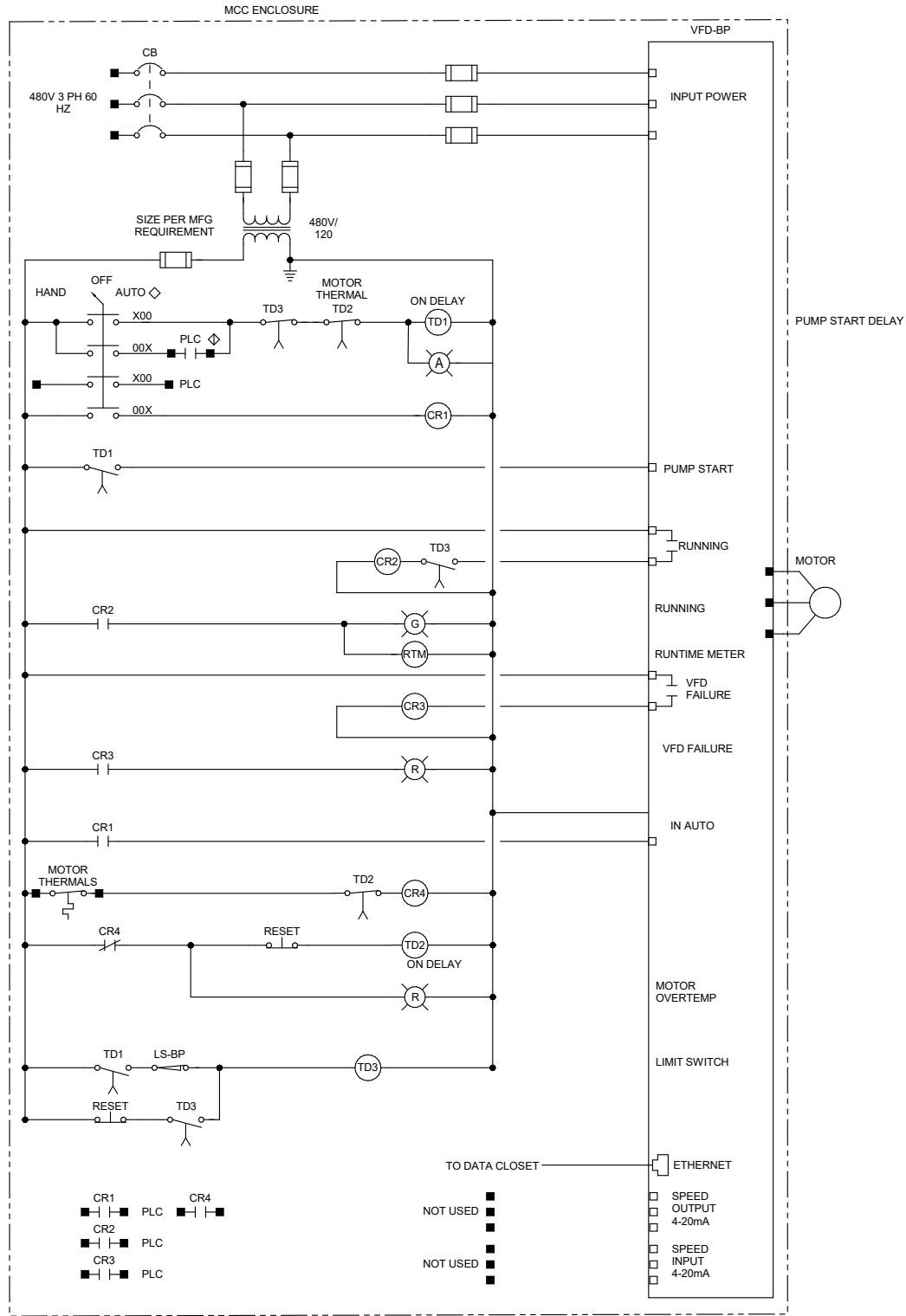
6/30/2025 3:46:20 PM

1
E601
WELL PUMP SCHEMATIC
NOT TO SCALE



4
E601
CHEM ROOM EXHAUST FAN/LIGHTING INTER-LOCK
NOT TO SCALE

2
E601
BOOSTER PUMP SCHEMATIC
NOT TO SCALE



SCHEMATIC SYMBOLS - LOCATIONS AND CONNECTIONS	
◆	DEVICE AT MOTOR
◇	DEVICE AT PLC
◇	DEVICE AT MFR CP
•	CONNECTION POINT
■	EXTERNAL CONNECTION POINT



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project 182222
Checked By JAM
Drawn By NDS

Project Status ONR SUBMITTAL
Issue Date 06/30/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

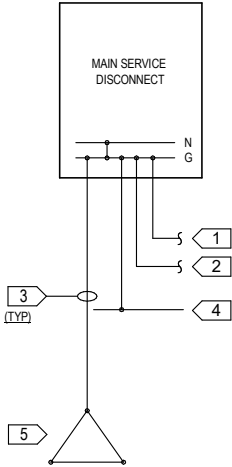
ELECTRICAL SCHEMATICS

01
E601

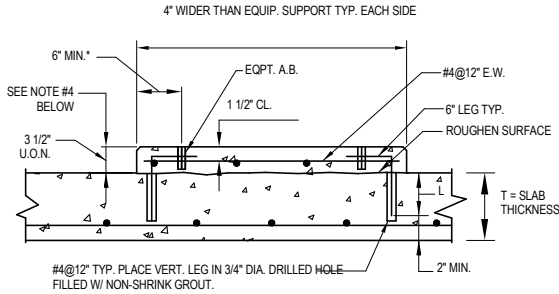
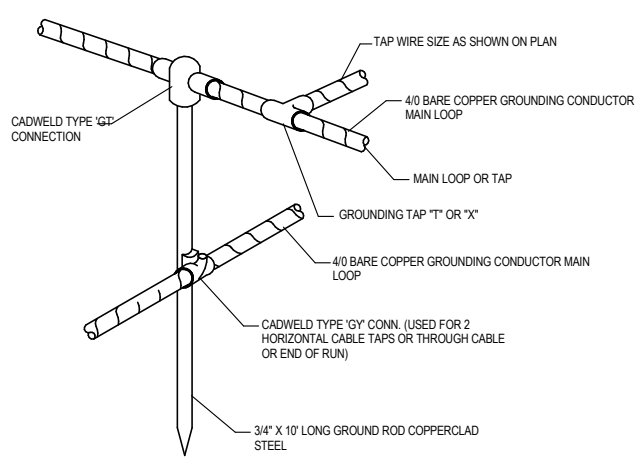
PANELBOARD: PP-2															
LOCATION: PUMP 104				VOLTAGE: 480Y/277 V, 3 ø 4 W.											
MOUNTING: FLUSH NEMA1				A.I.C. RATING: 22,000 AMPS SYMMETRICAL											
MAIN DEVICE: 200.0 A MAIN CB				SPECIAL:											
BUS AMPS: 200 AMPS															
CONDUIT/ WIRE	LOAD DESCRIPTION	BKR	P	CKT	PHASE A kVA	PHASE B kVA	PHASE C kVA	CKT	P	BKR	LOAD DESCRIPTION	CONDUIT/ WIRE			
3/4" - 3#10, #12G	EUH-1	30 A	3	1	0.0	0.0				2	3	20 A	AHU-1	3/4" - 3#12, #12G	
				3			0.0	0.0							4
				5				0.0	0.0						6
				7	0.0	0.0									8
3/4" - 3#12, #12G	EUH-2	20 A	3	9			0.0	0.0		10	3	70 A	ACCU-1	1" - 3#4, #8G	
				11				0.0	0.0						12
				13	0.0	0.0									14
				15			0.0	0.0							16
	SPARE	70 A	3	17				0.0	0.0		3	30 A	SPARE		
				19	0.0	0.0				20					
				21			0.0	0.0		22					
				23				0.0	0.0						24
	SPARE	20 A	3	25							2	20 A	SPARE		
				27											28
				29											30
				31											32
				33											
				35											
				37											
				39											
				41											
				42											
TOTAL LOAD:					0 kVA	0 kVA	0 kVA								
TOTAL AMPS:					0 A	0.0 A	0 A								
LOAD CLASSIFICATION		CONNECTED			DEMAND		ESTIMATED		PANEL TOTALS						
									CONNECTED LOAD: 0 VA						
									ESTIMATED DEMAND: 0 VA						
									CONNECTED CURRENT: 0.0 A						
									EST. DEMAND CURRENT: 0.0 A						
NOTES:															

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE

6/30/2025 3:46:20 PM



- KEYNOTES:
1. BONDING CONDUCTOR TO EXTERIOR ELECTRICAL PANELS, EXTERIOR ANTENNAS, EXTERIOR EXPOSED PIPE AND BUILDING STEEL.
 2. CONNECTION TO METAL WATER PIPE, (IF AVAILABLE).
 3. SIZE GROUNDING CONDUCTORS PER NEC.
 4. UFER GROUND - 20' MINIMUM CONCRETE-ENCASED ELECTRODE PER NEC 250.52 (WHEN SHOWN ON PLANS)
 5. GROUND ROD ARRAY, CONSISTING OF THREE (3) GROUND RODS AT LEAST 10' APART AND CONNECTED BY #2/0 AWG BARE COPPER CONDUCTOR.



