

ADDENDUM NO. 1
May 31, 2023

2023 RECONSTRUCT TERMINAL BUILDING
AIP No. 3-27-0025-20-2023
SKY HARBOR AIRPORT
DULUTH, MN

SEH No. DULAI 172133

From: Short Elliott Hendrickson Inc.
3535 Vadnais Center Drive
St. Paul, MN 55110-3507
651.490.2000

To: Document Holders

DOCUMENT HOLDERS on the above-named project are hereby notified that this document shall be appended to, take precedence over and become part of the original bidding documents dated May 17, 2023 for this work. Bids submitted for the construction of this work shall conform to this document.

This addendum consists of 2 pages and 00 01 00 Table of Contents (6 pages), 00 52 00 Standard Form of Agreement (8 pages), 01 23 00 Alternates (2 pages), 01 51 00 Temporary Utilities (4 pages), 07 22 16 Roof Board Insulation (4 pages), 08 71 00 Door Hardware (14 pages), 32 40 00 Site Accessories (6 pages), Federal Wage Rates – Building (5 Pages), Federal Wage Rates – Heavy (6 Pages), Federal Wage Rates – Residential (5 Pages), Appendix I – MnDOT DBE Special Provisions (25 pages), and Drawing Nos. G2.10, C1.00, C2.20, A004, A100, A101, A102, A300, A301, A400, A500, S101, S201, S501, S502, S503, S504, E100, E300, and E400.

Changes to Bidding Requirements:

1. Document 00 01 00 – Table of Contents, DELETE in its entirety and REPLACE with attached specification.
2. Document 00 52 00 – Standard Form of Agreement, DELETE in its entirety and REPLACE with attached specification.
 - Added excavation and restoration requirement to be completed in 14-calendar days and 3-calendar days for tribal monitoring.

Changes to Specifications:

3. Section 01 23 00 – Alternates, DELETE in its entirety and REPLACE with attached specification.
 - Updated Order of Precedence for Alternates.
4. Section 01 51 00 -- Temporary Utilities, DELETE in its entirety and REPLACE with attached specification.
5. Section 06 82 00 – Glass Fiber Reinforced Plastic Panels. Paragraph 2.01.A.2 Glasteel FRP (Class C, embossed, white) is an acceptable equal product for submittal.
6. Section 07 22 16 – Roof Board Insulation, DELETE in its entirety and REPLACE with attached specification.
7. Section 08 71 00 – Door Hardware, ADD new section in its entirety.
8. Section 09 51 13 – Acoustical Panel Ceilings. Paragraph 2.01.A.2 USG is an acceptable equal product for submittal (Mars #86785)
9. Section 32 40 00 – Site Accessories, DELETE in its entirety and REPLACE with attached specification.

Changes to Appendix

10. Appendix B – Prevailing Wage Rates, DELETE in its entirety and REPLACE with the attached updated wage rates.
11. Appendix I – MnDOT DBE Special Provisions, DELETE in its entirety and REPLACE with the attached updated appendix.
 - Clarified DBE Goal of 6.4% for this project.

Changes to Drawings:

12. Drawing G2.10 – Statement of Estimated Quantities, DELETE in its entirety and REPLACE with the attached revised drawing.
 - Line No. 65 -- The unit is Square Feet (SF).
 - Updated SEQ Notes
13. Drawing C1.00 – Erosion Control Plan, DELETE in its entirety and REPLACE with the attached revised drawing.
 - Clarified silt fence limits for contractor storage area, outside of tenant lease boundaries.
14. Drawing C2.20 – Interim Terminal Facility and Temporary Setup, DELETE in its entirety and REPLACE with the attached revised drawing.
 - Clarified placement of temporary facilities, outside of tenant lease boundaries.
 - Added language for contractor to install and remove observation camera.
15. DELETE the following drawings and REPLACE in their entirety with the attached revised drawings:
 - A004, A100, A101, A102, A400, A500, S101, S201, S501, S502, S503, S504, E100, E300, and E400.
16. ADD drawings A300 and A301 in their entirety.

Product Substitution Request Log:

17. Submitted request on 5/24/2023 -- Acoustical Panel Ceilings (09 51 13) to use USG (Mars #86785) as an equal product. Approved request on 5/25/2023.
18. Submitted request on 5/24/2023 – Glass-Fiber-Reinforced Plastic Panels (06 82 00) to use Glasteel as an equal product. Approved request on 5/25/2023.

Note: Receipt of this Addendum No. 1, dated May 31, 2023, shall be acknowledged on Bid Express. Failure to do so will not allow Bidder to submit Bid.

END OF ADDENDUM

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**STANDARD FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR
ON THE BASIS OF A STIPULATED PRICE**

THIS AGREEMENT is by and between the Sky Harbor Airport on behalf of the Duluth Airport Authority
(Owner) and _____ (Contractor).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: 2023 Reconstruct Terminal Building, Sky Harbor Airport.

ARTICLE 2 – THE PROJECT

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Construction of a terminal building at Sky Harbor Airport.

ARTICLE 3 – ENGINEER

- 3.01 The Project has been designed by Short Elliott Hendrickson Inc. (SEH®).
- 3.02 The Owner has retained SEH (Engineer) to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

- A. The Work will be substantially completed within **270 calendar days** after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **300 calendar days** after the date when the Contract Times commence to run.
- B. Sitework Milestone. All earthwork (excavation, foundation, footings, etc.), sitework (utilities, paving, concrete, concrete patio, sloped walks, etc.) and all related construction elements at or below finished grade must be completed by **October 31, 2023**.
- C. Excavation and Restoration Requirement. The contractor must complete all excavation (below existing grade including but not limited to excavation for new structure foundation, footings and utilities) **within 14 calendar days**. This requirement is for the airport to coordinate with tribal monitoring, which is subject to contracting outside of the scope of the project. The restoration work must be completed **within 3 calendar days**. Notification prior to commencing is required.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly,

instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Sitework Milestone Completion: Substantial Completion: Contractor shall pay Owner **\$1,000.00 for each day** that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
2. Substantial Completion: Contractor shall pay Owner **\$500.00 for each day** that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
3. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **\$200.00 for each day** that expires after such time until the Work is completed and ready for final payment.
4. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 *Special Damages*

- A. Should taxiway lights be damaged or knocked down, the Contractor shall be assessed **\$1,000 per light occurrence**.
- B. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- C. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.
- D. The special damages imposed in this paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item as indicated in Contractor's Bid.

The Bid Prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 10.06 of the General Conditions.

The Estimated Total of All Unit Price Work is:

\$ _____

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions. Payments will be due 30 days after approval.

6.02 *Progress Payments; Retainage*

- A. Subject to the provisions of SC-15.01.C, Owner shall make monthly progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications of Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract:
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract:
 - a. 95 percent of Work completed (with the balance being retainage).
 - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Within 60 days of Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed; less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions; and less 250 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment. Upon completion or correction and acceptance of said Work, Owner shall pay the amounts withheld within 60 days as recommended by Engineer.
 - 1. After Substantial Completion Owner shall also withhold one percent of the value of the Contract or \$500, whichever is greater, pending completion and submission of all "final paperwork" by the Contractor as defined by Minnesota Statutes, section 15.72, subdivision 2.(e)(2). Owner shall pay said amount withheld after Substantial Completion within 60 days of submission of all final paperwork as recommended by Engineer.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

6.04 *Interest*

All amounts not paid when due shall bear interest at the rate of four percent (4%) per annum.

6.05 *Electronic Payment Requirements*

- A. All payments to the successful Contractor are required to be via Automated Clearing House (ACH). Reference Article 24 of Document 00 21 13 Instructions to Bidders Online Bidding.
- B. Contractor delay in submitting forms in **Appendix E** to the Sponsor shall negate the Contractor's right to collect interest as referenced in Section 6.04 until the issue is resolved.

ARTICLE 7 – CONTRACT DOCUMENTS

7.01 *Contents*

- A. The Contract Documents consist of the following:
1. Addenda (numbers 00 00 1__ to 00 00 1__, inclusive).
 2. This Agreement (pages 00 52 00-1 to 00 52 00-7, inclusive).
 3. Performance Bond (Document 00 61 13).
 4. Payment Bond (Document 00 61 14).
 5. General Conditions (pages 00 72 00-1 to 00 72 00-66, inclusive).
 6. Supplementary Conditions (pages 00 73 00-1 to 00 73 00-8, inclusive).
 7. Specifications as listed in the table of contents of the Project Manual.
 8. The Drawings listed in the index located on Drawing Sheet G000 (Title Sheet).
 9. Exhibits to this Agreement (enumerated as follows).
 - a. Contractor's Bid (Document 00 41 00).
 - b. Documentation submitted by Contractor prior to Notice of Award (pages ____ to ____, inclusive).
 - c. Certificate of Insurance.
 10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Field Order(s).
 - c. Work Change Directive(s).
 - d. Change Order(s).
- B. The documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 8 – REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 *Contractor's Representations*

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 2. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing

surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

5. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
6. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
7. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
8. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
9. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
10. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 9 – MISCELLANEOUS

9.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

9.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

9.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____, _____ (which is the Effective Date of the Contract).

OWNER:

Sky Harbor Airport on behalf of the Duluth Airport Authority

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for Giving Notices:

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Owner-Contractor Agreement).

Designated Representative:

Name: _____

Title: _____

Address: 4701 Grinden Drive

Duluth, Minnesota 558811

Phone: _____

Facsimile: _____

CONTRACTOR:

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for Giving Notices:

License No. _____
(Where Applicable)

Agent for service of process: _____

(If Contractor is a corporation or a partnership, attach evidence of authority to sign.)

Designated Representative:

Name: _____

Title: _____

Address _____

Phone: _____

Facsimile: _____

END OF DOCUMENT

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SECTION 01 23 00

ALTERNATES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Alternates to be submitted to Owner with Bid for consideration of inclusion with Contract.
 - 2. Submittal procedures.
 - 3. Establishment of Contract Price and Time.

1.02 DEFINITION

- A. Alternate: The net amount to be added to or deducted from the Base Bid Price for Work identified in Schedule of Alternates.

1.03 PROCEDURES

- A. Determine the full extent of Work affected by proposed Alternates.
- B. Coordinate related work and modify adjacent work as required to ensure that each accepted Alternate is complete and fully integrated into Work.
- C. Include as part of each Alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.
- D. Substitutions are permitted. Submit a request for substitution for any manufacturer not named in accordance with Section 01 60 00.
- E. Conform to Contract Documents for requirements for performance, appearance, workmanship, and materials not modified under the alternate bids.

1.04 SELECTION AND AWARD OF SCHEDULE AND ALTERNATES

- A. Acceptance or Rejection: Alternates quoted on Schedule of Alternates and attached to Bid will be reviewed and accepted or rejected at the Owner's option. None, any, or all schedule and alternates may be accepted or rejected by Owner.

The alternates will be awarded in the Order of Precedence & Basis of Award. Basis of Award will follow as stated:

- 1. Base Bid Schedule A & B
 - 2. Alternate A
 - 3. Alternate B
 - 4. Alternate C
 - 5. Alternate D
- B. Bids and alternates will be evaluated in accordance with the Instructions to Bidders.
- C. Accepted alternates will be reflected in the final Contract price.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 SCHEDULE OF ALTERNATES

- A. Base Bid Schedule A: Construct Site Work & Base Bid Schedule B: Construct Terminal Building
- B. Alternate A: Construct Building Elements
- C. Alternate B: Reconstruct Auto Parking Area
- D. Alternate C: Replace Hangar Siding and Roofing
- E. Alternate D: Provide Interim Terminal Facility and Toilet Facilities

END OF SECTION

SECTION 01 51 00

TEMPORARY UTILITIES

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes providing temporary utility services and facilities including, but not limited to:
 - 1. Temporary Power Service for Fuel System.
 - 2. Temporary Power Service for Security Gate.
 - 3. Temporary Data Service for Fuel System Monitoring and AWOS Equipment.
 - 4. Temporary Setup for Observation Camera Technology.
- B. Method of Measurement: Measure by providing complete unit per Lump Sum.
 - 1. There will be no other separate measurements for this Work item.
- C. Basis of Payment: Payment for providing Temporary Utilities shall be at the Contract Unit Price as listed on the Bid Form. All associated Work items including requirements listed below, shall be considered incidental.
 - 1. Payment schedule of this Work item will follow the following:
 - a. 50% for installation of utilities.
 - b. 25% throughout the project to maintain the utilities.
 - c. 25% to remove temporary utilities.

1.02 COORDINATION

- A. Utility interruptions required for tie-ins:
 - 1. Determine requirements, time constraints, etc. for installing temporary services, or to make connections to existing service.
 - a. Shall be requested by Contractor in writing to Engineer.
 - b. Shall not commence until Contractor has received written response from Engineer.
 - c. Engineer reserves the right to restrict the time and duration of interruption.
 - 2. Arrange with utility companies for service interruption, where necessary, to make connections for temporary services.

1.03 QUALITY ASSURANCE

- A. Comply with requirements of local laws and regulations governing construction and local industry standards, in the installation and maintenance of temporary utilities and related services.
- B. Comply with requirements Section 26 00 00.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. Provide all required materials and equipment for temporary utilities, services, and facilities.
- B. Contractor shall provide materials that match existing circuitry for power and data capabilities.
- C. Contractor shall provide 16-FT tall wood pole.
- D. Contractor shall provide 110/120 AC Outlet and data cabling to location shown on the Drawings.
- E. Contractor shall install the observation camera equipment. Equipment to be provided by Others.

- F. Used materials and equipment may be used, if acceptable to Engineer.
- G. Provide only materials and equipment that are suitable for intended use and comply with appropriate standards.

2.02 UTILITIES

- A. Where local utility company provides only a portion of temporary utility, provide remainder with matching, compatible materials, and equipment. Comply with utility company's recommendations and requirements.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Provide each temporary service and facility ready for use at each location when service or facility is first needed.
- B. Provide temporary 16-FT tall wood pole for installation of observation camera technology. Location of pole is indicated on the Drawings. Placement of AC outlet shall be installed at the base of the pole. Install the pole into the ground by auger methods.
- C. Install the observation camera equipment on the temporary wood pole. Contractor shall maintain and protect equipment throughout construction.
- D. Locate temporary utilities where they will serve Project and result in minimum interference with performance of the Work.
- E. Maintain, relocate, modify, and extend utilities as required during course of Work.
- F. Use qualified tradespersons for installation of temporary utilities.

3.02 TEMPORARY ELECTRIC POWER SERVICE

- A. Provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of Work.
- B. Owner shall pay for electricity used for construction purposes on the Temporary Power Services.
 - 1. Electrical service shall be provided and installed by Contractor.
 - 2. Any Trade requiring power with different characteristics than provided shall arrange and pay for access to such power.
- C. Provide protected conduit and wiring at the location shown in the Drawings.
- D. Install temporary service with an automatic ground-fault interrupter feature, activated from circuits of the system.
- E. Install circuits of adequate size and proper characteristics for each use, that match existing circuitry.
 - 1. Install rigid steel conduit or equivalent raceways for wiring that must be exposed on grade, floors, decks, or other areas of possible damage or abuse.
 - 2. The contractor shall verify and confirm existing conduit and wiring sizing to match and complete the temporary services.
- F. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment.
- G. Installation shall follow Section 26 00 00 requirements.

3.03 TEMPORARY DATA SERVICE

- A. The contractor shall provide temporary data service to maintain an operable fueling monitoring system and AWOS equipment, located in the interim terminal facility.
- B. Provide protected conduit and wiring at the location shown in the Drawings.
- C. The monitoring system shall be temporarily installed in the adjacent hangar building.
- D. The AWOS equipment will be installed by others (MnDOT) in the interim terminal facility. Coordination is required.
- E. Provide protected conduit and wiring at the location shown in the Drawings.

3.04 OPERATION, TERMINATION, AND REMOVAL

- A. Enforce strict discipline in use of temporary services and facilities at the Site.
 - 1. Limit availability of temporary services and facilities to essential and intended uses to minimize waste and abuse.
 - 2. Do not permit temporary installations to be abused or endangered.
 - 3. Do not allow hazardous, dangerous, or unsanitary conditions to develop or persist on Site.
- B. Operate temporary services and facilities in a safe and efficient manner.
 - 1. Do not overload temporary services or facilities.
 - 2. Protect from damage by freezing temperatures and similar elements.
 - 3. Maintain distinct markers for underground lines.
 - 4. Protect from damage during excavation operations.
- C. Unless Engineer requests that it be maintained for a longer period of time, remove each temporary service and facility promptly when no longer needed, when it has been replaced by the authorized use of a permanent facility, or no later than Substantial Completion.
- D. Complete or restore permanent Work which may have been delayed because of interference with temporary service or facility.
- E. Repair damaged Work, clean exposed surfaces, and replace Work which cannot be satisfactorily repaired.
- F. Materials and facilities that constitute temporary services and facilities are, and will remain, the property of Contractor.
- G. At Substantial Completion, clean and renovate permanent services and facilities that have been used to provide temporary services and facilities during construction.
- H. Remove all temporary utilities and services at the completion of the project.
- I. Remove observation camera equipment, wood pole, cabling, and other related components at the end of the project. Return equipment to the Owner.

END OF SECTION

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SECTION 07 22 16

ROOF BOARD INSULATION

PART 1 GENERAL

1.01 SUMMARY

- A. Provide nail base rigid board insulation and accessories including, but not limited to:
 - 1. Base insulation layers.
 - 2. Fasteners.
 - 3. Tape.
 - 4. Vapor Barrier.
- B. Related Sections:
 - 1. Section 06 10 00 – Rough Carpentry
 - 2. Section 07 21 00 – Thermal Insulation
 - 3. Section 07 41 13 – Metal Roofing Panels

1.02 REFERENCES

- A. ASTM:
 - 1. C1289 - Standard for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
 - 2. D2842 - Water Absorption of Rigid Cellular Plastics

1.03 SUBMITTALS

- A. Refer to Section 01 33 00.
- B. Product Data: Submit manufacturer's current Product Data including specifications, handling, storage, and installation instructions, and maintenance and cleaning recommendations.
- C. Provide with Product Data: Buy-American Certification and/or Build America, Buy America (BABA) for manufactured goods of products supplied, steel or iron products, if applicable.
- D. Samples:
 - 1. Components: Submit samples of anchors, fasteners, hardware, assembled corner sections, and other materials and components if requested by Architect.

1.04 QUALITY ASSURANCE

- A. Single Source Responsibility: Provide nail base rigid board insulation units made of components of standard construction furnished by 1 manufacturer as coordinated assemblies.
- B. Qualifications:
 - 1. Manufacturer: 5 years' experience in the manufacture of nail base rigid board insulation, with 6 projects of similar size, scope, and type of which 3 have been in successful use for 3 years or longer.
 - 2. Personnel: For actual installation of nail base rigid board insulation, use personnel skilled in work required, completely familiar with manufacturer's recommended methods of installation, and thoroughly familiar with requirements of work.
- C. Preinstallation Meetings: Installer and manufacturer's technical representative shall meet with Architect prior to the start of installation.

1.05 PROJECT CONDITIONS

- A. Environmental Requirements: Do not install insulation adhesives when manufacturer's recommendations indicate temperature or weather conditions are detrimental to successful installation.
- B. Existing Conditions: Drawings to not purport to show actual field dimensions, but are intended only to establish location and scope of Work. Field-verify dimensions and assume full responsibility for their accuracy.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Nail Base Rigid Board Insulation:
 - 1. Acceptable Manufacturers:
 - 2. Subject to compliance with specified requirements, acceptable manufacturers and products are:
 - a. *AC Foam Nail Base Insulation* by Atlas Roofing Corporation www.atlasroofing.com
 - b. *H-Shield NB Insulation* by Hunter Panels www.hunterpanels.com
- B. Base Roof Insulation:
 - a. Polyisocyanurate:
 - 1) *HP-H* by Carlisle SynTec, Inc., Carlisle, PA www.carlisle-syntec.com
 - 2) *Energyguard* by GAF Materials Corporation, Wayne, NJ www.gaf.com.
 - 3) *ISO 95+* by Firestone Building Products, Carmel, IN www.firestonebpco.com
 - 4) *Veersico-Iso* by Versico, Inc, Akron, OH www.versico.com
 - 5) Manufacturer of comparable products submitted in compliance with Section 01 25 13.
- C. Vapor Barrier:
 - 1. Standard of Quality: Design is based on products of Raven Industries, Sioux Falls, SD www.ravenind.com
 - 2. Other Acceptable Manufacturers: Subject to compliance with specified requirements, acceptable manufacturers and products are:
 - a. Fortifiber Building Systems Group, Reno, NV www.fortifiber.com
 - b. Reef Industries, Houston, TX www.reefindustries.com
 - c. W.R. Meadows, Elgin, IL www.wrmeadows.com
 - d. Manufacturer of comparable products submitted in compliance with Section 01 25 13.

2.02 MATERIALS

- A. Combination of base layer insulation and nail base rigid board insulation shall be a minimum R-35. Thickness of base layer insulation may be increased or decreased as required to maintain minimum required R-Value of total roofing insulation system.
- B. Nail Base Rigid Board Insulation:
 - 1. Composite panel consisting of a felt skin integrally bonded to closed-cell polyisocyanurate foam bonded to one layer of APA performance rated 5/8 inch CDX plywood.
 - 2. Total Panel Thickness: As required to meet minimum R-Value specified.
 - 3. R-Value: 20.0 minimum
 - 4. Venting: Non-vented panels.
 - 5. Meet ASTM C1289.
- C. Base Layer Roof Insulation:
 - 1. Polyisocyanurate Insulation:
 - 2. Meet ASTM C1289.
 - 3. Maximum 4 foot by 4 foot boards.
 - 4. Type II: Felt or glass fiber mat on both surfaces.
 - 5. Thickness: Minimum thickness required to provide R-15 Base Insulation Layer.

- D. Vapor Barriers (roof deck):
 - 1. Continuous, skim reinforced layer laminated between two layers of polyethylene film.
 - 2. Thickness: 6 mils thick
 - 3. Permeance Rating: Maximum permeance rating of 0.1 perm
 - 4. Meet or exceed ASTM E-1745, Class A.
 - 5. Product: Dura-Skrim 6 by Raven Industries.
- E. Accessories:
 - 1. Adhesive: Type recommended by insulation manufacturer for application.
 - 2. Other Materials: Materials not specifically described but required for complete, proper installation of nail base rigid board insulation, subject to acceptance of Architect.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Work of Other Trades: Prior to commencing work, carefully inspect and verify that work is complete to the point where this installation may properly commence.
- B. Verification of Conditions:
 - 1. Verify that nail base rigid board insulation may be installed in accordance with original design, pertinent codes and regulations, and pertinent portions of referenced standards.
 - 2. Verify that substrate, adjacent materials, and insulation boards are dry and ready to receive insulation and adhesive.
 - 3. Verify substrate is flat, free of honey comb, fins, irregularities, and materials or substances that may impede adhesive bond.
- C. Discrepancies: Immediately notify Architect in writing. Do not proceed with installation in areas of discrepancy until fully resolved. Commencement of installation signifies acceptance of surface conditions.

3.02 PREPARATION

- A. Protection: Protect installed work and materials of other trades.

3.03 INSTALLATION

- A. Manufacturer's Instructions:
 - 1. Install nail base rigid board insulation as recommended by manufacturer.
 - 2. Apply adhesive as recommended by the insulation manufacturer.
- B. Nail Base Rigid Board Insulation:
 - 1. Fasten boards to wood deck.
 - 2. Place boards in a method to maximize contact bedding.
 - 3. Stagger end joints.
 - 4. Butt edges and ends tight to adjacent board.
- C. Base Layer Insulation:
 - 1. Fasten boards to wood deck.
 - 2. Stagger end joints.
 - 3. Butt edges and ends tight to adjacent board and to protrusions.
 - 4. Fill voids between base layer insulation panels with spray sealant
- D. Vapor Barrier: Comply with ASTM E1643.
 - 1. Roof Deck:
 - a. Apply continuous vapor barrier over roof deck (prior to insulation) as indicated on drawings.

2. Seal joints caused by pipes, conduits, electrical boxes, and similar items penetrating vapor barriers with vapor-barrier tape to create an airtight seal between penetrating objects and vapor barrier.
3. Repair any tears or punctures in vapor barriers immediately before concealment by other work. Cover with vapor barrier tape or another layer of vapor barrier.
4. Seal joints in vapor barrier by overlapping sheets a minimum of 6-inches and taping air tight.
5. Lap vapor barrier over roof edge as indicated on drawings and seal air tight.

3.04 REPAIR/RESTORATION

- A. Touch up marred finishes, but replace units that cannot be restored to factory-finished appearance. Use materials and procedures recommended or furnished by manufacturer.

3.05 ADJUSTING

- A. Replace damaged materials with new materials complying with specified requirements.

3.06 CLEANING

- A. Site: Do not allow accumulation of scraps, or debris arising from work of this section. Maintain premises in a neat, orderly condition.
- B. System:
 1. Remove temporary covering and other provisions made to minimize soiling of other work.
 2. Promptly clean surfaces not to receive adhesive; repair surfaces stained, marred, or otherwise damaged during work.
 3. When work is completed, remove unused materials, containers, equipment, and debris.

3.07 PROTECTION

- A. General: Provide final protection and maintain conditions, in a manner acceptable to manufacturer to ensure work is without damage or deterioration at time of Substantial Completion.

END OF SECTION

SECTION 08 71 00

DOOR HARDWARE

PART 1 - GENERAL

1.1 CONDITIONS

- A. Conditions of the contract (General and Supplementary Conditions) and Division 01 - General Requirements, govern the work of this section.
- B. This section includes all material, and related service necessary to furnish all finish hardware indicated on the drawings or specified herein.
- C. Furnish UL listed hardware for all labeled and 20 min. openings in conformance with the requirements for the class of opening scheduled. Underwriters' requirements shall have precedence over specification where conflicts exist.
- D. All work shall be in accordance with all applicable state and local building codes. Code requirements shall have precedence over this specification where conflicts exist.

1.2 WORK INCLUDED

- A. This section includes the following:
 - 1. Furnish door hardware (for hollow metal, wood and aluminum doors) specified herein, listed in the hardware schedule, and/or required by the drawings.
 - 2. Cylinders for Aluminum Doors
 - 3. Thresholds and Weather-stripping (Aluminum frame seals to be provided by aluminum door supplier)
 - 4. Electro-Mechanical Devices
 - 5. Access Control components and or systems specified within this section.
- B. Where items of hardware are not definitely or correctly specified and is required for the intended service, such omission, error or other discrepancy should be directed to the Architect prior to the bid date for clarification by addendum. Otherwise furnish such items in the type and quantity established by this specification for the appropriate service intended.

1.3 RELATED WORK IN OTHER SECTIONS

- A. This section includes coordination with related work in the following sections:
 - 1. Division 06 Section "Finish Carpentry".
 - 2. Division 06 Section "Cabinet Hardware"
 - 3. Division 08 Section "Hollow Metal Doors and Frames".
 - 4. Division 08 Section "Wood Doors"
 - 5. Division 08 Section "Aluminum Entrances and Storefronts"

1.4 REFERENCES

- A. Publications of agencies and organizations listed below form a part of this specification section to the extent referenced.
 - 1. BAA - Buy American Compliance. Refer to 1.6.C Quality Assurance.
 - 2. DHI – Installation Guide for Doors and Hardware (2020).
 - 3. NFPA 80 - Standards for Fire Doors and Windows.
 - 4. NFPA 101 - Code for Safety to Life from Fire in Buildings and Structures.
 - 5. UL - Building Material Directory.
 - 6. DHI - Door and Hardware Institute
 - 7. WHI - Warnock Hersey
 - 8. BHMA - Builders Hardware Manufacturers Association
 - 9. ANSI – American National Standards Institute
 - 10. IBC - International Building Code 2018 Edition (as adopted and amended by local building code)

1.5 SUBMITTALS

- A. Within ten days after award of contract, submit detailed hardware schedule in quantities as required by Division 01 - General Requirements.

- B. Schedule format shall be consistent with recommendations for a vertical format as set forth in the Door & Hardware Institute's (DHI) publication "Sequence and Format for the Hardware Schedule". Hardware sets shall be consolidated to group multiple door openings which share similar hardware requirements. Schedule shall include the following information:
1. Door number, location, size, handing, and rating.
 2. Door and frame material, handing.
 3. Degree of swing.
 4. Manufacturer
 5. Product name and catalog number
 6. Function, type and style
 7. Size and finish of each item
 8. Mounting heights
 9. Explanation of abbreviations, symbols, etc.
 10. Numerical door index, indicating the hardware set/ group number for each door.
- C. When universal type door closers are to be provided, the schedule shall indicate the application method to be used for installation at each door: (regular arm, parallel arm, or top jamb).
- D. The schedule will be prepared under the direct supervision of a certified Architectural Hardware Consultant (AHC), or certified Door Hardware Consultant (DHC) employed by the hardware distributor. The hardware schedule shall be signed and embossed or stamped with the DHI certification seal of the supervising AHC or DHC. The supervising AHC or DHC shall attend any meetings related to the project when requested by the architect.
- E. Check the specified hardware for suitability and adaptability to the details and surrounding conditions.
- F. Review drawings from related trades as required to verify compatibility with specified hardware. Indicate unsuitable or in compatible items, and proposed substitutions in the hardware schedule.
- G. Provide documentation for all hardware to be furnished on labeled fire doors indicating compliance with positive pressure fire testing UL 10C.
- H. Furnish manufacturers' catalog data for each item of hardware in quantities as required by Division 01 - General Requirements.
- I. Submit a sample of each type of hardware requested by the architect. Samples shall be of the same finish, style, and function as specified herein. Tag each sample with its permanent location so that it may be used in the final work.
- J. Furnish with first submittal, a list of required lead times for all hardware items.
- K. After final approved schedule is returned, transmit corrected copies for distribution and field use in quantities as required by Division 01 - General Requirements.
- L. Furnish approved hardware schedules, template lists, and pertinent templates as requested by related trades.
- M. Furnish necessary diagrams, schematics, voltage and amperage requirements for all electro-mechanical devices or systems as required by related trades. Wiring diagrams shall be opening specific and include both a riser diagram and point to point diagram showing all wiring terminations.
- N. After receipt of approved hardware schedule, Hardware supplier shall initiate a meeting including the owner's representative to determine keying requirements. Upon completion of initial key meeting, hardware supplier shall prepare a proposed key schedule with symbols and abbreviations as set forth in the door and hardware institute's publication "Keying Procedures, Systems, and Nomenclature". Submit copies of owner approved key schedule for review and field use in quantities as required by Division 01 - General Requirements. Wiring diagrams shall be included in final submittals transmitted for distribution of field use.

1.6 QUALITY ASSURANCE

- A. Manufacturers and model numbers listed are to establish a standard of function and quality. Similar items by approved manufacturers that are equal in design, function, and quality, may be considered for prior approval of the architect, provided the required data and physical samples are submitted for approval as set forth in Division 01 - General Requirements.

- B. Where indicated in this specification, products shall be independently certified by ANSI for compliance with relevant ANSI/BHMA standards A156.1 - A156.36 – Standards for Hardware and Specialties. All products shall meet or exceed certification requirements for the respective grade indicated within this specification. Supplier shall provide evidence of certification when requested by the architect.
- C. Buy American Compliance: Materials provided under work of this section must comply with the following requirements:
 - 1. Buy American Act of 1933 BAA-41 U.S.C., 10a - 10d
 - 2. Buy American Act provision of section 1605 of the American Recovery and Reinvestment Act of 2009 (ARRA)
- D. Obtain each type of hardware (hinges, latch & locksets, exit devices, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.
- E. Electrical drawings and electrical specifications are based on the specific electrified hardware components specified in hardware sets. When electronic hardware components other than those indicated in hardware sets are provided, the supplier shall be responsible for all costs incurred by the design team and their consultants to review and revise electrical drawings and electrical specifications. Supplier shall also be responsible for any additional costs associated with required changes in related equipment, materials, installation, or final hook up to ensure the system will operate and function as indicated in the construction documents, including hardware set operational / functional descriptions.
- F. All hardware items shall be manufactured no earlier than 6 months prior to delivery to site.
- G. Hardware supplier shall be factory trained and certified by the manufacture to provide and support all computer managed locks and system components.
- H. Installation of hardware shall be installed or directly supervised and inspected by a skilled installer certified by the manufacturer of locksets, door closers, and exit devices used on the project, or with not less than 3 years' experience in successful completion of projects similar in size and scope.
- I. Provide hardware for all labeled fire doors, which complies with positive pressure fire testing UL 10C.
- J. Comply with all applicable provisions of the standards referenced within section 1.4 of this specification.
- K. Hardware supplier shall participate when reasonably requested to meet with the contractor and or architect to inspect any claim for incorrect or non-functioning materials; following such inspection, the hardware supplier shall provide a written statement documenting the cause and proposed remedy of any unresolved items.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Hardware supplier shall deliver hardware to the job site unless otherwise specified.
- B. All hardware shall be delivered in manufacturers' original cartons and shall be clearly marked with set and door number.
- C. Coordinate with contractor prior to hardware delivery and recommend secure storage and protection against loss and damage at job site.
- D. Contractor shall receive all hardware and provide secure and proper protection of all hardware items to avoid delays caused by lost or damaged hardware. Contractor shall report shortages to the Architect and hardware supplier immediately after receipt of material at the job site.
- E. Coordinate with related trades under the direction of the contractor for delivery of hardware items necessary for factory installation.

1.8 PRE-INSTALLATION MEETING

- A. Schedule a hardware pre-installation meeting on site to review and discuss required door operating clearances and the installation of continuous hinges, locksets, door closers, exit devices, overhead stops, and electromechanical door hardware.
- B. Meeting attendees shall be notified 7 days in advance and shall include: Architect, Contractor, Door Hardware Installers (including low voltage hardware), Manufacturers representatives for above hardware items, and any other effected subcontractors or suppliers.

- C. All attendees shall be prepared to distribute installation manuals, hardware schedules, templates, and physical hardware samples.

1.9 WARRANTY

- A. All hardware items shall be warranted against defects in material and workmanship as set forth in Division 01 - General Requirements.
- B. Repair, replace, or otherwise correct deficient materials and workmanship without additional cost to owner.

PART 2 - PRODUCTS

2.1 FASTENERS

- A. All exposed fasteners shall be Phillips head or as otherwise specified and shall match the finish of the adjacent hardware. All fasteners exposed to the weather shall be non-ferrous or stainless steel. Furnish correct fasteners to accommodate surrounding conditions.
- B. Coordinate required reinforcements for doors and frames. Seek approval of the architect prior to furnishing through-bolts. Furnish through-bolts as required for materials not readily reinforced.

2.2 BUTT HINGES

- A. Basis of design:

	<u>Hager</u>
1. Standard Weight, Ball Bearing	BB1279
2. Standard Weight, Ball Bearing, Non-Ferrous	BB1191
3. Heavy Weight, Ball Bearing	BB1168
4. Heavy Weight, Ball Bearing, Non-Ferrous	BB1199
- B. Hinges shall be independently certified by ANSI for compliance with ANSI A156.1 (2006). Hinges shall meet or exceed the following ANSI grade requirements as indicated below:
 - 1. Standard Weight, 2 Ball Bearing Hinges: Grade 2
 - 2. Heavy Weight, 4 Ball Bearing Hinges: Grade 1
- C. Unless otherwise specified, furnish the following hinge quantities for each door leaf.
 - 1. 3 hinges for doors up to 90 inches.
 - 2. 1 additional hinge for every 30 inches on doors over 90 inches.
- D. Unless otherwise specified, top and bottom hinges shall be located as specified in Division 08 Section "Hollow Metal Doors and Frames". Intermediate hinges shall be located equidistant from others.
- E. Unless otherwise specified, furnish hinge weight and type as follows:
 - 1. Standard weight: ball bearing hinge for interior openings through 36 inches wide without a door closer.
 - 2. Standard weight: ball bearing hinge for interior opening over 36 through 40 inches wide without a door closer, and for interior openings through 40 inches wide with a door closer.
 - 3. Heavy weight: 4 ball bearing hinge for interior openings over 40 inches wide, and for all vestibule doors.
 - 4. Heavy weight: 4 ball bearing hinge for exterior openings unless otherwise listed in groups.
 - 5. Heavyweight: 4 ball bearing hinge stainless steel 5" for all exterior doors or 4 ball bearing hinge 5" for interior doors, that have an automatic operator.
- F. At existing frames receiving new hinges, match existing hinge size and weight.
- G. Unless otherwise specified, furnish hinges for exterior doors, fabricated from brass, bronze, or stainless steel. Unless otherwise specified, hinges for interior doors may be fabricated from steel.
- H. Unless otherwise specified, furnish hinges in the following sizes:
 - 1. 5" x 5" 2-1/4" thick doors
 - 2. 4-1/2" x 4-1/2" 1-3/4" thick doors
 - 3. 3-1/2" x 3-1/2" 1-3/8" thick doors
- I. Furnish hinges with width to accommodate trim and allow for 180-degree swing.

- J. Unless otherwise specified, furnish hinges with flat button tips with non-rising pins at interior doors, non-removable loose pins (NRP) at exterior, and out-swinging lockable interior doors.
- K. Unless otherwise specified, furnish all hinges to template standards.

2.3 CONTINUOUS GEARED HINGES

- A. Basis of design:

	<u>Ives</u>
1. Full Mortise	112HD
- A. Hinges shall be independently certified by ANSI for compliance with ANSI A156.26, Grade 1 (2012).
- B. Continuous hinges shall be geared type hinge providing full height door support up to 600 lbs.
- C. Hinge shall be non-handed with symmetrical template hole pattern and factory drilled.
- D. Hinge to be able to carry Warnock Hersey Int. or UL for fire rated doors and frames up to 90 minutes.
- E. Provide machine screws for doors which have been reinforced to accept machine screws.
- F. Note: Fire label for doors and frames should be placed on the header and top rail of fire rated doors and frames.

2.4 EXIT DEVICES

- A. Acceptable manufacturers and respective catalog numbers:

	<u>Von Duprin</u>
1. Wide Stile, Push Pad	99 Series
2. Lever Trim	996 Series
3. Pull Trim	990 Series
- B. Exit devices shall be independently certified by ANSI for compliance with ANSI A156.3, Grade 1 (2008).
- C. Obtain exit devices from a single manufacturer, although several may be indicated as offering products complying with requirements.
- D. All exit devices shall be equipped with a sound-dampening feature to reduce touch pad return noise.
- E. Quiet Electric Latch Retraction shall be accomplished using a motor driven assembly, and shall incorporate the following features:
 - 1. Motor shall retract both the push pad assembly and latchbolt.
 - 2. Automatic calibration of latch throw and pull.
 - 3. Built-in time delay.
 - 4. On-board installation and troubleshooting diagnostics built into power supply and device.
 - 5. Retry mode if device does not pull on the first try.
- F. On full glass doors there shall be no exposed fasteners on the back of the mechanism visible through the glass.
- G. All exit devices shall be provided with flush end caps to reduce potential damage from impact.
- H. All exit devices shall be provided with dead-locking latch bolts to ensure security.
- I. All exit devices shall be U.L. listed for accident hazard. Exit device for use on fire doors shall also be U.L. listed for fire exit hardware.
- J. Provide optional strikes, special length rods, and adapter plates to accommodate door and frame conditions. Provide narrow style series devices in lieu of wide stile series devices where optional strikes will not accommodate door and frame conditions.
- K. Coordinate with related trades to ensure adequate clearance and reinforcement is provided in doors and frames. Provide thru bolts as required.
- L. Refer to hardware groups for exit device applications utilizing the option of: "less bottom rod and floor strike" (LBR)
- M. All exit devices shall be provided with optional trim designs to match other lever and pull designs used on the project.

- N. Provide glass bead kits as required to accommodate door conditions. Screws shall not be visible through full glass doors.
- O. Where specified, provide compatible keyed mullions with cylinder for pairs of doors.
- P. Provide Von Duprin #154 or equivalent mullion/frame stabilizers at the following application(s):
 - 1. Lockable exterior or vestibule paired openings with a fixed or removable hollow metal or aluminum mullion.
 - 2. Lockable exterior or vestibule single doors in aluminum frames.
- Q. Provide reinforced crossbars for all traditional style exit devices applied to doors over 36" wide.

2.5 LOCKS AND LATCHES

- A. Acceptable manufacturers and respective catalog numbers:

	<u>Schlage</u>
1. Grade 1 Mortise	L Series 17A
2. Grade 1 Cylindrical	ND Series SPA
- B. Bored locks shall be independently certified by ANSI for compliance with ANSI A156.2 (2011). Mortise locks shall be independently certified by ANSI for compliance with ANSI A156.13 (2012).
- C. Minimize transmission of heat to lock trim. Provide temperature control modules (TCM) on all electrified locks when cataloged by the lock manufacturer.
- D. Unless otherwise specified, all locks and latches to have:
 - 1. 2-3/4" Backset
 - 2. 1/2" minimum throw latchbolt
 - 3. 1" throw deadbolt
 - 4. 6 pin cylinders
 - 5. ANSI A115.2 strikes
- E. Provide guarded latch bolts for all locksets, and latch bolts with throw to maintain fire rating of both single and paired door assemblies.
- F. Provide strike with lip length adequate to clear surrounding trim.
- G. Provide wrought boxes for strikes at inactive doors, wood frames, and metal frames without integral mortar covers.
- H. Provide Von Duprin #154 or equivalent mullion/frame stabilizers at the following application(s) unless provided with deadbolt:
 - 1. Lockable exterior or vestibule paired openings with a fixed or removable hollow metal or aluminum mullion.
 - 2. Lockable exterior or vestibule single doors in aluminum frames.

2.6 PULLS, PUSH BARS, PUSH/PULL PLATES

- A. Basis of design:
 - 1. Straight Pull (1" dia., 10" CTC)
 - 2. Offset Door Pull (1" dia., 10" CTC)
 - 3. Pull / Push-Bar (1" dia., 10" CTC Pull)
 - 4. Offset Pull / Push-Bar (1" dia., 10" CTC Pull)
- A. Adjust dimensions of push plates to accommodate stile and rail dimensions, lite and louver cutouts, and adjacent hardware. Where required by adjacent hardware, push plates shall be factory drilled for cylinders or other mortised hardware. All push plates shall be beveled 4 sides and counter sunk.
- B. Where possible, provide back-to-back, and concealed mounting for pulls and push bars. Push bar length shall be 3" less door width, or center of stile to center of stile for stile & rail or full glass doors.

2.7 CLOSERS

- A. Acceptable manufacturers and respective catalog numbers:

	<u>LCN</u>
1.	4050A / 4050A EDA
- B. Door closers shall be independently certified by ANSI for compliance with ANSI A156.4, Grade 1 (2013).

- C. Obtain door closers from a single manufacturer, although several may be indicated as offering products complying with requirements.
- D. Provide extra heavy-duty arm (EDA / HD) when closer is to be installed using parallel arm mounting.
- E. Hardware supplier shall coordinate with related trades to ensure aluminum frame profiles will accommodate specified door closers.
- F. Closers shall use aluminum cylinders.
- G. Closers for fire-rated doors shall be provided with temperature stabilizing fluid that complies with standards UL10C.
- H. Unless otherwise specified, all door closers shall have full covers and separate adjusting valves for sweeps, latch, and backcheck.
- I. Provide closers for all labeled doors. Provide closer series and type consistent with other closers for similar doors specified elsewhere on the project.
- J. Provide closers with adjustable spring power. Size closers to ensure exterior and fire rated doors will consistently close and latch doors under existing conditions. Size all other door closers to allow for reduced opening force not to exceed 5 lbs.
- K. Install closers on the room side of corridor doors, stair side of stairways and interior side of exterior doors.
- L. Closers shall be furnished complete with all mounting brackets and cover plates as required by door and frame conditions, and by adjacent hardware.
- M. Door closers shall be provided with a powder coat finish to provide superior protection against the effects of weathering. Powder coat finish shall successfully pass a 100-hour salt spray test.

2.8 KICK PLATES AND MOP PLATES

- A. Furnish protective plates as specified in hardware groups.
- B. Where specified, provide 10" kick plates, 34" armor plates, and 4" mop plates. Unless otherwise specified, metal protective plates shall be .050" thick; plastic plates shall be 1/8" thick.
- C. Protective plates shall be 2" less door width, or 1" less door width at pairs. All protective plates shall be beveled 4 sides and counter sunk.
- D. Protection plates over 16" shall not be provided for labeled doors unless specifically approved by door manufacturers listing. When protection plates over 16" are provided for labeled doors, the plate shall be labeled.
- E. Where specified, provide surface mounted door edges. Edges shall butt to protective plates. Provide edges with cutouts as required adjacent hardware.
- F. Adjust dimensions of protection plates to accommodate stile and rail dimensions, lite and louver cutouts, and adjacent hardware. Where required by adjacent hardware, protection plates shall be factory drilled for cylinders or other mortised hardware.

2.9 OVERHEAD STOPS

- A. Basis of design:
 - 1. Heavy Duty Surface Mount Glynn-Johnson
GJ900 Series
- B. Unless otherwise specified, furnish overhead stop for hollow metal or 1-3/4" solid core doors equipped with regular arm surface type closers that swing more than 140 degrees before striking a wall, for hollow metal or 1-3/4" solid core doors that open against equipment, casework, sidelights, or other objects that would make wall bumpers inappropriate, and as specified in hardware groups.
- C. Furnish sex bolt attachments for wood and mineral core doors unless doors are supplied with proper reinforcing blocks.
- D. Do not provide holder function for labeled doors.

2.10 WALL STOPS AND HOLDERS

A. Basis of Design:

1. Wrought Convex Wall / Bumper Stop
- B. Furnish a stop or holder for all doors.
- C. Provide concave style wall stop at all adjacent integral push button locks; provide convex style wall stop at all other locations.
- D. Where wall stops are not applicable, furnish overhead stops.
- E. Do not provide holder function for labeled doors.

2.11 WEATHERSTRIP, GASKETING

A. Basis of design:

	<u>Zero</u>
1. Weatherstrip	429
2. Adhesive Gasket	188
3. Sweep w/ drip	8198
4. Drip Cap	142

- B. Weatherstrip and gasketing shall be independently certified by ANSI for compliance with ANSI A156.22 (2005).
- C. Where specified in the hardware groups, furnish the above products unless otherwise detailed in groups.
- D. Provide weatherstripping all exterior doors and where specified.
- E. Provide intumescent and other required edge sealing systems as required by individual fire door listings to comply with positive pressure standards UL 10C.
- F. Provide Zero 188 smoke gaskets at all fire rated doors and smoke and draft control assemblies.
- G. Provide gasketing for all meeting edges on pairs of fire doors. Gasketing shall be compatible with astragal design provided by door supplier as required for specific fire door listings.

2.12 THRESHOLDS

A. Basis of design:

	<u>Zero</u>
1. Saddle Thresholds	8655

- A. Thresholds shall be independently certified by ANSI for compliance with ANSI A156.21 (2001).
- B. Hardware supplier shall verify all finish floor conditions and coordinate proper threshold as required to ensure a smooth transition between threshold and interior floor finish.
- C. Threshold Types:
1. Unless otherwise specified, provide saddle threshold similar to Zero 8655 for all exterior openings with an interior floor finish less than or equal to 1/4" in height.
 2. Unless otherwise specified, provide half saddle threshold similar to Zero 1674 for all exterior openings with an interior floor finish greater than 1/4" in height. Threshold height shall match thickness of interior floor finish.

2.13 OFF-LINE COMPUTER MANAGED LOCKS

A. Acceptable manufacturers and respective catalog numbers:

	<u>Schlage Electronics</u>
1. Cylindrical Locksets	AD200-CY Series
2. Unit Locksets	AD200-993 Series
3. Software Programming Kit	SUS-A Kit

- A. Bored locks shall be independently certified by ANSI for compliance with ANSI A156.2, Grade 1 (2011).
- B. Lockset to meet or exceed ANSI Standard Grade 1 strength and operational requirements and ANSI/BHMA Grade 1 Operation and Security Requirements.
- C. Lockset shall be compliant with ICC / ANSI A117.1, NFPA 101, NFPA 80, and Industry Canada RSS-210, and shall be listed to UL294.

- D. Provide functions and modular credential reader types, such as keypad, mag stripe, proximity, smart card, and multi-technology readers called out in hardware sets.
- E. Provide all off-line access control devices with the following modular credential reader type:
 - 1. 13.56 MHz Smart card credentials:
 - 2. Secure section (Multi-Technology and Smartcard): Schlage, XceedID ISO-X, MIFARE, ISO-X Lite, my-d, DESFire 8-EV1.
 - 3. 13.56 MHz Serial number only (Multi-Technology and Smartcard): MIFARE, DESfire, iClass, Inside Pictotag, ST Micro, TI Tagit.
 - 4. 125 kHz Proximity card credentials: Schlage, XceedID, HID, GE/CASI ProxLite and AWID.
 - 5. Multi-Technology readers that read both 13.56 MHz Smart Cards + 125 kHz Prox cards.
 - 6. Dual credential reading capabilities credential card/fob + pin.
 - 7. 12 button keypad with backlit buttons.
 - 8. Magnetic card triple track reader capable of reading tracks 1, 2 or 3 per configuration in field.
 - 9. Full insertion reader capable of reading information along full length of magnetic stripe.
- F. Lever trim shall match locksets when available.
- G. Provide cylinders as required.
- H. Provide optional tamper torx screws on inside escutcheon for Higher Security.
- I. Lockset to be modular in design, to have the ability to be upgraded in the field from a standalone battery powered solution to a hard-wired network solution. Lockset to have the ability to be upgraded in the field from a standalone battery powered solution to a wireless networked solution without being removed from the door. Lockset to have the ability to change credential reader technologies without being removed from door.
- J. Furnish locks with following functions that are field configurable without taking the lock off the door: Classroom / Storeroom, Apartment, Office, Privacy.
- K. Lockset to have a on board processor with memory capacity of 5,000 users, 5,000 event audit history, up to 16 time zones and up to 32 calendar events.
- L. Lockset to have the following standard switches provided: Door Position Switch, Interior Cover Tamper Guard, Mechanical Key Override, Request to Exit, Request to Enter, and Clutch Position.
- M. Lockset powered by four AA batteries, and shall have the ability to communicate Battery Status.
- N. Lockset to have visual tri-colored LED indicators that indicate activation, operational systems status, system error conditions and low power conditions. Lockset to have audible feedback that can be enabled or disabled.
- O. The lockset will have the ability to utilize emergency mechanical key.
- P. Exterior lever to be designed with ability to rotate freely while door remains securely locked, preventing damage to internal lock components from vandalism by excessive force. Lever trim to be non-handed, and to operate independently of non-locking levers for extended life cycles.
- Q. Exit device lever trim to release the latch bolt for the following exit device applications: rim, surface vertical rod, concealed vertical rod and mortise. Exit device lever trim to be non-handed, and field reversible.
- R. Off-line access control locks and exit device trim shall be programmed by the owner both manually (when used with keypad option), and by utilizing a compatible device (provided by others) with the SUS mobile application.
- S. Provide all optional cables & adaptors as required to permit communication with all provided off-line devices.
- T. Preloaded utility software shall permit programming of the following lock features:
 - 1. Configure Credential Reader Format
 - 2. Configure Lock Function
 - 3. Configure Unlock Period
 - 4. Configure Power Failure Mode
 - 5. Configure Audible Alarm On/Off

6. Validate Battery Status
 7. Validate Hardware and Software Revision
 8. Validate Troubleshooting Status Signals
 9. Configure Special Access Delay (Ada)
 10. Configure Delayed Egress (Release Delay)
 11. Configure Door Propped Open Delay
 12. Configure Lockdown Cancel Delay Time Out Between Credential And Pim
 13. Configure Number of Key Presses Without Valid Pin Before Lockout
 14. Configure Current Date/Time
 15. Configure Enable/Disable Manual Programming
 16. Upload Firmware Updates and Door Files To Device
 17. Download Audit Files from Device
- U. Hardware supplier shall be factory trained and certified by the manufacture to provide and support all computer managed locks and system components.
- V. Hardware supplier shall provide onsite training to the end user as required by the manufacturer.

2.14 FINISHES AND BASE MATERIALS

- A. Unless otherwise indicated in the hardware groups or herein, hardware finishes shall be applied over base metals as specified in the following finish schedule:

<u>HARDWARE ITEM</u>	<u>BHMA FINISH AND BASE MATERIAL</u>
1. Butt Hinges: Exterior, or Non-Ferrous	630 (US32D - Satin Stainless Steel)
2. Butt Hinges: Interior	652 (US26D - Satin Chromium)
3. Continuous Hinges	630 (US32D - Satin Stainless Steel)
4. Exit Devices	626 (US26D - Satin Chromium)
5. Locks and Latches	626 (US26D - Satin Chromium)
6. Pulls and Push Plates/Bars	630 (US32D - Satin Stainless Steel)
7. Closers	689 (Powder Coat Aluminum)
8. Protective Plates	630 (US32D - Satin Stainless Steel)
9. Overhead Stops	630 (US32D - Satin Stainless Steel)
10. Wall Stops and Holders	630 (US32D - Satin Stainless Steel)
11. Thresholds	719 (Mill Aluminum)
12. Weather-strip, Sweeps Drip Caps (wood and hollow metal doors)	Aluminum Anodized
13. Weather-strip, Sweeps Drip Caps (aluminum doors)	Match finish of aluminum doors.
14. Miscellaneous	626 (US26D - Satin Chromium)

2.15 KEYING

- A. Acceptable manufacturers and respective catalog numbers:
- Schlage
1. Everest 29
- B. Provide all locks and cylinders utilizing a patented keyway to prevent manufacturing and distribution of aftermarket key blanks by anyone other than factory authorized dealers.
- C. All locks under this section shall be keyed as directed by the owner to a new Patented Grand Master Key System.
- D. Keying shall be by lock manufacturer where permanent records shall be kept.
- E. Furnish a total of 2 keys per cylinder. Actual cut keys to be determined by owner.
- F. Master keys, control keys to be delivered by registered mail to the owner. Change keys shall be delivered in a set up key cabinet. Construction keys shall be delivered to the contractor.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to installation of hardware, installer shall examine door frame installation to ensure frames have been set square and plumb. Installer shall examine doors, door frames, and adjacent wall, floor, and

ceiling for conditions, which would adversely affect proper operation and function of door assemblies. Do not proceed with hardware installation until such deficiencies have been corrected.

