

URBAN DESIGN COMMISSION APPLICATION

UDC

City of Madison
Planning Division
Madison Municipal Building, Suite 017
215 Martin Luther King, Jr. Blvd.
P.O. Box 2985
Madison, WI 53701-2985
(608) 266-4635



FOR OFFICE USE ONLY:

Date Received 9/22/25 10:39 a.m. ☐ Initial Submittal
Paid _____ ☐ Revised Submittal

Complete all sections of this application, including the desired meeting date and the action requested. If your project requires both UDC and Land Use application submittals, a completed [Land Use Application](#) and accompanying submittal materials are also required to be submitted.

If you need an interpreter, translator, materials in alternate formats or other accommodations to access these forms, please call the Planning Division at (608) 266-4635.

Si necesita intérprete, traductor, materiales en diferentes formatos, u otro tipo de ayuda para acceder a estos formularios, por favor llame al (608) 266-4635.

Yog tias kaj xav tau ib tug neeg txhais lus, tus neeg txhais ntawv, los sis xav tau cov ntaub ntawv ua lwm hom ntawv los sis lwm cov kev pab kam paub txog cov lus qhia no, thov hu rau Koog Npaj (Planning Division) (608) 266-4635.

1. Project Information

Address (list all addresses on the project site): 801 S Whitney Way Madison WI

Title: Unit Well 12-Wellhouse and Reservoir Reconstruction

2. Application Type (check all that apply) and Requested Date

UDC meeting date requested November 5th

- ☐ New development ☐ Alteration to an existing or previously-approved development
☐ Informational ☐ Initial Approval ☒ Final Approval

3. Project Type

- ☐ Project in an Urban Design District
☐ Project in the Downtown Core District (DC), Urban Mixed-Use District (UMX), or Mixed-Use Center District (MXC)
☐ Project in the Suburban Employment Center District (SEC), Campus Institutional District (CI), or Employment Campus District (EC)
☐ Planned Development (PD)
☐ General Development Plan (GDP)
☐ Specific Implementation Plan (SIP)
☐ Planned Multi-Use Site or Residential Building Complex

Signage

- ☐ Comprehensive Design Review (CDR)
☐ Modifications of Height, Area, and Setback
☐ Sign Exceptions as noted in [Sec. 31.043\(3\)](#), MGO

Other

- ☒ Please specify
Madison Water Utility Project - Public

4. Applicant, Agent, and Property Owner Information

Applicant name Pete Holmgren
Street address 119 E Olin Ave
Telephone 608 261 5530

Company Madison Water Utility
City/State/Zip Madison, WI 53713
Email pholmgren@madisonwater.org

Project contact person Isaac Steinmeyer
Street address 10 N. Bridge Street
Telephone 715-505-4092

Company SEH
City/State/Zip Chippewa Falls WI 54729
Email isteinmeyer@sehinc.com

Property owner (if not applicant) _____
Street address _____
Telephone _____

City/State/Zip _____
Email _____

URBAN DESIGN DEVELOPMENT PLANS CHECKLIST

The items listed below are minimum application requirements for the type of approval indicated. Please note that the UDC and/or staff may require additional information in order to have a complete understanding of the project.

1. Informational Presentation

- ☐ Locator Map
- ☐ Letter of Intent (If the project is within an Urban Design District, a summary of how the development proposal addresses the district criteria is required)
- ☐ Contextual site information, including photographs and layout of adjacent buildings/structures
- ☐ Site Plan
- ☐ Two-dimensional (2D) images of proposed buildings or structures.

Providing additional information beyond these minimums may generate a greater level of feedback from the Commission.

Requirements for All Plan Sheets

1. Title block
2. Sheet number
3. North arrow
4. Scale, both written and graphic
5. Date
6. Fully dimensioned plans, scaled at 1"= 40' or larger

**** All plans must be legible, including the full-sized landscape and lighting plans (if required)**

2. Initial Approval

- ☒ Locator Map
- ☒ Letter of Intent (If the project is within a Urban Design District, a summary of how the development proposal addresses the district criteria is required)
- ☒ Contextual site information, including photographs and layout of adjacent buildings/structures
- ☒ Site Plan showing location of existing and proposed buildings, walks, drives, bike lanes, bike parking, and existing trees over 18" diameter
- ☒ Landscape Plan and Plant List (*must be legible*)
- ☒ Building Elevations in **both** black & white and color for all building sides, including material and color callouts
- ☐ PD text and Letter of Intent (if applicable)

Providing additional information beyond these minimums may generate a greater level of feedback from the Commission.

3. Final Approval

All the requirements of the Initial Approval (see above), **plus:**

- ☒ Grading Plan
- ☒ Lighting Plan, including fixture cut sheets and photometrics plan (must be legible)
- ☒ Utility/HVAC equipment location and screening details (with a rooftop plan if roof-mounted)
- ☒ Site Plan showing site amenities, fencing, trash, bike parking, etc. (if applicable)
- NA ☐ PD text and Letter of Intent (if applicable)
- ☒ Samples of the exterior building materials
- NA ☐ Proposed sign areas and types (if applicable)

4. Signage Approval (*Comprehensive Design Review (CDR), Sign Modifications, and Sign Exceptions (per [Sec. 31.043\(3\)](#))*)

- ☐ Locator Map
- ☐ Letter of Intent (a summary of how the proposed signage is consistent with the CDR or Signage Modifications criteria is required)
- ☐ Contextual site information, including photographs of existing signage both on site and within proximity to the project site
- ☐ Site Plan showing the location of existing signage and proposed signage, dimensioned signage setbacks, sidewalks, driveways, and right-of-ways
- ☐ Proposed signage graphics (fully dimensioned, scaled drawings, including materials and colors, and night view)
- ☐ Perspective renderings (emphasis on pedestrian/automobile scale viewsheds)
- ☐ Illustration of the proposed signage that meets [Ch. 31, MGO](#) compared to what is being requested
- ☐ Graphic of the proposed signage as it relates to what the [Ch. 31, MGO](#) would permit

5. Required Submittal Materials

☒ Application Form

- A completed application form is required for each UDC appearance. For projects also requiring Plan Commission approval, applicants must also have submitted an accepted application for Plan Commission consideration prior to obtaining any formal action (Initial or Final Approval) from the UDC.

☒ Letter of Intent

- If the project is within an Urban Design District, a summary of how the development proposal addresses the district criteria is required.
- For signage applications, a summary of how the proposed signage is consistent with the applicable Comprehensive Design Review (CDR) or Signage Modification review criteria is required.

☒ Development Plans (Refer to checklist on Page 4 for plan details)☒ Filing Fee (Refer to Section 7 (below) for a list of application fees by request type)☒ Electronic Submittal

- Complete electronic submittals must be received prior to the application deadline before an application will be scheduled for a UDC meeting. Late materials will not be accepted. All plans must be legible and scalable when reduced. Individual PDF files of each item submitted should be submitted via email to UDCapplications@cityofmadison.com. The email must include the project address, project name, and applicant name.
- Email Size Limits. Note that an individual email cannot exceed 20MB and it is the responsibility of the applicant to present files in a manner that can be accepted. Applicants who are unable to provide the materials electronically should contact the Planning Division at (608) 266-4635 for assistance.

☒ Notification to the District Alder

- Please provide an email to the District Alder notifying them that you are filing this UDC application. Please send this as early in the process as possible and provide a copy of that email with the submitted application.

6. Applicant Declarations

- Prior to submitting this application, the applicant is required to discuss the proposed project with Urban Design Commission staff. This application was discussed with Jessica Vaughn on 8/19/2025.
- The applicant attests that all required materials are included in this submittal and understands that if any required information is not provided by the application deadline, the application will not be placed on an Urban Design Commission agenda for consideration.

Name of applicant Pete Holmgren Relationship to property Madison Water Utility - Owner

Authorizing signature of property owner  Date 9/19/2025

7. Application Filing Fees

Fee payments are due by the submittal date. Payments received after the submittal deadline may result in the submittal being scheduled for the next application review cycle. Fees may be paid in-person, via US Mail, or City drop box. If mailed, please mail to: *City of Madison Building Inspection, P.O. Box 2984, Madison, WI 53701-2984*. The City's drop box is located outside the Municipal Building at 215 Martin Luther King, Jr. Blvd. on the E Doty Street side of the building. Please make checks payable to *City Treasurer*, and include a completed application form or cover letter indicating the project location and applicant information with all checks mailed or submitted via the City's drop box.

Please consult the schedule below for the appropriate fee for your request:

- ☐ Urban Design Districts: \$350 (per [§33.24\(6\) MGO](#)).
- ☐ Minor Alteration in the Downtown Core District (DC) or Urban Mixed-Use District (UMX) : \$150 (per [§33.24\(6\)\(b\) MGO](#))
- ☐ Comprehensive Design Review: \$500 (per [§31.041\(3\)\(d\)\(1\)\(a\) MGO](#))
- ☐ Minor Alteration to a Comprehensive Sign Plan: \$100 (per [§31.041\(3\)\(d\)\(1\)\(c\) MGO](#))
- ☐ All other sign requests to the Urban Design Commission, including, but not limited to: appeals from the decisions of the Zoning Administrator, requests for Sign Modifications (of height, area, and setback), and additional sign code approvals: \$300 (per [§31.041\(3\)\(d\)\(2\) MGO](#))

NOTE: NO FEE REQUIRED. THE PROJECT IS A CITY OF MADISON WATER UTILITY PROJECT.

A filing fee is not required for the following project applications if part of the combined application process involving both Urban Design Commission and Plan Commission:

- Project in the Downtown Core District (DC), Urban Mixed-Use District (UMX), or Mixed-Use Center District (MXC)
- Project in the Suburban Employment Center District (SEC), Campus Institutional District (CI), or Employment Campus District (EC)
- Planned Development (PD): General Development Plan (GDP) and/or Specific Implementation Plan (SIP)
- Planned Multi-Use Site or Residential Building Complex



Madison Water Utility - Unit Well 12 Wellhouse and Reservoir
Letter of Intent – Land Use Application and Urban Design Commission
September 22, 2025

Project Description

Madison Water Utility is proposing to reconstruct its existing Unit Well 12 (UW 12), located at 801 South Whitney Way, Madison, WI. The project will enhance UW 12's dual-pressure zone water supply capabilities to serve water to the west side of Madison, providing additional operational flexibility and increased water supply reliability. The project is also needed to address Wisconsin Department of Natural Resources (WDNR) deficiencies at the wellhouse. The project requires demolition and reconstruction of the existing well house and reservoir.

Existing Conditions

The well and reservoir site is located on the north side of the Beltline along South Whitney Way. It is located on the land between the westbound exit ramp and the Beltline itself. The original well and pump house was built in 1957 and was designed by Water Utility engineering staff. The rough limestone in an ashlar pattern is seen on many wells throughout Madison that were built during this era and is recognizable as a Water Utility facility.

Proposed Design

The proposed reconstructed well house includes design features to respect the appearance of the existing structure. A slightly larger footprint is required to house the necessary equipment for UW 12 and meet model WDNR NR811 design standards. The architectural finishes are selected to mimic the existing structure's limestone finish. Stone was chosen to clad the building, and a smooth finish stone is proposed in a more regular pattern. The color of the stone is intended to appear similar to the existing building.

Site

The site changes around the well house are minimal. The most notable change is the proposed reservoir location and size. A 1.0 million gallon reservoir is proposed versus the existing 150,000 gallon reservoir. The reservoir is proposed to be located to the east of the well house. The driveway will be raised slightly to provide accessibility to the rear doors. Asphalt pavement will generally be replaced in kind. The drive and parking area will be used by service vehicles and allows the vehicles to turn around on the site to exit onto Whitney Way facing the traffic. The existing reservoir location will be graded to match surrounding areas and restored to grass surface. Landscaping and restoration is also proposed.

Site Location

Address: 801 South Whitney Way

Land Use Zoning Approval

The project is being submitted to be re-zoned from CN to PR, as well as to allow for conditional use of the new well house and reservoir.

Project Schedule

September 22, 2025	Urban Design and Plan Commission Application
October X, 2025	PIM (date TBD)
November 5, 2025	Urban Design Commission
November 17, 2025	Plan Commission
November 25, 2025	Common Council
January 2026	Plans out for Bid
February 2026	Bids received
February 2026	Project Approval/Award
March 2026	Contracts Signed
May 2026	Start of Construction
September 2026	Structure Demolition
October 2027	Construction Completed

Project Team

Madison Water Utility
119 East Olin Avenue
Madison, WI 53713

Peter Holmgren, PE

Engineer/Architect:
SEH, Inc.
10 North Bridge Street
Chippewa Falls, WI 54729

Jeffrey Nussbaum, PE
Isaac Steinmeyer, PE
Jim Lynch, AIA

Building Size

Existing Wellhouse Building: 1,122 SF
Existing Reservoir: 1,810 SF

Proposed Wellhouse Building: 1,505 SF
Proposed Reservoir: 5,540 SF

Auto and Bike Parking Stalls

There is room for two maintenance vehicles to be parked on site and one handicap stall, for a total of three parking spaces. There are no bike parking stalls proposed. It is not a public building and the only visitors to the facility will be water utility staff.

Lot Coverage & Useable Open Space

Total Lot Area: 46,090 SF or 1.06 AC

Building and Pavement Area (Existing): 8300 SF

Building and Pavement Area (Proposed): 13,595 SF

Total Open Area (Proposed): 32, 495 SF

Location/Aerial Map



An aerial view showing the pump house and the reservoir along South Whitney Way. The reservoir is the round building to the northeast of the pump house.

Existing Photos



View from Whitney Way of the Wellhouse



The rear of the existing Wellhouse.



Interior of existing Wellhouse.



Interior of existing Wellhouse.



Existing Reservoir to be removed and replaced.

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.

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.

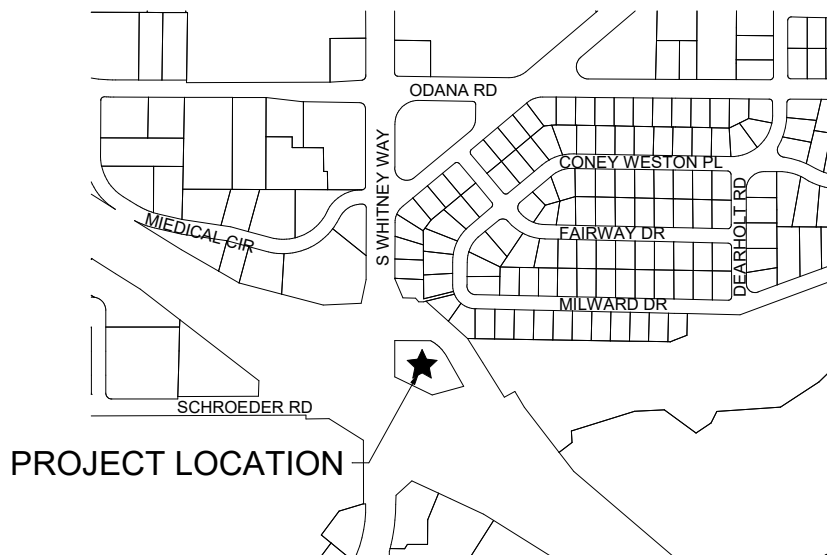
SEH Project MADWU 182222
Checked By IS
Drawn By DD

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

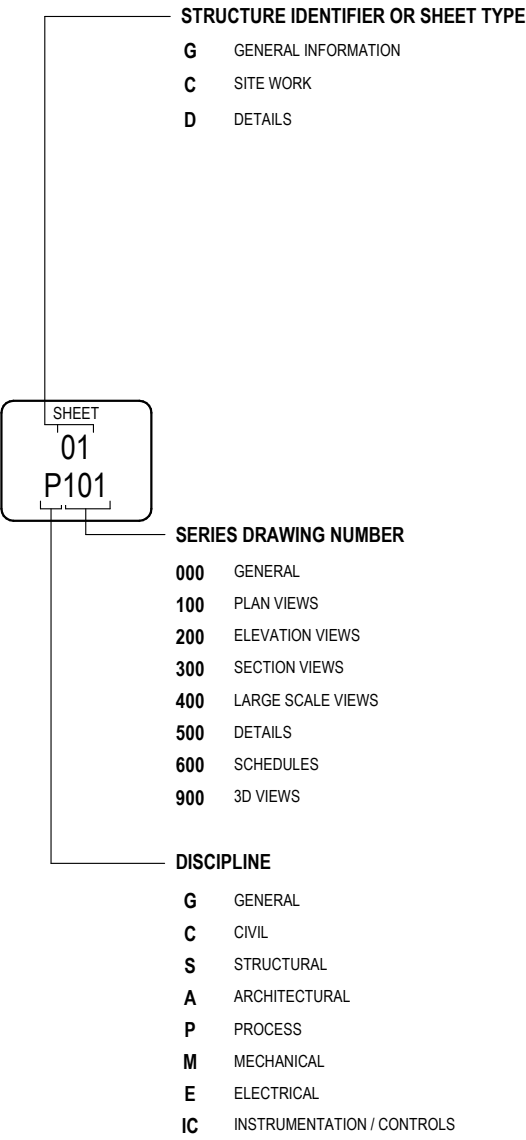
01 WELLHOUSE

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.

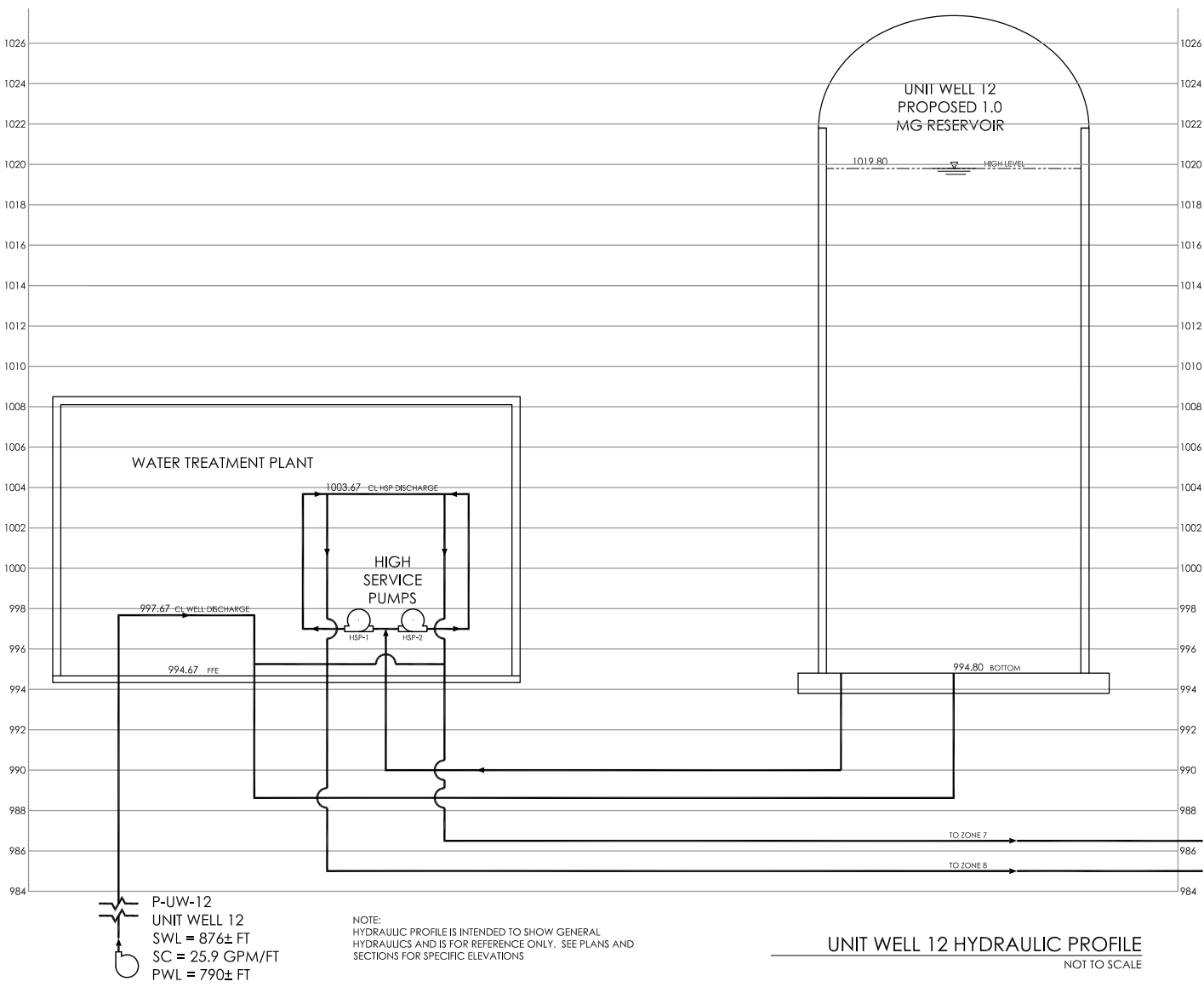
SEH Project	MADWU 182222
Checked By	IS
Drawn By	DD

Project Status	Issue Date
DNR SUBMITTAL	6/30/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

SHEET INDEX

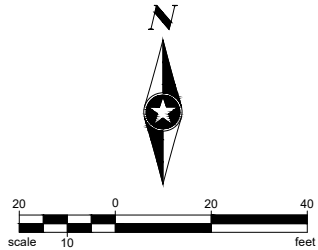
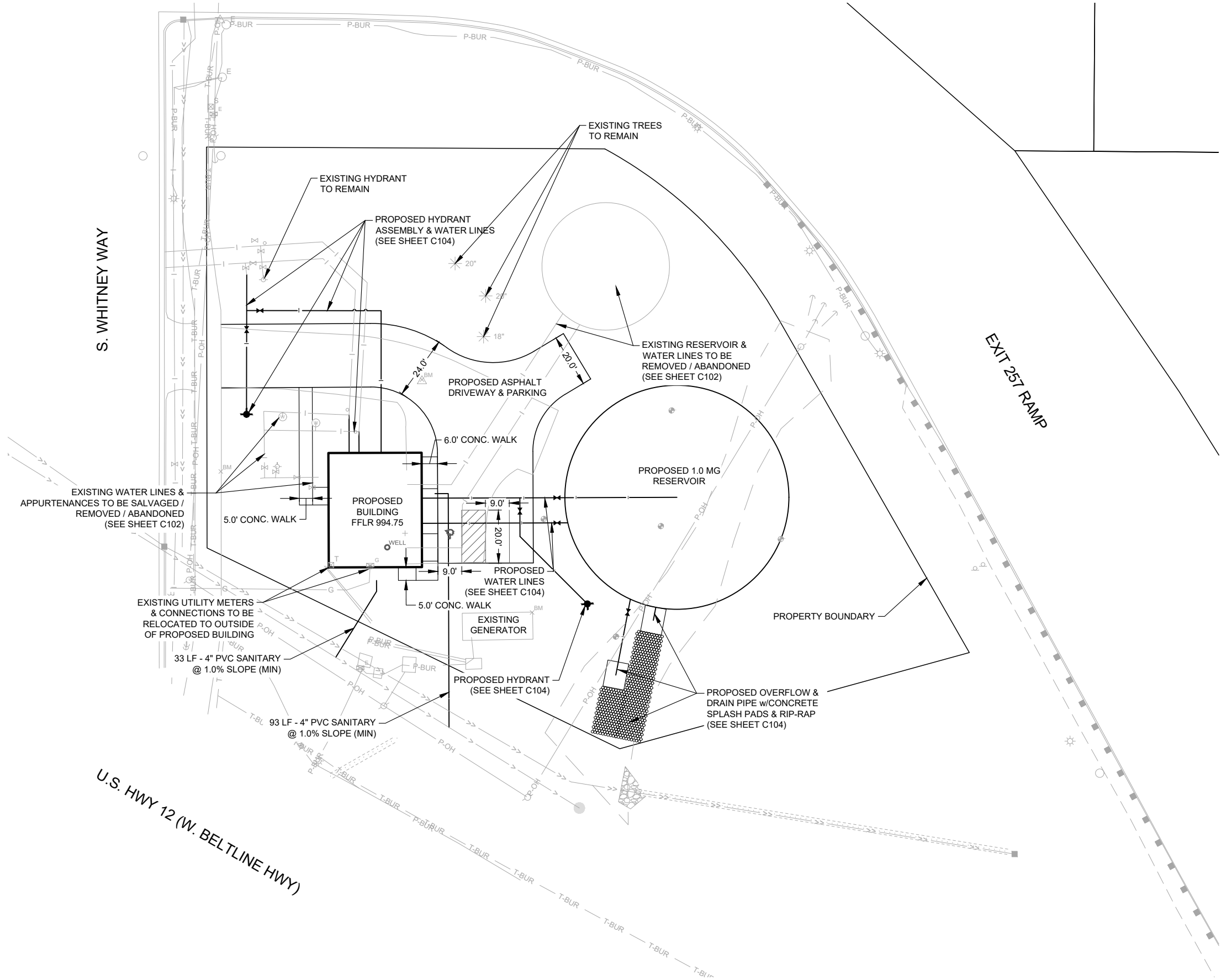
G002



The diagram illustrates the vertical relationship between two reservoirs. The vertical axis on the right is labeled with elevations from 1102 to 1204 in increments of 2. Smith Reservoir Zone 7 is located on the left, with its high level at 1170.60 and its bottom at 1107.60. High Point Reservoir Zone 8 is located on the right, with its high level at 1200.00 and its bottom at 1177.00. A vertical line with an upward arrow indicates the elevation difference between the bottom of Smith Reservoir Zone 7 and the bottom of High Point Reservoir Zone 8. The diagram shows that the bottom of High Point Reservoir Zone 8 is higher than the bottom of Smith Reservoir Zone 7.

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 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.

SEH Project MADWU_182222
Checked By KB
Drawn By PAL

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

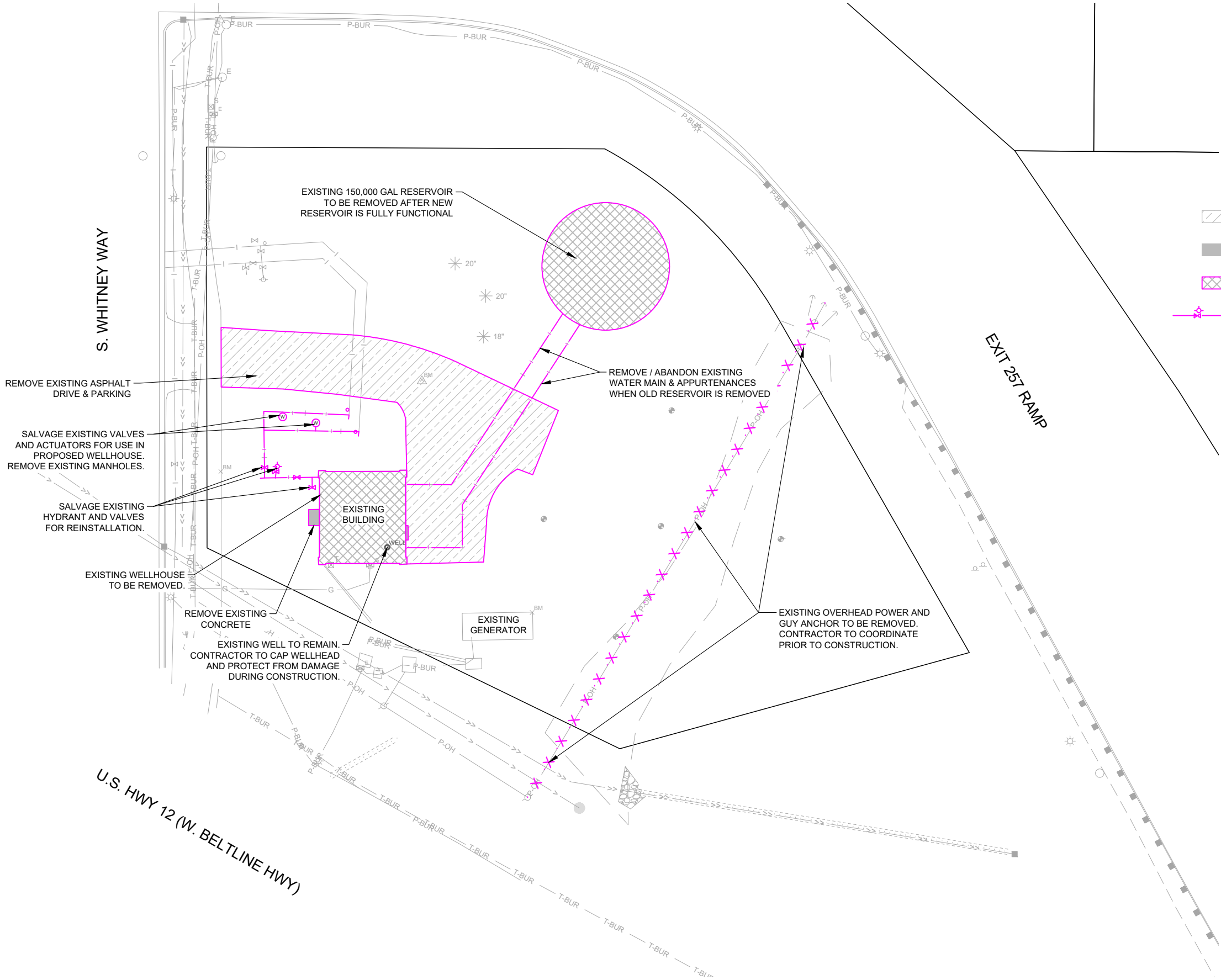
REVISION SCHEDULE
REV. # DESCRIPTION DATE

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

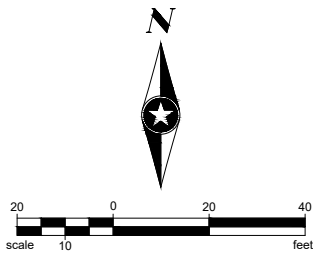
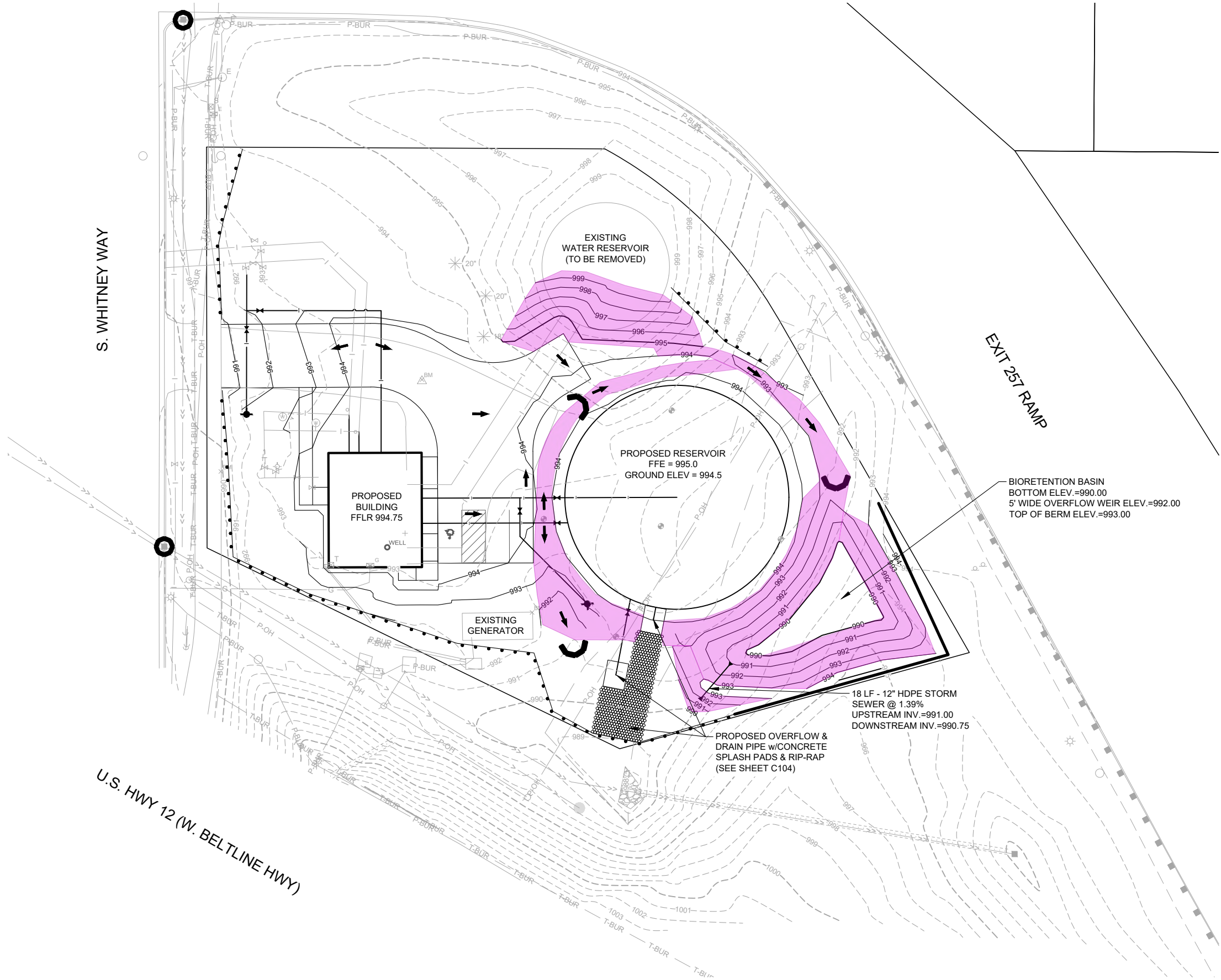
Project Status	Issue Date
DNR SUBMITTAL	06/30/2025
CITY SUBMITTAL	09/22/2025

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



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

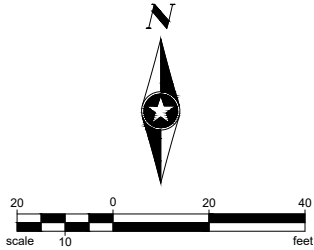
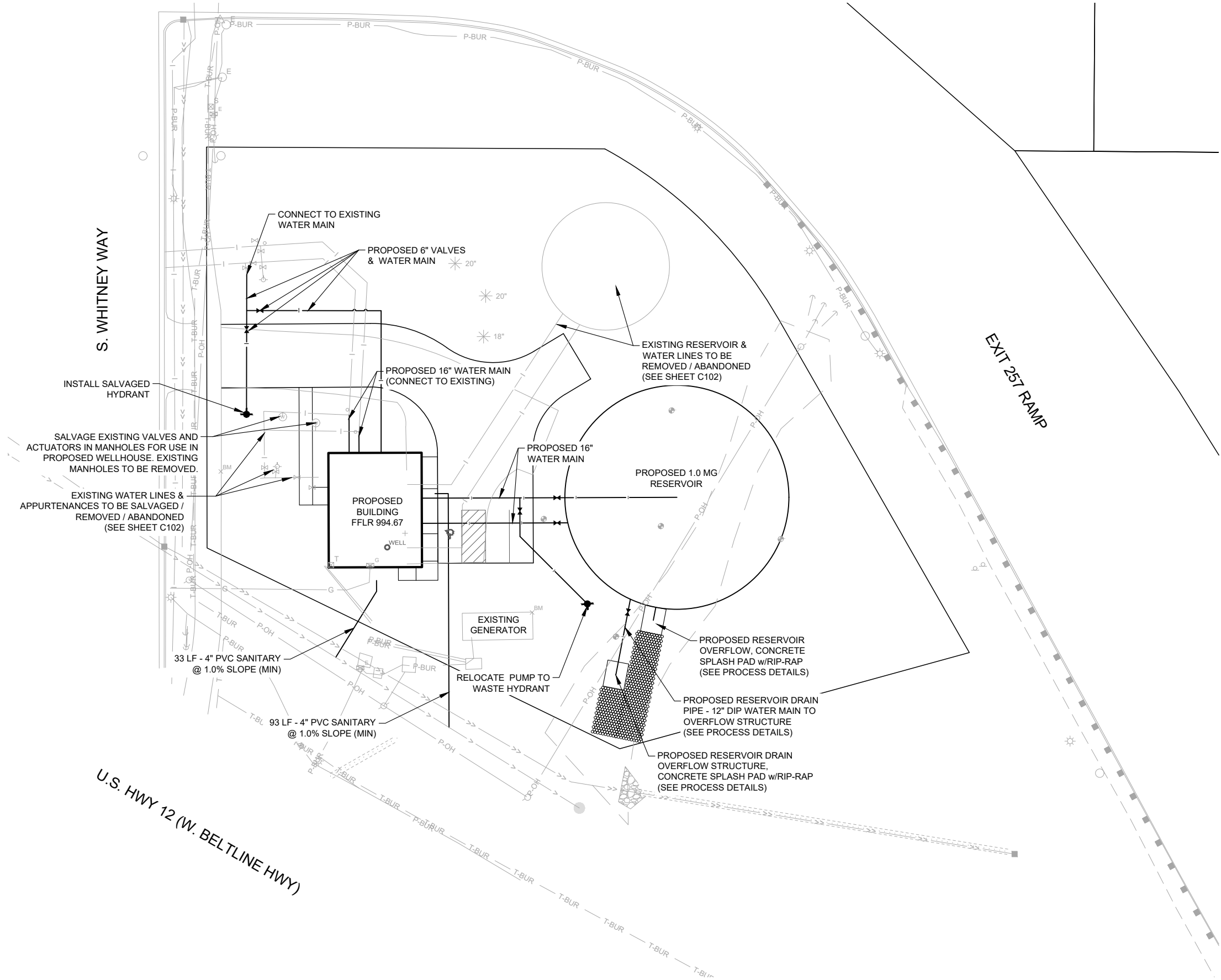
REVISION SCHEDULE
REV. # DESCRIPTION DATE

GRADING & EROSION
CONTROL PLAN

C103

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\182222\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

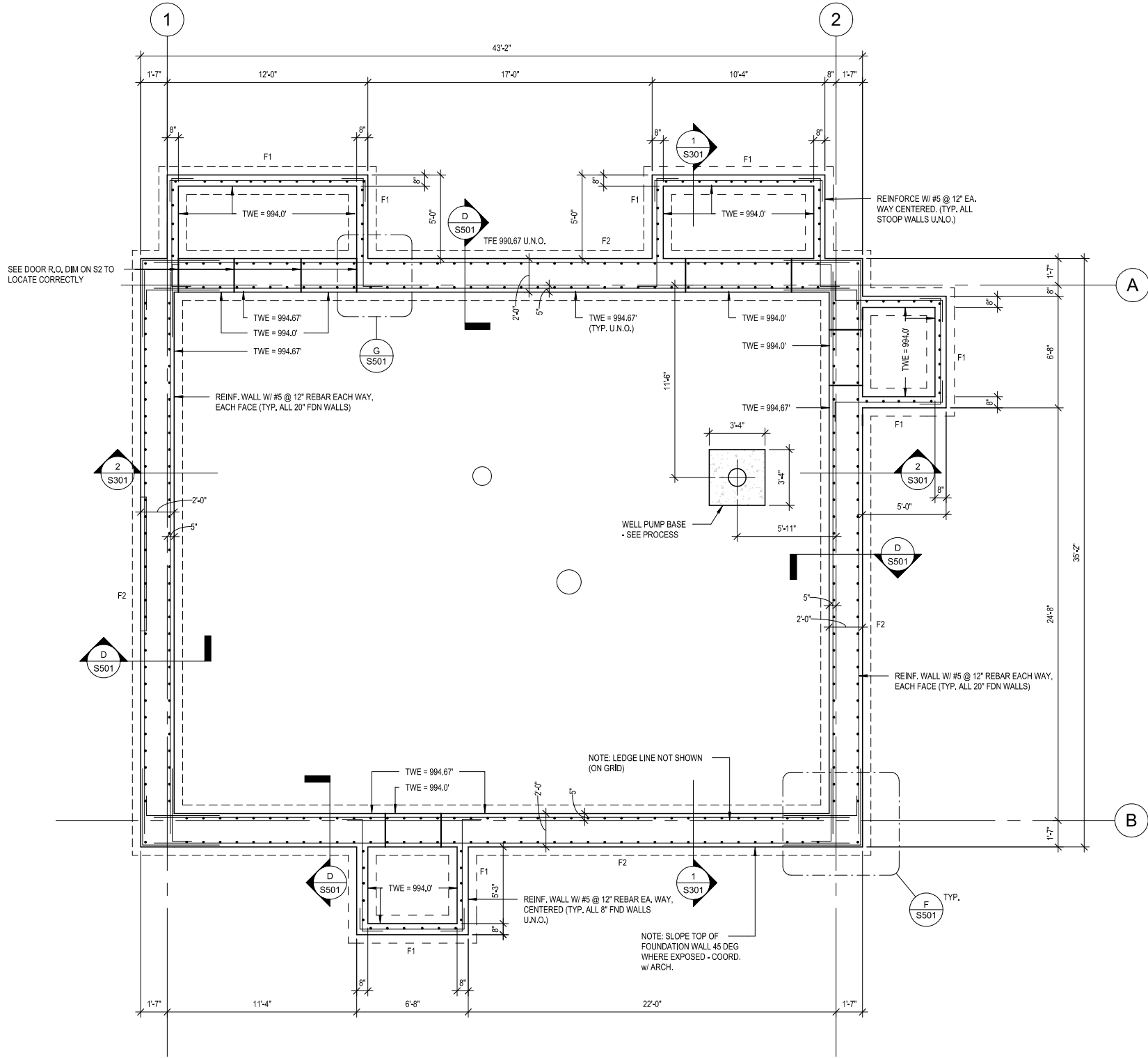
WATER MAIN SYSTEM MAP

C104

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

6/27/2025 4:12:05 PM

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



- PLAN NOTES**
- TWE = TOP OF FOUNDATION WALL ELEVATION
 - TFE = TOP OF FOOTING ELEVATION = 990.67 U.N.O.
 - VERIFY DIMENSIONS, ELEVATIONS, AND MATERIALS WITH ARCHITECTURAL AND PROCESS.
 - CONTRACTOR OPTIONS AT MECHANICAL & ELECTRICAL LINES THROUGH FOUNDATION - SEE HDS1, JDS1, KDS1, LDS1
 - '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.