- PAD NOTES:
1. ABOVE PAD DETAILS APPLY FOR SUPPORT OF ALL EQUIPMENT UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
 2. BEFORE EQUIPMENT SUPPORT PADS ARE POURED, THE PAD SIZES SHALL BE REVIEWED AND APPROVED.
 3. 6" MIN. PAD EDGE DIMENSION TO EQUIP. ANCHOR BOLTS (A.B.) APPLIES FOR ALL EQUIP. SUPPORT PADS THIS PROJECT.
 4. PROVIDE AN ADDITIONAL LAYER OF #4@12" E.W. W/ 1-1/2" CL. T&B FOR EACH 8" ADDIT. PAD THICKNESS EXCEEDING THE 3-1/2" THICKNESS.
 5. L = T-2", BUT L NEED NOT EXCEED 6".

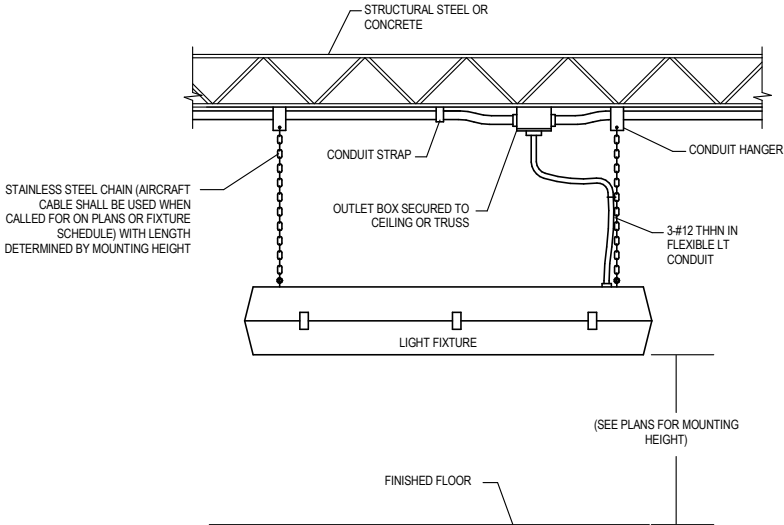
KEYNOTES

1. NOT USED.

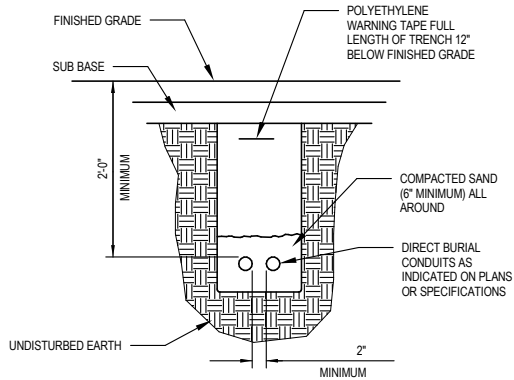
1 GROUNDING DETAIL
E801 NOT TO SCALE

2 GROUND ROD DETAIL
E801 NOT TO SCALE

3 EQUIPMENT PAD INTERIOR
E801 NOT TO SCALE



4 SUSPENDED FIXTURE DETAIL
E801 NOT TO SCALE



- NOTES:
1. BACKFILL OF SELECT COMMON FILL COMPACTED IN LIFTS OF 6" (DEPTH VARIES)

5 DIRECT BURIED CONDUIT DETAIL
E801 NOT TO SCALE



Project Owner

MADISON, WISCONSIN
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI, 53711

This drawing is an instrument of service and shall remain the property of Short Elliott Hendrickson, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, revised, or retained without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

COPYRIGHT © 2024
Short Elliott Hendrickson, Inc.
All Rights Reserved

SEH Project 182222
Checked By JAM
Drawn By NDS

Project Status Issue Date
DNR SUBMITTAL 06/30/2025

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE
--------	-------------	------

ELECTRICAL DETAILS

01
E801

Project Owner

Madison Water Utility
UNIT WELL 12 RECONSTRUCTION

801 S. Whitney Way
Madison WI 53711

This drawing is an instrument of service and shall remain the property of Short & Eckstut Handikraft, Inc. (SEH). This drawing, concepts and ideas contained herein shall not be used, reproduced, copied, or related without the express written approval of SEH.

Submission or distribution of this drawing to meet official or regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of any of the rights of SEH.