3.2 INSTALLATION

- A. Before hardware installation, general contractor/construction manager shall coordinate a hardware installation seminar with a 1 week notice to all parties involved. The seminar is to be conducted on the installation of hardware, specifically of locksets, closers, exit devices, continuous hinges and overhead stops. Manufacturer's representative of the above products to present seminar. Seminar to be held at the job site and attended by installers of hardware (including low voltage hardware) for aluminum, hollow metal and wood doors. Training to include use of installation manuals, hardware schedule, templates and physical products samples.
- B. Shim doors as required to maintain proper operating clearance between door and frame.
- C. Install all hardware in accordance with the approved hardware schedule and manufacturer's instructions for installation and adjustment.
- D. Set units level, plumb and true to the line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- E. Provide blocking or reinforcement for all hardware mounted to drywall construction, including wall mounted door stops and holders.
- F. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accord with industry standards.
- G. Drill appropriate size pilot holes for all hardware attached to wood doors and frames.
- H. Unless otherwise specified, locate all hardware in accordance with the recommended locations for builders hardware for standard doors and frames as published by the Door and Hardware Institute (TDH-007-20).
- I. Use only fasteners supplied by or approved by the manufacturer for each respective item of hardware.
- J. Mortise and cut to close tolerance and conceal evidence of cutting in the finished work.
- K. Conceal push and pull bar fasteners where possible. Do not install through bolts through push plates.
- L. Install hardware on UL labeled openings in accordance with manufacturer's requirements to maintain the label.
- M. Apply self-adhesive gasketing on frame stop at head & latch side and on rabbet of frame at hinge side.
- N. Install hardware in accordance with supplemental "S" label instructions on all fire rated openings.
- O. Install wall stops to contact lever handles or pulls. Do not mount wall stops on casework, or equipment.
- P. Where necessary, adjust doors and hardware as required to eliminate binding between strike and latchbolt. Doors should not rattle.
- Q. Overhead stops used in conjunction with electrified hold open closers shall be templated and installed to coincide with engagement of closer hold open position.
- R. Install door closers on corridor side of lobby doors, room side of corridor doors, and stair side of stairways.
- S. Adjust spring power of door closers to the minimum force required to ensure exterior and fire rated doors will consistently close and latch doors under existing conditions. Adjust all other door closers to ensure opening force does not to exceed 5 lbs.
- T. Adjust "sweep", "latch", & "back check" valves on all door closers to properly control door throughout the opening and closing cycle. Adjust total closing speed as required to comply with all applicable state and local building codes.
- U. Install "hardware compatible" (bar stock) type weatherstripping continuously for an uninterrupted seal. Adjust templating for parallel arm door closers, exit devices, etc., as required to accommodate weatherstripping.

- V. Unless otherwise specified or detailed, install thresholds with the bevel in vertical alignment with the outside door face. Notch and closely fit thresholds to frame profile. Set thresholds in full bed of sealant.
- W. Compress sweep during installation as recommended by sweep manufacturer to facilitate a water-resistant seal.
- X. Deliver to the owner 1 complete set of installation and adjustment instructions, and tools as furnished with the hardware.

3.3 FIELD QUALITY CONTROL

- A. After installation has been completed, the hardware supplier and manufacturers representative for locksets, door closers, exit devices, and overhead stops shall check the project and verify compliance with installation instructions, adjustment of all hardware items, and proper application according to the approved hardware schedule. Hardware supplier shall submit a list of all hardware that has not been installed correctly.
- B. After installation has been completed, the hardware supplier and manufacturers representative shall meet with the owner to explain the functions, uses, adjustment, and maintenance of each item of hardware. Hardware supplier shall provide the owner with a copy of all wiring diagrams. Wiring diagrams shall be opening specific and include both a riser diagram and point to point diagram showing all wiring terminations.

3.4 ADJUSTMENT AND CLEANING

- A. At final completion, and when H.V.A.C. equipment is in operation, installer shall make final adjustments to and verify proper operation of all door closers and other items of hardware. Lubricate moving parts with type lubrication recommended by the manufacturer.
- B. All hardware shall be left clean and in good operation. Hardware found to be disfigured, defective, or inoperative shall be repaired or replaced.

3.5 HARDWARE SCHEDULE

- A. The following schedule of hardware groups are intended to describe opening function. The hardware supplier is cautioned to refer to the preamble of this specification for a complete description of all materials and services to be furnished under this section.

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HW SET: 01

1	EA	CONT. HINGE	112XY	IVE
1	EA	ELEC CLASSROOM LOCK	AD-200-CY-70-KP	SCE
1	EA	IC CYLINDER	AS REQUIRED	SCH
1	EA	SURFACE CLOSER	4050A SCUSH	LCN
1	EA	RAIN DRIP	142	ZER
1	SET	WEATHERSTRIP	570	ZER
1	EA	DOOR SWEEP W/DRIP	8198	ZER
1	EA	THRESHOLD	655	ZER

FUNCTION: LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. VALID TOGGLE CREDENTIALS MOMENTARILY UNLOCK LEVER OR TO CHANGE LOCKED/UNLOCKED STATUS. KEY RETRACTS LATCH. SOFTWARE PROGRAMMABLE.

HW SET: 02

1	EA	CONT. HINGE	112XY	IVE
1	EA	PANIC HARDWARE	LD-99-EO	VON
1	EA	MULLION/FRAME STABILIZER	154	VON
1	EA	ELEC EXIT DEVICE TRIM	AD-200-993R-70-KP	SCE
1	EA	SURFACE CLOSER	4050A SCUSH	LCN
1	EA	RAIN DRIP	142	ZER
1	EA	WEATHERSTRIP	BY DR/FR SUPPLIER	
1	EA	DOOR SWEEP W/DRIP	8198	ZER
1	EA	THRESHOLD	655	ZER

FUNCTION: (EO) LATCHBOLT RETRACTED INSIDE BY EXIT DEVICE PUSH PAD. NO DOGGING.
TRIM IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. VALID TOGGLE CREDENTIALS
MOMENTARILY UNLOCK LEVER OR TO CHANGE LOCKED/UNLOCKED STATUS. KEY RETRACTS LATCH. SOFTWARE
PROGRAMMABLE.

HW SET: 03

1	EA	CONT. HINGE	112XY	IVE
1	EA	PULL / PUSH BAR	10" X 1" DIA.	
1	EA	SURFACE CLOSER	4050A SCUSH	LCN

HW SET: 04

3	EA	BALL BEARING HINGES	AS SPECIFIED	
1	EA	ELEC CLASSROOM LOCK	AD-200-CY-70-KP	SCE
1	EA	IC CYLINDER	AS REQUIRED	SCH
1	EA	SURFACE CLOSER	4050A SCUSH	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	IVE
1	EA	RAIN DRIP	142	ZER
1	SET	WEATHERSTRIP	570	ZER
1	EA	DOOR SWEEP W/DRIP	8198	ZER
1	EA	THRESHOLD	655	ZER

FUNCTION: LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. VALID TOGGLE
CREDENTIALS MOMENTARILY UNLOCK LEVER OR TO CHANGE LOCKED/UNLOCKED STATUS. KEY RETRACTS
LATCH. SOFTWARE PROGRAMMABLE.

HW SET: 05

	EA	BALL BEARING HINGES	AS SPECIFIED	
1	EA	PANIC HARDWARE	LD-99-EO	VON
1	EA	MULLION/FRAME STABILIZER	154	VON
1	EA	ELEC EXIT DEVICE TRIM	AD-200-993R-70-KP	SCE
1	EA	SURFACE CLOSER	4050A SCUSH	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	IVE
1	EA	RAIN DRIP	142	ZER
1	SET	WEATHERSTRIP	570	ZER
1	EA	DOOR SWEEP W/DRIP	8198	ZER
1	EA	THRESHOLD	655	ZER

FUNCTION: (EO) LATCHBOLT RETRACTED INSIDE BY EXIT DEVICE PUSH PAD. NO DOGGING.
TRIM IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. VALID TOGGLE CREDENTIALS
MOMENTARILY UNLOCK LEVER OR TO CHANGE LOCKED/UNLOCKED STATUS. KEY RETRACTS LATCH. SOFTWARE
PROGRAMMABLE.

HW SET: 06

	EA	BALL BEARING HINGES	AS SPECIFIED	
1	EA	PRIVACY W/IND	L9040N L283-722	SCH
			FULL ESCUTCHEON	
1	EA	SURFACE CLOSER	4050A REG	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	IVE
1	EA	WALL BUMPER STOP		
1	EA	GASKETING	188S	ZER

FUNCTION: PRIVACY LOCK

LATCHBOLT RETRACTED BY LEVER FROM EITHER SIDE UNLESS OUTSIDE IS LOCKED BY INSIDE THUMBTURN. TURNING INSIDE LEVER OR CLOSING DOOR UNLOCKS OUTSIDE LEVER. TO UNLOCK FROM OUTSIDE, REMOVE EMERGENCY BUTTON, INSERT EMERGENCY TURN (FURNISHED) IN ACCESS HOLE AND ROTATE. OUTSIDE INDICATOR DISPLAYS OCCUPIED/VACANT

HW SET: 07

	EA	BALL BEARING HINGES	AS SPECIFIED	
1	EA	ELEC CLASSROOM LOCK	AD-200-CY-70-KP	SCE
1	EA	IC CYLINDER	AS REQUIRED	SCH
1	EA	SURFACE CLOSER	4050A HREG	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	IVE
1	EA	WALL BUMPER STOP		

FUNCTION: LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. VALID TOGGLE CREDENTIALS MOMENTARILY UNLOCK LEVER OR TO CHANGE LOCKED/UNLOCKED STATUS. KEY RETRACTS LATCH. SOFTWARE PROGRAMMABLE.

HW SET: 08

	EA	BALL BEARING HINGES	AS SPECIFIED	
1	EA	ELEC CLASSROOM LOCK	AD-200-CY-70-KP	SCE
1	EA	IC CYLINDER	AS REQUIRED	SCH
1	EA	WALL BUMPER STOP		

FUNCTION: LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. VALID TOGGLE CREDENTIALS MOMENTARILY UNLOCK LEVER OR TO CHANGE LOCKED/UNLOCKED STATUS. KEY RETRACTS LATCH. SOFTWARE PROGRAMMABLE.

HW SET: 09

	EA	BALL BEARING HINGES	AS SPECIFIED	
1	EA	ELEC CLASSROOM LOCK	AD-200-CY-70-KP	SCE
1	EA	IC CYLINDER	AS REQUIRED	SCH
1	EA	SURFACE CLOSER	4050A REG	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	IVE
1	EA	WALL BUMPER STOP		

FUNCTION: LOCKSET IS NORMALLY SECURE. INSIDE LEVER ALWAYS ALLOWS FREE EGRESS. VALID TOGGLE CREDENTIALS MOMENTARILY UNLOCK LEVER OR TO CHANGE LOCKED/UNLOCKED STATUS. KEY RETRACTS LATCH. SOFTWARE PROGRAMMABLE.

HW SET: 10

50	EA	FOB	7610	SCE
1	EA	SCHLAGE READER	SXPR-SFT-1	SCE
1	EA	CABLE	SUS-A	SCE
6	EA	END USER TRAINING	(HOURS) ON SITE (BY HWRS SUPPLIER)	

SECTION 32 40 00
SITE ACCESSORIES

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes providing:
 - 1. Accessible ADA Signage.
 - 2. No Parking Sign
- B. Method of Measurement:
 - 1. Measure by each complete unit installed, per each.
- C. Basis of Payment:
 - 1. Payment for acceptable quantities of signage shall be at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental.

1.02 REFERENCES

- A. MnDOT:
 - 1. 3402 - Square Tubular Sign Posts

1.03 SUBMITTALS

- A. Refer to Section 01 33 00.
- B. Submit:
 - 1. Manufacturer's current Product Data, including specifications, handling, storage and installation instructions, and maintenance recommendations.
 - 2. Shop Drawings.
 - 3. Manufacturer's standard color samples.
- C. Provide with Product Data: Buy-American Certification and/or Build America, Buy America (BABA) for manufactured goods of products supplied, steel or iron products, if applicable.

1.04 QUALITY ASSURANCE

- A. Single Source Responsibility: Provide site accessory units as coordinated assemblies made from components of standard construction furnished by 1 manufacturer for each system.
- B. Qualifications:
 - 1. Manufacturer:
 - a. 5 years' experience in the manufacture of site accessories.
 - b. Fully integrated recycler of post-consumer plastics.
 - c. Provides established program for return and reuse of foam packaging materials.
 - 2. Contractor: Use personnel skilled in work required, completely familiar with manufacturer's recommended methods of installation and thoroughly familiar with requirements of Work.
- C. Field samples: If requested, furnish sample of each type of site accessory to Engineer for review prior to installation.
- D. Regulatory Requirements: Comply with ADA requirements for site accessories.

1.05 PROJECT CONDITIONS

- A. Inspect Site prior to installation. If conditions do not meet approval, notify Engineer immediately.

PART 2 PRODUCTS

2.01 SIGNAGE

- A. Handicap Parking Sign:
 - 1. See MnDOT Details R7-8a attached.
 - 2. Van-accessible sign is not required, as minimum vertical clearance is met.
- B. No Parking Sign:
 - 1. See MnDOT Details R7-2 attached.
- C. Sign Post and Rails:
 - 1. Conform to requirements of ASTM A120 for galvanized steel "standard weight" pipe, unthreaded and not subjected to hydrostatic stress.
 - 2. Conforming to MnDOT 3402.

PART 3 EXECUTION

3.01 SIGNAGE INSTALLATION


- A. Sign Posts: Set in concrete footing 10 inches in diameter and 30 inches deep. Comply with MnDOT 2564.3.
- B. When signage is to be installed in a concrete slab or area, provide a 4-inch diameter PVC sleeve of equal length to the proposed concrete thickness prior to placement of the concrete and fill PVC sleeve with Aggregate Base.

3.02 CLEANING

- A. After installation, clean all surfaces.
- B. Clean up remnants of excavation, concrete, other construction materials, and equipment used in Work.
- C. Separate and recycle waste materials in accordance with waste management plan and to extent economically feasible.



R7-8a		Blue on White	300 x 450	12 x 18	CR	2B.34 2B.36.1
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R7-8b		Blue on White	300 x 150	12 x 6	CR	2B.36.1
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R7-2 12 X 18

END OF SECTION

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Superseded General Decision Number: MN20220129

State: Minnesota

Construction Type: Building

County: St Louis County in Minnesota.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023
1	01/20/2023
2	05/19/2023

ASBE0034-001 06/13/2022

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 41.00	37.99

BOIL0647-008 04/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 40.94	28.44

BRMN0001-010 05/02/2022		
	Rates	Fringes
BRICKLAYER.....	\$ 40.71	29.42

BRMN0001-019 05/01/2018		
	Rates	Fringes
TILE FINISHER.....	\$ 25.13	5.54
TILE SETTER.....	\$ 25.89	24.34

CARP0361-008 05/02/2022		
	Rates	Fringes
CARPENTER (Includes Drywall Hanging, and Form Work, and Excludes Soft Floor Layer).....	\$ 33.74	25.20
SOFT FLOOR LAYER.....	\$ 38.91	22.03

ELEC0242-002 05/31/2021		
	Rates	Fringes
ELECTRICIAN.....	\$ 41.37	28.81

ENGI0049-019 05/01/2020		
	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Bulldozer.....	\$ 40.93	21.70
Crane.....	\$ 42.35	21.70
Drill.....	\$ 40.93	21.70
Forklift.....	\$ 40.93	21.70
Loader.....	\$ 40.93	21.70
Oiler.....	\$ 38.30	21.70
Roller.....	\$ 40.93	21.70

IRON0512-025 05/01/2022		
	Rates	Fringes
IRONWORKER (Structural and Reinforcing).....	\$ 36.94	33.11

* LAB01091-025 05/01/2022		
	Rates	Fringes
LABORER		
Asbestos Abatement (Removal from Ceilings, Floors, and Walls).....	\$ 35.13	21.55
Common or General.....	\$ 29.92	21.69
Mason Tender - Brick/Cement/Concrete.....	\$ 30.62	21.69
Pipelayer.....	\$ 39.03	22.64

* PAIN0106-007 05/01/2023		
	Rates	Fringes
GLAZIER.....	\$ 34.62	25.57

* PAIN0106-009 05/02/2022		
	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 33.99	23.45

* PAIN0386-010 05/02/2022		
	Rates	Fringes

PAINTER (Spray).....	\$ 40.48	25.27

PLAS0633-008 05/01/2021		
	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 35.76	20.88

PLAS0633-011 05/01/2021		
	Rates	Fringes
PLASTERER.....	\$ 36.24	21.13

PLUM0011-007 05/02/2022		
	Rates	Fringes
PIPEFITTER (Includes HVAC Pipe Installation and Excludes HVAC Unit Installation).....	\$ 45.32	24.78
PLUMBER (Excludes HVAC Pipe and Unit Installation).....	\$ 45.32	24.78

ROOF0096-019 07/01/2022		
	Rates	Fringes
ROOFER.....	\$ 38.47	19.80

SHEE0010-034 04/02/2022		
	Rates	Fringes
SHEET METAL WORKER (Includes HVAC Duct and Unit Installation).....	\$ 40.03	29.73

* UAVG-MN-0024 01/01/2023		
	Rates	Fringes
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 42.34	23.50

* UAVG-MN-0025 01/01/2023		
	Rates	Fringes
PAINTER (Brush and Roller).....	\$ 33.17	23.45

SUMN2015-064 06/22/2018		
	Rates	Fringes
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 32.03	14.80
TRUCK DRIVER: Dump Truck.....	\$ 23.43	12.33

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other

health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

Superseded General Decision Number: MN20220040

State: Minnesota

Construction Type: Heavy

County: St Louis County in Minnesota.

HEAVY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023
1	05/19/2023

BOIL0647-004 04/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 40.94	28.44

CARP0361-020 05/02/2022		

ST LOUIS COUNTY (Southern 1/3 including Cotton, Floodwood, Fond Du Lac, and Proctor)

Rates	Fringes
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CARPENTER (Including Form Work).....	\$ 38.21	27.58
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CARP0361-021 05/02/2022

ST LOUIS (Duluth)

	Rates	Fringes
CARPENTER (Including Form Work).....	\$ 38.21	27.58

CARP0606-010 05/02/2022

ST LOUIS COUNTY (Northeast 2/3 including Cook, Cusson, Ely; and Western part including Chisholm, Greaney, and Orr)

	Rates	Fringes
CARPENTER (Including Form Work).....	\$ 38.21	27.58

ELEC0242-012 05/31/2021

ST. LOUIS (South part bounded on the north by the north line of Kelsey Township extended east & west)

	Rates	Fringes
ELECTRICIAN.....	\$ 41.37	28.81

ELEC0294-006 05/29/2022

ST. LOUIS (North part bounded on the south by the south line of Ellsburg Township, extended east & west)

	Rates	Fringes
ELECTRICIAN.....	\$ 41.89	29.54

ENGI0049-064 05/01/2022

	Rates	Fringes
OPERATOR: Power Equipment		
Group 2.....	\$ 42.14	23.45
Group 3.....	\$ 41.59	23.45
Group 4.....	\$ 41.29	23.45
Group 5.....	\$ 38.25	23.45
Group 6.....	\$ 37.04	23.45

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

- GROUP 2: Crane with over 135' Boom, excluding jib; Dragline & Hydraulic Backhoe with shovel-type controls, 3 cubic yards and over; Grader/Blade finishing earthwork and bituminous.
- GROUP 3: Dragline & Hydraulic Backhoe with shovel-type controls up to 3 cubic yards; Loader 5 cu yd and over; Mechanic; Tandem Scraper; Truck Crane; Crawler Crane
- GROUP 4: Bituminous Roller 8 tons & over; Crusher/Crushing Plant; Drill Rig; Elevating Grader; Loader over 1 cu yd; Grader; Pump; Scraper up; to 32 cu yd; Farm Tractor with Backhoe attachment; Skid Steer Loader over 1 cu yd with Backhoe attachment; Bulldozer over 50 hp.
- GROUP 5: Bituminous Roller under 8 tons; Bituminous Rubber Tire Roller; Loader up to 1 cu yd; Bulldozer 50 hp or less.
- GROUP 6: Oiler; Self-Propelled Vibrating Packer 35 hp and over.

CRANE OVER 135' BOOM, EXCLUDING JIB - \$.25 PREMIUM;

CRANE OVER 200' BOOM, EXCLUDING JIB - \$.50 PREMIUM

UNDERGROUND WORK:
UNNELS, SHAFTS, ETC. - \$.25 PREMIUM
UNDER AIR PRESSURE - \$.50 PREMIUM

HAZARDOUS WASTE PROJECTS (PPE Required):
LEVEL A - \$1.25 PREMIUM
LEVEL B - \$.90 PREMIUM
LEVEL C - \$.60 PREMIUM

IRON0512-028 05/01/2022

	Rates	Fringes
IRONWORKER, STRUCTURAL AND REINFORCING.....	\$ 36.94	33.11

* LAB01091-006 05/01/2022

ST LOUIS (South of T. 55 N)

	Rates	Fringes
LABORERS		
(1) Common or General.....	\$ 35.53	22.64
(2) Mason Tender		
Cement/Concrete.....	\$ 35.73	22.64
(6) Pipe Layer.....	\$ 39.03	22.64

* LAB01091-007 05/01/2022

SOUTHERN ST. LOUIS COUNTY

	Rates	Fringes
LABORER		
Common or General (Natural Gas Pipeline only).....	\$ 35.53	22.64

* LAB01097-002 05/01/2022

NORTHERN ST. LOUIS COUNTY

	Rates	Fringes
LABORER		
Common or General (Natural Gas Pipeline only).....	\$ 33.62	24.58

* LAB01097-005 05/01/2022

ST LOUIS (North of T. 55 N)

	Rates	Fringes
LABORERS		
(1) Common or General.....	\$ 33.62	24.58
(2) Mason Tender		
Cement/Concrete.....	\$ 33.82	24.58
(6) Pipe Layer.....	\$ 37.12	24.58

PLAS0633-036 05/01/2021

ST. LOUIS COUNTY (North of T 55N)

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 34.83	19.25

PLAS0633-039 05/01/2021

ST. LOUIS COUNTY (South of T 55N)

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 38.55	21.38

	Rates	Fringes
TRUCK DRIVER (DUMP)		
(1) Articulated Dump Truck..\$ 35.25		21.45
(2) 3 Axles/4 Axles; 5 Axles receive \$0.30 additional per hour.....\$ 34.70		21.45
(3) Tandem Axles; & Single Axles.....\$ 34.60		21.45

* SUMN2009-072 09/28/2009

	Rates	Fringes
LABORER: Landscape.....\$ 12.88 **		4.61

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number,

005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

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Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

Superseded General Decision Number: MN20220022

State: Minnesota

Construction Type: Residential

Counties: Carlton and St Louis Counties in Minnesota.

RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023
1	01/20/2023
2	05/19/2023

CARP0361-016 05/02/2022

CARLTON, ST LOUIS (Southern area including Duluth)

	Rates	Fringes
CARPENTER.....	\$ 30.02	15.14

CARP0606-020 05/02/2022		

ST. LOUIS (Remaining northern area)

	Rates	Fringes
CARPENTER.....	\$ 24.72	20.20
PILEDRIVERMAN.....	\$ 41.14	27.05

ELEC0242-020 05/31/2021

CARLTON & ST. LOUIS (South part bounded on the north by the north line of Kelsey Township extended east & west)

	Rates	Fringes
ELECTRICIAN.....	\$ 41.37	28.81

ELEC0294-003 05/29/2022

ST. LOUIS (North part bounded on the south by the south line of Ellsburg Township, extended east & west)

	Rates	Fringes
Electricians:		
(1) Up to & including 6-plex under one roof.....	\$ 32.16	24.94
(2) All other work.....	\$ 41.89	29.54

ENGI0049-060 05/01/2012

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 2.....	\$ 34.85	15.95
GROUP 4.....	\$ 33.10	15.95
GROUP 5.....	\$ 32.93	15.95
GROUP 6.....	\$ 31.42	15.95
GROUP 8.....	\$ 28.29	15.95

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

- GROUP 2: Grader/Blade
- GROUP 4: Backhoe
- GROUP 5: Bulldozer, Curb Machine, Forklift, Loader over 1 cu yd, Mechanic, Roller, Scraper, Tractor over D2.
- GROUP 6: Loader up to 1 cu yd, Tractor D2 or similar size.
- GROUP 8: Oiler.

IRON0512-038 05/01/2022

	Rates	Fringes
IRONWORKER (STRUCTURAL).....	\$ 36.94	33.11

* LAB01091-018 05/01/2022

CARLTON, ST LOUIS (South of T 55 N)

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 29.92	21.69
GROUP 3.....	\$ 30.32	21.69
GROUP 4.....	\$ 30.62	21.69

LABORER CLASSIFICATIONS

- GROUP 1: Common or General
- GROUP 3: Pipelayer
- GROUP 4: Mason Tender (Brick, Cement/Concrete)

LAB01097-020 05/01/2012

ST.LOUIS (North of T 55N)

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 20.62	16.25
GROUP 2.....	\$ 21.02	14.84

LABORERS CLASSIFICATIONS

GROUP 1 - Common or General, Mason Tender (Brick, Cement/Concrete)	
GROUP 2 - Pipelayer	

PAIN0106-004 05/02/2016	

	Rates	Fringes
PAINTER (SPRAY).....	\$ 29.86	16.35

PLUM0011-025 05/02/2022		
	Rates	Fringes
PLUMBER.....	\$ 45.32	24.78

ROOF0096-056 07/01/2020		
CARLTON, ST. LOUIS (South of Hwy 16, excluding City of Forbes)		
	Rates	Fringes
ROOFER.....	\$ 35.10	18.42

ROOF0096-057 05/01/2022		
ST. LOUIS (Remaining Northern two-thirds)		
	Rates	Fringes
ROOFER.....	\$ 34.22	16.60

SHEE0010-002 05/01/2022		
CARLTON, ST. LOUIS (Southern one-third)		
	Rates	Fringes
SHEET METAL WORKER.....	\$ 29.51	21.16

SHEE0010-003 05/02/2022		
KOOCHICHING & ST. LOUIS (Northern two-thirds) COUNTIES		
	Rates	Fringes
SHEET METAL WORKER.....	\$ 27.40	23.27

* SUMN2009-059 07/27/2009		
	Rates	Fringes
LABORER: Landscape.....	\$ 11.50 **	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave

for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- * an existing published wage determination
 - * a survey underlying a wage determination
 - * a Wage and Hour Division letter setting forth a position on a wage determination matter
 - * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

- 2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

- 3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

- 4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

Disadvantaged Business Enterprise (DBE) Special Provisions

Project Information	
State Project Number:	This contract uses the following project delivery method:
This contract will be solicited and administered by: <input type="checkbox"/> The Minnesota Department of Transportation (MnDOT) <input checked="" type="checkbox"/> A local governmental unit	<input checked="" type="checkbox"/> Design-bid-build (DBB) <input type="checkbox"/> Design-build (DB) <input type="checkbox"/> Construction Manager/General Contractor (CM/GC) <p style="text-align: center;">OR</p> <input type="checkbox"/> This is a professional-technical (PT) services contract

Introduction

Federal Regulations Govern. Some or all of the funds for this contract will come from the U.S. Department of Transportation (USDOT). Therefore, the federal Disadvantaged Business Enterprise (DBE) program described at Title 49, Part 26 of the Code of Federal Regulations (CFR) applies to this contract. The responder is responsible for understanding and following the requirements of 49 CFR Part 26.

Purpose. These special provisions (1) outline the responder's obligations under the federal DBE program, (2) explain the process MnDOT Office of Civil Rights (OCR) will follow to evaluate the responder's compliance with DBE program requirements, and (3) identify sanctions for failing to comply with DBE program requirements. These provisions apply *in addition to* any other requirements applicable to award of this contract.

Policy Statement. MnDOT must ensure nondiscrimination in the award and administration of federally eligible highway projects. The DBE program seeks to:

- Create a level playing field on which DBEs can compete fairly for federally eligible highway projects,
- Ensure that the DBE program is narrowly tailored,
- Ensure that only eligible firms are permitted to participate as DBEs,
- Help remove barriers to the participation of DBEs in federally eligible highway projects, and
- Provide flexibility in establishing and providing opportunities for DBEs.

Contract Assurance. The USDOT requires MnDOT, as a recipient of federal funds, to include the following paragraph in contracts for federally funded projects. It applies to the responder, and the responder must also include it in subcontracts the responder executes for this project.

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to, (1) withholding monthly progress payments, (2) assessing sanctions, (3) liquidated damages, and/or (4) disqualifying the contractor from future bidding as non-responsible.

Application and Interpretation. Terms must be interpreted as follows:

- "Responder" refers to the bidder, apparent low bidder, proposer, or apparent successful proposer.
- "Proposal" includes a bid, proposal or price proposal.

- “CRL” refers to AASHTOWare Project Civil Rights and Labor. For additional information about CRL, see **Attachment 5**.

DBE Directory. A directory of all certified DBEs in the state of Minnesota is available at the following link:

<http://mnucp.metc.state.mn.us/Default.aspx>

The Minnesota Unified Certification Program (MnUCP) maintains this directory. It is the definitive source of information regarding the DBE certification status of firms in Minnesota. A firm must be certified prior to contract execution in order to qualify for credit toward the DBE goal.

False Claims. The Federal False Claims Act (31 USC §§ 3729-3733) and Minnesota False Claims Act (Minn. Stat. § 15C.02) apply to statements and certifications the responder makes in connection with the DBE program.

Before Contract Award

DBE Goal

The DBE goal for this project is 6.4%. or ☐ Race/Gender Neutral

To be eligible for award of this contract, the responder must demonstrate that the responder has (1) obtained sufficient DBE participation to meet the DBE goal or (2) made adequate good faith efforts (GFE) to meet the DBE goal. The responder must submit the information specified in **Table A** in the time specified in **Table B**. If the contract has a specific numerical DBE participation goal, all responders must include their DBE commitment for the contract at the time the proposal is submitted. If the responder does not properly document the responder’s efforts or submit timely and complete documentation to MnDOT OCR, MnDOT must reject the responder’s bid.

Race/Gender Neutral Goal

If the DBE goal is Race/Gender Neutral (RGN), all responders are encouraged to include their anticipated DBE utilization for the contract in their proposals. **Each responder will still be required to submit a bidders list of all subcontractors and suppliers (both DBE and non-DBE) on projects with an RGN goal.** While DBE participation is encouraged on proposals with an RGN goal, responders are not required to submit GFE documentation specified in **Table A, other than a bidders list (parts D and E of Exhibit B, the GFE Consolidated form)**. Payment information described in **Table C** is required on **all projects**.

DBE Credit

DBE work may be counted toward the DBE goal for any of the following activities:

- hiring a DBE as a subcontractor or consultant to do project work,
- purchasing materials from a DBE (typically sixty percent of the supplier’s contracted amount will count toward the goal),
- leasing equipment from a DBE,
- entering into a joint venture with a DBE (this requires approval from OCR before bid opening), or
- using DBEs for other services specifically approved by OCR before bid opening.
- If the responder is an eligible DBE, the responder may count all work being self-performed towards the subcontractor goals on this project.

DBE credit is counted for work actually performed by a DBE. The DBE must perform a commercially useful function. **Attachment 1** describes how MnDOT will count DBE credit and how MnDOT will determine whether a DBE performs a commercially useful function.

Table A – What to Submit to MnDOT	
<input type="checkbox"/> Design-bid-build administered by MnDOT <input type="checkbox"/> Construction Manager/General Contractor administered by MnDOT <input type="checkbox"/> Design-build administered by MnDOT	<input checked="" type="checkbox"/> Construction Contract administered by local governmental unit <input type="checkbox"/> PT contract administered by MnDOT or local governmental unit
IF THE DBE GOAL IS MET	IF THE DBE GOAL IS MET
<ul style="list-style-type: none"> • Exhibit A for each DBE participating on the project • Parts A, B, C, D, and I of the GFE consolidated form • The responder must submit their bidders list or bidder/quoter information electronically via CRL. For this reason, the responder does not need to fill out parts E of the GFE consolidated form. 	<ul style="list-style-type: none"> • Exhibit A for each DBE participating on the project • Parts A, B, C, D, E, and I of the GFE consolidated form
IF THE DBE GOAL IS NOT MET	IF THE DBE GOAL IS NOT MET
<ul style="list-style-type: none"> • Exhibit A for each DBE participating on the project • Parts A, B, C, D, F, G, H and I of the GFE consolidated form • The responder must submit the bidders list or bidder/quoter information electronically via CRL. For this reason, the responder does not need to fill out part E of the GFE consolidated form. • Any additional information that will help explain the responder's efforts to obtain DBE participation (ONLY IF the responder does not meet the DBE goal) 	<ul style="list-style-type: none"> • Exhibit A for each DBE participating on the project • Parts A, B, C, D, E, F, G, H and I of the GFE consolidated form • Any additional information that will help explain the responder's efforts to obtain DBE participation (ONLY IF the responder does not meet the DBE goal)

Table B – When and How to Submit Information to MnDOT

<input type="checkbox"/> Design-bid-build	<input type="checkbox"/> Professional-technical
<p><u>Date and Time</u> The submission due date is the 5th calendar day after the bid due date. Documentation is due before 4:30 PM Central Time on the 5th calendar day after the bids are due.</p> <p><u>Format and Location</u> The responder can submit documents via email, fax, hand delivery, or U.S. mail. Submit to MnDOT OCR as follows:</p> <p>Email: ocrformsubmissions.DOT@state.mn.us</p> <p>Fax: 651-366-3129.</p> <p>To hand-deliver or submit by U.S. mail, address printed documents to MnDOT Office of Civil Rights, 395 John Ireland Boulevard, Mail Stop 170, St. Paul, MN 55155. Submissions by U.S. mail will satisfy the timing requirement if <u>postmarked</u> by the time specified in the “Date and Time” section above.</p>	<p><u>Date and Time</u> The submission due date is the 5th calendar day after the successful responder is notified by MnDOT. Documentation is due before 4:30 PM Central Time on the 5th calendar day after the date of the successful responder letter/email issued by MnDOT.</p> <p><u>Format and Location</u> The responder can submit documents via email, fax, hand delivery, or U.S. mail. Submit to MnDOT OCR as follows:</p> <p>Email: ocrformsubmissions.DOT@state.mn.us</p> <p>Fax: 651-366-3129.</p> <p>To hand-deliver or submit by U.S. mail, address printed documents to MnDOT Office of Civil Rights, 395 John Ireland Boulevard, Mail Stop 170, St. Paul, MN 55155. Submissions by U.S. mail will satisfy the timing requirement if <u>postmarked</u> by the time specified in the “Date and Time” section above.</p>
<input type="checkbox"/> Construction Manager/General Contractor	<input type="checkbox"/> Design-build
<p><u>Date and Time</u> The submission due date is the letting date. Documentation is due before 4:30 PM Central Time on the letting date. Subsequent bid packages are due no later than 4:30 PM on the fifth calendar day following the letting of that bid package.</p> <p><u>Format and Location</u> The responder can submit documents via email, fax, hand delivery, or U.S. mail. Submit to MnDOT OCR as follows:</p> <p>Email: ocrformsubmissions.DOT@state.mn.us</p> <p>Fax: 651-366-3129.</p> <p>To hand-deliver or submit by U.S. mail, address printed documents to MnDOT Office of Civil Rights, 395 John Ireland Boulevard, Mail Stop 170, St. Paul, MN 55155. Submissions by U.S. mail will satisfy the timing requirement if <u>postmarked</u> by the time specified in the “Date and Time” section above.</p>	<p><u>Date and Time</u> The submission due date is 9:30AM on the Price Proposal due date. Documentation is due no later than 9:30AM on the Price Proposal due date.</p> <p><u>Format and Location</u> See the Design-Build “Instructions to Proposers” for format and location delivery specifics.</p>
On All Projects	
If the date the responder’s submission is due is a Saturday, Sunday, federal holiday, or Minnesota state holiday, the documentation is due on the next calendar day that is not a Saturday, Sunday, federal holiday, or Minnesota state holiday.	
The responder may submit a written request for an extension from the Director of MnDOT Office of Civil Rights for good cause shown. However, until the responder receives written approval of their request, the due date for its submission remains as specified above.	

If the responder does not meet the DBE goal, MnDOT OCR will conduct a Good Faith Efforts (GFE) review to determine whether the responder made adequate GFE to meet the goal based on the documentation the responder has provided by the submission due date. The standards MnDOT OCR will use to evaluate GFE are described in **Attachment 2**. Also, if MnDOT OCR determines that the responder did not make adequate GFE to meet the goal, the responder will be deemed non-responsible. The responder may request an administrative reconsideration of that determination. The process for administrative reconsideration is described in **Attachment 3**.

After Contract Award

DBE Commitments, Termination, and Replacement

The DBE Description of Work and Field Monitoring Report (Exhibit A) commits the responder to using the specified DBEs to perform work or supply materials. This commitment is binding on the responder unless the responder requests and is granted written approval from MnDOT OCR. If the responder fails to use a specified DBE for the amount of compensation the responder has specified in the Exhibit A form, without requesting and receiving written approval from MnDOT OCR, the responder has materially breached this contract and may not be entitled to payment for the work or materials that were committed to be performed by the DBE.

MnDOT OCR will not approve the responder's request to terminate a DBE unless the responder (1) gives written notice to the DBE, with a copy to MnDOT OCR, of the responder's intent to request to terminate the DBE's subcontract, (2) allow at least five business days for the DBE to advise the responder and MnDOT OCR of the reasons, if any, it objects to the proposed request to terminate, (3) demonstrate good cause to terminate the DBE as described in **Attachment 4**, and (4) either replace the DBE with another DBE for at least as much compensation as the initially specified DBE or make GFE to do so. MnDOT OCR will use the GFE standards described in **Attachment 2** to determine whether the responder made GFE. MnDOT OCR may shorten the five-day DBE response period if there is a public necessity. The responder may request assistance from MnDOT OCR to identify available replacement DBEs.

If the responder is involved in a negotiated procurement with MnDOT, the responder must obtain written approval from MnDOT as described in this section before deleting or substituting a DBE the responder has identified as part of a negotiation package. The responder must notify MnDOT OCR of any changes or substitutions to DBE participation, including changes occurring during the negotiation phase of the contract.

Continuing Good Faith Efforts

After contract award, the Contractor has a continuing obligation to make adequate good faith efforts to meet the DBE goal for the duration of the contract. Good faith efforts are explained in **Attachment 2**. To receive credit for DBE participation added after award, the responder must report the participation to MnDOT OCR and submit a DBE Description of Work and Field Monitoring Report (Exhibit A).

Prompt Payment to Subcontractors

The responder must pay each subcontractor no later than 10 business days of receiving payment for undisputed services provided by the subcontractor. This applies to all subcontractors. The responder must pay the subcontractor interest charges of 1.5 percent per month, or any part of a month, on any undisputed amount not paid within 10 days. The responder must make prompt and full payment of any retainage kept by the prime contractor to the subcontractor within 10 days after the subcontractor's work is satisfactorily completed "Satisfactorily completed" means all tasks identified in the subcontract have been accomplished and documented as required by MnDOT. If MnDOT has incrementally accepted a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

The responder must report payment information as specified in **Table C**. **If the responder fails to comply with prompt payment requirements, including reporting requirements, the responder has materially breached this contract.**

Furthermore, verification of the responder's final payment to each subcontractor is a condition of final clearance from MnDOT OCR and final payment from MnDOT.

Table C – Required Payment Submissions	
<input type="checkbox"/> Design-bid-build administered by MnDOT <input type="checkbox"/> Construction Manager/General Contractor administered by MnDOT <input type="checkbox"/> Design-build administered by MnDOT	<input checked="" type="checkbox"/> Construction Contract administered by local gov't unit <input type="checkbox"/> PT contract administered by MnDOT
<p>Within 10 business days of the responder's receipt of MnDOT payment:</p> <ul style="list-style-type: none"> the responder must submit information about individual payments to subcontractors via CRL. <p>When final payment has been made to subcontractors:</p> <ul style="list-style-type: none"> the responder must submit information about the responder's final payment to each subcontractor via CRL. the responder must submit a Total Payment Affidavit to MnDOT OCR after final payment to all DBE subcontractors. <p>To fax your submission, use 651-366-3129.</p> <p>To email your submission, attach documents as PDFs and send to ocrformsubmissions.dot@state.mn.us</p> <p>To submit by U.S. mail, address printed documents to MnDOT Office of Civil Rights, 395 John Ireland Boulevard, Mail Stop 170, St. Paul, MN 55155.</p>	<p>Within 10 business days of the responder's receipt of MnDOT or Local Government Unit payment:</p> <ul style="list-style-type: none"> the responder must submit a Contractor Payment Form to MnDOT after each payment to a subcontractor. <p>When final payment has been made to all subcontractors:</p> <ul style="list-style-type: none"> the responder must submit a Total Payment Affidavit to MnDOT OCR after final payment to all DBE subcontractors. <p>To fax your submission, use 651-366-3129.</p> <p>To email your submission, attach documents as PDFs and send to ocrformsubmissions.dot@state.mn.us</p> <p>To submit by U.S. mail, address printed documents to MnDOT Office of Civil Rights, 395 John Ireland Boulevard, Mail Stop 170, St. Paul, MN 55155.</p>

Appendices

Explanatory Attachments

- Attachment 1 – Counting and Commercially Useful Function
- Attachment 2 – Good Faith Efforts Documentation and Standards
- Attachment 3 – Administrative Reconsideration
- Attachment 4 – Good Cause to Terminate a DBE
- Attachment 5 – Information about AASHTOWare Project CRL

Forms

- Exhibit A – DBE Description of Work and Field Monitoring Report
- Exhibit B – GFE Consolidated Form (Parts A-I)
- Exhibit C – Contractor Payment Form
- Exhibit D – Total Payment Affidavit

Attachment 1 – Counting and Commercially Useful Function

DBE Counting – Generally

- (a) When a DBE participates in a contract, MnDOT will only count the value of the work actually performed by the DBE toward DBE goals.
1. The entire amount of the portion of a construction contract (or other contract not covered by paragraph 49 C.F.R. § 26.55(a)(2)) that is performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies, and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).
 2. The entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, counts toward DBE goals, provided that MnDOT determines the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.
 3. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontract work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm will not count toward DBE goals.
- (b) When a DBE performs as a participant in a joint venture, MnDOT will count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces toward DBE goals.
- (c) If a firm is not currently certified as a DBE in accordance with the standards of 49 CFR Part 26 subpart D at the time of execution of the contract, MnDOT will not count the firm's participation toward any DBE goals.
- (d) The dollar value of the work performed under a contract with a firm after it has ceased to be certified will not be counted toward the overall goal.
- (e) MnDOT will not count the participation of a DBE subcontractor toward the responder's final compliance with the responder's DBE obligations on a contract until the responder has paid the amount to the DBE.

DBE Counting – Materials and Supplies

- (f) MnDOT will count the responder's expenditures with DBEs for materials or supplies toward DBE goals as follows.
1. MnDOT will count 100% of the cost of the materials or supplies toward DBE goals if the responder obtains the materials or supplies from a DBE manufacturer.
 2. For purposes of this section (f), a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described in the specifications.
 3. If the responder purchases the materials or supplies from a DBE regular dealer, MnDOT will count 60% of the cost of the materials or supplies toward DBE goals.
 4. For purposes of this section (f), a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the

specifications and required under the contract are bought, kept in stock, and regularly sold to or leased to the public in the usual course of business.

- A. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
- B. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating, or maintaining a place of business as provided in 49 C.F.R. §26.55(e)(2)(ii) if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long -term lease agreement and not on an ad hoc or contract-by-contract basis.
- C. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this section (e).
- D. If a DBE firm is supplying bulk materials such as petroleum products, steel, cement, gravel, stone or asphalt which are delivered to the project site or a commercial establishment for processing or storage prior to reaching the project site, the firm will receive 60% credit only for the total cost of materials and associated hauling used on this contract.

(g) With respect to materials or supplies the responder purchases from a DBE which is neither a manufacturer nor a regular dealer, MnDOT will count the entire amount of fees or commissions the responder pays for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE goals, provided MnDOT determines the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. MnDOT, however, will not count any portion of the cost of the materials or supplies themselves toward DBE goals.

Commercially Useful Function – Generally

(h) MnDOT will count expenditures of a DBE toward DBE goals only if the DBE performs a commercially useful function on the contract.

- 1. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, MnDOT will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and DBE credit claimed for its performance of the work, and other relevant factors.
- 2. A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which the funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, MnDOT must examine similar transactions, particularly those in which DBEs do not participate.
- 3. If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, MnDOT must presume that it is not performing a commercially useful function.

4. When a DBE is presumed not to be performing a commercially useful function as provided in the preceding paragraph, the DBE may present evidence to rebut this presumption. MnDOT may determine that the firm is performing a commercially useful function given the type of work involved and normal industry practices.
5. MnDOT decisions regarding commercially useful function are subject to review by the concerned operating administration but are not administratively appealable to DOT.

Commercially Useful Function – Trucking

(i) MnDOT will use the following factors to determine whether a DBE trucking company performs a commercially useful function.

1. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of the meeting DBE goals.
2. The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
3. The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures and operates using drivers it employs.
4. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
5. The DBE may lease trucks equipped with drivers from a non-DBE firm. In such a case, the DBE is entitled to credit for the total value of transportation services provided by the non-DBE firm not to exceed the value of transportation services provided by DBE-owned trucks or leased trucks with DBE employees. Additional participation by trucks and drivers from non-DBE firms will receive credit only for the fee or commission paid to the non-DBE firm as a result of the lease arrangement.
6. The DBE may also lease trucks without drivers from a non-DBE firm. If the DBE firm uses its own employees to drive the leased trucks, the DBE firm is entitled to credit for the full value of the transportation services.
7. For purposes of this section, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for the use of the leased truck. Leased trucks must display the name and identification number of the DBE.

Attachment 2 – Good Faith Efforts Documentation and Standards

If the responder's DBE commitment falls short of the DBE goal, the responder must demonstrate adequate good faith efforts (GFE) in order to be eligible for contract award (49 CFR § 26.53). To demonstrate that the responder made adequate GFE, the responder must show documentation that the responder took all necessary and reasonable steps to achieve the DBE goal which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if the responder were not fully successful.

The efforts employed by the responder should be those that one could reasonably expect the responder to take if the responder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere *pro forma* efforts are not good faith efforts to meet the contract requirements. The GFE consolidated form, attached to these provisions as Exhibit B, provides a helpful start to the responder's documentation, **but the responder is not limited to the information specified in the consolidated form.**

When the responder submits GFE documentation, the responder must explain the relevance of any documents the responder submits that are not mentioned in these special provisions or the related forms. **Responder is encouraged to submit ALL information that supports good faith efforts with an explanatory narrative.** Only documentation provided to MnDOT OCR by the submission due date can be considered by MnDOT to determine GFEs.

Good Faith Efforts Evaluation

MnDOT will consider the actions listed below when evaluating the responder's GFE documentation. This list closely resembles a list in 49 CFR Part 26, Appendix A. The listed actions are consistent with GFE, but the list is not a mandatory checklist, nor is it intended to be exclusive or exhaustive. MnDOT will also consider the performance of other bidders relative to the DBE goal. Other factors or types of efforts may be relevant in appropriate cases. MnDOT will make GFE determinations on a case-by-case basis.

(a) **Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract.** This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to DBEs that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project. The bidder should solicit this interest as early as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow up on initial solicitations.

(b) **Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved.** This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

(c) **Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.**

(d) **Negotiating in good faith with interested DBEs.** It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE

goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

(e) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals. A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

(f) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

(g) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

(h) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

Notification of MnDOT Decision

After reviewing the responder's GFE documentation and the performance of other bidders relative to the DBE goal, the Director of MnDOT OCR, or his or her designee, will determine whether the responder met the DBE goal or made adequate GFE. MnDOT OCR will mail the Director's determination to the responder approximately 15 business days after the responder's submittals are received. If the Director determines that the responder failed to meet the DBE goal or make adequate GFE, MnDOT OCR will send the notice by certified U.S. mail.

Attachment 3 – Administrative Reconsideration

If the Director determines that the responder failed to make adequate good faith efforts (GFE), the responder may request administrative reconsideration of that determination (49 CFR §26.53(d)).

Requesting Reconsideration

The responder's request for reconsideration must be written and timely. Otherwise, the responder will be deemed to have waived the right to reconsideration.

If the responder sends the request by fax or personal delivery, MnDOT must **receive** it no later than 4:30 PM on the fifth business day after the responder receives notice of the Director's determination. If the responder sends the responder's request by U.S. mail, it must be postmarked no later than the fifth business day after the responder receives notice of the Director's determination. The responder is deemed to have notice as of the date indicated on the certified mail receipt signed by the responder or the responder's representative at the time of delivery.

The responder's written request must be submitted to the attention of:

MnDOT Deputy Commissioner at: MnDOT, 395 John Ireland Blvd., St. Paul, MN 55155; or by fax at 651-366-4795.

A copy of the same request must be sent to the Director of the MnDOT Office of Civil Rights at 395 John Ireland Blvd., St. Paul, MN 55155 or by fax at 651-366-3129.

Reconsideration Process

The Commissioner of MnDOT will designate officials to serve as Reconsideration Officials. The Reconsideration Officials shall not have any role in the original determination that the responder failed to meet the DBE goal or make adequate GFE to do so.

As part of the reconsideration process, the responder will have the opportunity to:

- Provide the Reconsideration Officials written documentation and arguments as to why the responder believe the responder met the DBE goal or made adequate GFE to do so (49 CFR § 26.53(d)(1)).
- Meet in person with the Reconsideration Officials to explain why the responder believes the responder met the DBE goal or made adequate GFE to do so (49 CFR § 26.53(d)(3)).

The Reconsideration Officials will reconsider the record documenting the GFE the responder made. The reconsideration process is a review of only the GFE the responder made as of the submission due date specified in **Table B**. GFE made after that date will not be considered.

MnDOT will provide the responder with a written decision **within 5 business days following the date the responder is scheduled to meet with the Reconsideration Officials**. The written decision will include an explanation of reasons for the decision. The decision is not subject to administrative appeal to the U.S. Department of Transportation (49 CFR § 26.53(d)(5)).

Attachment 4 – Good Cause to Terminate a DBE

The responder may not, without written approval from MnDOT OCR, terminate or replace a DBE whose participation the responder represented in the original DBE commitment. MnDOT OCR will not approve a request to terminate or replace a DBE unless the responder demonstrates good cause to do so. In accordance with 49 CFR § 26.53(f), good cause includes the following circumstances.

- (a) The DBE subcontractor fails or refuses to execute a written contract;
- (b) The DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work in the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (c) The DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
- (d) The DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (e) The DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR parts 180, 215 and 1,200 or applicable state law;
- (f) OCR has determined that the DBE subcontractor is not a responsible contractor;
- (g) The DBE subcontractor voluntarily withdraws from the project and provides to OCR written notice of its withdrawal;
- (h) The DBE is ineligible to receive DBE credit for the type of work required;
- (i) A DBE owner dies or becomes disabled with the result that the DBE contractor is unable to complete its work on the contract; or
- (j) Other documented good cause that MnDOT OCR determines compels the termination of the DBE subcontractor.

Good cause does not exist if the responder seeks to terminate a DBE represented in the responder's DBE commitment so the responder can self-perform or transfer to another subcontractor work originally committed to the DBE.

Attachment 5 – Information about AASHTOWARE Project CRL

General Information

AASHTOWare Project Civil Rights Labor (CRL) is a web-based system that currently allows contractors to submit electronic payroll, subcontract and subcontractor payment information, and Bidder/Quoter submittals.

Design-bid-build construction contracts let by MnDOT, advertised after July 1, 2013, report information through the CRL system.

More information regarding CRL requirements can be found in the MnDOT Standard Specifications for Construction: *Electronic Submission of Payrolls and Statements and Bidders Lists for Federally Funded Projects*.

Registration and Training

Information on annual contractor training, vendor and user registration, system support, forms, and manuals can be found at:

<https://www.dot.state.mn.us/const/labor/civil-rights-labor.html>

MnDOT also provides access to a CRL Interactive E-learning Tool at:

<https://www.dot.state.mn.us/onlinelearning/lcu/crl/>



Exhibit A - DBE Description of Work and Field Monitoring Report

A contract will not be awarded to the Prime Contractor unless this form is submitted with a signed subcontract, purchase order, or affidavit for each DBE participating in the contract. This form is complete when the DBE subcontractor has filled in **all of the applicable information in sections A through D and signed in section E.**

PLEASE PRINT CLEARLY OR TYPE.

Section (A): (All DBE subcontractors, including trucking firms, must complete this section.)

MUST BE COMPLETED BY THE DBE PRINCIPAL

Letting Date: _____ State Project Number: _____

Prime Contractor: _____ Phone #: _____

DBE Subcontractor: _____ Phone #: _____

DBE Principal Name: _____ Total Subcontract \$: _____

DBE Participation Claimed: Percent _____ % Amount \$ _____

Section (B): (All DBE subcontractors, including trucking firms and suppliers, must complete this section.)

- Did you bid and sign a subcontract agreement with the above-named prime contractor? _____
- List the line items to be performed and the associated North American Industry Classification System (NAICS) codes for each item:

Scope of Work	Associated NAICS Code

- If equipment to be used is not owned by your firm, please provide the following information:
 - Will you be renting or leasing any of the following: (Attach a copy of the lease or rental agreement(s).
Equipment _____ Insurance _____ Operator _____ or Maintenance _____
 - Lessor's name: _____
Amount to be paid: _____ Number of days to be used: _____
- Will there be any other firm(s) providing work listed in your (DBE) subcontract?
If yes, answer the following: Firm's Name: _____ \$ amount of the work: _____
- What is the name of the person supervising your work on this project? _____
Is this your employee? _____
- Is your firm purchasing materials (including Bulk Materials such as AC Oil, Cement, Gravel, etc.) to be supplied or installed on the project?
YES _____ NO _____ (If "Yes" Complete **Section C** below)

Section (C) (DBE firms purchasing or supplying materials on the project complete this section.)

Please submit Purchase Agreement, Materials Invoice, or Purchase Order from manufacturer(s) or primary material supplier(s).

- What material(s) are you supplying? _____
- Total dollar amount of materials to be supplied? _____
- Who are you purchasing the materials from? _____
- What is the quantity of material to be purchased? _____
- Where are the materials being delivered? (ie. project site or plant) _____
- Is the delivery equipment owned and operated by your firm? YES _____ NO _____
If not, who owns and operates the equipment? _____

Section (D) TO BE COMPLETED ONLY BY DBE TRUCKING FIRMS AND MATERIAL HAULERS

1. The number of hours contracted or quantities to be hauled on this project? _____
2. How many fully operational units will be used on this Project? _____ (Tractor/trailers: _____ Dump trucks: _____)
3. How many fully operational units will be yours? _____ (Dump trucks: _____ Tractors/trailers: _____)
4. How many other units will be yours? _____ (Tractors: _____ Trailers: _____)
5. How many ITOs will be used on this project? _____ (Tractors: _____ Trailers: _____ Dump Trucks: _____)

	Name of DBE ITOs (add a list if necessary)	Dollar Amount of Contract/Agreement	Number of Dump Trucks, Tractors/Trailers (specify)
1.			
2.			
3.			
4.			

Section (E): (All DBE subcontractors, including trucking firms, must complete this section.)

I hereby certify that the information presented above is correct. I agree to inform the Office of Civil Rights in writing of any change within 10 days of the change.

DBE Company: _____

DBE Principal: _____
 Signature Title Date

Section (F): TO BE COMPLETED BY MnDOT OFFICE OF CIVIL RIGHTS STAFF PERSON

Reviewed by OCR: _____

OCR Main Phone No: 651-366-3073

Email for OCR Forms: OCRFormSubmissions.DOT@state.mn.us

Section (G): TO BE COMPLETED BY PROJECT ENGINEER WHEN THE DBE'S PORTION OF WORK IS 1/3 TO 1/2 COMPLETED

1. Does it appear that the DBE firm is performing the work specified in (Exhibit "A") description of work?
Yes _____ No _____
2. Does it appear that the DBE contractor is managing their portion of the project and using their own company employees?
Yes _____ No _____
3. Does it appear that the DBE contractor is providing the equipment for their items of work or other work specified?
Yes _____ No _____
4. Does it appear that the quality of the DBE contractor's performance, scheduling and project management are meeting industry standards?
Yes _____ No _____
5. If the DBE is supplying materials, are the quantities proportionate for what is required on the project (refer to **Section C** above)?
Yes ____ No ____
6. Comments: _____

NOTE: If you, as the Project Engineer, have checked "NO" to any of the above questions or have any other comments, it is important that you contact the MnDOT Office of Civil Rights Staff Person assigned to this project.