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

SEH Project MADWU 182222
Checked By BAW
Drawn By ALC

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE		
REV.#	DESCRIPTION	DATE

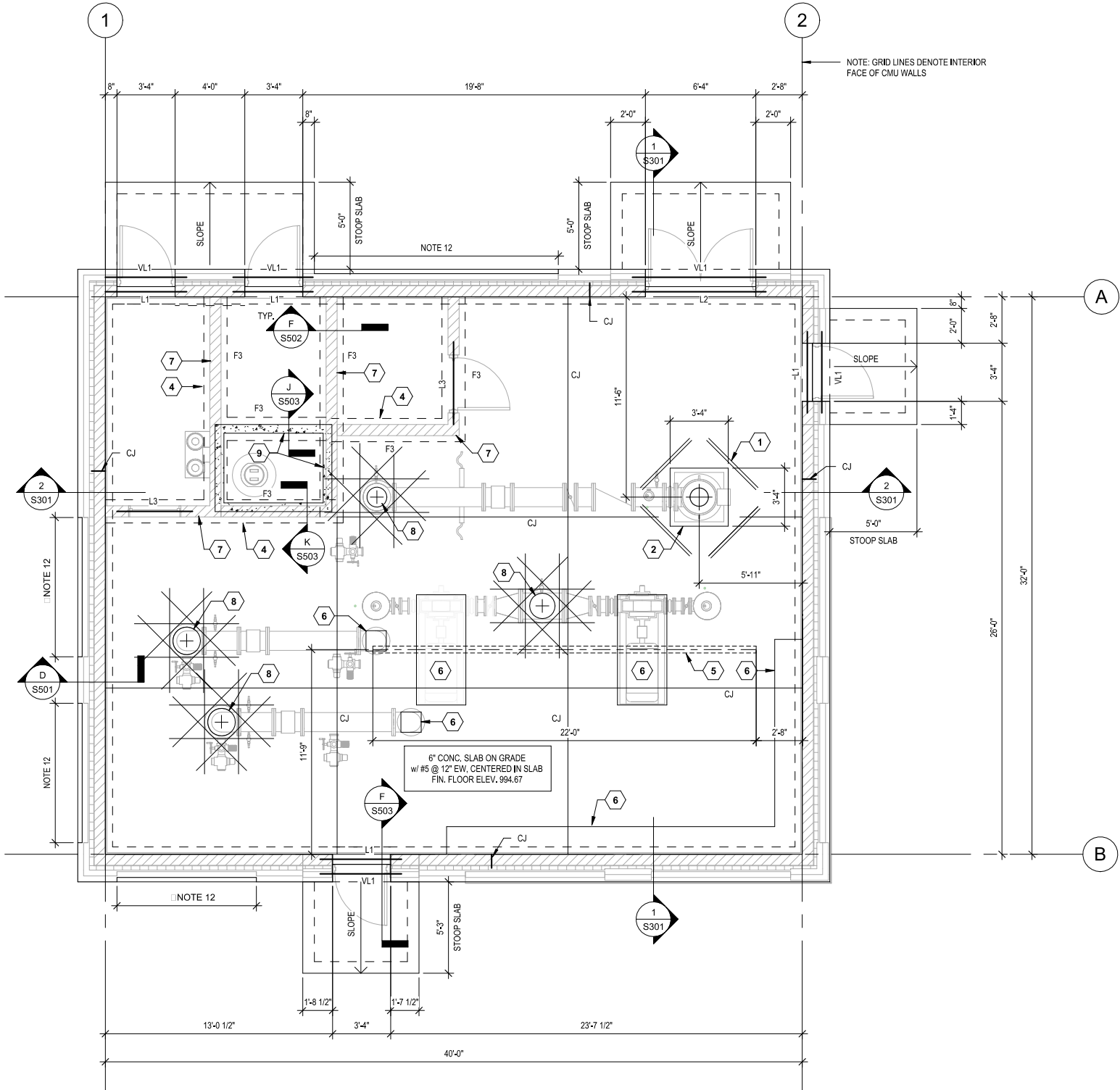
FOUNDATION PLAN

01
S101

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

6/27/2025 4:12:07 PM

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



PLAN NOTES

- FFE, FINISHED FLOOR ELEVATION = 994.67'
- TFE, TOP OF FOOTING ELEVATION = 990.67' U.N.O.
- VERIFY ALL DIMENSIONS, ELEVATIONS, AND MATERIALS WITH ARCHITECTURAL AND PROCESS DRAWINGS.
- HOIST, TROLLEY, AND LIFTED LOAD 4,000 POUNDS.
- MASONRY CONTRACTOR SHALL COORDINATE W/ ELECTRICAL CONTRACTOR TO CUT BLOCK NEATLY FOR OPENINGS NEEDED BY ELECTRICAL CONTRACTOR.
- SEE DETAILS A/DS1 AND B/DS1 FOR STANDARD CONCRETE EQUIPMENT PAD & PEDESTAL DETAILS. COORDINATE LOCATIONS AND DIMENSIONS WITH PROCESS, MECHANICAL, AND ELECTRICAL.
- FOR CONTRACTION JOINTS (C.J.) OR SAWCUT WITHIN 18 HOURS OF CONCRETE PLACEMENT - SEE C/DS1. MAXIMUM SPACING OF CONTRACTION JOINTS TO BE 15'-0".
- 'F'X' DENOTES FOOTING TYPE. SEE SHEET S1 FOR FOOTING SCHEDULE.
- 'L'X' INDICATES LINTEL - SEE LINTEL SCHEDULE ON SHEET S3.
- D.O. DENOTES DOOR ROUGH OPENING
W.O. DENOTES WINDOW ROUGH OPENING
- ALL CMU SURFACES EXPOSED TO VIEW ARE GLAZED FACE.
- BEVEL TOP OF CONCRETE FOUNDATION WALL 3" AT 45 DEG. WHERE EXPOSED TO SHED RAIN WATER, COORDINATE EXTENTS WITH ARCHITECTURAL.

KEYNOTES:

- 1 PROVIDE ADDITIONAL REINFORCEMENT PER DETAIL D/DS3 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/DS1.
- 4 THICKENED SLAB, SEE DETAIL F/DS2, SEE FOOTING SCHEDULE ON SHEET S1 FOR THICKNESS, WIDTH, AND REINFORCING.
- 5 MONORAIL ABOVE - SEE DETAIL J/DS2 AND NOTE 4 ON THIS SHEET. COORDINATE FINAL LOCATION W/ PUMP LIFT POINTS.
- 6 HOUSEKEEPING PAD OR PUMP PEDISTAL - REFERENCE TYPICAL DETAIL A/DS1 OR B/DS1.
- 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/DS1, TYP.
- 9 CIP CONCRETE CONTAINMENT CURB.



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.

SEH Project MADWU 182222
Checked By BAW
Drawn By ALC

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV.# DESCRIPTION DATE

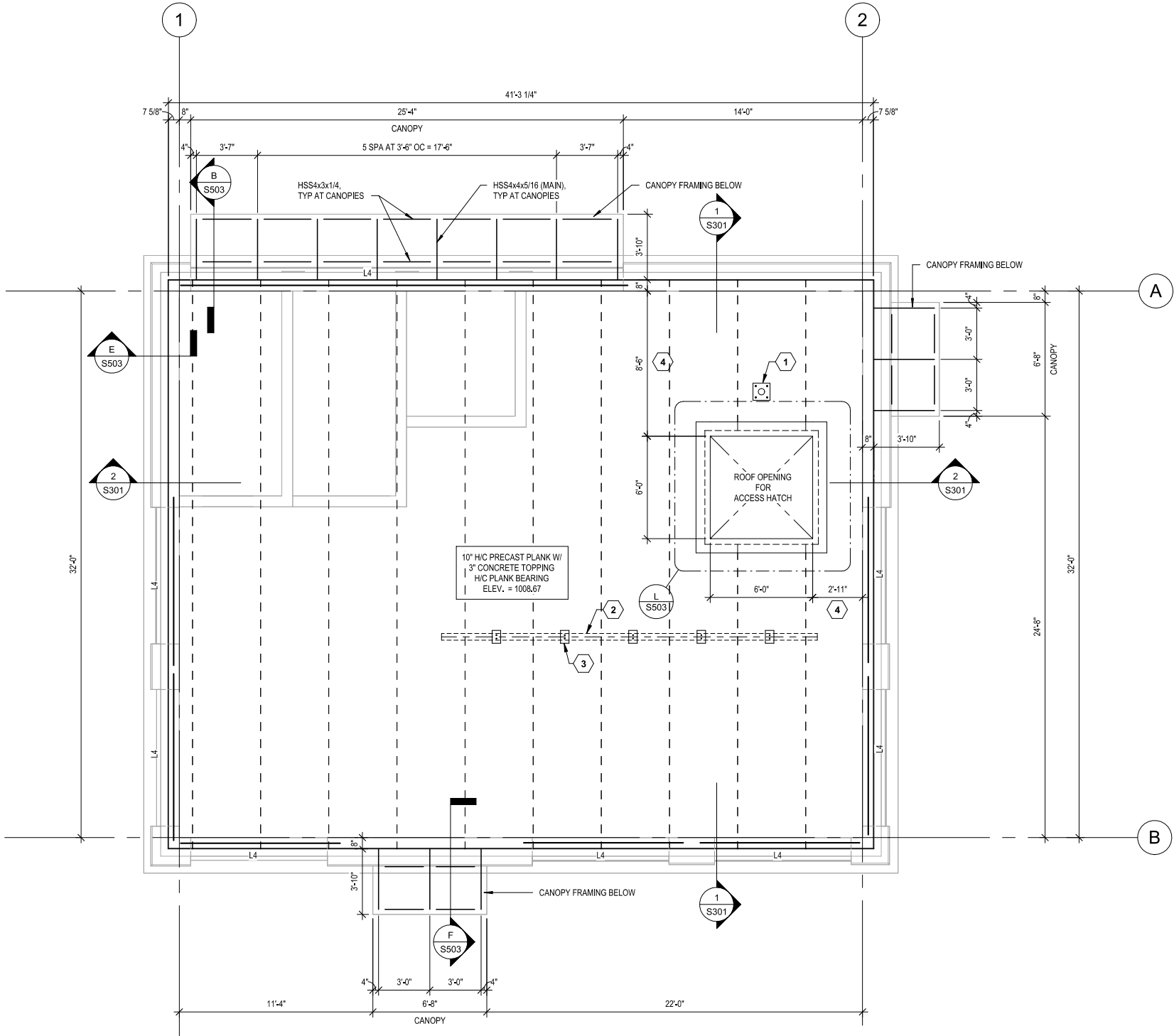
FLOOR PLAN

01
S102

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 Shortt 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

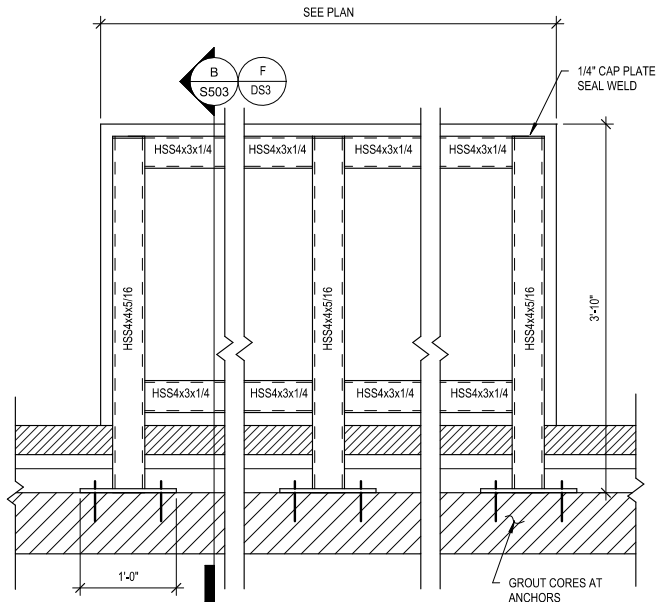
REVISION SCHEDULE

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

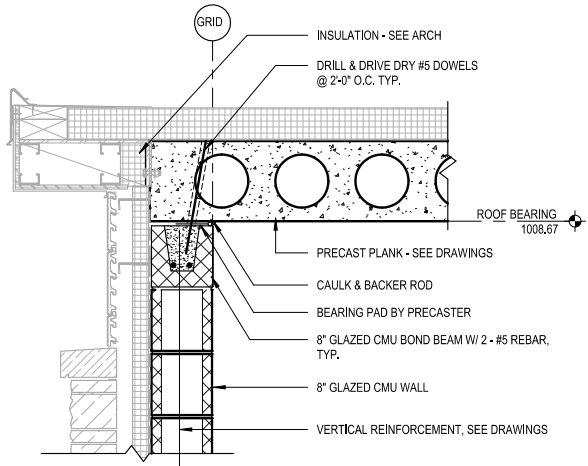
ROOF FRAMING PLAN

01
S103

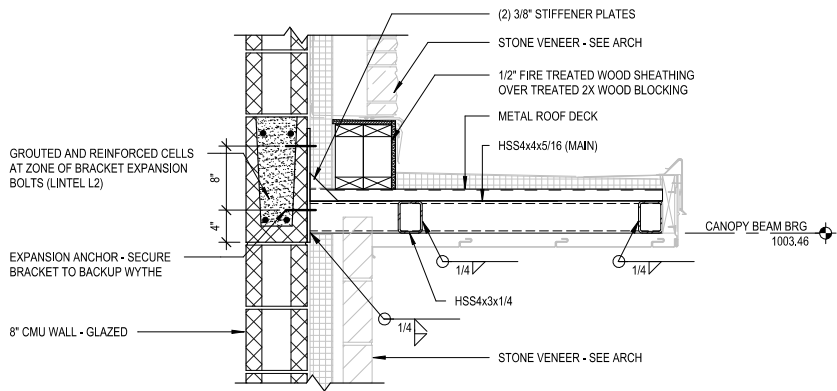
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/27/2025 4:12:17 PM



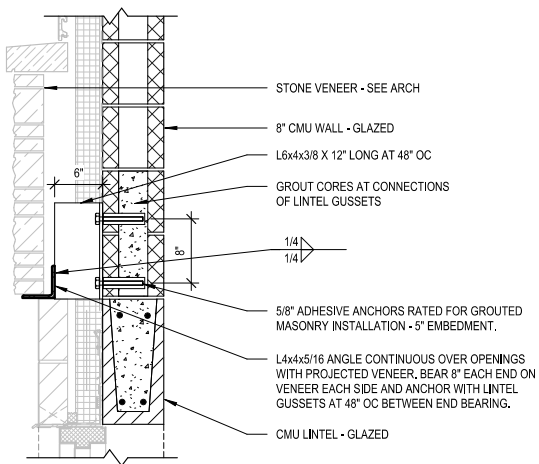
A CANOPY FRAMING PLAN
S503 1" = 1'-0"



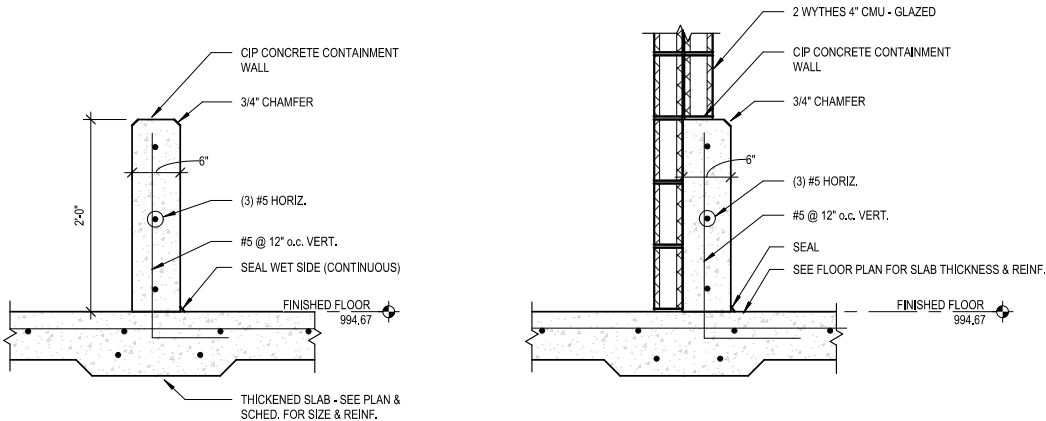
B SECTION THROUGH CANOPY AT LOUVER ASSEMBLY
S503 1" = 1'-0"



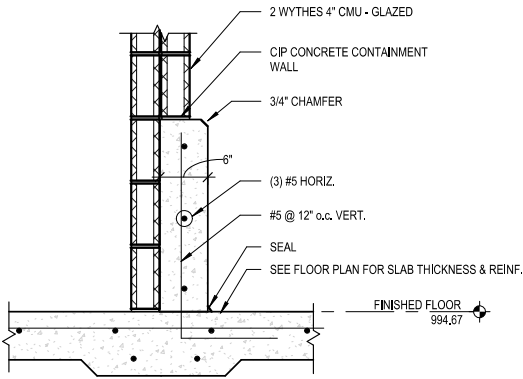
F SECTION THROUGH CANOPY
S503 1" = 1'-0"



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

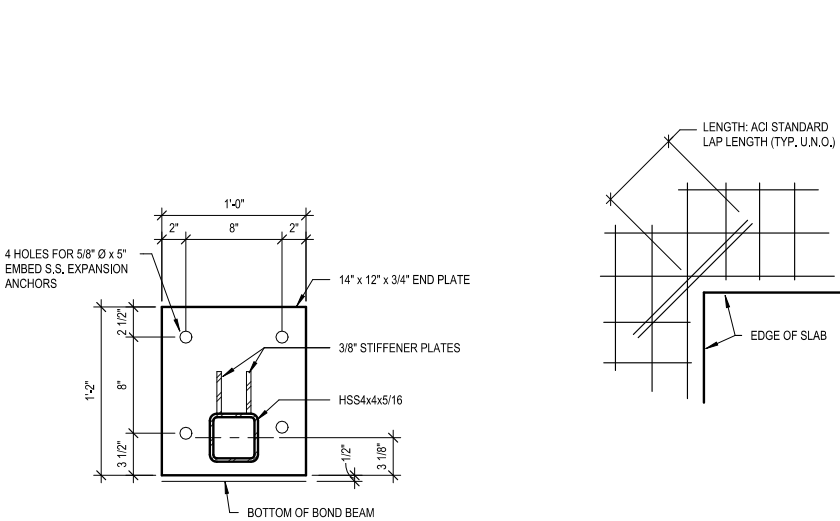


J CONTAINMENT WALL DETAIL
S503 1" = 1'-0"

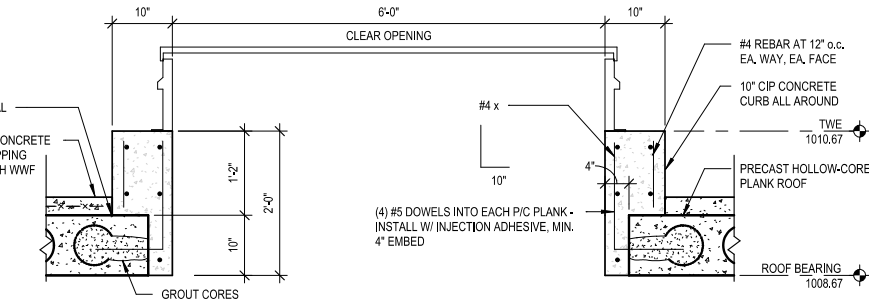


K CONTAINMENT WALL DETAIL AT INTERIOR WALL
S503 1" = 1'-0"

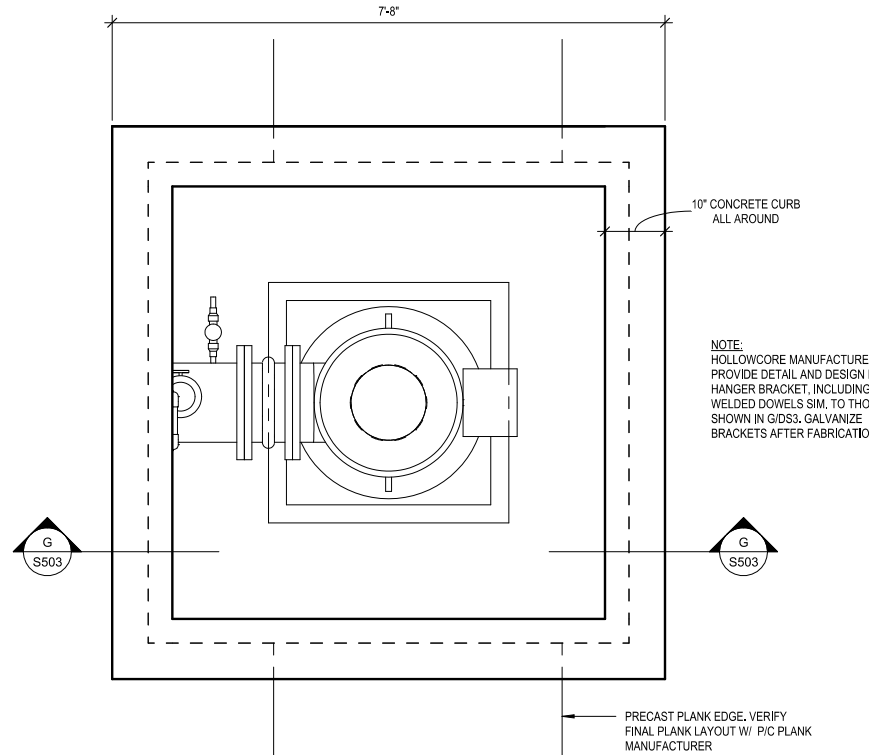
C CANOPY CONNECTION PLATE DETAIL
S503 1 1/2" = 1'-0"



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.

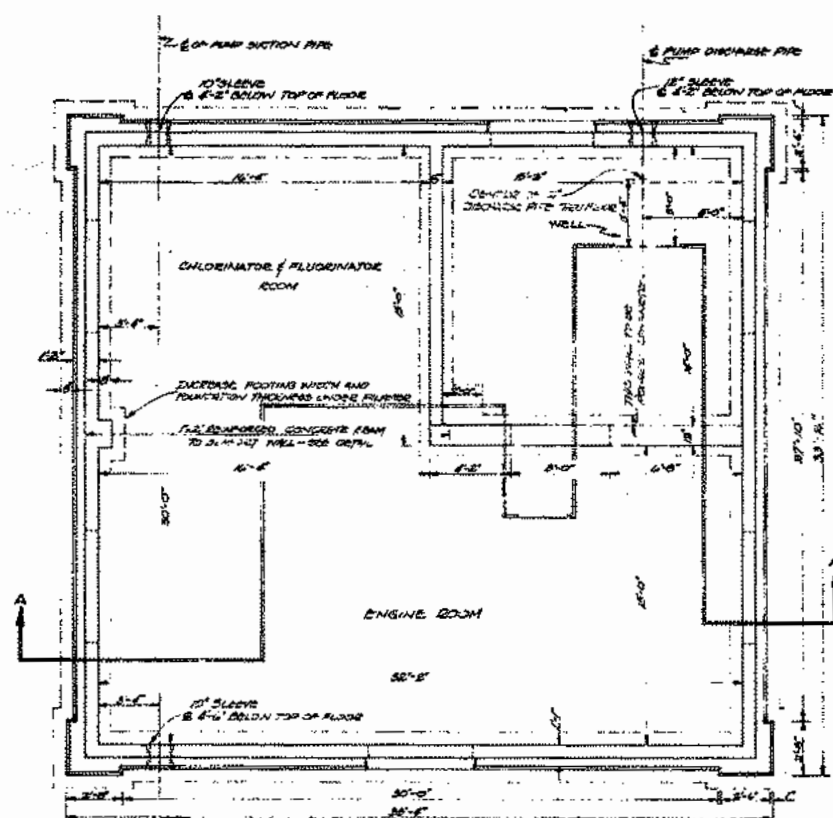
SEH Project MADWU 182222
Checked By BAW
Drawn By ALC

Project Status DNR SUBMITTAL
Issue Date 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

STRUCTURAL DETAILS

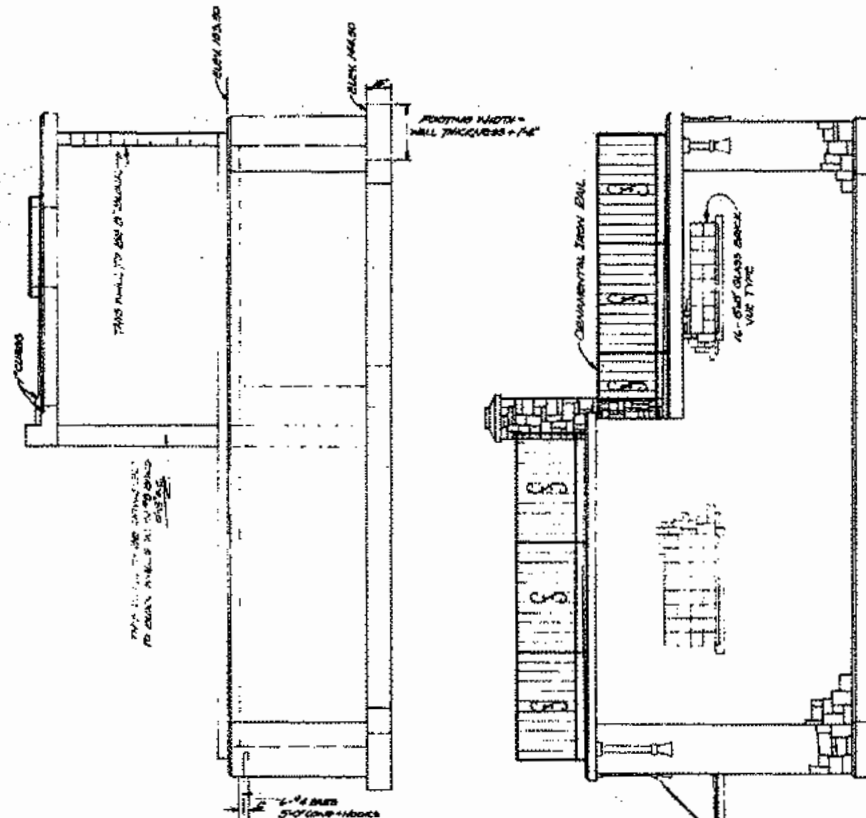
01
S503



PLAN

SCALE - 1" = 6'-0"

ALL ENGINE ROOM INSET DIMENSIONS INCLUDING OPENINGS 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



CONCRETE WORK

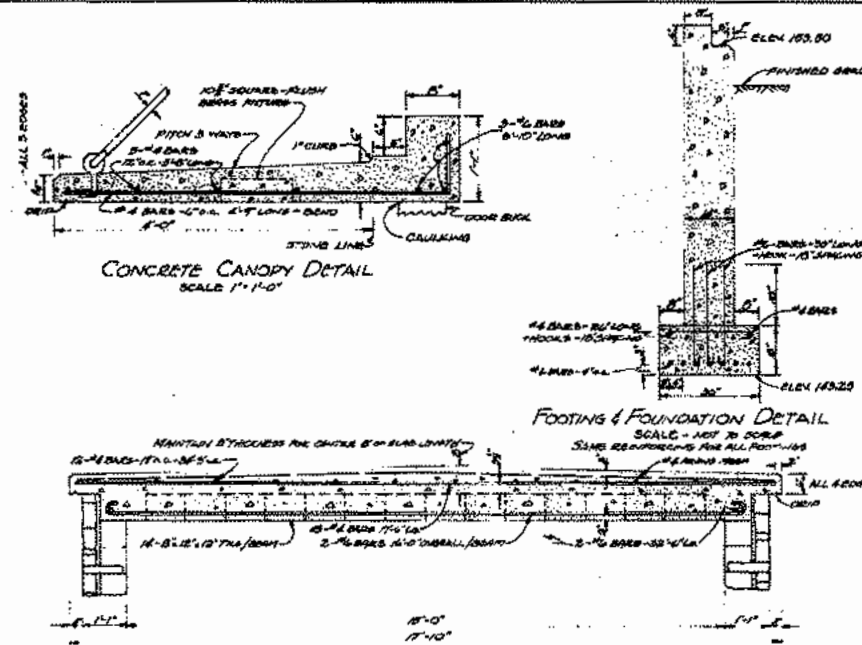
SCALE - 1" = 4'-0"

WALL, CHIMNEY, UNDER ROOF SLAB AND CANOPY - NOT SHOWN INCREASE SLAB THICKNESS UNDER ROOF WORK TO PROVIDE MINIMUM CURB AS SHOWN HEIGHT > 2'-0" OVER 1'-0" TO SCALE

SIDE ELEVATION

SCALE - 1" = 4'-0"

CENTER GLASS BRICK WINDOWS IN EACH ROOM SET UPPER SLAB RAILING STANDARD DISTANCE BACK FROM EDGE OF SLAB. CHIMNEY BOTH SIDES IDENTICAL



CONCRETE CANOPY DETAIL

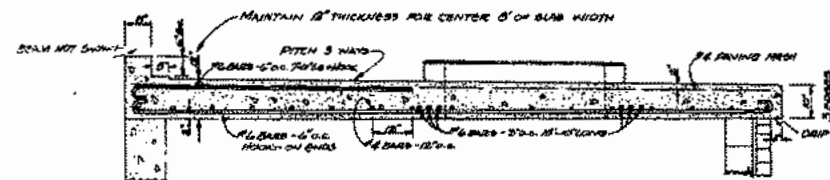
SCALE - 1" = 1'-0"

FOOTING & FOUNDATION DETAIL

SCALE - NOT TO SCALE

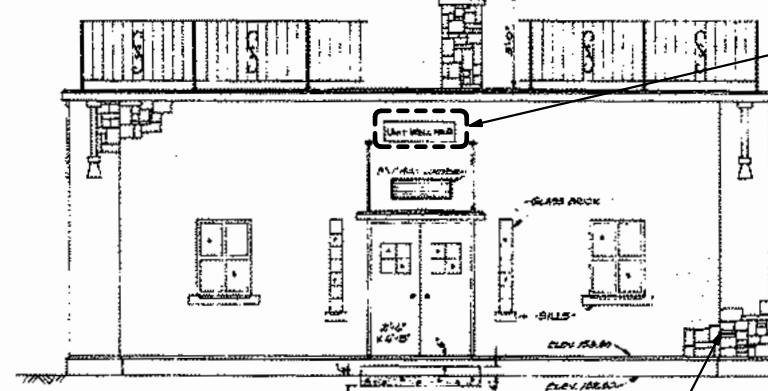
UPPER ROOF SLAB AND BEAM REINFORCING

SCALE - 1" = 2'-0"



LOWER ROOF SLAB REINFORCING

SCALE - 1" = 2'-0"



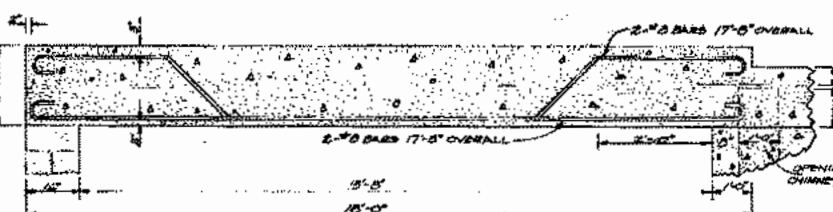
FRONT ELEVATION

SCALE - 1" = 6'-0"

CHIMNEY - NOT SHOWN

SALVAGE GRANITE PANEL FOR INSTALLATION IN NEW BUILDING

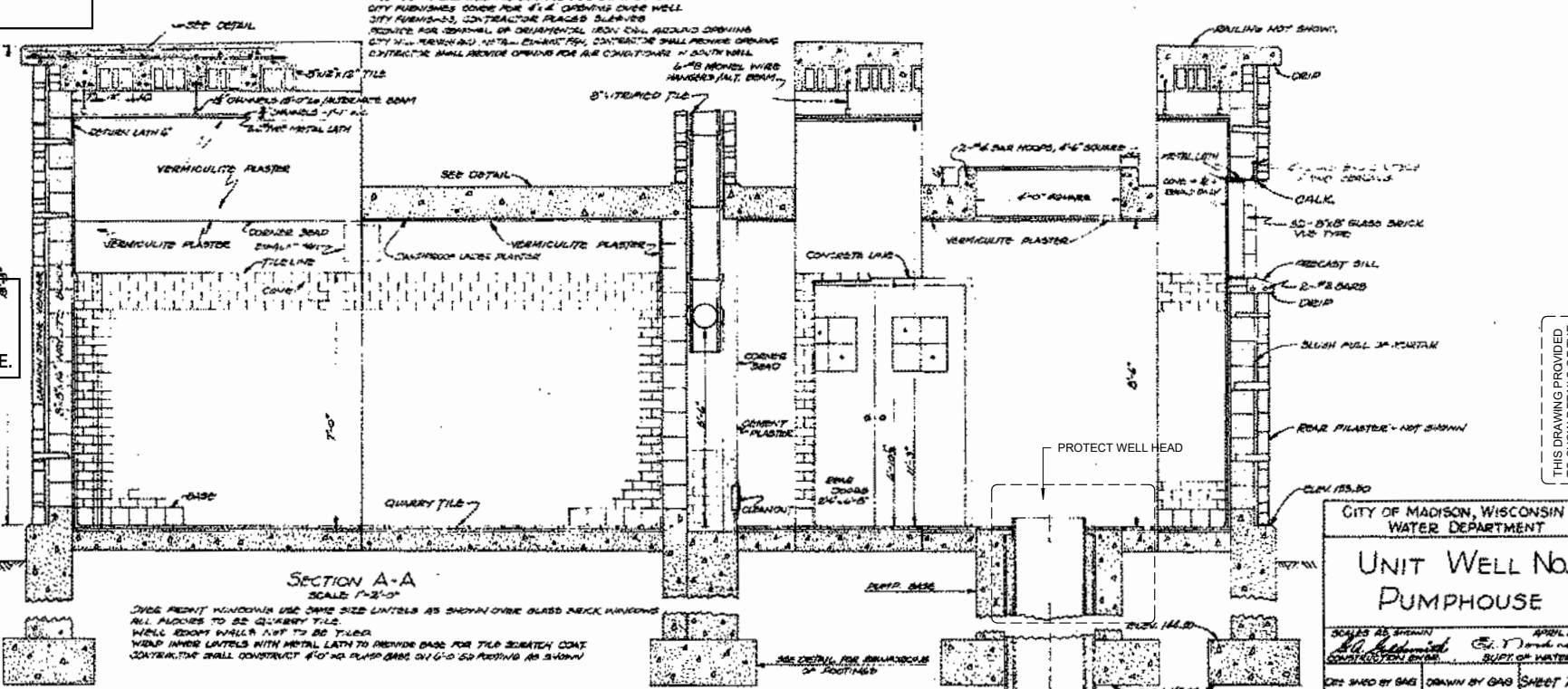
SALVAGE STONE FOR INSTALLATION AT NEW BUILDING ENTRY. REFER TO 2/A4 NOTE 13 FOR REFERENCE.



ENGINE ROOM BEAM REINFORCING

SCALE - 1" = 8'-0"

BEAM TO BE POURED WITH LOWER ROOF SLAB AND CURBS



SECTION A-A

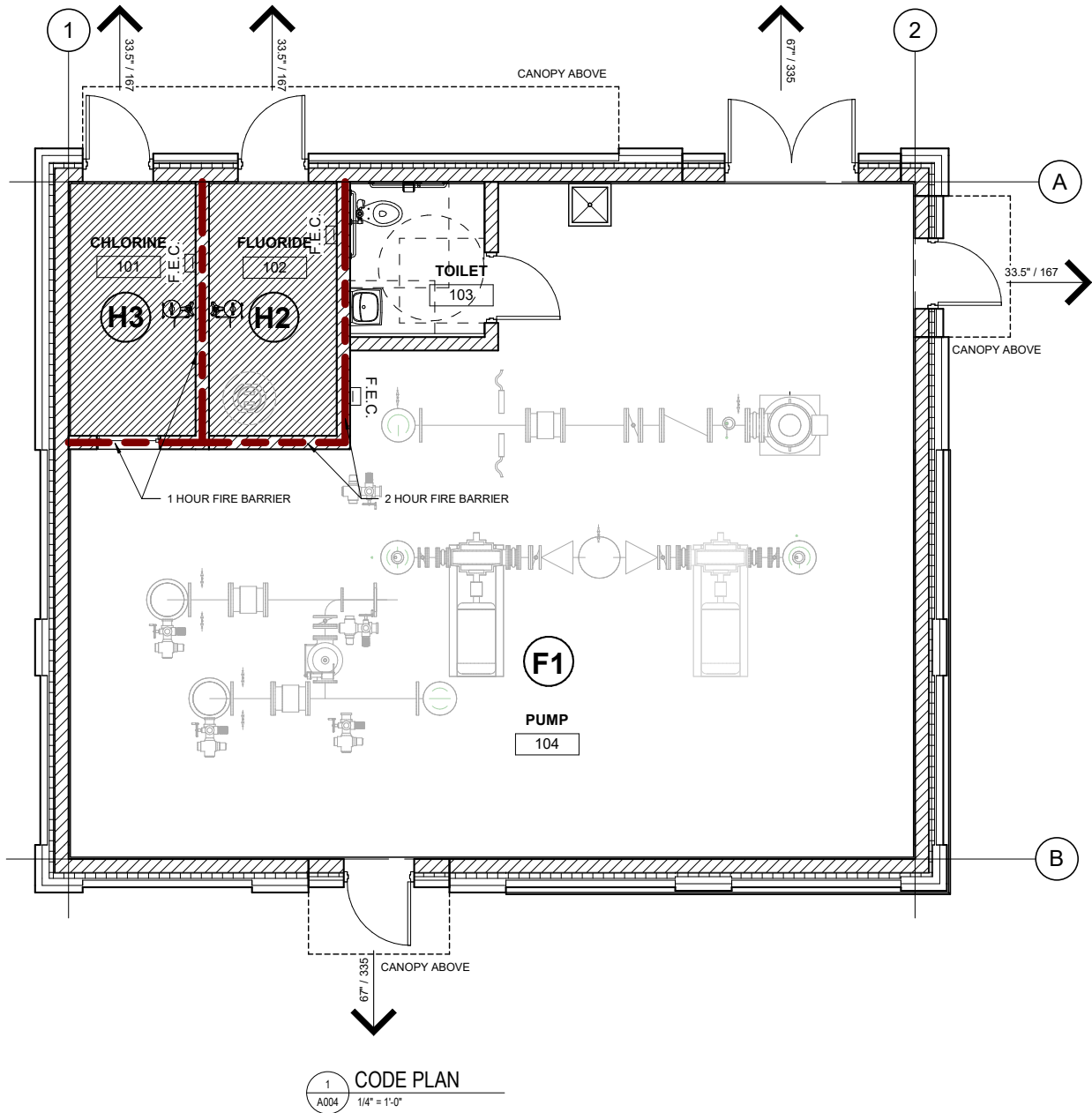
SCALE - 1" = 8'-0"

DO NOT REMOVE WINDOW USE SAME SIZE UNITS AS SHOWN OVER GLASS BRICK WINDOWS ALL FLOORS TO BE QUARRY TILE WELL ROOM WALLS NOT TO BE TILED WOOD INSET UNITS WITH METAL LATH TO PROVIDE BASE FOR TILE SCRATCH COAT CONTRACTOR SHALL CONSTRUCT 10" x 12" PUMP BASE ON 6" x 6" SILL POSTING AS SHOWN

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

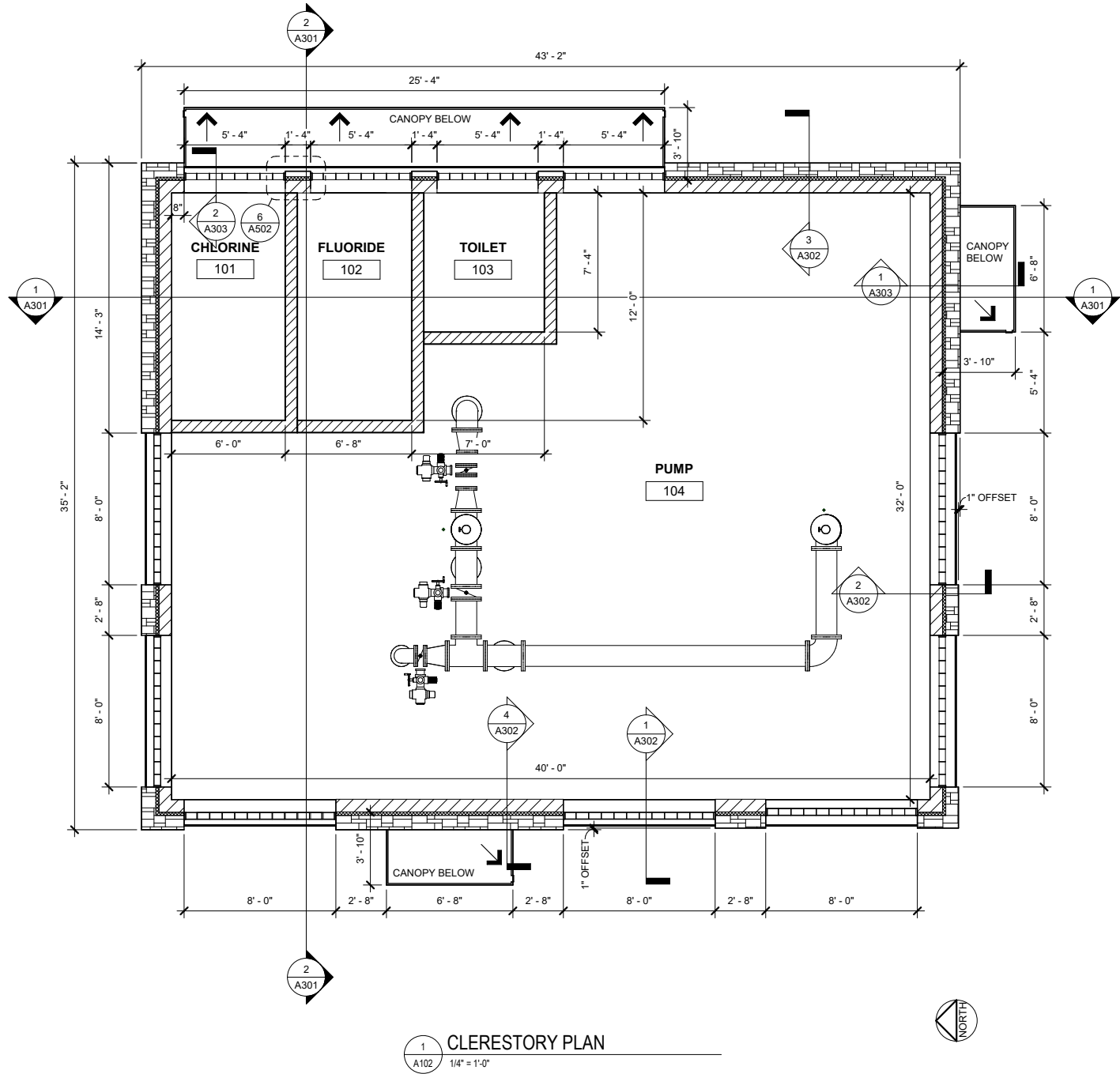
Project Status Issue Date
ONR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