SEH Project
Checked By
Drawn By

MADWU 182222
IS
DD

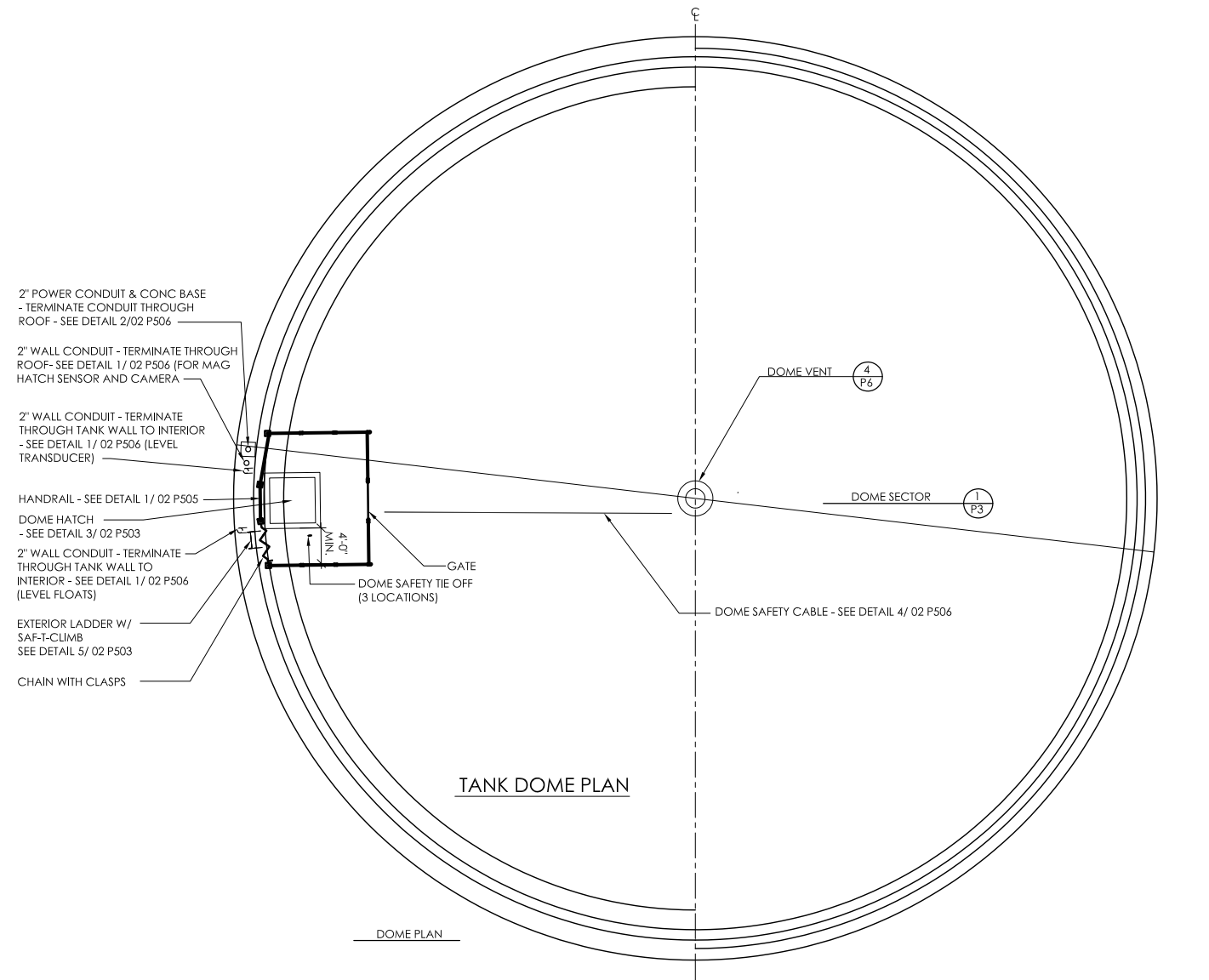
Project Status
DNR SUBMITTAL

Issue Date
6/30/2025

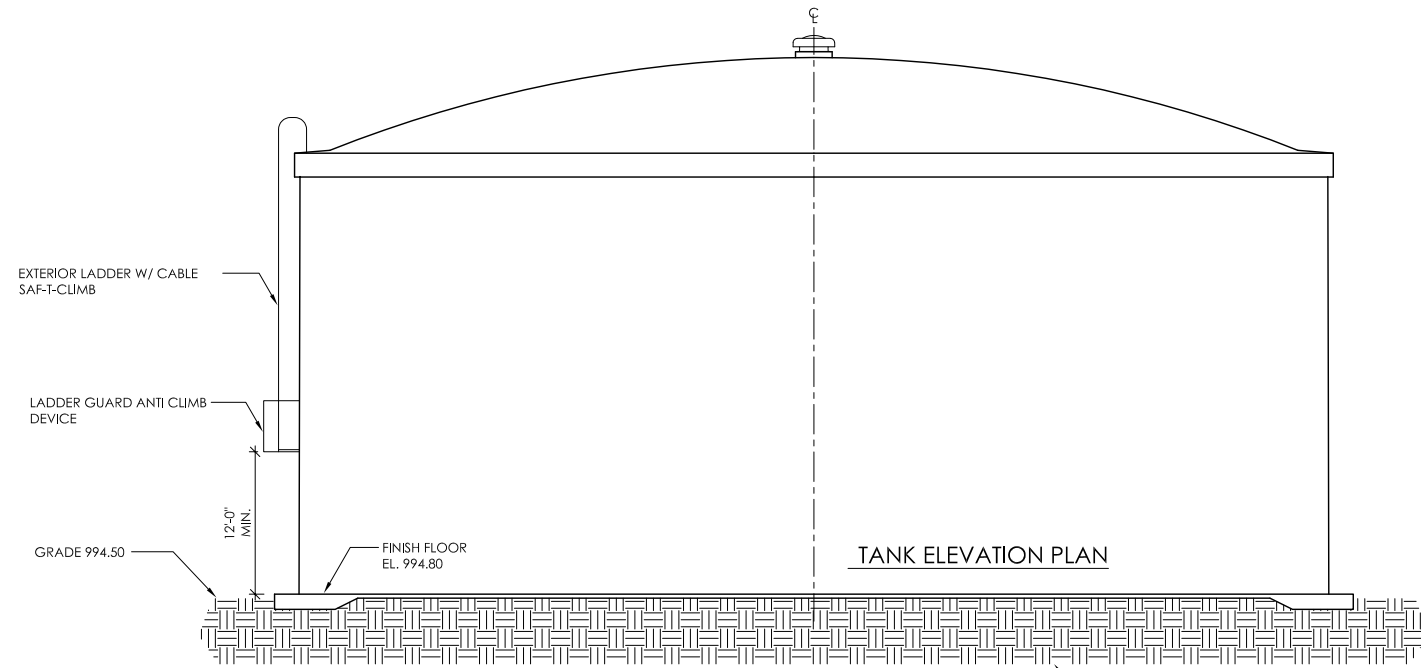
REVISION SCHEDULE
REV.# DESCRIPTION DATE

WATER STORAGE TANK
PLAN & SECTION

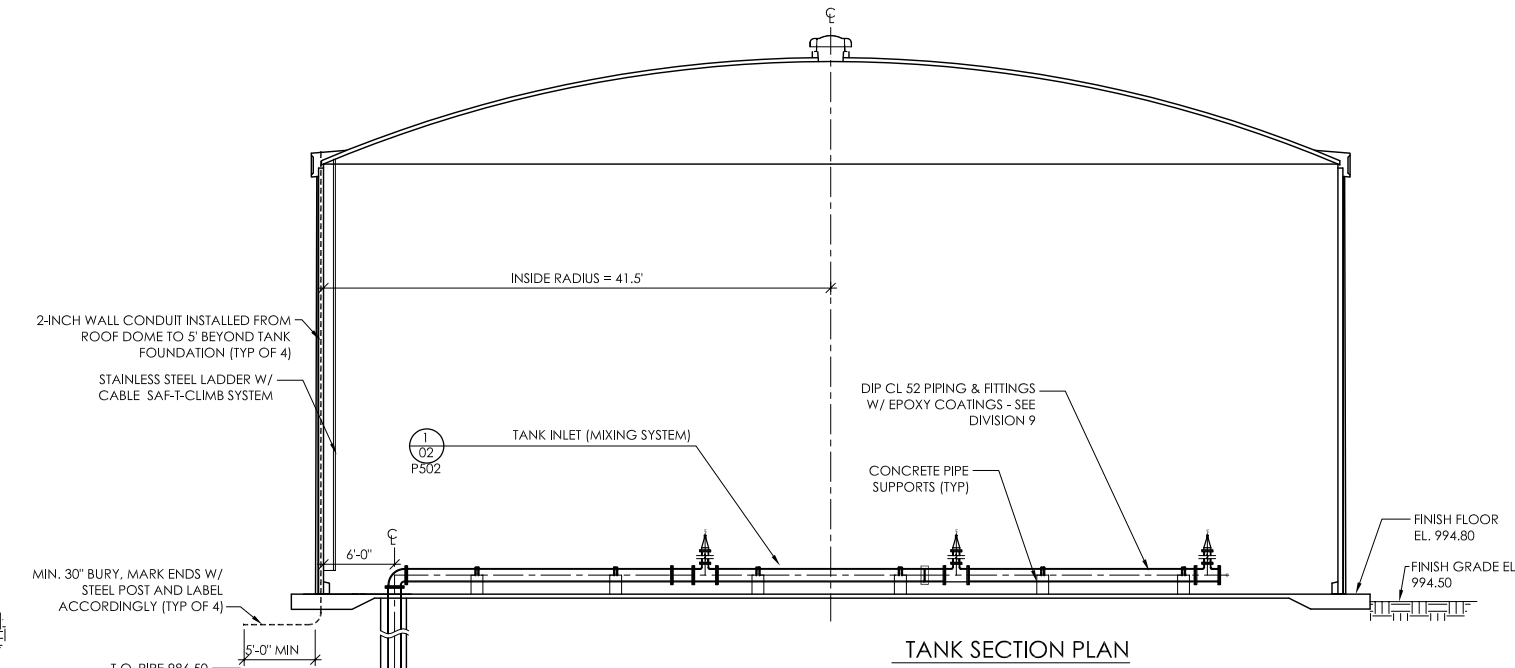
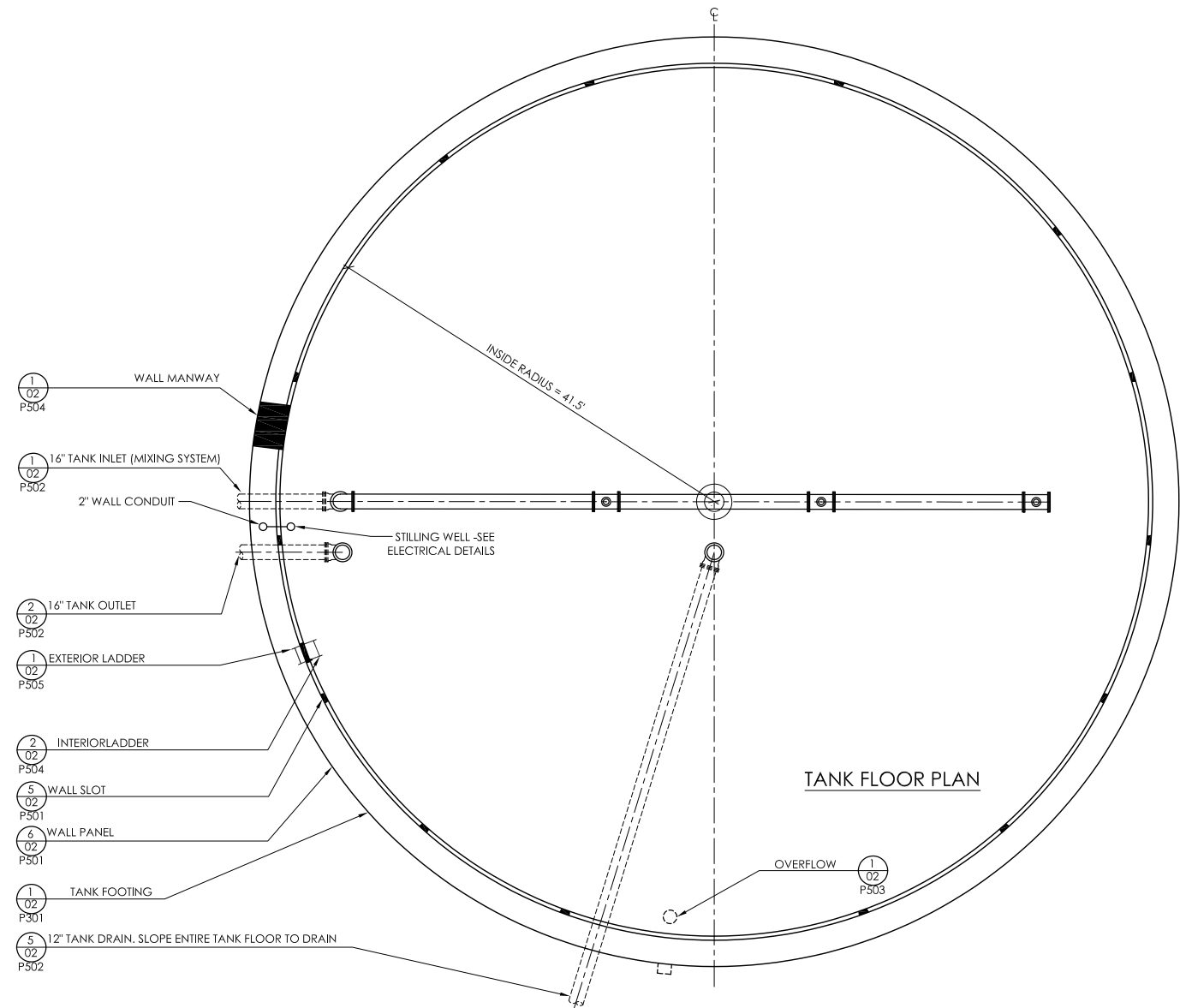
02
P101