Project Engineer: _____ Date: _____



Exhibit B - Office of Civil Rights - Good Faith Efforts Consolidated Form

(Includes Parts A-I)

This form will assist you in demonstrating that you met the DBE goal or made adequate good faith efforts to meet the goal. You must provide this form and all supporting GFE documentation to the MnDOT Office of Civil Rights prior to the submission due date identified in **Table B** of the DBE Special Provisions.

PART A – PRIME CONTRACTOR’S INFORMATION (You must complete this part.)				
COMPANY NAME				
ADDRESS	STREET	CITY	STATE	ZIP CODE
PHONE #	FAX #	EMAIL ADDRESS		
CONTACT PERSON		TITLE		

PART B - PROJECT DESCRIPTION (You must complete this part.)				
STATE PROJECT #		CONTRACT # (If Applicable)		<input type="checkbox"/> Attach copy of MnDOT Advertisement
ANTICIPATED START DATE (Based on progress schedule)			EXPECTED COMPLETION DATE (Based on progress schedule)	
DBE GOAL	%	VS	DBE COMMITMENT	(Type of GFE Information – Check one only) <input type="checkbox"/> Pre-award <input type="checkbox"/> Post-award/Execution
TOTAL DBE PARTICIPATION DOLLARS BASED ON ADVERTISED DBE GOAL (Total prime bid \$ * DBE % Goal)				

PART C – PROJECT SUMMARY AMOUNTS (You must complete this part.)	
TOTAL PRIME BID	\$
TOTAL DOLLARS COMMITTED TO NON-DBE’S (Not including suppliers)	\$
TOTAL DOLLARS COMMITTED TO DBE’S (Not including suppliers)	\$
TOTAL DOLLARS COMMITTED TO DBE SUPPLIERS (Total paid to DBE suppliers 60%)	\$
WORKED PERFORMED BY PRIME	\$
PERCENT OF WORK PERFORMED BY PRIME	%
TOTAL DBE PARTICIPATION REMAINING (Difference between DBE goal \$ and DBE commitment \$)	\$

State Project Number:

Contractor:

PART D – BIDDERS LIST - DBE QUOTES SUBMITTED (You must complete this part. If the project is let by MnDOT, you must submit information through the AASHTOWare Project CRL about all bids/quotes you have received and enter your DBE Commitments on this form.)

DBE COMMITMENTS							
List all DBE firms who provided quotes or bid proposals. Indicate whether the quotes were accepted. Please include a copy of their quote(s).							
DBE Contractor Information					Description of Work	Dollar Amount Of Bid/Proposal.	Will Firm Be Used?
1.	DBE Contractor Name						Yes
	Contact Name						
	Address						
	Federal Tax #		E-mail				
	Phone		Fax:				
2.	DBE Contractor Name						Yes
	Contact Name						
	Address						
	Federal Tax #		E-mail				
	Phone		Fax				
3.	DBE Contractor Name						Yes
	Contact Name						
	Address						
	Federal Tax #		E-mail				
	Phone		Fax				
4.	DBE Contractor Name						Yes
	Contact Name						
	Address:						
	Federal Tax #		E-mail				
	Phone		Fax				

Make additional copies of this page as necessary

State Project Number:

Contractor:

PART E- BIDDERS LIST - NON-DBE QUOTES SUBMITTED (Complete this part only if the project is let by a local governmental unit. If the project is let by MnDOT, you must submit information about bids/quotes you have received through the AASHTOWare Project CRL online system rather than on this form.)							
NON-DBE COMMITMENTS List all non-DBE firms who provided quotes or bid proposals. Indicate whether the quotes were accepted. Please include a copy of their quote(s).							
NON-DBE Contractor Information				Description of Work	Dollar Amount Of Bid/Proposal.	Will Firm Be Used?	
1.	NON-DBE Contractor Name						Yes
	Contact Name						
	Address						
	Federal Tax #		E-mail				
	Phone		Fax:				
2.	NON-DBE Contractor Name						Yes
	Contact Name						
	Address						
	Federal Tax #		E-mail				
	Phone		Fax				
3.	NON-DBE Contractor Name						Yes
	Contact Name						
	Address						
	Federal Tax #		E-mail				
	Phone		Fax				
4.	NON-DBE Contractor Name						Yes
	Contact Name						
	Address:						
	Federal Tax #		E-mail				
	Phone		Fax				

Make additional copies of this page as necessary

State Project Number:

Contractor:

PART F – SOLICITATION OF SUBCONTRACTORS, SUPPLIERS, AND SERVICE PROVIDERS (Complete this part only if DBE goal is not met.)

List all subcontractors solicited, both DBE and non-DBE contractors, truckers and suppliers for this specific project. Include initial contact and follow-up dates, as well as methods of contact (Phone, Fax, Email, etc.).

The good faith effort submission should include evidence of the solicitation effort such as; copies of request for bids sent to DBE firms with the name of the DBE firms clearly identified; fax confirmation sheets showing the date, fax number, name of DBE firm, confirmation the fax was sent; list of all DBE firms called time of call, person contacted and response; or email lists with time/day sent clearly indicated etc.

Subcontractor/Supplier/Service provider		DBE?		Phone #	Dates, Method of Contact		Description of Work	Dollar Amount of Quote
		Yes	No		DATES	METHOD		
1		<input type="checkbox"/>	<input type="checkbox"/>					
2		<input type="checkbox"/>	<input type="checkbox"/>					
3		<input type="checkbox"/>	<input type="checkbox"/>					
4		<input type="checkbox"/>	<input type="checkbox"/>					
5		<input type="checkbox"/>	<input type="checkbox"/>					
6		<input type="checkbox"/>	<input type="checkbox"/>					
7		<input type="checkbox"/>	<input type="checkbox"/>					
8		<input type="checkbox"/>	<input type="checkbox"/>					
9		<input type="checkbox"/>	<input type="checkbox"/>					
10		<input type="checkbox"/>	<input type="checkbox"/>					
11		<input type="checkbox"/>	<input type="checkbox"/>					
12		<input type="checkbox"/>	<input type="checkbox"/>					

Make additional copies of this page as necessary

State Project Number:

Contractor:

PART G - DBEs QUOTED BUT NOT SELECTED (Complete this part only if DBE goal is not met.)

If DBE quotes were rejected, if necessary, attach a separate sheet of paper explaining the specific basis for rejecting any DBE quote.

Note: Additional cost is not in itself sufficient reason for rejecting a DBE quote. However, prime contractors need not accept excessive or unreasonable DBE quotes. The contractor's standing within its industry or memberships in specific groups (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of a quote in the contractor's efforts to meet the project goal. Please include a copy of the quote(s) received.

DBE QUOTE	DBE FIRMS WHO QUOTED, BUT WERE NOT SELECTED	TYPE OF WORK QUOTED	FIRM SELECTED FOR SCOPE QUOTED	REASON NOT SELECTED
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

Make additional copies of this page as necessary

Office of Civil Rights– Good Faith Efforts Consolidated Form

State Project Number:

Contractor:

PART H – DESCRIPTION OF GOOD FAITH EFFORTS (Complete this part only if DBE goal is not met. Use additional sheets if necessary.)

Please describe below or in a separate letter any aspects of your efforts to obtain DBE participation that are not already apparent from the information provided in parts A-G. This is an opportunity to “tell the story” of your GFE. Please give special attention to the factors identified in **Attachment 2** of the DBE special provisions and 49 CFR Part 26, Appendix A. The following questions may help you organize your description. **The questions below are not intended to be a checklist or an exhaustive list of what is considered in evaluating GFE.** Information not submitted will not be considered in making a finding of Good Faith Efforts.

Questions to consider:

- Did you use the current DBE directory to identify DBEs?
- Did you break out work into units that small businesses such as DBEs could reasonably perform?
- Did you solicit DBE participation for work you could have self-performed?
- Did you overlook any DBEs whose business operations are geographically close to the project?
- Did you host any DBE informational workshops or attend any MnDOT sponsored DBE events?
- Did you contact minority business organizations about DBE opportunities?
- Did you send timely written (fax, e-mail, etc.) solicitation notices to certified DBEs?
- Did your solicitation notice include the following information? *name and location of project, bid date, scope of work requested, location where DBEs can review plans and specifications, date and time to submit quote, contact name for technical assistance, any special requirements*
- Did you provide any contacts for possible bonding, insurance, or lines of credit?
- Did you provide any technical assistance relative to bonding, insurance, or lines of credit?
- Did you maintain a follow-up log to track responses to your initial solicitations?
- Did you track the following information after initial solicitation? *name of DBE firm, type of contact (fax, telephone, e-mail, etc.), date and time DBE contacted, name of contact person, response received, reason for DBE not bidding (if applicable)*
- Did you receive bids from DBE's that you did not accept? If so, what were your reasons?

Type Response Below:



Exhibit B – Good Faith Efforts Consolidated Form

PART I – CERTIFICATION / GOOD FAITH EFFORTS AFFIDAVIT (You must complete this part.)

STATE OF MINNESOTA

COUNTY OF _____

I, _____, being first duly sworn, state as follows:
(Full Name)

1. I am the _____ of _____
(Title) (Name of Individual, Company, Partnership, or Corporation)

that has submitted a bid for State Project _____.

2. I have the authority to make this affidavit for and on behalf of the apparent low bidder.

3. The information provided in the attached Good Faith Efforts Consolidated Form is true and accurate to the best of my belief.

SIGNATURE (Bidder or Authorized Representative)	TITLE	DATE

Subscribed and sworn to before me this _____ day of _____, 20____

 Notary Public

My commission expires _____, 20____

Pursuant to 49 CFR § 26.107, if any person or firm has willfully and knowingly provided incorrect information or made false statements in connection with the Federal DBE program, the USDOT may initiate suspension or debarment proceedings against such person or firm under 49 CFR Part 29, take enforcement action under 49 CFR Part 31, Program Fraud and Civil Remedies, and/or refer the matter to the Department of Justice for criminal prosecution under 18 U.S.C. 1001, which prohibits false statements in Federal programs.

Minnesota Department of Transportation
Office of Civil Rights

Page ____ of ____

Contractor Payment Form

State Project Number: _____ Prime Contractor: _____ 1st Tier Sub-Contractor: _____

Payment Reporting Period: From: _____ To: _____

Instructions: All Contractors making payments to Contractors/Subcontractors/Suppliers/Service Providers, regardless of their tier or DBE status, are required to complete and submit this form to the MnDOT Office of Civil Rights (OCR), each time payments are made to sub-contractors until final payment is made. Failure to comply with this form and Minnesota's prompt payment law may cause progress payments to be withheld. Submit one copy of this form to MnDOT OCR and one copy to the Project Engineer, no later than ten (10) days after receiving payment from MnDOT. Some projects require that payment information be entered into AASHTOWare Project CRL. See Table C of the DBE Special Provisions for payment submission requirements.

Contractor Information		Original Contract Amount	Committed DBE %	Actual DBE % to Date
Name:				
Address:				
Phone:				
Name of Subcontractor/Supplier	DBE? (Check if Yes)	Description of Work	Subcontract Amount	
1.	<input type="checkbox"/>	1.	1.	
2.	<input type="checkbox"/>	2.	2.	
3.	<input type="checkbox"/>	3.	3.	
4.	<input type="checkbox"/>	4.	4.	
5.	<input type="checkbox"/>	5.	5.	
6.	<input type="checkbox"/>	6.	6.	
Amount of Current Payment	Total Sub-Contractor Payment-To-Date	% Paid to date	Final Payment? Yes/No	
1.	1.	1.	1.	
2.	2.	2.	2.	
3.	3.	3.	3.	
4.	4.	4.	4.	
5.	5.	5.	5.	
6.	6.	6.	6.	
Company Officials Signature & Title		Date Signed	Name & Title of Individual Completing Report (Type or Print Clearly)	
Title:		Title:		
Phone:	Fax:	Phone:	Fax:	

DBE Total Payment Affidavit

Pursuant to MnDOT Standard Specifications for Construction, Section 1516.3, the following DBE Total Payment Affidavit shall be executed by the Prime Contractor after all work contracted to be performed by DBEs has been satisfactorily completed. This Affidavit is required prior to MnDOT Office of Civil Rights issuing final clearance on the project. Identify each DBE firm that worked on the project and the dollar amount of the subcontract. If the dollar value of a DBE firm's total work is less than the DBE's original subcontract, please attach an explanation.

State Project Number: _____

STATE OF MINNESOTA

COUNTY OF _____

I, _____, being first duly sworn, state as follows:
(Full Name)

1. I am the authorized representative of _____
(Name of Individual, Company, Partnership or Corporation)

and I have the authority to make this affidavit for and on behalf of said Prime Contractor.

2. The following DBE Subcontractors/Suppliers/Service Providers/Sub-Consultants have performed work on the above project with a total dollar value of:

	Name of DBE Firm	Dollar Amount of Subcontract	Total Dollar Amount Paid
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

3. I have fully informed myself regarding the accuracy of the statements made in this Affidavit.

Signed: _____
(Prime Contractor or Authorized Representative)

Subscribed and sworn to before me

This _____ day of _____, 20____

(Notary Public)

My commission expires _____, 20____

Prepare affidavit in duplicate. Submit one affidavit to the Project Engineer, and one to:
MnDOT's Office of Civil Rights, 395 John Ireland Blvd., MS 170, St. Paul, MN 55155
or email completed form to: ocrformsubmissions.dot@state.mn.us

No. 1516.3 – Standard Specifications for Construction

Unless the Contractor has presented an Affidavit showing the total dollar amounts of work performed by Disadvantaged Business Enterprises (DBE), a final clearance letter will not be issued.

Save: 5/31/2023 7:49 AM Edit: 5/31/2023 7:40 AM X:\AED\DL\A172133.dwg User: jason@seh.com Plt: 5/31/2023 7:40 AM X:\AED\DL\A172133.dwg User: jason@seh.com Plt: 5/31/2023 7:40 AM X:\AED\DL\A172133.dwg User: jason@seh.com Plt: 5/31/2023 7:40 AM

STATEMENT OF ESTIMATED QUANTITIES					
BASE BID SCHEDULE A - CONSTRUCT SITE WORK (FAA ELIGIBLE)					
LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
1	C-105	MOBILIZATION (10% OF OVERALL BID SCHEDULE A)	LS	1	
2	70-08	TRAFFIC PROVISIONS/AIRPORT SECURITY & DEVICES/PHASING	LS	1	
3	70-08	ORANGE CONSTRUCTION FENCE	LF	150	
4	01 51 00	TEMPORARY UTILITIES	LS	1	
5	01 55 15	MAINTENANCE AND RESTORATION OF HAUL ROADS	LS	1	
6	01 58 13	CONSTRUCTION PROJECT SIGN (\$1,000 MAXIMUM ALLOWED)	LS	1	
7	01 71 23	FIELD ENGINEERING	LS	1	
8	02 41 33	REMOVE AND SALVAGE EXISTING SIGN AND POST	LS	3	
9	02 41 33	REMOVE AND SALVAGE EXISTING 6-FT CHAIN-LINK FENCE (BY ENTRANCE GATE)	LF	15	
10	02 41 33	REMOVE EXISTING 6-FT CHAIN-LINK FENCE (BY TRAIL)	LF	25	
11	2540.602	RELOCATE MAIL BOX SUPPORT	EACH	1	
12	02 41 33	REMOVE SEWER PIPE (SANITARY)	LF	15	
13	02 41 33	REMOVE WATER SERVICE PIPE (INCLUDING DISCONNECTION OF CURB STOP & CAPPING)	LF	25	
14	02 41 33	REMOVE CONCRETE SIDEWALK	SF	300	
15	02 41 33	REMOVE DRY WELL	LS	1	
16	02 41 33	REMOVE & RELOCATE TELEPHONE LINE	LS	1	
17	02 41 33	REMOVE ELECTRICAL HANDHOLE	EACH	1	
18	02 41 33	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	130	
19	02 41 33	REMOVE BITUMINOUS PAVEMENT (6.5" THICK)	SY	300	
20	02 41 13	SELECTIVE DEMOLITION	LS	1	
21	02 41 13	REGULATED WASTE REMOVAL	LS	1	
22	02 82 20	REGULATED ABESTOS REMOVAL	LS	1	
23	P-152	COMMON EXCAVATION (EV)	CY	110	
24	P-152	UNCLASSIFIED OVER EXCAVATION (EV)	CY	50	
25	P-152	BORROW (EV) (OFFSITE)	CY	50	
26	31 25 10	ROCK CONSTRUCTION ENTRANCE (INCLUDES MAINTENANCE AND REMOVAL)	EACH	1	
27	31 25 10	SILT FENCE, TYPE PREASSEMBLED (INCLUDES MAINTENANCE AND REMOVAL)	LF	835	
28	31 25 10	SEDIMENT CONTROL LOG (INCLUDES MAINTENANCE AND REMOVAL)	LF	225	
29	31 34 10	GEOTEXTILE FABRIC, TYPE 7 (SEPARATION FABRIC)	SY	275	
30	32 10 22	SUBBASE MATERIAL (SELECT GRANULAR MATERIAL) (CV)	CY	80	
31	32 11 22	AGGREGATE BASE (CLASS 5) (CV)	CY	60	
32	32 12 13	BITUMINOUS MATERIAL FOR TACK COAT	GAL	10	
33	32 12 16	BITUMINOUS 1.75" (SPWEA340C)	TON	30	
34	32 12 16	BITUMINOUS 2.25" (SPNWB330C)	TON	40	
35	32 16 20	CONCRETE CURBING (6" HEIGHT - V CURB)	LF	110	
36	32 17 23	PAVEMENT MARKING LINEAR, 4-INCH WIDTH, WHITE TYPE I (EPOXY)	LF	140	
37	32 17 23	PAVEMENT MARKING MESSAGES, HANDICAP SYMBOL & NO PARKING, WHITE TYPE I (EPOXY)	EACH	2	
38	32 18 20	4-INCH CONCRETE SIDEWALK (5-FOOT WIDE, INCLUDES SLOPED WALK)	SF	430	
39	32 18 20	DETECTABLE WARNING PANELS	SF	15	
40	32 40 00	HANDICAP PARKING AND NO PARKING SIGNS (INCLUDING POST AND FASTENERS)	EACH	2	
41	2503.603	4" PVC SANITARY SERVICE PIPE (SDR 35)	LF	75	
42	2503.603	4" PVC SANITARY CLEANOUT (INCLUDING BENDS AND FITTINGS)	EACH	2	
43	33 36 10	INSTALL 1,000 GALLON SEPTIC HOLDING TANK (FOR HANGAR FLOOR DRAINS)	LS	1	
44	33 36 10	UPGRADES TO EXISTING 1,500 SEPTIC TANK	LS	1	
45	2504.602	8" x 2" TAPPING TEE W/ ELECTROFUSION SADDLE	EACH	1	
46	2504.602	2" CURB STOP AND BOX	EACH	1	
47	2504.602	WATER TRACER BOX	EACH	1	
48	2504.603	2" HDPE SDR 11 SERVICE PIPE (INCLUDING FITTINGS AND TRACE WIRE)	LF	20	
49	F-162.5.1	CHAIN-LINK FENCE, 6-FT HEIGHT (REINSTALL SALVAGED)	LF	15	
50	32 90 00	LANDSCAPING (INCLUDES ROCK & FABRIC)	SF	800	
51	T-901.5.1	TURF ESTABLISHMENT (INCLUDES FERTILIZER, SEED, MULCHING AND STABILIZATION)	LS	1	
52	T-905.5.1	SELECT TOPSOIL BORROW (SALVAGED) (CV)	CY	75	
BASE BID SCHEDULE B - CONSTRUCT TERMINAL BUILDING (PRORATED - FAA ATP ELIGIBLE)					
LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
53	GENERAL	GENERAL CONDITIONS	LS	1	
54	01 71 23	FIELD ENGINEERING	LS	1	
55	31 22 20	STRUCTURE EXCAVATION	CY	675	
56	31 22 30	STRUCTURE BACKFILL (ENGINEERED FILL)	CY	675	
57	P-152	UNCLASSIFIED OVER EXCAVATION (EV)	CY	100	
58	ARCH/STRC.	BUILDING CONSTRUCTION	LS	1	
59	MECH.	BUIDLING PLUMBING AND HVAC	LS	1	
60	ELEC.	BUILDING ELECTRICAL AND UTILITIES	LS	1	

ALTERNATE A - CONSTRUCT BUILDING ELEMENTS (FAA INELIGIBLE)					
LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
61	GENERAL	GENERAL CONDITIONS	LS	1	
62	ARCH.	KITCHNETTE AREA (COUNTERTOP, BASE CABINETS, SINK, AND ASSOCIATED PLUMBING TO KITCHENTTE SINK)	LS	1	
63	ELEC.	CONDUIT & WIRING INSTALLATION FOR FUTURE SECURITY CAMERAS	LS	1	
64	ELEC.	ELECTRICAL PEDESTAL FOR EXTERIOR VENDING TRUCK (INCLUDING CONDUIT & WIRING)	LS	1	
65	32 18 20	EXTERIOR 5" CONCRETE SLAB (8' x 14')	SF	112	
66	31 34 10	GEOTEXTILE FABRIC, TYPE 7 (SEPARATION FABRIC)	SY	25	
67	32 10 22	SUBBASE MATERIAL (SELECT GRANULAR MATERIAL) (CV)	CY	10	
68	32 11 22	AGGREGATE BASE (CLASS 5) (CV)	CY	10	
ALTERNATE B - RECONSTRUCT AUTO PARKING AREA (FAA BIL ELIGIBLE)					
LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
69	C-105	MOBILIZATION (10% OF OVERALL BID SCHEDULE ALTERNATE B)	LS	1	
70	70-08	TRAFFIC PROVISIONS/AIRPORT SECURITY & DEVICES/PHASING	LS	1	
71	01 71 23	FIELD ENGINEERING	LS	1	
72	02 41 33	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	130	
73	02 41 33	REMOVE BITUMINOUS PAVEMENT (6.5" THICK)	SY	350	
74	P-152	COMMON EXCAVATION (EV)	CY	205	
75	31 34 10	GEOTEXTILE FABRIC, TYPE 7 (SEPARATION FABRIC)	SY	385	
76	32 10 22	SUBBASE MATERIAL (GRANULAR) (CV)	CY	145	
77	32 11 22	AGGREGATE BASE (CLASS 5) (CV)	CY	100	
78	32 12 13	BITUMINOUS MATERIAL FOR TACK COAT	GAL	20	
79	32 12 16	BITUMINOUS 1.75" (SPNWB330B)	TON	50	
80	32 12 16	BITUMINOUS 2.25" (SPWEA340B)	TON	65	
81	32 17 23	PAVEMENT MARKING LINEAR, 4-INCH WIDTH, WHITE TYPE I (EPOXY)	LF	550	
82	32 17 23	PAVEMENT MARKING MESSAGE, NO PARKING, WHITE TYPE I (EPOXY)	EACH	1	
83	32 92 12	TURF ESTABLISHMENT (INCLUDES FERTILIZER, SEED, MULCHING AND STABLIZATION)	LS	1	
84	T-905.5.1	SELECT TOPSOIL BORROW (SALVAGED) (CV)	CY	20	
ALTERNATE C - REPLACE EXISTING HANGAR ROOFING AND SIDING (FAA BIL ELIGIBLE)					
LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
85	GENERAL	GENERAL CONDITIONS	LS	1	
86	ARCH.	REMOVE EXISTING HANGAR ROOFING AND SIDING	LS	1	
87	ARCH.	INSTALL METAL ROOFING	LS	1	
88	ARCH.	INSTALL METAL WALL PANEL SIDING	LS	1	
ALTERNATE D - PROVIDE INTERIM TERMINAL FACILITY AND TOILET FACILITIES (FAA ATP ELIGIBLE)					
LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
89	C-105	MOBILIZATION (10% OF OVERALL BID SCHEDULE ALTERNATE D)	LS	1	
90	01 52 13	ADA ACCESSIBLE INTERIM TERMINAL FACILITY	LS	1	
91	01 52 13	ADA ACCESSIBLE TEMPORARY SANITARY FACILITIES	LS	1	

STATEMENT OF ESTIMATE QUANTITY NOTES:

ITEMS NO. 1/89: LIMITED TO 10% OF THE TOTAL PROJECT COSTS RELATED TO THE BID SCHEDULE.
ITEM NO. 2: INCLUDES INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL SIGNAGE, BARRICADES, TEMPORARY FENCING, AND TRAFFIC CONTROL DEVICES.
ITEM NO. 4: PROVIDE TEMPORARY UTILITIES FOR FUELING MONITORING EQUIPMENT, FUEL SYSTEM, AWOS, SECURITY GATE, AND CAMERA OBSERVATION SETUP.
ITEM NO. 7: PROVIDING CONSTRUCTION SURVEY THROUGHOUT THE PROJECT, INCLUDING DOCUMENTING ELEVATIONS OF STRUCTURE EXCAVATION, STRUCTURAL FILL, SUBGRADE, BASE COURSE AND OTHER QUANTITY SURVEYS SUPPLIED TO THE ENGINEER FOR PAYMENT.
ITEM NO. 11: COORDINATION WITH USPS TO RELOCATE MAILBOX AND TEMPORARILY SET UP LOCATION FOR DURATION OF PROJECT.
ITEM NO. 16: COORDINATION WITH LOCAL PROVIDER TO RELOCATE EXISTING TELEPHONE LINE OUTSIDE BUILDING FOOTPRINT.
ITEM NO. 38: CONSTRUCTING SLOPED SIDEWALK INCLUDING REINFORCEMENT AND THICKENED EDGE.
ITEMS NO. 41/42: PROVIDING SANITARY SERVICE TO THE TERMINAL BUILDING. ITEMS INCIDENTAL TO THE WORK INCLUDE TRACER WIRE, PVC FITTINGS, TESTING AND OTHER APPLICABLE CITY OF DULUTH SPECIFICATION REQUIREMENTS.
ITEM NO. 43: PROVIDING SEPTIC HOLDING TANK FOR EXISTING HANGAR DRAINS, INCLUDING CONNECTIONS, PERMITTING, OVERFILL ALARM, EQUIPMENT AND ACCESSORIES TO MAKE AN OPERABLE SYSTEM.
ITEM NO. 44: PROVIDING UPGRADES TO EXISTING SEPTIC SYSTEM TANK, INCLUDING REPLACING PUMP, FLOAT, OVERFILL ALARM AND ACCESSORIES TO MAKE AN OPERABLE SYSTEM.
ITEMS NO. 45-48: PROVIDING WATER SERVICE TO THE TERMINAL BUILDING. ITEMS INCIDENTAL TO THE WORK INCLUDE TRACER WIRE, FITTINGS, BACKFILL, TRENCHING, TESTING, AND OTHER APPLICABLE CITY OF DULUTH SPECIFICATION REQUIREMENTS.
ITEM NO. 49: REINSTALLING SALVAGED 6-FT HIGH FENCE, POSTS, FABRIC AND FASTENERS.
ITEM NO. 50: INSTALLING LANDSCAPE ROCK AND WEED BARRIER FABRIC.
ITEMS NO. 53/61/85: THE TERM "GENERAL CONDITIONS" IS USED TO DESCRIBE EXPENSES THAT SUPPORT A PROJECT WITHOUT DIRECTLY RELATING TO JOBSITE ACTIVITIES, INCLUDING BUT NOT LIMITED TO SITE MANAGEMENT, PERMITTING, PROJECT MANAGEMENT AND COORDINATION FOR EACH SCHEDULE.
ITEM NO. 62: PROVIDING AND INSTALLING BASE CABINETS, COUNTERTOP AND SINK IN KITCHENETTE AREA AND INSTALLING ASSOCIATED PLUMBING TO SUPPLY THE SINK.
ITEM NO. 63: PROVIDING CONDUIT AND WIRING FOR FUTURE INSTALLATION OF SECURITY CAMERAS.
ITEM NO. 64: PROVIDING ELECTRICAL PEDESTAL FOR EXTERIOR VENDING TRUCK, WHICH INCLUDES CONDUIT, WIRING AND BORING TO MAKE AN OPERABLE SYSTEM.
ITEM NO. 65: PROVIDING CONCRETE SLAB ON AIRSIDE OF BUILDING SITE, INCLUDING REINFORCEMENT AND THICKENED EDGE.
ITEM NO. 90: PROVIDING ADA-COMPLIANT INTERIM TERMINAL AND OTHER ITEMS TO SET UP THE FACILITY.
ITEM NO. 91: PROVIDING TEMPORARY TOILET FACILITIES FOR DURATION OF PROJECT (ADA-COMPLIANT AND NON-ADA COMPLIANT).

ALTERNATE A: SCHEDULE IS TO INSTALL FAA INELIGIBLE BUILDING ELEMENTS FOR THE TERMINAL BUILDING.
ALTERNATE B: SCHEDULE IS TO CONSTRUCT AN FAA INELIGIBLE ADDITIONAL PARKING AREA FOR AUTO PARKING SPOTS.
ALTERNATE C: SCHEDULE IS TO REMOVE AND REPLACE SIDING AND ROOFING ASSOCIATED WITH THE EXISTING HANGAR.
ALTERNATE D: SCHEDULE IS TO PROVIDE TEMPORARY INTERIM TERMINAL FACILITY AND TOILET FACILITIES.



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Ryan Falch
RYAN FALCH, PE

DATE 05/17/2023 LICENSE NO. 60494



SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING
DULUTH, MN

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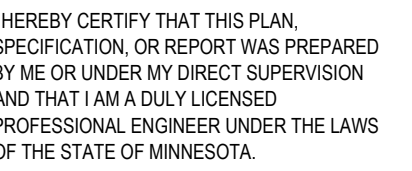
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Project Status Issue Date
CONSTRUCTION 05/17/2023
PLANS

REVISION SCHEDULE
REV. # DESCRIPTION DATE
ADDENDUM #1 5/30/2023

STATEMENT OF ESTIMATED QUANTITIES

G2.10



DULUTH INTERNATIONAL AIRPORT

DULUTH, MN

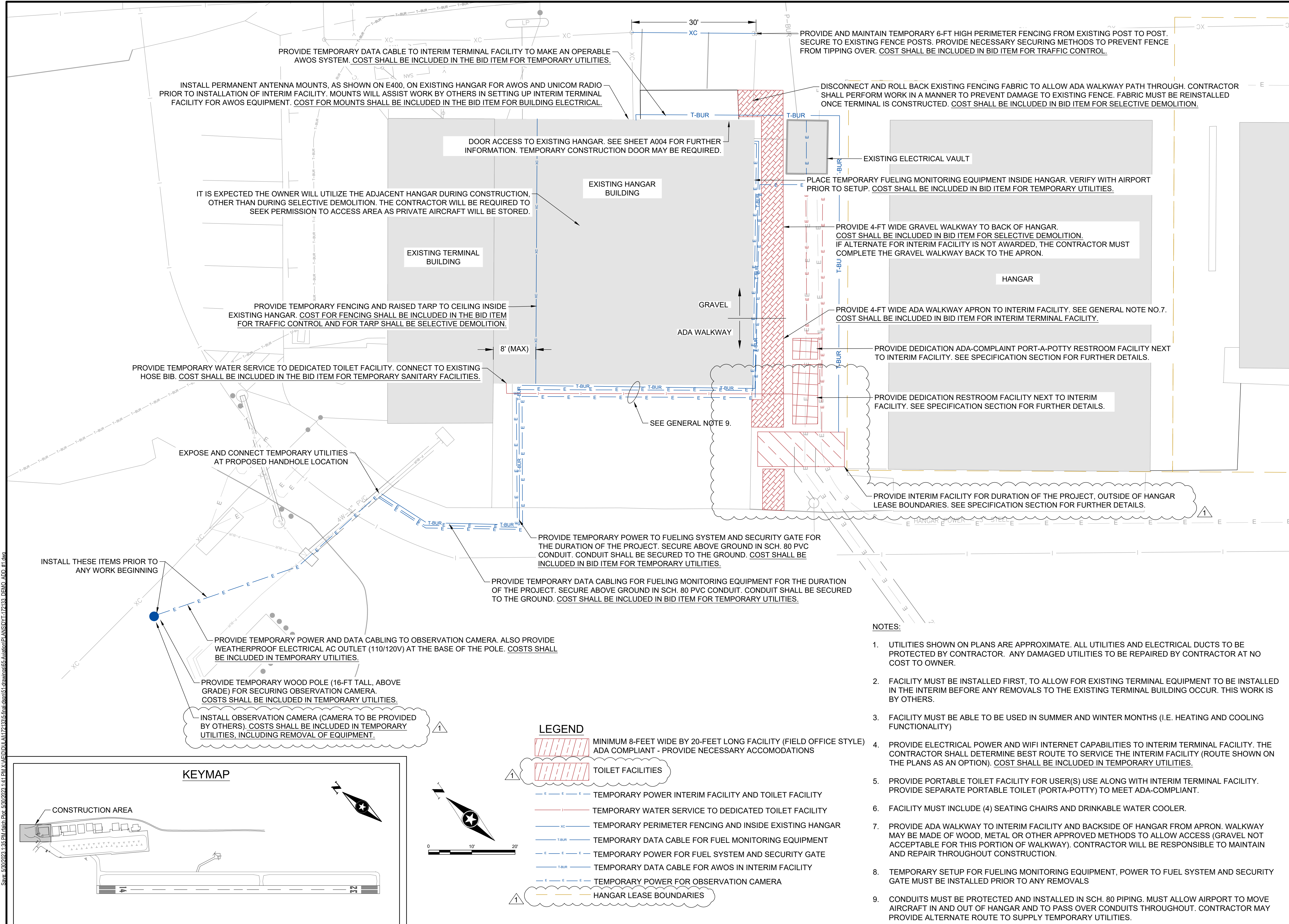
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Issue Date
05/17/200

REV. #	DESCRIPTION	DATE
1	ADDENDUM #1	5/30/201

C2.20



DEMOLITION PLAN KEYNOTES:

- 1

REMOVE EXISTING CONCRETE FLOOR, METAL DECK AND BAR JOIST STRUCTURAL FRAMING
- 2

REMOVE EXISTING MASONRY BEARING WALLS WITH EXTERIOR FURRING, INSULATION, METAL SIDING AND WINDOWS
- 3

REMOVE EXISTING DOOR AND FRAME, PREP OPENING FOR NEW FRAME
- 4

EXISTING STEEL FRAME TO REMAIN
- 5

REMOVE EXISTING PLUMBING FIXTURES AND RESTROOM ACCESSORIES
- 6

REMOVE EXISTING SINK, SEE PLUMBING
- 7

REMOVE EXISTING CONCRETE FLOOR SLAB AND FOUNDATIONS
- 8

REMOVE EXISTING INTERIOR WOOD STUD AND GYPSUM BOARD WALL
- 9

REMOVE EXISTING PRE-ENGINEERED BUILDING FRAME, GIRTS, PURLINS, SIDING AND INSULATION
- 10

REMOVE EXISTING EXTERIOR METAL SIDING, PREP FOR REPLACEMENT SIDING INSTALLATION
- 11

REMOVE EXISTING METAL ROOFING PANELS, PREP FOR STANDING SEAM METAL ROOFING REPLACEMENT PANELS (INSULATION TO REMAIN)
- 12

REMOVE EXISTING WOOD STAIR AND GUARDRAIL
- 13

EXISTING CMU WALL TO REMAIN
- 14

EXISTING 2x4 STUD WALL AND SHEATHING TO REMAIN
- 15

EXISTING WINDOW TO BE REMOVED
- 16

REMOVE EXISTING METAL PANEL CLADDING ON HANGAR DOOR, PREP DOOR FOR INSTALLATION OF NEW METAL CLADDING
- 17

REMOVE CONCRETE STOOP, FOUNDATION AND PAVEMENT
- 18

SAW CUT AND REMOVE PORTION OF EXISTING MASONRY WALL TO RAISE DOOR OPENING. PREP FOR STEEL LINTEL PER STRUCTURAL
- 19

REMOVE EXISTING FURRING AND GYPSUM BOARD TO EXPOSE EXISTING CMU WALL
- 20

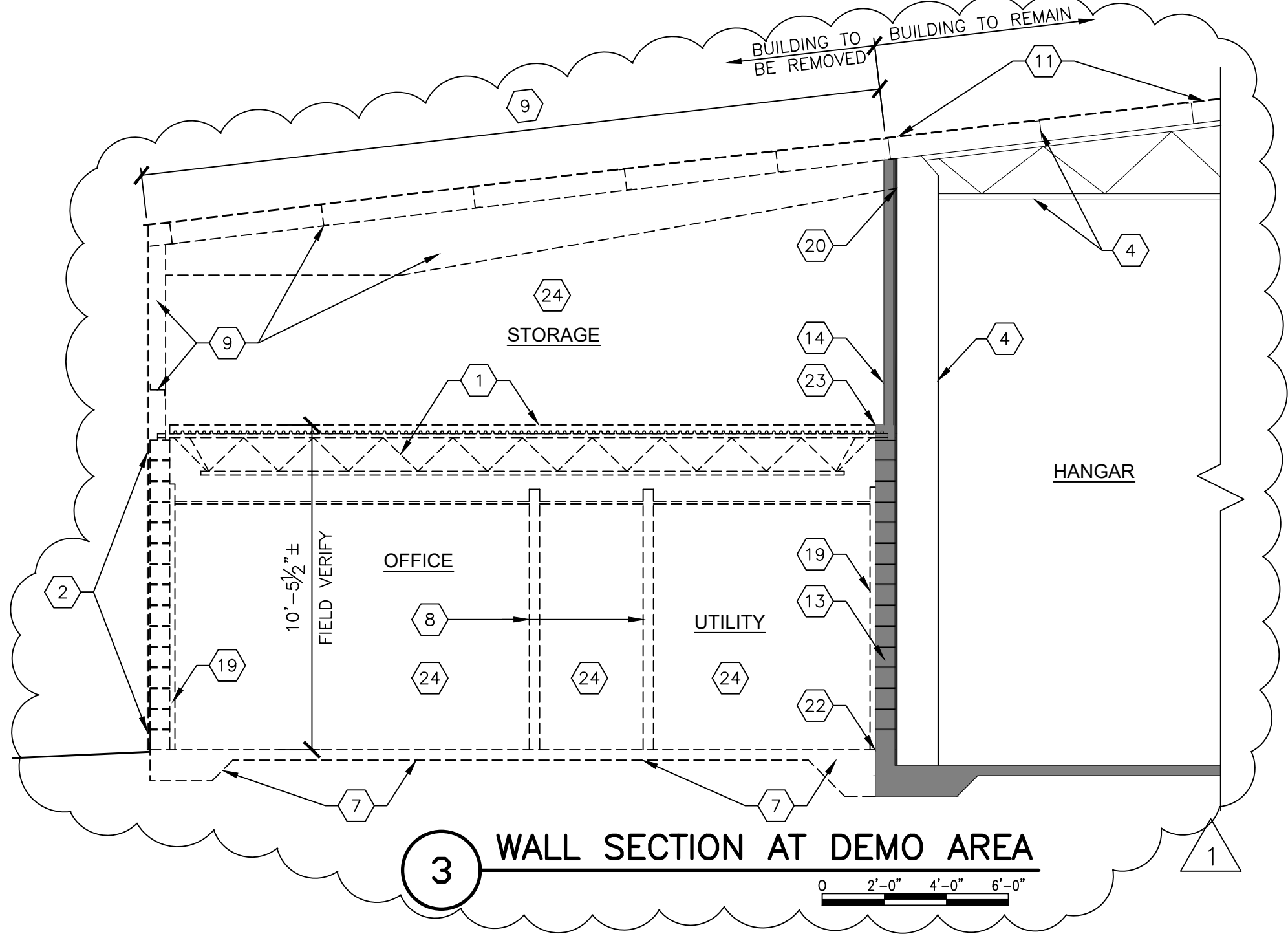
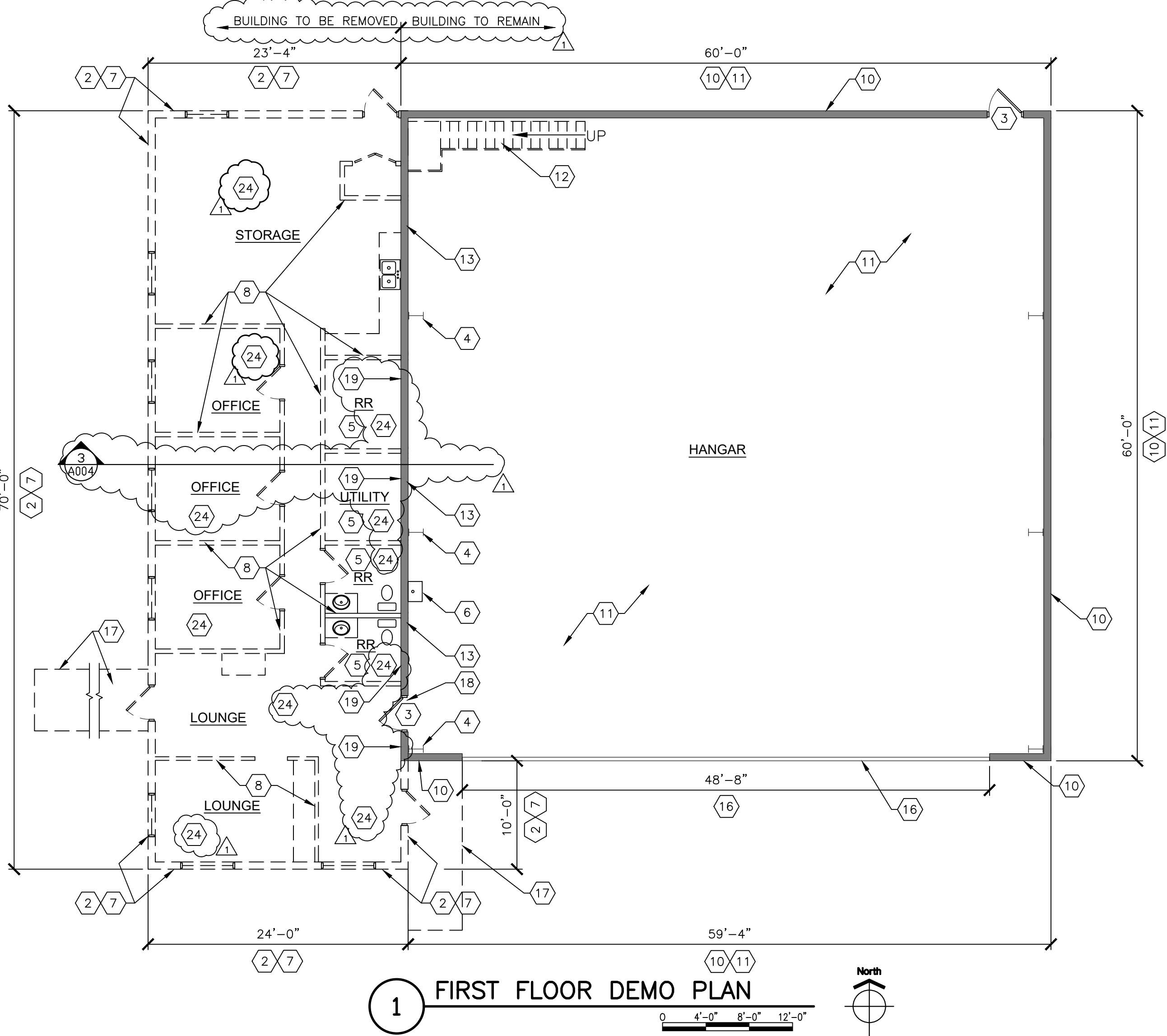
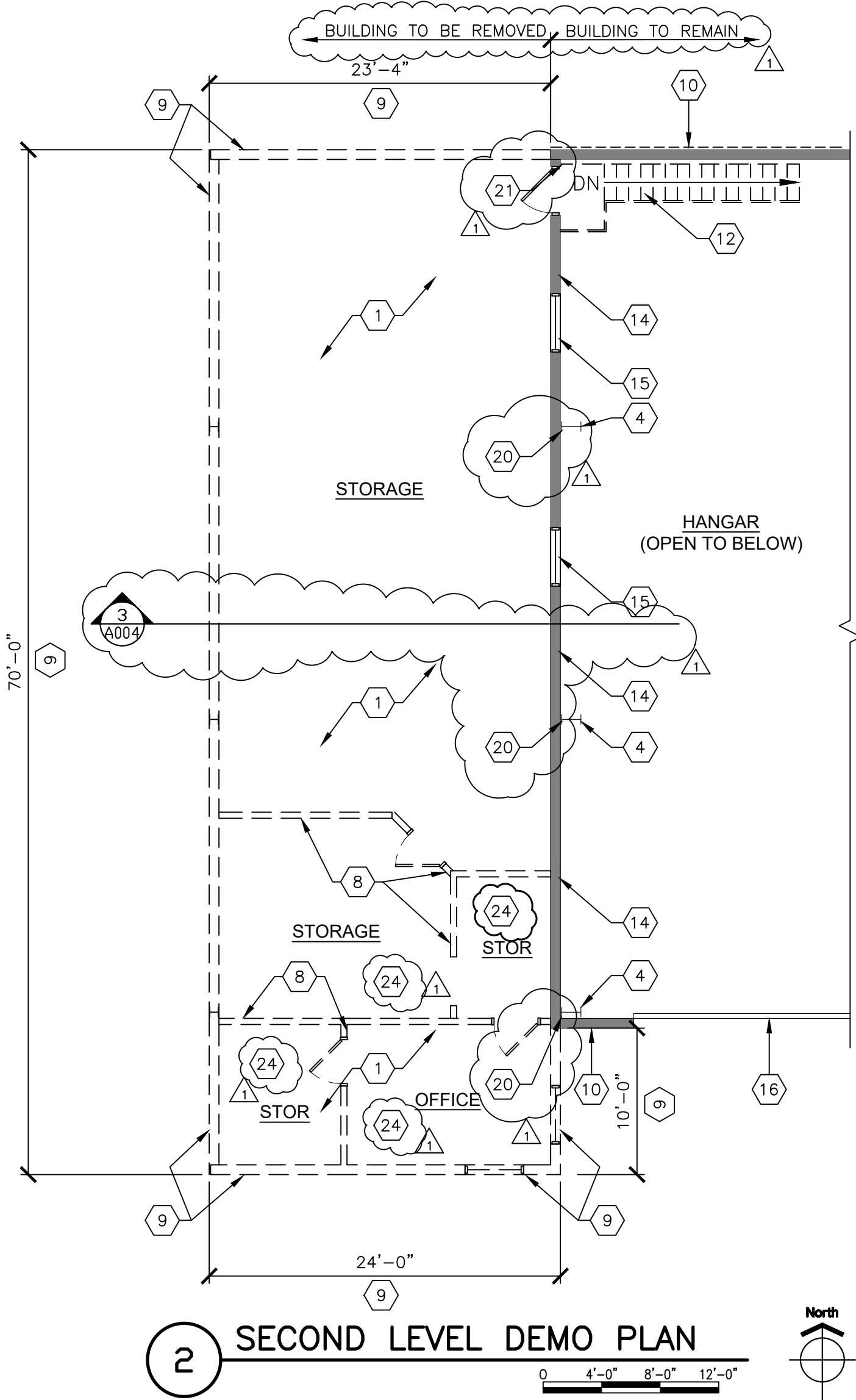
DISCONNECT EXISTING ROOF BEAM FROM STEEL COLUMN, COLUMN TO REMAIN
- 21

CUT EXISTING STEEL ROOF BEAM FLUSH WITH FACE OF STEEL COLUMN, COLUMN TO REMAIN
- 22

SAW CUT AND REMOVE PORTION OF EXISTING CONCRETE SLAB/THICKENED EDGE FOUNDATION
- 23

SAW CUT AND REMOVE EXISTING STEEL DECKING, CONCRETE TOPPING AND STEEL JOISTS FLUSH WITH FACE OF CMU WALL
- 24

REMOVE EXISTING INTERIOR FINISHES INCLUDING, BUT NOT LIMITED TO, FLOORING, CEILINGS, WALL FURRING AND GYPSUM BOARD, CASEWORK, AND TRIM



SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING

DULUTH, MN

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5.16.23

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1	ADDENDUM #1	5.30.2023

DEMOLITION PLANS AND
SECTIONS

A004



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Scott Blank, AIA
DATE 5-16-2023 LICENSE NO. 51092





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Scott Blank, AIA

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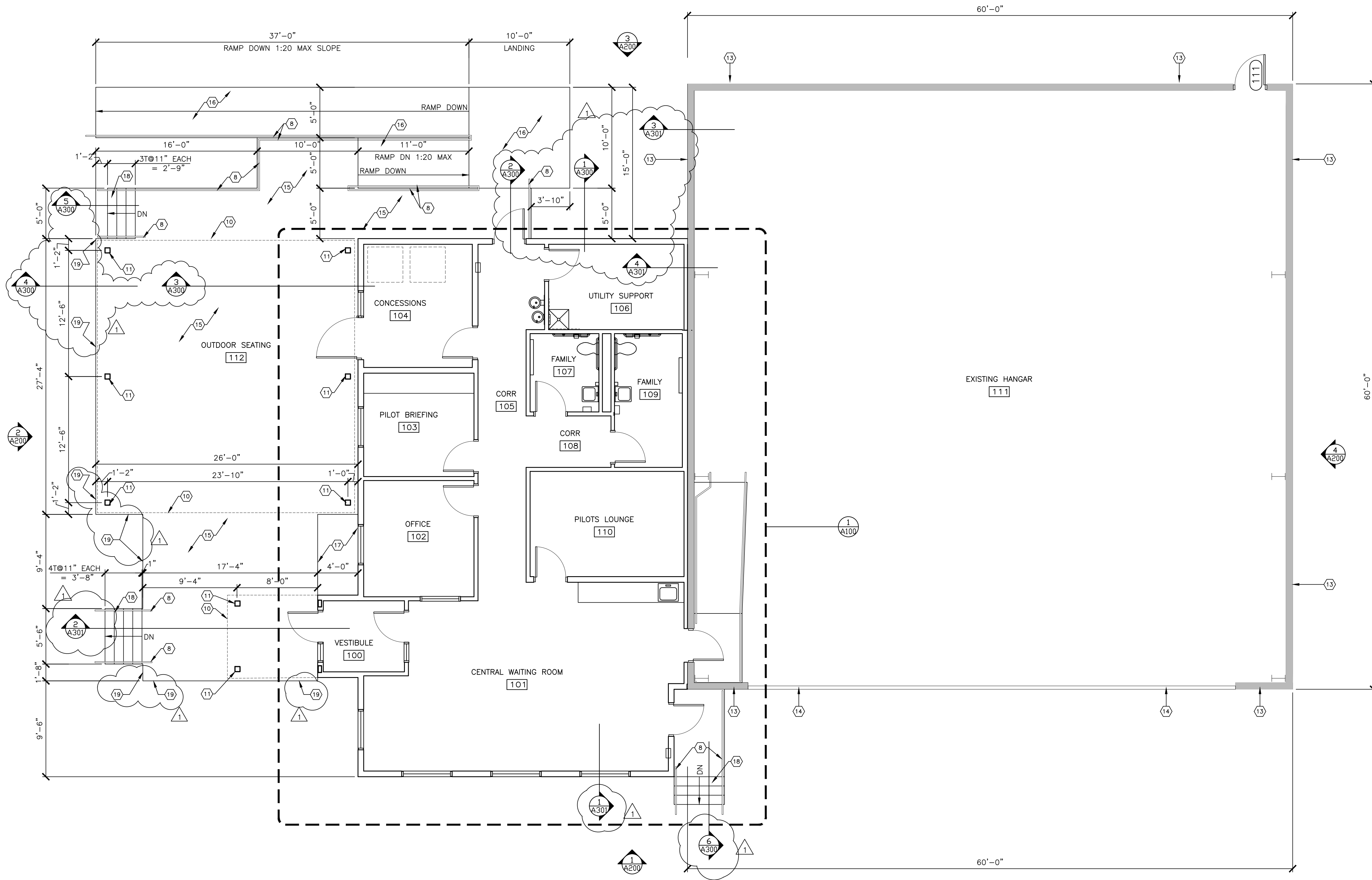
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PLANS

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1	ADDENDUM #1	5.30.2023

OVERALL FLOOR PLAN

A100



FLOOR PLAN KEYNOTES:

- | | |
|---|---|
| 1 CABINET MOUNTED FIRE EXTINGUISHER (FE-1) | 11 STEEL COLUMN, SEE STRUCTURAL (PAINT) |
| 2 DUAL-HEIGHT DRINKING FOUNTAIN | 12 STEEL COLUMN IN STUD CAVITY, SEE STRUCTURAL |
| 3 FLOOR MOUNTED MOP SINK, SEE MECHANICAL | 13 PREFINISHED EXTERIOR METAL WALL PANEL INSTALLED ON EXISTING STEEL BUILDING |
| 4 4'-0" HIGH FRP WALL FINISH AT MOP SINK | 14 PREFINISHED EXTERIOR METAL WALL PANEL INSTALLED ON EXISTING HANGAR DOOR |
| 5 DIMENSION TO EXTERIOR FACE OF WALL SHEATHING | 15 RAISED CONCRETE PATIO, SEE STRUCTURAL |
| 6 PLASTIC LAMINATE COUNTERTOP AT 30" ABOVE FINISHED FLOOR WITH SUPPORT BRACKETS AT 36" OC, SCRIBE TO WALL | 16 CONCRETE PAVEMENT/WALK, SEE CIVIL - THICKEN EDGE FOR HANDRAIL EMBEDMENT, TYPICAL |
| 7 VENDING MACHINE, BY OWNER | 17 4" THICK LANDSCAPE ROCK OVER LANDSCAPING FABRIC |
| 8 1½" DIAMETER STEEL PIPE HANDRAIL, PAINT | 18 CONCRETE STAIRS |
| 9 CONCRETE RAMP AND LANDING, SLOPE DOWN AT 1:12 MAXIMUM - FIELD VERIFY FINAL RAMP LENGTH | 19 CLAD FACE OF RAISED CONCRETE PATIO WALL WITH SIMULATED MASONRY VENEER |
| 10 CANOPY ABOVE (SHOWN DASHED) | |