CODE PLAN

01
A004

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



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

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

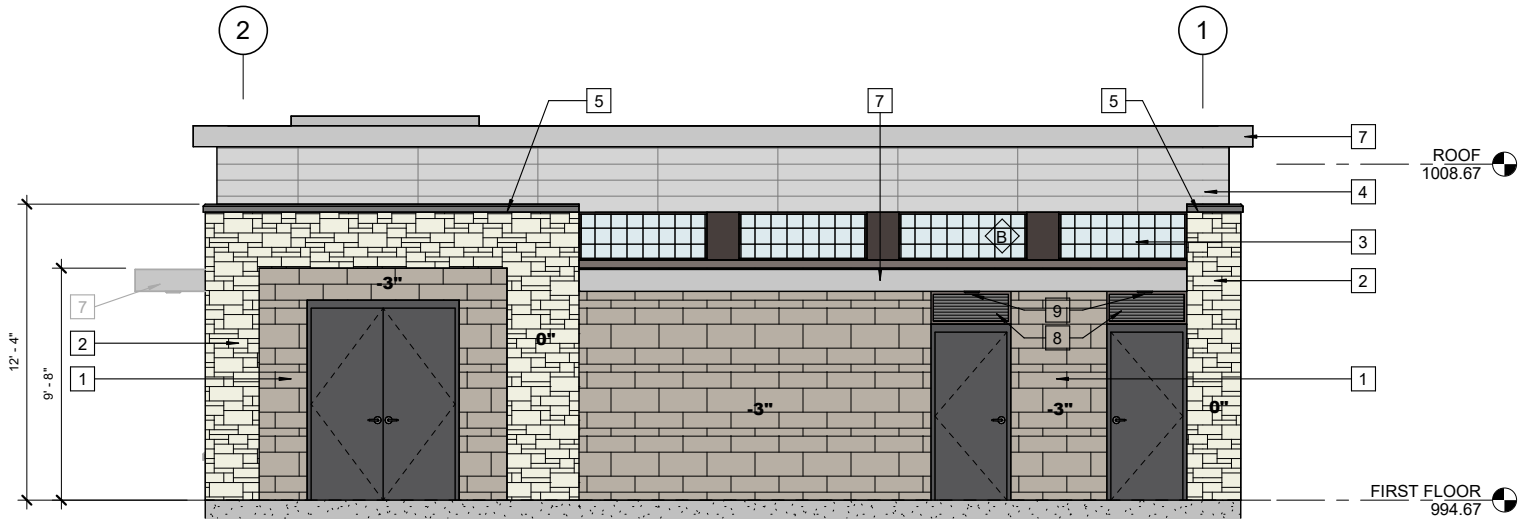
Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

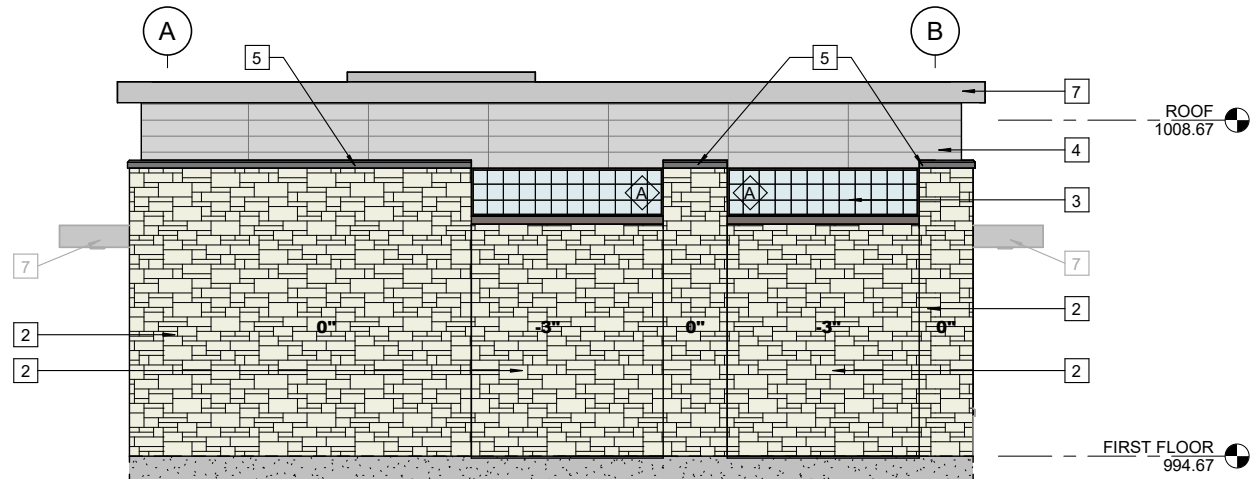
CLERESTORY PLAN

01
A102

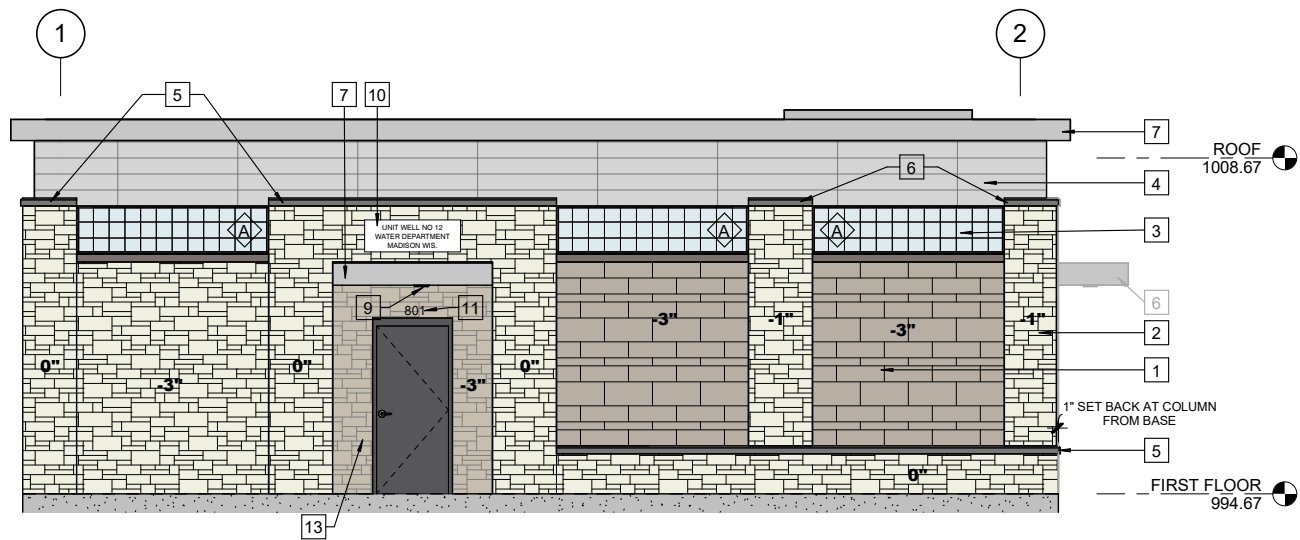
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/24/2025 12:07:50 PM



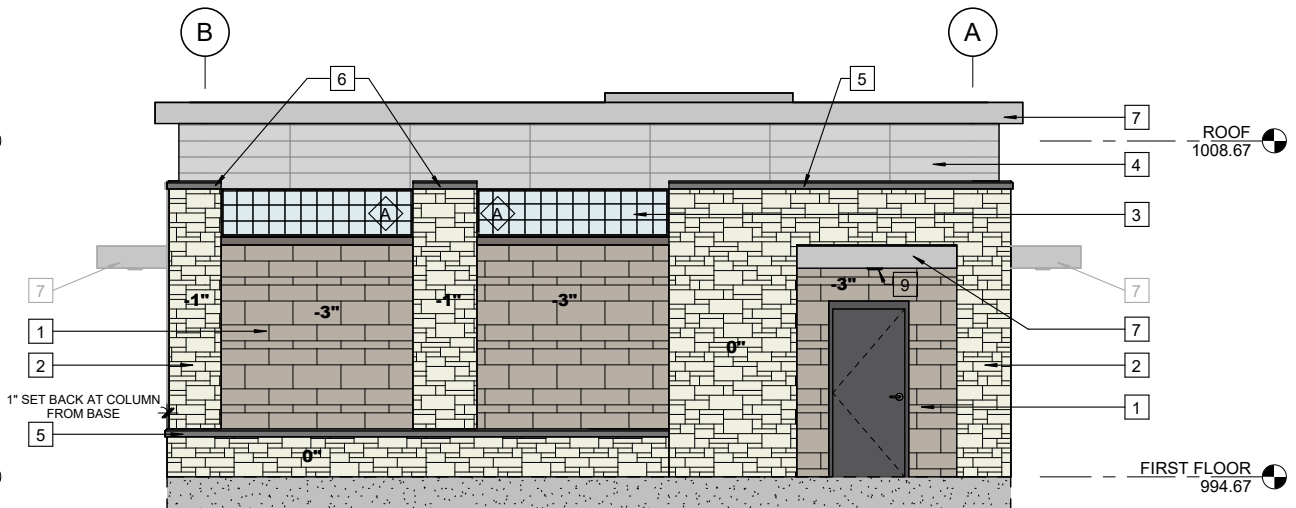
1 EAST ELEVATION
A201 1/4" = 1'-0"



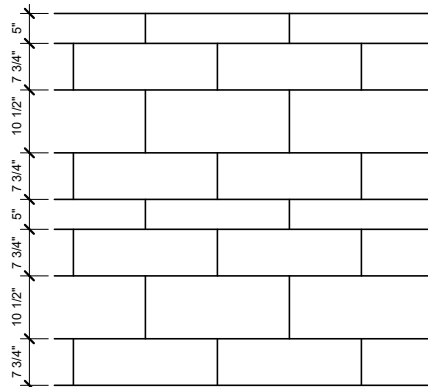
2 NORTH ELLEVATION
A201 1/4" = 1'-0"



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

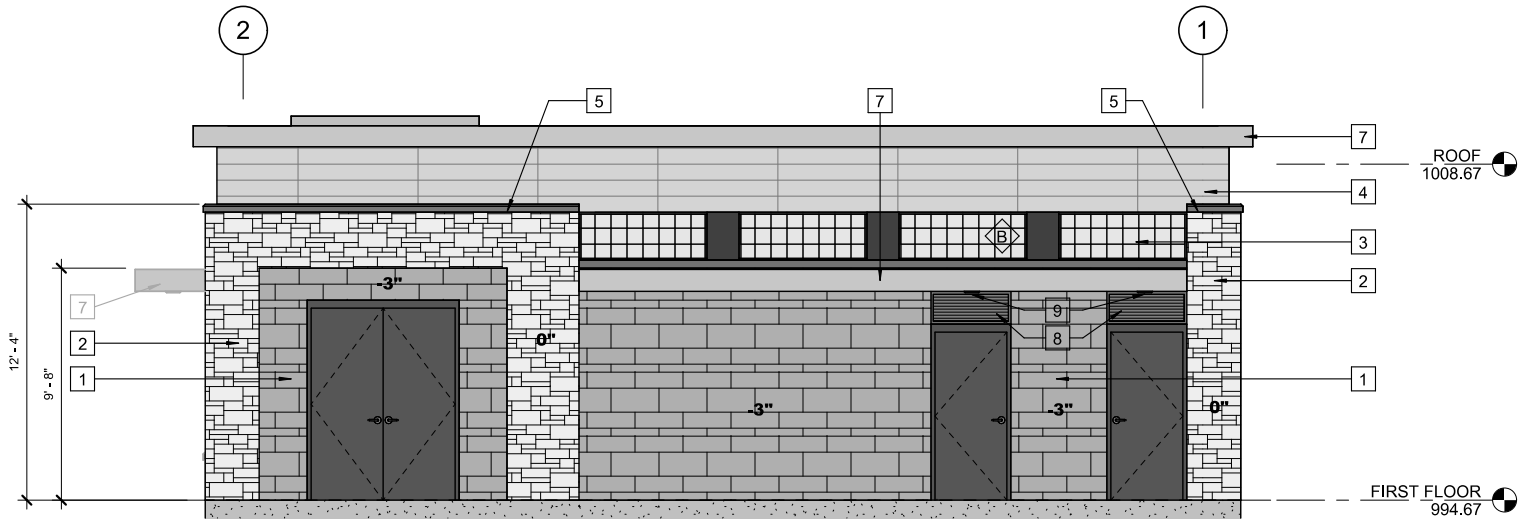
KEY NOTES:

- | | | | |
|---|---|----|--|
| 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 | | |

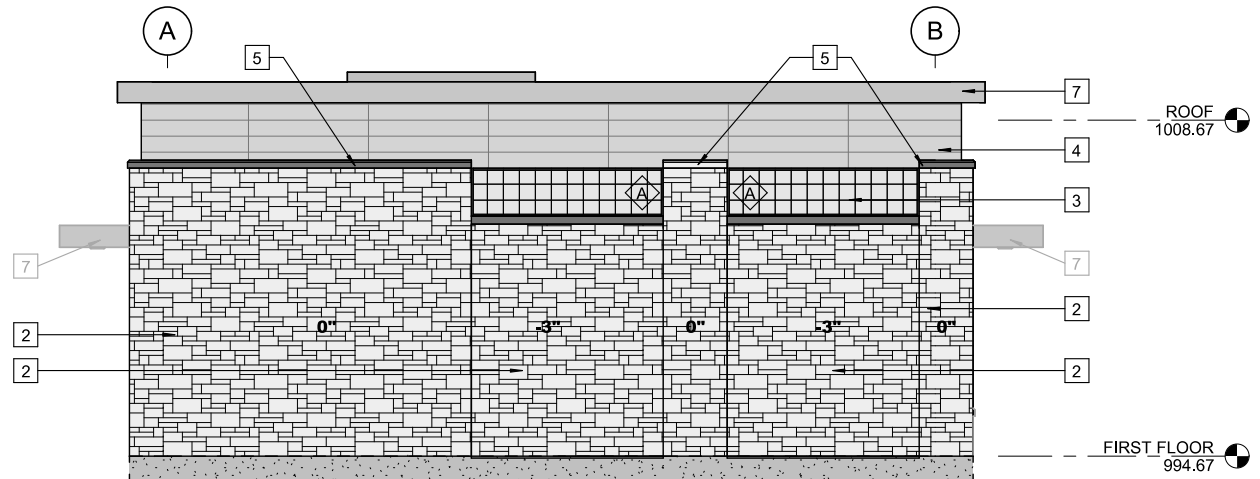
NOTE: ALL DRAWING SCALES ARE FOR PLANS PRINTED ON 34"x22" SHEETS

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

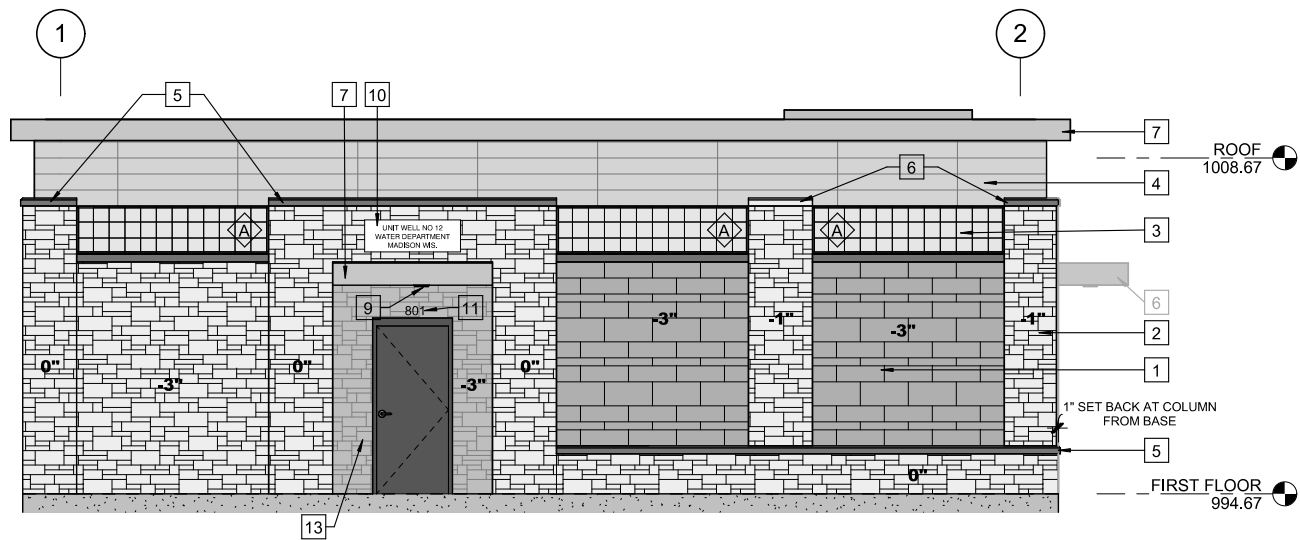
6/24/2025 12:07:50 PM



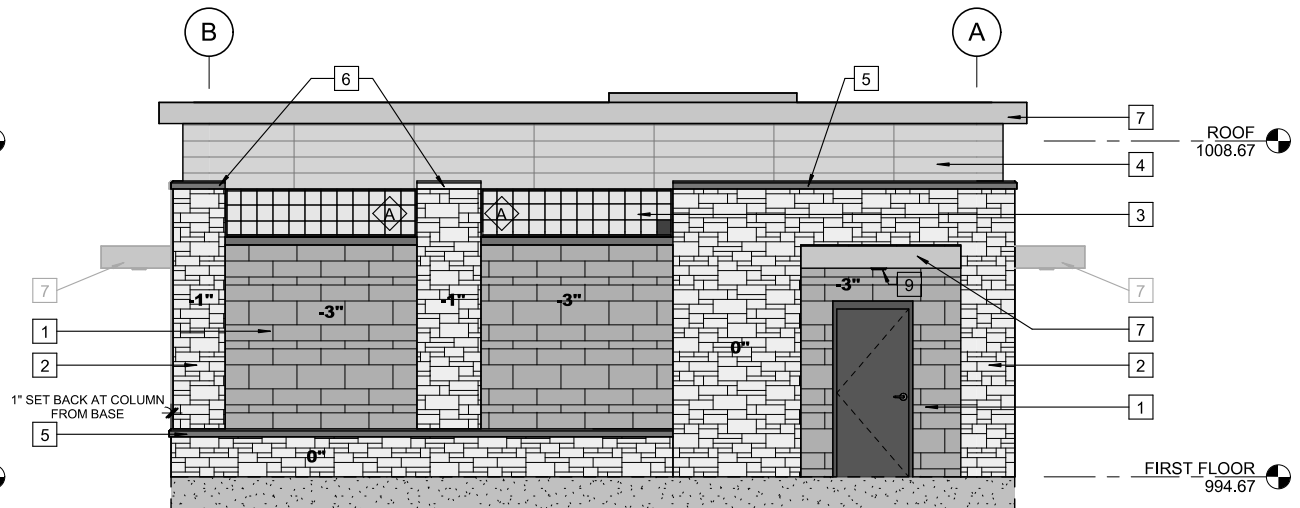
1 EAST ELEVATION
A201 1/4" = 1'-0"



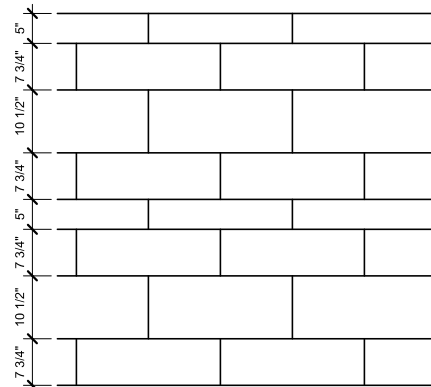
2 NORTH ELLEVATION
A201 1/4" = 1'-0"



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 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

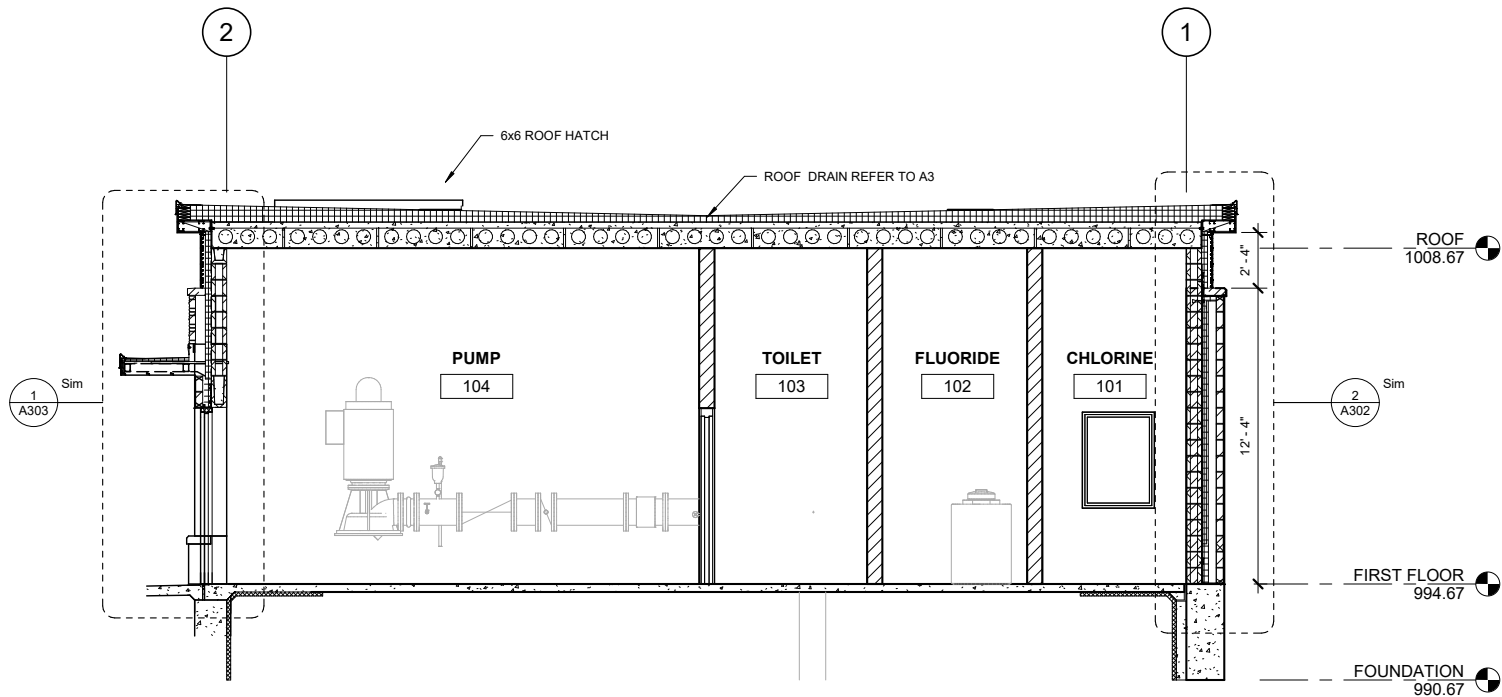
REVISION SCHEDULE

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

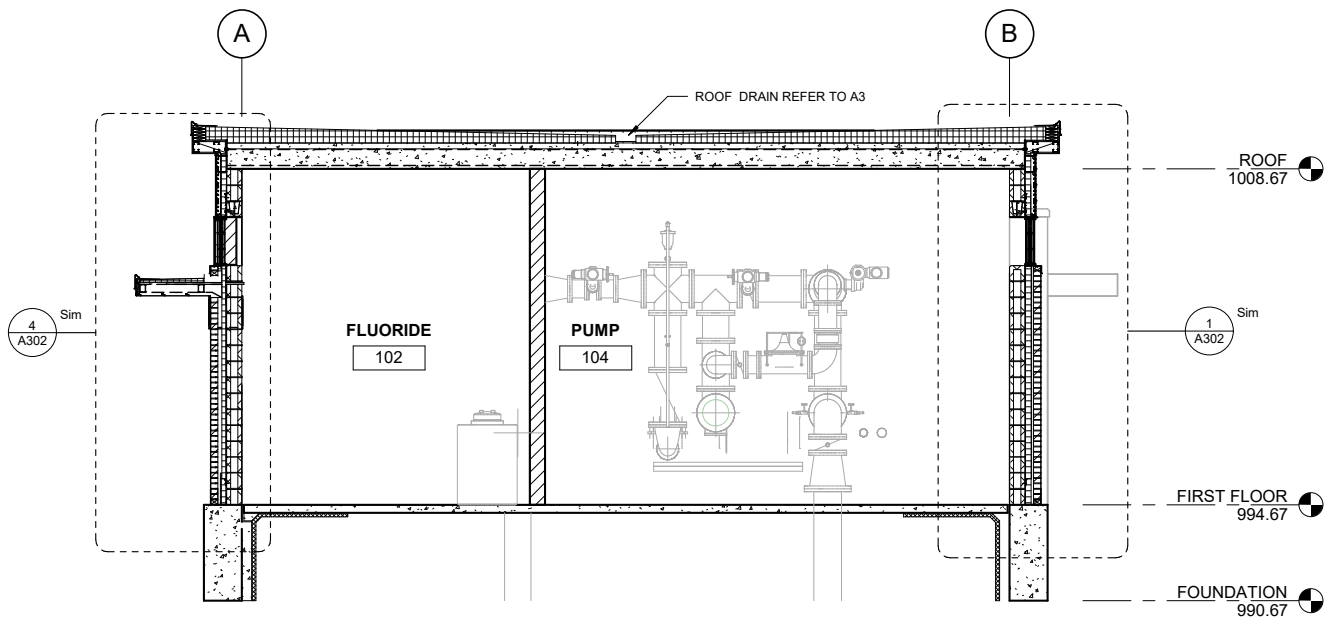
EXTERIOR ELEVATIONS

01
A201

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

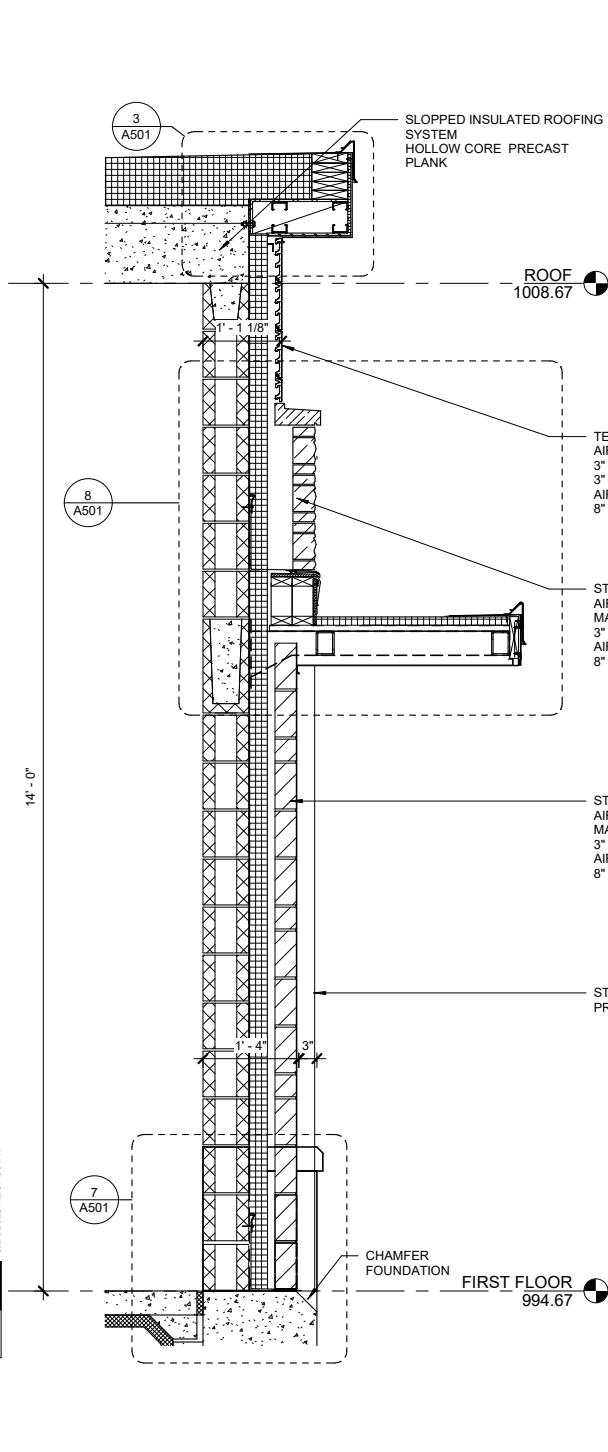
Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

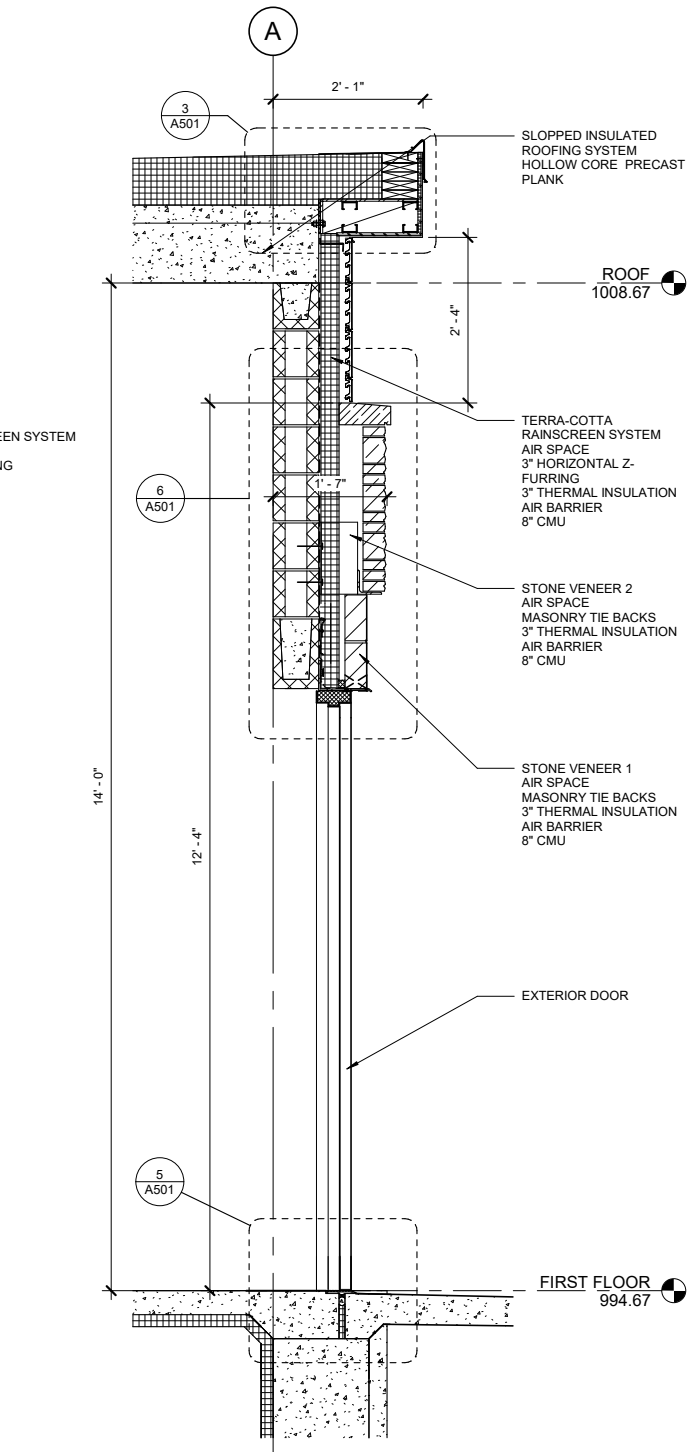
BUILDING SECTIONS

01
A301

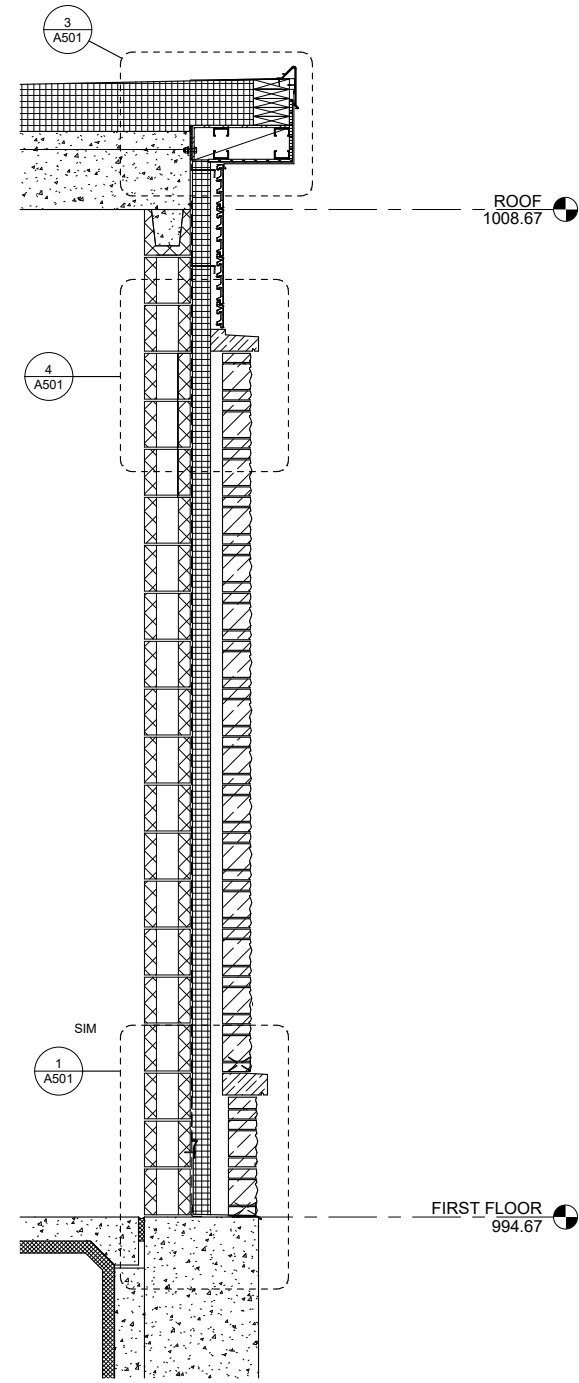
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/24/2025 12:07:50 PM



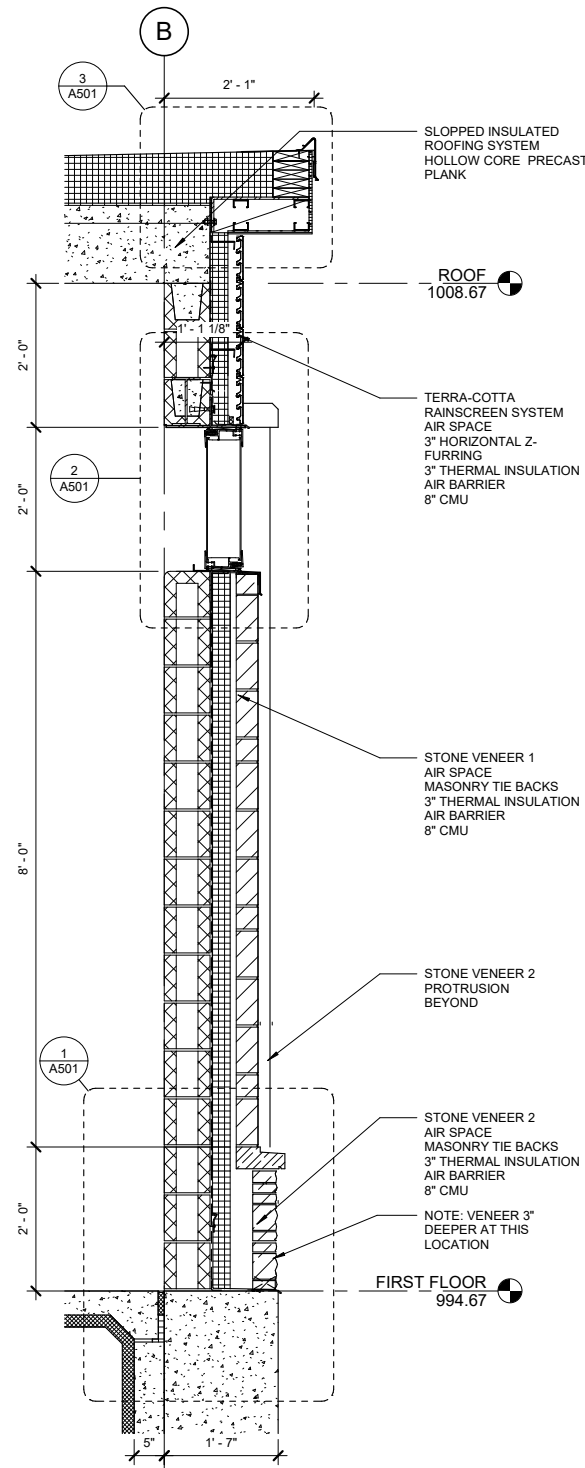
4 WALL SECTION - STONE WALL AT CANOPY
A302 3/4" = 1'-0"



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



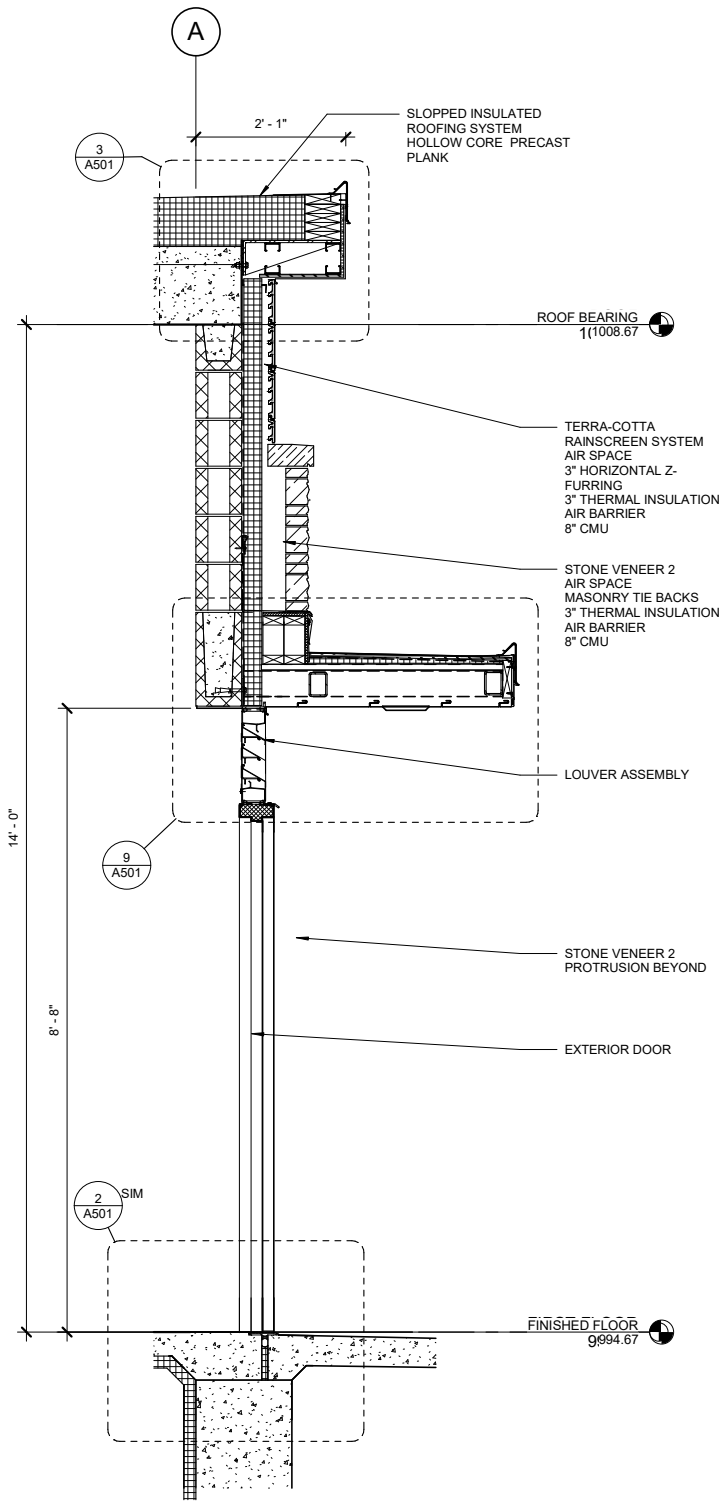
2 WALL SECTION - STONE WALL
A302 3/4" = 1'-0"