- NOTES:
1. FINAL LOCATION OF ALL PIPING AND APPURTENANCES TO BE DETERMINED BY THE ENGINEER.
 2. THE EXTERIOR DOME CONCRETE SURFACES SHALL RECEIVE ONE COAT OF TAMOSEAL AND ONE COAT OF TAMMSCOAT SMOOTH. THE EXPOSED EXTERIOR WALL CONCRETE SURFACES SHALL RECEIVE TWO COATS OF TAMMSCOAT SMOOTH. COLOR SHALL BE SELECTED BY OWNER - SEE SHEET A1 FOR COLOR ASSIGNMENTS
 3. ALL PIPING TO BE COATED PER DIVISION 9.

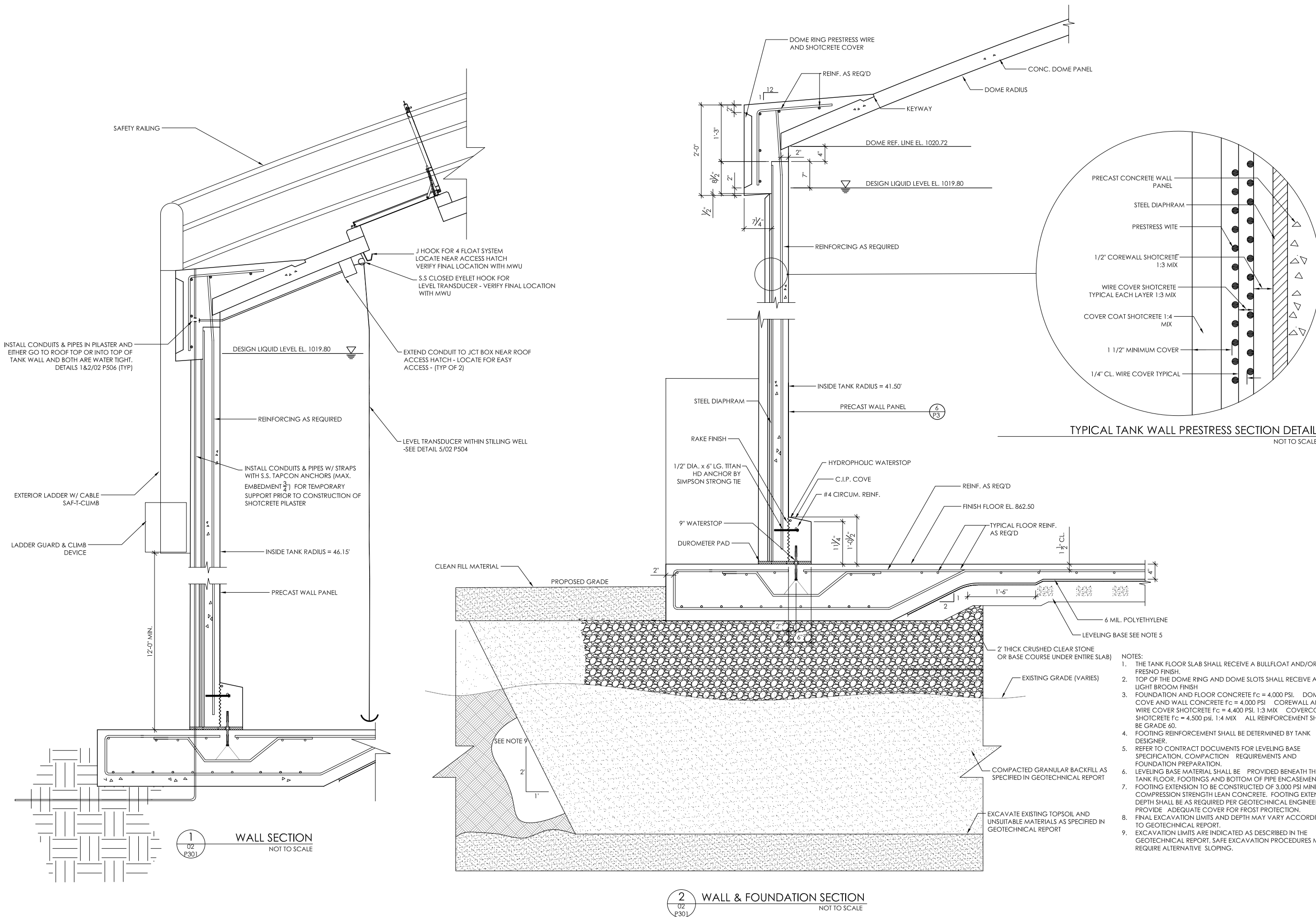


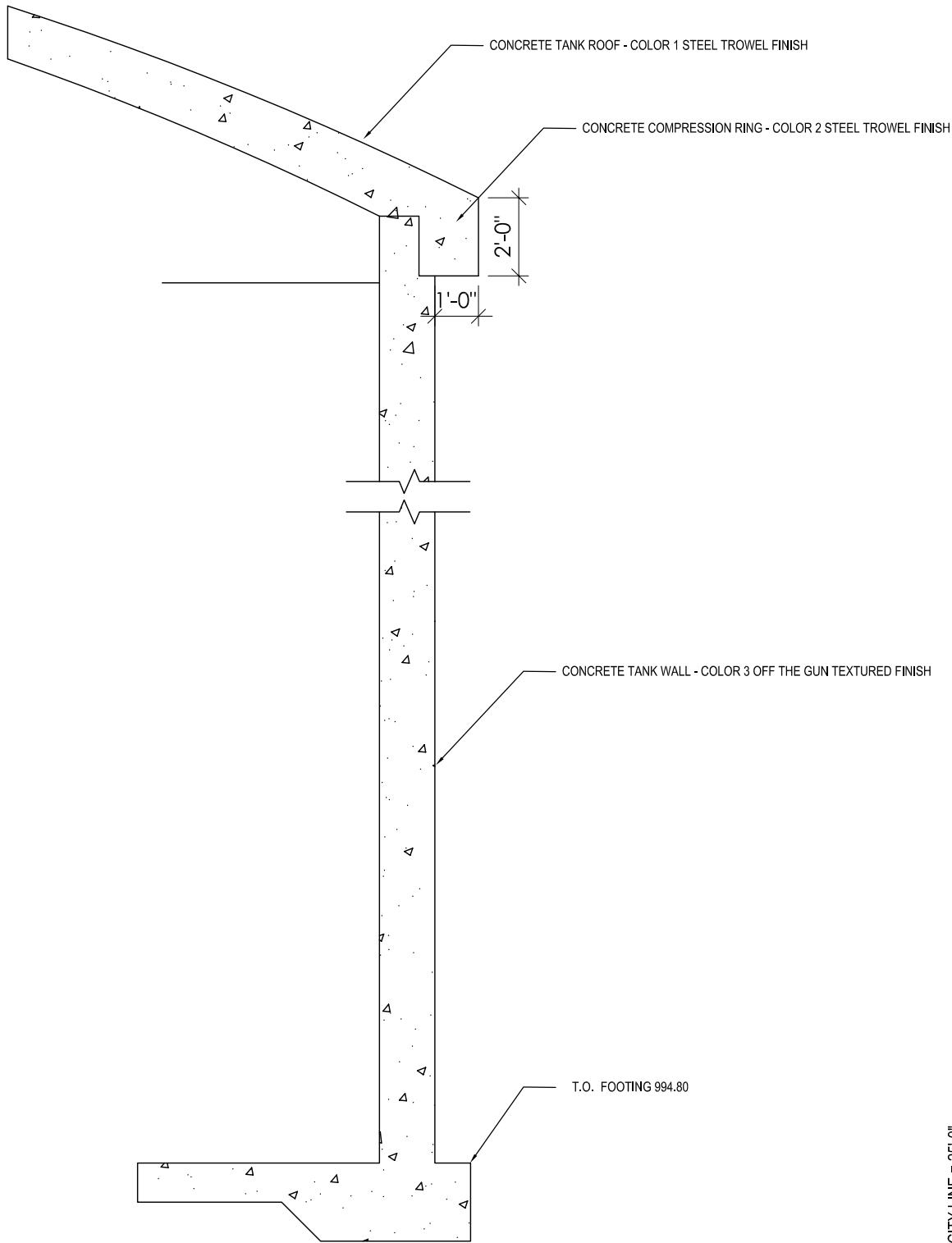
SEE SHEET P2 FOR NOTES REGARDING
EXCAVATION AND TANK BASE PREPARATION