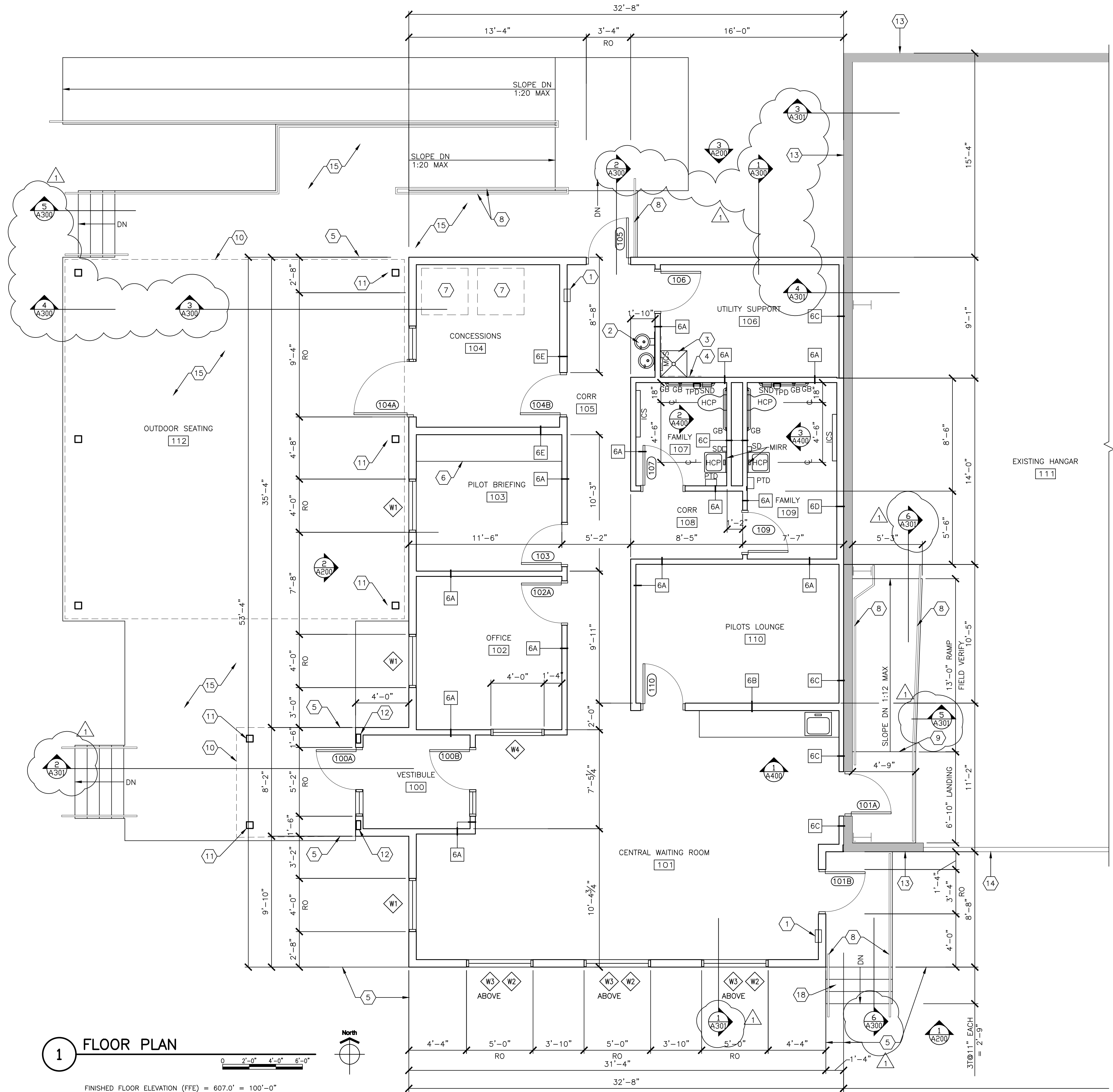
1 OVERALL FLOOR PLAN

0 2'-8" 5'-3 3/4" 11 3/4"



FLOOR PLAN KEYNOTES:

- 1 CABINET MOUNTED FIRE EXTINGUISHER (FE-1)
- 2 DUAL-HEIGHT DRINKING FOUNTAIN
- 3 FLOOR MOUNTED MOP SINK, SEE MECHANICAL
- 4 4'-0" HIGH FRP WALL FINISH AT MOP SINK
- 5 DIMENSION TO EXTERIOR FACE OF WALL SHEATHING
- 6 PLASTIC LAMINATE COUNTERTOP AT 30" ABOVE FINISHED FLOOR WITH SUPPORT BRACKETS AT 36" OC, SCRIBE TO WALL
- 7 VENDING MACHINE, BY OWNER
- 8 1½" DIAMETER STEEL PIPE HANDRAIL, PAINT
- 9 CONCRETE RAMP AND LANDING, SLOPE DOWN AT 1:12 MAXIMUM - FIELD VERIFY FINAL RAMP LENGTH
- 10 CANOPY ABOVE (SHOWN DASHED)
- 11 STEEL COLUMN, SEE STRUCTURAL (PAINT)
- 12 STEEL COLUMN IN STUD CAVITY, SEE STRUCTURAL
- 13 PREFINISHED EXTERIOR METAL WALL PANEL INSTALLED ON EXISTING STEEL BUILDING
- 14 PREFINISHED EXTERIOR METAL WALL PANEL INSTALLED ON EXISTING HANGAR DOOR
- 15 RAISED CONCRETE PATIO, SEE STRUCTURAL
- 16 CONCRETE PAVEMENT/WALK, SEE CIVIL - THICKEN EDGE FOR HANDRAIL EMBEDMENT, TYPICAL
- 17 4" THICK LANDSCAPE ROCK OVER LANDSCAPING FABRIC
- 18 CONCRETE STAIRS
- 19 CLAD FACE OF RAISED CONCRETE PATIO WALL WITH SIMULATED MASONRY VENEER



SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING

DULUTH, MN

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PLANS

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ADDITION FLOOR PLAN

A101



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Sam. Blt
Scott Blank, AIA

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2023 RECONSTRUCT TERMINAL BUILDING

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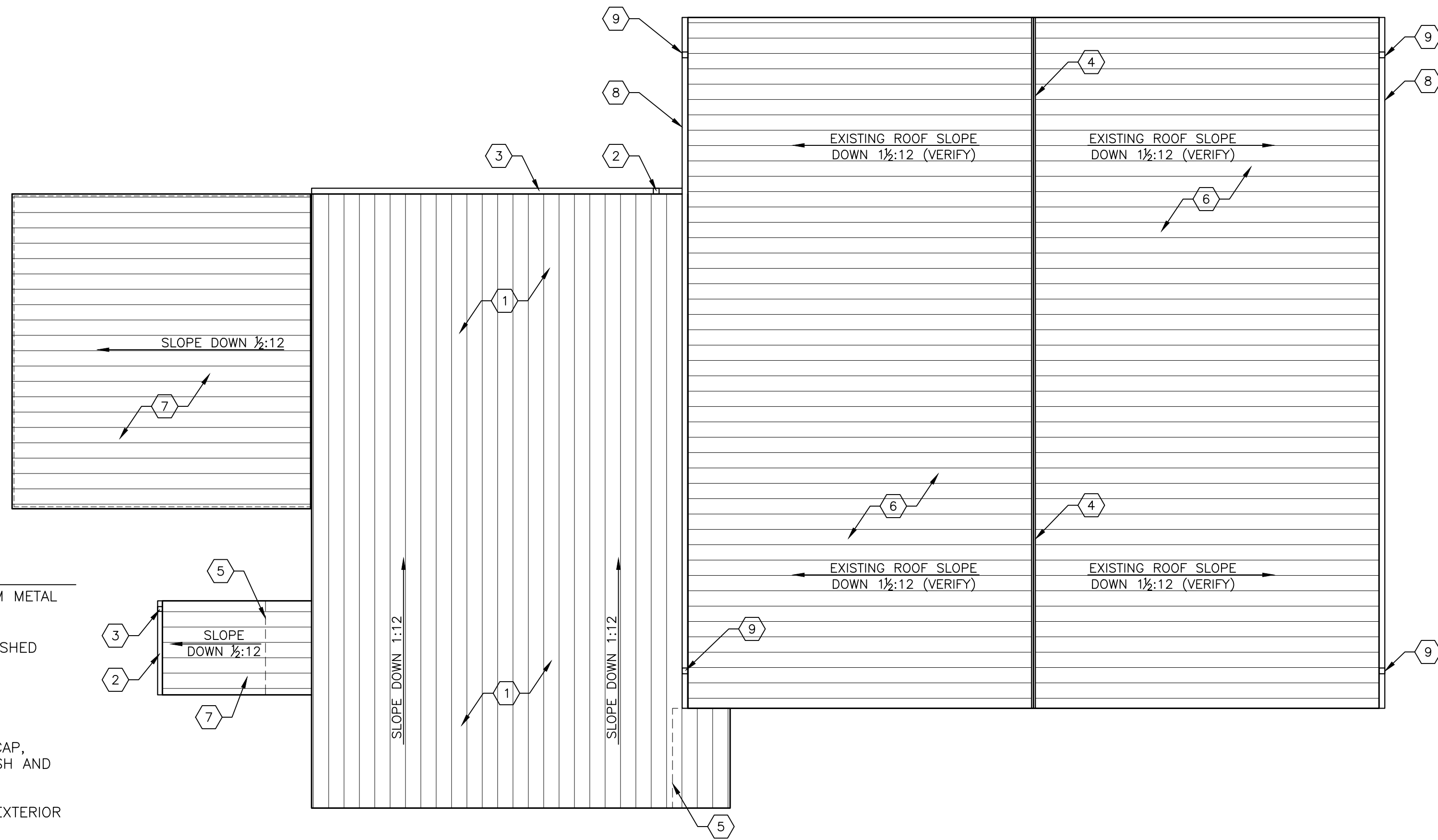
SEH Project DULAL_172133
Checked By SB
Drawn By BB

Project Status Issue Date
CONSTRUCTION 5.16.23
PLANS

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE
1	ADDENDUM #1	5.30.2023

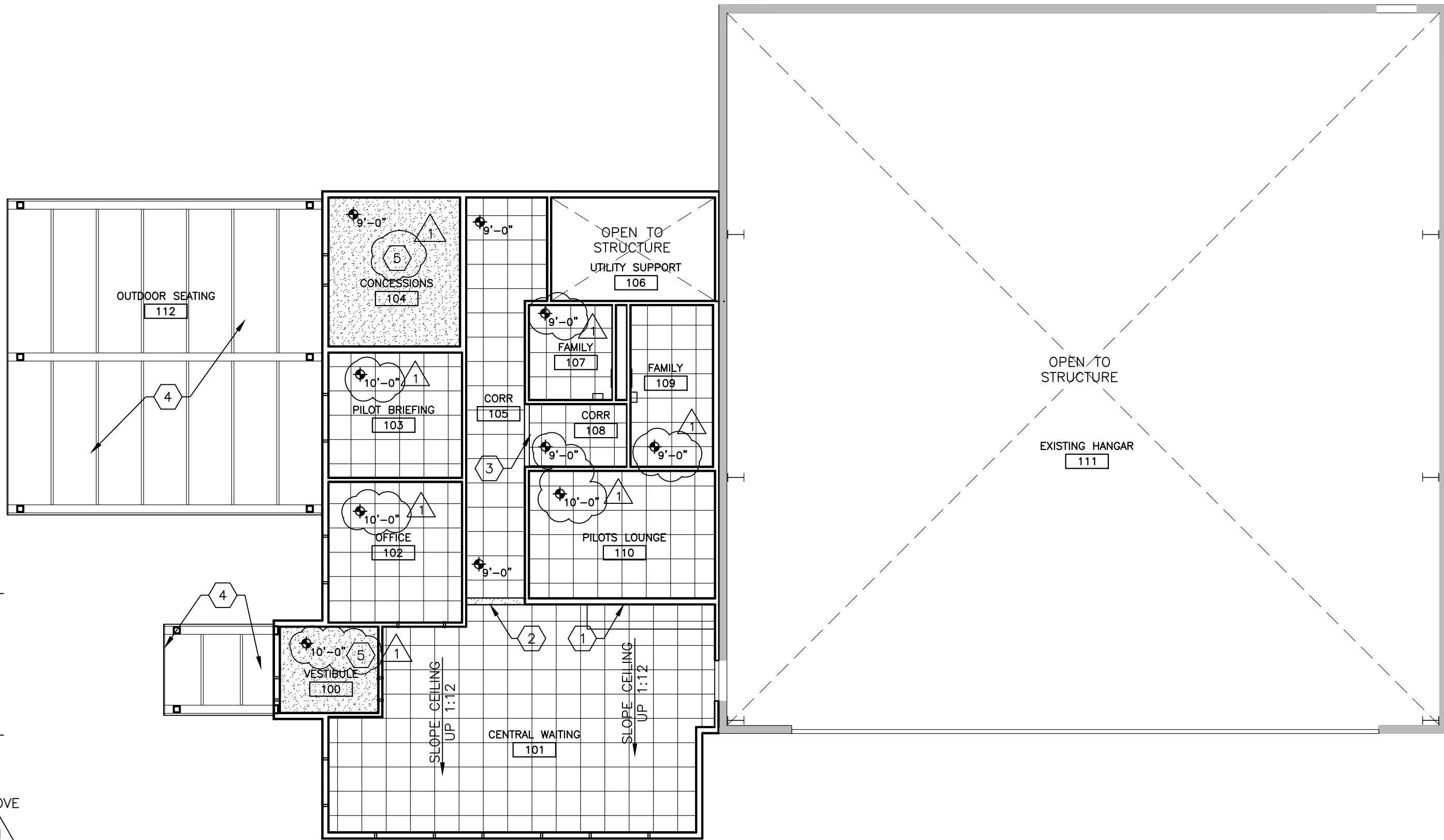
ROOF PLAN AND
CEILING PLAN

A102



1 ROOF PLAN

0 4'-0" 8'-0" 12'-0"



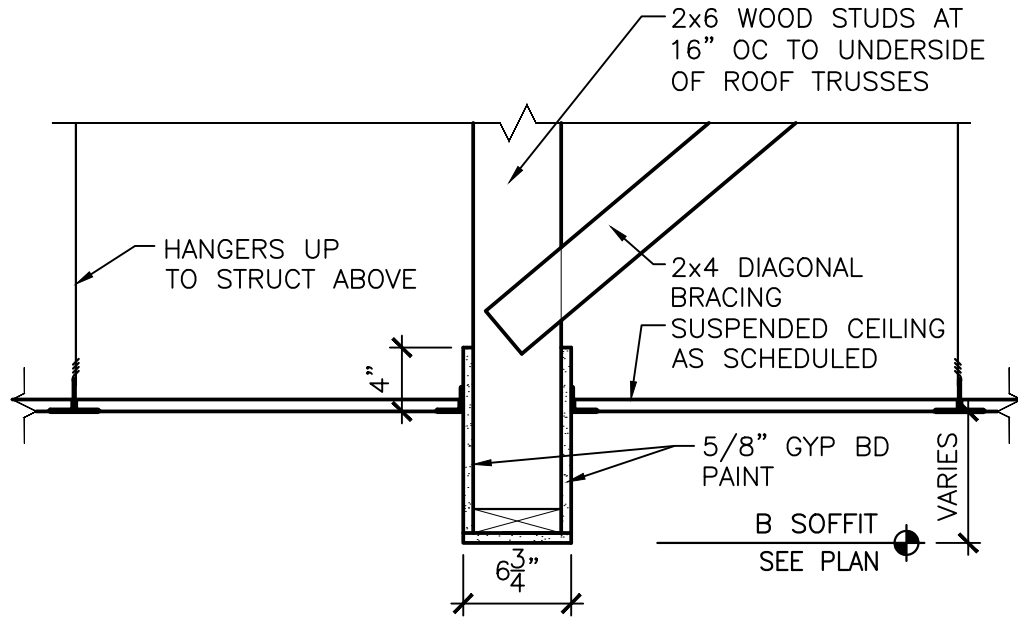
2 CEILING PLAN

0 4'-0" 8'-0" 12'-0"



- ROOF PLAN KEYNOTES
- 1 PREFINISHED STANDING SEAM METAL ROOFING (PANEL TYPE-1)
 - 2 8" WIDE x 6" DEEP PREFINISHED METAL GUTTER
 - 3 4"x5" PREFINISHED METAL DOWNSPOUT
 - 4 PREFINISHED METAL RIDGE CAP, MATCH METAL ROOFING FINISH AND COLOR
 - 5 DASHED LINE REPRESENTS EXTERIOR FACE OF WALL BELOW
 - 6 PREFINISHED STANDING SEAM METAL ROOFING (PANEL TYPE-2)
 - 7 PREFINISHED STANDING SEAM METAL ROOFING (PANEL TYPE-3)
 - 8 6" WIDE x 4 1/2" DEEP PREFINISHED METAL GUTTER
 - 9 3"x4" PREFINISHED METAL DOWNSPOUT

- CEILING PLAN LEGEND:
- 5/8" GYPSUM BOARD
 - 2'x2' ACOUSTICAL CEILING PANELS
- CEILING PLAN KEYNOTES:
- 1 ACOUSTICAL CEILING AT 11'-0" ABOVE FINISHED FLOOR AT FACE OF WALL
 - 2 GYPSUM BOARD SOFFIT AT 8'-10" ABOVE FINISHED FLOOR, SEE 3/A102
 - 3 GYPSUM BOARD SOFFIT AT 8'-10" ABOVE FINISHED FLOOR, SEE 3/A102
 - 4 PAINT UNDERSIDE OF CANOPY INCLUDING, BUT NOT LIMITED TO, STRUCTURAL STEEL FRAMING, METAL DECKING AND EXPOSED CONDUIT
 - 5 5/8" GYPSUM BOARD CEILING FASTENED TO 2x6 WOOD FRAMING AT 16" OC



3 TYPICAL BULK HEAD DETAIL

0 6" 1'-0" 1'-6"



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Scott Blank
Scott Blank, AIA

DATE 5-16-2023 LICENSE NO. 51092



SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING
DULUTH, MN

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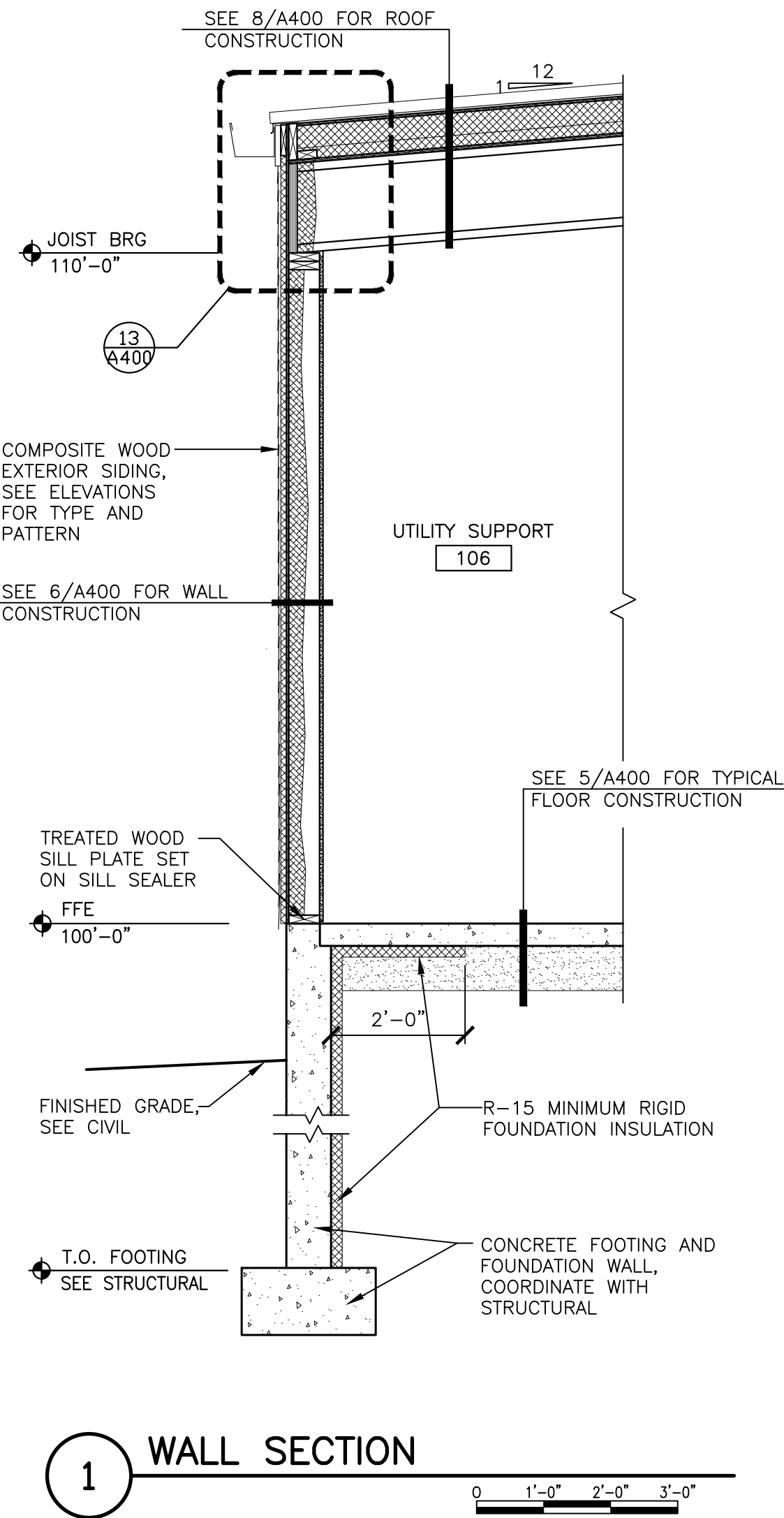
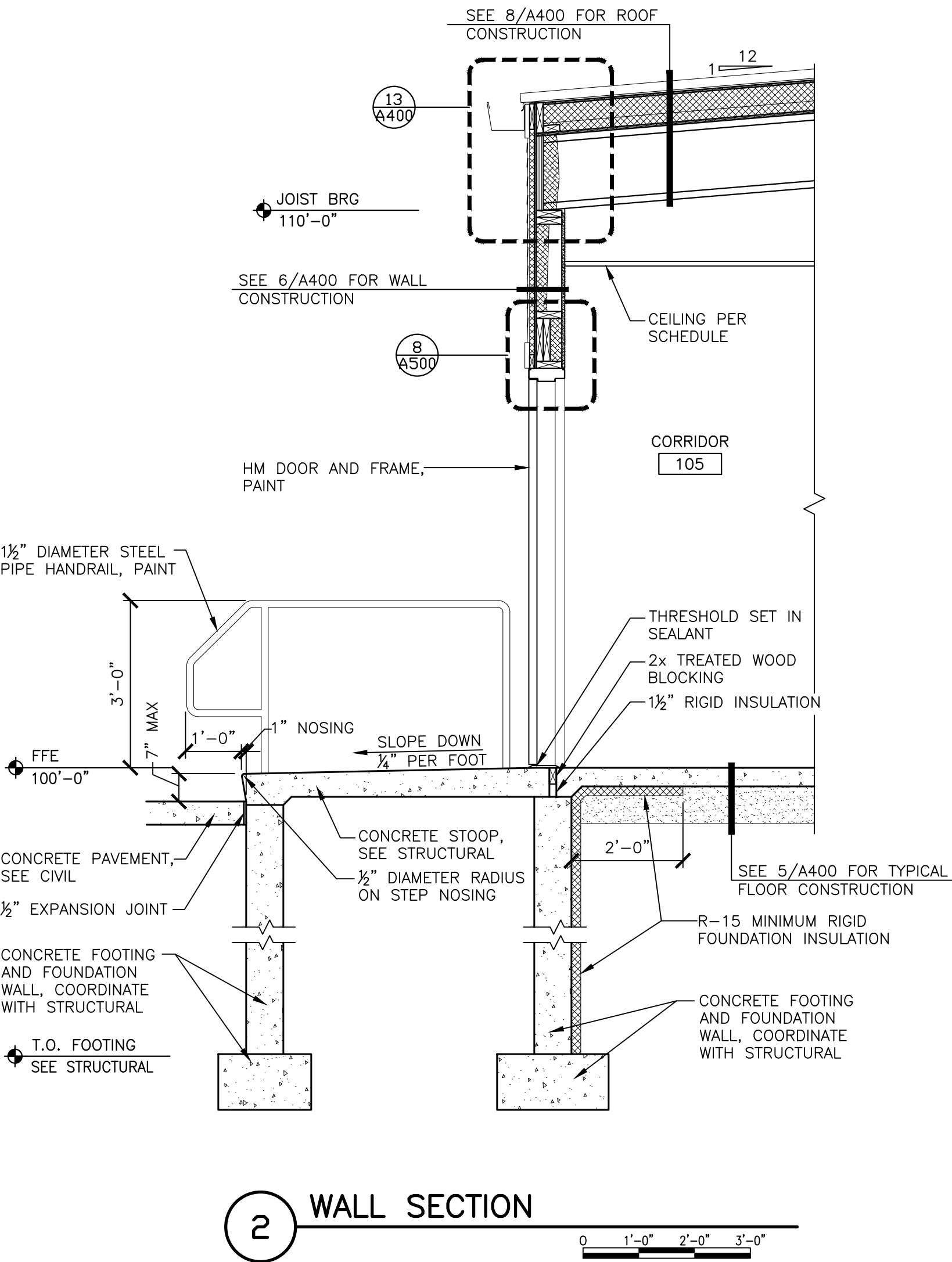
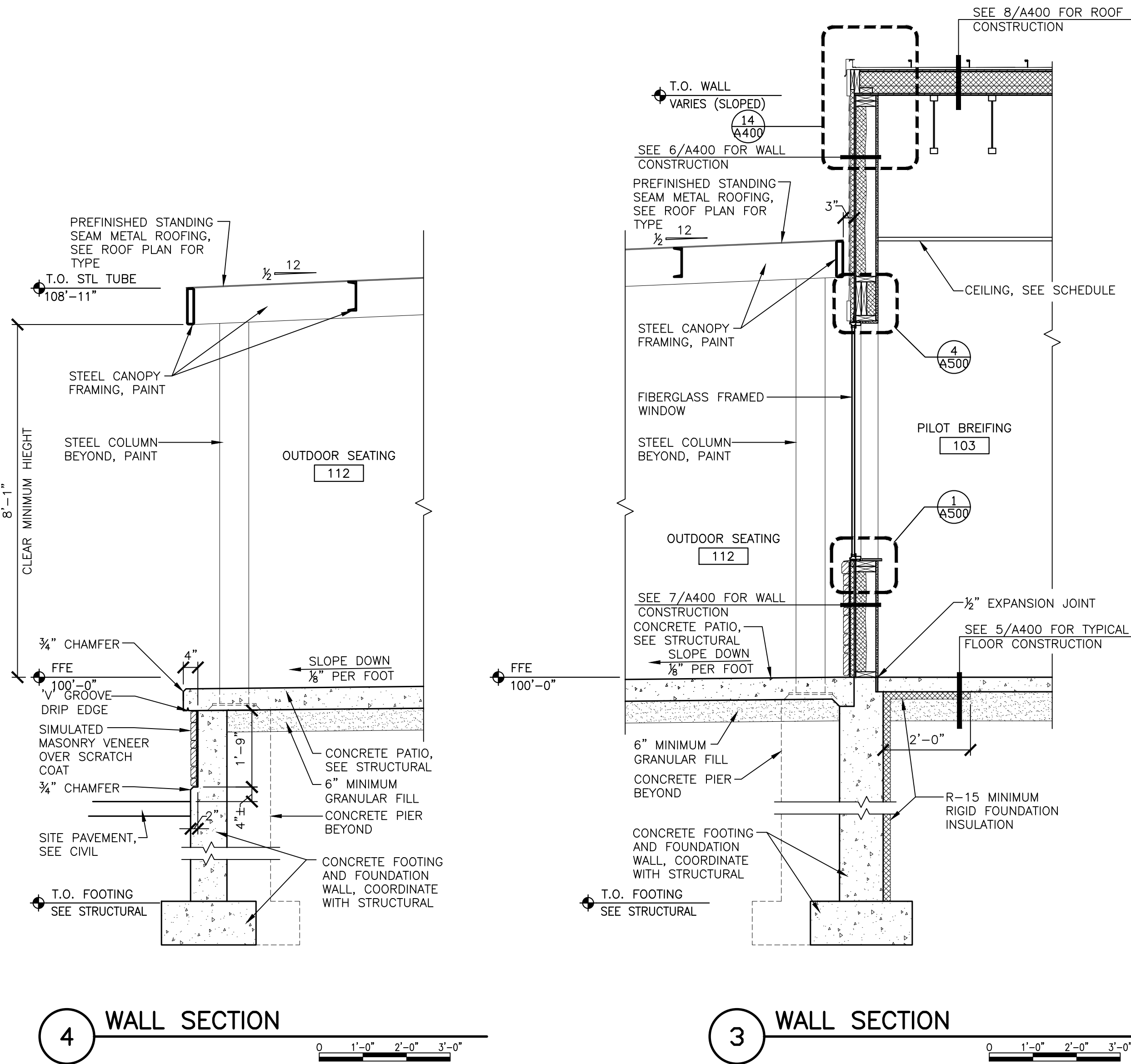
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PLANS

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WALL SECTIONS
AND DETAILS

A300





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SKY HARBOR AIRPORT
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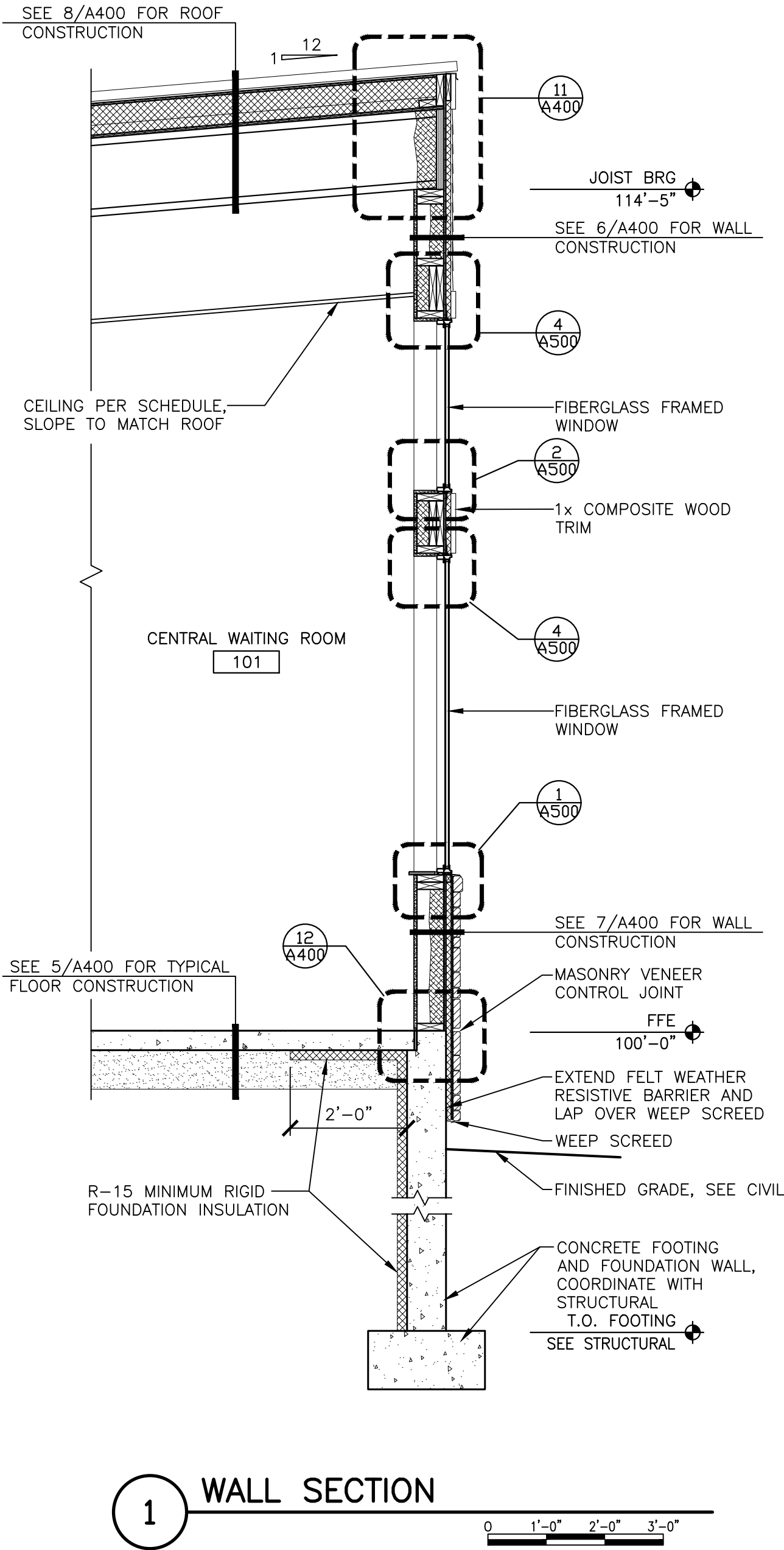
SEH Project DULAI_172133
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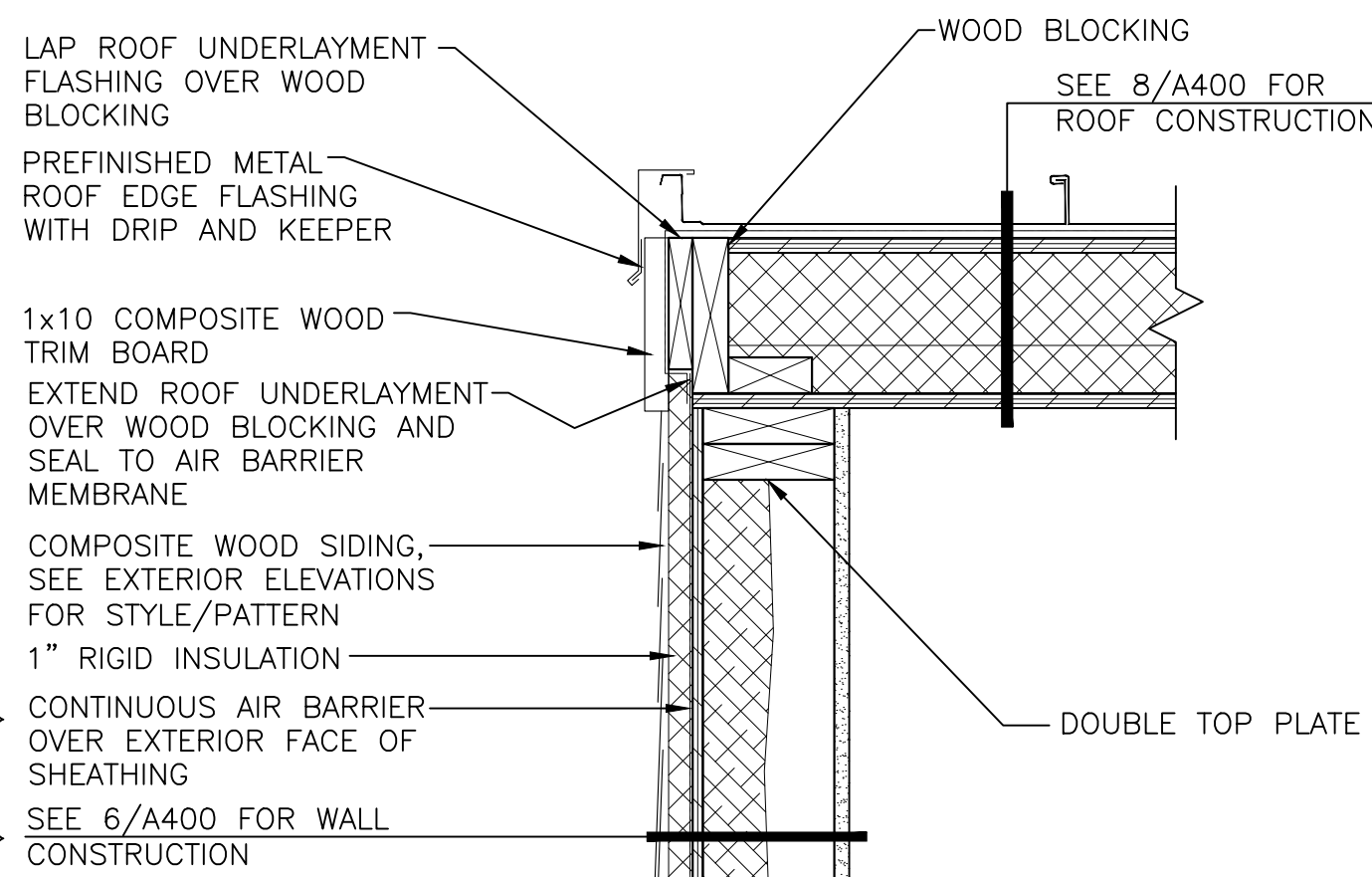
Project Status Issue Date
CONSTRUCTION 5.16.23
PLANS

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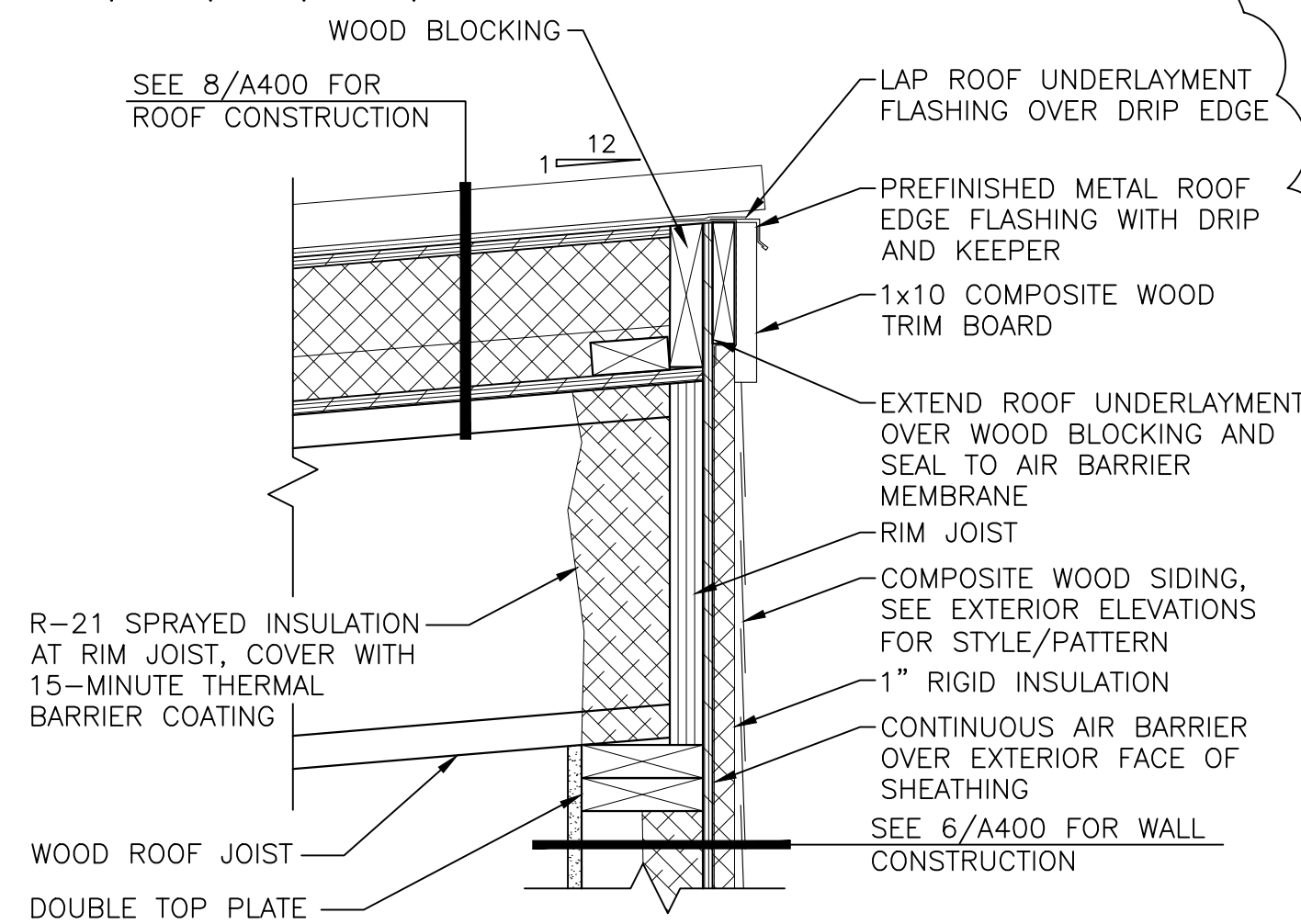
1 WALL SECTIONS AND DETAILS