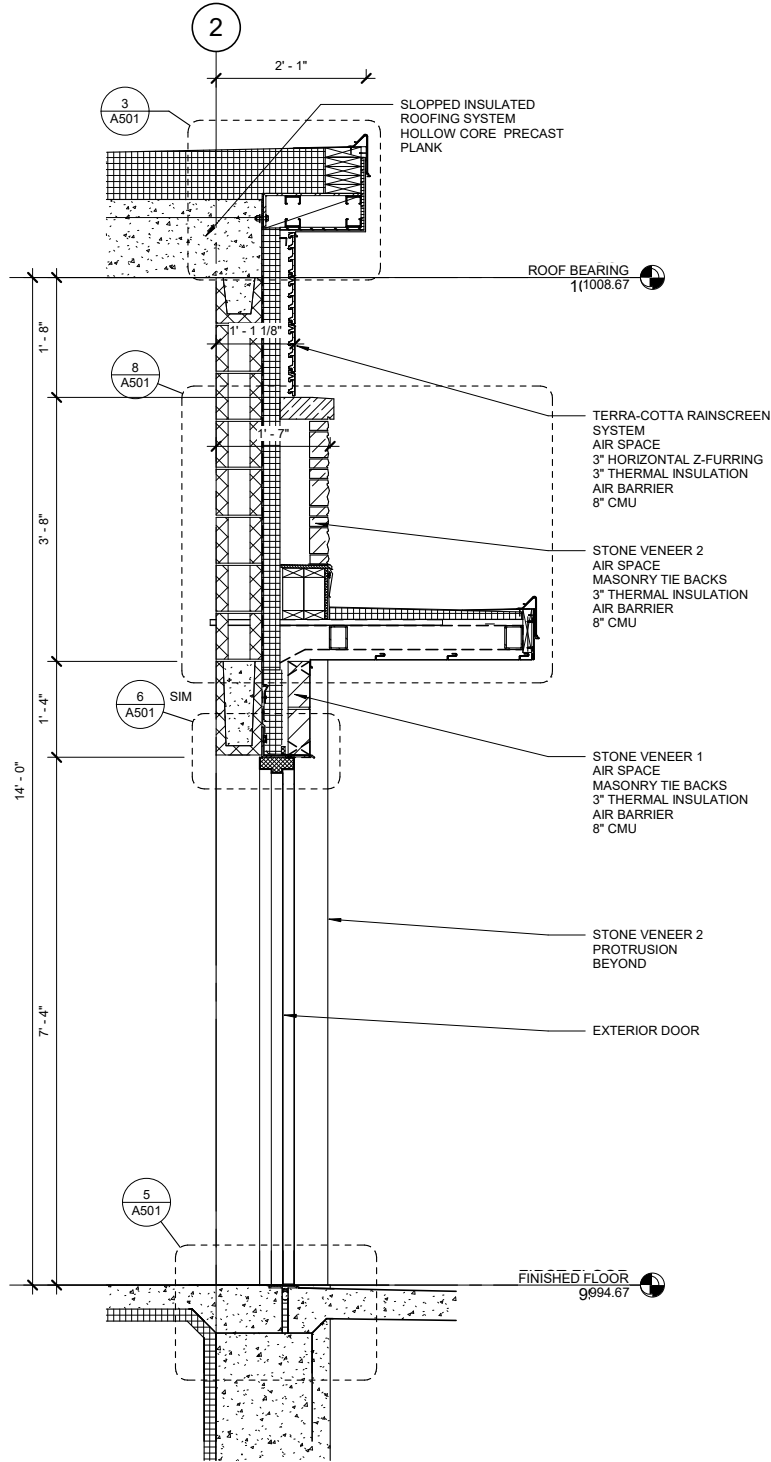
1 SECTION THRU CLERESTORY WINDOW
A302 3/4" = 1'-0"

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

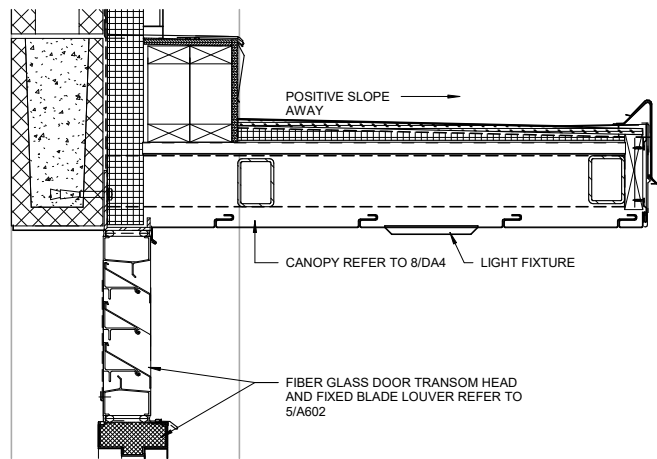
REVISION SCHEDULE

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

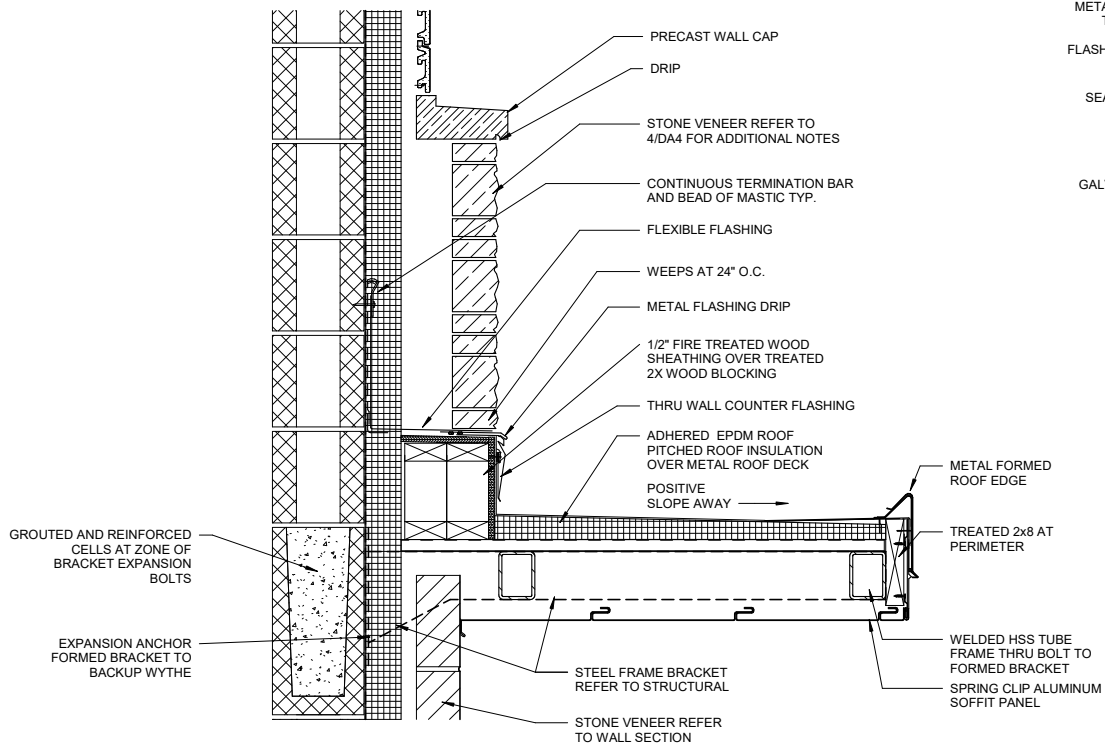
WALL SECTIONS

01
A303

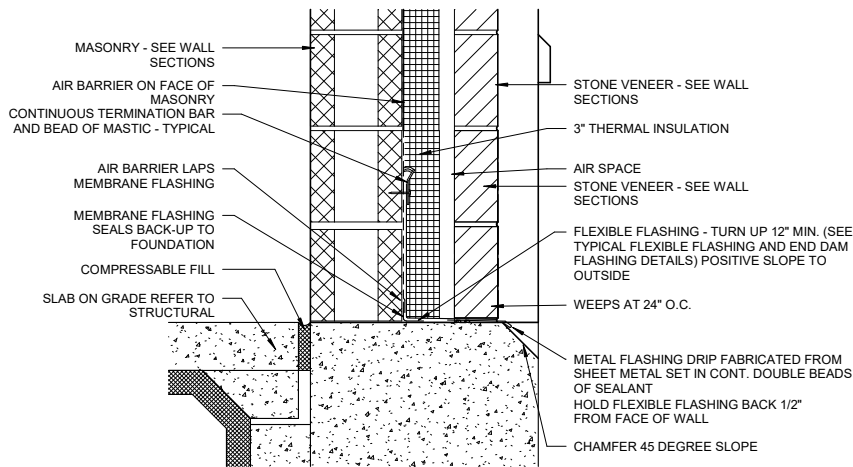
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE



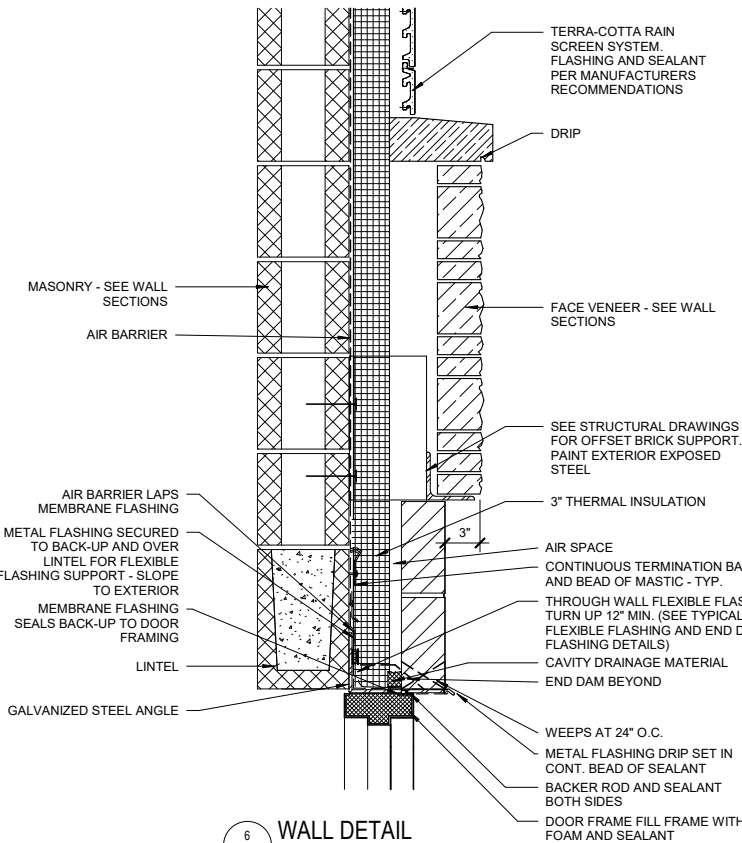
9 CANOPY AT BLADE LOUVER ASSEMBLY
A501 1 1/2" = 1'-0"



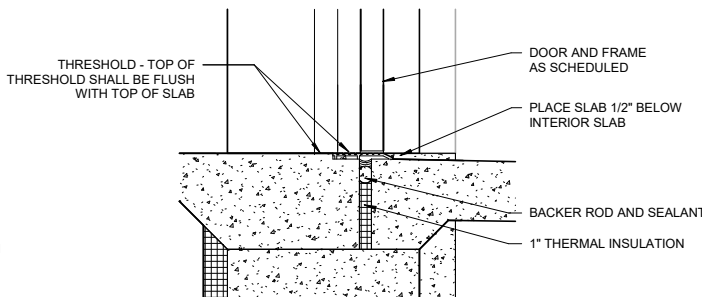
8 WALL DETAIL - CANOPY
A501 1 1/2" = 1'-0"



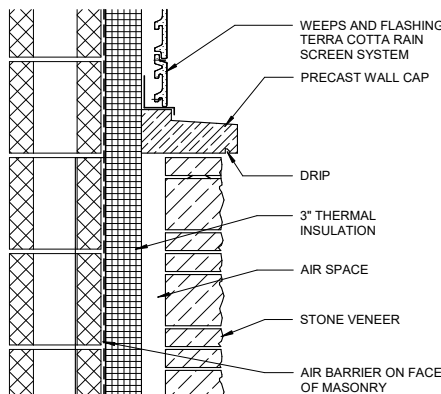
7 WALL DETAIL - BASE
A501 1 1/2" = 1'-0"



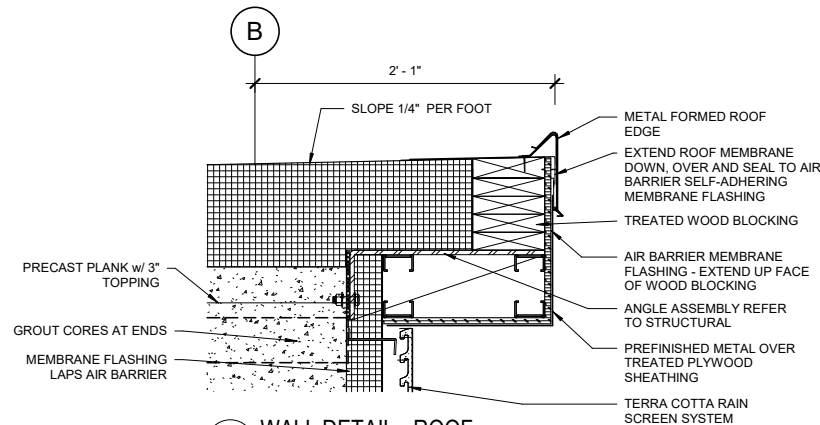
6 WALL DETAIL
A501 1 1/2" = 1'-0"



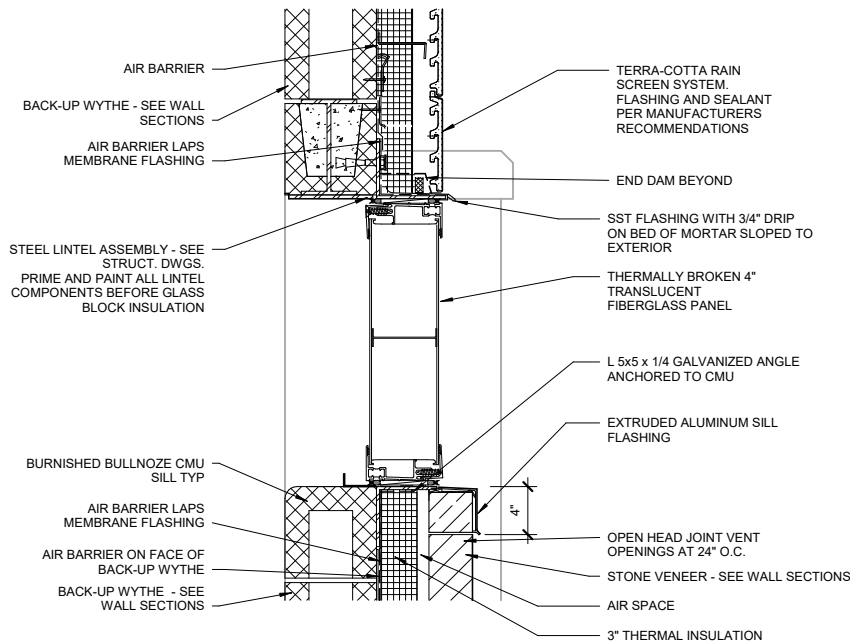
5 WALL DETAIL- DOOR BASE
A501 1 1/2" = 1'-0"



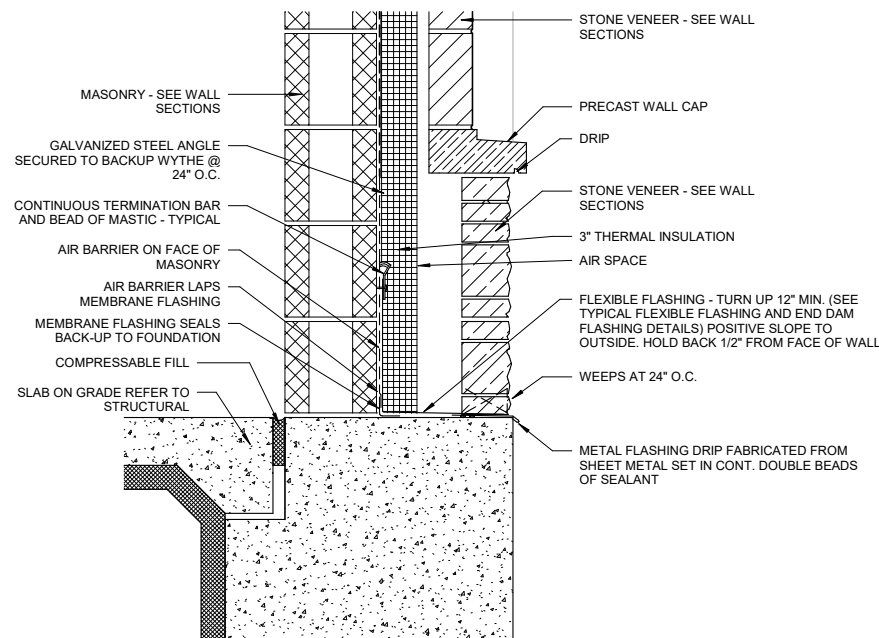
4 WALL DETAIL
A501 1 1/2" = 1'-0"



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



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 ONR SUBMITTAL
Issue Date

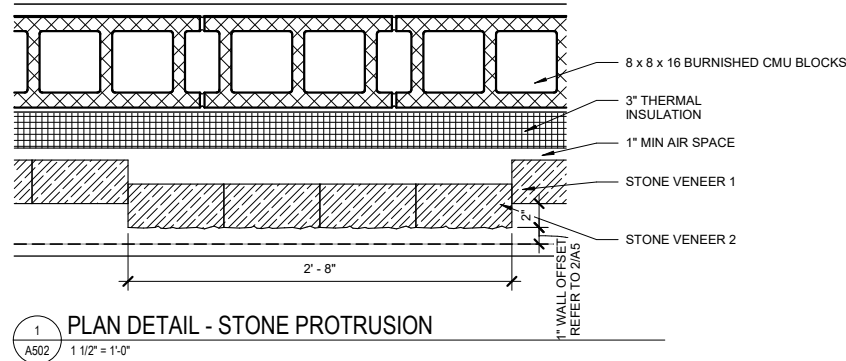
REVISION SCHEDULE
REV. # DESCRIPTION DATE

DETAILS

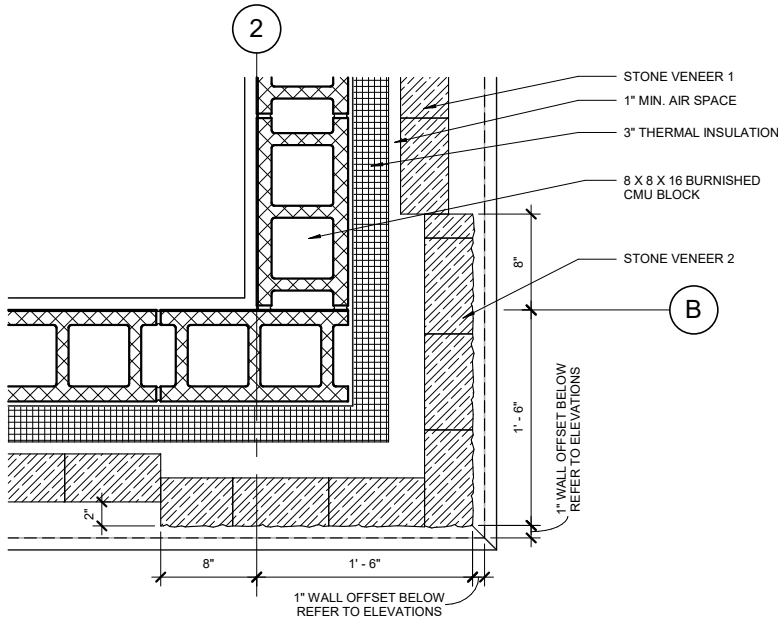
01
A501

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

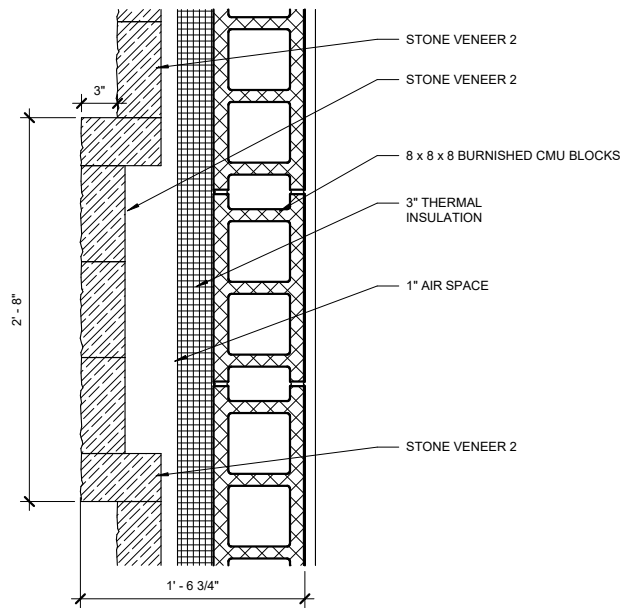
6/24/2025 12:07:51 PM



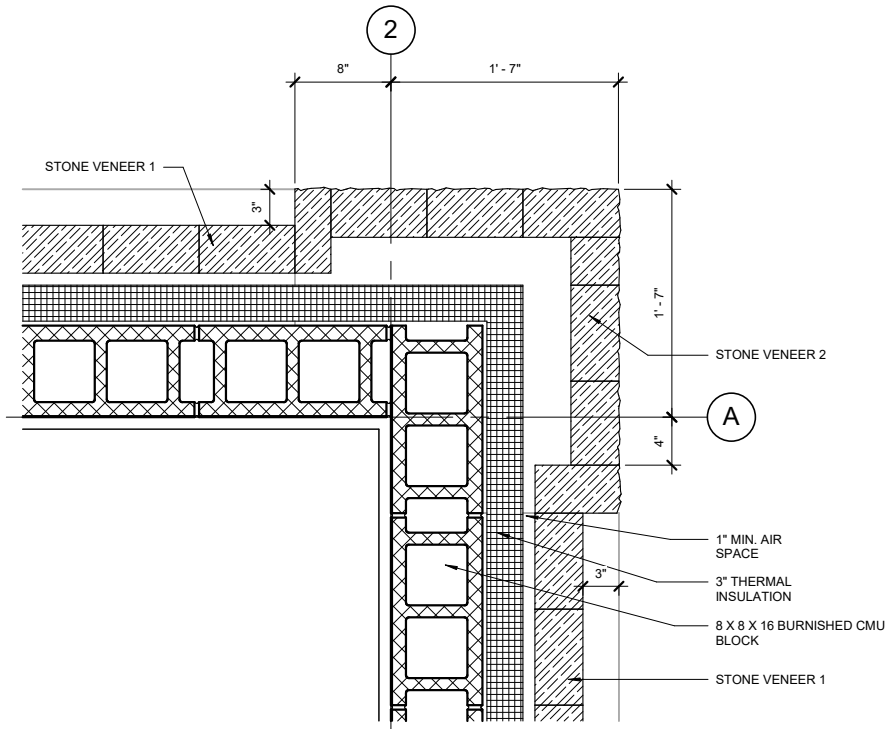
1
A502
PLAN DETAIL - STONE PROTRUSION
1 1/2" = 1'-0"



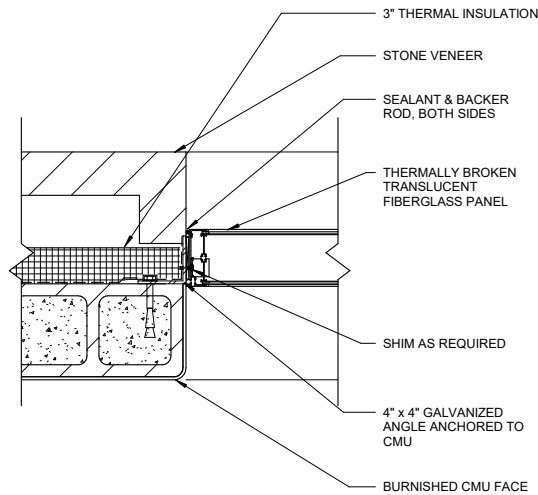
2
A502
PLAN DETAIL - CORNER CONDITION
1 1/2" = 1'-0"



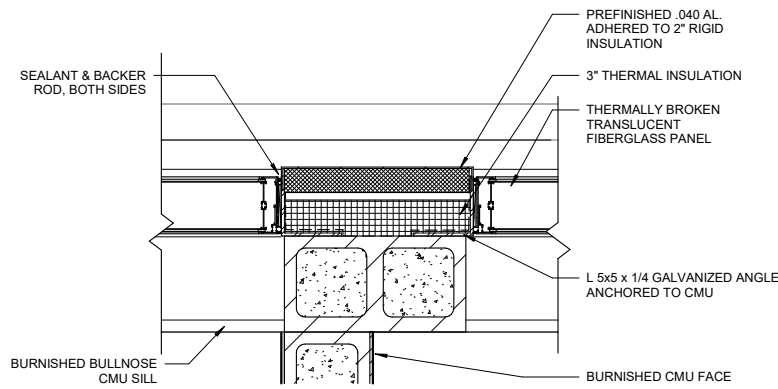
3
A502
PLAN DETAIL - STONE PROTRUSION
1 1/2" = 1'-0"



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"



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 DNR SUBMITTAL
Issue Date 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

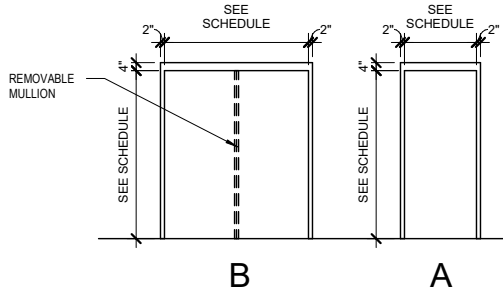
DETAILS

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

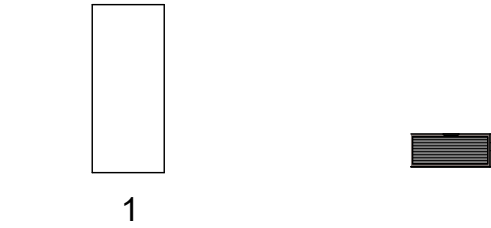
01
A502

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		

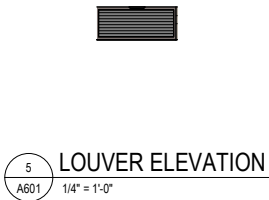
HM: HOLLOW METAL
FRP: FIBER REINFORCED PLASTIC



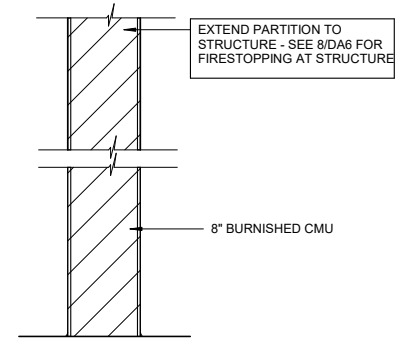
3 FRAME ELEVATIONS
A601 1/4" = 1'-0"



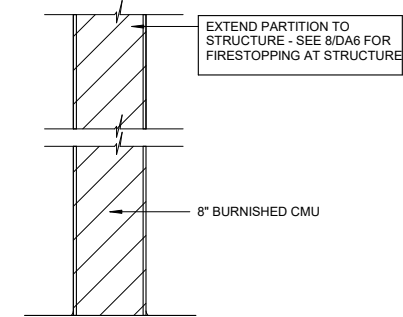
4 DOOR ELEVATIONS
A601 1/4" = 1'-0"



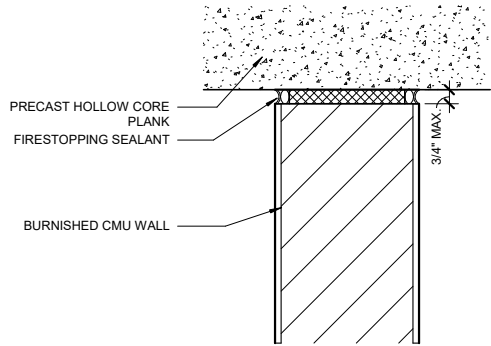
5 LOUVER ELEVATION
A601 1/4" = 1'-0"



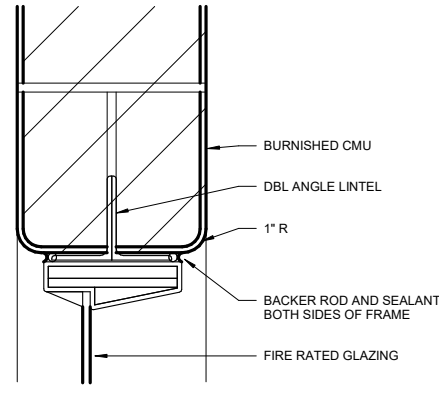
6 PARTITION TYPES M1C/S
A601 1 1/2" = 1'-0"



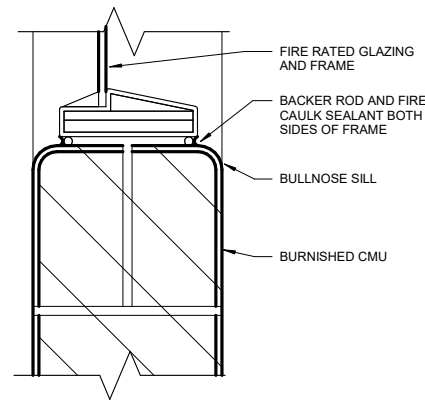
7 PARTITION TYPE M3C/S - 2 HOUR
A601 1 1/2" = 1'-0"



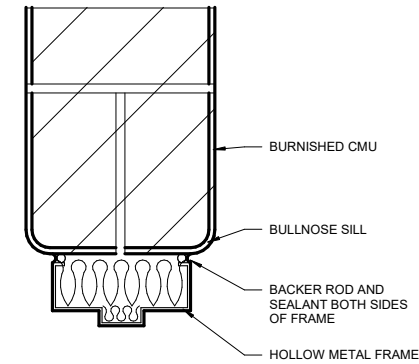
8 FIRESTOPPING AT CMU PARTITION
A601 3" = 1'-0"



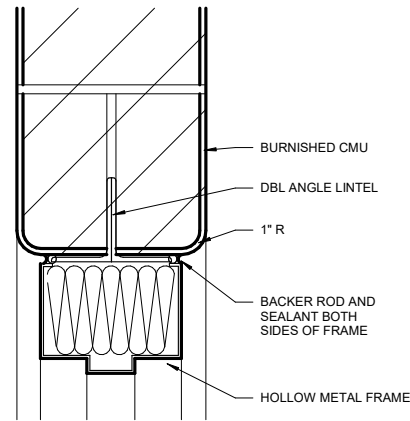
9 FIRE RATED FGL HEAD
A601 3" = 1'-0"



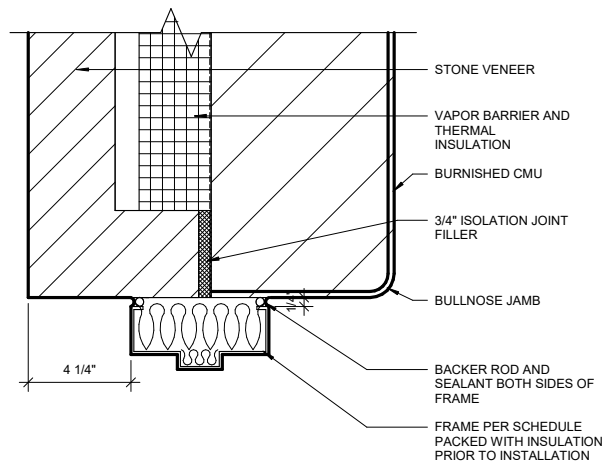
10 FIRE RATED FGL JAMB/SILL
A601 3" = 1'-0"



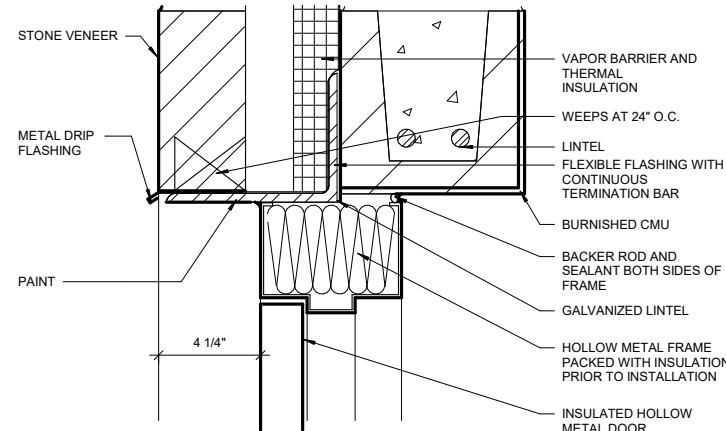
11 TYP. INTERIOR DOOR JAMB
A601 3" = 1'-0"



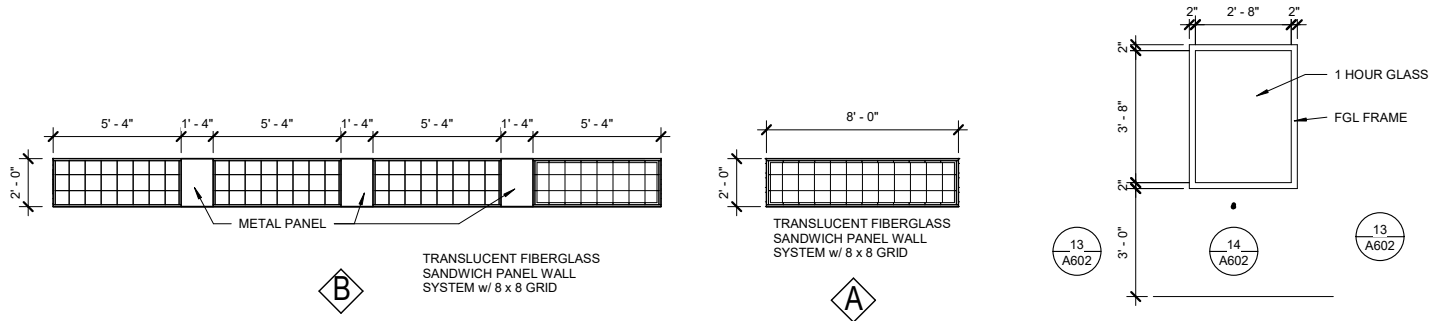
12 TYP. INTERIOR DOOR HEAD
A601 3" = 1'-0"



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 Checked By Drawn By 182222 JRL JRL

Project Status DNR SUBMITTAL Issue Date 6/30/2025

REVISION SCHEDULE REV. # DESCRIPTION DATE

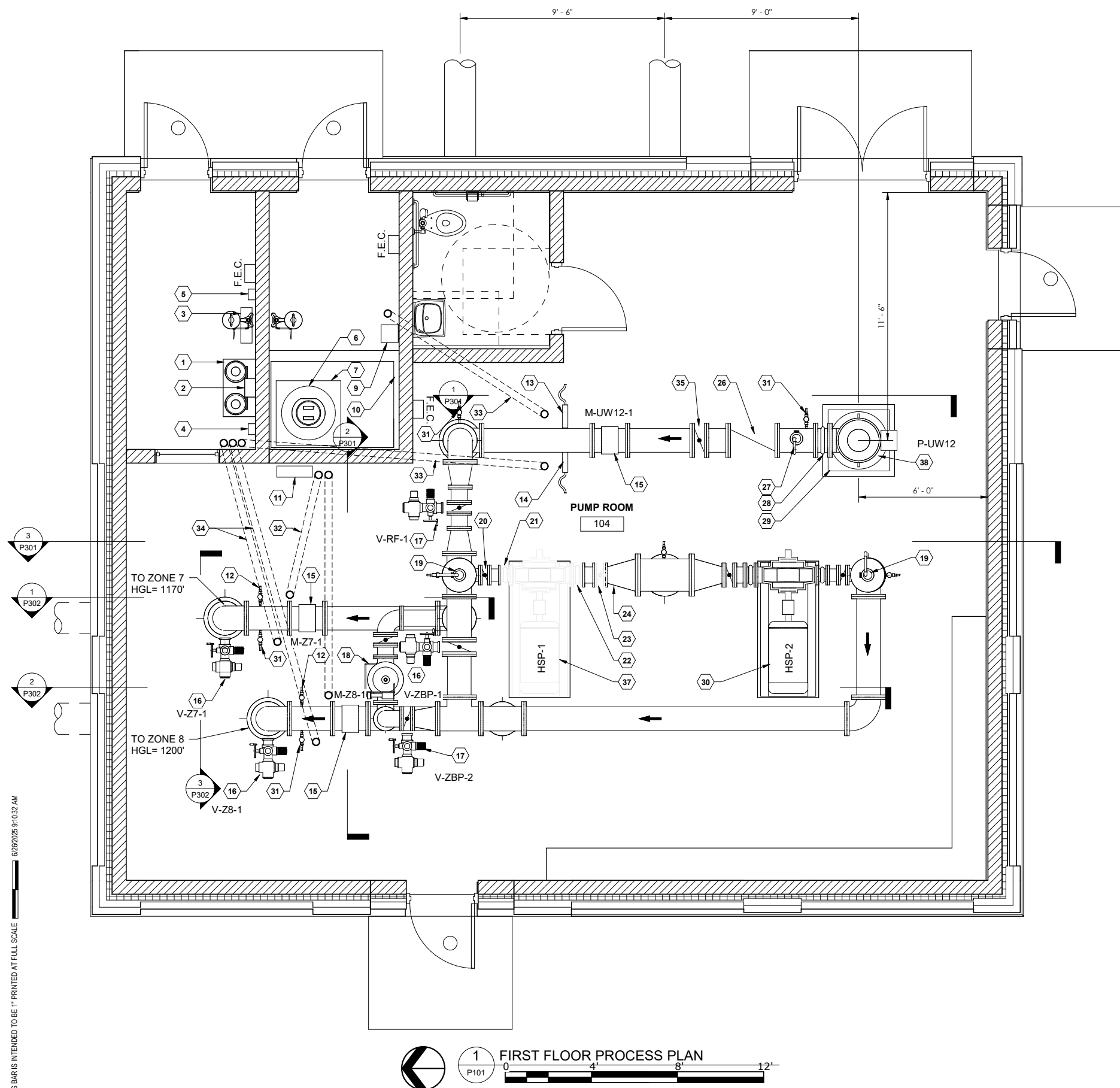
SCHEDULES AND DETAILS

01
A601

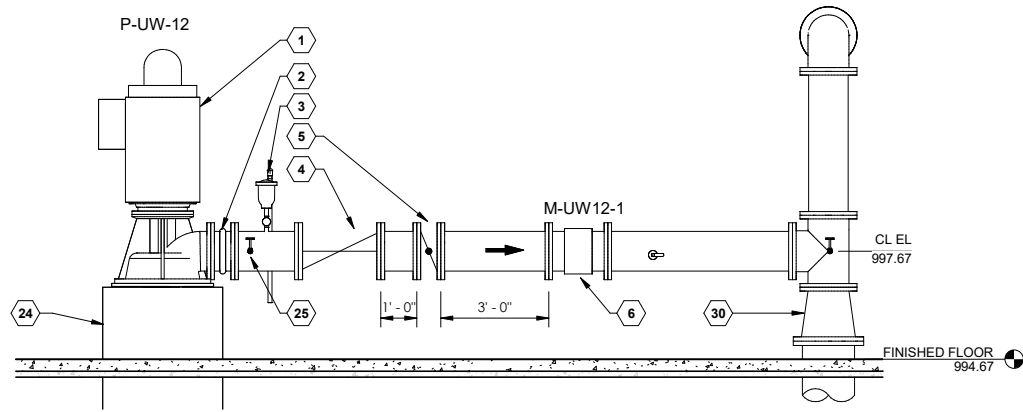
KEYNOTES:

- 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

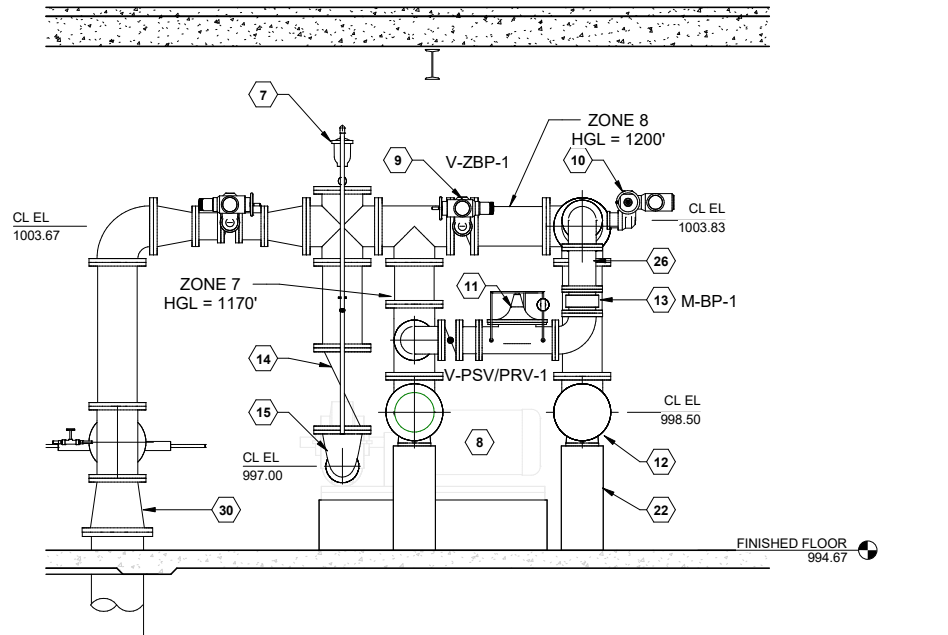
NOTE:
ENCASE BELOW FLOOR PIPING ACCORDING TO DETAIL K/DP1



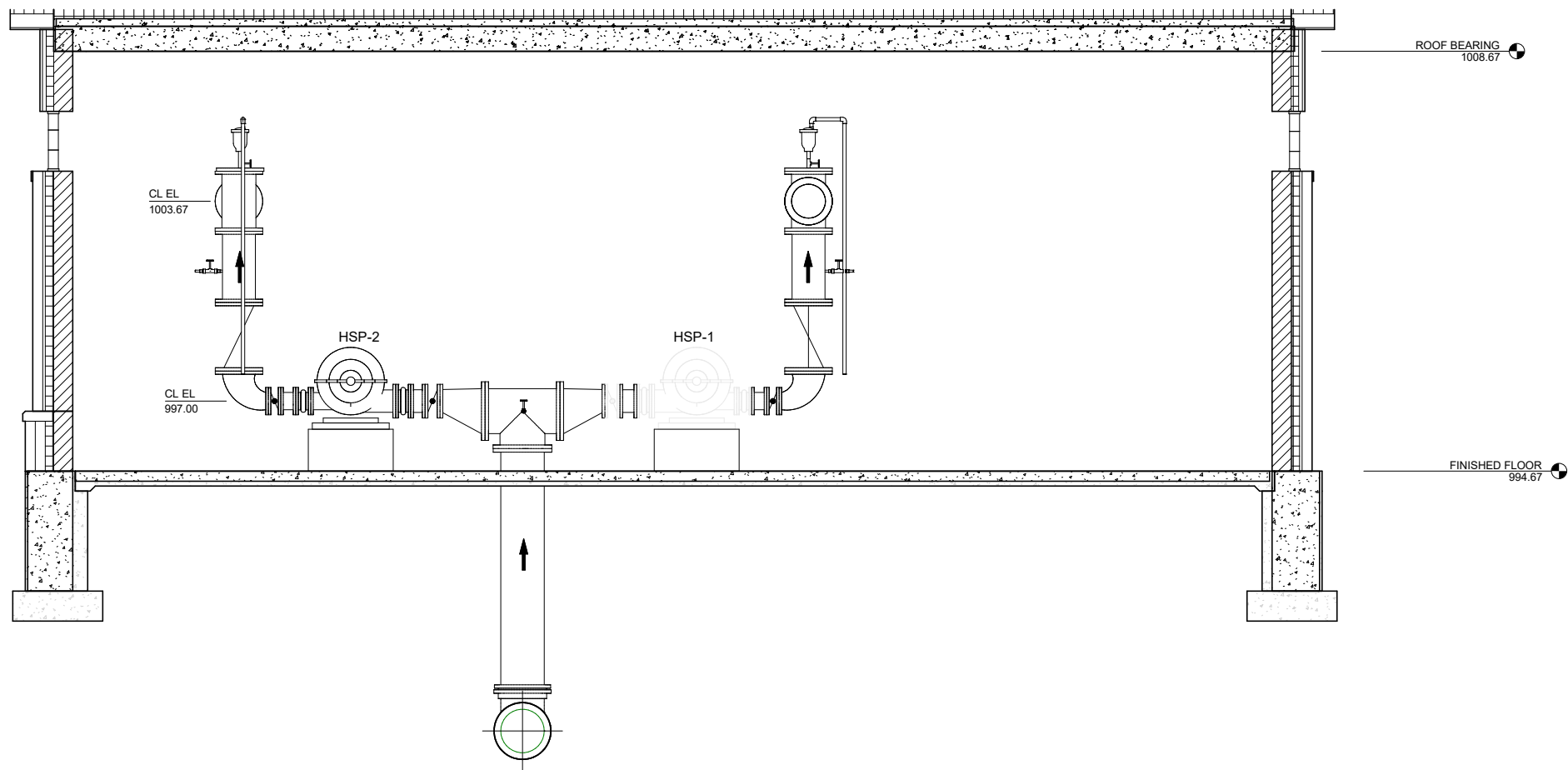
THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE



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.