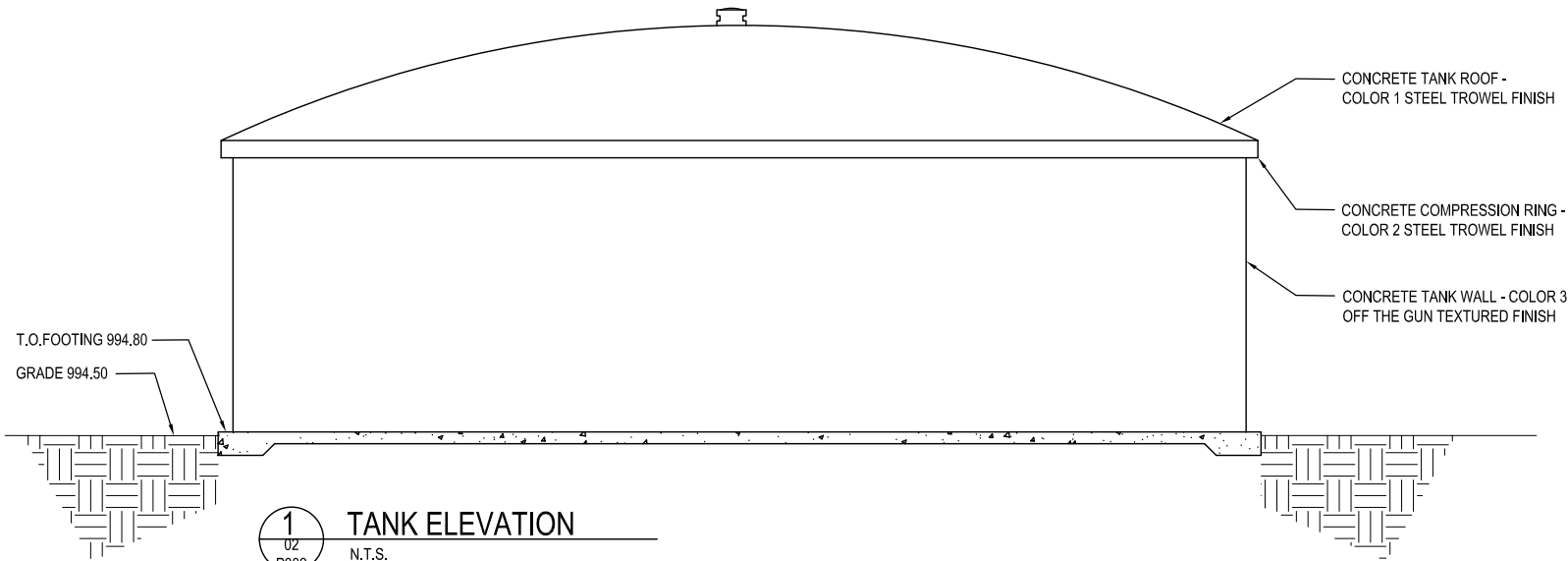
MIN. 30" BURY, MARK ENDS W/
STEEL POST AND LABEL
ACCORDINGLY (TYP OF 4)

T.O. PIPE 986.50
USE STANDARD MEGALUGS
ENCASE BELOW TANK PIPE
IN CONCRETE



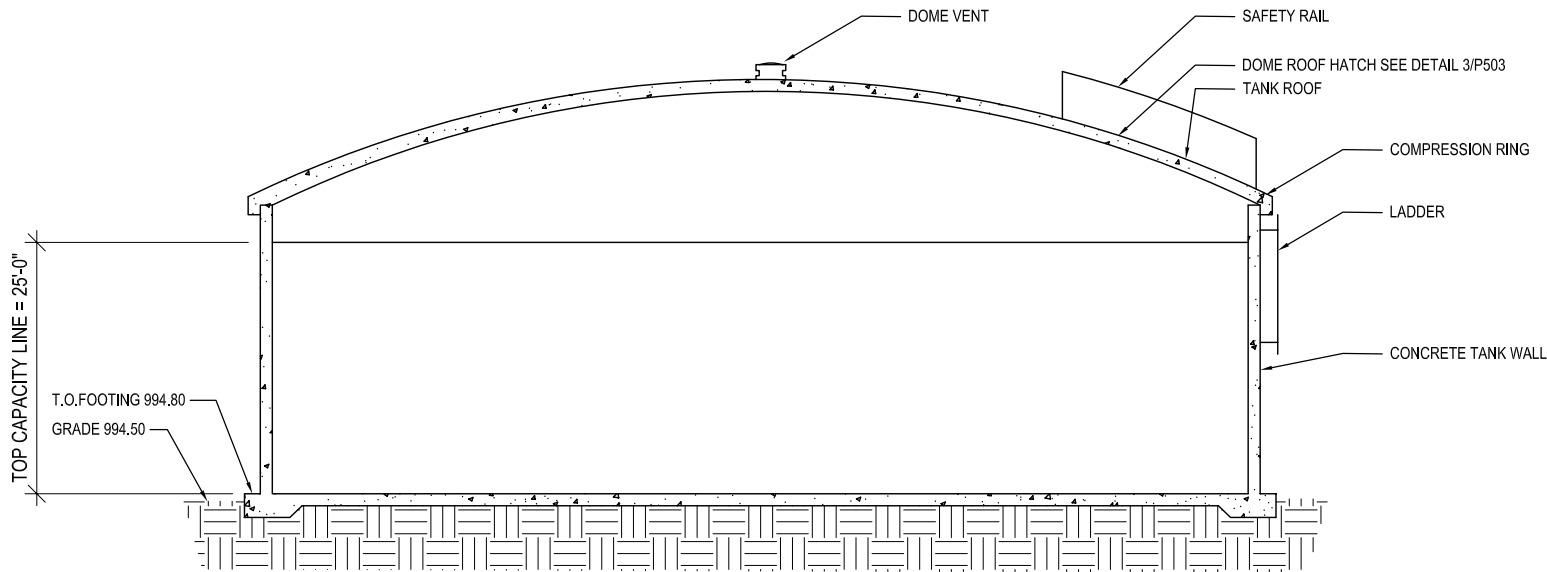


3
02
P302
TANK WALL SECTION
N.T.S.

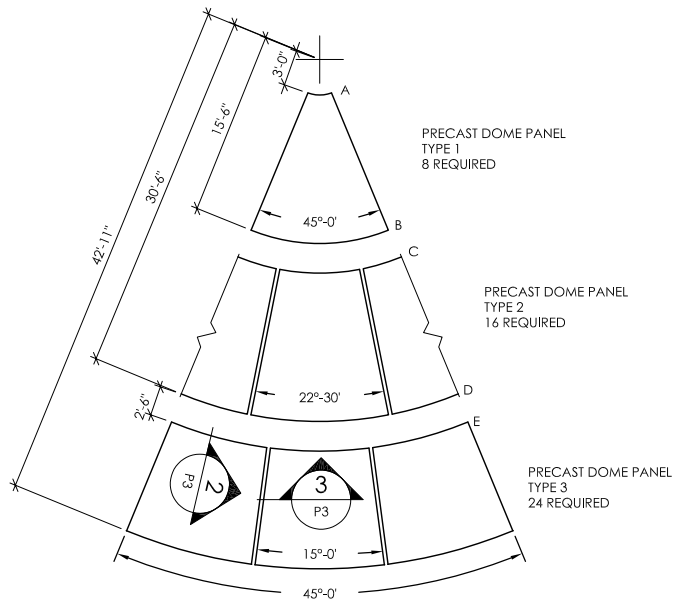


1
02
P302
TANK ELEVATION
N.T.S.