A301

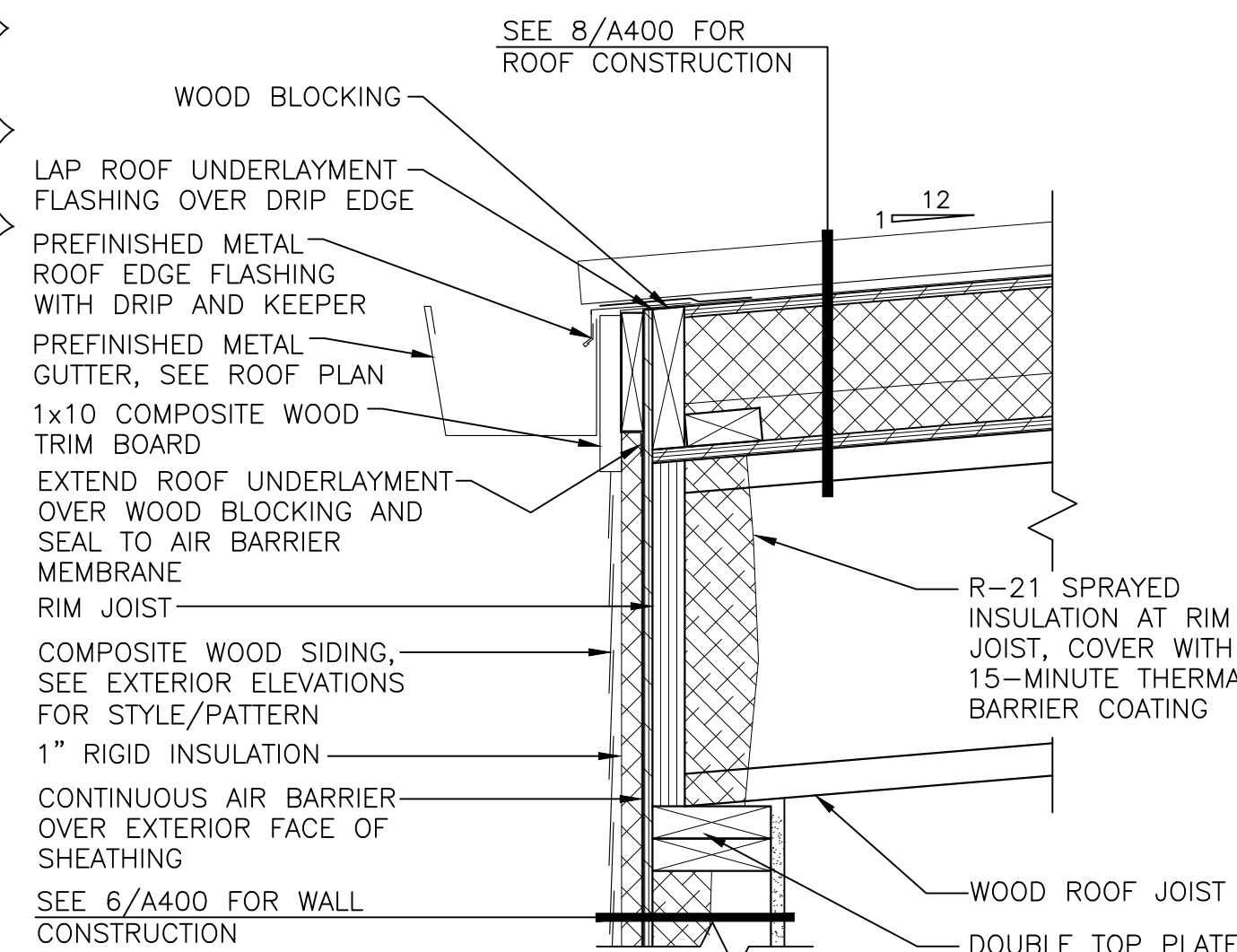




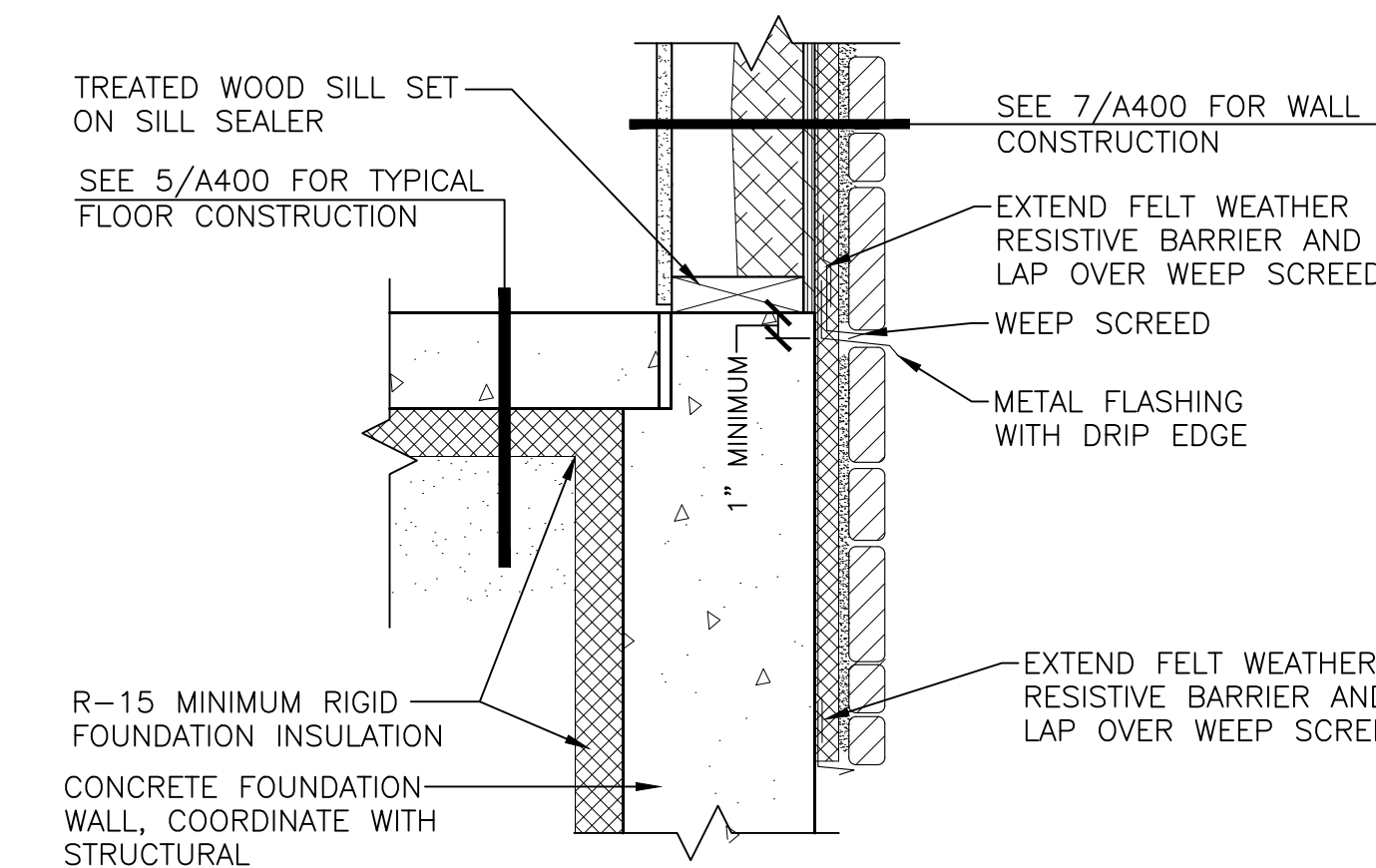
14 ROOF EDGE DETAIL



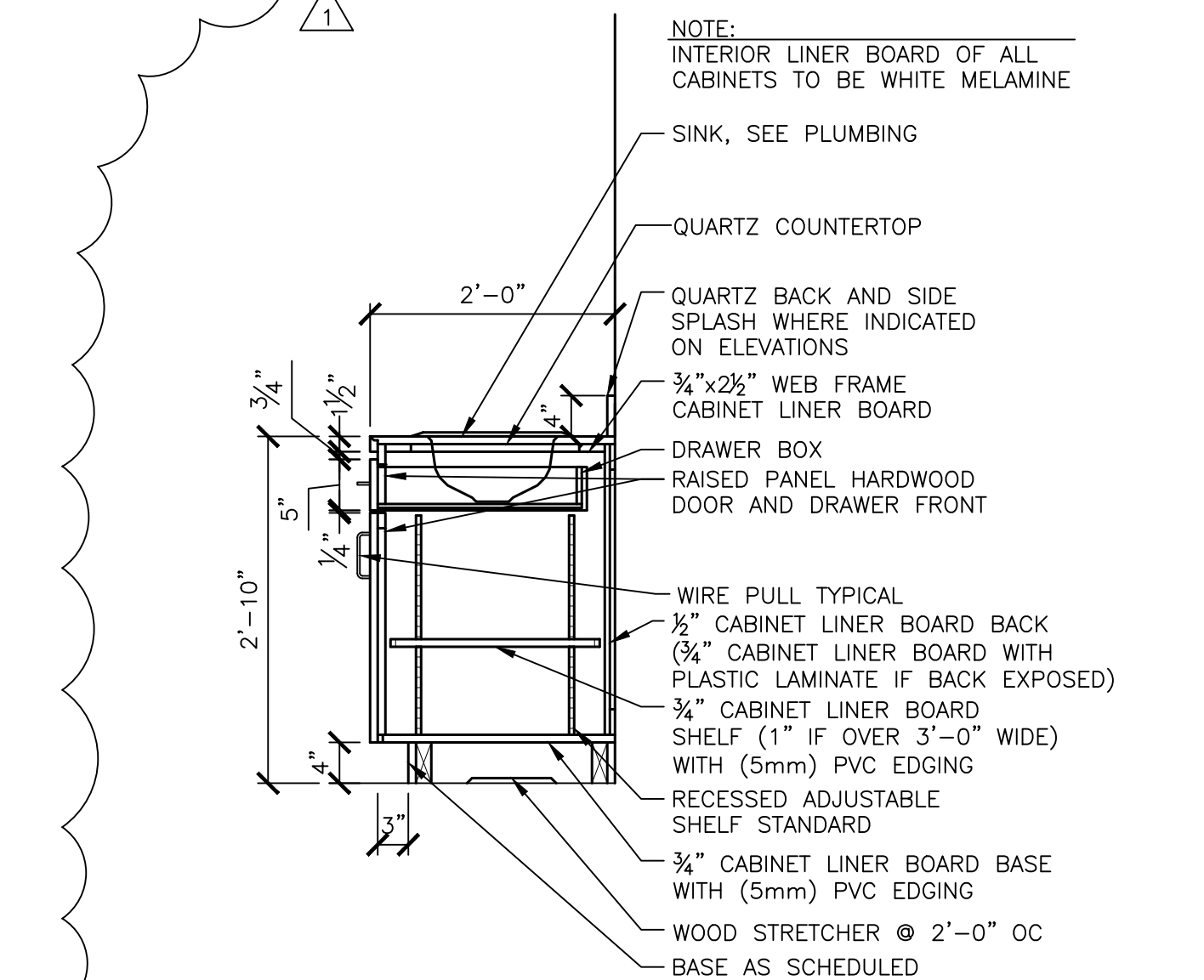
11 ROOF EDGE DETAIL



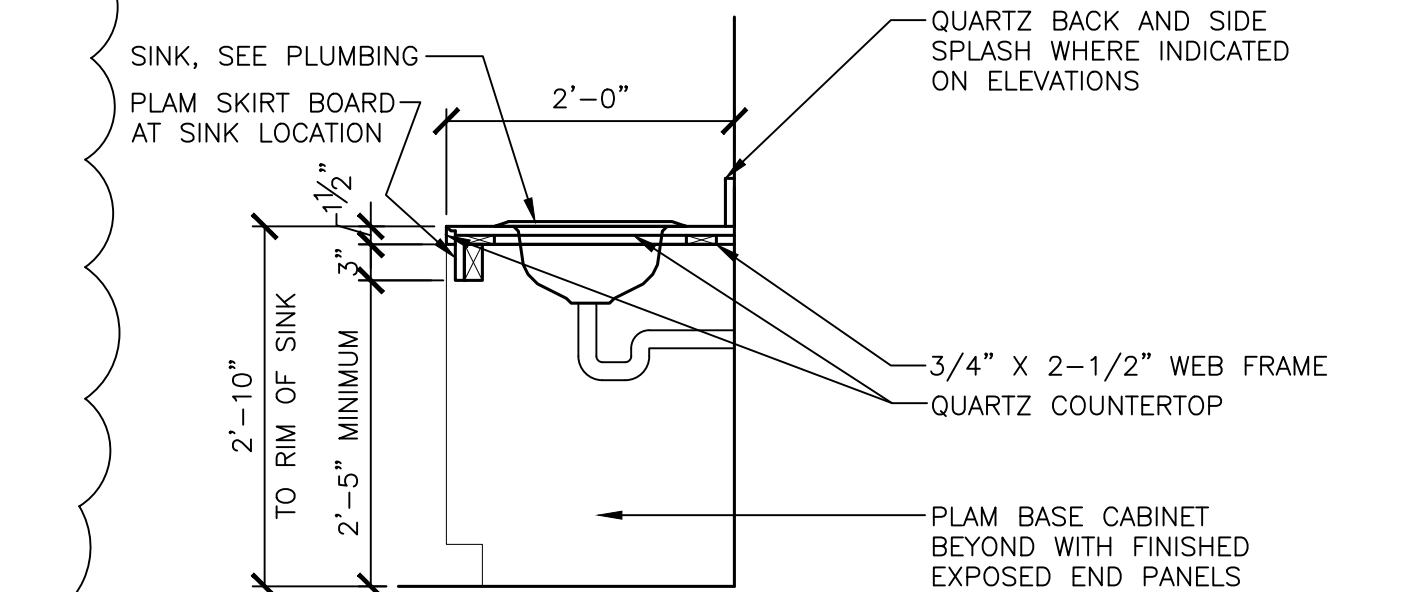
13 ROOF EDGE DETAIL



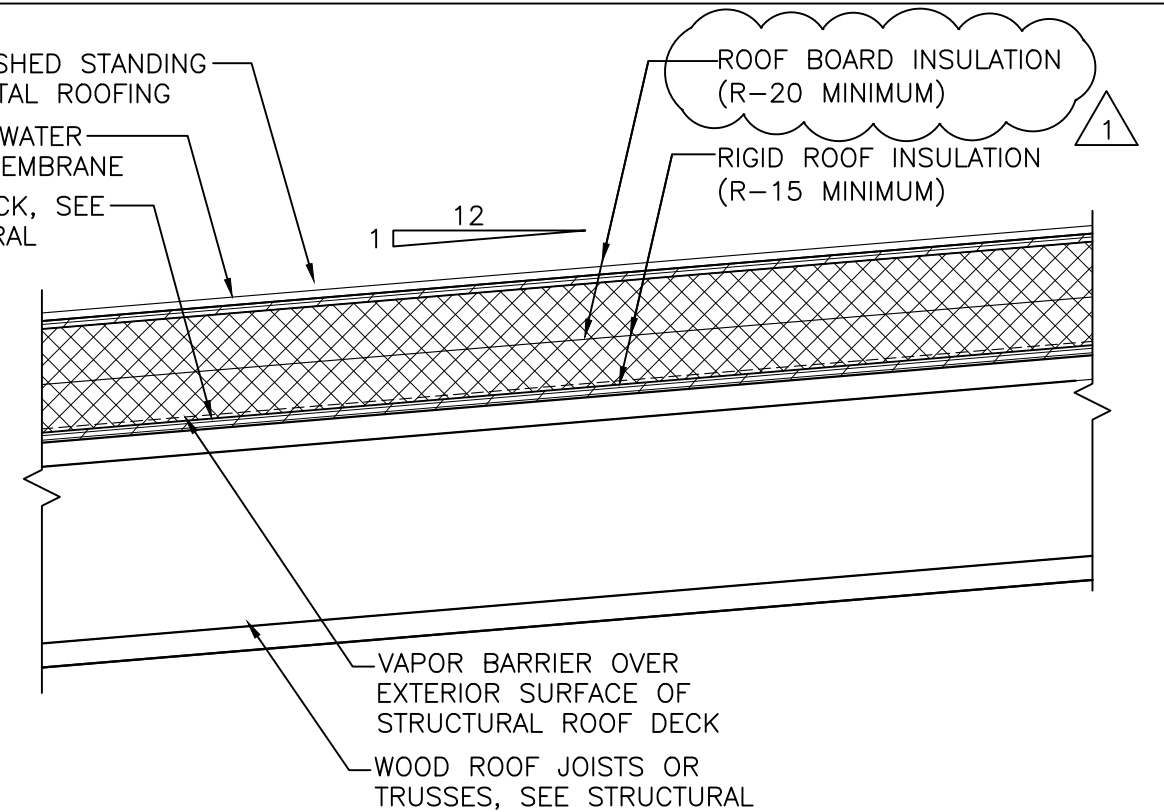
12 BASE OF WALL DETAIL



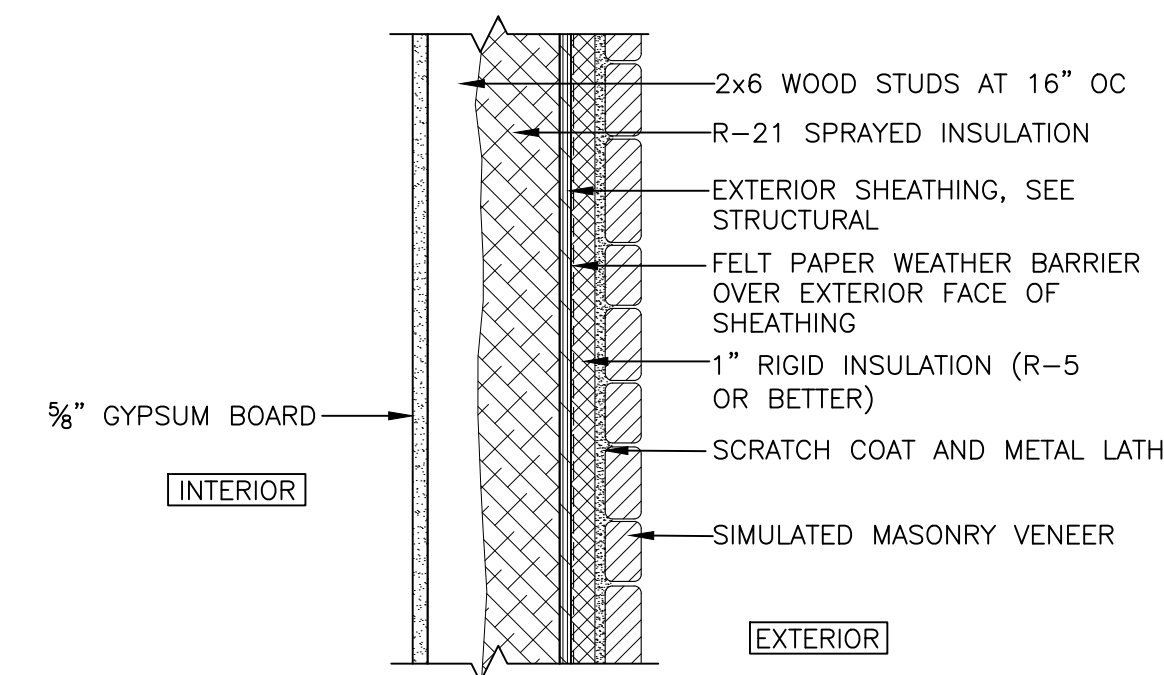
10 TYPICAL BASE CABINET



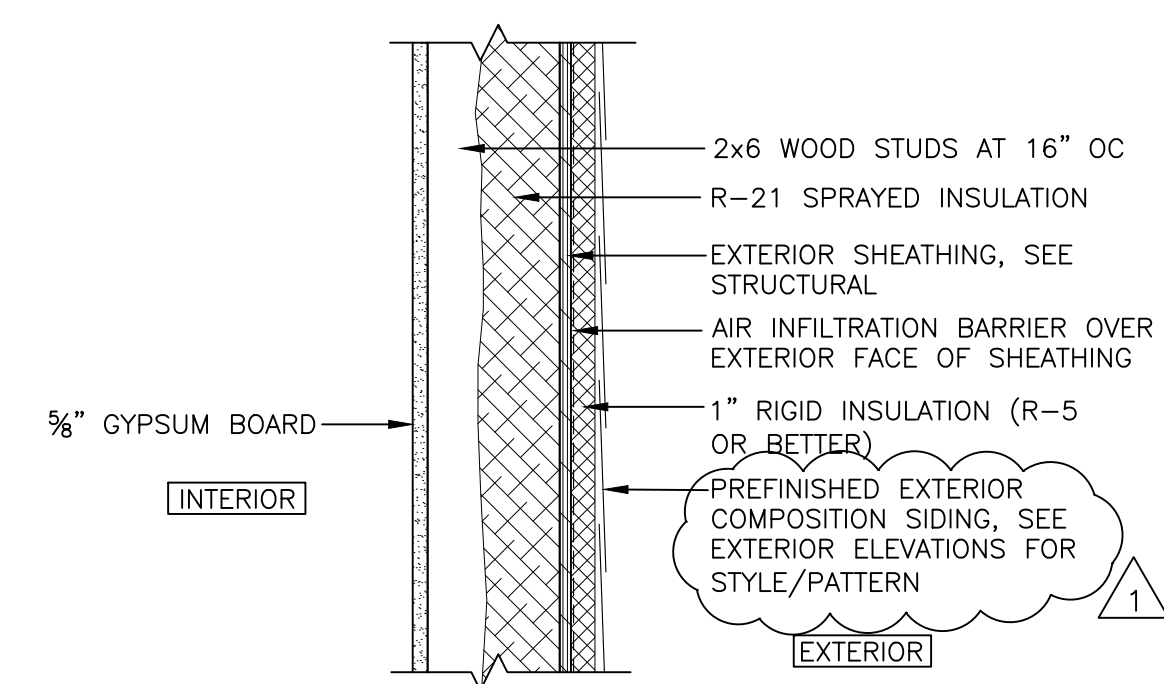
9 COUNTER AT SINK



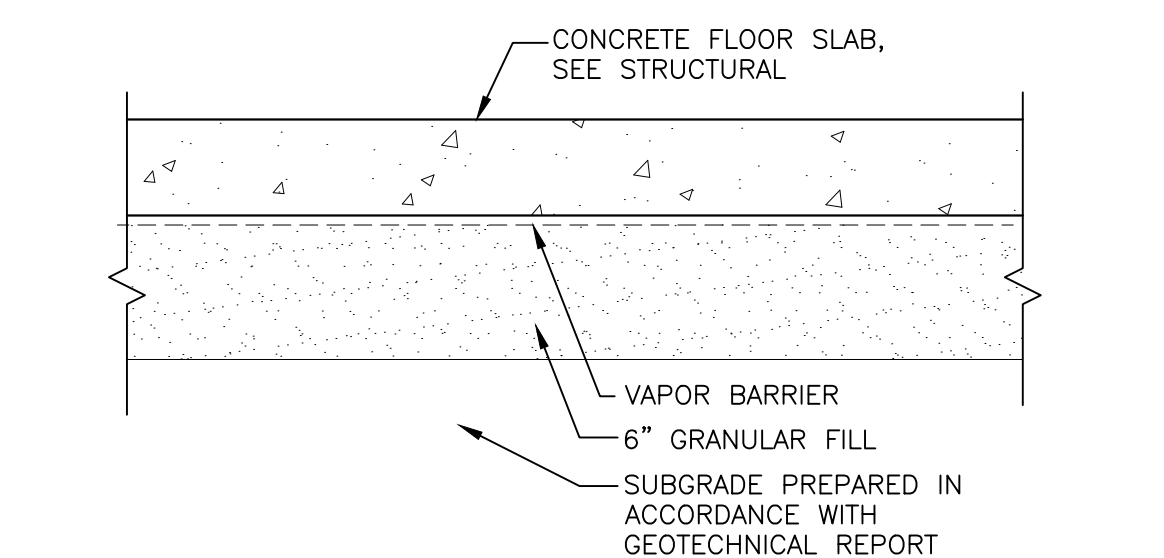
8 TYPICAL ROOF CONSTRUCTION



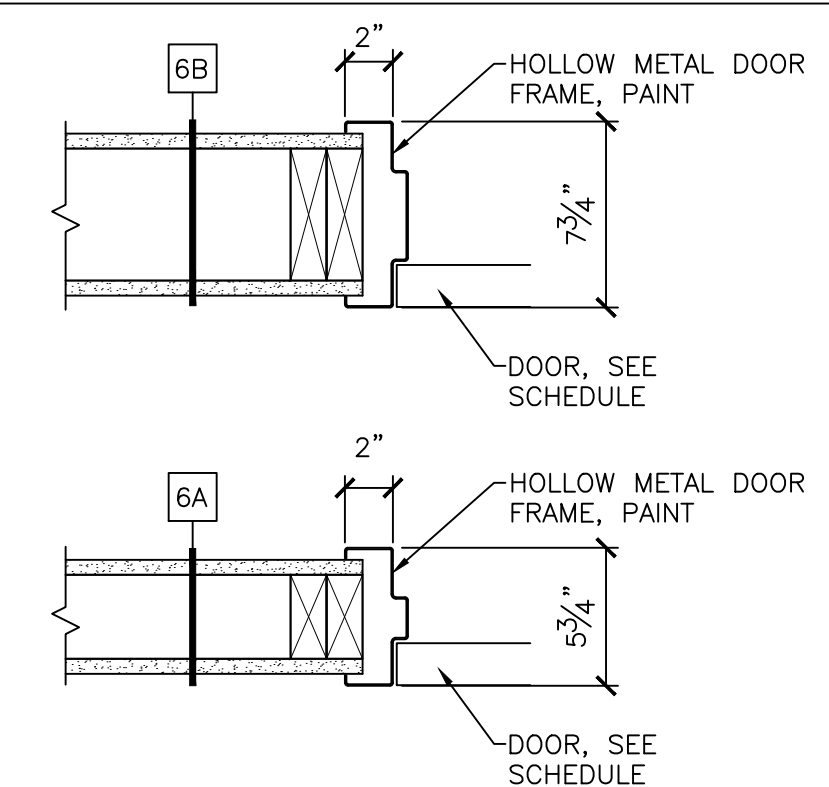
7 EXTRIOR WALL WITH STONE



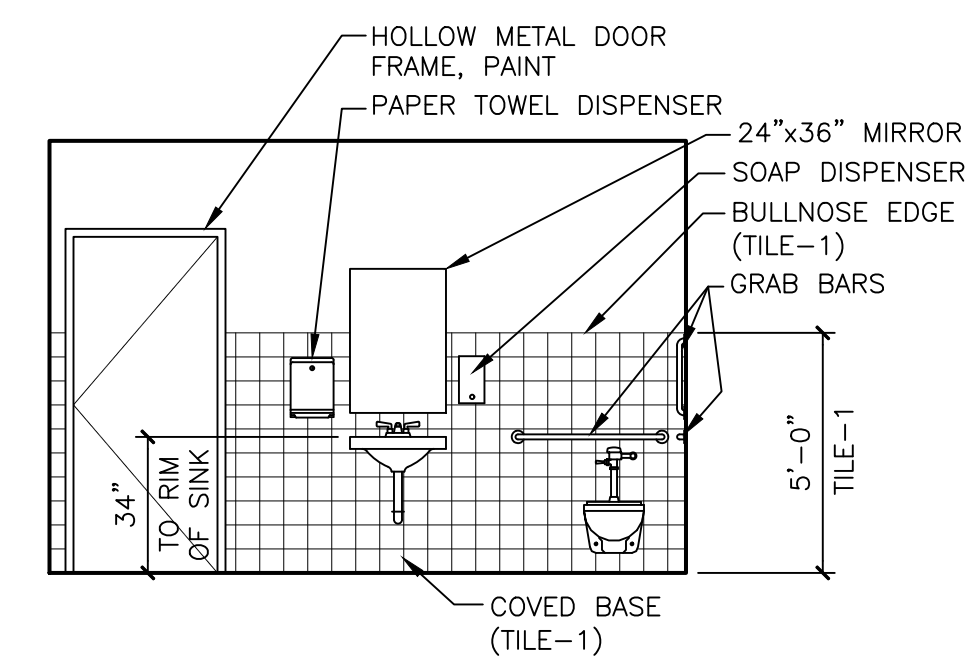
6 TYPICAL EXTERIOR WALL



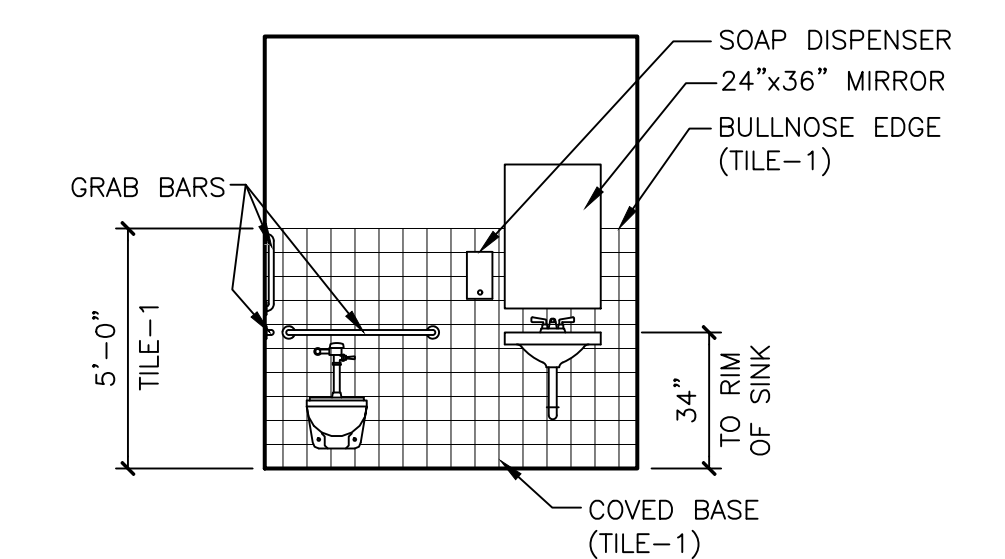
5 TYPICAL FLOOR SLAB



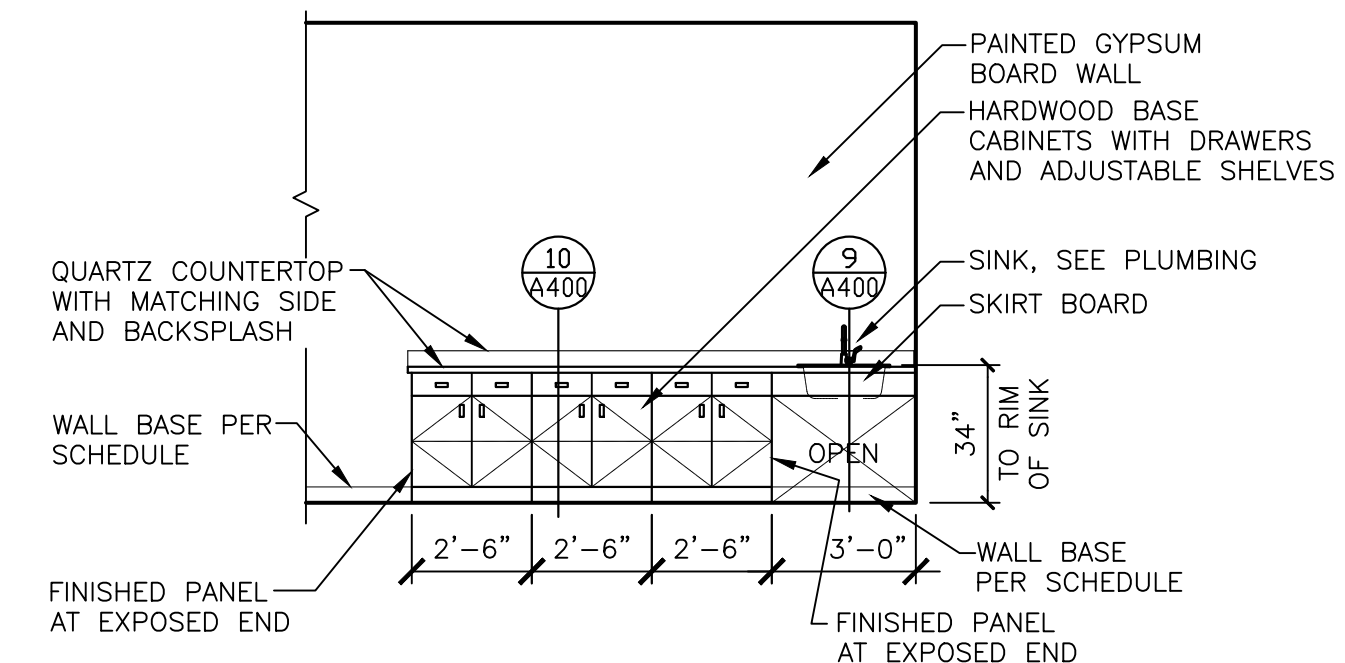
4 INTERIOR DOOR JAMB DETAILS



3 SOUTH ELEVATION RM#108



2 SOUTH ELEVATION RM#108



1 SOUTH ELEVATION RM#108

ROOM FINISH SCHEDULE											
NO.	ROOM NAME	FLOOR		BASE	WALL FINISH				CEILING		REMARKS
		MAT'L	FIN		NORTH	EAST	SOUTH	WEST	MAT'L	FIN	
100	VESTIBULE	CONC	PC	VB	PT	PT	PT	PT	GB	PT	Note 1
101	CENTRAL WAITING ROOM	CONC	PC	VB	PT	PT	PT	PT	ACP	—	Note 1, 2
102	OFFICE	CONC	PC	VB	PT	PT	PT	PT	ACP	—	Note 1
103	PILOT BRIEFING	CONC	PC	VB	PT	PT	PT	PT	ACP	—	Note 1
104	CONCESSIONS	CONC	SL	VB	PT	PT	PT	PT	GB	PT	Note 1
105	CORRIDOR	CONC	PC	VB	PT	PT	PT	PT	ACP	—	Note 1, 3
106	UTILITY SUPPORT	CONC	SL	VB	PT	PT	PT	PT	—	—	Note 1
107	FAMILY RESTROOM	CONC	PC	TILE-1	TILE-1/PT	TILE-1/PT	TILE-1/PT	TILE-1/PT	ACP	—	Note 1, 4, 5
108	CORRIDOR	CONC	PC	VB	PT	PT	PT	PT	ACP	—	Note 1, 3
109	FAMILY RESTROOM	CONC	PC	TILE-1	TILE-1/PT	TILE-1/PT	TILE-1/PT	TILE-1/PT	ACP	—	Note 1, 4, 5
110	PILOTS LOUNGE	CONC	PC	VB	PT	PT	PT	PT	ACP	—	Note 1,
111	EXISTING HANGAR	—	—	—	—	—	—	—	—	—	Note 1, 6

ROOM OPENING SCHEDULE														
OPEN NO.	LEAF'S	OPENING					FIRE RATING	FRAME					HWDWR GROUP	REMARKS
		SIZE			TYPE	MAT'L		TYPE	MAT'L	DETAILS				
		WD	HGT	THK						HEAD	JAMB	SILL		
100A	1	3'-0"	7'-0"	1 3/4"	FG1	ALUM	—	ALUM	10/A500	9/A500	—	02		
100B	1	3'-0"	7'-0"	1 3/4"	FG2	ALUM	—	F5	ALUM		—	03	—	
101A	1	3'-0"	7'-0"	1 3/4"	FL	HM	—	F1	HM	5/A500	6/A500	—	04	NOTE 1
101B	1	3'-0"	7'-0"	1 3/4"	FG1	ALUM	—	F3	ALUM	10/A500	9/A500	—	02	—
102A	1	3'-0"	7'-0"	1 3/4"	FL	WD	—	F1	HM	4/A400 SIM	4/A400	—	08	NOTE 1
103	1	3'-0"	7'-0"	1 3/4"	FL	WD	—	F1	HM	4/A400 SIM	4/A400	—	08	NOTE 1
104A	1	4'-0"	7'-0"	1 3/4"	FG1	ALUM	—	F6	ALUM	10/A500	9/A500	—	01	—
104B	1	3'-0"	7'-0"	1 3/4"	FL	HM	—	F1	HM	4/A400 SIM	4/A400	—	09	NOTE 1
105	1	3'-0"	7'-0"	1 3/4"	FL	HM	—	F1	HM	8/A500	7/A500	—	05	NOTE 1
106	1	3'-0"	7'-0"	1 3/4"	FL	WD	—	F1	HM	4/A400 SIM	4/A400	—	09	NOTE 1
107	1	3'-0"	7'-0"	1 3/4"	FL	WD	—	F1	HM	4/A400 SIM	4/A400	—	06	NOTE 1
109	1	3'-0"	7'-0"	1 3/4"	FL	WD	—	F1	HM	4/A400 SIM	4/A400	—	06	NOTE 1
110	1	3'-0"	7'-0"	1 3/4"	FL	WD	—	F1	HM	4/A400 SIM	4/A400	—	07	NOTE 1
111	1	3'-0"	7'-0"	1 3/4"	FL	HM	—	F1	HM			—	04	NOTE 1

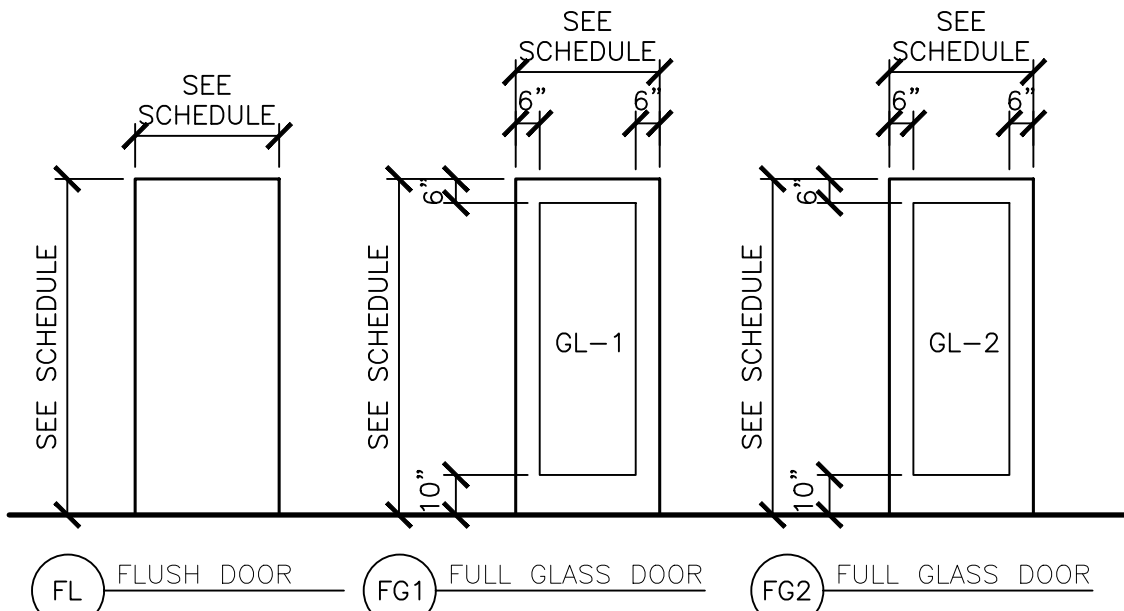
*PROVIDE ONE (1) HARDWARE GROUP 10

SCHEDULE NOTES:

- 1.) PAINT HOLLOW METAL DOOR AND FRAME BOTH SIDES
- 2.) SLOPE ACOUSTICAL CEILING, SEE CEILING PLAN
- 3.) PAINT GYPSUM BOARD BULKHEAD
- 4.) PROVIDE COVED TILE WALL BASE AND BULLNOSE WAINSCOT CAP
- 5.) SEE INTERIOR ELEVATIONS FOR HEIGHT OF WALL TILE WAINSCOT
- 6.) PAINT STEEL HANDRAILS

SCHEDULE LEGEND:

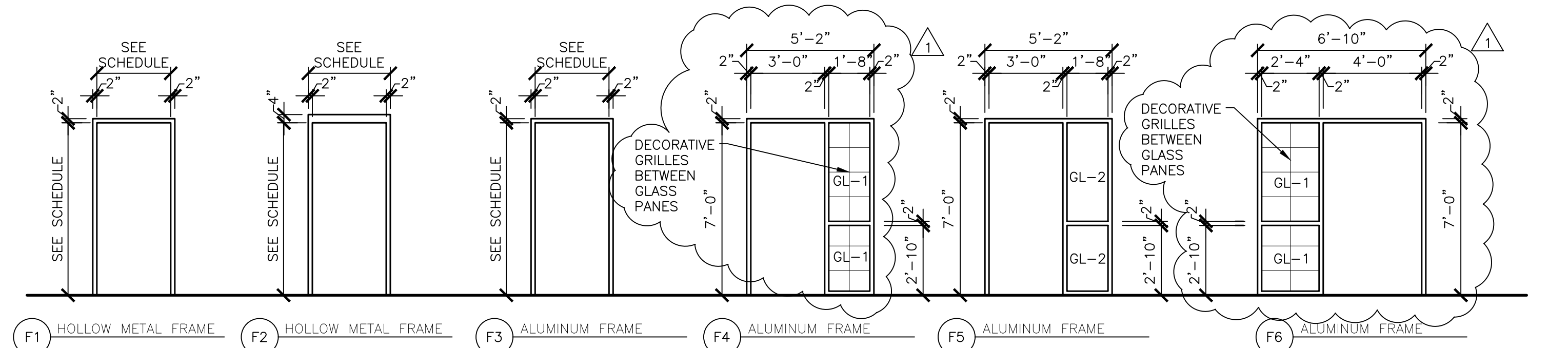
ALUM	ALUMINUM
ACP	ACOUSTICAL CEILING PANEL
CONC	CONCRETE
HM	HOLLOW METAL
PC	POLISHED CONCRETE
PT	PAINT
SL	SEALER
VB	VINYL BASE
WD	WOOD



12 DOOR TYPES



13 WINDOW TYPES

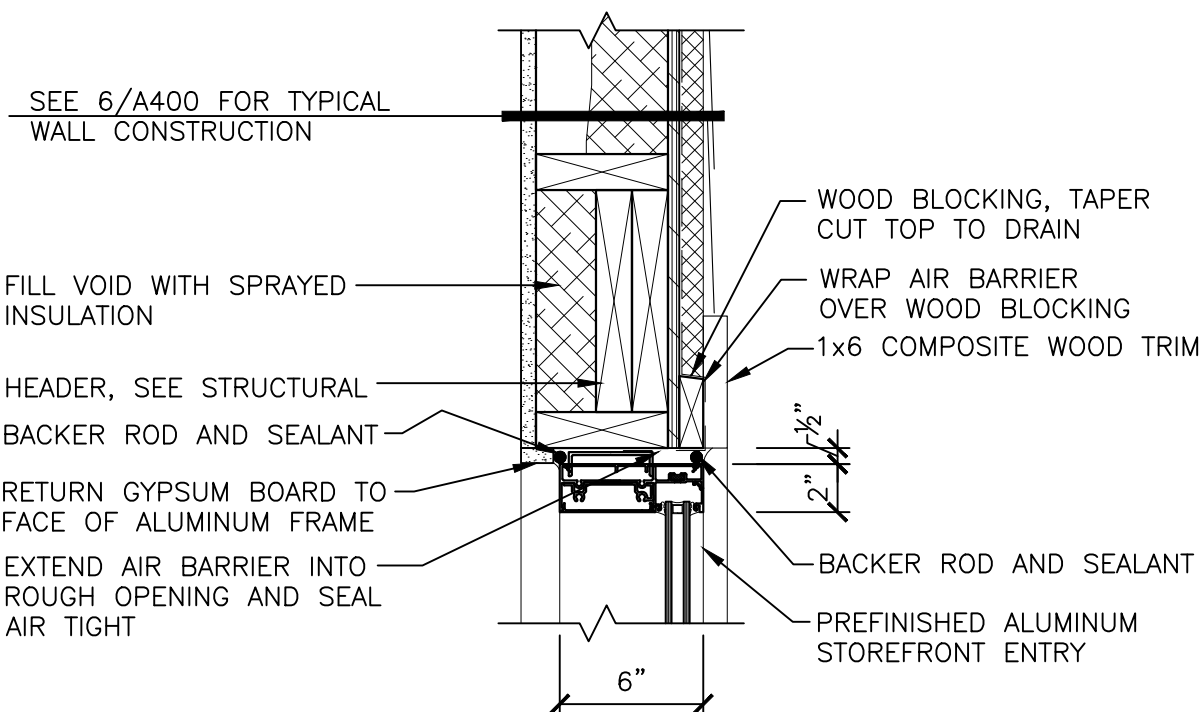


11 FRAME TYPES

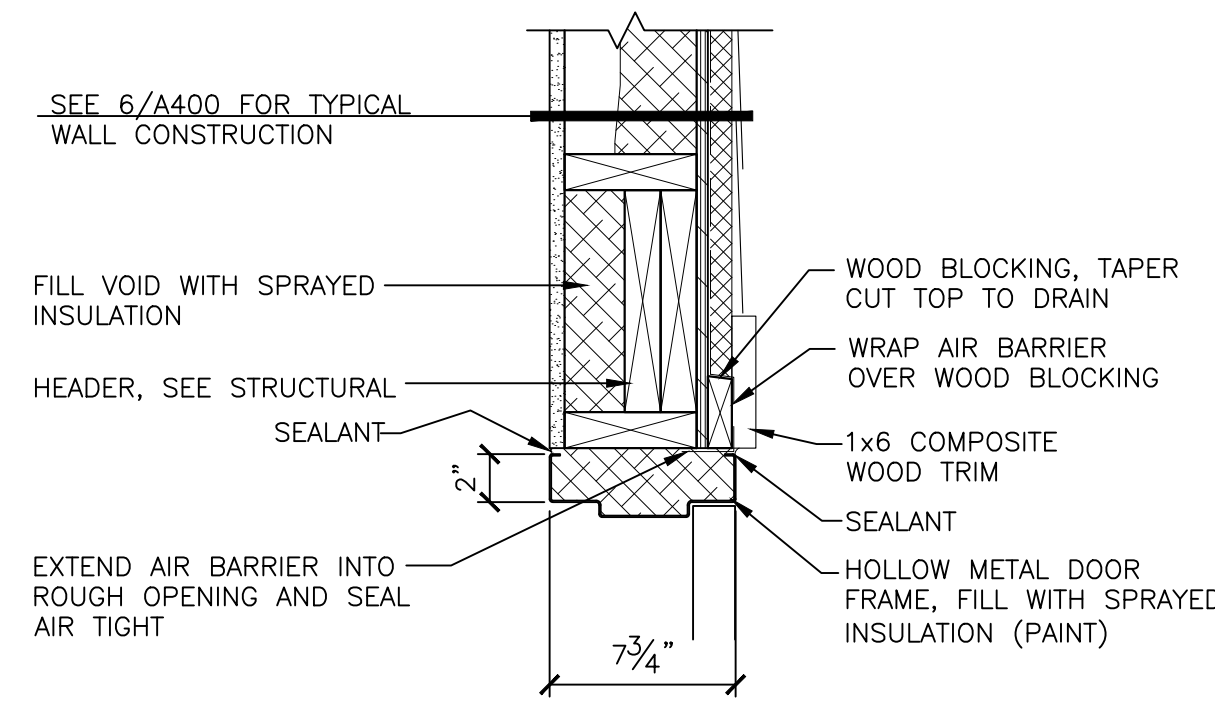


GLASS TYPES

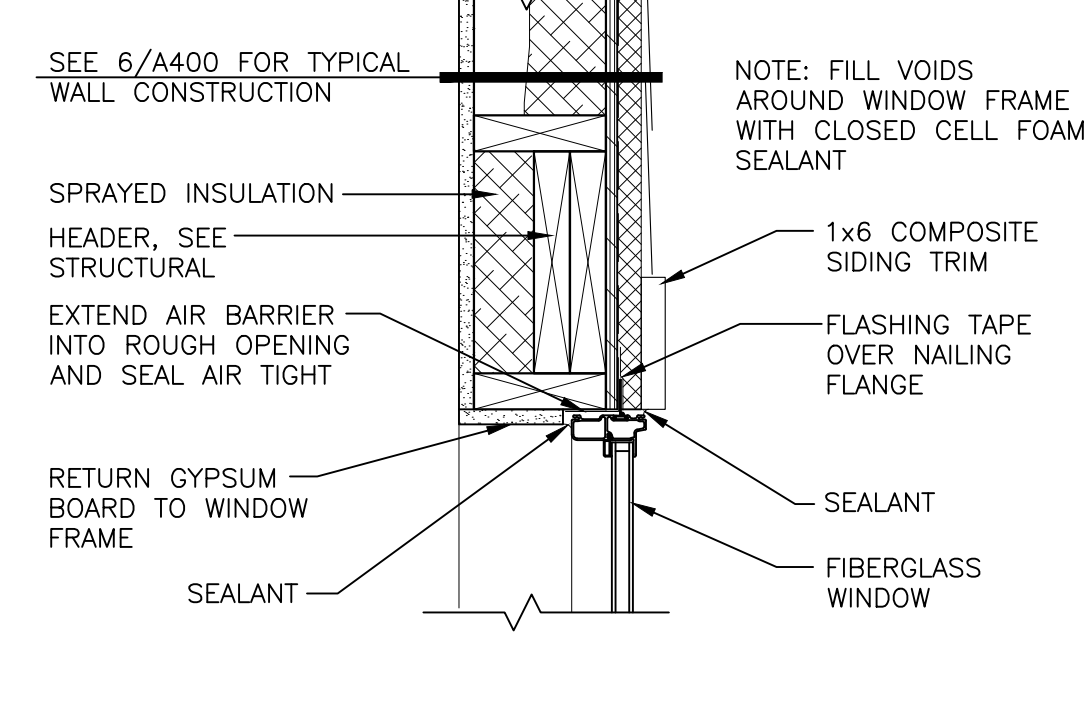
GL-1	1" THICK, INSULATED, TEMPERED GLASS
GL-2	1/2" THICK TEMPERED GLASS
GL-3	PRE-GLAZED WITH INSULATED GLASS, MULLION BETWEEN PANES



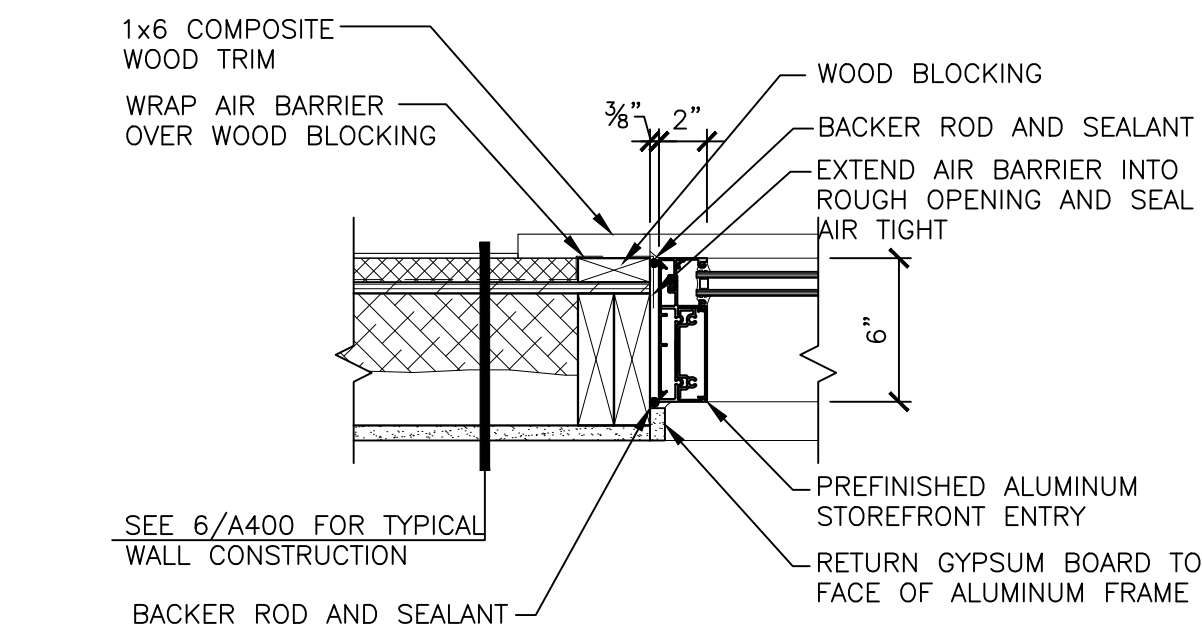
10 EXTERIOR STOREFRONT HEAD



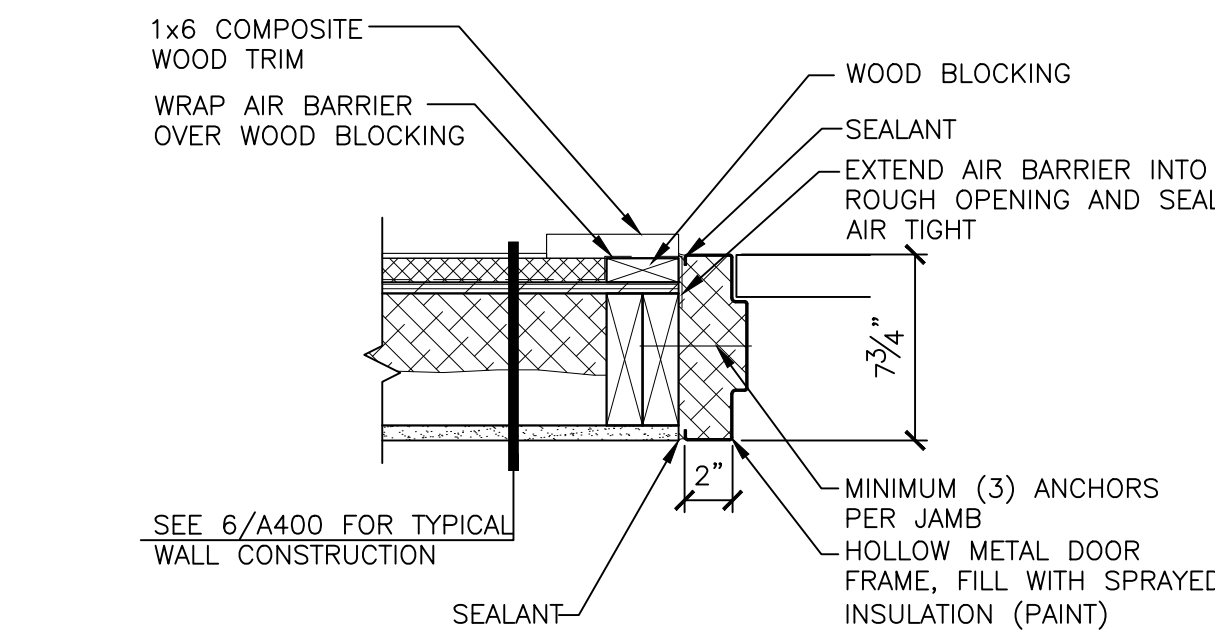
8 EXTERIOR HM DOOR HEAD



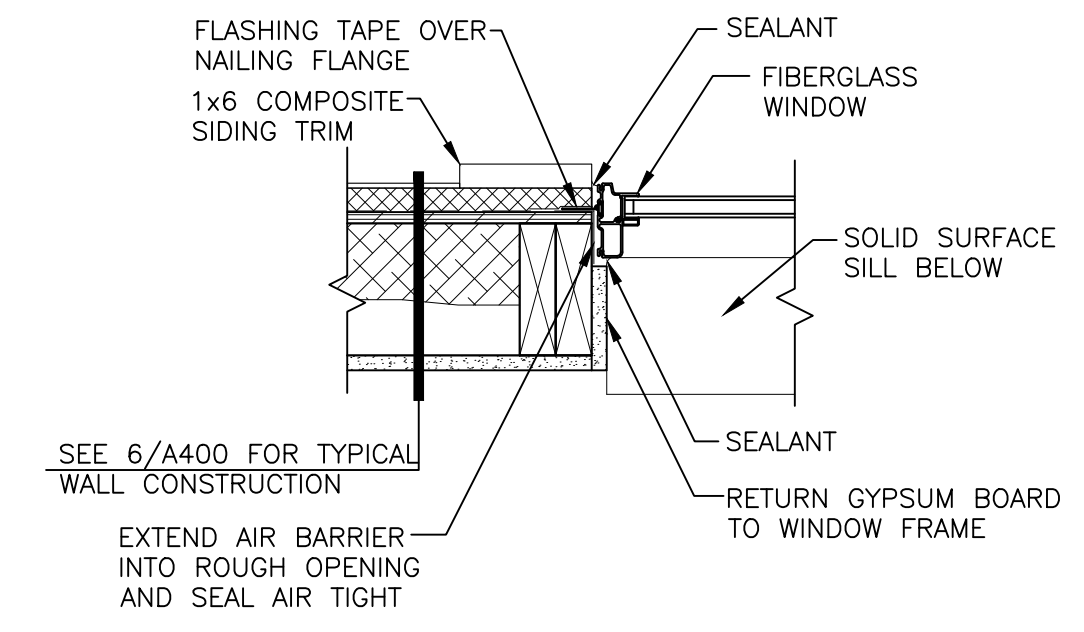
4 FIBERGLASS WINDOW HEAD



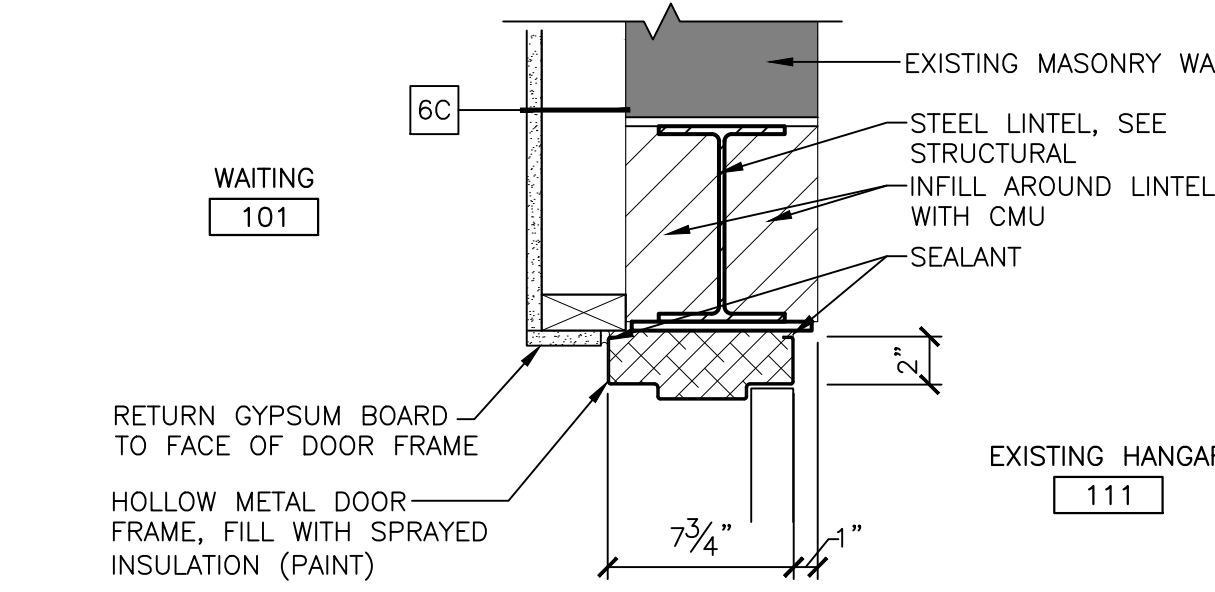
9 EXTERIOR STOREFRONT JAMB



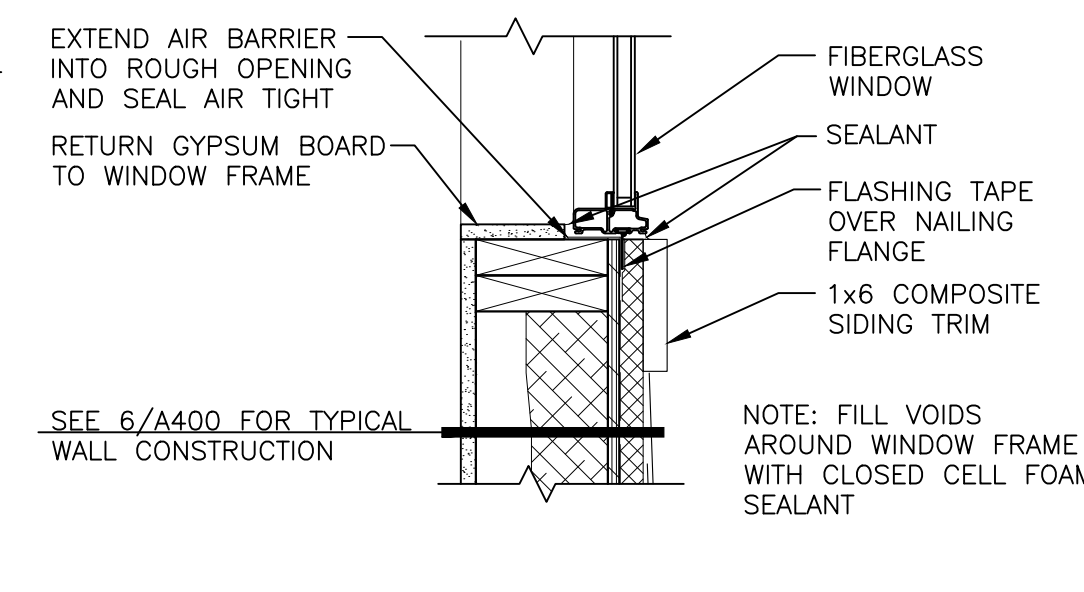
7 EXTERIOR HM DOOR JAMB



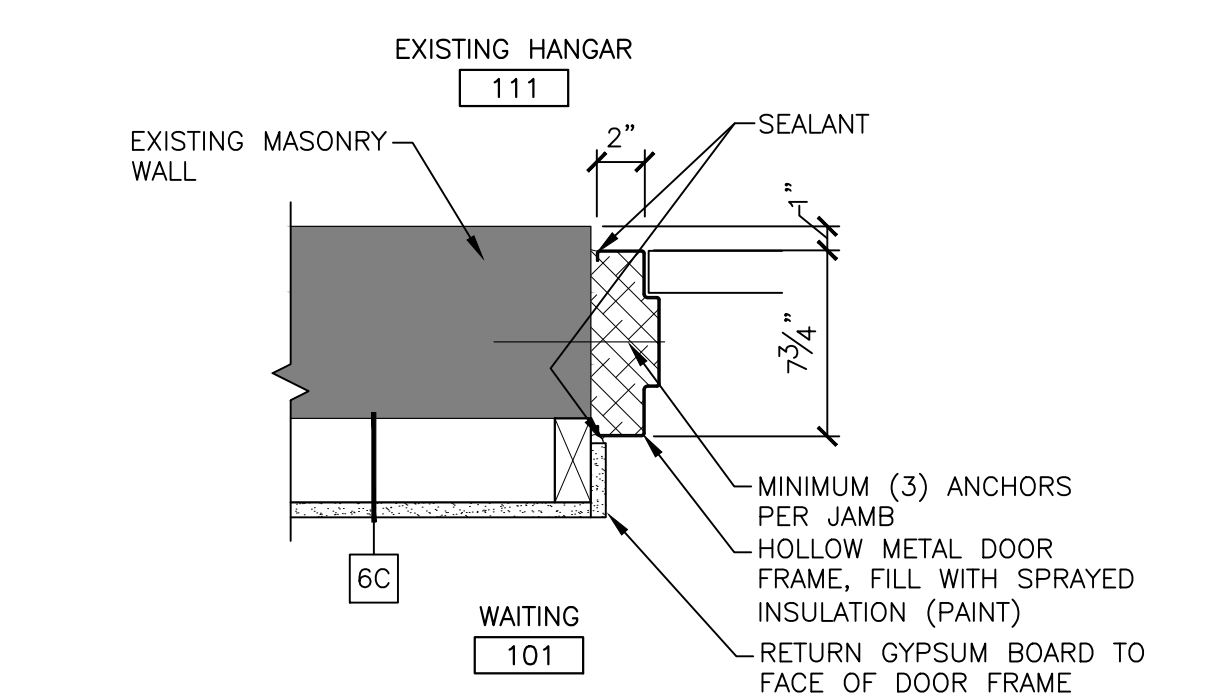
3 FIBERGLASS WINDOW JAMB



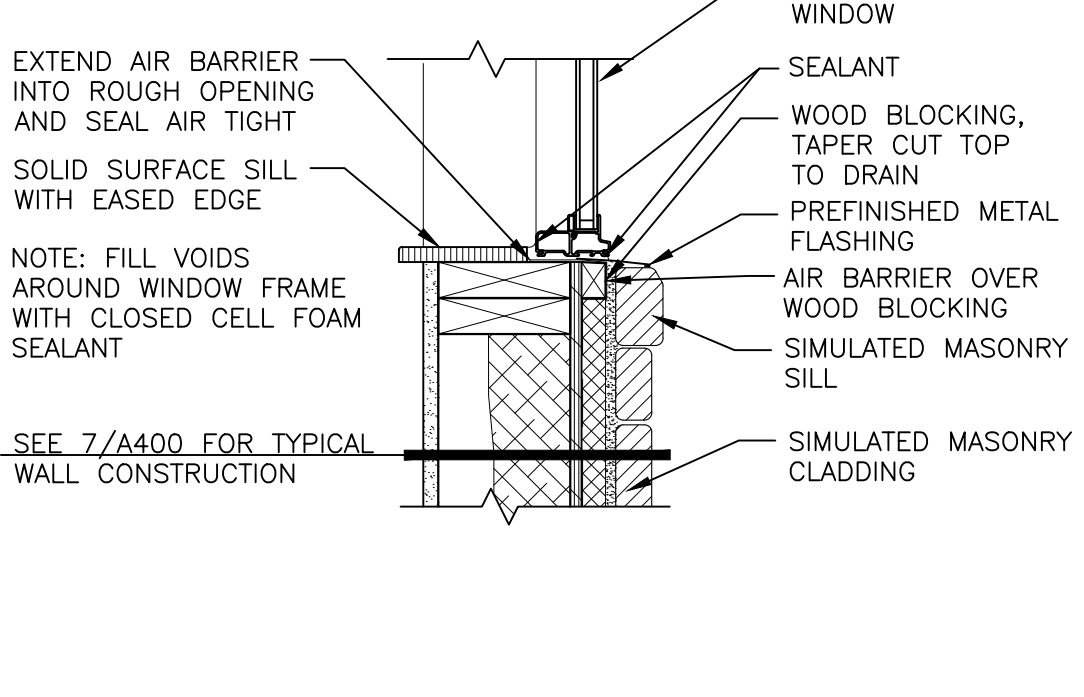
6 HM DOOR HEAD AT EXISTING



2 FIBERGLASS WINDOW SILL



5 HM DOOR JAMB AT EXISTING



1 FIBERGLASS WINDOW SILL



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Scott Blank, AIA
Scott Blank, AIA
DATE: 5-16-2023 LICENSE NO.: 51092

DULUTH INTERNATIONAL AIRPORT

SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING
DULUTH, MN

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SEH Project: DULAL172133
Checked By: SB
Drawn By: BB

Project Status: CONSTRUCTION
PLANS

Issue Date: 5.16.23

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE
1	ADDENDUM #1	5.30.2023

SCHEDULES, DOOR, WINDOW AND FRAME TYPES

A500

COLUMN SCHEDULE					
MARK	DESIGNATION	BASE PLATE	ANCHOR RODS	TOP PLATE	NOTES
C1	HSS8x8x1/4	14"x14"x1/2" THICK	(4) 3/4"Ø	N/A	SEE DETAILS
C2	HSS8x4x1/4	SEE DETAILS	(4) 3/4"Ø	N/A	SEE DETAILS

FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F1	CONT. 1'-4" x 10" DEEP	(2) CONT. #4 REBAR, BOTTOM
F2	CONT. 2'-0" x 1'-0" DEEP	(3) CONT. #5 REBAR, BOTTOM
F3	CONT. 3'-0" x 1'-0" DEEP	(4) CONT. #5 REBAR, BOTTOM
F4	2'-6" x 2'-6" x 1'-0" DEEP	(4) #5 REBAR EACH WAY, BOTTOM
F5	3'-0" x 3'-0" x 1'-0" DEEP	(4) #5 REBAR EACH WAY, BOTTOM

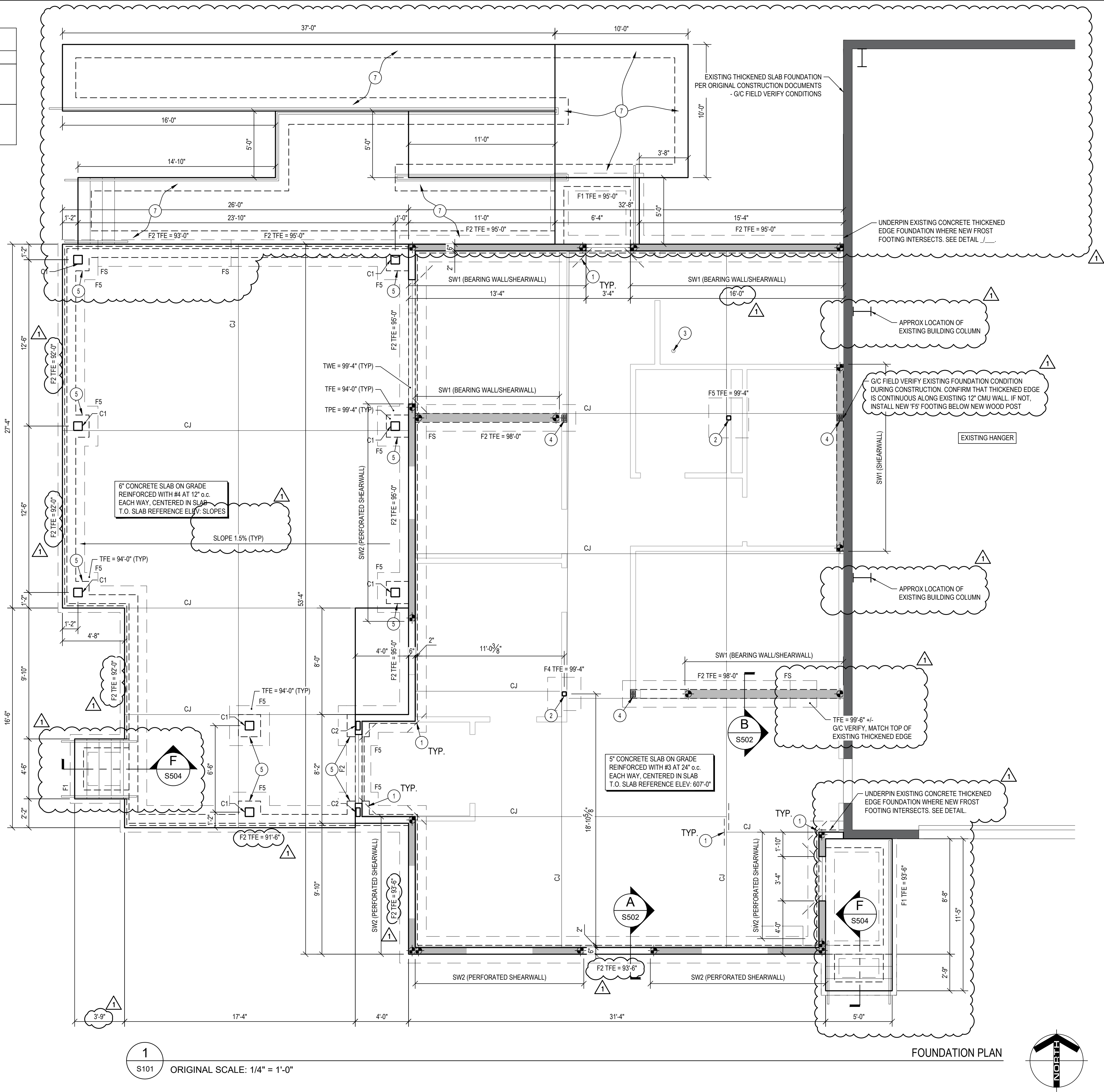
FOUNDATION PLAN NOTES:

(TYPICAL UNLESS NOTED OTHERWISE)

- FINISH LOWER LEVEL ELEVATION = 100'-0" (U.N.O.)
(ELEVATIONS AT PERIMETER - SEE CIVIL FOR SPOT ELEVATIONS)
- FORM CONTRACTION JOINTS (C.J.) OR SAWCUT WITHIN 18 HOURS OF CONCRETE PLACEMENT - SEE D/S501
MAXIMUM SPACING OF CONTRACTION JOINTS TO BE 15'-0"
- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- VERIFY ALL SIZES AND LOCATIONS OF OPENINGS WITH ARCHITECTURAL DRAWINGS.
- TOP OF FOOTING ELEVATION (TFE) =
INTERIOR: 98'-0" U.N.O.
EXTERIOR: 95'-0" U.N.O.
- DESIGN ALLOWABLE SOIL BEARING CAPACITY: (REF. GEOTECH REPORT)
MAIN BUILDING ELEMENTS: 2,500 psf
- STEPPED FOOTING DETAIL - SEE C/S501. USE WHERE NEEDED TO MAINTAIN BOTTOM OF FOOTING DEPTH OF 5'-0" MIN. BELOW GRADE.
- CONTRACTOR OPTIONS AT MECHANICAL & ELECTRICAL LINES THROUGH FOUNDATION - SEE A/S501 AND B/S501.
- TFE= TOP OF FOOTING ELEVATION
TSE= TOP OF SLAB ELEVATION
TPE= TOP OF PIER ELEVATION
TWE= TOP OF WALL ELEVATION
FS= FOOTING STEP
CJ= CONTROL JOINT
- FX DENOTES FOOTING TYPE.
REF. SCHEDULES ON THIS SHEET AND DETAILS.
- CONTRACTOR TO IMMEDIATELY CONTACT STRUCTURAL ENGINEER FOR FIELD VERIFICATION IF EXISTING CONDITIONS VARY FROM THOSE INDICATED IN THESE DOCUMENTS. ASSUMPTIONS MADE HERE WITHIN HAVE BEEN BASED UPON LIMITED EXISTING DOCUMENTATION.
- SEE DETAIL H/S501 FOR TYPICAL STOOP DETAIL.
- SEE DETAIL G/S501 FOR TYPICAL CONCRETE WALL CORNER REINFORCING.
- SEE DETAIL F/S501 FOR TYPICAL REINFORCING AT PENETRATION CAST INTO CONCRETE WALL OR SLAB.
- DESIGNATED SHEARWALL HOLD-DOWN TO FOUNDATION WALL - SEE FRAMING PLAN AND SHEARWALL SECTIONS AND DETAILS.