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 MADWJ 182222
Checked By IS
Drawn By DD

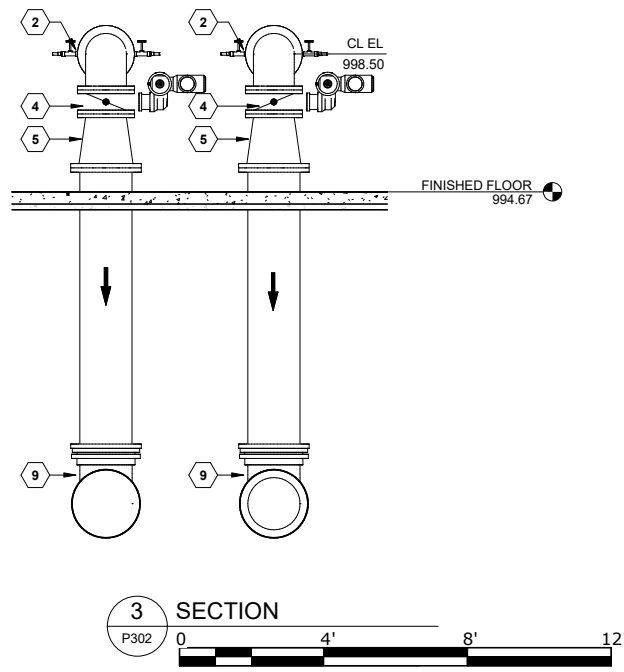
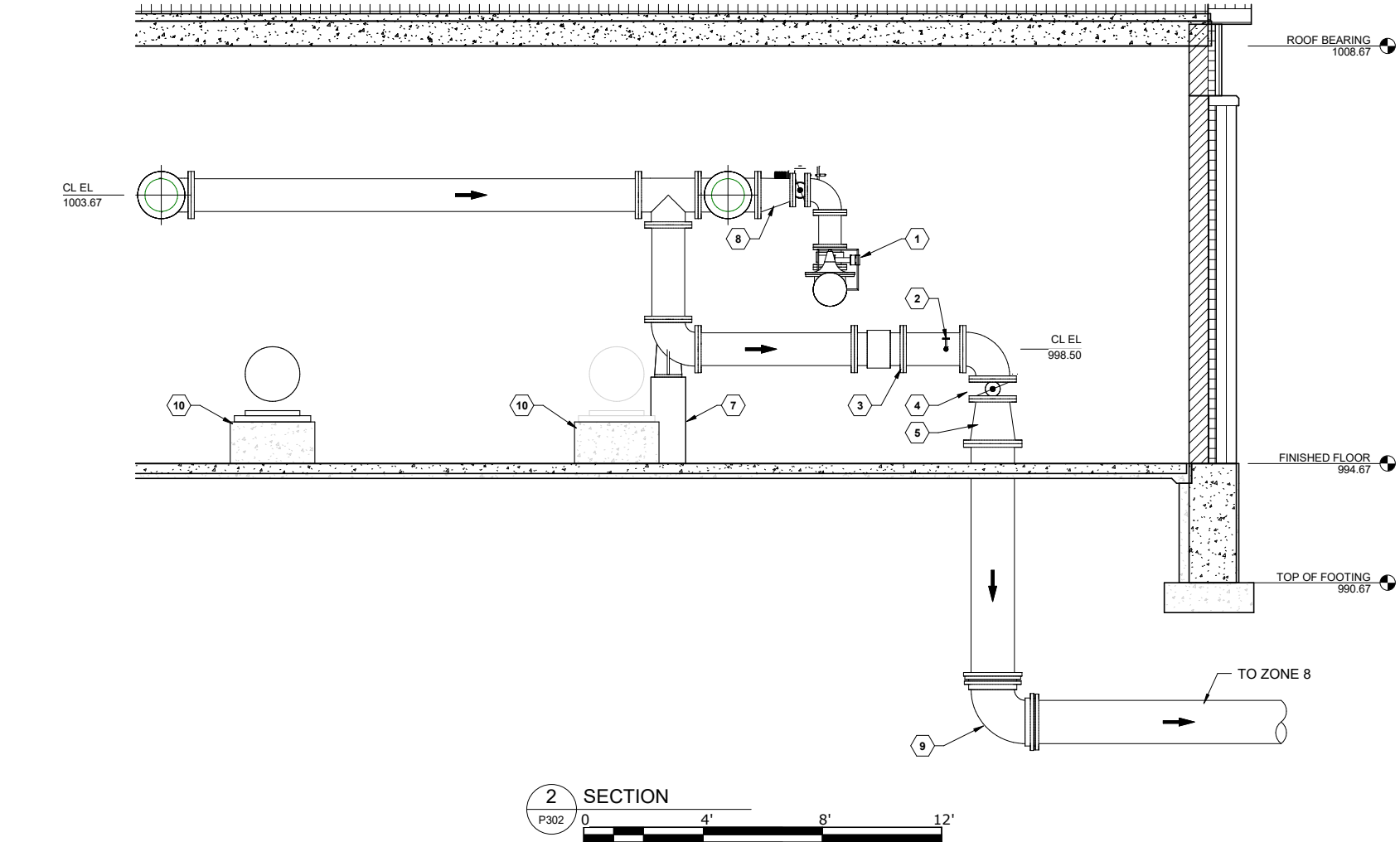
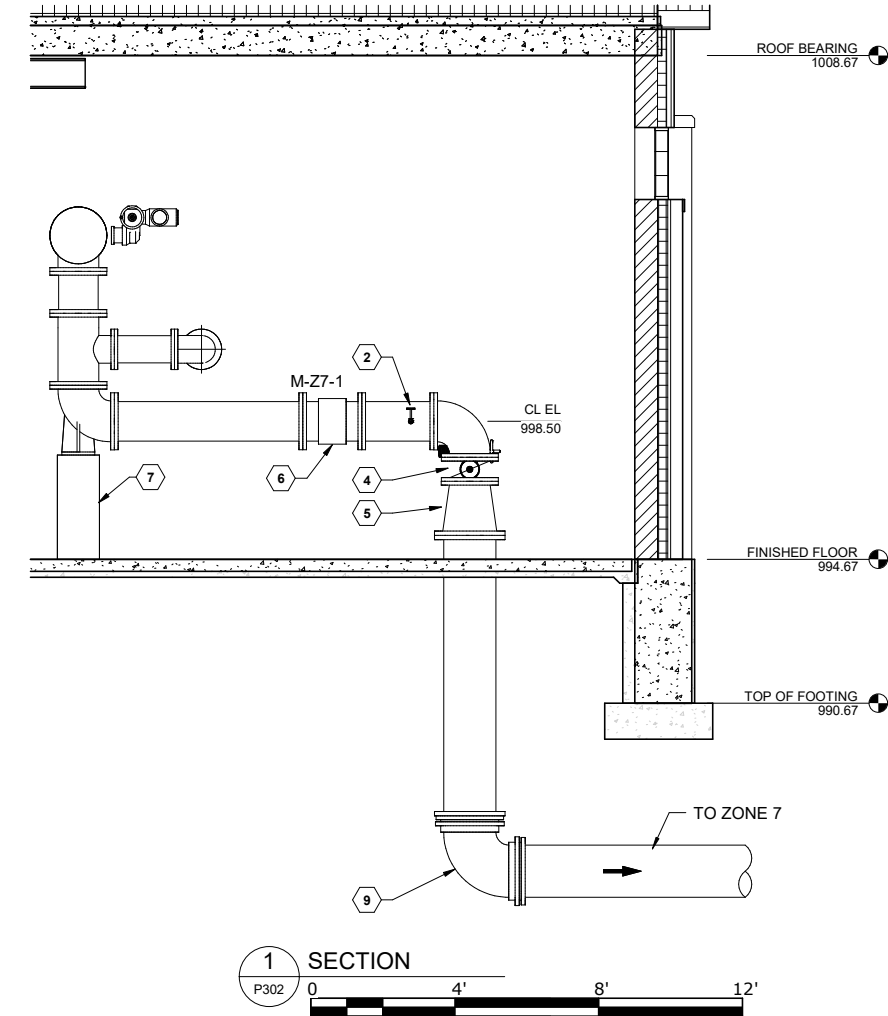
Project Status Issue Date
ONR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

WELLHOUSE SECTIONS

01
P301

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



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 ENCASMENT - SEE DETAIL K/DP1, C/DP2
- 10 PUMP BASE - SEE DETAIL G/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.

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.

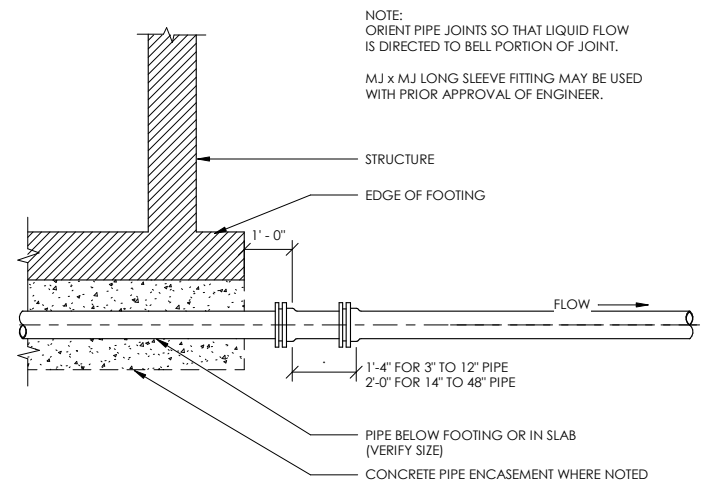
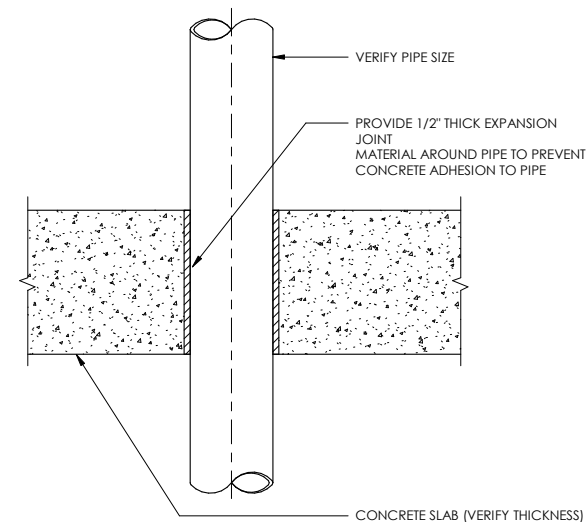
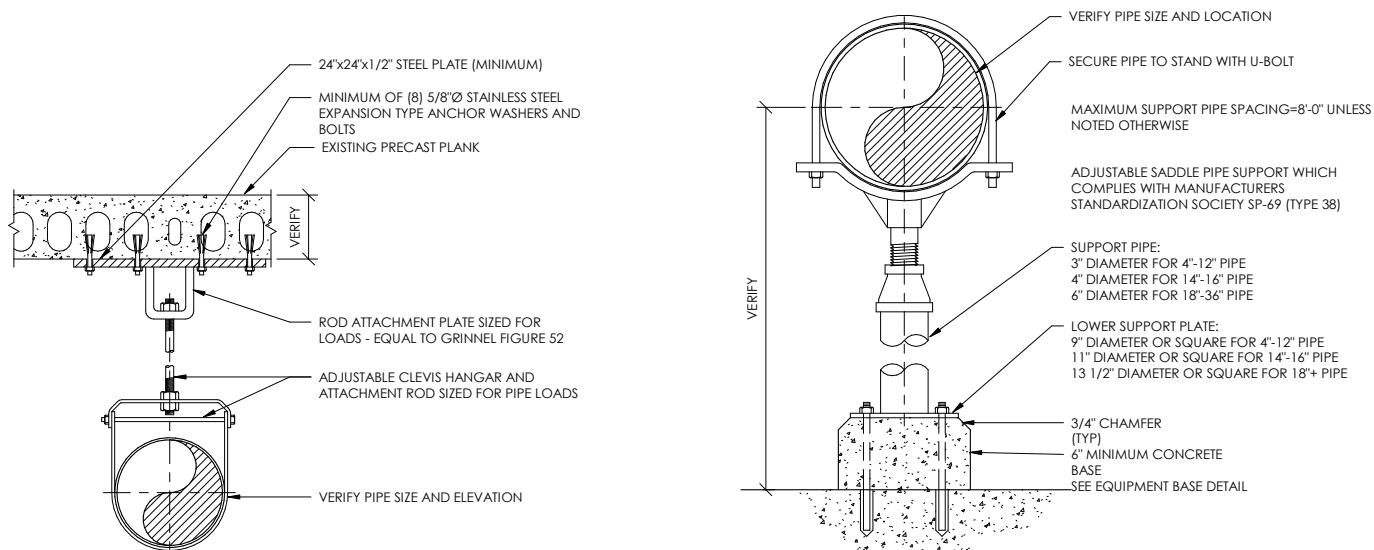
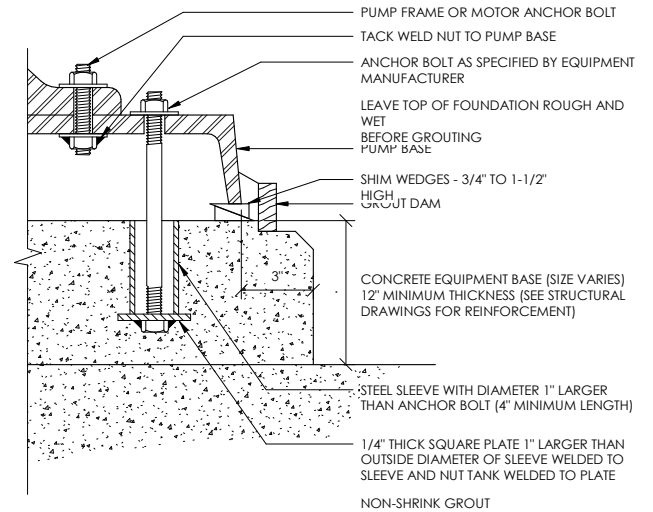
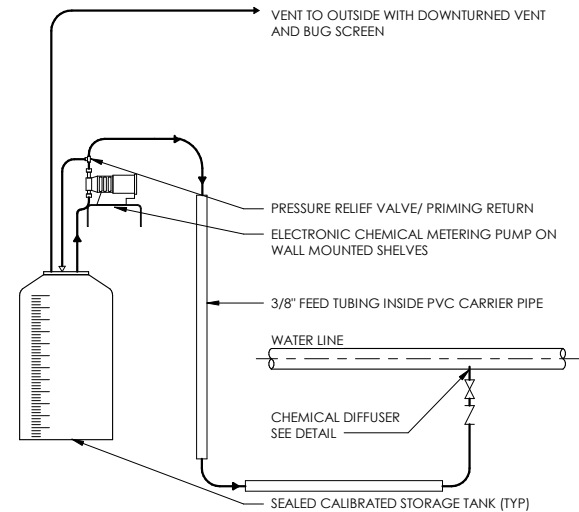
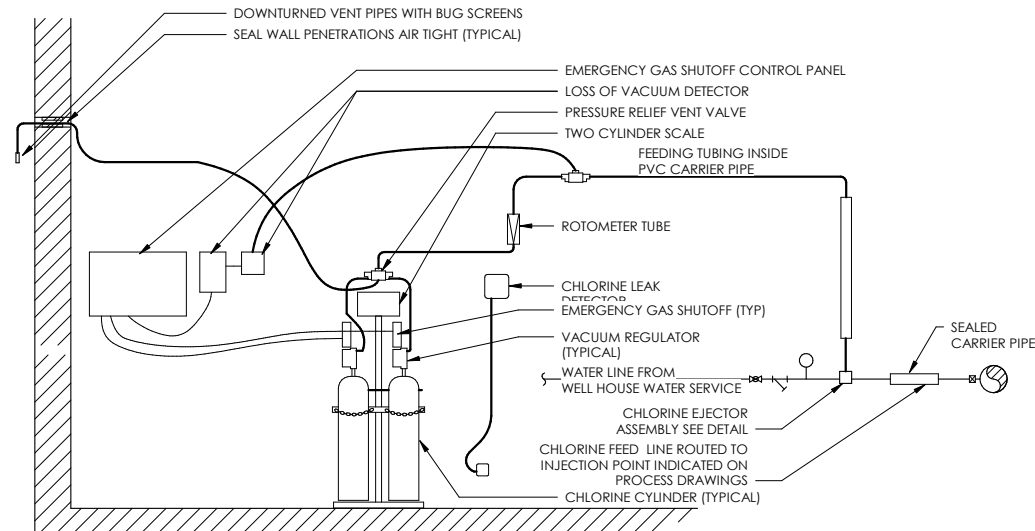
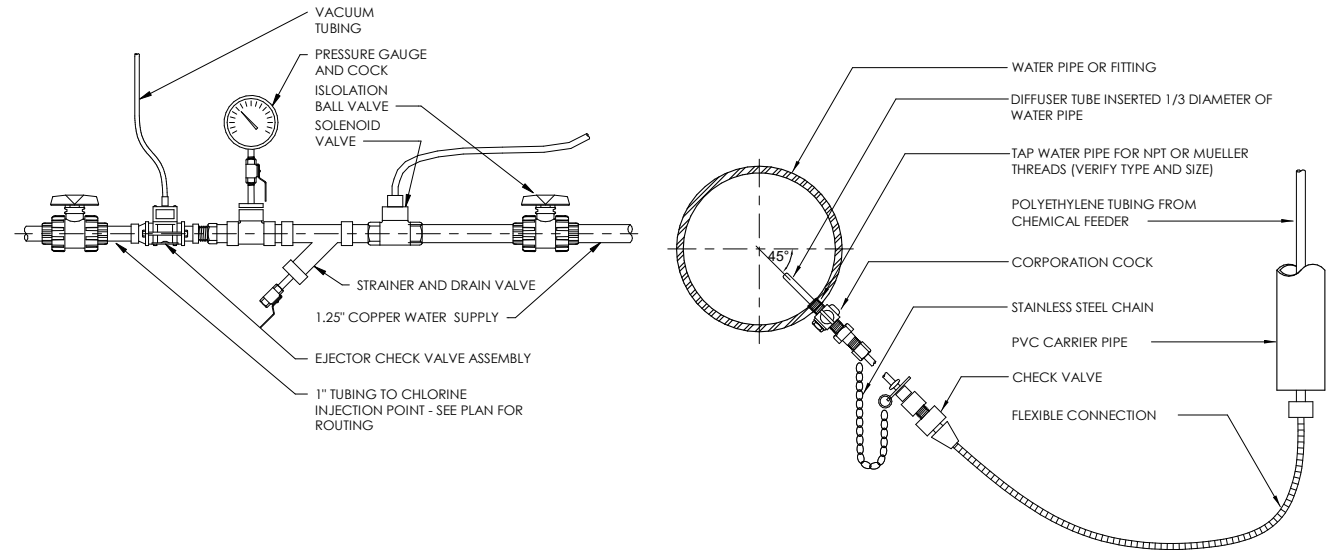
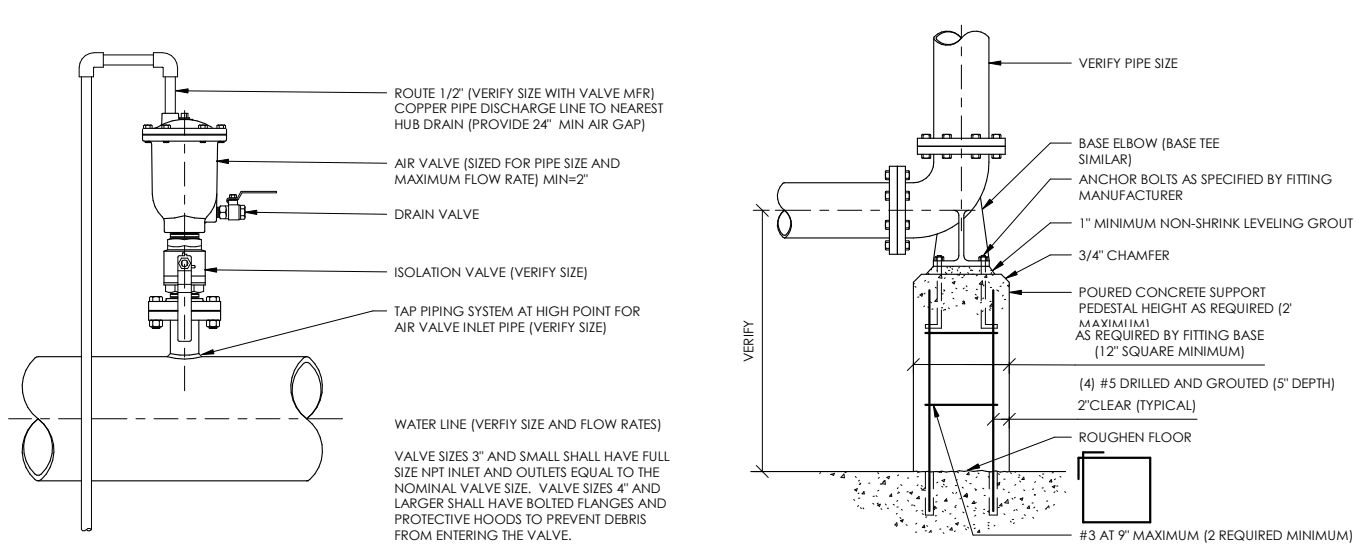
SEH Project MADWU 182222
Checked By IS
Drawn By DD

Project Status Issue Date
DNR SUBMITTAL 6/30/2025

REVISION SCHEDULE
REV. # DESCRIPTION DATE

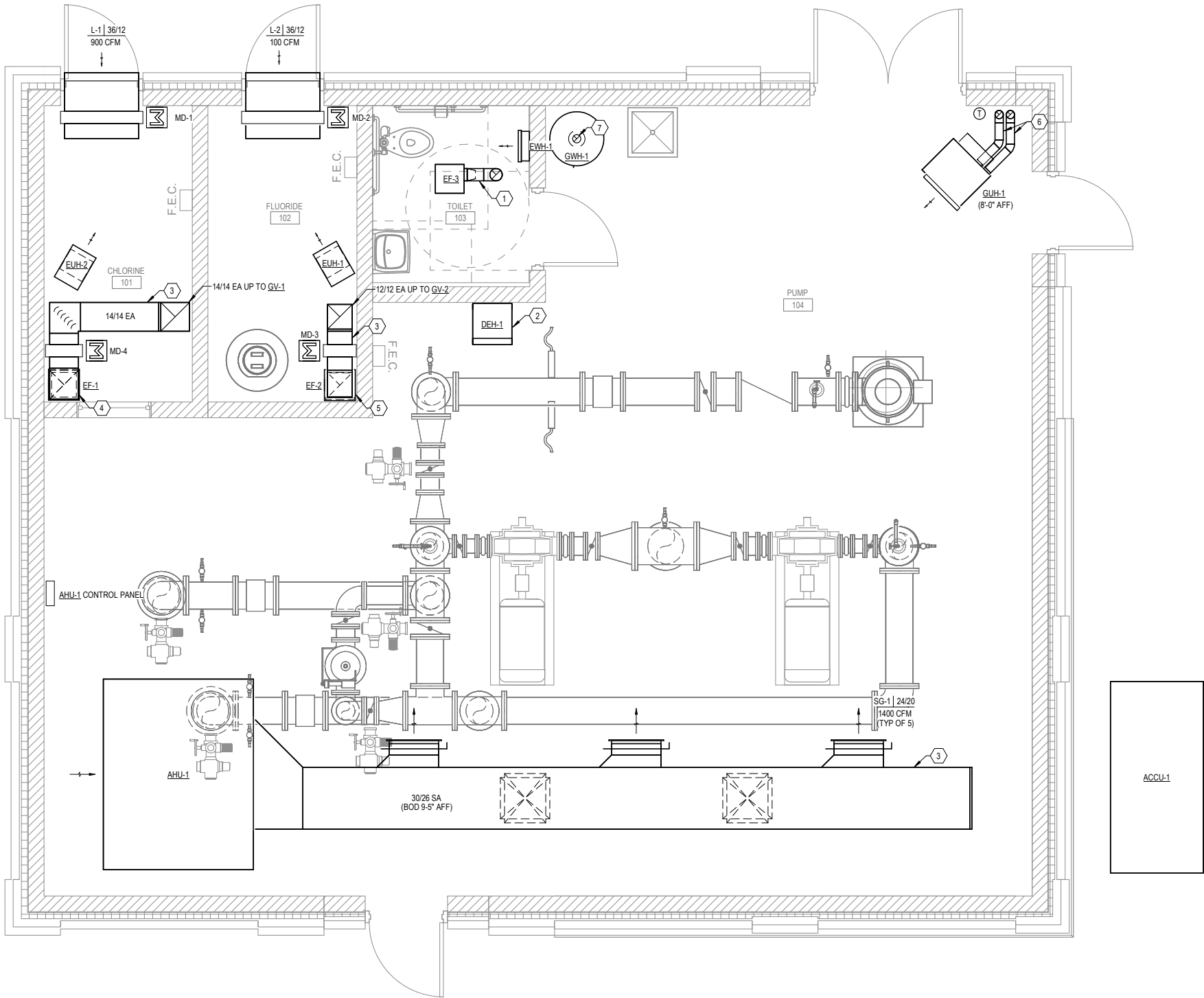
WELLHOUSE SECTIONS

01
P302



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

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

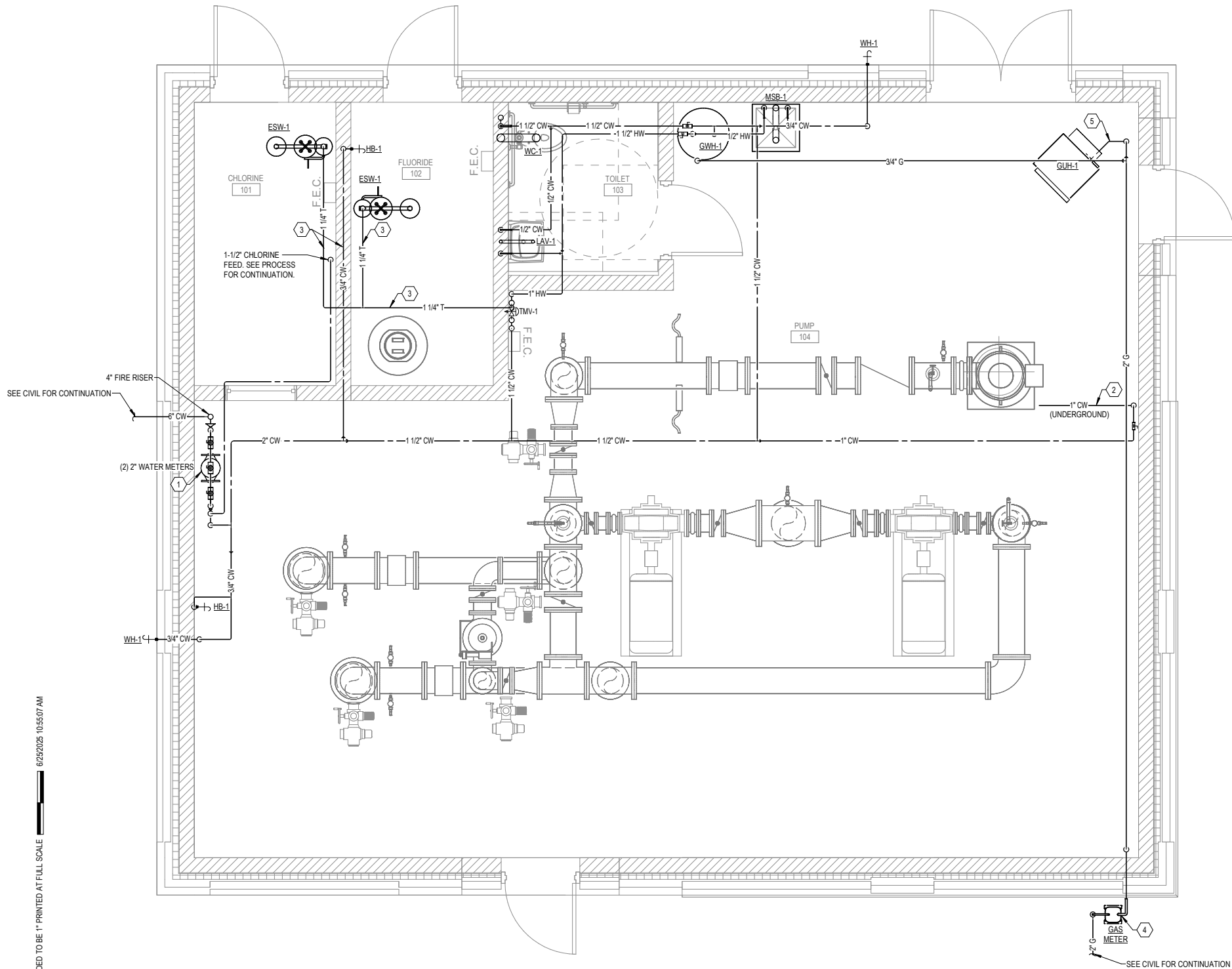
REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

DOMESTIC WATER AND GAS
PLAN

01
M102

KEYNOTES:

1. 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.



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

1
M102
3/8" = 1'-0"

0 2 4 6



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.

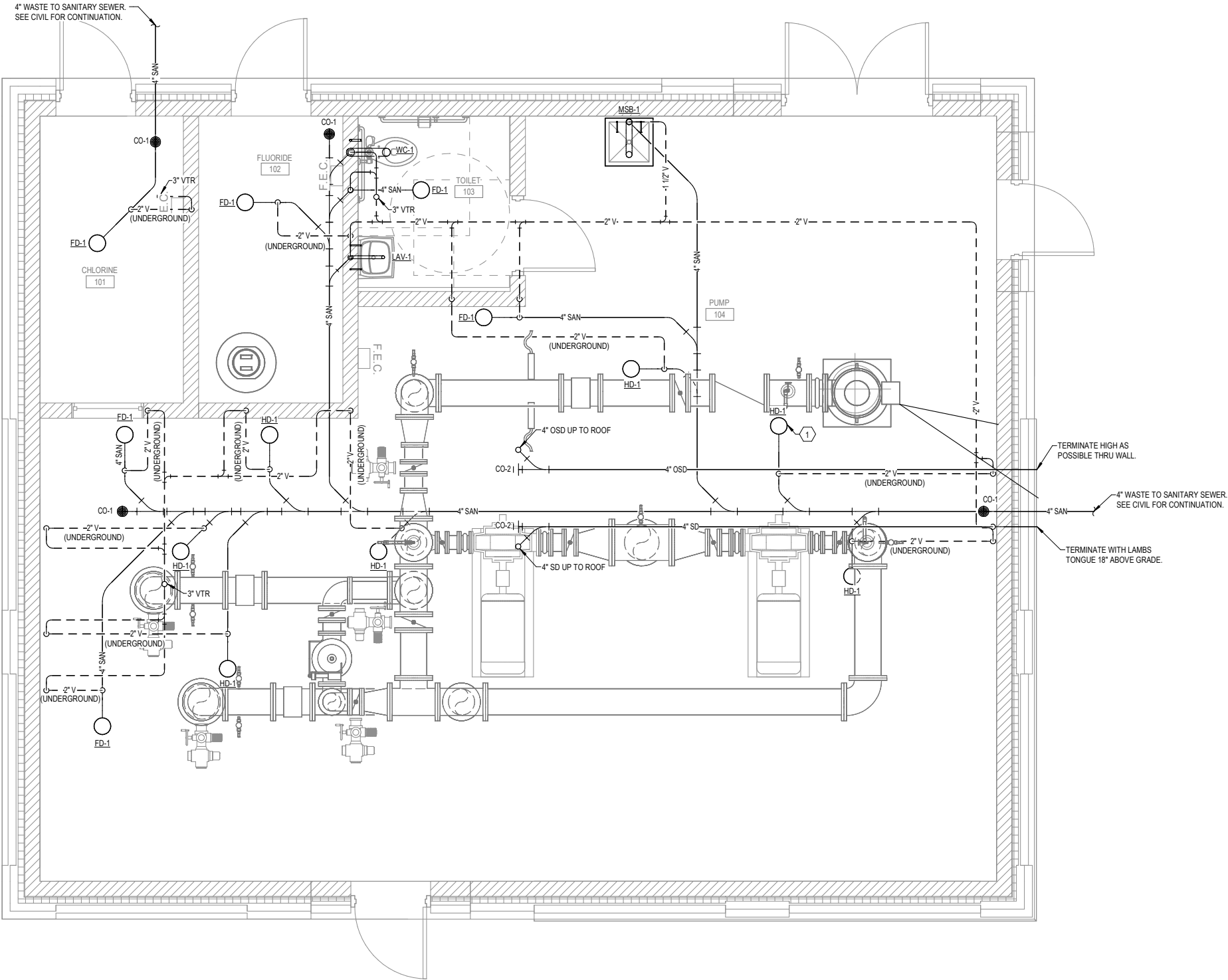
SEH Project MADWU 182222
Checked By CAH
Drawn By KML

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

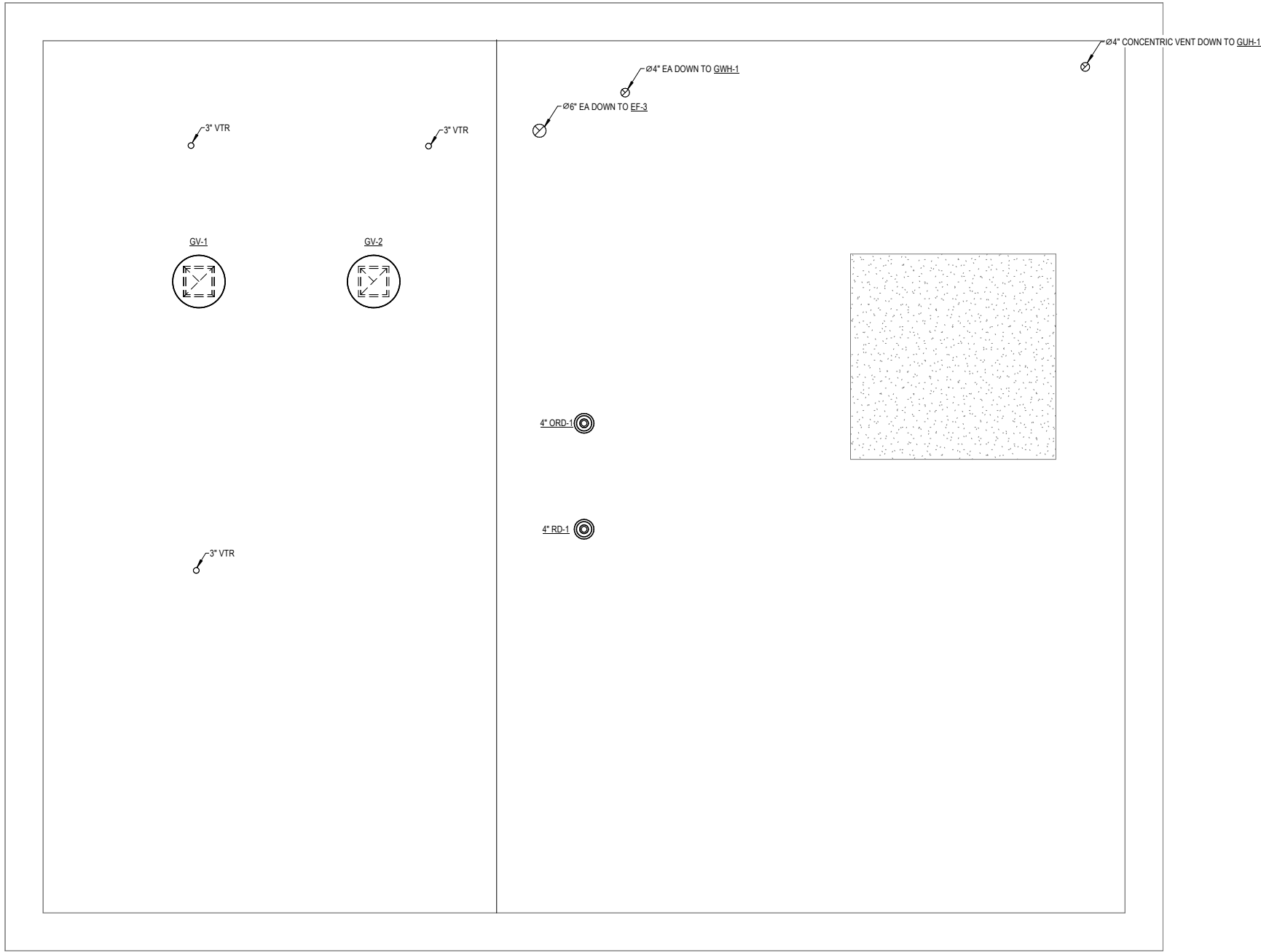
MECHANICAL ROOF PLAN

3/8" = 1'-0"



KEYNOTES:

1.