- ELEVATION NOTES:
1. PAINT APPURTENANCES TO MATCH ADJACENT COLOR OF TANK SO AS TO BLEND INTO COLOR SCHEME OF TANK
- SECTION NOTES:
1. SEE OTHER DRAWINGS FOR TANK APPURTENANCES. COORDINATE LOCATION OF APPURTENANCES WITH ENGINEER AND UTILITY OWNER. ATTEMPT TO CONCEAL APPURTENANCES FROM STREET VIEWS TO MINIMIZE VISUAL IMPACT.

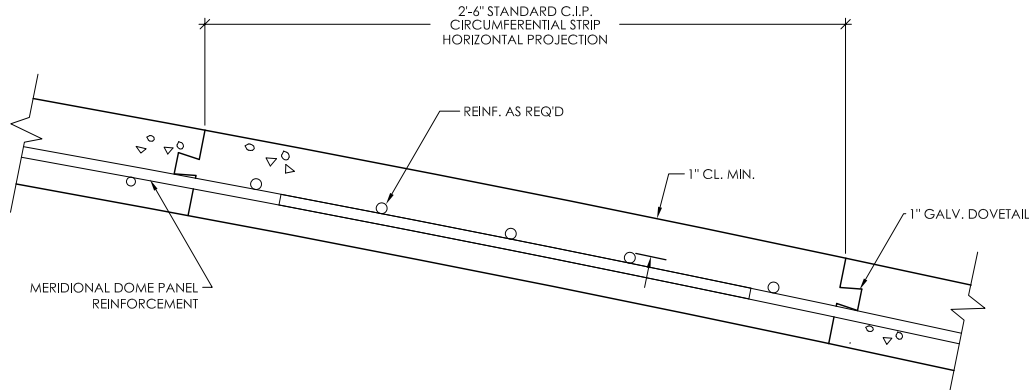


2
02
P302
TANK SECTION
N.T.S.

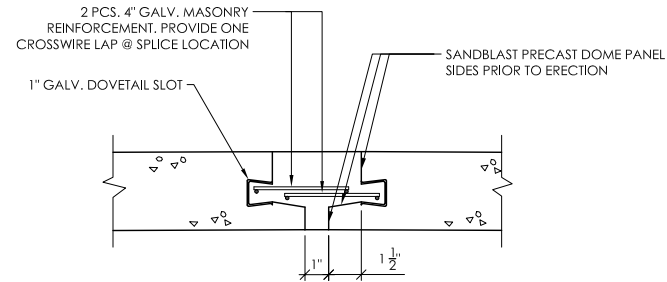


NOTES:
1. SPLICE CIRCUMFERENTIAL JOINT REINFORCING BETWEEN RADIAL JOINTS.
2. RADIAL DIMENSIONS ARE HORIZONTAL PROJECTIONS.
3. DOME PANELS, DOME RING AND DOME SLOTS SHALL RECEIVE A LIGHT BROOM FINISH.

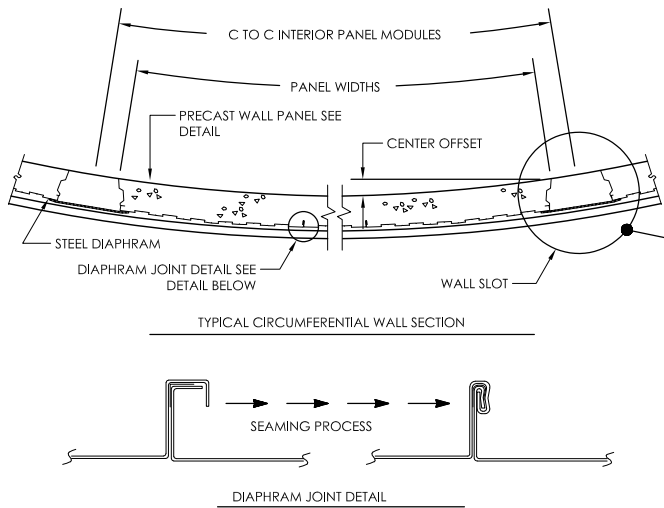
1
02
P501
DOME SECTOR
NOT TO SCALE



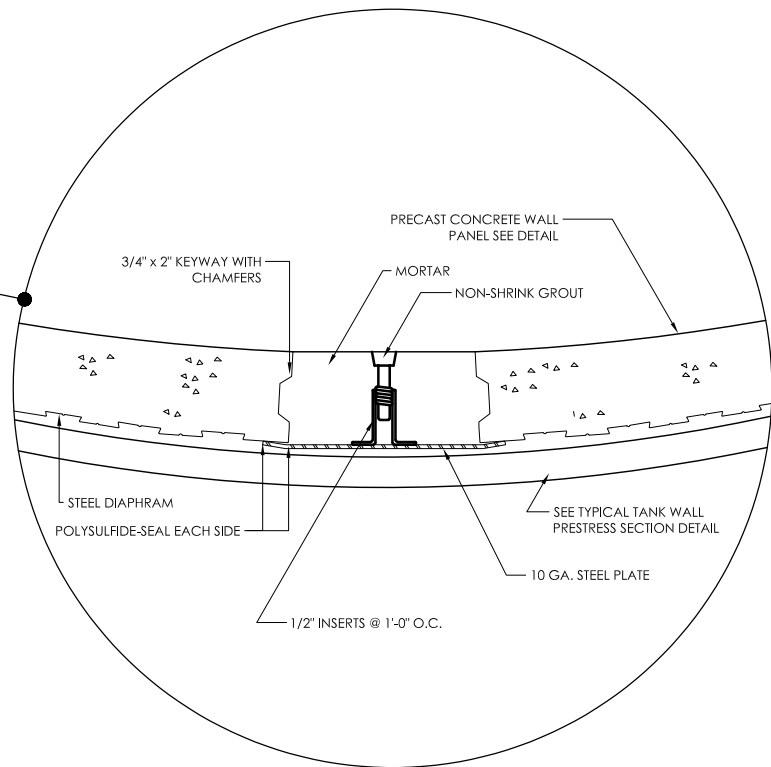
2
02
P501
CIRCUMFERENTIAL DOME
JOINT REINFORCING
NOT TO SCALE



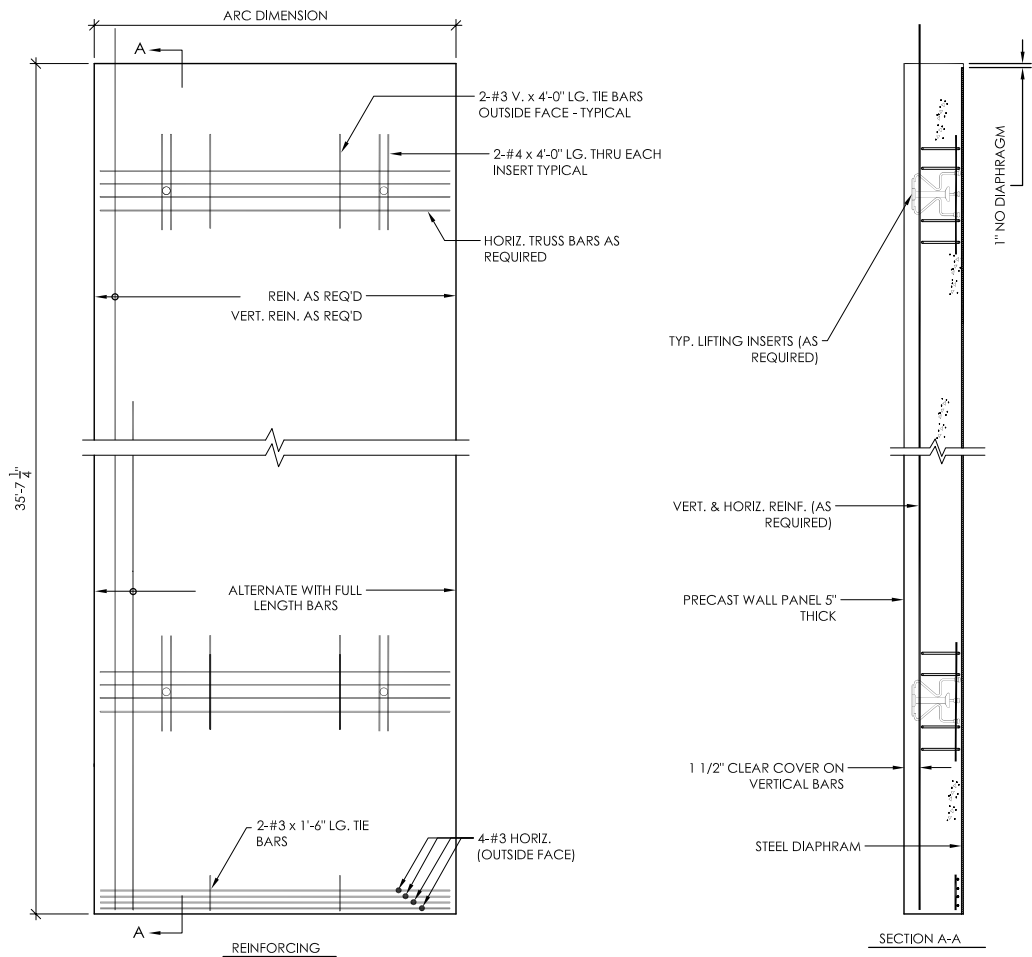
3
02
P501
RADIAL DOME
JOINT REINFORCEMENT
NOT TO SCALE