FOUNDATION PLAN KEYNOTES:

- PROVIDE (1) #4 REBAR x 2'-0" LONG AT EACH RE-ENTRANT CORNER AND WHERE CONTROL JOINTS TERMINATE AWAY FROM SLAB EDGE. SEE DETAIL E/S501.
- HSS4x4x3/8 POST.
- DRAIN LOCATION FOR SERVICE BASIN - SEE PLUMBING AND ARCHITECTURAL DRAWINGS.
- (3) 2x6 POST.
- TYPICAL PATIO PIERS: 1'-8" x 1'-8" CONCRETE PIER
EXTEND TO FROST FOOTING EL. (AS SHOWN ON PLAN)
(8) #6 REBAR VERTICAL
#3 TIES AT 12" OC PLUS (3) AT 2" OC AT TOP
- FLOOR FRAM - SEE MECHANICAL DRAWINGS.
- 6" CONCRETE RAMP AND STAIR ON GRADE. REINFORCE WITH #4 REBAR AT 12" OC EW. PROVIDE MIN. 12" WIDE THICKENED EDGES AT ALL EDGES OF RAMP AND AT HEIGHT TRANSITIONS. THICKENED EDGE SHALL EXTEND MIN. 12" BELOW ADJACENT FINISHED GRADE OR AT TOP OF SLAB, WHICHEVER IS LOWER. REINFORCE THICKENED EDGE WITH (2) #5 REBAR TOP AND BOTTOM. SEE DETAIL F/S504.



1
S101 ORIGINAL SCALE: 1/4" = 1'-0"



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B. C. Y. P.
BERKAMIN A. WOLF
DATE 5.16.2023 LICENSE NO. 40807



SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING
DULUTH, MN

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SEH Project DULAL_172133
Checked By BW
Drawn By JS

Project Status Issue Date
CONSTRUCTION PLANS 5.16.2023

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE
1	ADDENDUM #1	5.30.2023

FOUNDATION PLAN

S101

SHEARWALL SCHEDULE											
MARK	SHEATHING	THICKNESS	NAILS	SPACING		ANCHOR RODS			HOLD-DOWNS		
				EDGE	INTER.	SIZE	SPACING	EMBED.	POST	TYPE	ANCHORS
SW1	APA STRUCT I PLYWOOD SHEATHING OUTSIDE FACE	7/16" MIN.	8d	6" o.c.	12" o.c.	5/8" DIA.	48" MAX.	7" MIN.	(2) 2x STUDS MINIMUM	SIMPSON HDU2-SDS2.5 HOLD-DOWN EA. END	5/8" DIA. 16" LONG HEADED ROD
SW2 (PERFORATED SHEARWALL)	APA STRUCT I PLYWOOD SHEATHING OUTSIDE FACE	7/16" MIN.	8d	6" o.c.	12" o.c.	5/8" DIA.	48" MAX.	7" MIN.	(2) 2x STUDS MINIMUM	SIMPSON HDU8-SDS2.5 HOLD-DOWN EA. END	7/8" DIA. 32" LONG HEADED ROD

- SHEARWALL FRAMING TO BE 2x6 AT 16" o.c. UNLESS NOTED OTHERWISE. PROVIDE 2x BLOCKING FOR ALL JOINTS IN SHEATHING.
- SHEARWALL FRAMING SHALL BE SPRUCE PINE FIR (SPF) GRADE No 2 OR ANOTHER SPECIES WITH SPECIFIC GRAVITY OF 0.42 OR GREATER.
- AT PERFORATED SHEARWALLS PROVIDE 2x BLOCKING (WITH NAILING AS INDICATED FOR PANEL EDGES) AT LEAST 2 FRAMING SPACES (MIN. 32") EACH SIDE OF EACH WINDOW AT HEAD AND SILL (SEE DIAGRAM BELOW FOR ILLUSTRATION)
- PROVIDE LVL RIM BOARD ALONG EXTERIOR BEARING WALLS ABOVE SHEARWALLS. CONTINUE SHEARWALL SHEATHING UP TO ROOF DECK.
- ANCHOR RODS INDICATED AS HEADED MAY CONSIST OF THREADED ROD WITH STANDARD HEX NUT TACK WELDED TO EMBEDDED END.
- INDICATED EMBEDMENT IS INTENDED TO DEVELOP LAP WITH WALL REINFORCING BARS. ADD 2 ADDITIONAL #5 REBAR ADJACENT TO ANCHOR ROD IF WALL REBAR IS NOT PRESENT AT ANCHOR LOCATION.

HEADER / JAMB SCHEDULE		
MARK	HEADER	JAMB
H1	(2) 2x10	(1) 2x TO BRG (1) 2x FULL HT
H2	(3) 1 3/4" x 14" LVL	(3) 2x TO BRG (2) 2x FULL HT
H3	(2) 1 3/4" x 14" LVL	(3) 2x TO BRG (2) 2x FULL HT

- NOTES:
- CONTINUOUS 2x TOP AND BOTTOM PLATE AT HEADERS TYPICAL. SEE DETAIL H/S503.

I-JOIST FRAMING SCHEDULE					
MARK	JOIST DEPTH	JOIST DESIGNATION	ALT. DESIGNATION	SPACING	WEB STIFFENERS
J1	16"	APA PRI-40	TJI 230	24" o.c.	YES
J2	16"	APA PRI-70	TJI 360	24" o.c.	YES
J3	16"	APA PRI-70	TJI 360	16" o.c.	YES

- NOTES:
- JOIST DESIGNATIONS NOTED 'PRI-XX' ARE TO BE JOISTS MEETING ALL CRITERIA OF APA DOCUMENT PRI-400, PERFORMANCE STANDARD FOR APA EWS I-JOIST.

ROOF FRAMING NOTES:

(TYPICAL UNLESS NOTED OTHERWISE)

- TYPICAL ROOF JOIST BEARING ELEVATION = SLOPES
- ROOF JOISTS:
 - SPACE JOISTS AT 2'-0" o.c. MAX. U.N.O.
 - ATTACHMENT OF JOISTS TO DOUBLE TOP PLATE:
TYPICAL JOISTS: SIMPSON H2 HURRICANE TIE EACH SIDE
- JOIST LOADING/SPACING:
 - REF. THIS SHEET FOR DESIGN DEAD LOADS AND SNOW LOAD / SNOW DRIFT.
 - DESIGN DEAD LOAD = 20PSF
- ROOF SHEATHING:
 - 5/8" APA RATED SHEATHING. MINIMUM 40/20 APA RATING.
- DIAPHRAGM NAILING:
 - UNBLOCKED DIAPHRAGM, WITH 10d NAILS AT 6" o.c. AT PANEL EDGES, 12" o.c. IN FIELD.
- SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO WALL OPENINGS AND FOR LOCATIONS OF PARTITION WALLS NOT NOTED.
- JOIST SUPPLIER SHALL VERIFY ALL JOIST END TO END LENGTHS AND BEARING CONDITIONS.
- DASHED WALLS SHOWN ARE MAIN LEVEL WALLS (BELOW).
- ↪ INDICATES BEAM CANTILEVERED OVER COLUMN.

ROOF FRAMING PLAN KEYNOTES:

- 1 HATCHED AREA REPRESENTS SLIDING SNOW FROM EXISTING UPPER ROOF. APPLY 37PSF ACROSS 15' OF NEW ROOF.

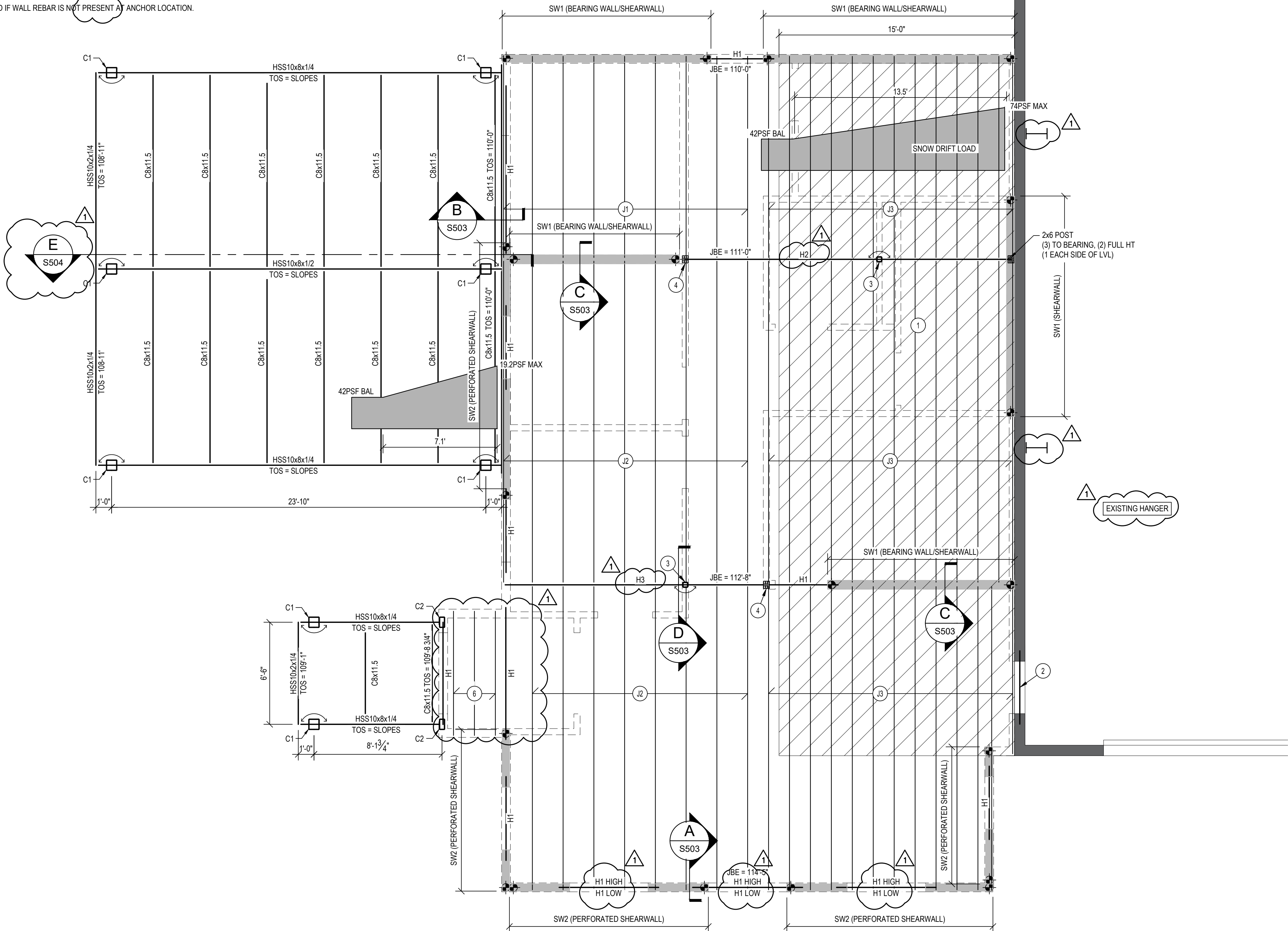
- 2 EXISTING PASSAGE DOOR TO HANGER. CUT MASONRY ABOVE TO EXTEND OPENING. HANGERS SHALL BE NOTED WITH 5/16" THK BOTTOM PLATE AT HEAD. 6" x 6" x 3/8" THK BEARING PLATE EACH END. SEE DETAILS D/S504 AND C/S504

- 3 HSS4x4x3/8 STEEL POST WITH SADDLE AT TOP. SEE DETAIL D/S503.

- 4 (3) 2x6 POST (LUMBER N-PLY, SPF No.1/No.2).

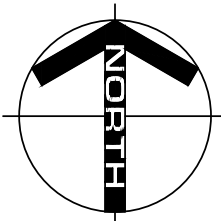
- 5 TJI JOIST MINIMUM BEARING LENGTH = 3 1/2'.

- 6 2x10 AT 16" OC (D, FIR L No.2).



1
S201 ORIGINAL SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN



SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING
DULUTH, MN

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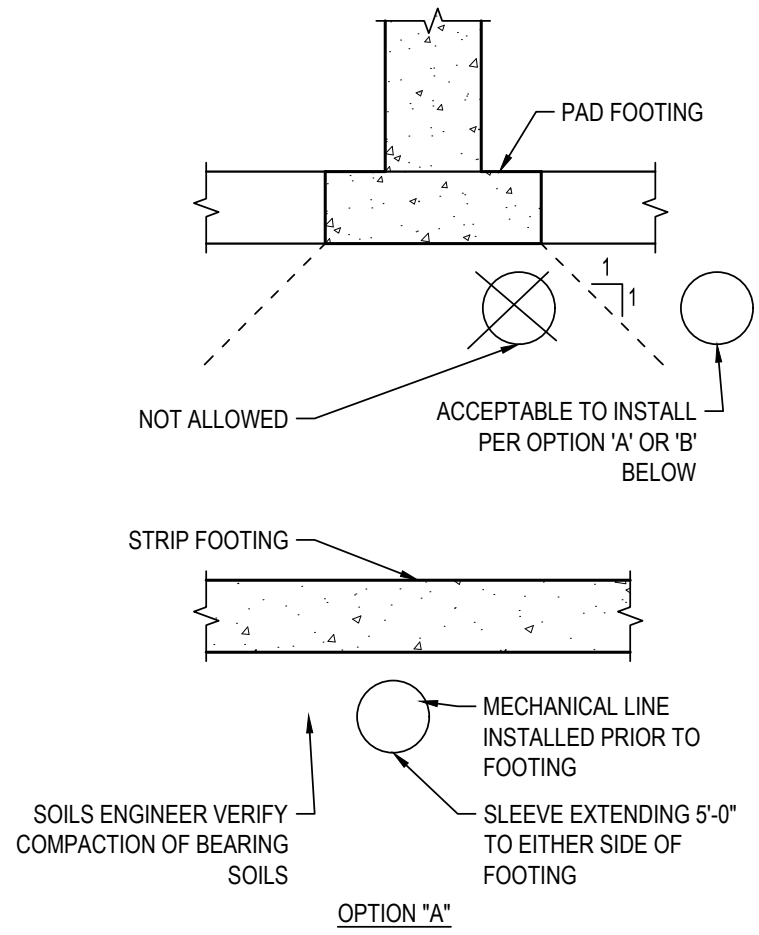
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Checked By BW
Drawn By JS

Project Status Issue Date
CONSTRUCTION PLANS 5.16.2023

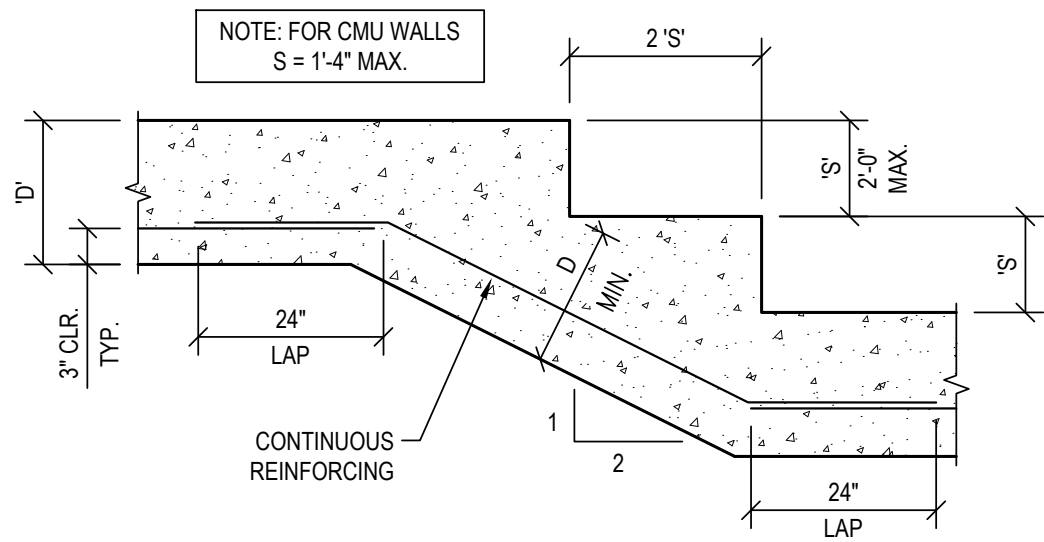
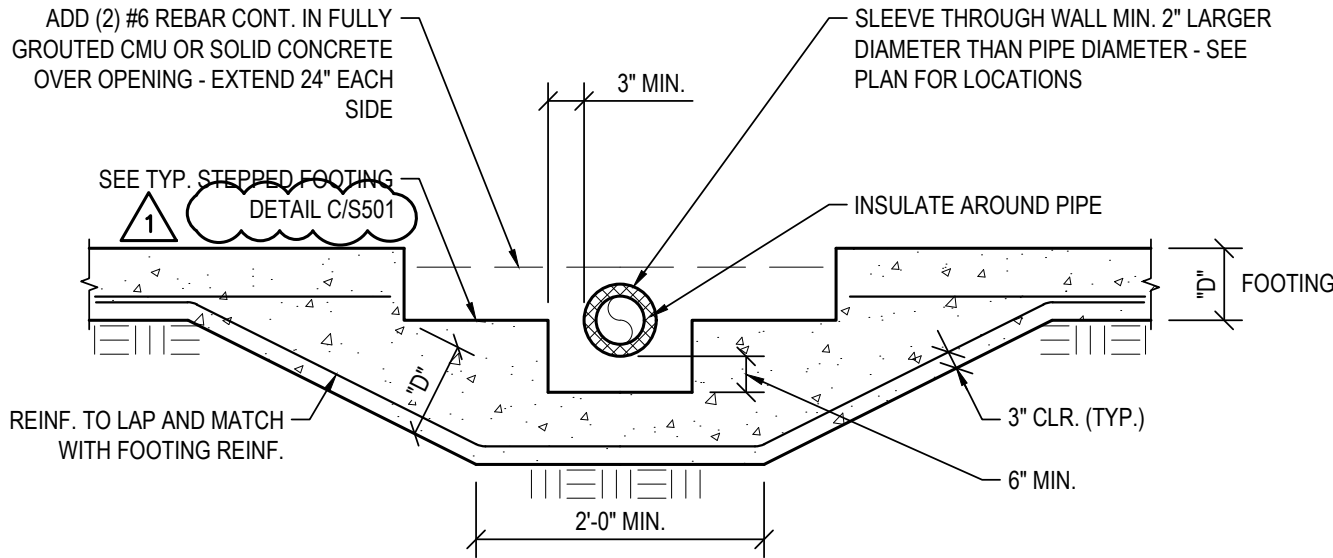
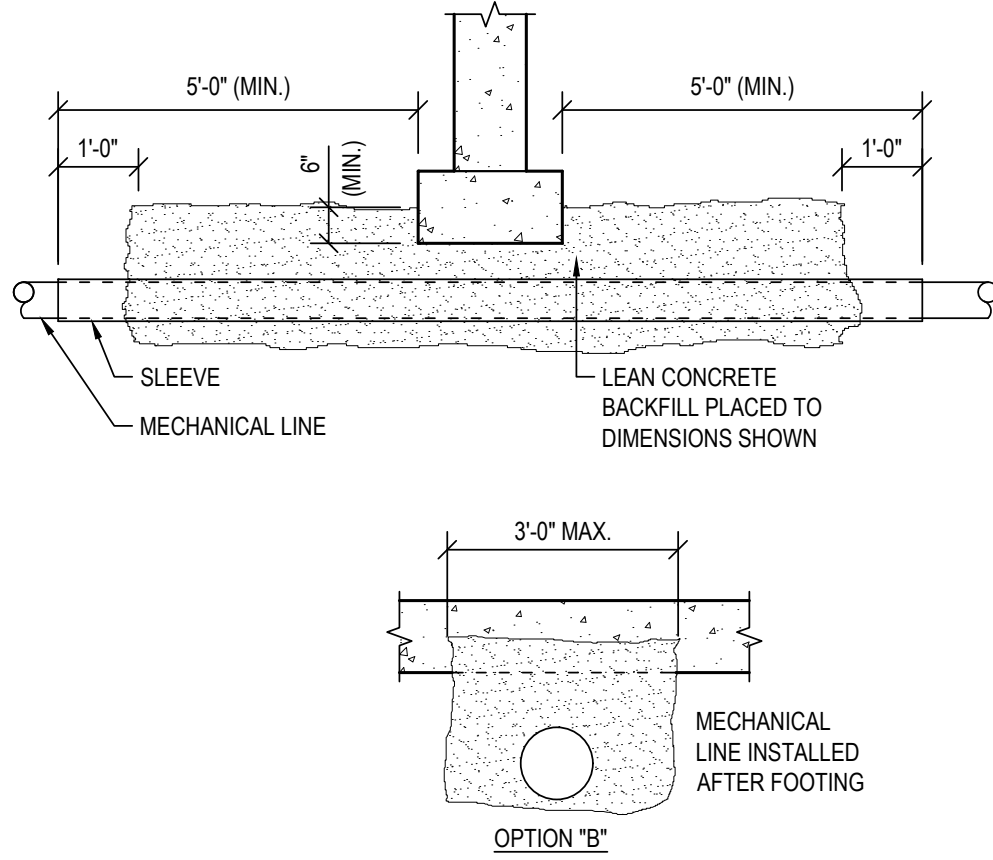
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ROOF FRAMING PLAN

S201



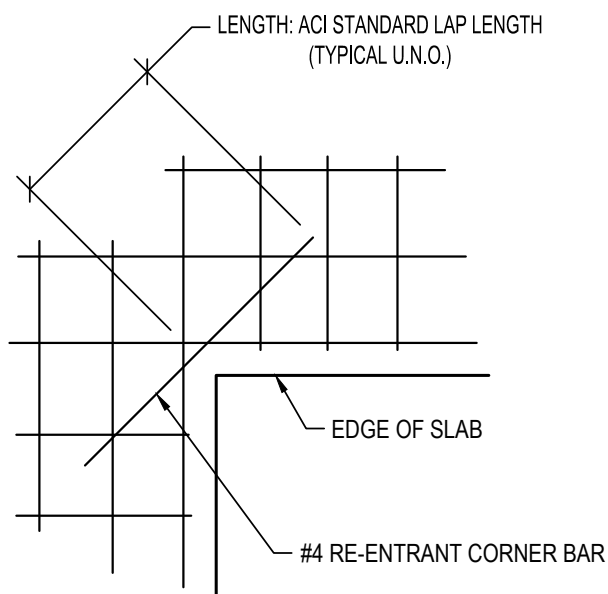
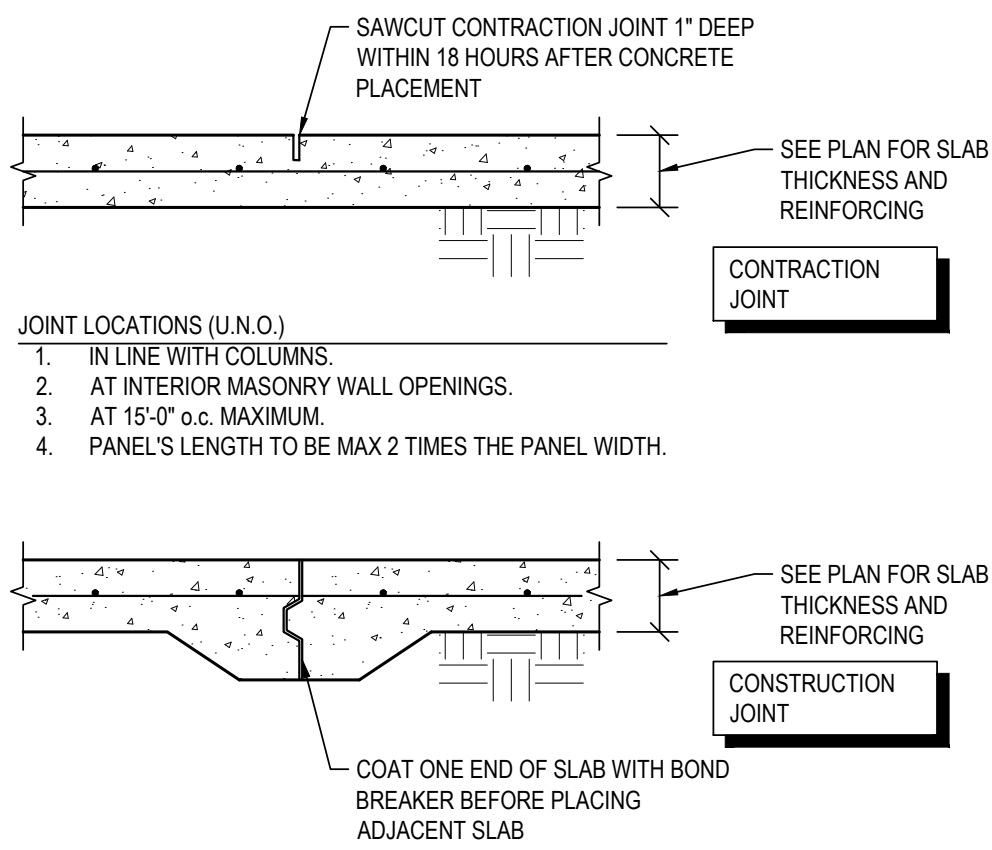
NOTE: DO NOT RUN LINES BENEATH OR WITHIN A 1:1 SLOPE FROM THE EDGE OF PAD FOOTINGS



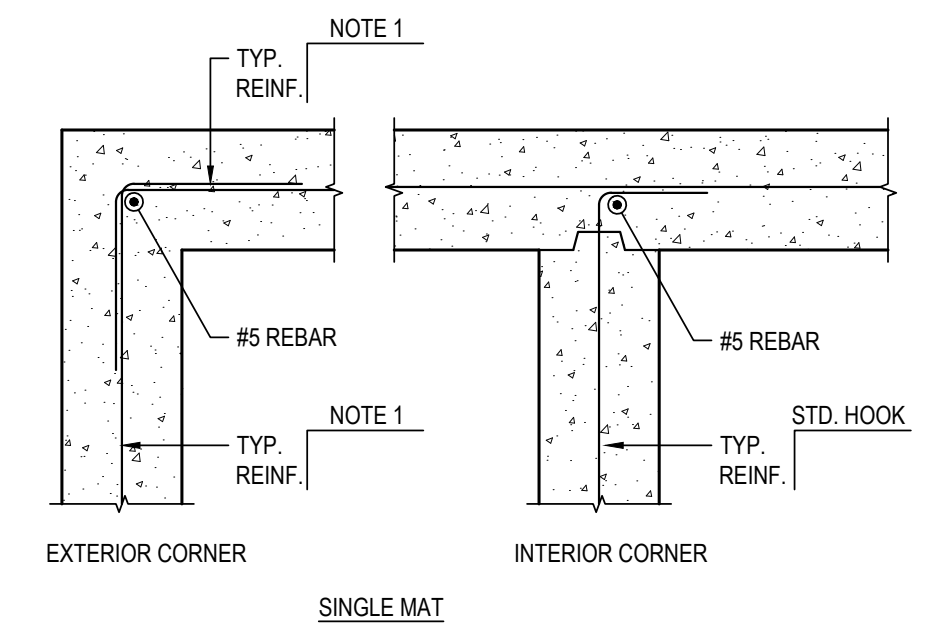
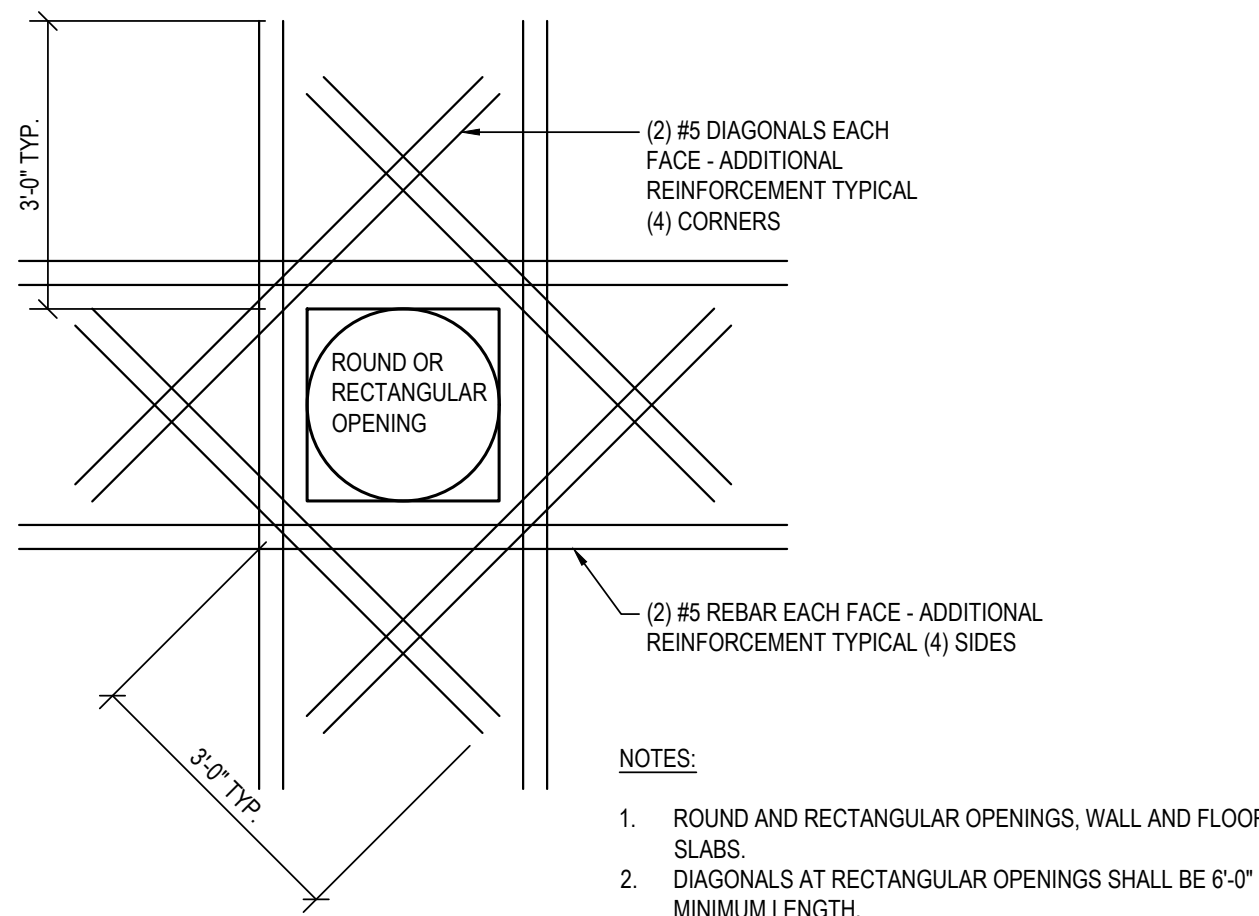
A ORIGINAL SCALE: 3/4" = 1'-0" CONTRACTOR OPTION

B ORIGINAL SCALE: 3/4" = 1'-0" TYPICAL UTILITY OPENING THROUGH WALL DETAIL

C ORIGINAL SCALE: 3/4" = 1'-0" STEPPED FOOTING DETAIL



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-SPAN.

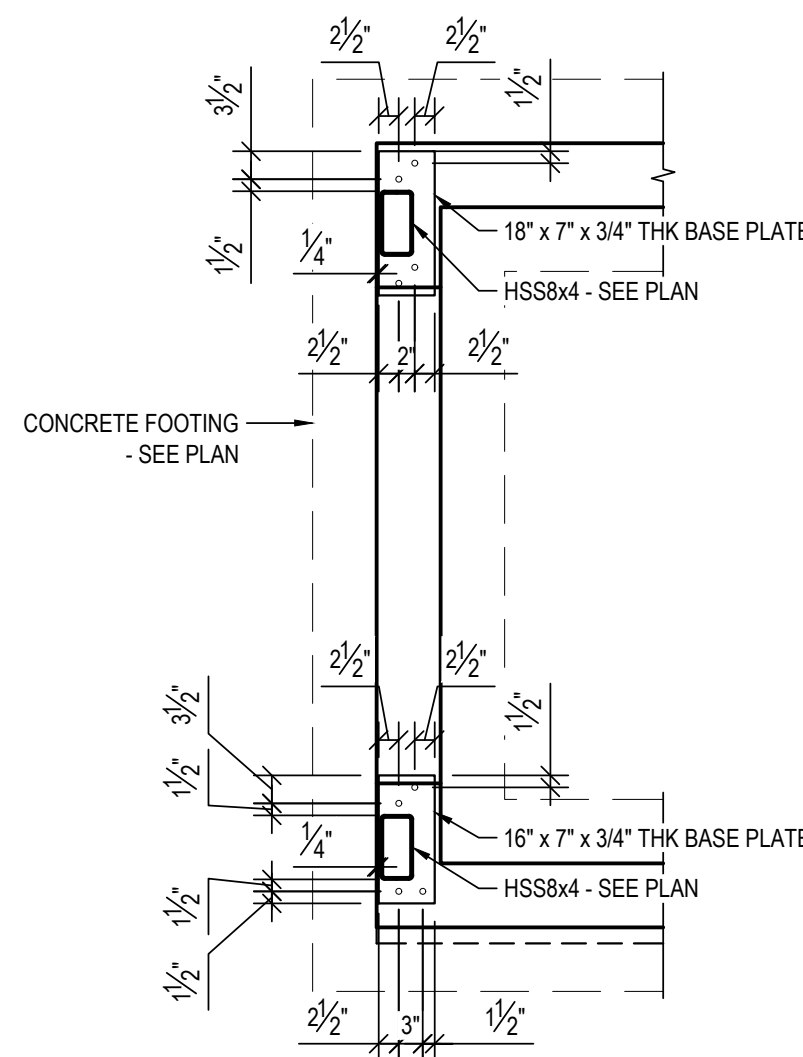
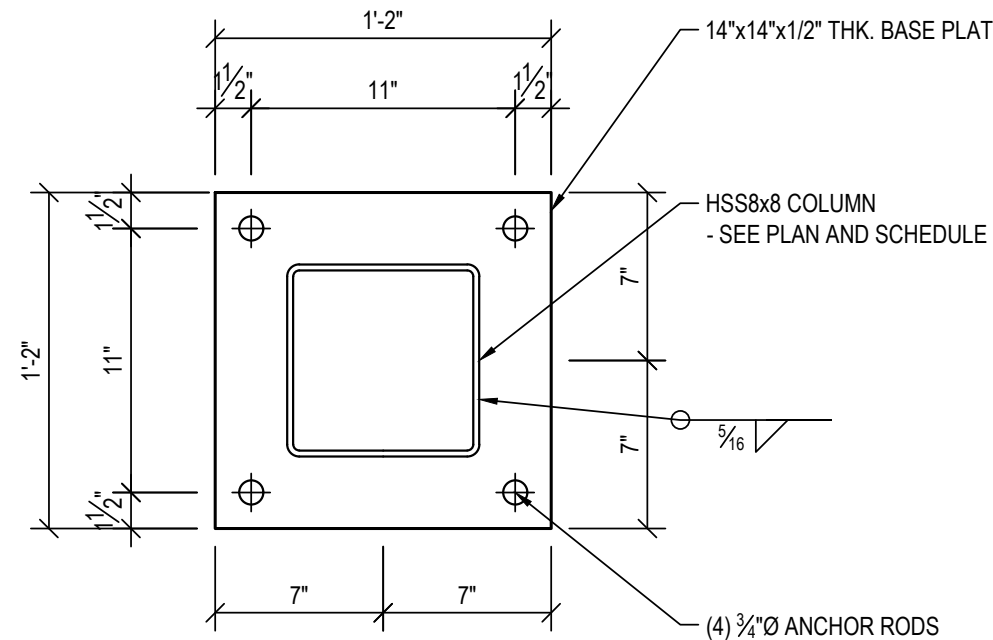
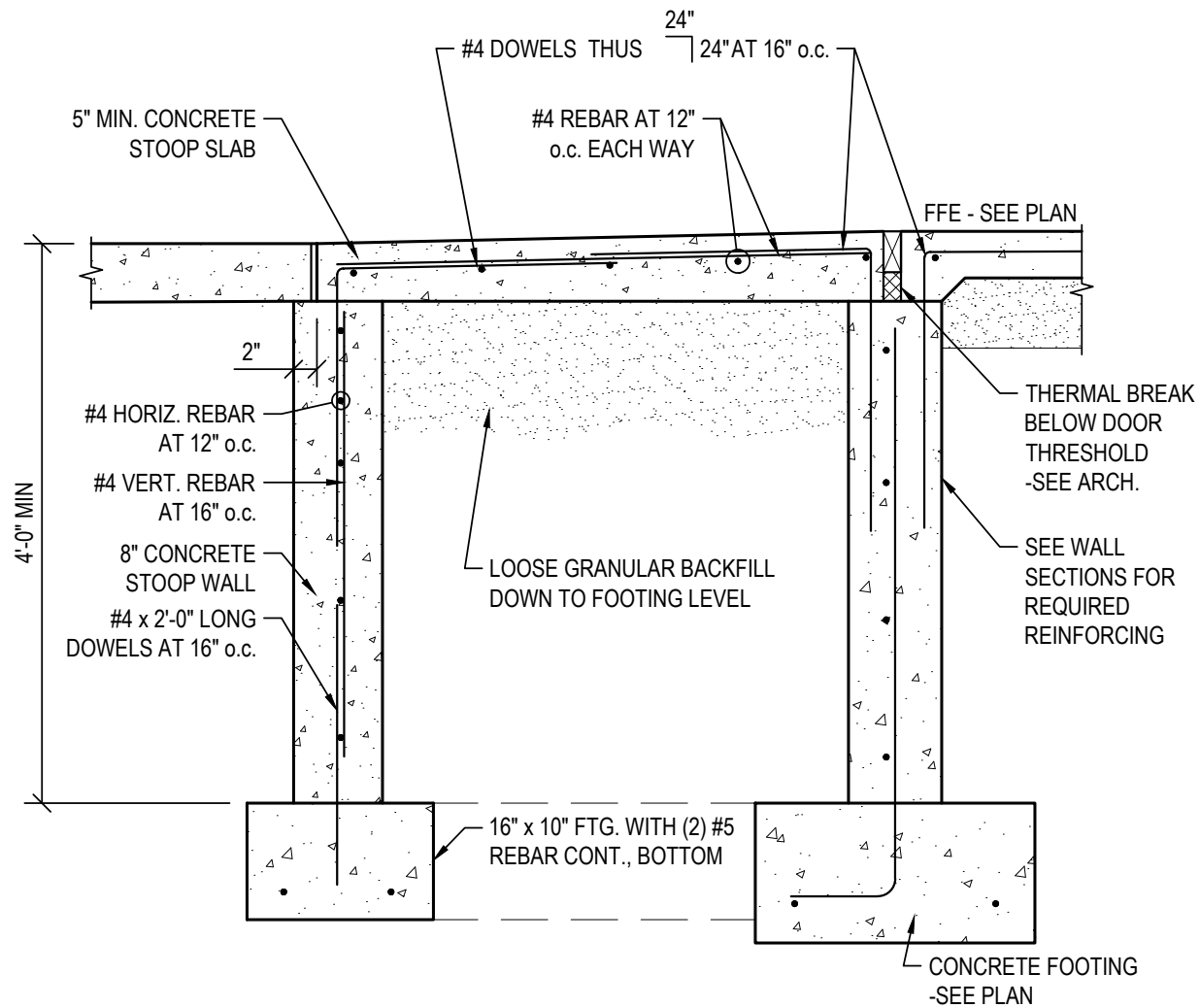


D ORIGINAL SCALE: 3/4" = 1'-0" CONSTRUCTION CONTRACTION JOINT DETAIL

E ORIGINAL SCALE: 3/4" = 1'-0" SLAB RE-ENTRANT CORNER DETAIL

F ORIGINAL SCALE: 3/4" = 1'-0" TYPICAL REINFORCEMENT AT OPENING

G ORIGINAL SCALE: 3/4" = 1'-0" CONCRETE CORNER WALL REINFORCING DETAIL

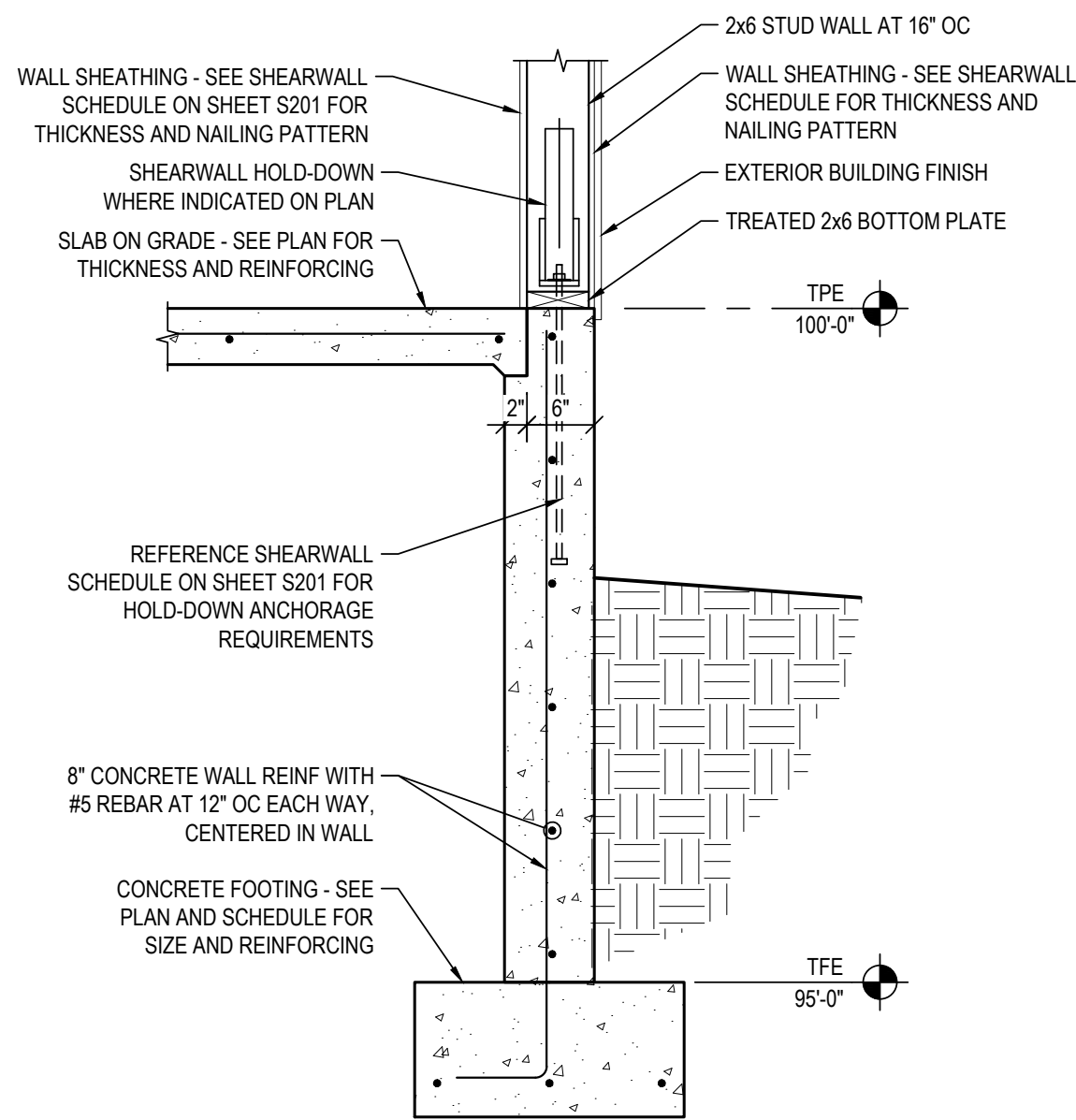


H ORIGINAL SCALE: 3/4" = 1'-0" TYPICAL CONCRETE STOOP DETAIL

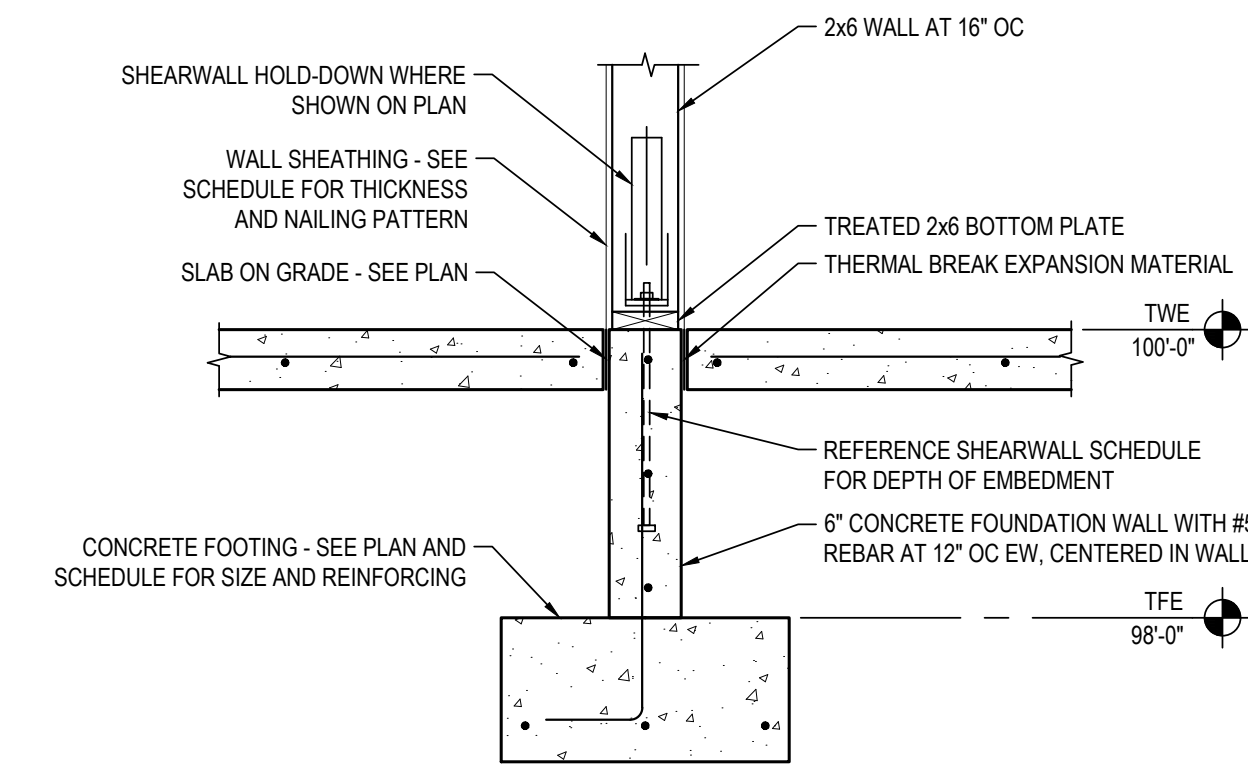
J ORIGINAL SCALE: 1 1/2" = 1'-0" BASE PLATE DETAIL

K ORIGINAL SCALE: 1/2" = 1'-0" BASE PLATE DETAIL AT VESTIBULE

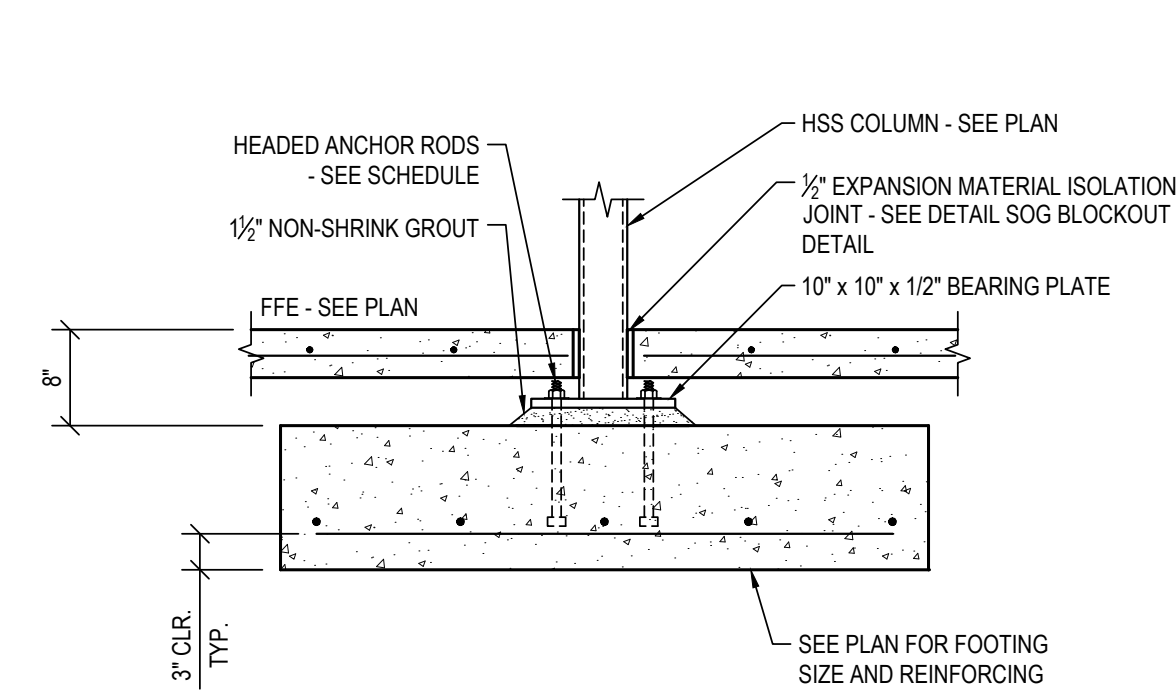
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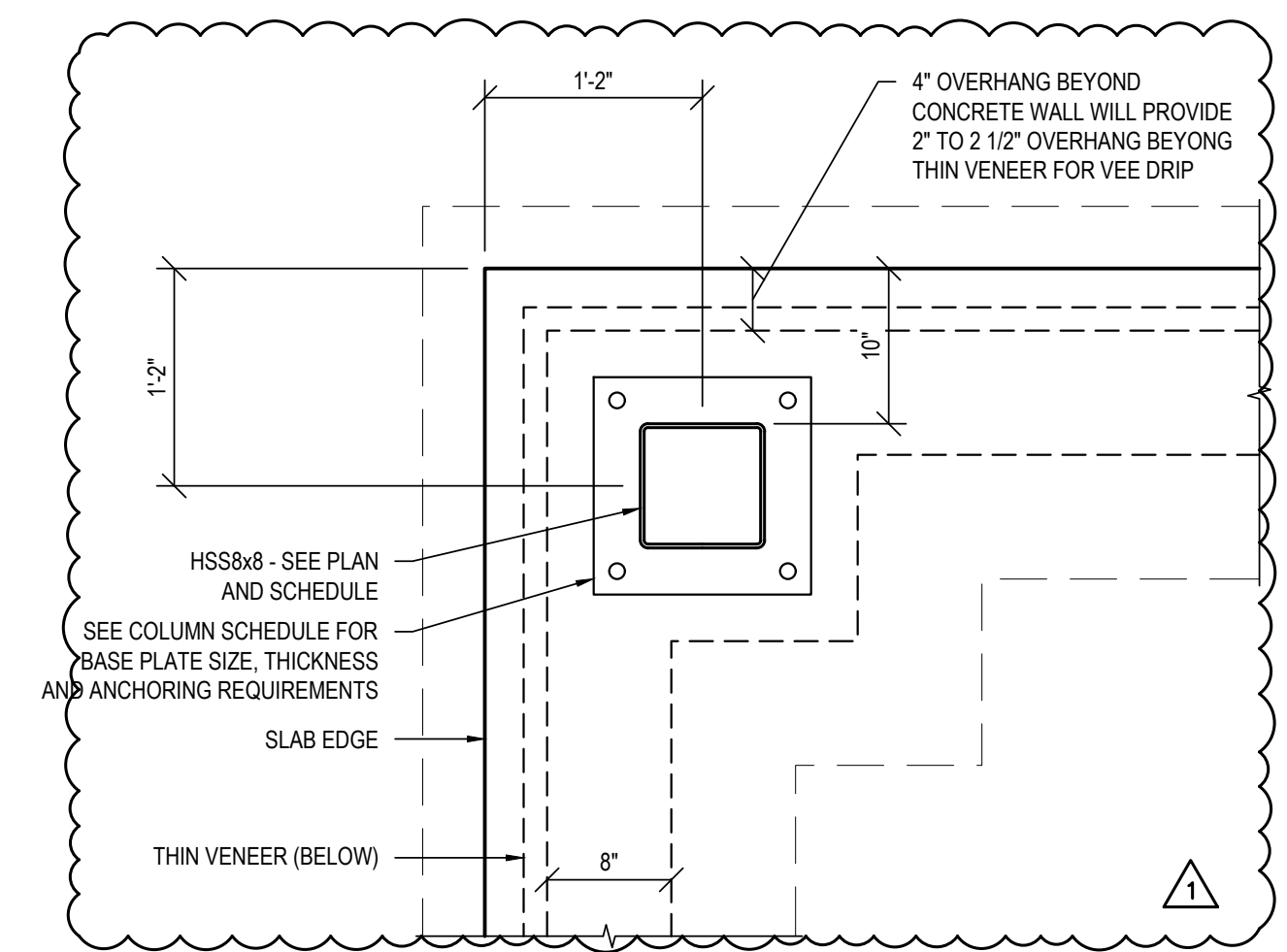
A
S502 ORIGINAL SCALE: 3/4" = 1'-0" TYPICAL FOUNDATION WALL SECTION