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

MECHANICAL ROOF PLAN

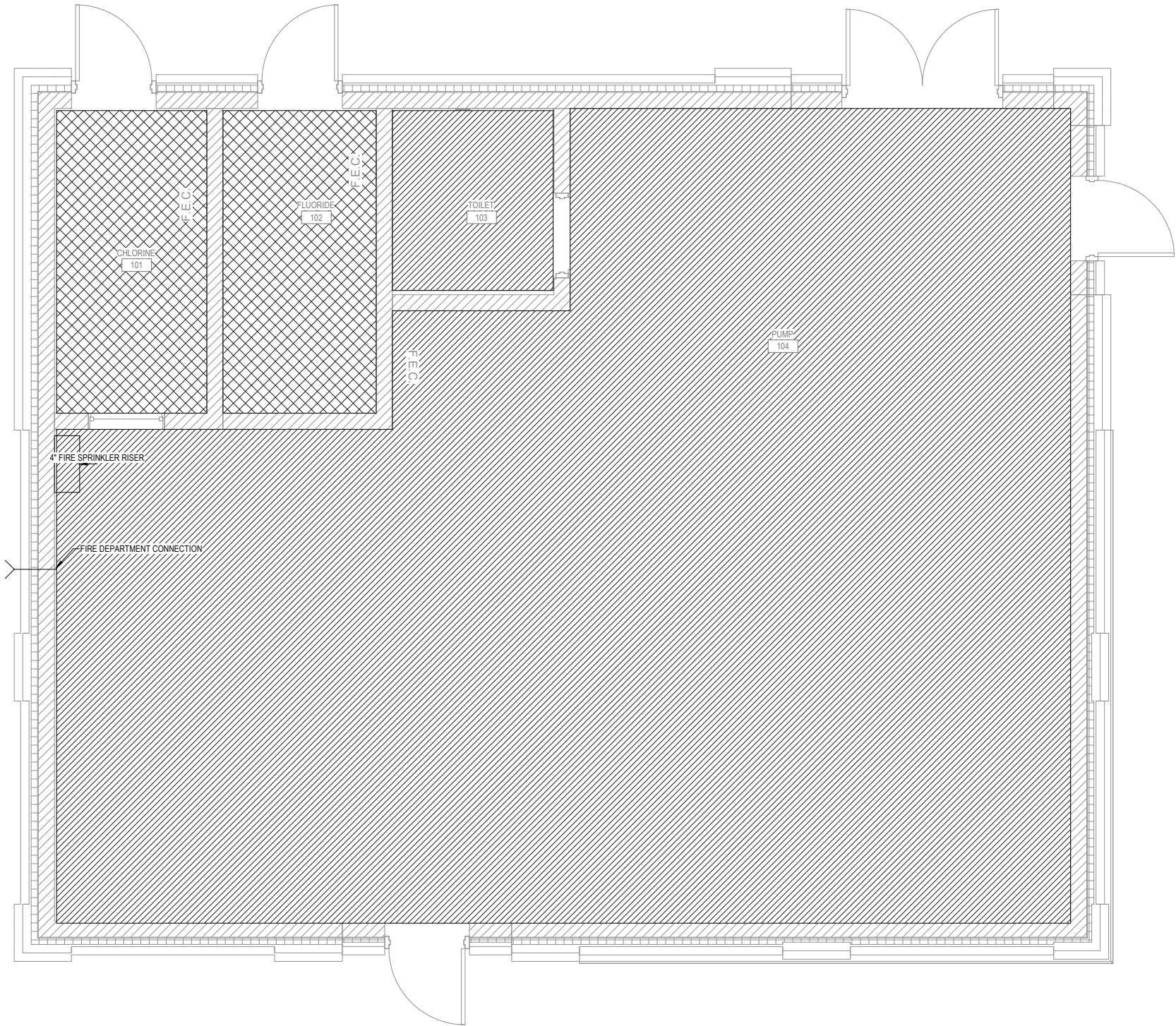
01
M104

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



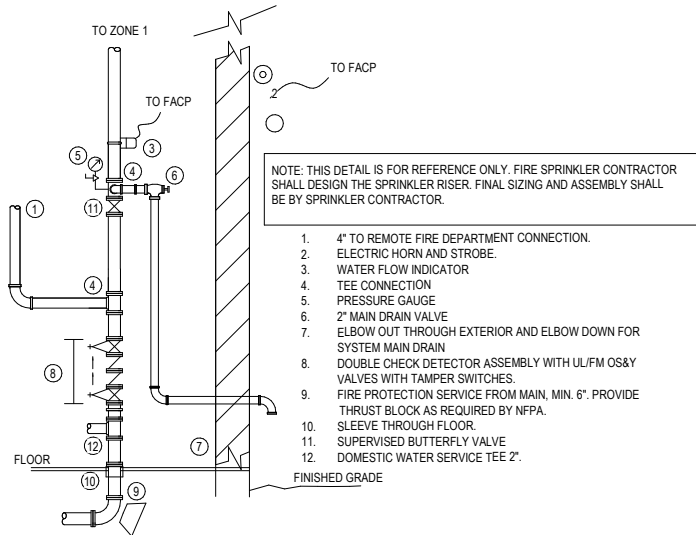
1
M105
3/8" = 1'-0"

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 MADWIJ 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
FOR SUBMITTAL	6/30/2025

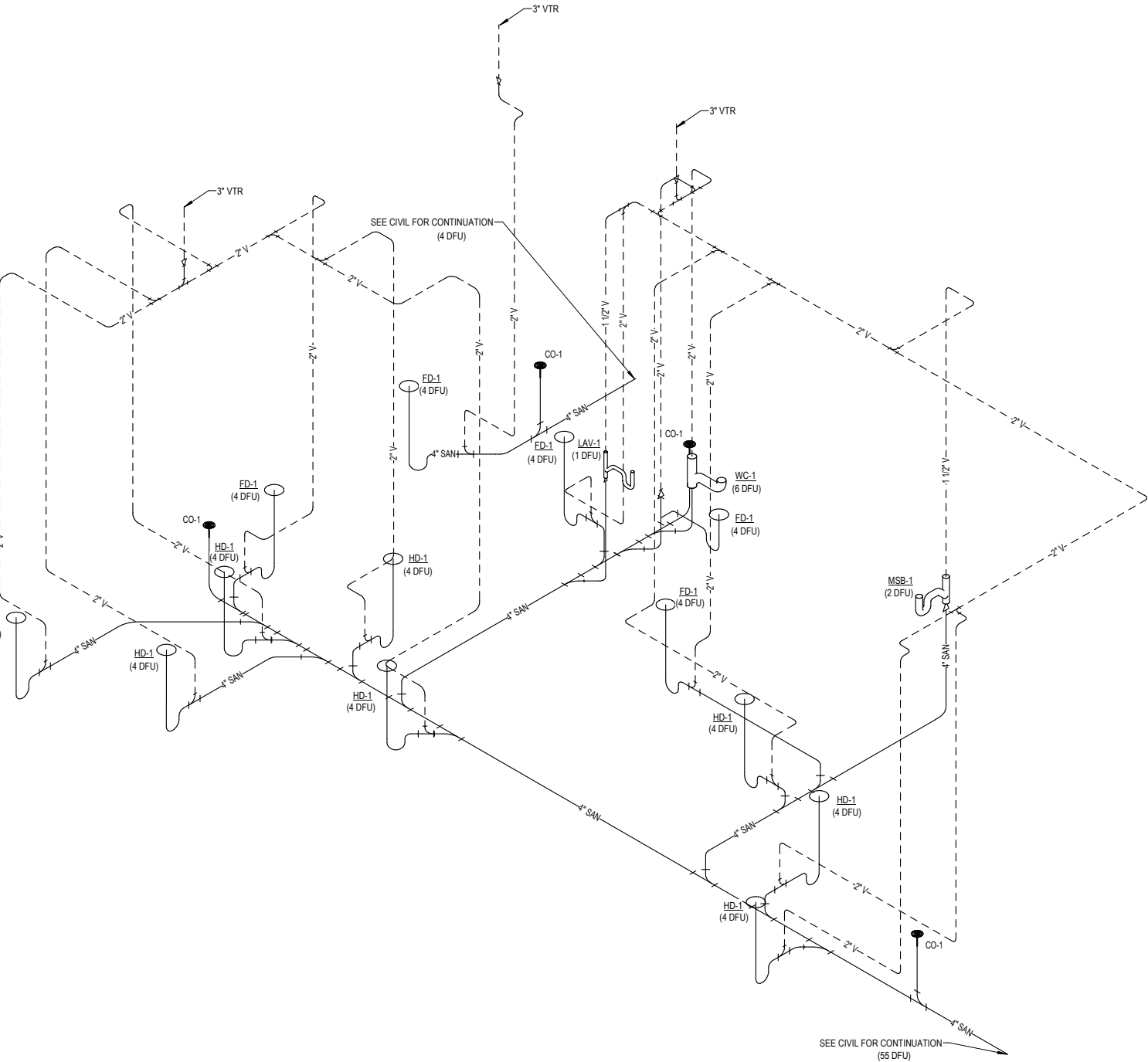
RISER DIAGRAMS

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

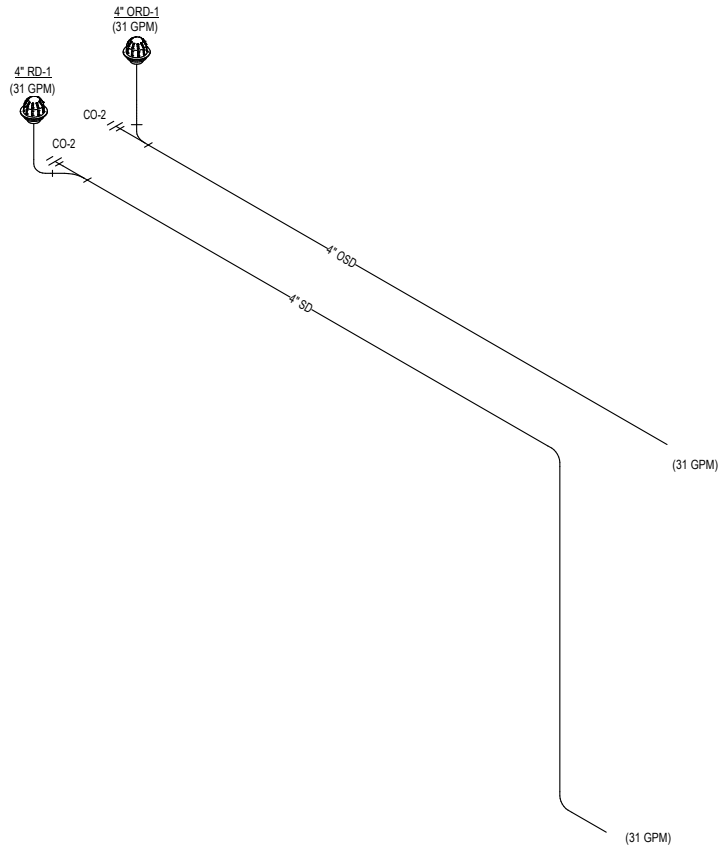


THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 6/25/2025 10:55:13 AM

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	
NOTES: 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
NOTES: 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/PHCY	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/PHCY	
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.
<u>NOTES</u> 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.	LOCATION	SERVING	MODEL NO.	TYPE	CFM	S.P. (\"W.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	
NOTES: 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
NOTES: 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.

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

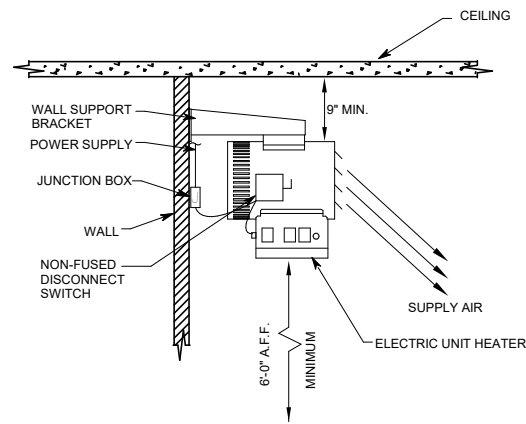
REV. #	DESCRIPTION	DATE
--------	-------------	------

MECHANICAL SCHEDULES

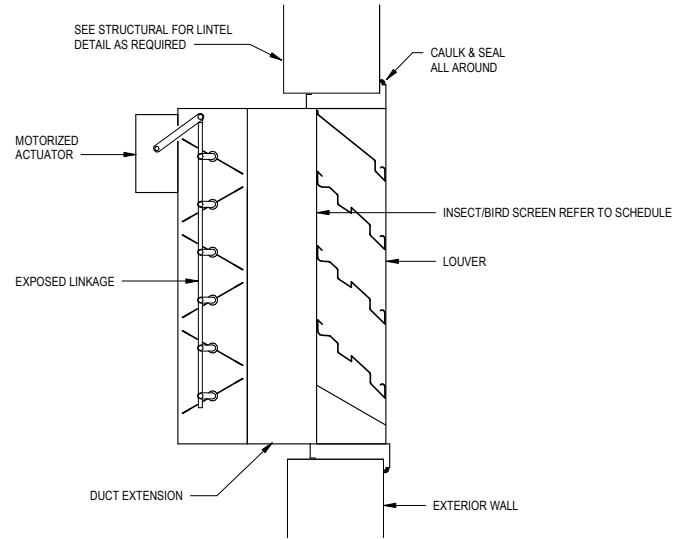
01
M301

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

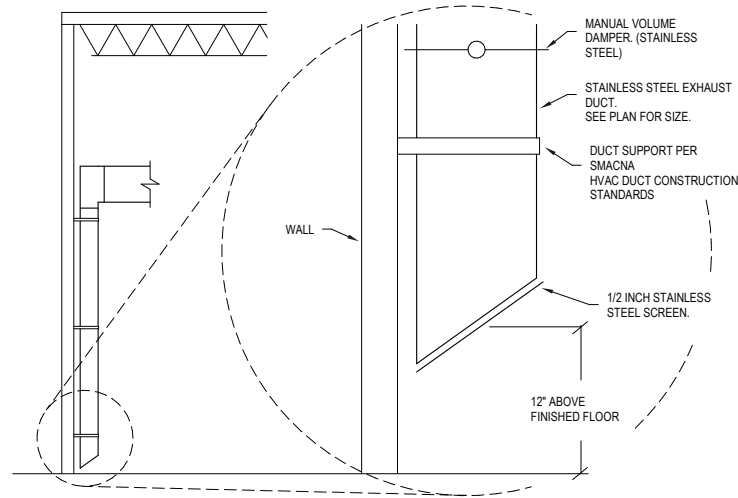
6/25/2025 10:55:14 AM



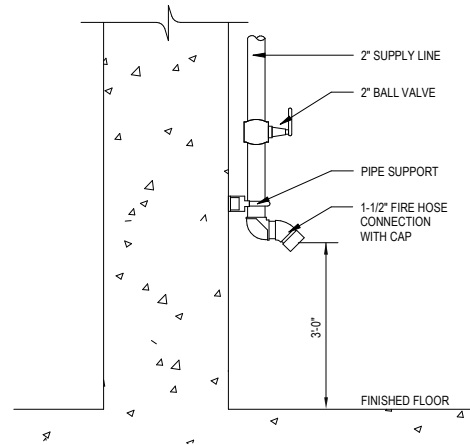
1
M303
WASHDOWN ELECTRIC UNIT HEATER
NOT TO SCALE



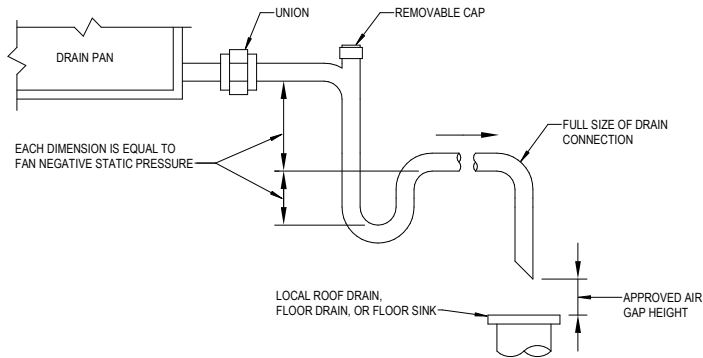
2
M303
LOUVER WITH MOTORIZED DAMPER
NOT TO SCALE



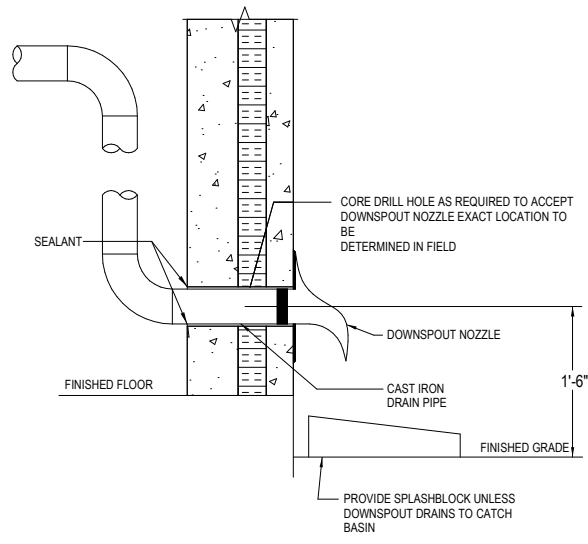
3
M303
EXHAUST DUCT DETAIL
NOT TO SCALE



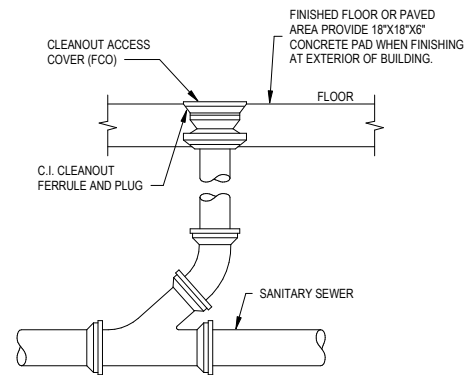
4
M303
1-1/2" HOSE CONNECTION DETAIL
NOT TO SCALE



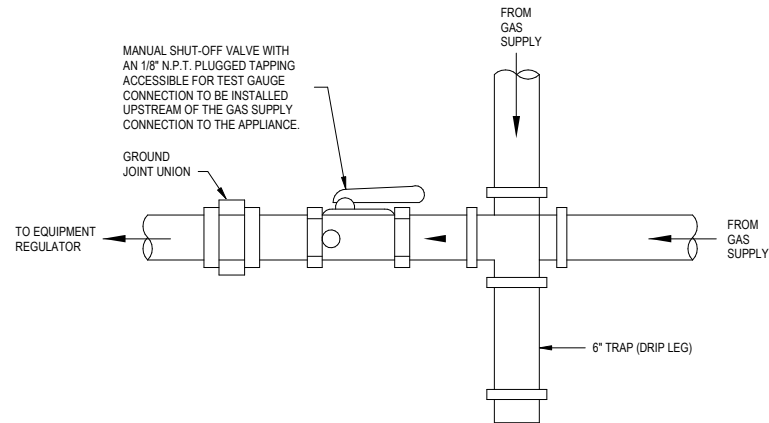
5
M303
CONDENSATE DRAIN
NOT TO SCALE



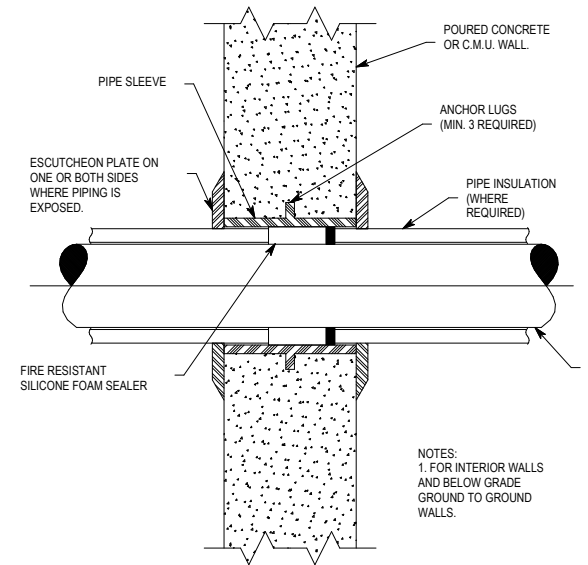
6
M303
OVERFLOW STORM DRAIN TERMINATION
NOT TO SCALE



7
M303
CLEANOUT
NOT TO SCALE



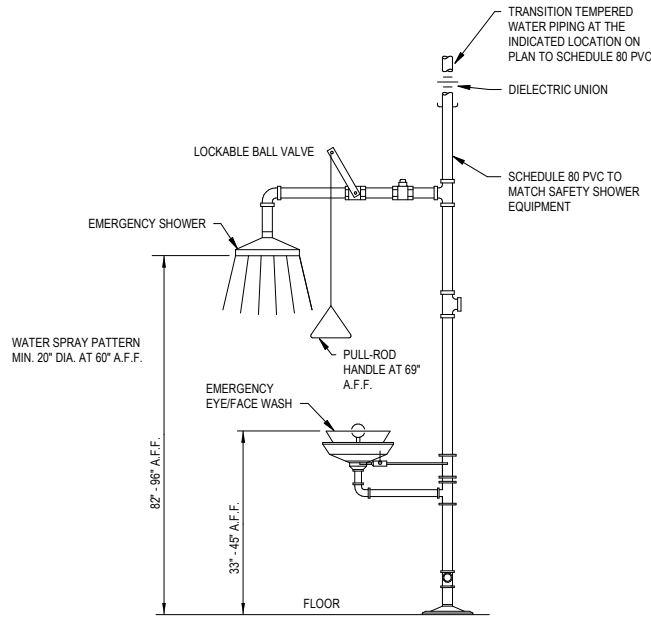
8
M303
GAS CONNECTION TO EQUIPMENT
NOT TO SCALE



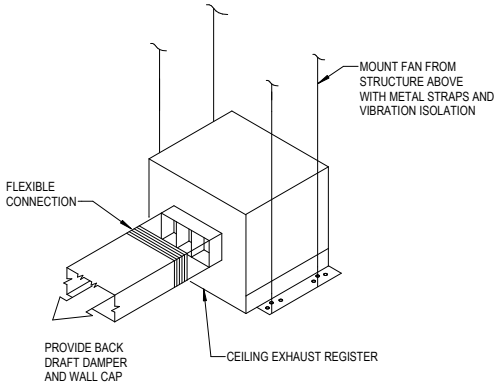
9
M303
PIPE SLEEVE THROUGH WALL
NOT TO SCALE

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

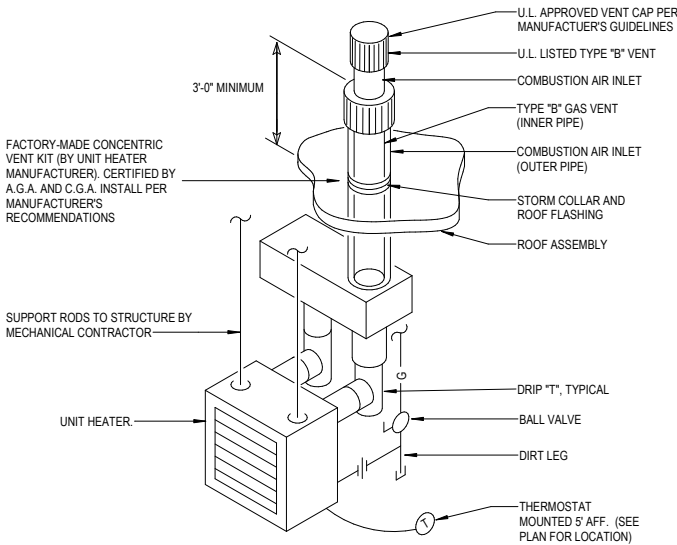
6/25/2025 10:55:15 AM



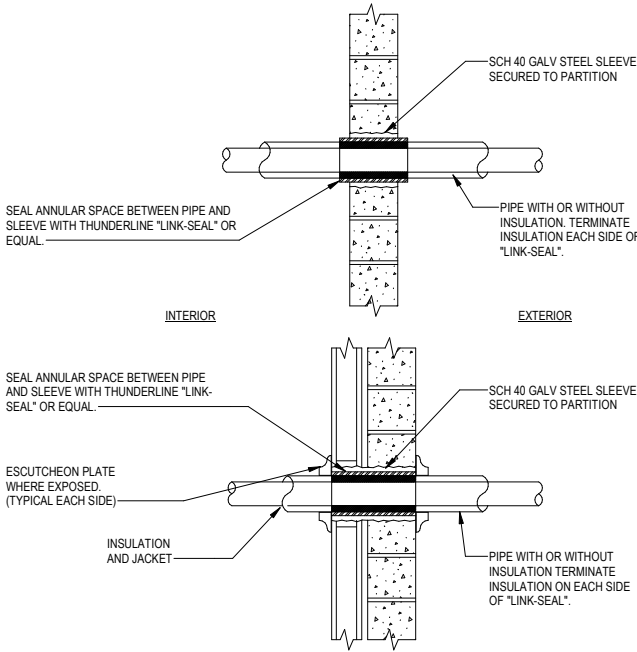
1 SAFETY SHOWER AND EYE WASH
M304 NOT TO SCALE



4 CEILING EXHAUST FAN
M304 NOT TO SCALE

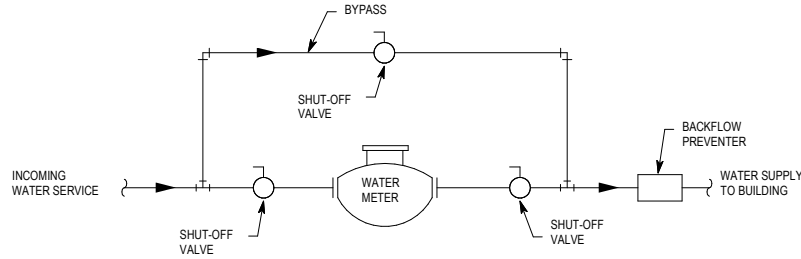


7 GAS FIRED UNIT HEATER
M304 NOT TO SCALE

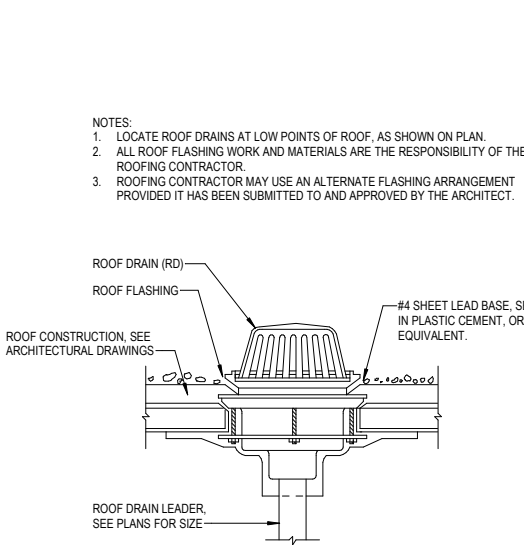


- NOTES:
1. TYPICAL FOR NON-INSULATED PIPING AND CONDUIT.
 2. TYPICAL FOR MASONRY OR CONCRETE WALL.
 3. FOR WALL PENETRATION WITH FIRE RATINGS GREATER THAN (1) HOUR, USE THUNDERLINE "PYRO-PAC" SEALS OR EQUAL.
 4. WHERE PIPING EXPOSED AT FINISHED WALL, FLUSH MOUNT SLEEVE, AND PROVIDE AN ESCUTCHEON PLATE.

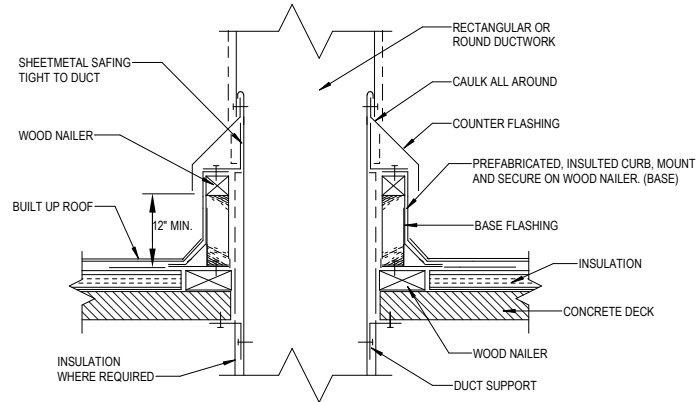
2 PIPE PENETRATION THRU EXTERIOR WALLS
M304 NOT TO SCALE



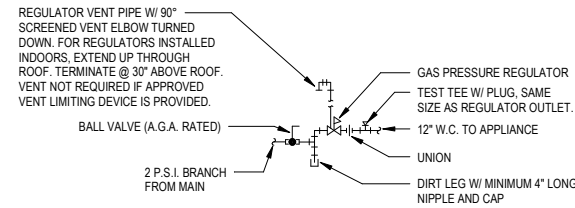
5 WATER METER INSTALLATION
M304 NOT TO SCALE



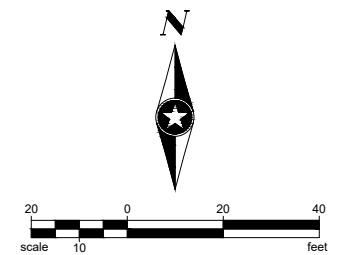
8 ROOF DRAIN
M304 NOT TO SCALE



3 DUCT PENETRATION THROUGH ROOF
M304 NOT TO SCALE

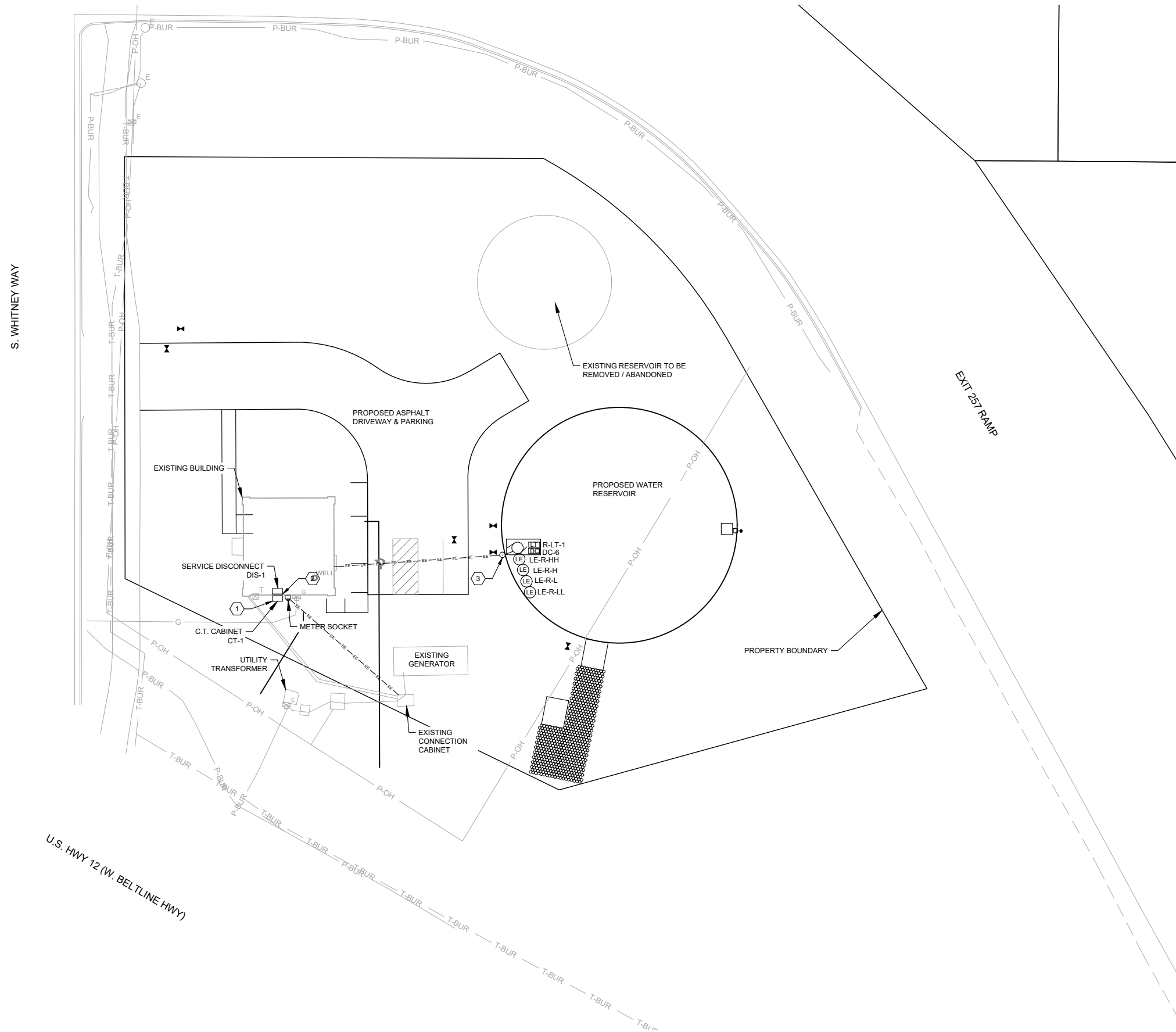


6 GAS PRESSURE REGULATOR ASSEMBLY
M304 NOT TO SCALE



- 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.

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 SHEETS XXXX FOR REFERENCE.



SCALE: 1"=20'

Madison, WI, 53711

Project Status	Issue Date
FOR SUBMITTAL	6/30/2025

E101

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

6/30/2025 3:46:18 PM

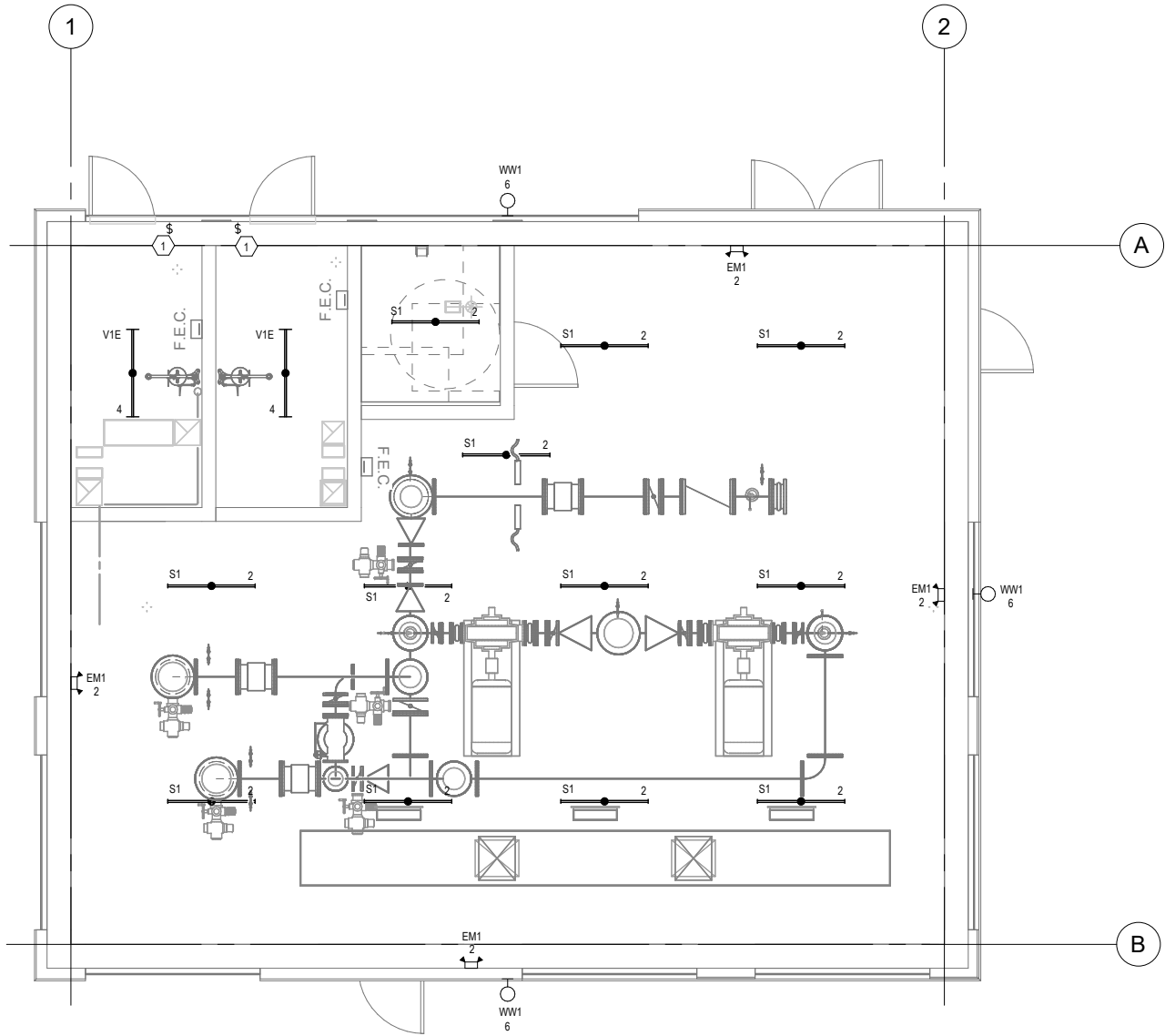
LIGHTING FIXTURE SCHEDULE									
	TYPE	DESCRIPTION	MOUNTING	VOLT	WATT	MFR	CATALOG SERIES	NOTE	Count
	EM1	EMERGENCY LIGHT, THERMOPLASTIC (2) 1.0W LED HEADS (DAMP LOCATION)	WALL	120 V	2 W	LITHONIA	ELUC SD		4
	S1	4' LED STRIP, FROSTED ROUND DROP LENS (ELEC RM/ GENERAL AREAS)	Fixture may be surface mounted (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

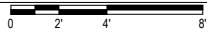
- A. ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILING GRIDS SHALL BE INSTALLED WITH A 6'-0" LONG FLEXIBLE METAL CONDUIT.
- B. ALL MOUNTING HEIGHTS ARE FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURE UNLESS OTHERWISE NOTED.
- C. REFER TO SPECIFICATION SECTION 26 05 19 FOR MINIMUM CONDUCTOR SIZE 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"



WW1



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

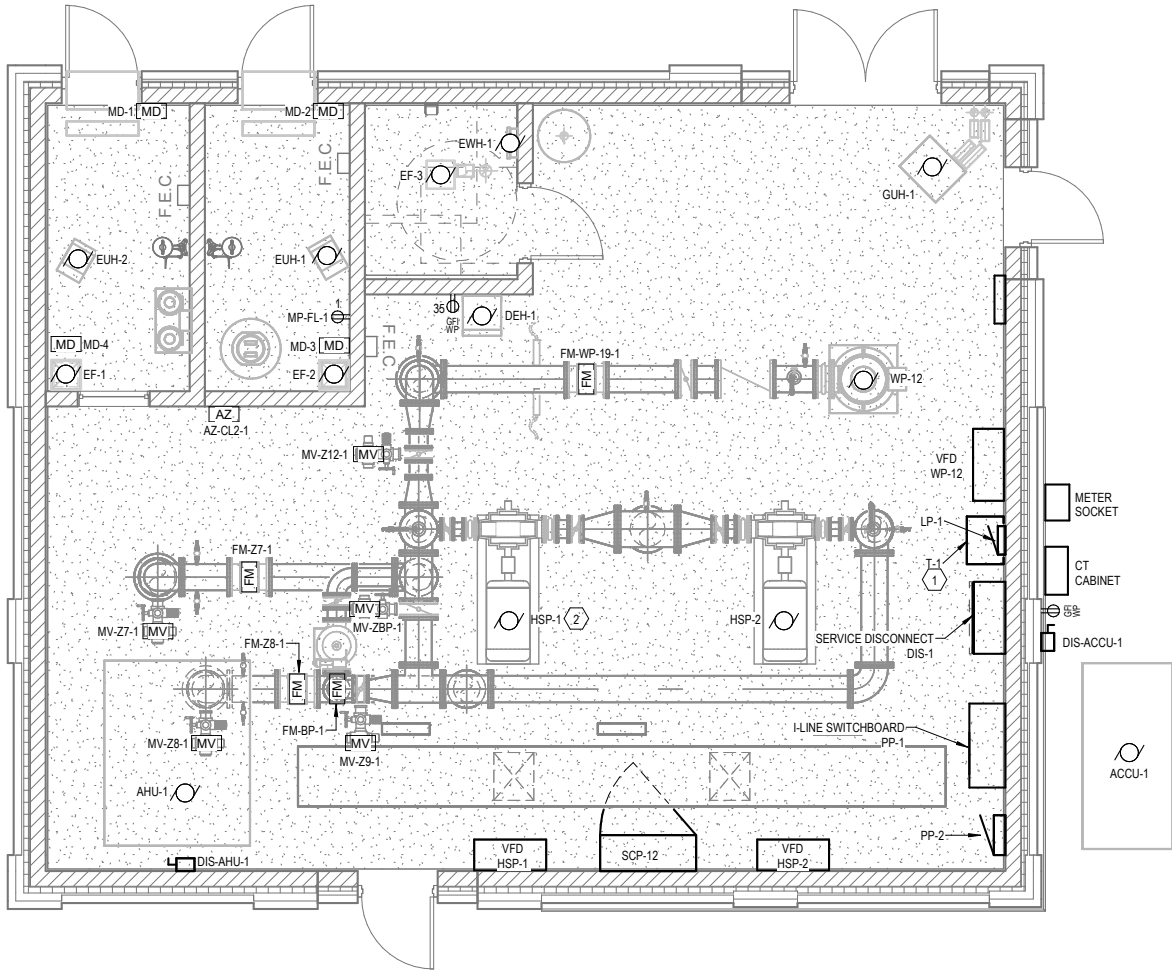
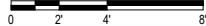
REV. #	DESCRIPTION	DATE
--------	-------------	------

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"



POWER GENERAL NOTES

- A. 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.
- B. REFER TO SPECIFICATION SECTION 26 05 19 FOR MINIMUM CONDUCTOR SIZE ADJUSTMENTS FOR VOLTAGE DROP.
- C. CIRCUIT NUMBERS SHOWN AT GENERAL RECEPTACLE, ELECTRICAL EQUIPMENT, AND MECHANICAL EQUIPMENT LOCATIONS CORRESPOND TO PANELBOARD BREAKERS. SEE PANELBOARD SCHEDULES ON SHEET E701.
- D. SEE ONE-LINE DIAGRAMS FOR CONDUIT AND WIRING REQUIREMENTS. SEE SHEETS E501 AND E502.
- E. SEE PANELBOARD SCHEDULES ON SHEET E701 FOR CONDUIT AND WIRING REQUIREMENTS.
- F. SEE MECHANICAL PLANS AND SCHEDULES FOR ALL HVAC AND PLUMBING POWER REQUIREMENTS AND DETAILS.

KEYNOTES

1. WALL MOUNT TRANSFORMER ABOVE LP-1.
2. 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

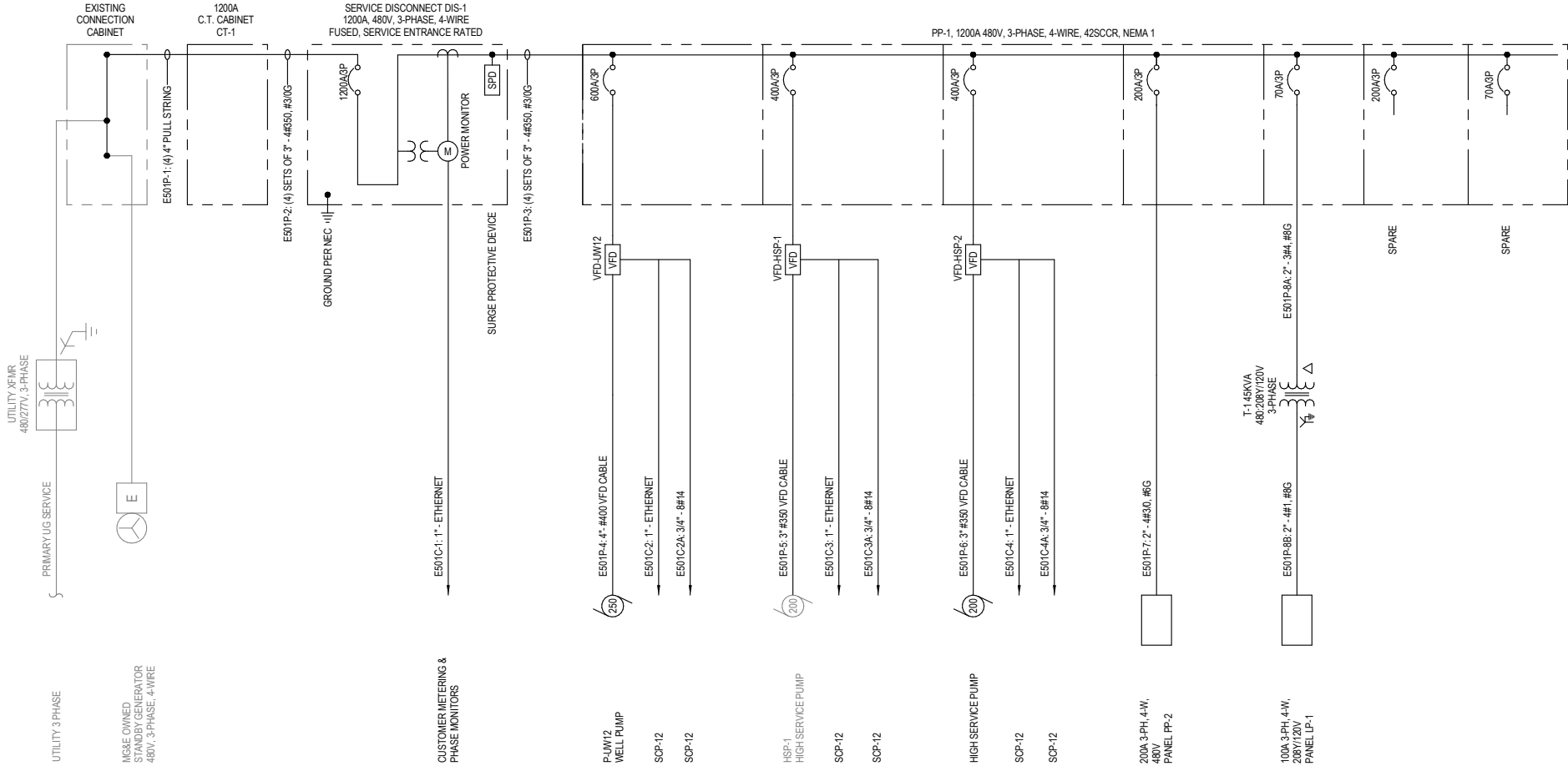
01
E301

1

E501

POWER 1-LINE

NOT TO SCALE



KEYNOTES

1.

A

2.