4
P3
WALL PANEL AND JOINT
NOT TO SCALE

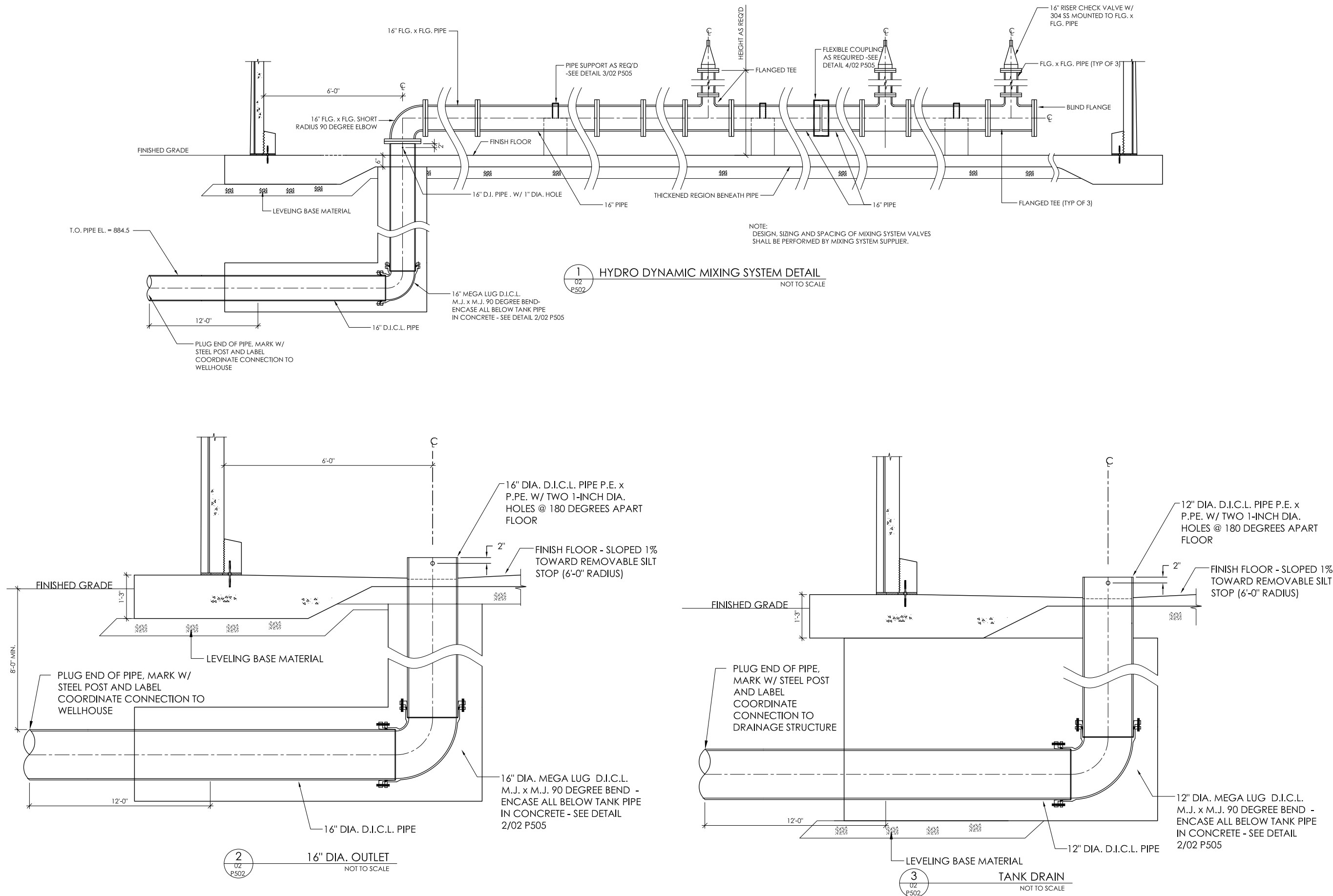


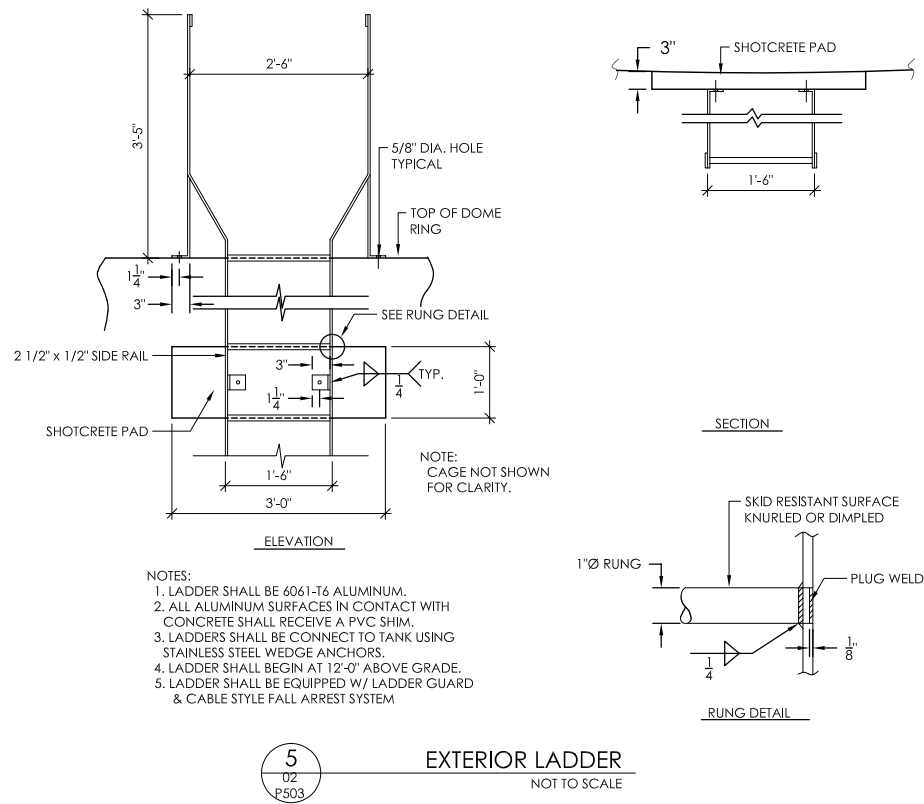
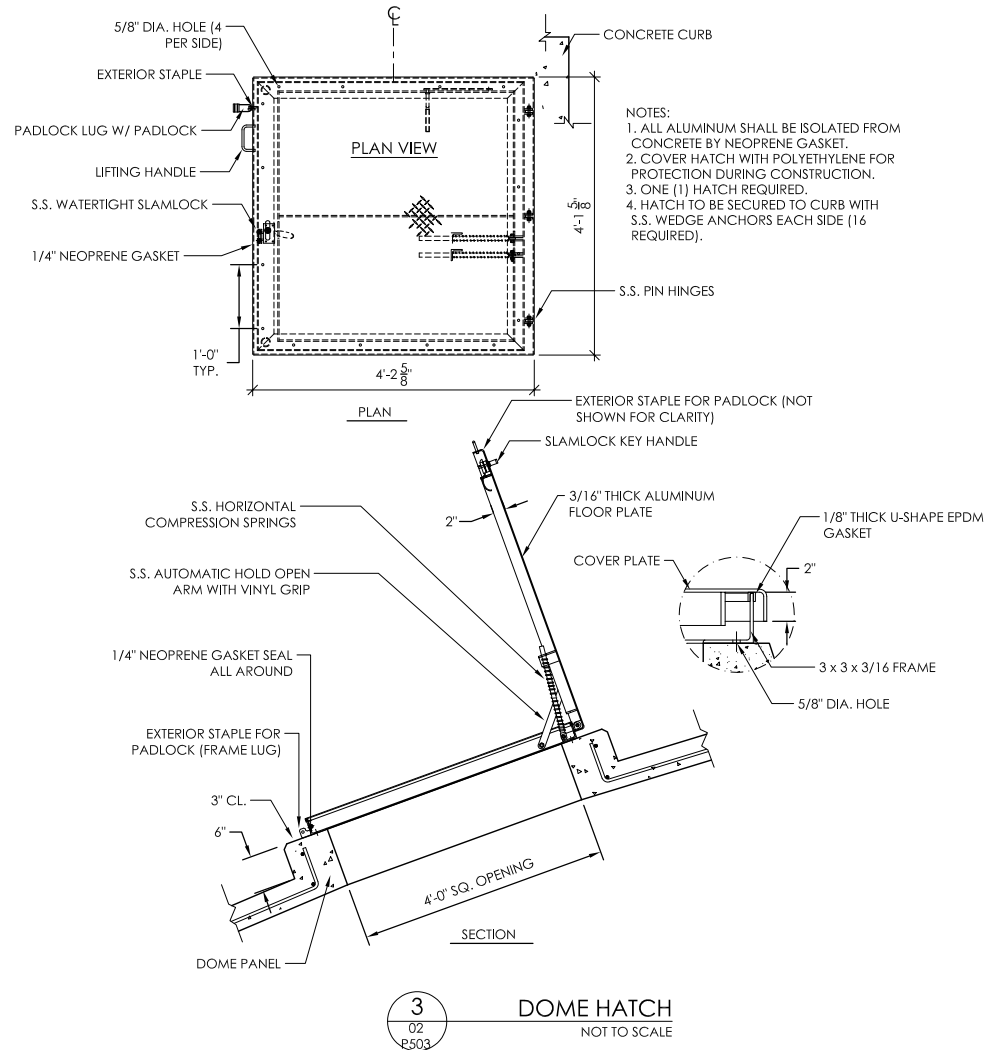
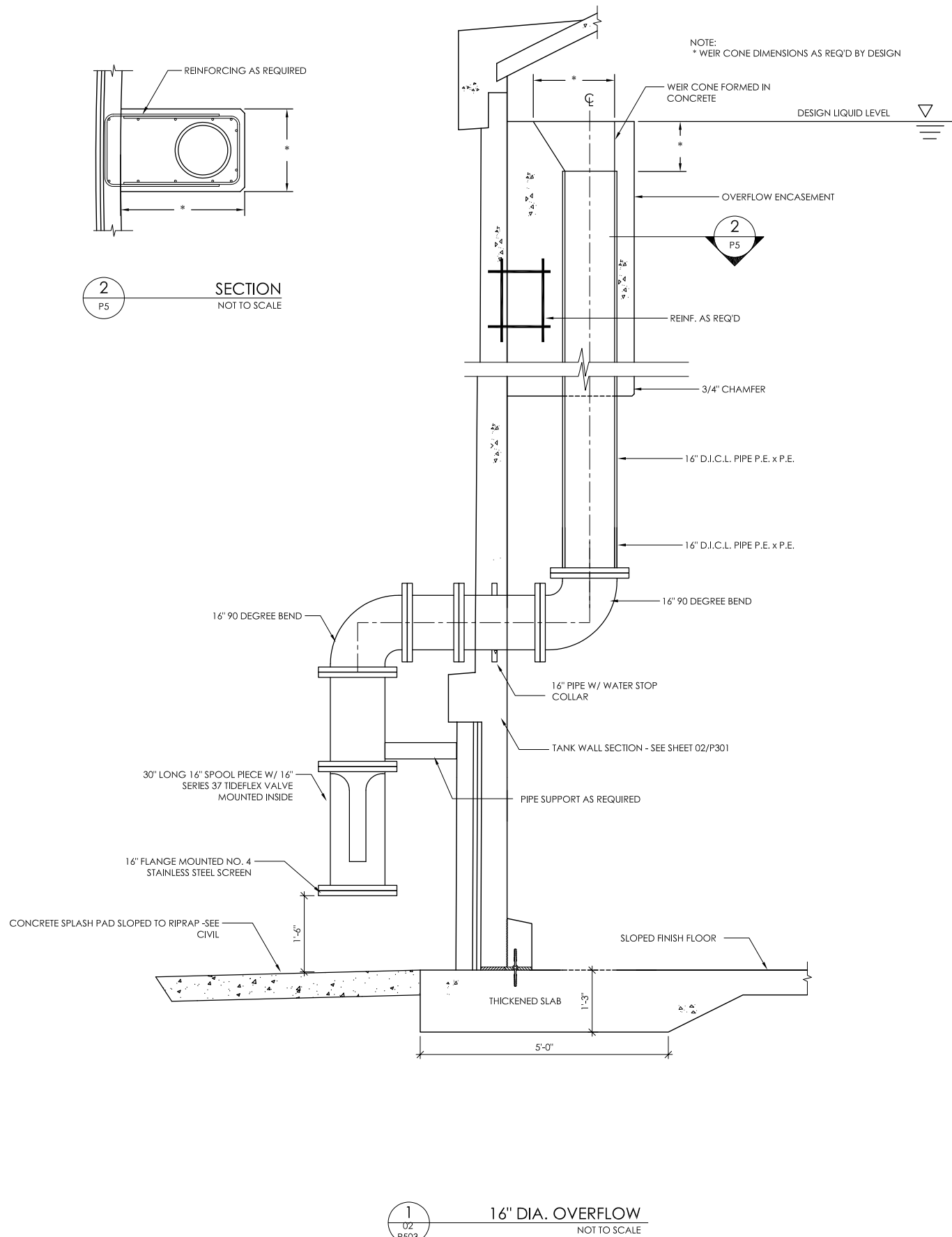
5
02
P501
WALL SLOT DETAIL
NOT TO SCALE



6
02
P501
PRECAST WALL PANEL
NOT TO SCALE

NOTE:
1. WALL PANELS SHALL RECEIVE A HORIZONTAL RAKE FINISH FOR THE BOTTOM 1'-0" OF THE PANEL AND A HORIZONTAL LIGHT BROOM FINISH FOR THE REST OF THE PANEL.







**Madison
Water Utility**

Madison Water Utility - Unit Well 12 Wellhouse and Reservoir Reconstruction
Reuse and Recycling Plan
September 22, 2025

Address: 801 South Whitney Way Madison, WI

Owner/Rep Contact:

Peter
Holmgren
119 East
Olin Drive
Madison, WI
608-261-5530

Demolition Contractor Contact:

TBD - Demolition Contractor to be determined during
bidding

A. Scope of Project

Madison Water Utility is proposing to reconstruct its existing Unit Well 12. The project requires demolition and reconstruction of the existing well house and reservoir. Demolition will be completed with typical methods via excavation equipment.

B. Project Recycling Goals

The demolition project, in order to be in compliance with City Ordinance 10.185, will recycle or cause to be reused at least 70% of all demolition debris, as measured by weight, that is created during this project.

C. Description of Material Anticipated to be Generated

- a. Concrete
- b. Drywall
- c. Windows
- d. HVAC equipment, wiring, and ductwork
- e. Exterior Brick
- f. Electrical wiring
- g. Roofing Materials
- h. Process piping and pumping equipment
- i. Electrical cabinets and panels
- j. Miscellaneous

D. Worker Education

Contractor will be required to manage the demolition and recycling for the project. Supervisors on site will ensure signage for recycling receptacles are accurate, and that the workers are trained to place correct material into the correct location. Recycling goals will also be shared with the workers with a copy of the plan available onsite for reference.