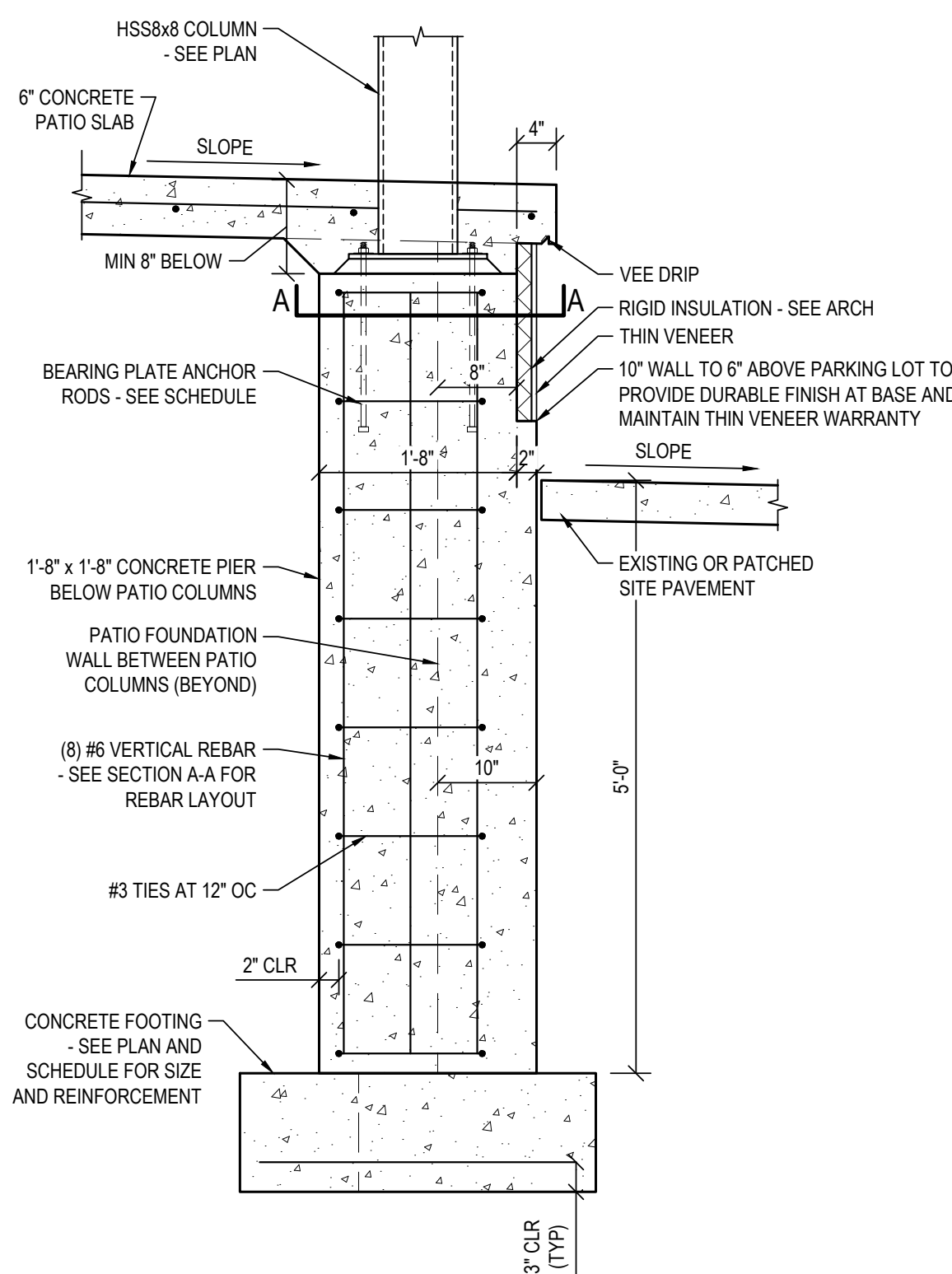
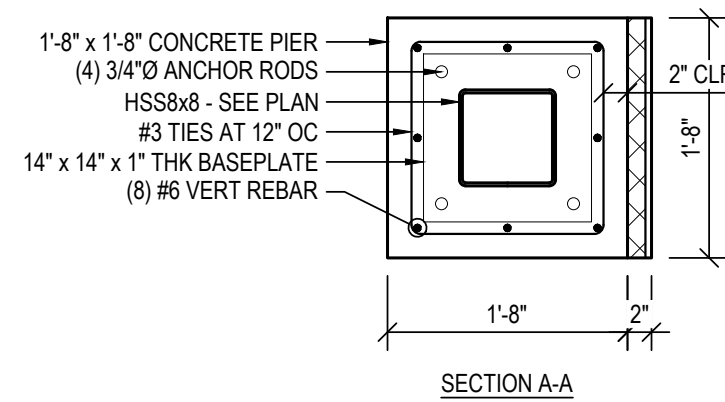
B
S502 ORIGINAL SCALE: 3/4" = 1'-0" FOUNDATION WALL SECTION - INTERIOR



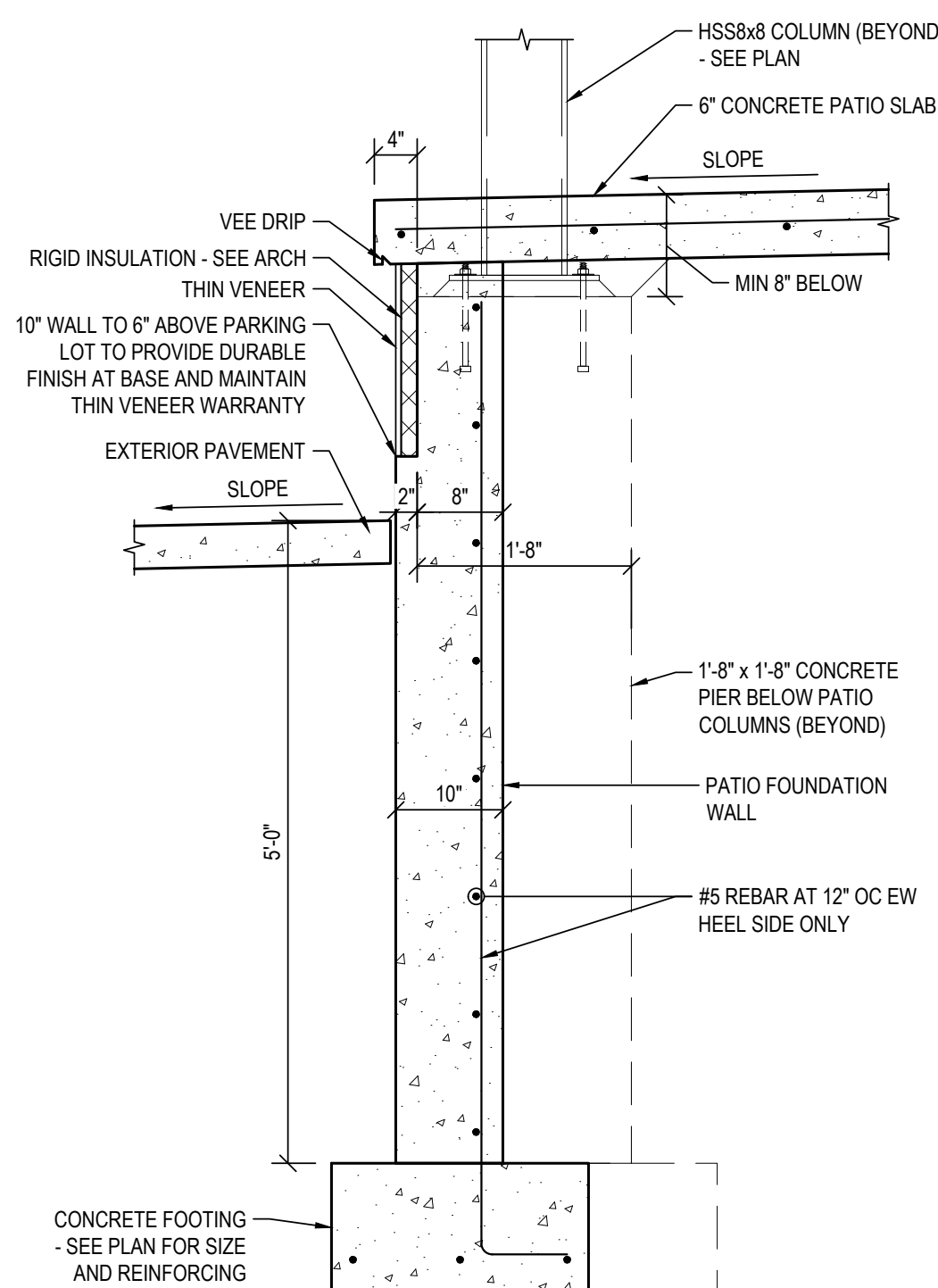
C
S502 ORIGINAL SCALE: 3/4" = 1'-0" INTERIOR COLUMN FOOTING DETAIL



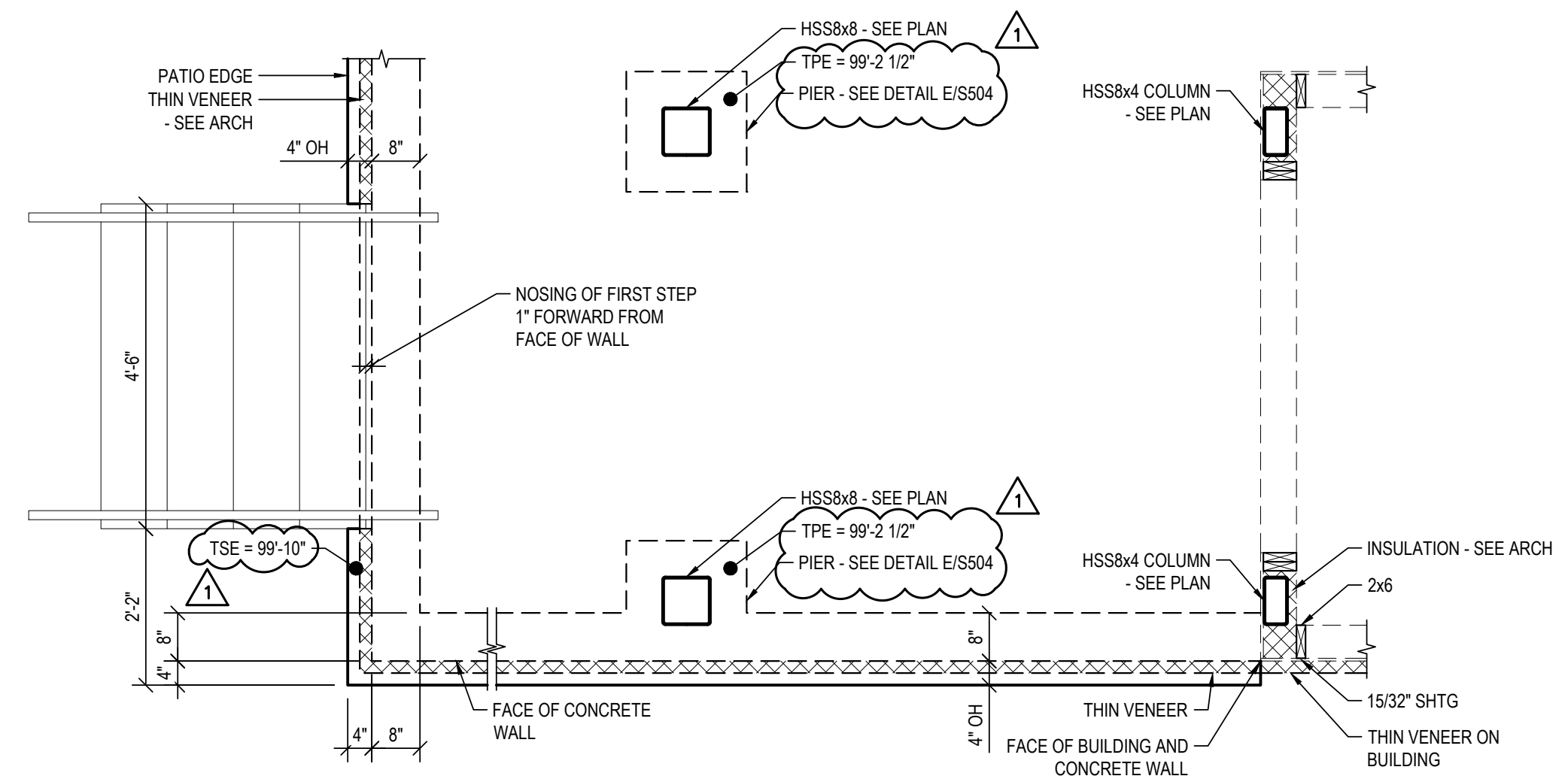
D
S502 ORIGINAL SCALE: 1" = 1'-0" ENLARGED PATIO COLUMN AT CORNER DETAIL



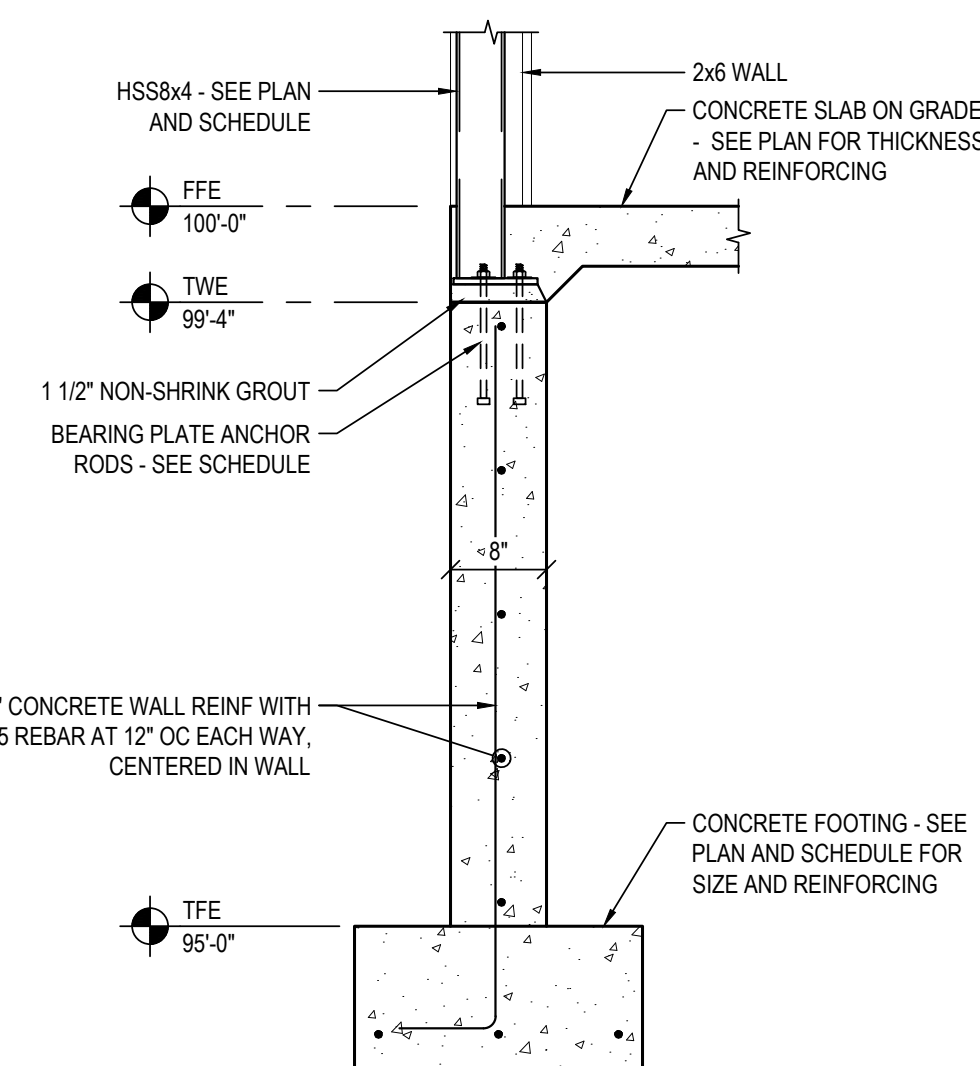
J
S502 ORIGINAL SCALE: 3/4" = 1'-0" PATIO PIER FOUNDATION SECTION



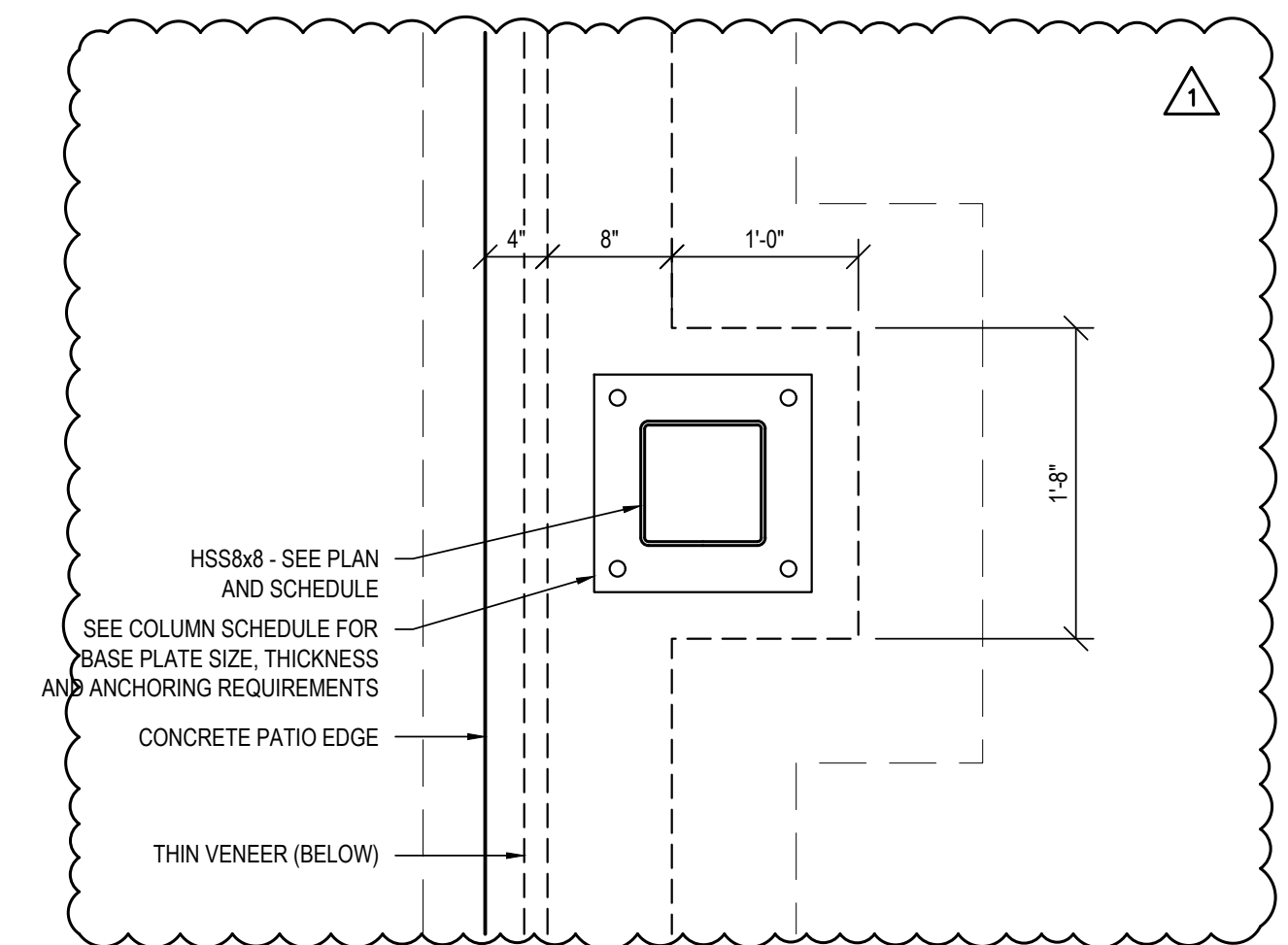
G
S502 ORIGINAL SCALE: 3/4" = 1'-0" PATIO FOUNDATION SECTION



H
S502 ORIGINAL SCALE: 1/2" = 1'-0" PATIO EDGE DETAIL AT FRONT ENTRY

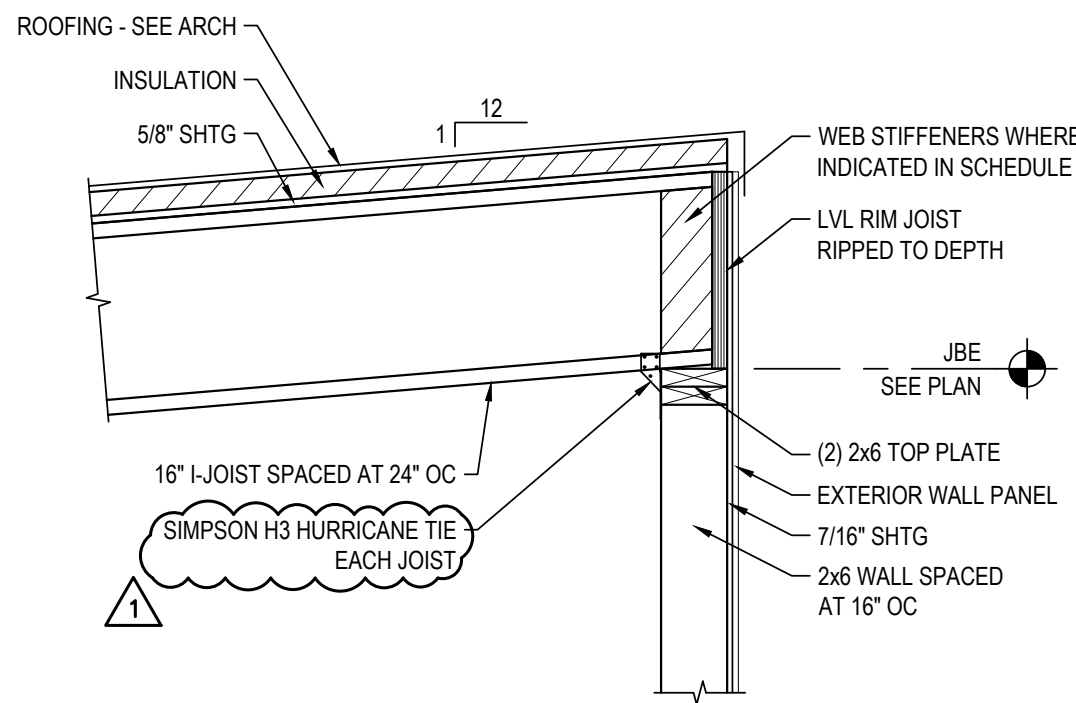


F
S502 ORIGINAL SCALE: 3/4" = 1'-0" FOUNDATION SECTION AT VESTIBULE

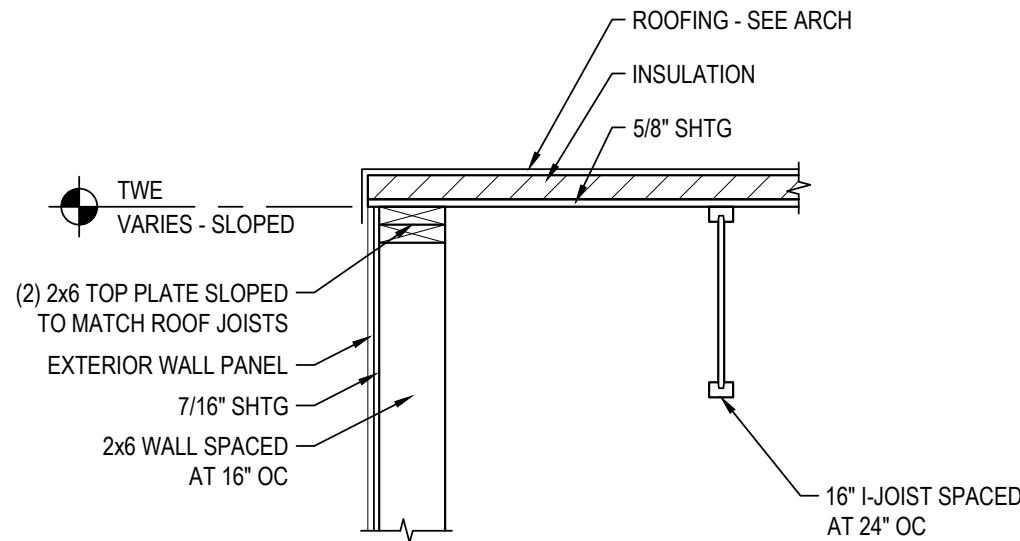


E
S502 ORIGINAL SCALE: 1" = 1'-0" ENLARGED PATIO COLUMN DETAIL

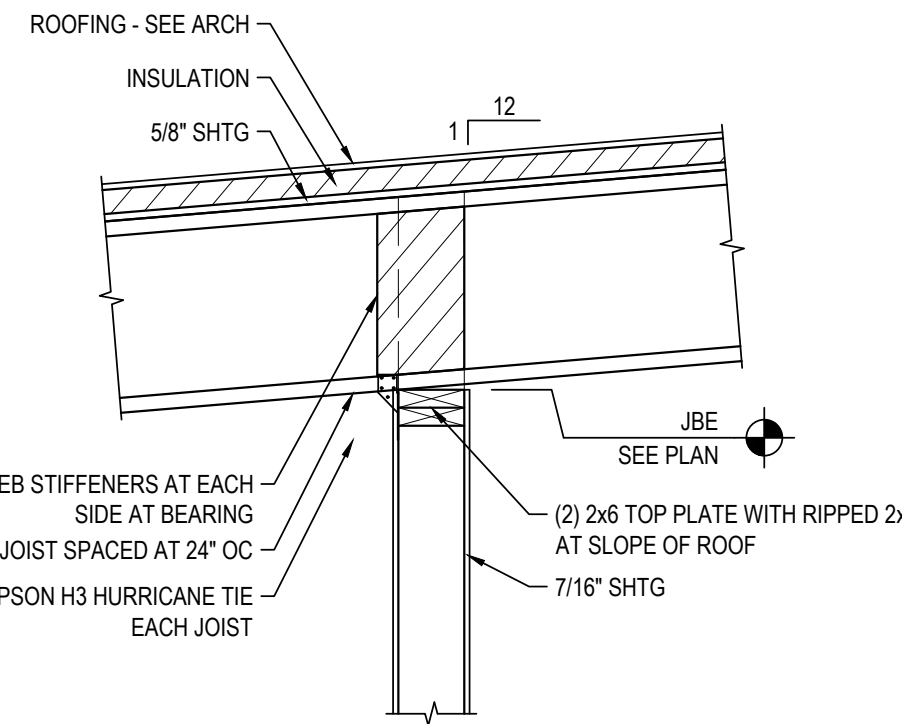
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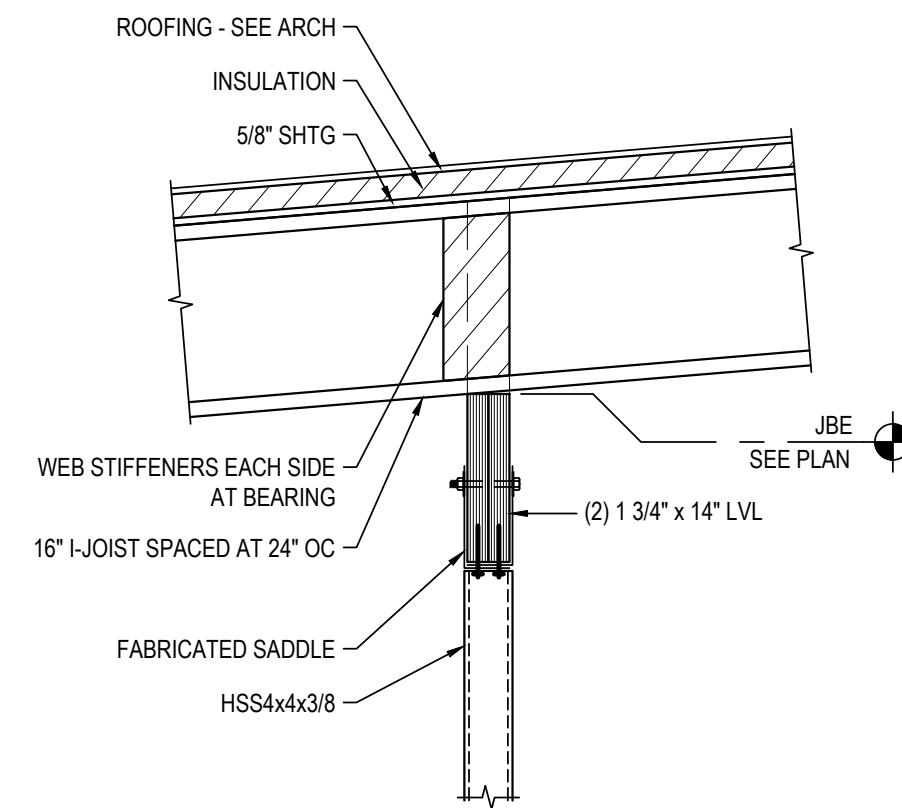
A
S503
ORIGINAL SCALE: 3/4" = 1'-0"
EXTERIOR WALL SECTION



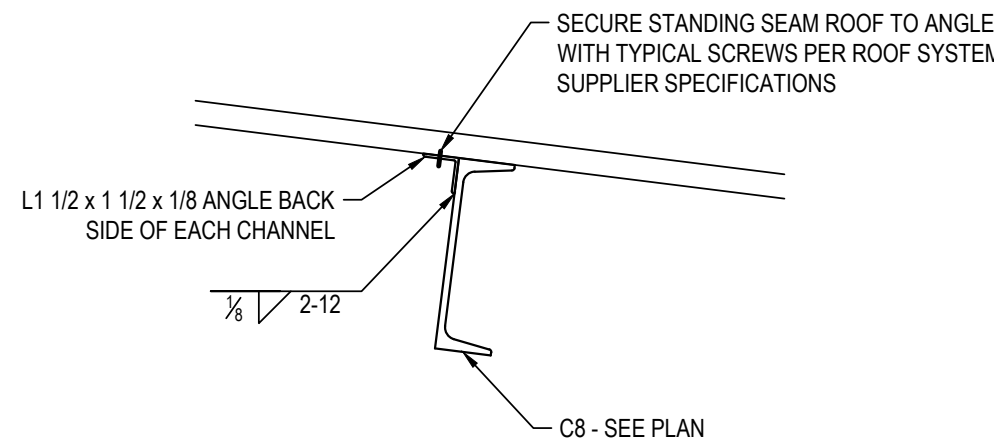
B
S503
ORIGINAL SCALE: 3/4" = 1'-0"
SECTION AT EXTERIOR WALL



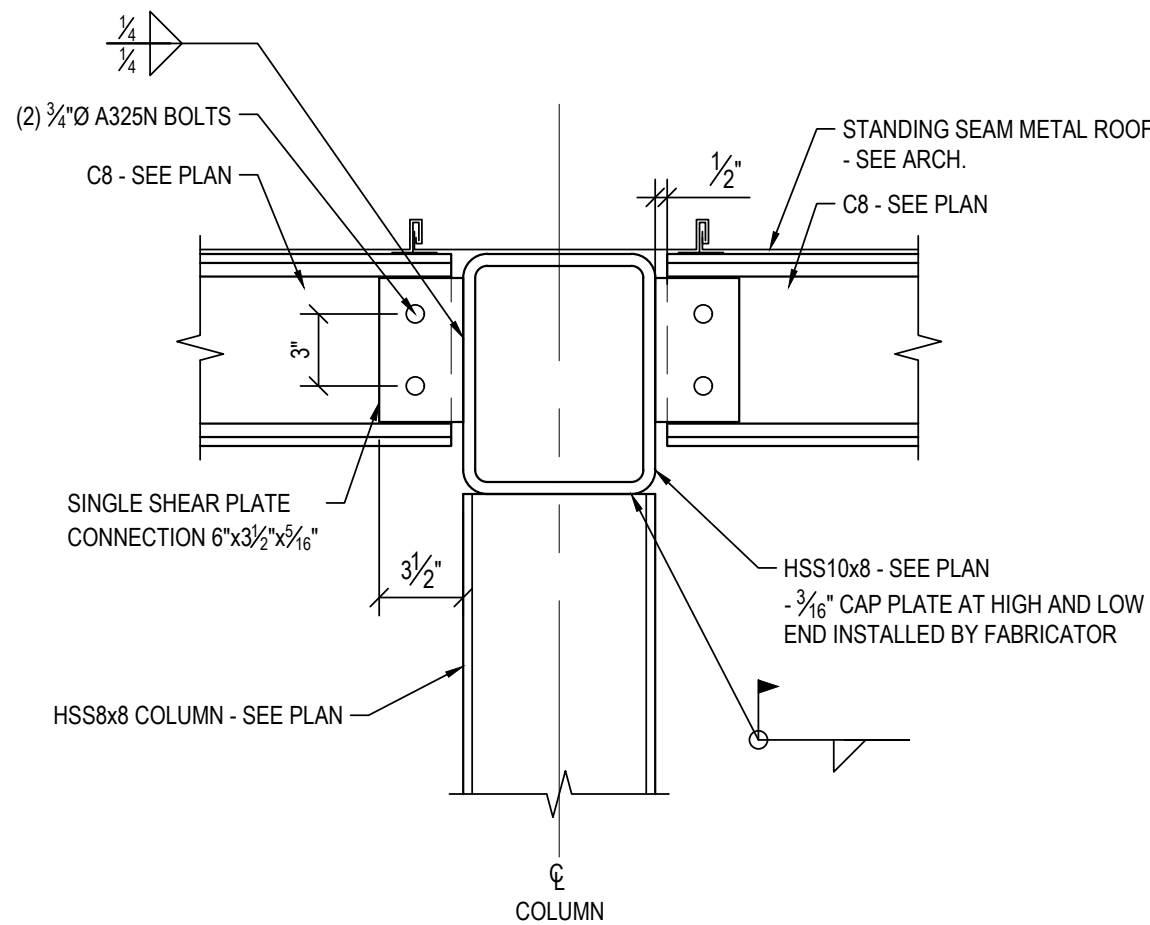
C
S503
ORIGINAL SCALE: 3/4" = 1'-0"
INTERIOR WALL SECTION



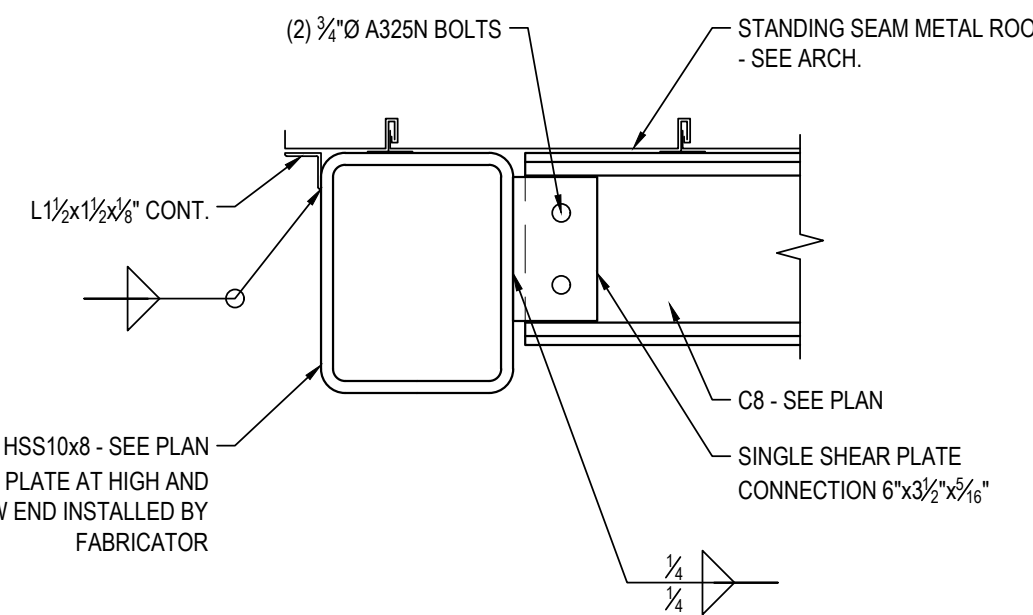
D
S503
ORIGINAL SCALE: 3/4" = 1'-0"
SECTION AT INTERIOR COLUMN



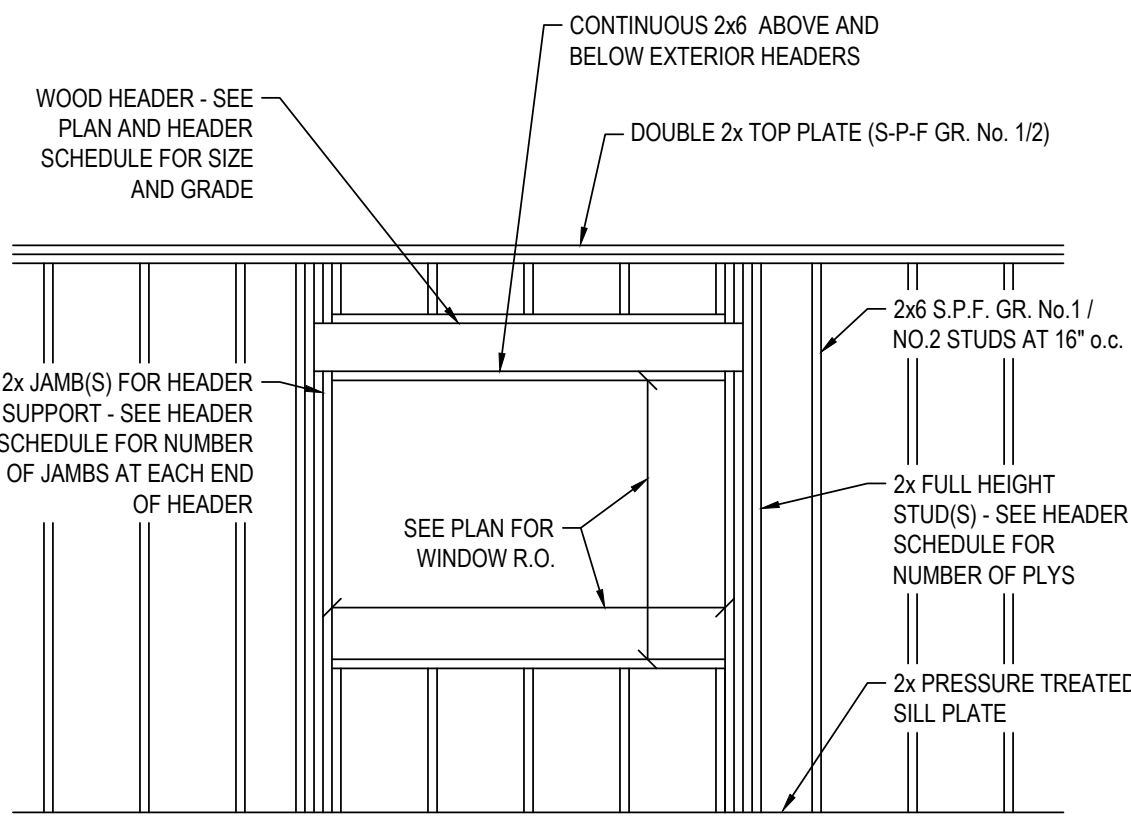
E
S503
ORIGINAL SCALE: 1 1/2" = 1'-0"
ANGLE TO CHANNEL CONNECTION DETAIL



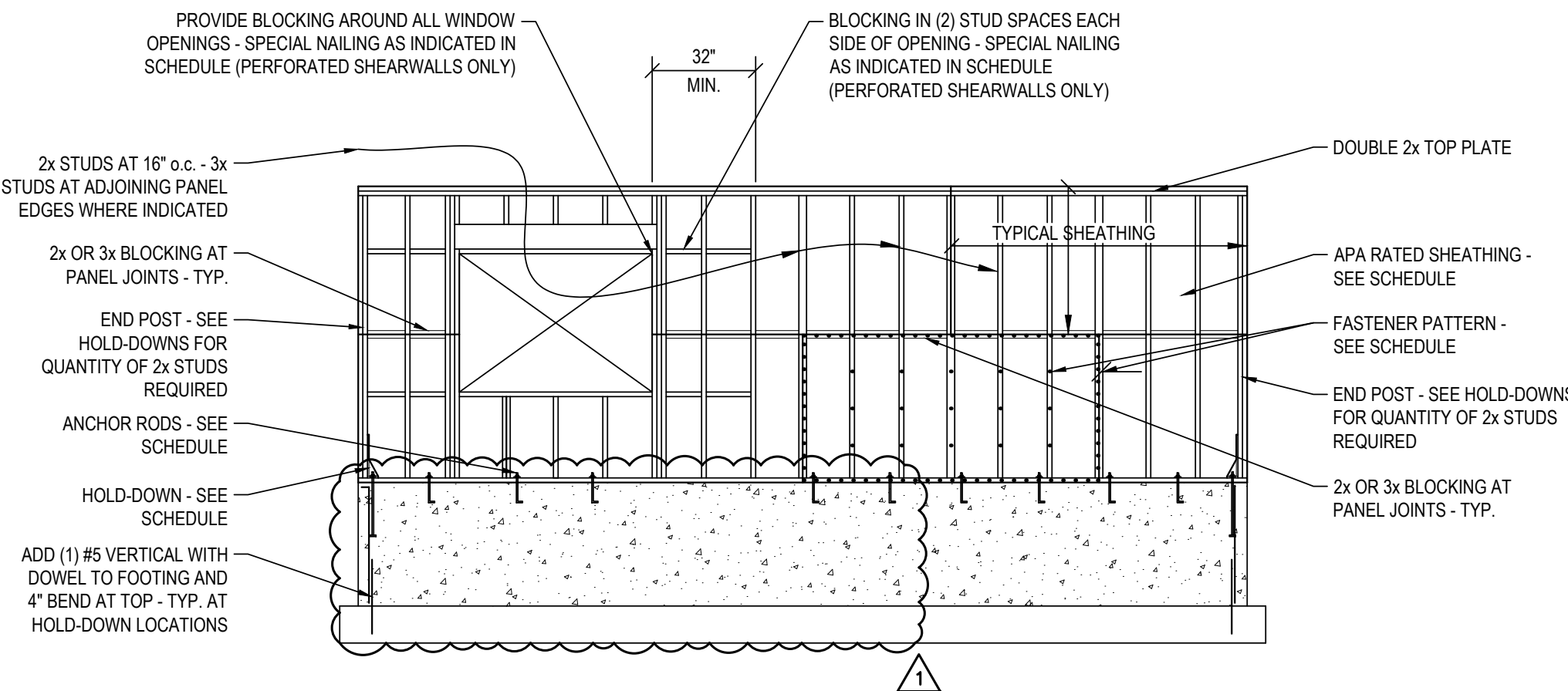
F
S503
ORIGINAL SCALE: 1 1/2" = 1'-0"
BEAM CONNECTION DETAIL AT COLUMN



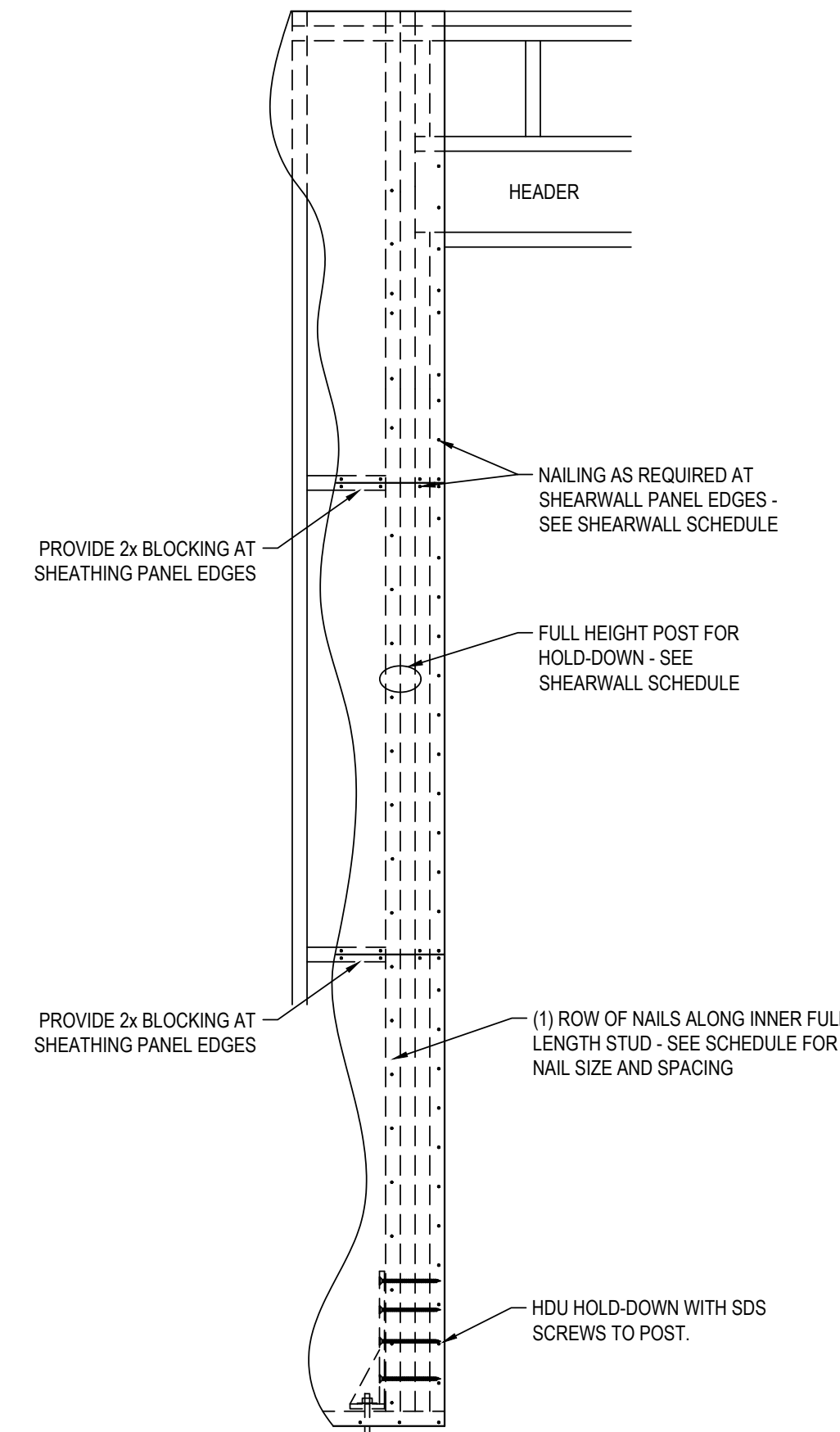
G
S503
ORIGINAL SCALE: 1 1/2" = 1'-0"
EDGE BEAM DETAIL



H
S503
ORIGINAL SCALE: 3/4" = 1'-0"
TYPICAL FRAMING ELEVATION DETAIL



J
S503
ORIGINAL SCALE: 3/4" = 1'-0"
TYPICAL PERFORATED SHEARWALL CONSTRUCTION ELEVATION



K
S503
ORIGINAL SCALE: 3/4" = 1'-0"
SHEARWALL ELEVATION AT OPENING

SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING
DULUTH, MN

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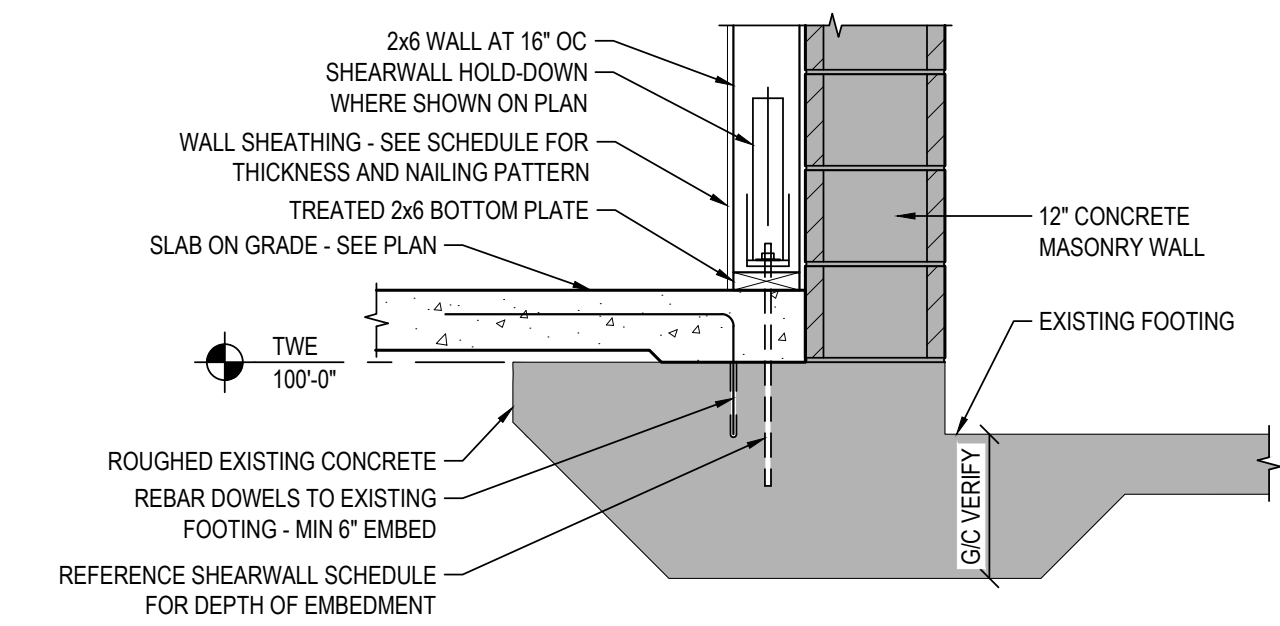
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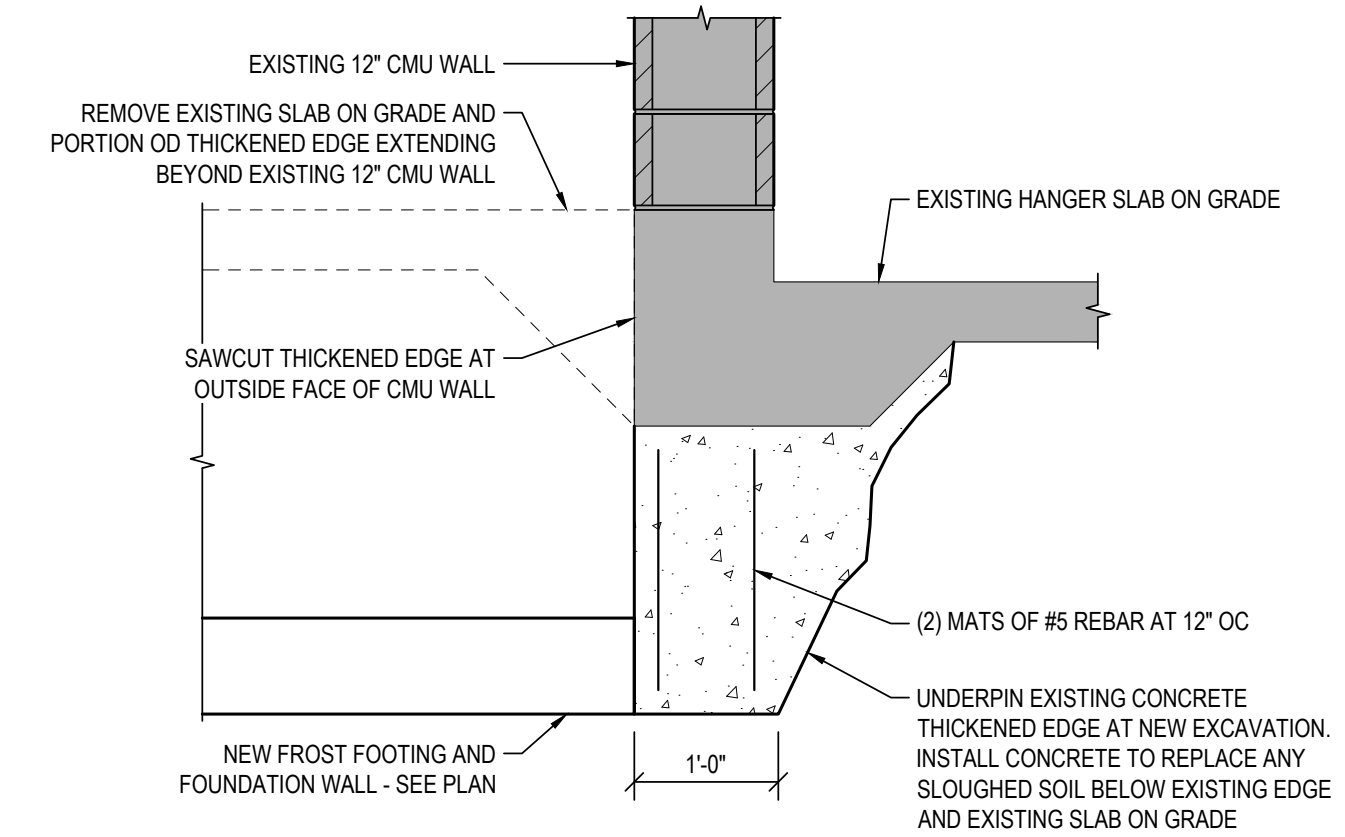
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FRAMING DETAILS