B

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

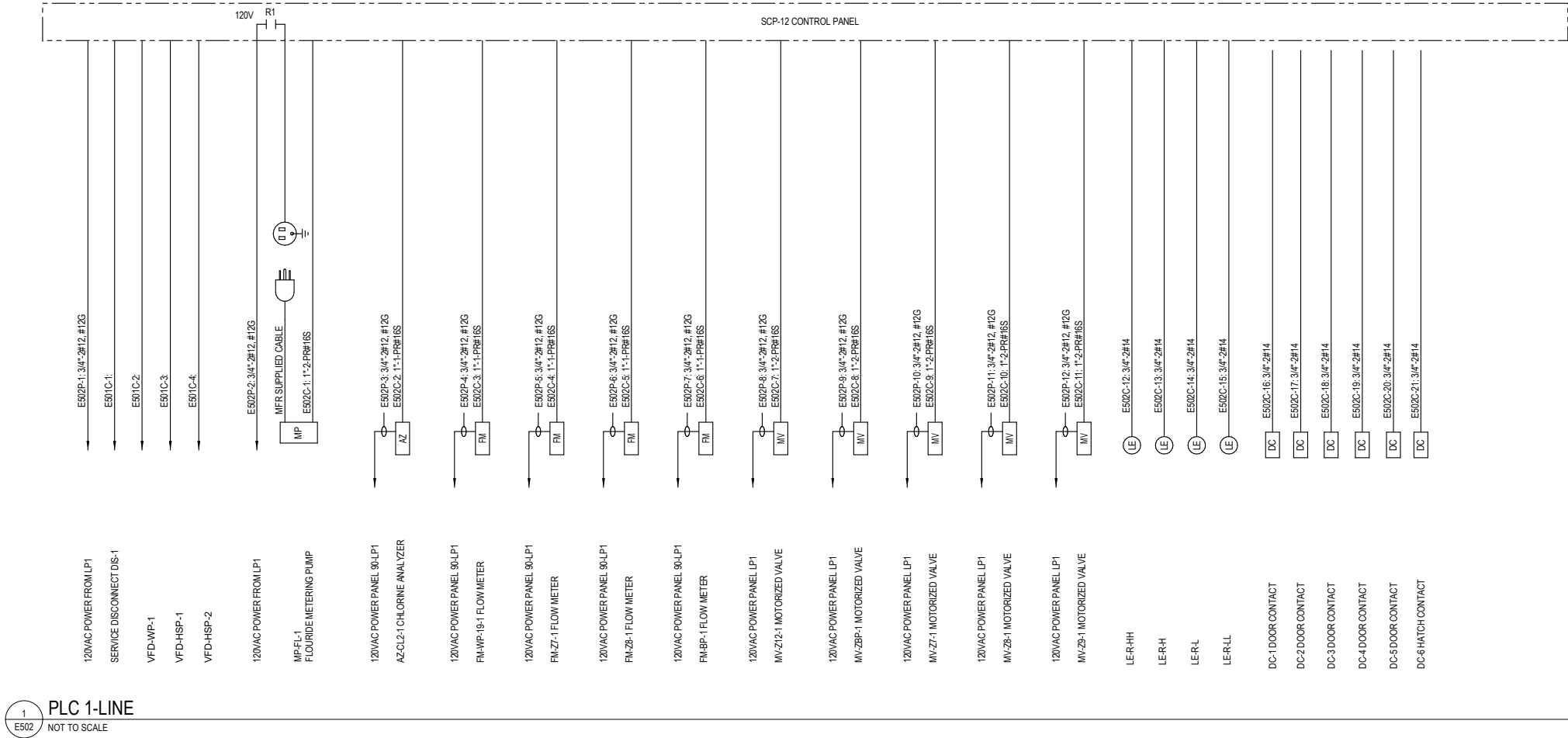
REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

ONE-LINE DIAGRAM

01
E501



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

ONE-LINE DIAGRAM

01
E502

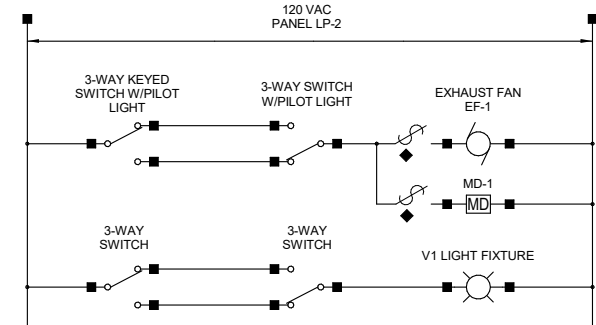
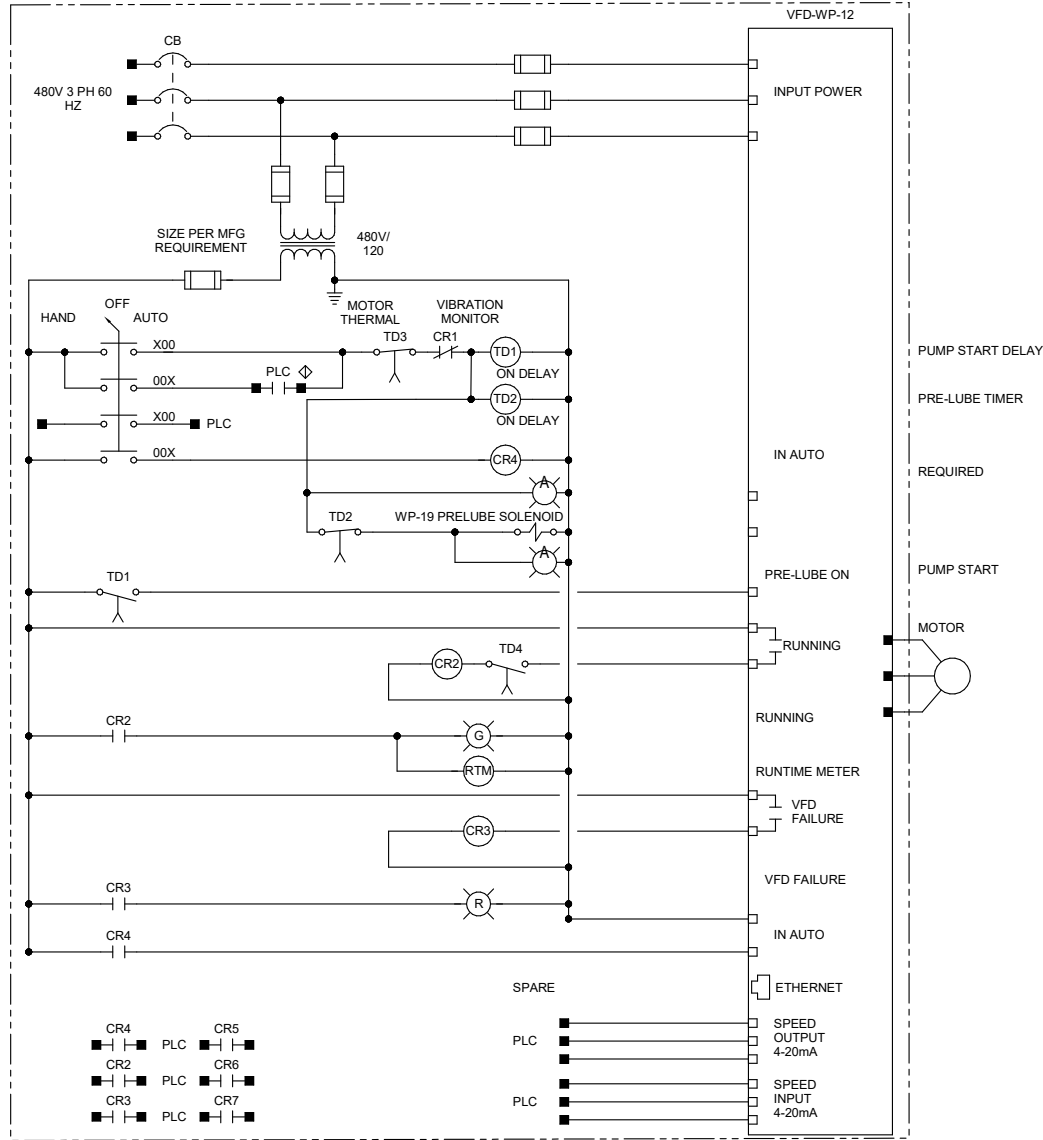


Project Owner

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

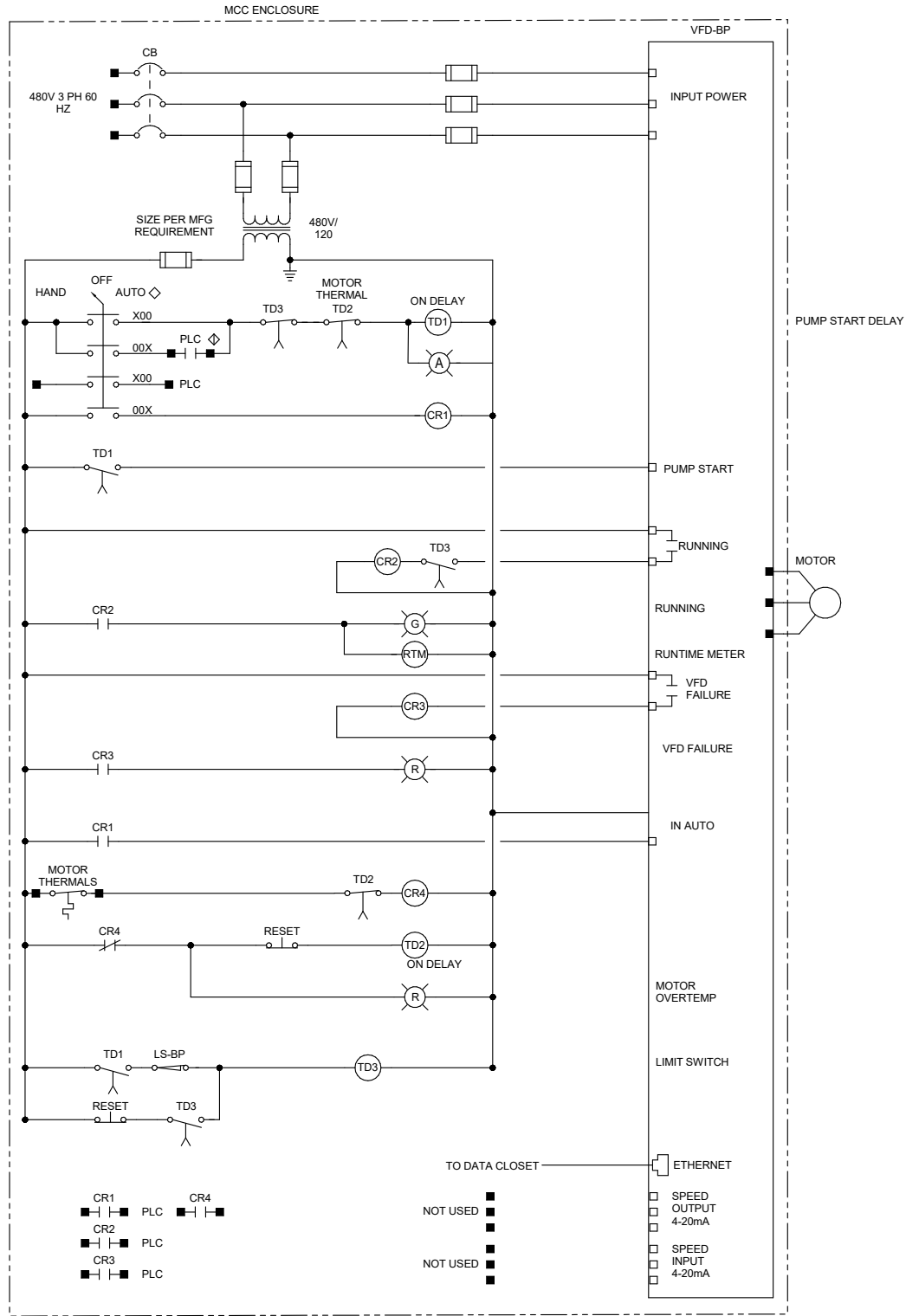
6/30/2025 3:46:20 PM

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.

SEH Project 182222
Checked By JAM
Drawn By NDS

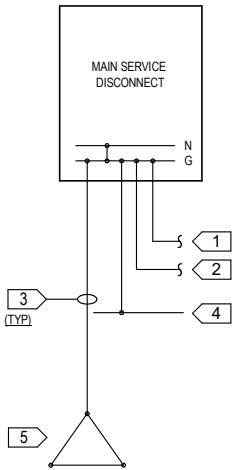
Project Status ONR SUBMITTAL
Issue Date 06/30/2025

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE

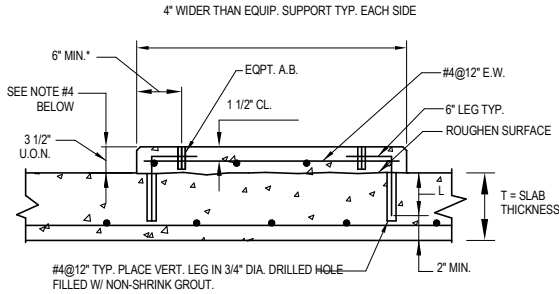
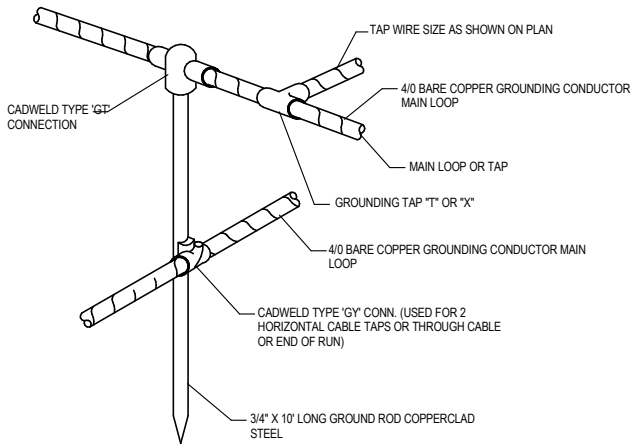
ELECTRICAL SCHEMATICS

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								
				3			0.0	0.0						
				5				0.0	0.0					
				7	0.0	0.0								
3/4" - 3#12, #12G	EUH-2	20 A	3	9			0.0	0.0						
				11				0.0	0.0					
				13	0.0	0.0								
				15			0.0	0.0						
	SPARE	70 A	3	17				0.0	0.0					
				19	0.0	0.0								
				21			0.0	0.0						
				23				0.0	0.0					
	SPARE	20 A	3	25										
				27										
				29										
				31										
				33										
				35										
				37										
				39										
				41										
				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:														



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



- PAD NOTES:
- ABOVE PAD DETAILS APPLY FOR SUPPORT OF ALL EQUIPMENT UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
 - BEFORE EQUIPMENT SUPPORT PADS ARE POURED, THE PAD SIZES SHALL BE REVIEWED AND APPROVED.
 - 6" MIN. PAD EDGE DIMENSION TO EQUIP. ANCHOR BOLTS (A.B.) APPLIES FOR ALL EQUIP. SUPPORT PADS THIS PROJECT.
 - 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.
 - L = T-2", BUT L NEED NOT EXCEED 6".

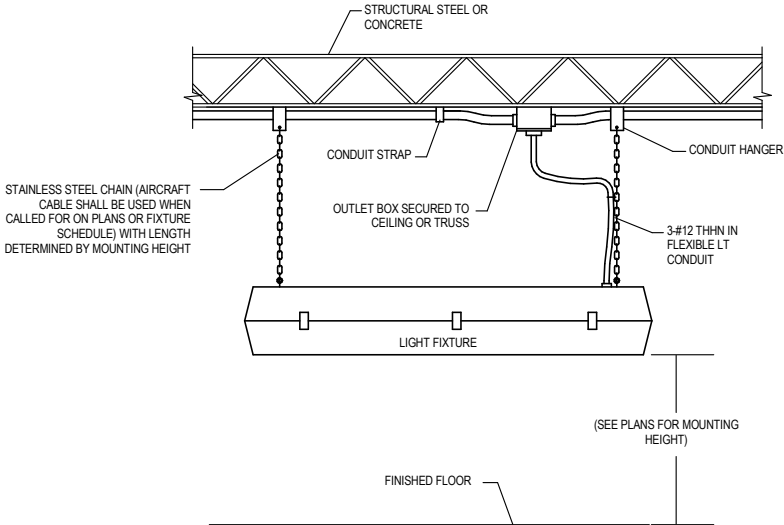
KEYNOTES

- NOT USED.

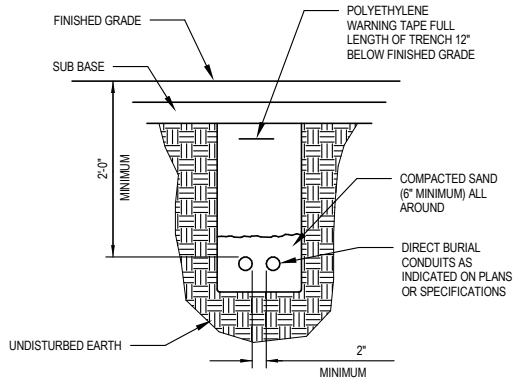
1
E801
GROUNDING DETAIL
NOT TO SCALE

2
E801
GROUND ROD DETAIL
NOT TO SCALE

3
E801
EQUIPMENT PAD INTERIOR
NOT TO SCALE



4
E801
SUSPENDED FIXTURE DETAIL
NOT TO SCALE



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

5
E801
DIRECT BURIED CONDUIT DETAIL
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

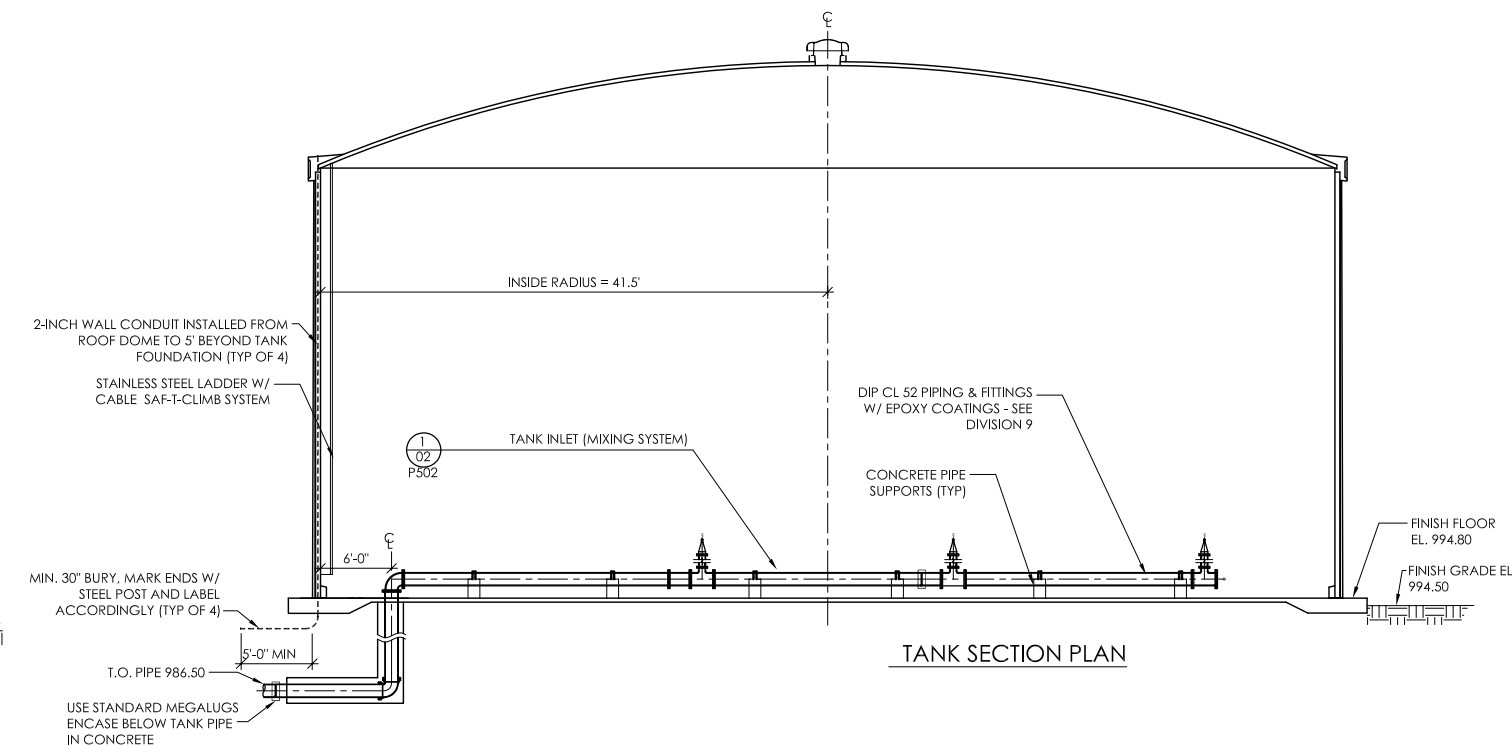


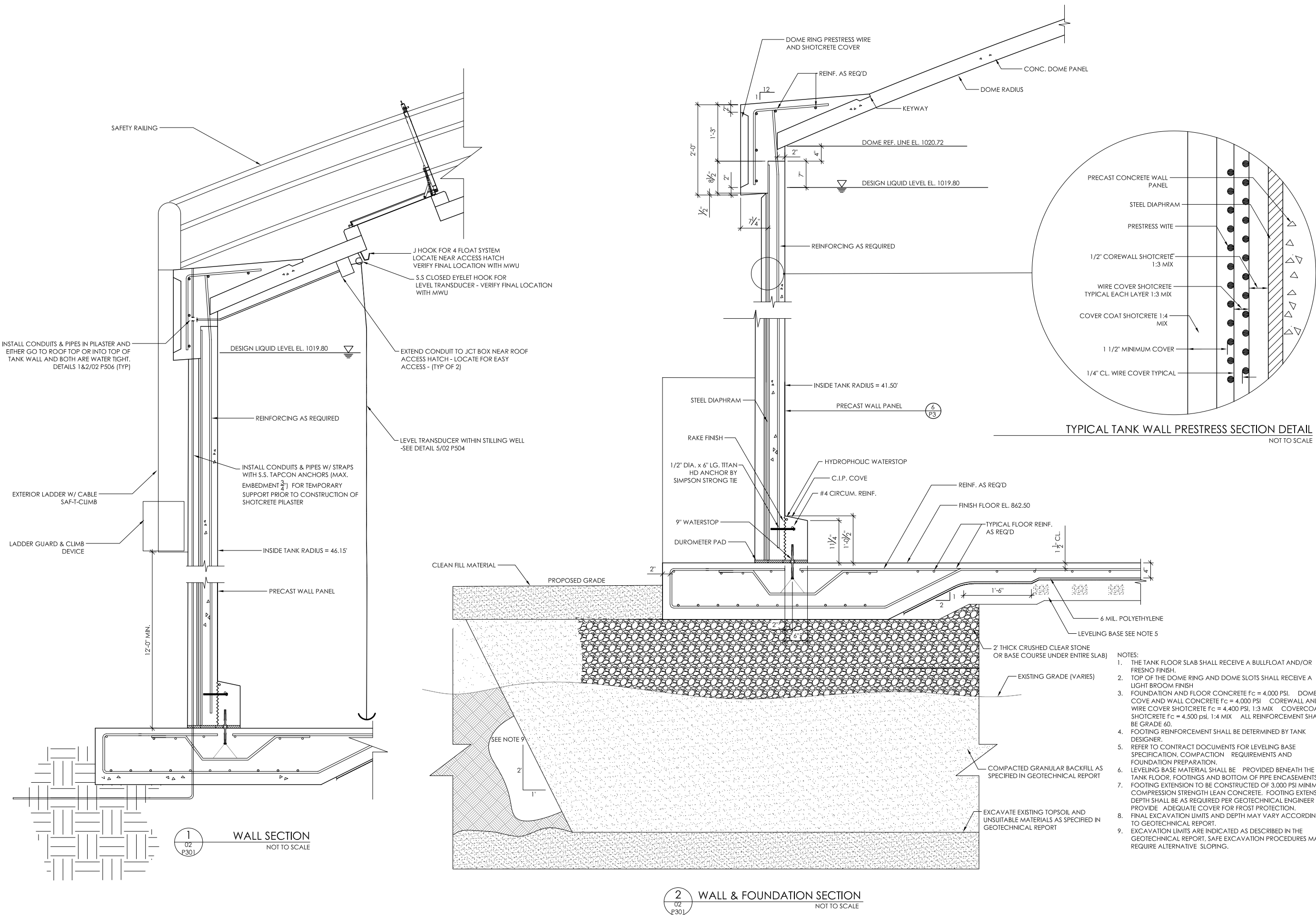
801 S. Whitney Way
Madison WI, 53711

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

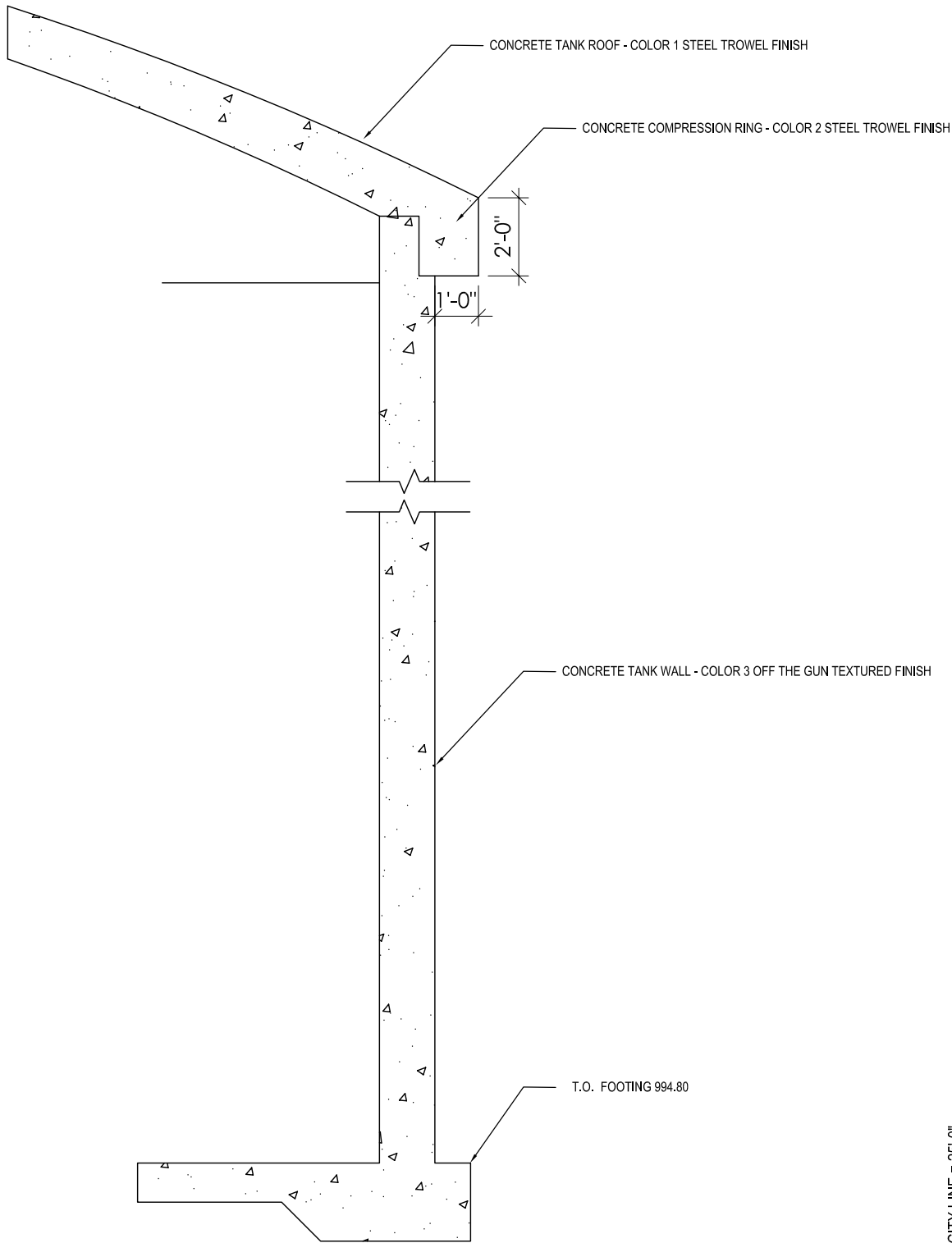
Project Status	Issue Date
DNR SUBMITTAL	6/30/2021

WATER STORAGE TANK
PLAN & SECTION

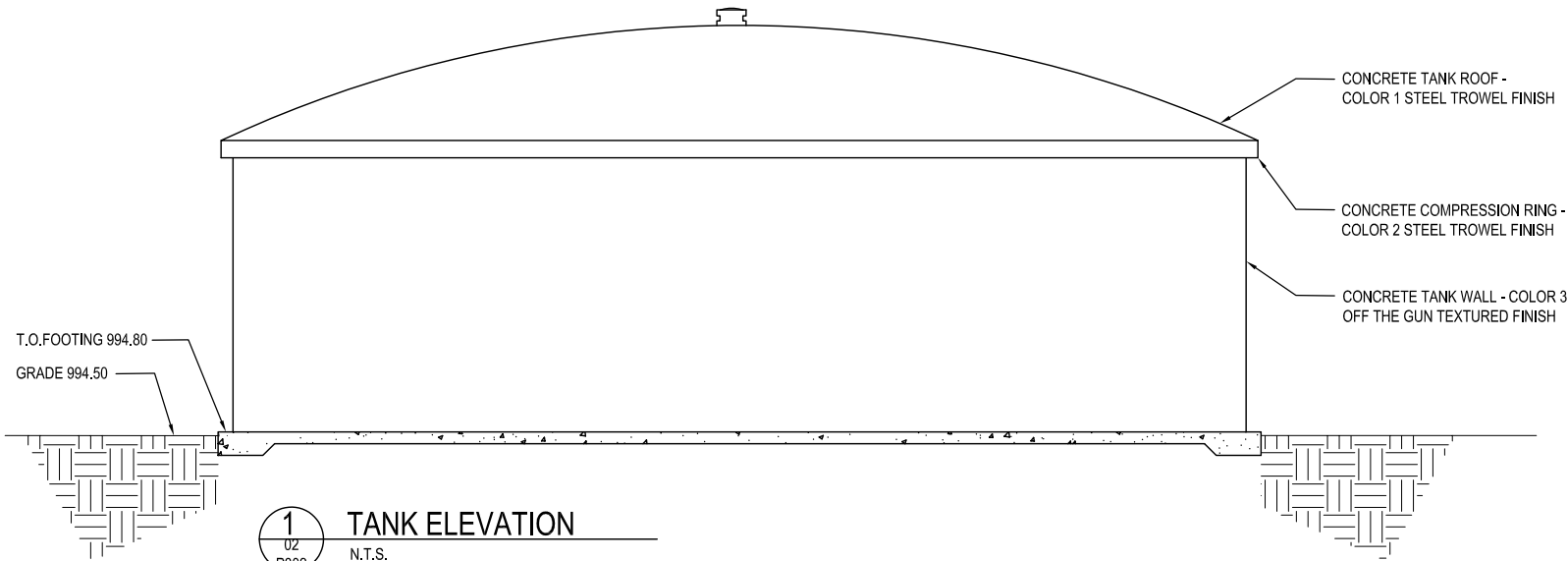
02
P101



- NOTES:
1. THE TANK FLOOR SLAB SHALL RECEIVE A BULLFLOAT AND/OR FRESNO FINISH.
 2. TOP OF THE DOME RING AND DOME SLOTS SHALL RECEIVE A LIGHT BROOM FINISH
 3. FOUNDATION AND FLOOR CONCRETE $f'_c = 4,000$ PSI. DOME, COVE AND WALL CONCRETE $f'_c = 4,000$ PSI. COREWALL AND WIRE COVER SHOTCRETE $f'_c = 4,400$ PSI. 1:3 MIX COVERCOAT SHOTCRETE $f'_c = 4,500$ psi. 1:4 MIX ALL REINFORCEMENT SHALL BE GRADE 60.
 4. FOOTING REINFORCEMENT SHALL BE DETERMINED BY TANK DESIGNER.
 5. REFER TO CONTRACT DOCUMENTS FOR LEVELING BASE SPECIFICATION, COMPACTION REQUIREMENTS AND FOUNDATION PREPARATION.
 6. LEVELING BASE MATERIAL SHALL BE PROVIDED BENEATH THE TANK FLOOR, FOOTINGS AND BOTTOM OF PIPE ENCASEMENTS.
 7. FOOTING EXTENSION TO BE CONSTRUCTED OF 3,000 PSI MINIMUM COMPRESSION STRENGTH LEAN CONCRETE. FOOTING EXTENSION DEPTH SHALL BE AS REQUIRED PER GEOTECHNICAL ENGINEER TO PROVIDE ADEQUATE COVER FOR FROST PROTECTION.
 8. FINAL EXCAVATION LIMITS AND DEPTH MAY VARY ACCORDING TO GEOTECHNICAL REPORT.
 9. EXCAVATION LIMITS ARE INDICATED AS DESCRIBED IN THE GEOTECHNICAL REPORT. SAFE EXCAVATION PROCEDURES MAY REQUIRE ALTERNATIVE SLOPING.

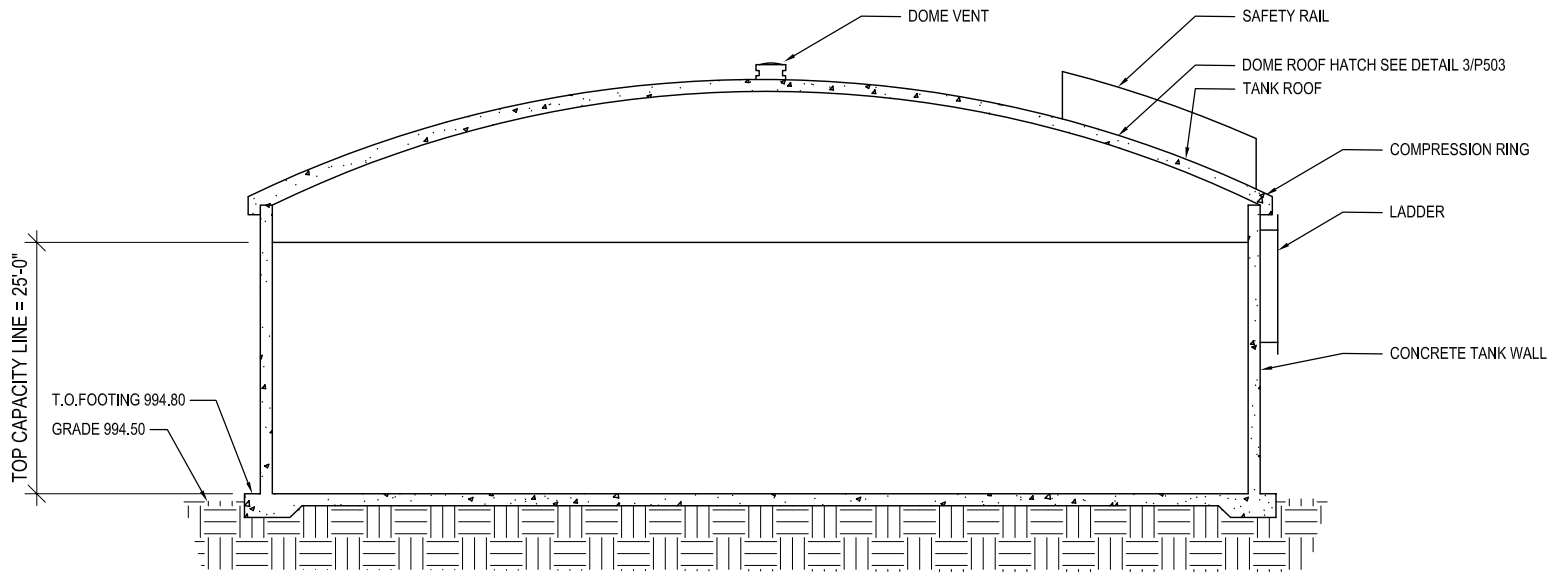


3
02
P302
TANK WALL SECTION
N.T.S.

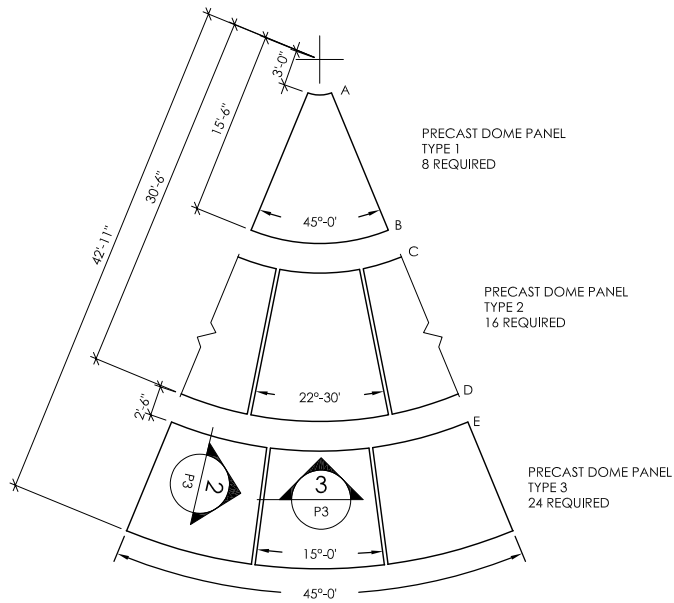


1
02
P302
TANK ELEVATION
N.T.S.

- 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.

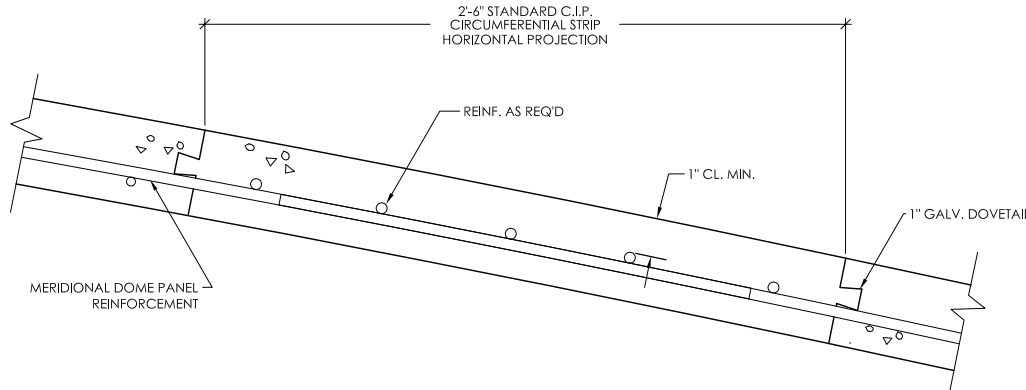


2
02
P302
TANK SECTION
N.T.S.

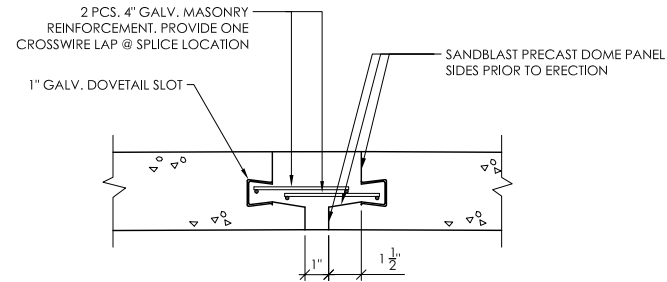


NOTES:
1. SPLICE CIRCUMFERENTIAL JOINT REINFORCING BETWEEN RADIAL JOINTS.
2. RADIAL DIMENSIONS ARE HORIZONTAL PROJECTIONS.
3. DOME PANELS, DOME RING AND DOME SLOTS SHALL RECEIVE A LIGHT BROOM FINISH.