E. Reuse

Habitat for Humanity will be contacted prior to demolition to the building and will determine what materials can be reused from the site.

F. Material

Handling Metal

All metal items will be separated and placed into a metal recycling dumpster. Duct work, electrical wiring, process piping, pumps and other metal items will be placed into this container. This will be hauled to All Metals Recycling, which is a metal recycling facility in Madison, Wisconsin.

Electrical Cabinets and Panels

All electrical cabinets and panels will be hauled to Dane County Clean Sweep for recycling.

Hazardous Materials –Asbestos

Building was inspected and tested for asbestos by KPH Environmental. These materials will be safely removed by this contractor prior to demolition.

Prior to construction other hazardous materials will be evaluated for removal and proper disposal locations for recycling will be utilized.

Concrete, Asphalt, and Brick

Existing sidewalks, asphalt, and brick from the building will be removed and hauled to the Mendt Sandfill to be crushed and recycled.

Roofing Materials

Roofing materials will be hauled to Dane County Landfill.

Appliances

Appliances such as HVAC equipment shall be removed and hauled to All Metal Recycling.

Mixed Loads of Debris

Other mixed recycling and other recyclable construction debris shall be placed

into a comingled recycling dumpster provided by Dane County Landfill to be hauled to their construction and demolition recycling facility.

G. Compliance

The demolition contractor shall monitor and track all loads of material. Upon completion of the project the compliance report, which is available on the Streets Divisions' website, shall be completed. Appropriate weight tickets and/or invoices will be included with the compliance report when it is submitted.