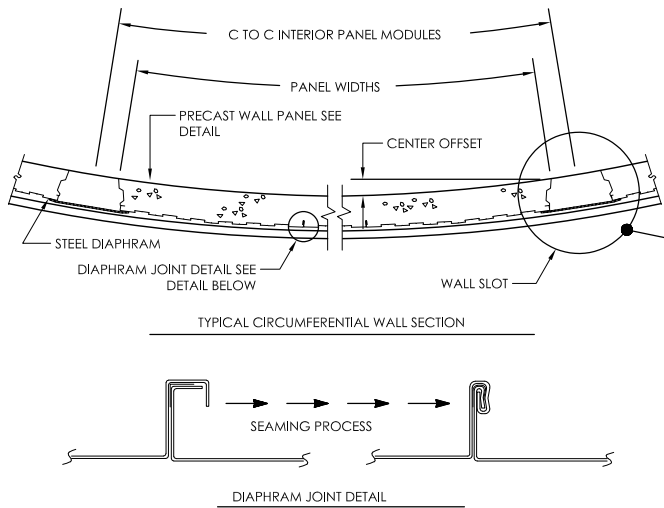
1
02
P501
DOME SECTOR
NOT TO SCALE



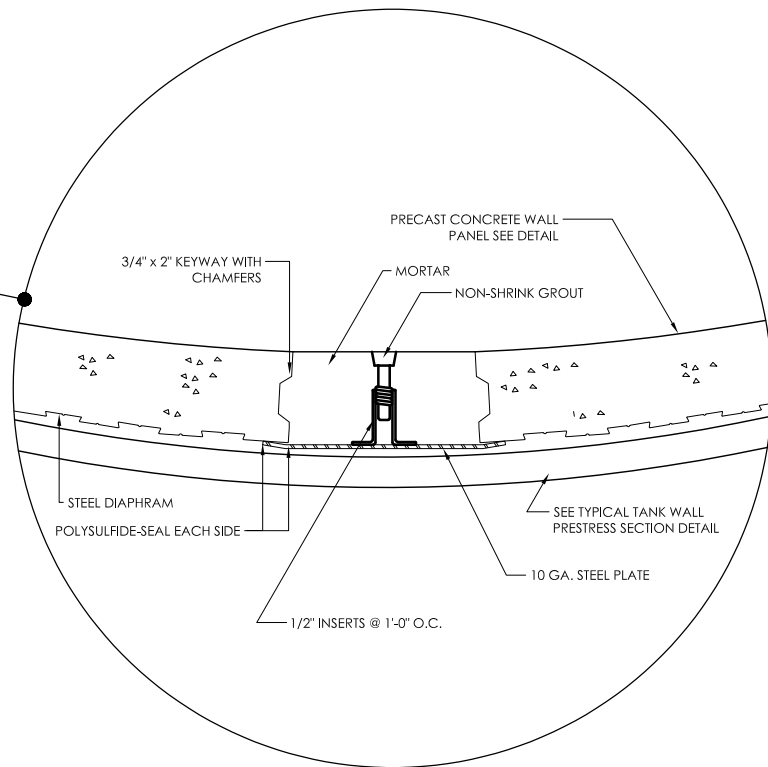
2
02
P501
CIRCUMFERENTIAL DOME JOINT REINFORCING
NOT TO SCALE



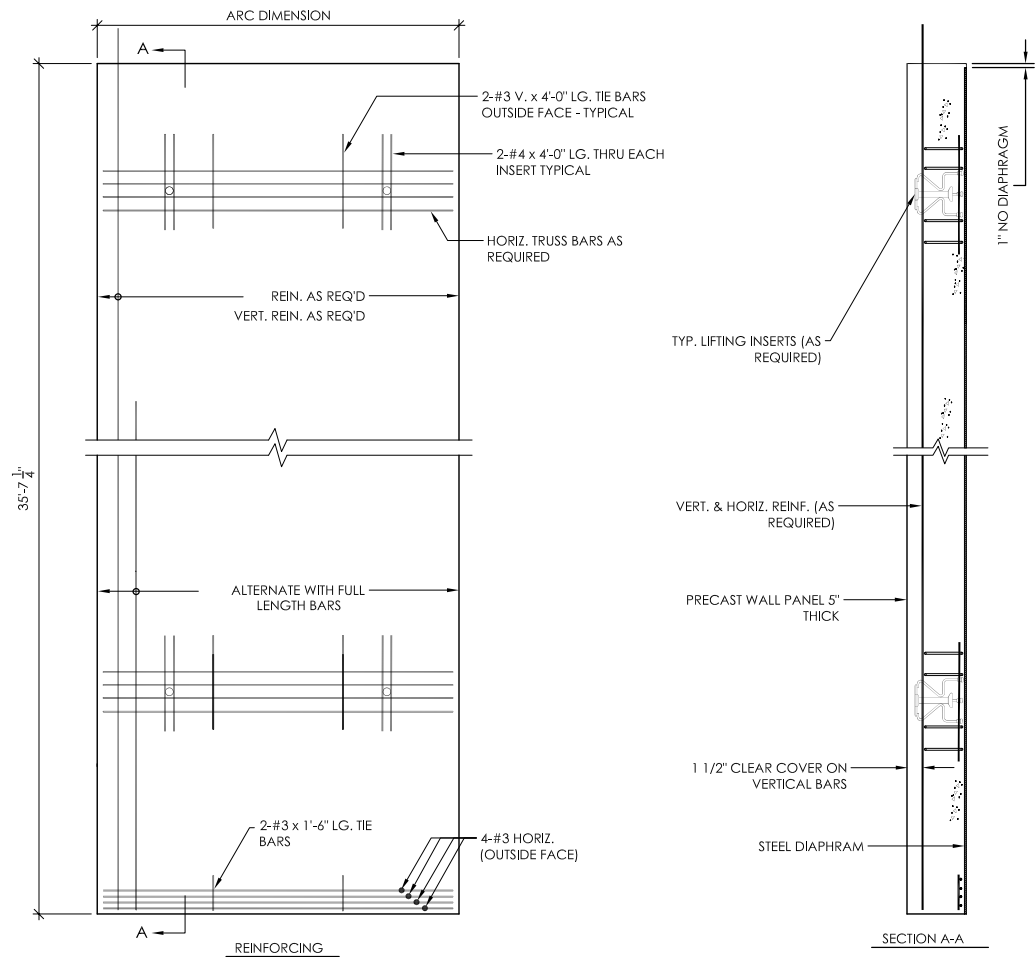
3
02
P501
RADIAL DOME JOINT REINFORCEMENT
NOT TO SCALE



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.

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 & Egan-Hendrickson, 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

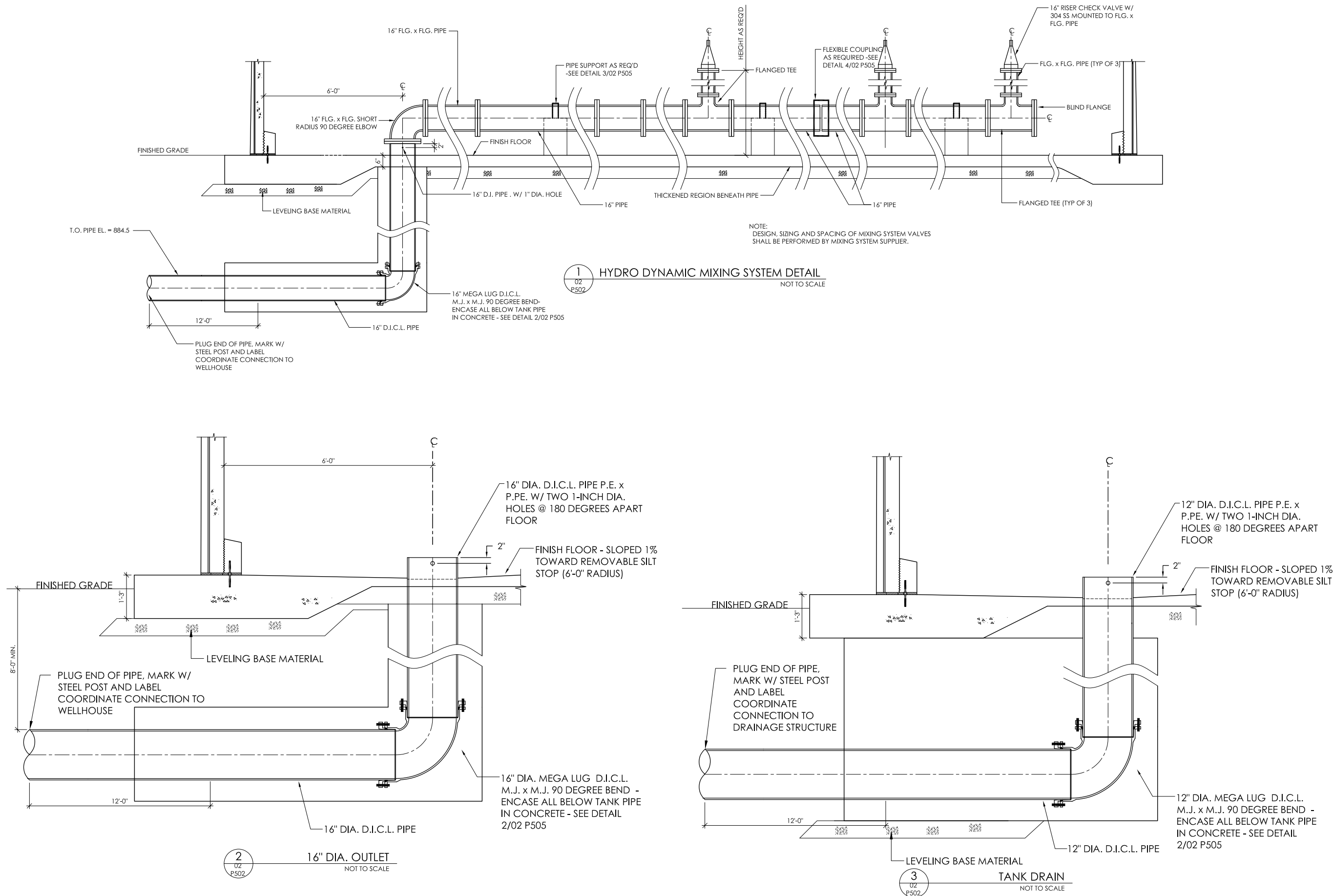
Issue Date
6/30/2025

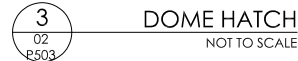
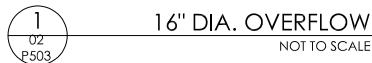
REVISION SCHEDULE

REV.# DESCRIPTION DATE

WATER STORAGE TANK
INLET, OUTLET, & MIXING
SYSTEM DETAILS

02
P502





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:\K\MMADWU\182222\5-final-dsgn\51-drawings\25-Plan\A\MA182222_L.dwg

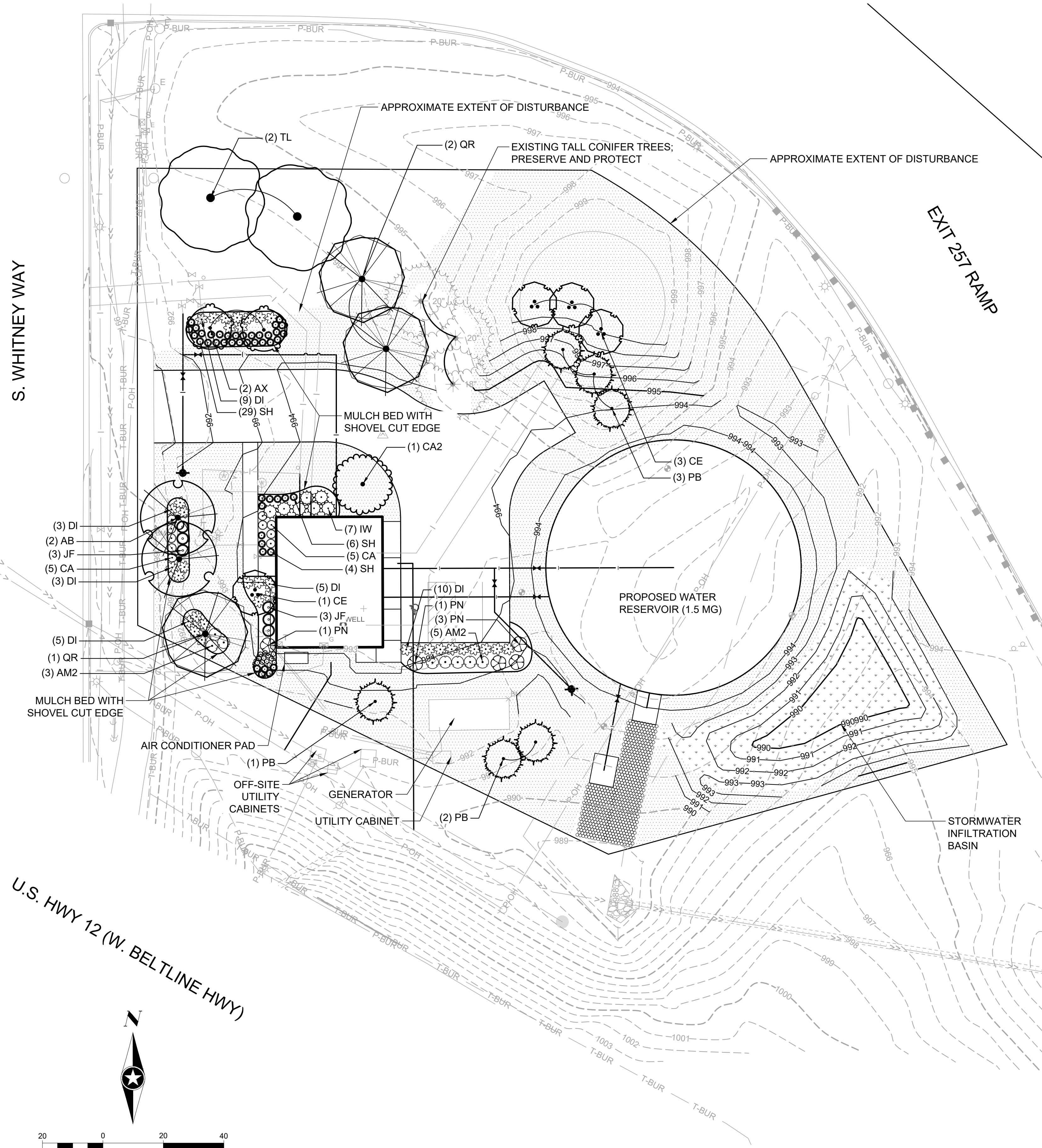
U.S. HWY 12 (W. BELTLINE HWY)



20 0 20 40
scale 10 feet

S. WHITNEY WAY

EXIT 257 RAMP



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.

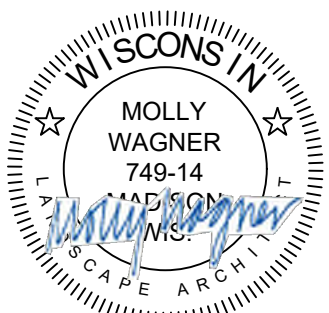
SEH Project
Checked By
Drawn By

MADWU_182222
KB
PAL

Project Status
DNR SUBMITTAL
CITY SUBMITTAL

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

REVISION SCHEDULE
REV. # DESCRIPTION DATE

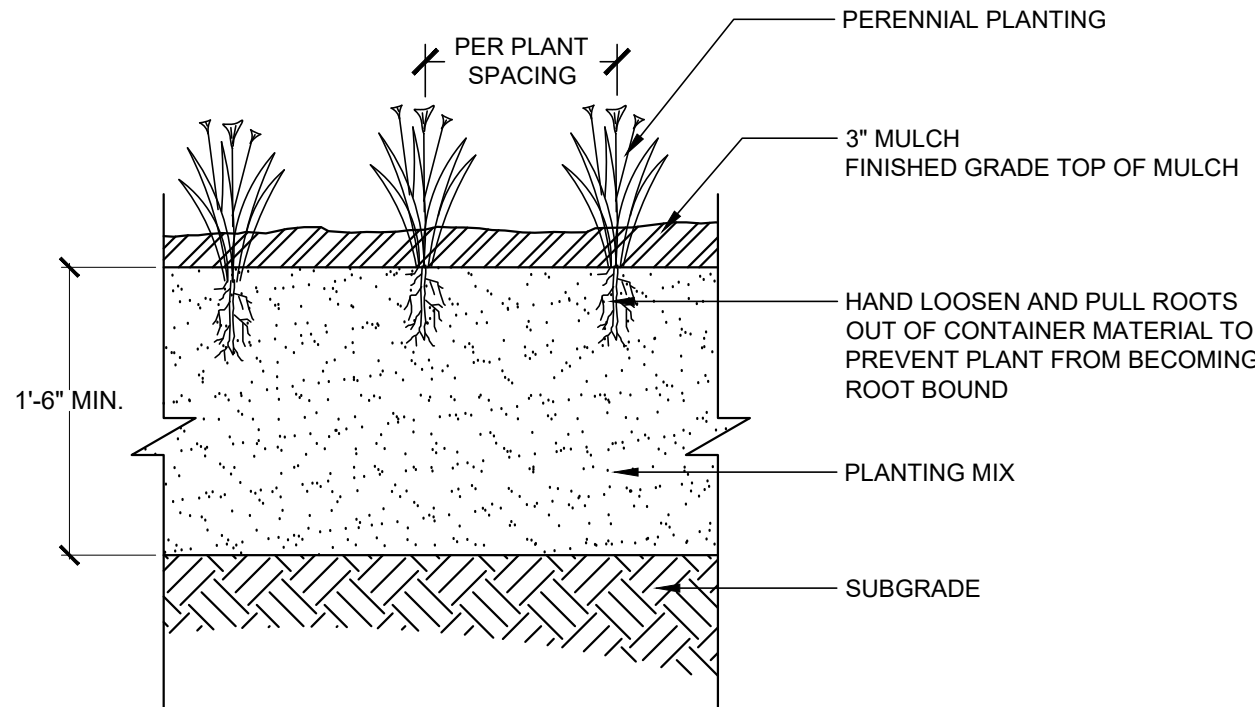


LANDSCAPE PLAN

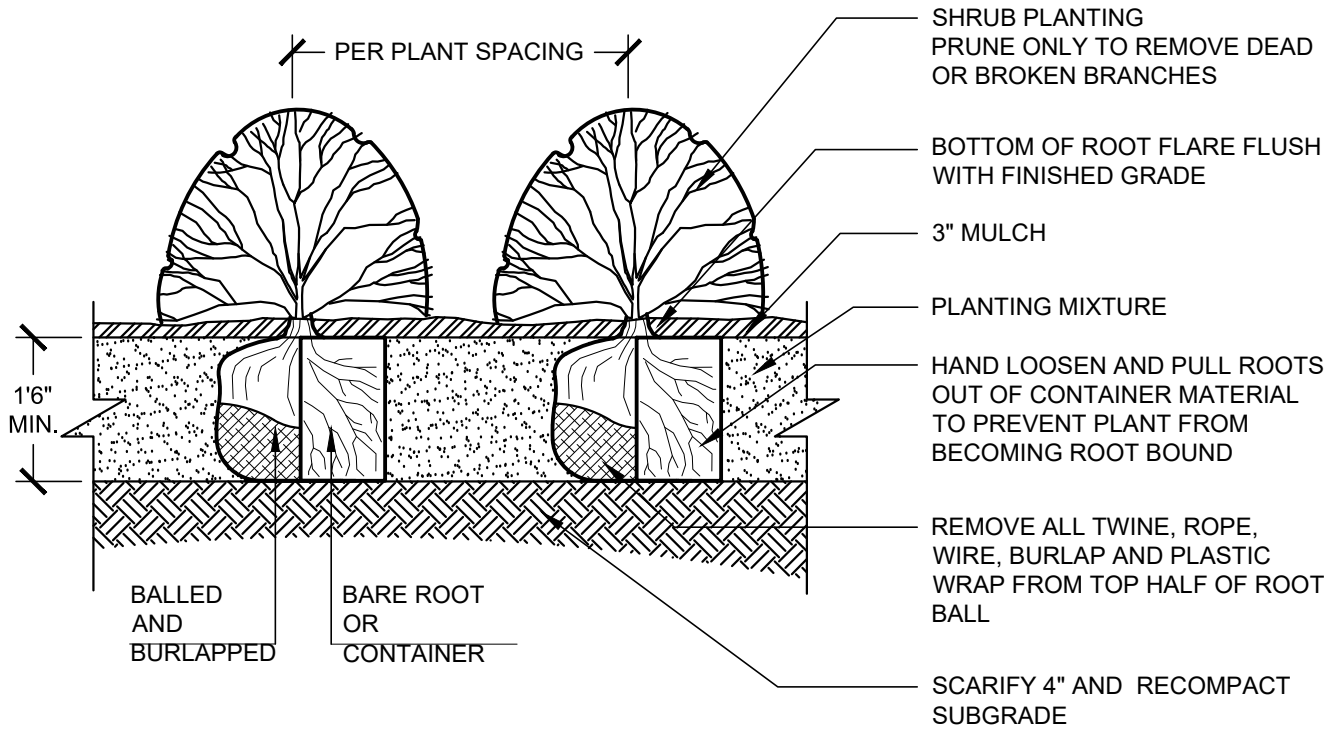
L101

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

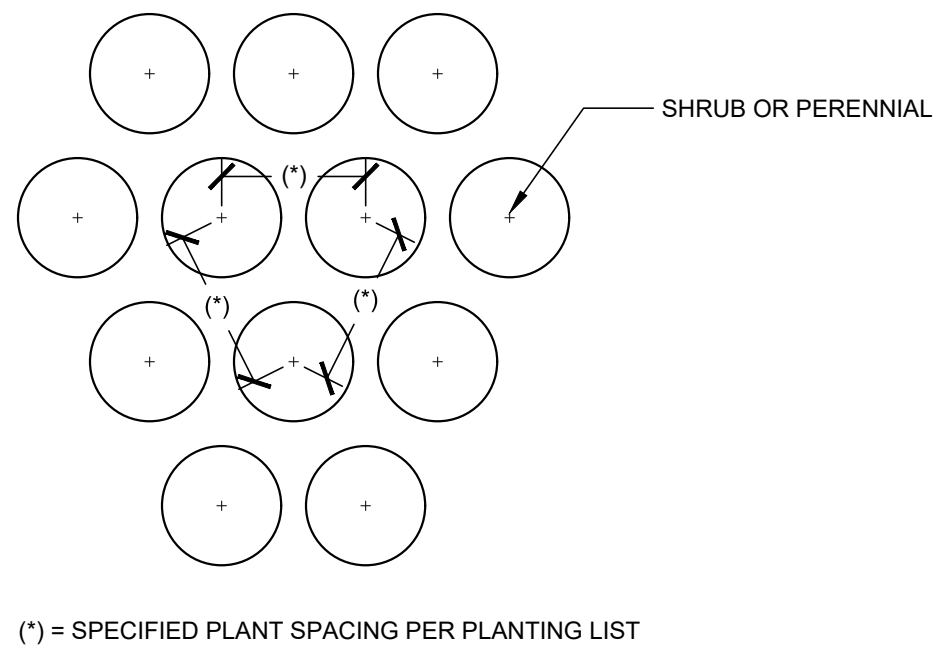
Save: 9/19/2025 5:49 PM noswald Plot: 9/19/2025 5:52 PM X:\O\MMADWU\182222\05-final-dsgn\51-drawings\05-Plan\A\MA182222_L.dwg



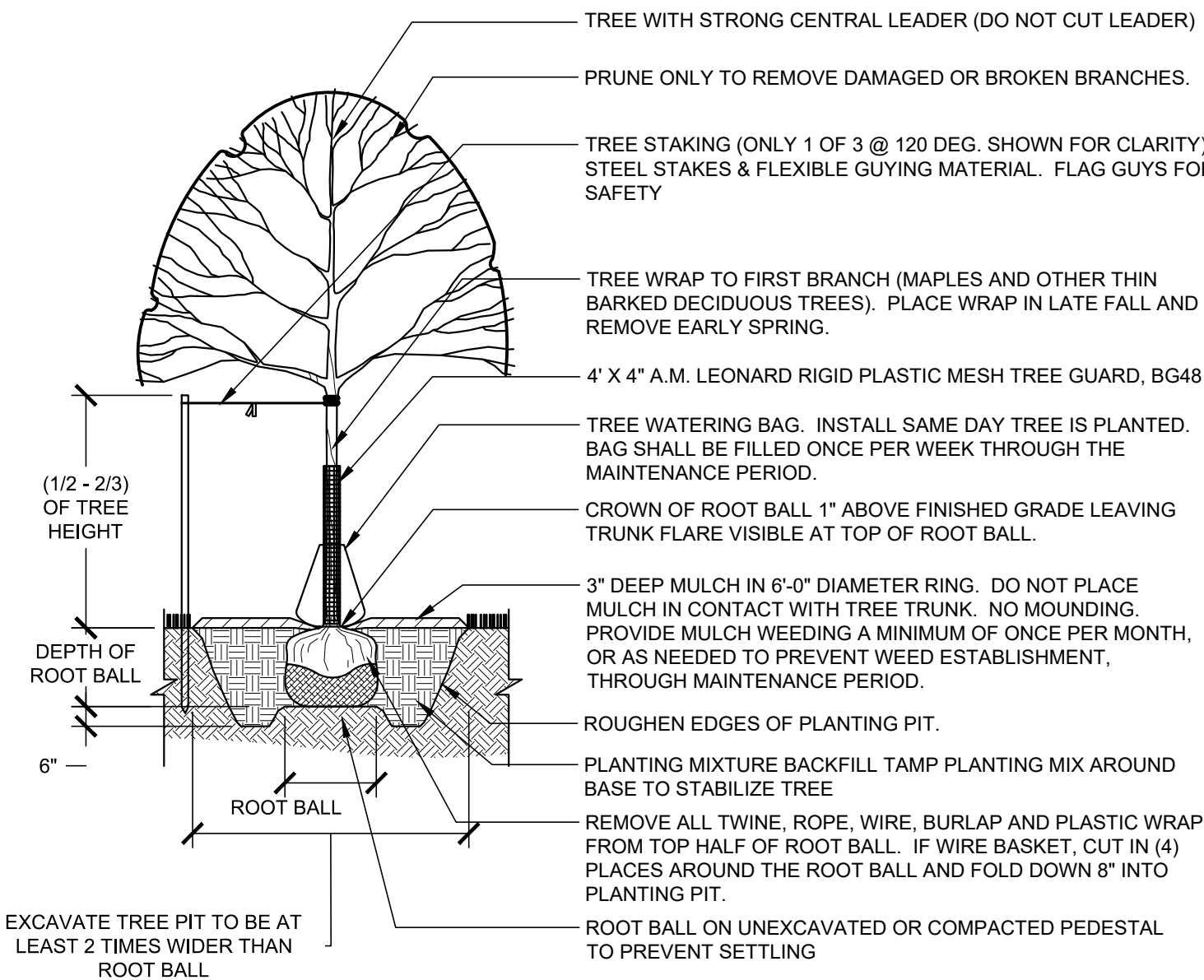
1 PERENNIAL PLANTING DETAIL
1" = 1'-0" 32 93-01



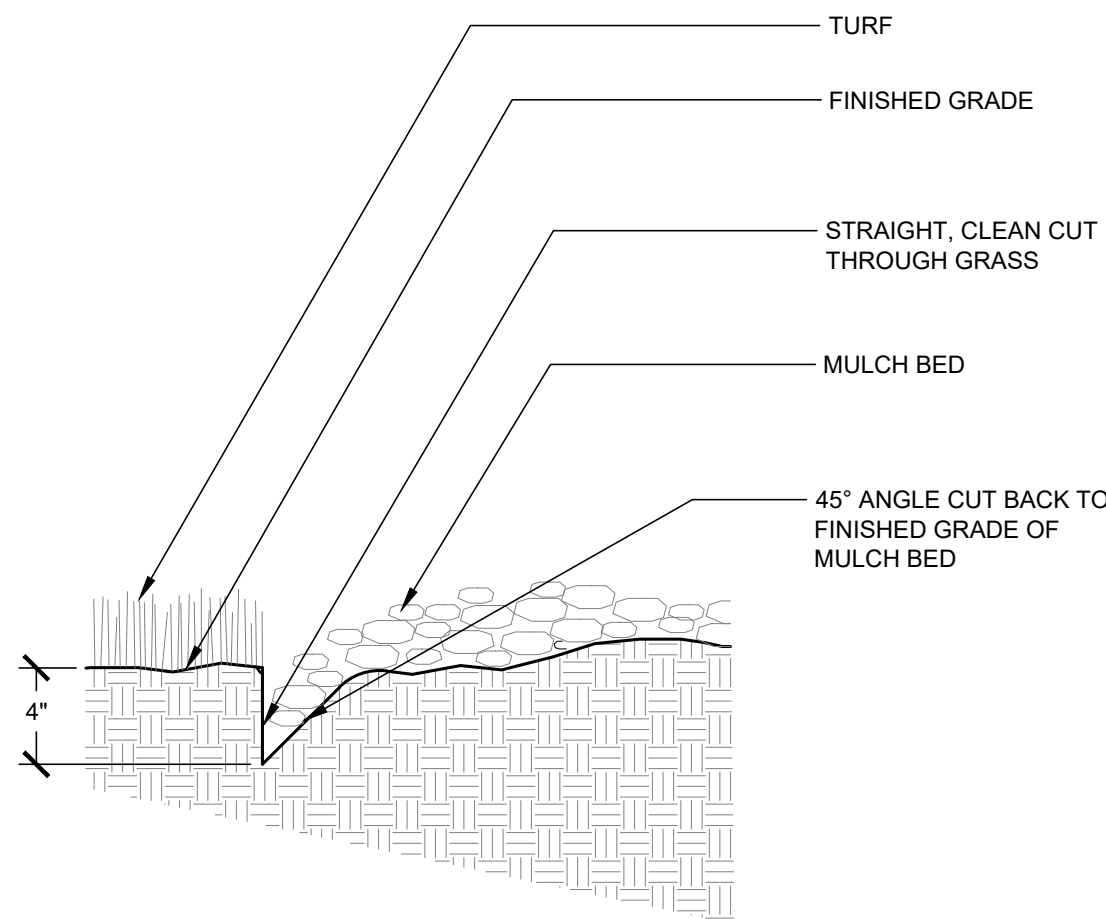
2 SHRUB PLANTING
1/2" = 1'-0" 32 9333.13-08



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.

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

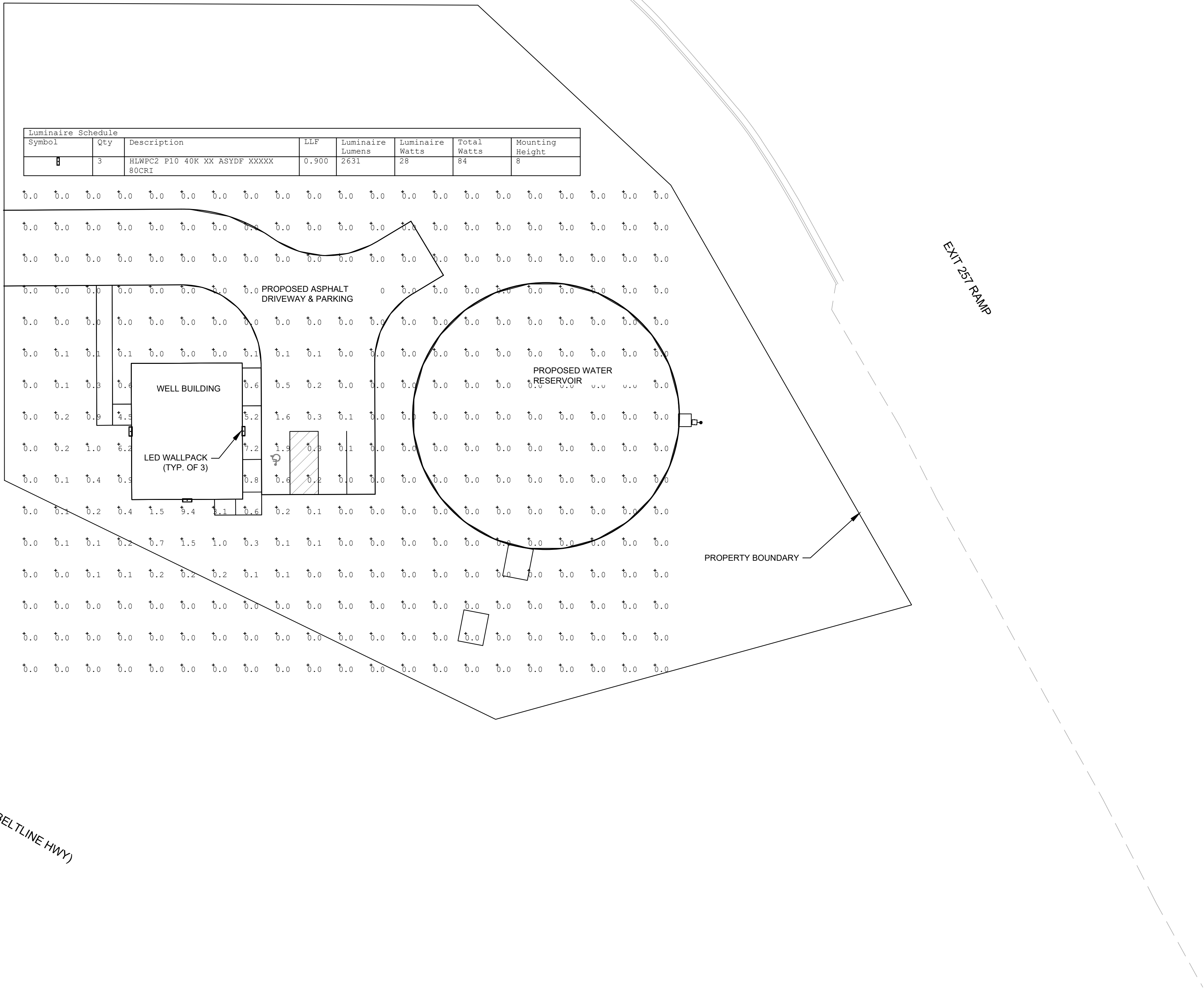
Total Number of Points Provided 1062

* 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:\land\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

1
SL

SITE PHOTOMETRIC 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.

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

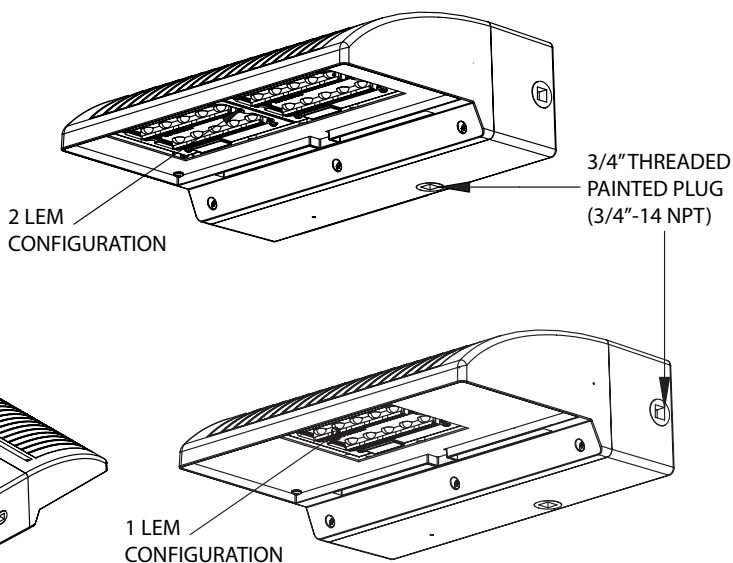
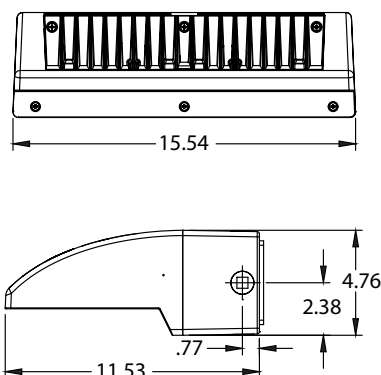
Certification and Standards

- 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

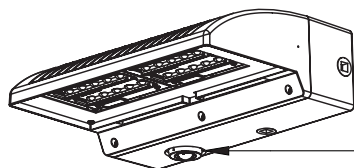
10KV 10kV/5kA Surge Protection, in place of 20kV/10kA

Notes

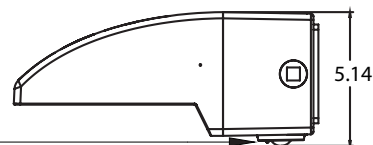
- MASL and MASH sensors are not allowed with P10 lumen package option selected.
- MASL and MASH options reduce luminaire light output to roughly 30% (not full OFF) when no motion is detected. When motion is detected, light output temporarily increases to 100%.

Options Location

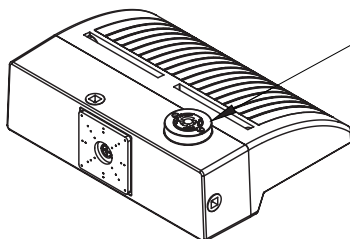
Motion/Ambient Sensor mount options for Low (8-15') (MASL) and Height (15-30') (MASH) applications



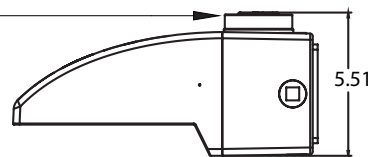
MASL or MASH



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

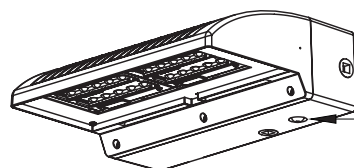


PR3 or PR7



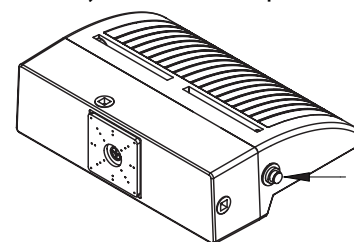
Internal Emergency Battery Test Button - EM Option

Test Button - EM Option



Emergency Test Button

Button Style Photocontrol - PE Option

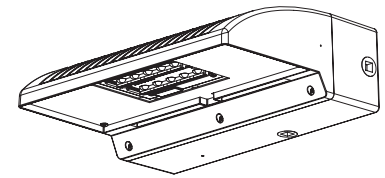


Button Style Photocontrol

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	-	-

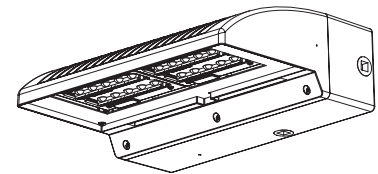
1 LEM Luminaire



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

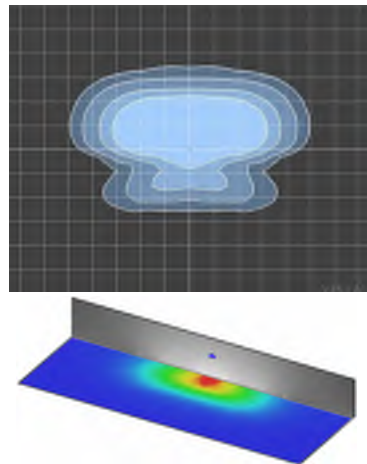
Wallpack® Full Cutoff LED

Photometric Diagrams

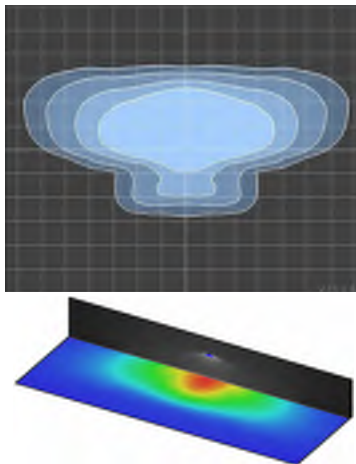
To see complete photometric reports or download .ies files for this product, visit the [Holophane's Wallpack FCO LED homepage](#). Isofootcandle plots for the HLWPC2 P30 40K. Distance are in units of mounting height (12"). Grid is 10'x10'.

0.1 fc 1 fc 0.2 fc 0.5 fc

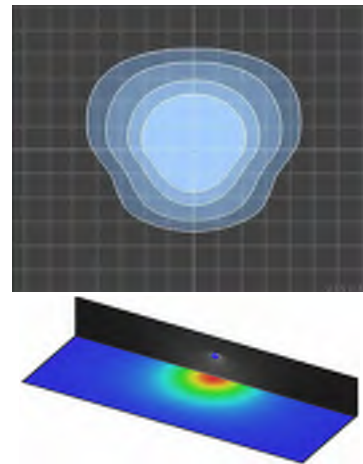
HLWPC2 P30 40K XX T2S



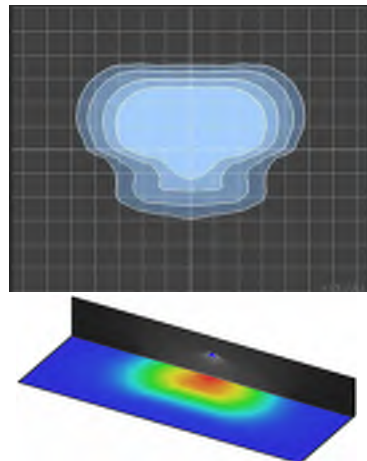
HLWPC2 P30 40K XX T2M



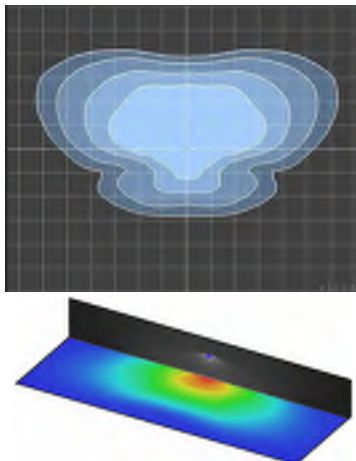
HLWPC2 P30 40K XX ASYDF



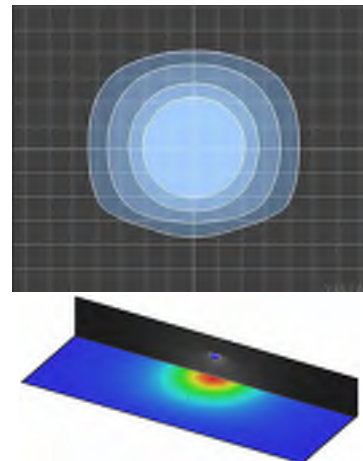
HLWPC2 P30 40K XX T3S



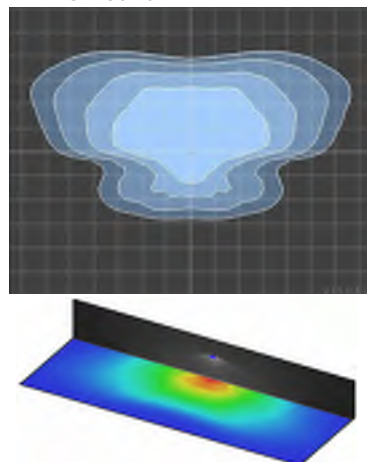
HLWPC2 P30 40K XX T3M



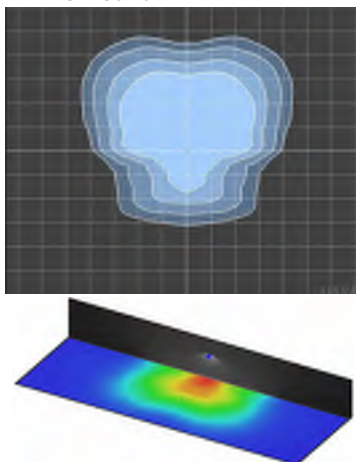
HLWPC2 P30 40K XX SYMDF



HLWPC2 P30 40K XX T4M



HLWPC2 P30 40K XX TFTM

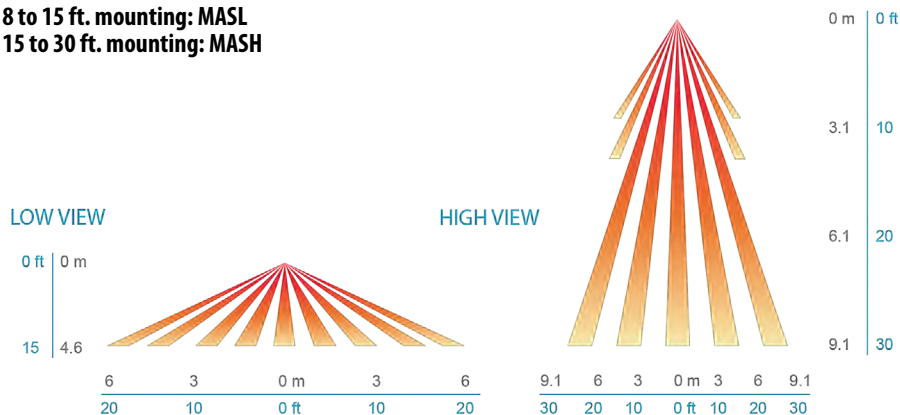


HLWPC2

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%