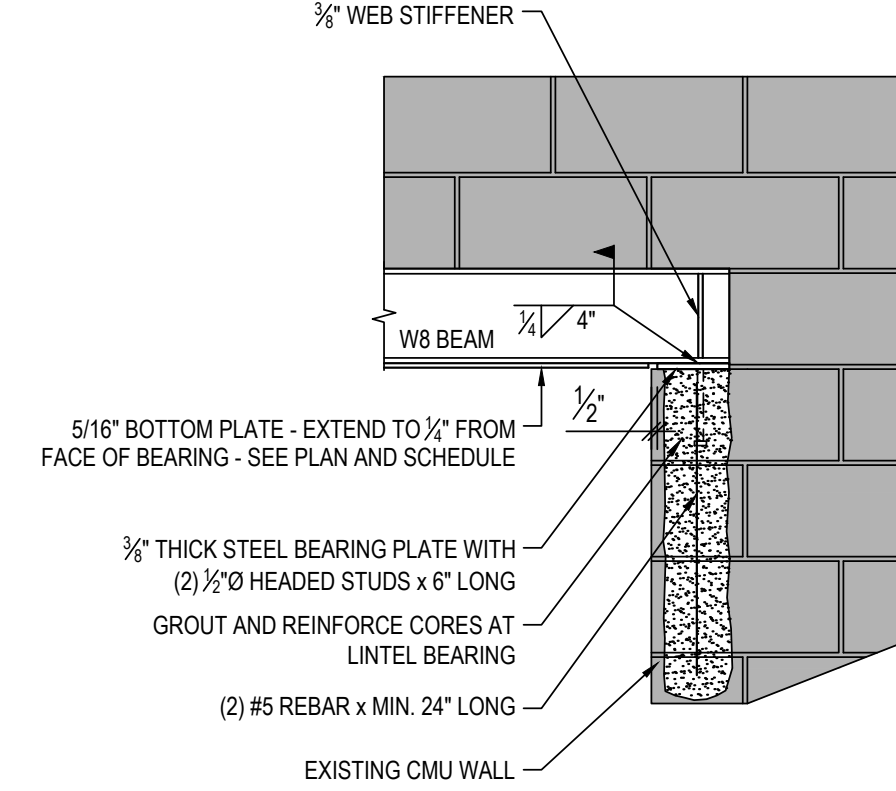
S503



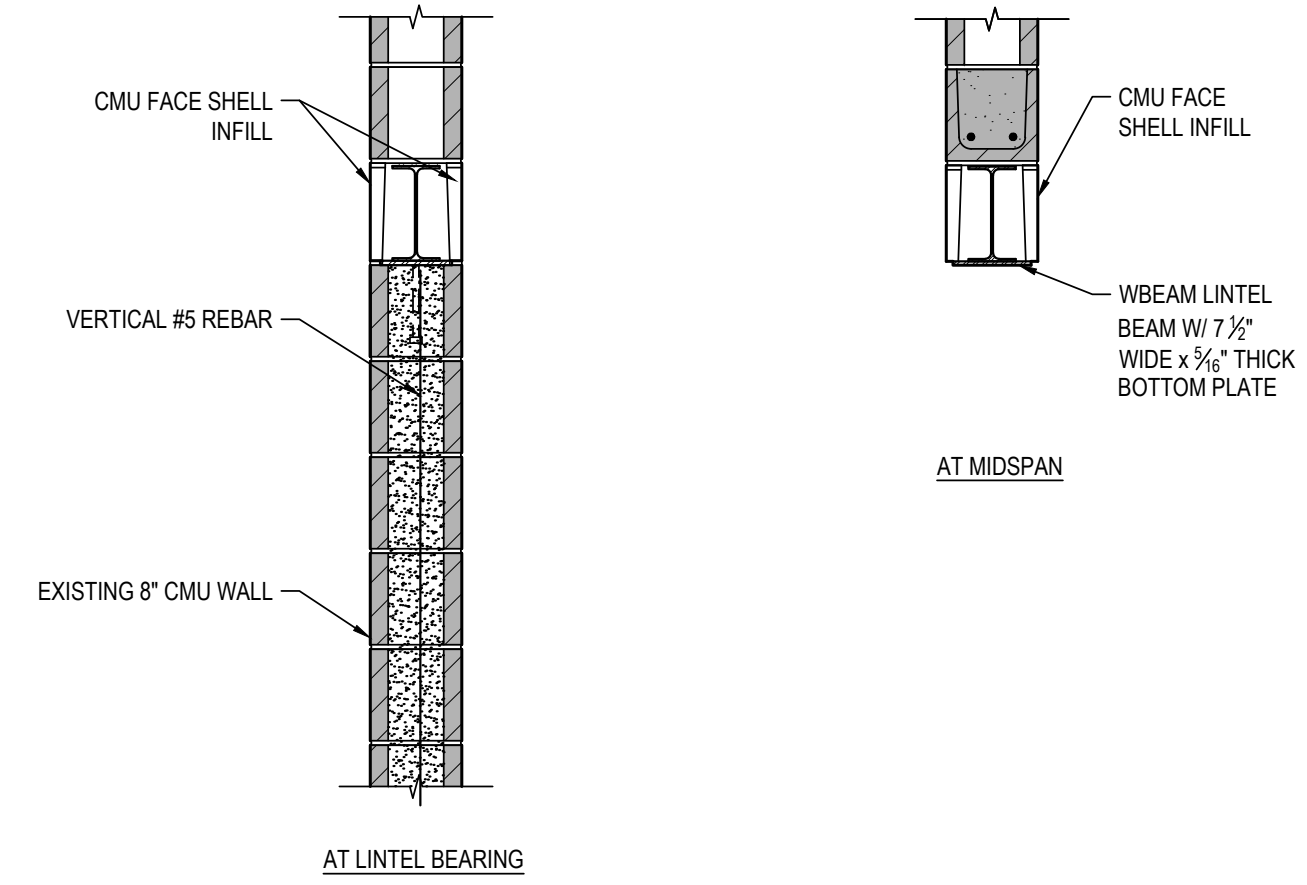
A TYPICAL FOUNDATION SECTION AT EAST WALL
S504 ORIGINAL SCALE: 3/4" = 1'-0"



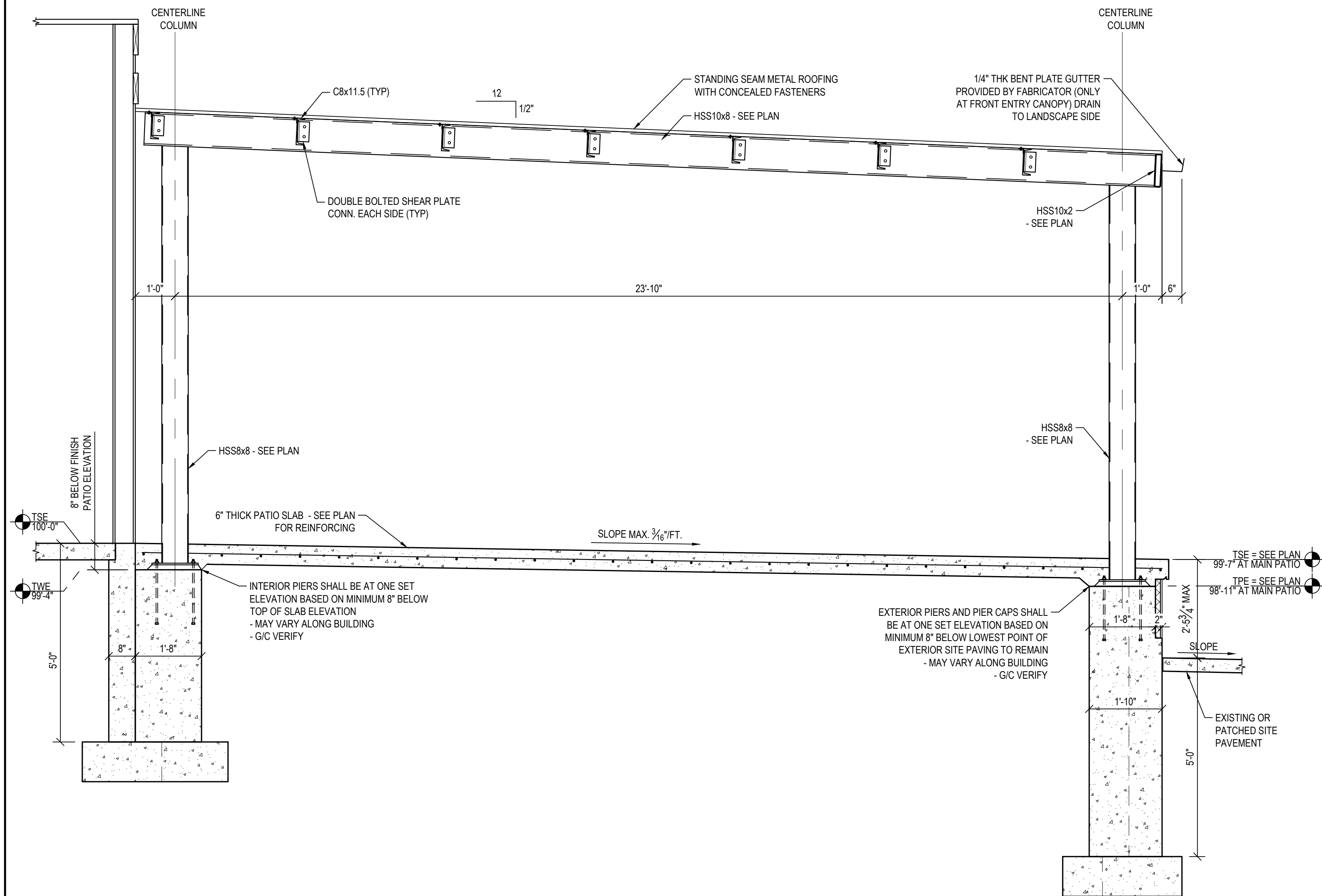
B CONCRETE FOOTING UNDERPIN DETAIL
S504 ORIGINAL SCALE: 3/4" = 1'-0"



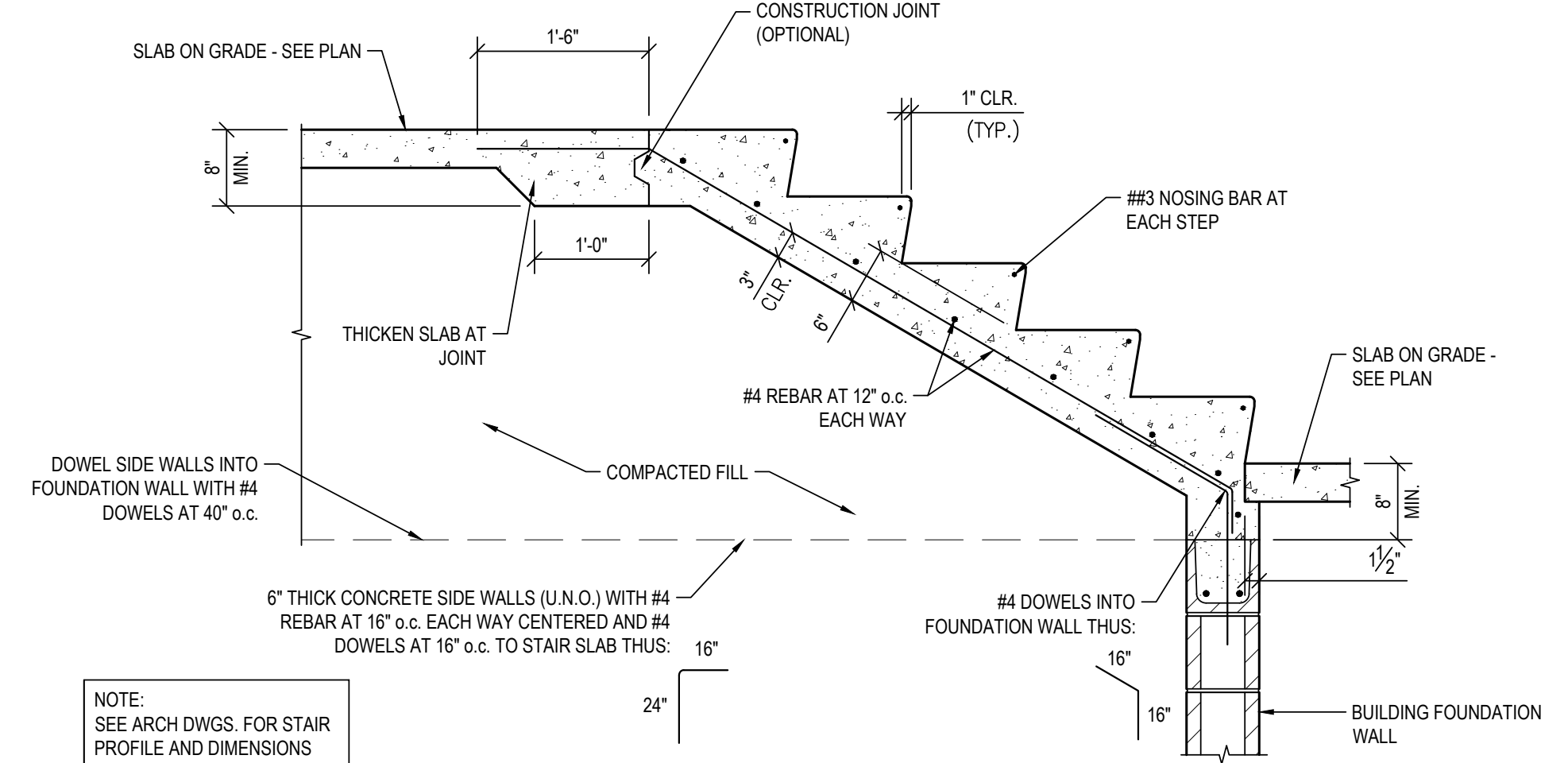
C STEEL LINTEL ELEVATION AT EXISTING PASSAGE DOOR TO HANGER
S504 ORIGINAL SCALE: 3/4" = 1'-0"



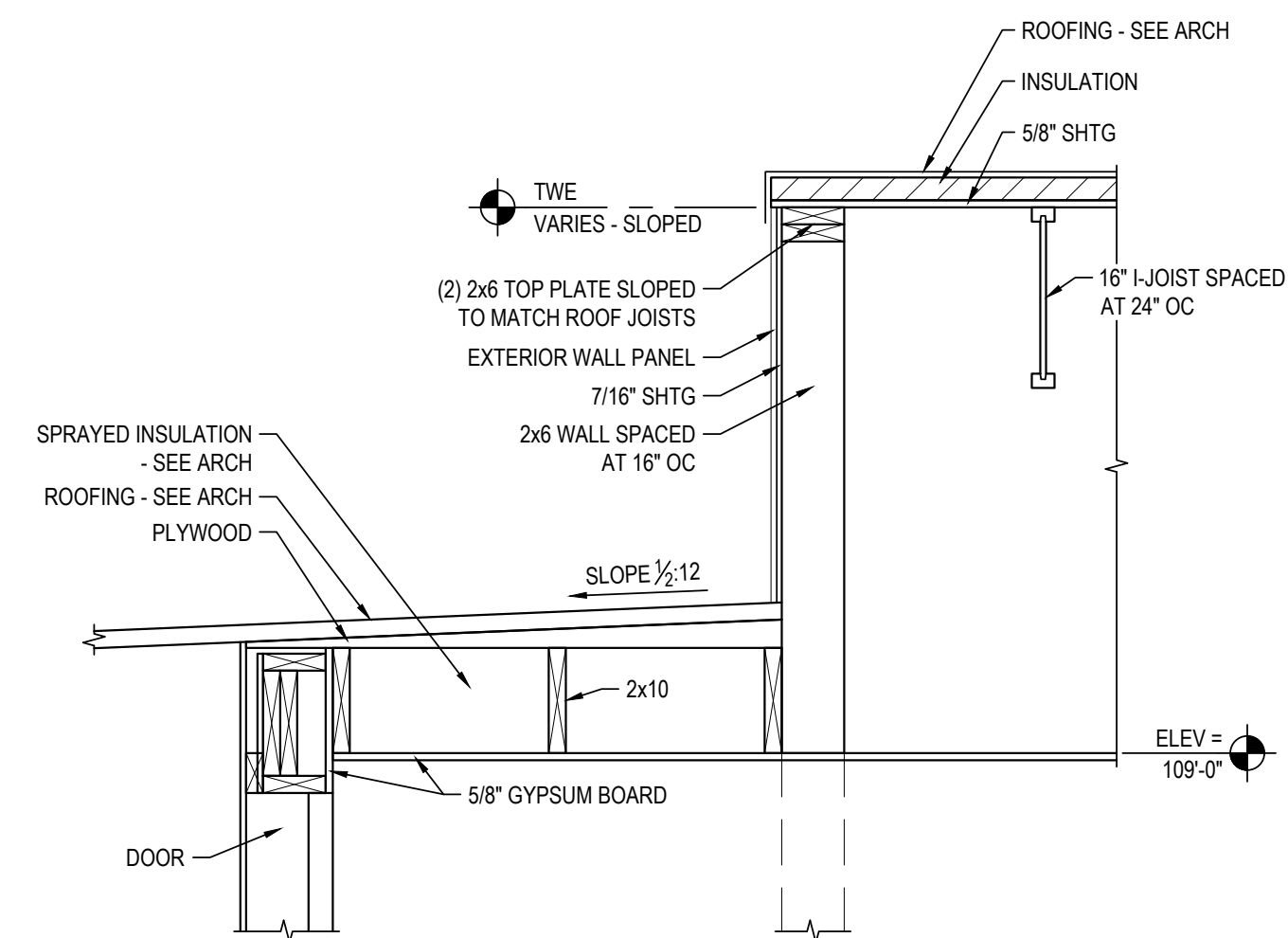
D STEEL LINTEL SECTIONS AT EXISTING HANGER
S504 ORIGINAL SCALE: 3/4" = 1'-0"



E SECTION THROUGH CANOPY
S504 ORIGINAL SCALE: 1/2" = 1'-0"

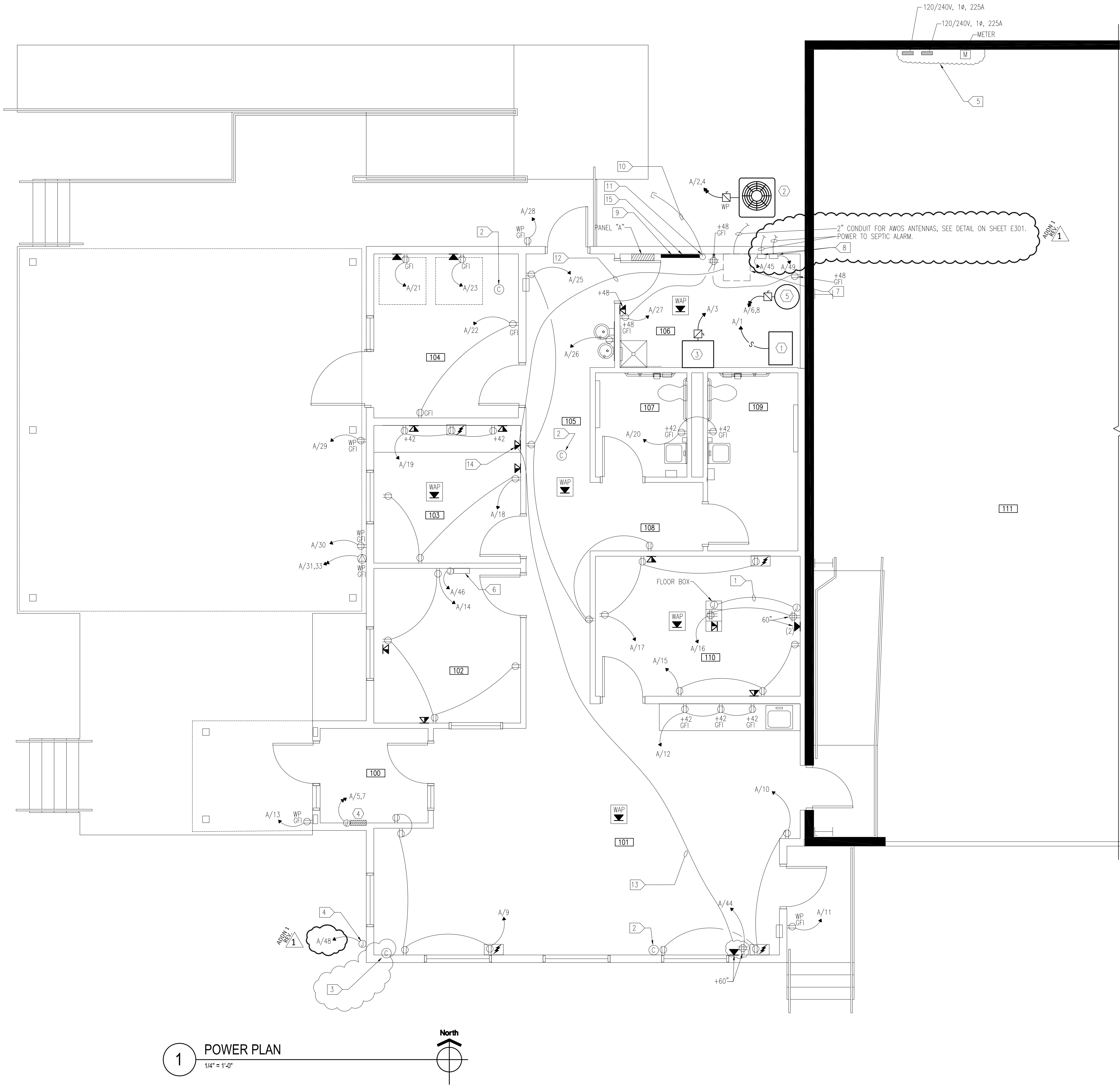


F CONCRETE STAIR ON GRADE
S504 ORIGINAL SCALE: 3/4" = 1'-0"



G VESTIBULE SECTION
S504 ORIGINAL SCALE: 3/4" = 1'-0"

ADDED SHEET AND REVISED SECTION THROUGH CANOPY



GENERAL NOTES:

- CONTRACTOR SHALL COORDINATE WITH OTHER TRADES IN ORDER TO AVOID ALL INTERFERENCE.
- CONTRACTOR SHALL VERIFY ALL EXISTING SIZES, FUNCTIONS, LOCATIONS AND CONDITIONS PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY FITTINGS, FIXTURES, AND/OR APPURTENANCES FOR THE COMPLETE INSTALLATION, OPERATION AND CONNECTION OF THE EQUIPMENT SHOWN AND/OR SPECIFIED.
- ALL DEVICES SHOWN ON THE DEMOLITION DRAWING ARE TO BE DISCONNECTED AND REMOVED UNLESS NOTED. ALL MATERIALS REMOVED BY THIS CONTRACTOR SHALL BE REVIEWED BY THE OWNER. MATERIAL NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. MATERIAL THE OWNER ELECTS TO KEEP SHALL BE STORED BY THE OWNER. THIS CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING EQUIPMENT, WIRING, CONDUIT ETC. AS INDICATED ON THE DRAWINGS OR AS REQUIRED TO COMPLETE THE WORK. CONCEALED ITEMS NOT TO BE REUSED MAY BE ABANDONED IF DISCONNECTED FROM THE SYSTEM.
- CONTRACTOR SHALL INSTALL EQUIPMENT, FIXTURES, IN SUCH A MANNER AS TO AVOID ALL INTERFERENCE WITH THE NEW AND EXISTING EQUIPMENT AND SYSTEMS.
- WHEN REMOVING EXISTING EQUIPMENT AS SHOWN AND AS NOTED, INCLUDING, BUT NOT LIMITED TO ELECTRICAL WIRING AND ANY OTHER DEMOLITION WORK; ALL WIRING AND ANY OTHER CONNECTIONS SHALL BE REMOVED BELOW FLOORS, INSIDE WALL AND/OR ABOVE CEILINGS. THE FLOORS, WALLS, AND/OR CEILINGS SHALL BE PATCHED TO MATCH THE EXISTING CONDITIONS BY THIS CONTRACTOR.
- ALL OPENINGS AND PENETRATIONS REQUIRED FOR INSTALLATIONS SHOWN ON THE DRAWINGS SHALL BE BY THIS CONTRACTOR, PATCH AND PAINT TO MATCH EXISTING.
- SEE ARCHITECTURAL PLANS FOR FIRE RATED PARTITIONS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING ALL NEW PENETRATIONS OF FLOORS, WALLS AND CEILINGS (NEW AND EXISTING CONSTRUCTION) WHERE NEW CONDUIT AND WIRING PASS THROUGH FIRE RATED PARTITIONS. REFER TO SPECIFICATION SECTION "FIRE STOPPING".

ELECTRICAL NUMBERED NOTES (THIS SHEET):

- PROVIDE AND INSTALL 1" C FROM FLOOR BOX TO ACCESSIBLE CEILING FOR A/V EQUIPMENT.
- CAMERA LOCATION. INSTALL JUNCTION BOX FOR FUTURE INSTALLATION OF CAMERA. ROUTE 1" CONDUIT WITH CAT 6A CABLE ELECTRICAL ROOM. COORDINATE LOCATIONS WITH OWNER & SECURITY SUPPLIER.
- CAMERA LOCATIONS ON ROOF. MOUNT ON 1-1/2" CONDUIT. INSTALL JUNCTION BOX FOR FUTURE INSTALLATION OF CAMERA. ROUTE 1" CONDUIT WITH CAT 6A CABLE ELECTRICAL ROOM. COORDINATE LOCATIONS WITH OWNER & SECURITY SUPPLIER.
- PROVIDE AND INSTALL J-BOX UP HIGH ON EXTERIOR WALL FOR "SKY HARBOR AIRPORT" SIGNAGE. SEE ARCHITECTURAL ELEVATIONS FOR LOCATION. COORDINATE WITH ARCHITECT.
- EXISTING ELECTRICAL PANELS TO REMAIN. DISCONNECT AND REMOVE EXISTING SERVICE FEED AND METER.
- NEW LOCATION OF EXISTING FUEL MONITORING EQUIPMENT. PROVIDE AND INSTALL EXTEND WIRING AND CONTROLS AS REQUIRED. REMOVAL SHALL ACCOMMODATE FOR TEMPORARY INTERIM FACILITY SETUP, SEE CIVIL SHEET FOR CONTINUATION.
- NEW LOCATION OF EXISTING AWOS EQUIPMENT. SPACE ALLOCATION FOR AWOS EQUIPMENT TO BE 24"x24"x24", 100 LBS BOX. PROVIDE SUPPORT BRACKETS/COUNTER FOR EQUIPMENT. EXTEND WIRING AND CONTROLS AS REQUIRED. COORDINATE REMOVAL AND RELOCATION.
- PROVIDE POWER TO SEPTIC OVERFILL ALARMS. ALARMS BY OTHERS.
- 4' X 8' SHEET OF 3/4" PLYWOOD MOUNTED VERTICALLY ON WALL FOR TELEPHONE EQUIPMENT.
- 3" PVC CONDUIT RUN 24" UNDERGROUND. STUB TELEPHONE TO RIGHT OF WAY. PROVIDE & INSTALL GROUND BAR. GROUNDED TO BUILDING REBAR. COORDINATE PHONE & INTERNET WITH LOCAL PROVIDER.
- TELEPHONE & INTERNET SERVICE CONDUIT STUB UP.
- 3/4" CONDUIT AND DATA CABLE TO PILOT LOUNGE BETWEEN MONITOR AND AWOS PROCESSOR UNIT. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
- 3/4" CONDUIT AND DATA CABLE TO WAITING ROOM BETWEEN MONITOR AND RECESSED MOUNTED TV RECEPTACLE BOX MOUNTED AT 60" A.F.F. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
- PUBLIC EMERGENCY TELEPHONE LOCATION. COORDINATE TRANSFER OF DEDICATED PHONE LINE.
- PROVIDE GROUND BAR PER DETAIL ON SHEET E301.

ROOM SCHEDULE	
NUMBER	NAME
100	VESTIBULE
101	CENTRAL WAITING ROOM
102	OFFICE
103	PILOT BRIEFING
104	CONCESSIONS
105	CORRIDOR
106	UTILITY SUPPORT
107	FAMILY
108	CORRIDOR
109	FAMILY
110	PILOTS LOUNGE
111	EXISTING HANGAR

SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING
DULUTH, MN

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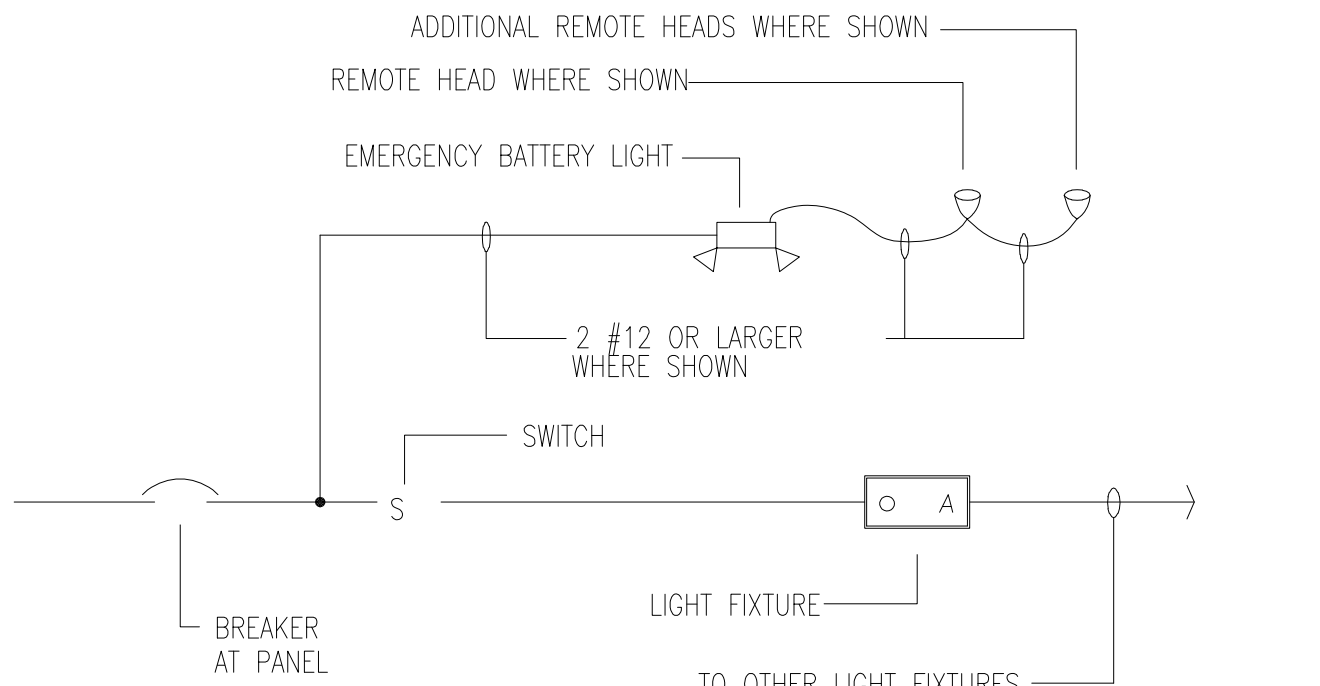
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Project Status Issue Date
CONSTRUCTION 05-17-2023
PLANS

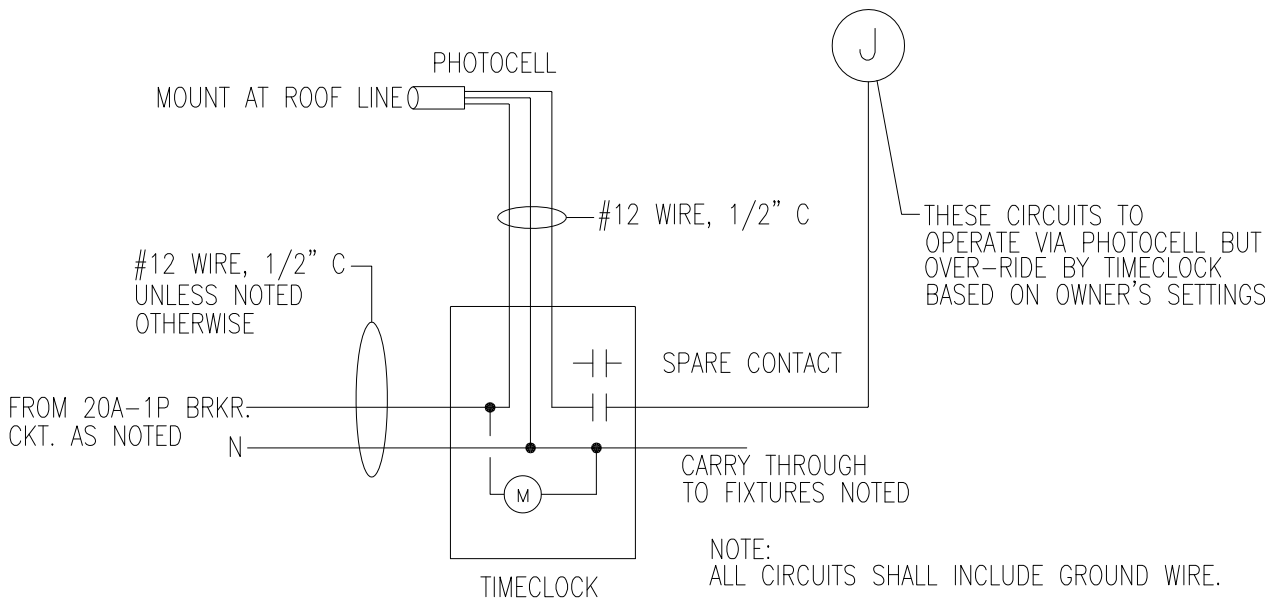
REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE
1	ADDENDUM 1	5-26-2023

POWER PLAN



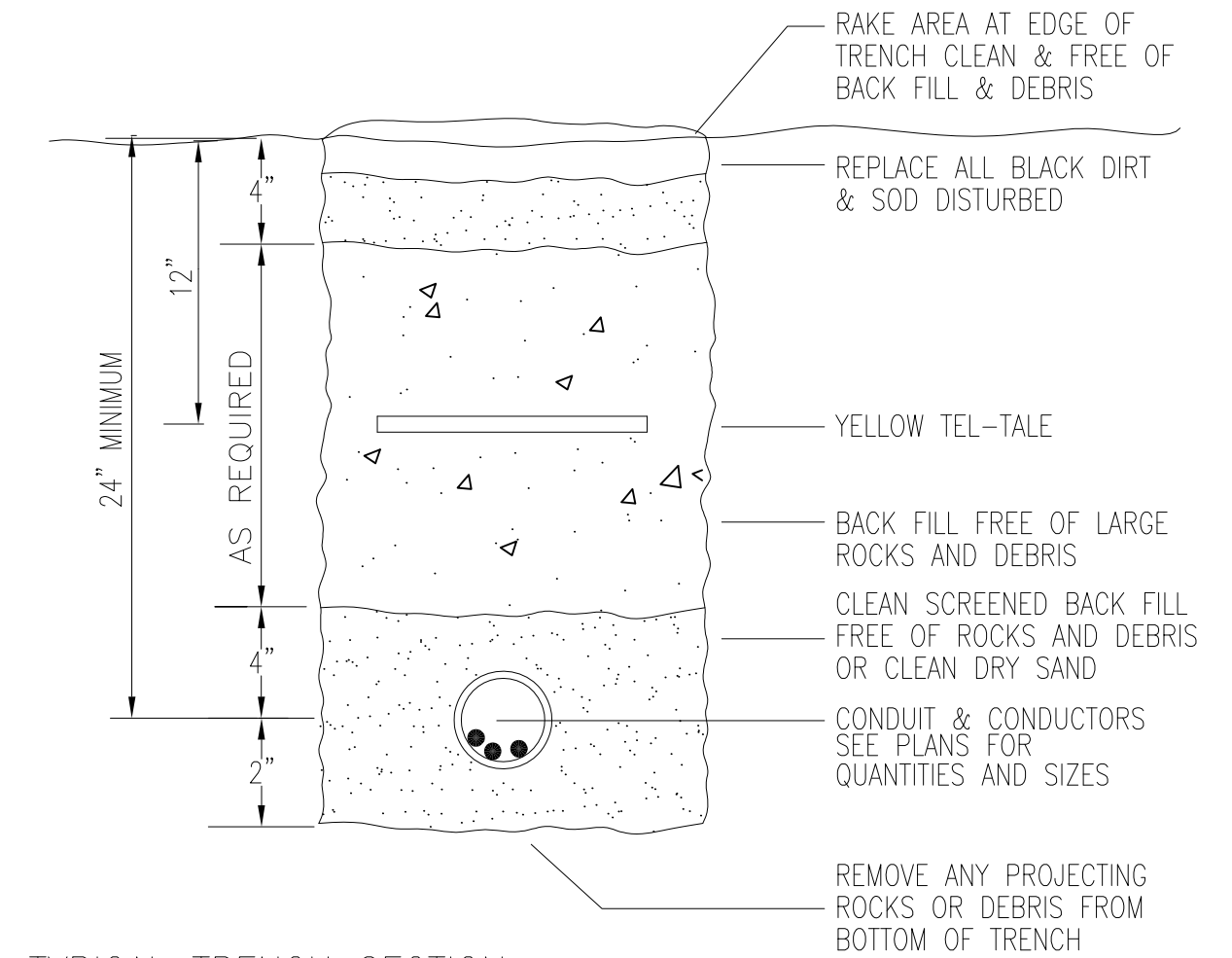
EMB LIGHT CONNECTION DETAIL

NO SCALE



TIMECLOCK/PHOTOCELL LIGHTING CONTROL DETAIL












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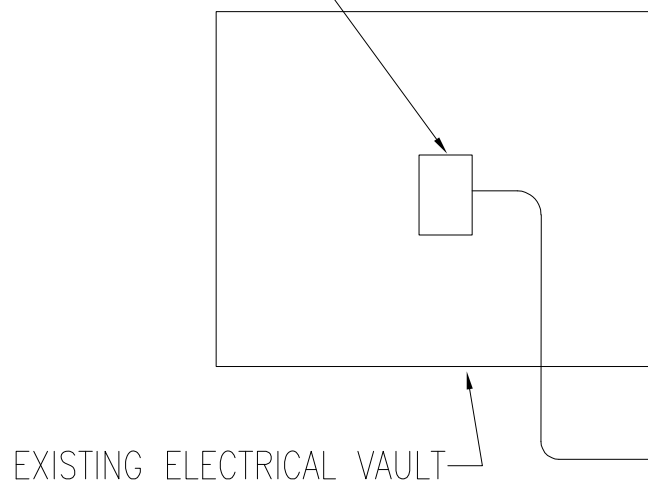
TYPICAL TRENCH SECTION

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LIGHT FIXTURE SCHEDULE

TYPE A 	2'x4" RECESSED LED TROFFER-LOW PROFILE HOUSING CONSTRUCTED OF DIE-FORMED 20 GAUGE COLD ROLLED STEEL. LENS TO BE ACRYLIC. 3500K COLOR TEMPERATURE. PROVIDE AND INSTALL LED DRIVER AND MODULES AS CALLED IN PART NUMBER. PROVIDE WITH 0-10V DIMMING. MODEL# ELITE LIGHTING 24-OEVHP-LED-3000L/4000L-DIM10-MVOLT-35K/40K/50K-85 NOTE: LUMEN PACKAGE SHALL BE SET FROM FACTORY AT 4000L AT 35K COLOR TEMPERATURE. (BUY AMERICAN APPROVED)
21W	
TYPE B 	2'x2" RECESSED LED TROFFER-LOW PROFILE HOUSING CONSTRUCTED OF DIE-FORMED 20 GAUGE COLD ROLLED STEEL. LENS TO BE ACRYLIC. 3500K COLOR TEMPERATURE. PROVIDE AND INSTALL LED DRIVER AND MODULES AS CALLED IN PART NUMBER. PROVIDE WITH 0-10V DIMMING. MODEL# ELITE LIGHTING 22-OEVHP-LED-2000L/3000L/4000L-DIM10-MVOLT-35K/40K/50K-85 NOTE: LUMEN PACKAGE SHALL BE SET FROM FACTORY AT 4000L AT 35K COLOR TEMPERATURE. (BUY AMERICAN APPROVED)
21W	
TYPE C 	LED WALL PACK - LOW PROFILE WALL PACK WITH 0° TO 90° TILT ADJUSTMENT. DIE CAST CONSTRUCTION FOR OUTDOOR APPLICATIONS. FIXTURE TO HAVE TEMPERED UV COATED FLAT LENS FOR UNIFORMITY AND GLARE CONTROL. ESTIMATED LIFE SPAN OF 50,000 LIFE HOURS. FIXTURE IS SUITABLE FOR OPERATION AT -40°C TO 40°C TEMP. PROVIDE AND INSTALL LEDS AS CALLED FOR IN PART NUMBER. FIXTURE TO HAVE ELECTRONIC DRIVER. MODEL# ORACLELIGHTING.COM CWP-FC-116-LED-5000L-DIM10-MVOLT-40K-BK (BUY AMERICAN APPROVED)
40W	
TYPE D 	7" RECESSED LED SLOPED CEILING DOWNLIGHT (INTERIOR USE) - FIXTURE IS UNIVERSAL 120/277V WHEN USING STANDARD 0-10V DIMMING DRIVER. PREWIRED AND GROUNDED JUNCTION BOX WITH GALVANIZED SNAP ON COVERS. FIXTURE TO BE 3000 LUMENS, 3500K COLOR TEMP. FINISH TO BE HAZE CLEAR (ETCHED) WITH POLISHED FLANGE. ANGLE CUT FOR CEILING OF 1:12 PITCH = 4.76° OF ROOF ANGLE. INSULATION TO BE KEPT 3" AWAY FROM ALL SIDES. MODEL# ATLANTIC LIGHTING LED7ADJ-SYL30-35K-U/7LADJ-15/45-HZ-PF (BUY AMERICAN APPROVED)
22W	
TYPE E 	RECESSED LED DOWNLIGHT (INTERIOR USE) - FIXTURE IS UNIVERSAL 120/277V WHEN USING STANDARD 0-10V DIMMING DRIVER. PREWIRED AND GROUNDED JUNCTION BOX WITH GALVANIZED SNAP ON COVERS. FIXTURE TO BE 2000 LUMENS, 3500K COLOR TEMP., FINISH TO BE HAZE CLEAR (ETCHED) WITH POLISHED FLANGE. NON-IC RATED. INSULATION TO BE KEPT 3" AWAY FROM ALL SIDES. MODEL# ATLANTIC LIGHTING COM6-SYL20-35K-U/6CM10-HZ-PF (BUY AMERICAN APPROVED)
18W	
TYPE F 	LED 1X4 WRAPAROUND SURFACE MOUNT FIXTURE-HOUSING CONSISTS OF DIE FORMED COLD ROLLED STEEL. ENDS FORMED WITH THE HOUSING FOR STRENGTH AND PROVISIONS FOR CONTINUOUS ROW. LONG LIFE LED SYSTEM. FINISH TO BE BAKED WHITE ENAMEL. LENS TO BE ACRYLIC. PROVIDE WITH DIMMING. MODEL# ELITE LIGHTING 4-OWW-LED-4000L-DIM10-MVOLT-40K-85 (BUY AMERICAN APPROVED)
32W	
TYPE G 	EXTERIOR WALL BRACKET LUMINAIRE - FIXTURE TO BE WALL BRACKET MOUNTED WITH ROTATING BODY. FIXTURE HAS SLEE 1.5" DIAMETER HOUSING. ANODIZED FINISH PROVIDES DURABLE CORROSION PROTECTION. LAMP BODY CAN BE ROTATED UP TO 330° AND LOCKS INTO POSITION. FIXTURE TO BE WET LOCATION RATED AND UNIVERSAL VOLTAGE. PROVIDE WITH DIMMING. MODEL# SPI LIGHTING SEW12145-4FT-L16W-120/277V-4000K-DF_BRK-X-X-SMA (BUY AMERICAN APPROVED)
16W	
TYPE EX 	PROVIDE AND INSTALL EXIT SIGNS WHERE SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. EXIT SIGNS SHALL BE L.E.D. TYPE. WHITE DIE-CAST HOUSING TO HAVE 6" HIGH RED LETTERS AND DIRECT. ARROWS. LAMPS SHALL BE INCLUDED AND SHALL HAVE A MINIMUM OF A 20 YEAR WARRANTY. LAMPS SHALL BE CONCEALED BY A LENS TO DIFFUSE LAMPS. SIGN SHALL HAVE BATTERY BACK-UP. SIGN SHALL BE BY LITHONIA, DUAL LITE, PRESCOLITE, SILTRON, CHLORIDE, HUBBELL, SURE LITES OR APPROVED EQUAL. MODEL# SURE-LITES/APX7R
TYPE EM 	PROVIDE AND INSTALL WHERE SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED, EMERGENCY BATTERY LIGHTING UNITS. HOUSING SHALL BE WHITE THERMOPLASTIC. BATTERY TO BE 12V, MAINTENANCE FREE, INPUT VOLTAGE EACH UNIT SHALL BE CAPABLE OF SUPPLYING THE CONNECTED LOAD FOR A MINIMUM OF 90 MINUTES. MODEL# SURE-LITES/SEL17
TYPE EM-EX 	PROVIDE AND INSTALL WHERE SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED, EMERGENCY/EXIT LIGHT. SIGNS SHALL BE L.E.D. TYPE. WHITE DIE-CAST HOUSING TO HAVE 6" HIGH RED LETTERS AND DIRECT. ARROWS. LAMPS SHALL BE INCLUDED AND SHALL HAVE A MINIMUM OF A 20 YEAR WARRANTY. LAMPS SHALL BE CONCEALED BY A LENS TO DIFFUSE LAMPS. SIGN SHALL HAVE BATTERY BACK-UP. SIGN SHALL BE BY LITHONIA, DUAL LITE, PRESCOLITE, SILTRON, CHLORIDE, HUBBELL, SURE LITES OR APPROVED EQUAL. MODEL# SURE-LITES/APC7R
TYPE EXT-EM 	WEATHERPROOF/DUAL LIGHT/WET LOCATION EMERGENCY LED LIGHT - BATTERY: FULL RECHARGE TIME, 24 HOURS MAX. AND SEALED NICKEL CADMIUM. UNIT SHALL BE CAPABLE OF SUPPLYING LOAD FOR A MINIMUM OF 90 MINUTES. ELECTRICAL: DUAL VOLTAGE 120/277 VAC, 60HZ. BROWNOUT CIRCUIT, LOW VOLTAGE DISCONNECT, OVERLOAD/SHORT CIRCUIT PROTECTION, 4.8V BATTERY BACK-UP, 1.4W ACQU-LED OPTICS. MODEL# SURE-LITE / SELWT29BZSD (OR EQUAL)
EXTERIOR EMERG. BAT. UNIT	
<p><u>"BUY AMERICAN" NOTE:</u></p> <p>PLEASE REFER TO SPECIFICATIONS IN REGARD TO "BUY AMERICAN ACT" FOR ALL LIGHTING FIXTURES. ALL FIXTURES THAT ARE SUBMITTED AS EQUALS SHALL BE "BUY AMERICAN".</p>	



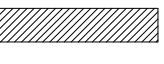







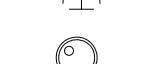





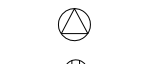




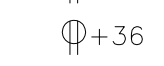


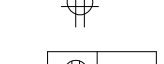

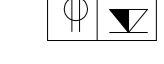



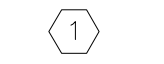


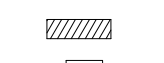

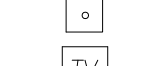

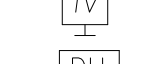
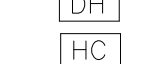















NEW 400A-2P BREAKER IN EXISTING SWITCHGEAR IN ELECTRICAL VAULT. FIELD VERIFY.



POWER RISER

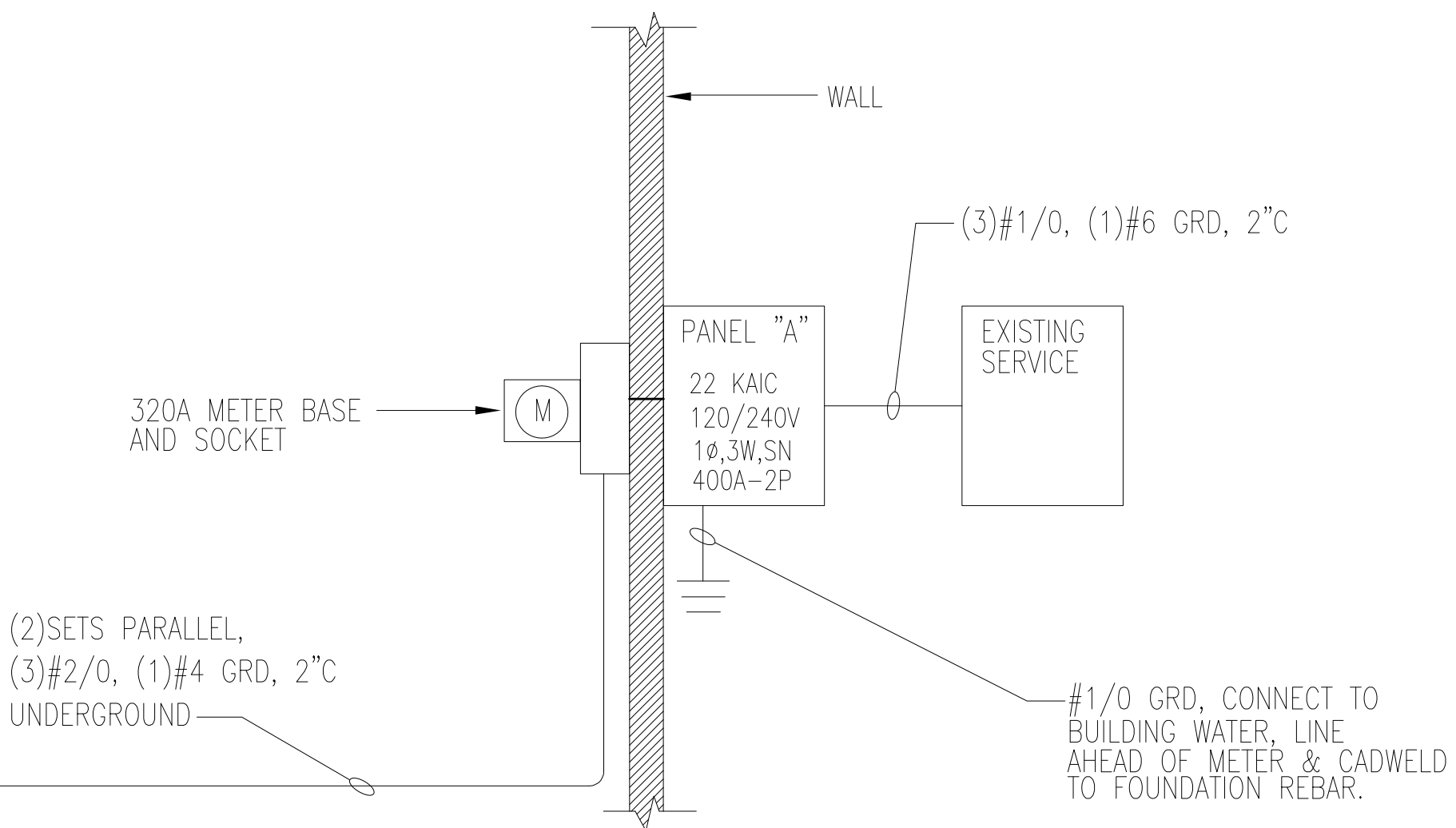
NOT TO SCALE

ELECTRICAL LEGEND

---	IN GROUND WIRING		EMERG. BATTERY LIGHTING UNIT
---	EXPOSED WIRING		THERMOSTAT
---	CONCEALED WIRING		SWITCH BOARD
	ELECTRIC BASEBOARD		FUSED DISCONNECT
	HOME RUN: A = PANEL, 1 = CIRCUIT NO.		STARTER
	FIXTURE; SEE SPEC. & FIXTURE SCHEDULE FOR TYPE		TELEPHONE OUTLET
	NIGHT LIGHT FIXTURE (HATCHING WITH N NEXT TO FIXTURE. CKRT. TO BRKR.)		DATA OUTLET (1 DROP)
	WALL SCONCE		VOIP DATA (2 DROPS)
	LIGHT FIXTURE; SEE SPEC. FOR TYPE		MOTOR
	WALL MOUNTED FIXTURE		OCCUPANCY SENSOR
	30 AMP RECEPTACLE		SWITCH; SINGLE POLE
	50 AMP RECEPTACLE		SWITCH; 3-WAY
	DUPLEX GROUNDING RECEPTACLE		DIMMER; SINGLE POLE
	GROUND FAULT INTERRUPTER		DIMMER; 3-WAY
	WP = WEATHERPROOF		BELL OR CHIMES
	+36 = INCHES A.F.F.		STROBE
	+36 = INCHES A.F.F.		FIRE ALARM HORN & STROBE
	ELECTRIC WATER COOLER		LOW FREQUENCY HORN & STROBE
	DOUBLE DUPLEX GROUNDING RECEPT.		FIRE ALARM STATION (MANUAL)
	FLOOR BOX		FIRE ALARM STATION (HEAT)
	L.E.D. EXIT SIGN		FIRE ALARM SMOKE DETECTOR
	EQUIPMENT DESIGNATION; SEE EQUIPMENT SCHEDULE		FIRE/SMOKE DAMPER
	JUNCTION BOX		DUCT SMOKE DETECTOR
	PANEL		FIRE ALARM CONTROL PANEL
	DOOR BELL BUTTON		FIRE ALARM ANNUNCIATOR PANEL
	TV OUTLET		120V CARBON MONOXIDE DETECTOR - HARDWIRE CONNECTION WITH BATTERY BACKUP
	DOOR HOLDER		SMOKE DETECTOR/CO DETECTOR
	ACCESSIBLE DOOR OPENER		SMOKE DETECTOR W/STROBE
	CARD ACCESS		CLOCK
	CAMERA LOCATION		OVERHEAD PROJECTOR
	WIRELESS ACCESS POINT (1 DATA DROP)		
	USB CHARGING STATION W/RECEPTACLE		

NOTES:

- 120/240V, 1ø, 3W, SN 400A METER SHALL BE PURCHASED FROM MN POWER BY ELECT. CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUCTORS TO BLDG. SERVICE.
- ALL CONDUIT SIZED FOR RIGID STEEL CONDUIT UNLESS NOTED.



PANEL "A" SCHEDULE

TYPE: NQDD								VOLT: 120/240V, 1ø, 3W		MNT: SURFACE		FEED: BOT		MAIN: DISC		AMPS: 400	
CR.	LOAD	WATTS	BRKR.			BRKR.	WATTS	LOAD	CR.								
1	(1)	1608	20A-1P			40A-2P	6615	(2)	2								
3	(3)	396	20A-1P						4								
5	(4)	3000	20A-2P			30A-2P	4500	(5)	6								
7	⌀	720	20A-1P			20A-1P	540	⌀	10								
9	⌀	180	20A-1P			20A-1P	540	⌀	12								
11	⌀	180	20A-1P			20A-1P	720	⌀	14								
13	⌀	540	20A-1P			20A-1P	720	⌀	16								
15	⌀	540	20A-1P			20A-1P	540	⌀	18								
17	⌀	540	20A-1P			20A-1P	360	⌀	20								
19	⌀	360	20A-1P			20A-1P	1000		22								
21	⌀	1000	20A-1P			20A-1P		SPARE	24								
23	⌀	720	20A-1P			20A-1P	180	D.F. ⌀	26								
25	⌀	720	20A-1P			20A-1P	180	⌀	28								
27	⌀	180	20A-1P			20A-1P	180	⌀	30								
29	⌀	9000	50A-2P			20A-1P	352	LIGHTS	32								
31	⌀	105	20A-1P			20A-1P	105	LIGHTS	34								
33	LIGHTS	179	20A-1P			20A-1P	84	LIGHTS	36								
35	LIGHTS	108	20A-1P			20A-1P	120	LIGHTS	38								
37	LIGHTS	280	20A-1P			150-2P	21,600	EXISTING HANGAR	40								
39	POWER PEDISTAL	9600	50A-2P			20A-1P	360	⌀	42								
41	SEPTIC ALARM	500	20A-1P			20A-1P	500	FUEL MONITOR	46								
43	GATE POWER	1500	20A-1P			20A-1P	500	SIGNAGE (1)	48								
45	SEPTIC ALARM	500	20A-1P						50								
47									52								
49									54								
51									56								
53									58								
55									60								
57									62								

400V-1
REF 1

400V-1
REF 1

GFCI BREAKER

GFCI BREAKER

PANEL SHALL BE RATED AT 22 KAIC

SKY HARBOR AIRPORT 2023 RECONSTRUCT TERMINAL BUILDING DULUTH, MN

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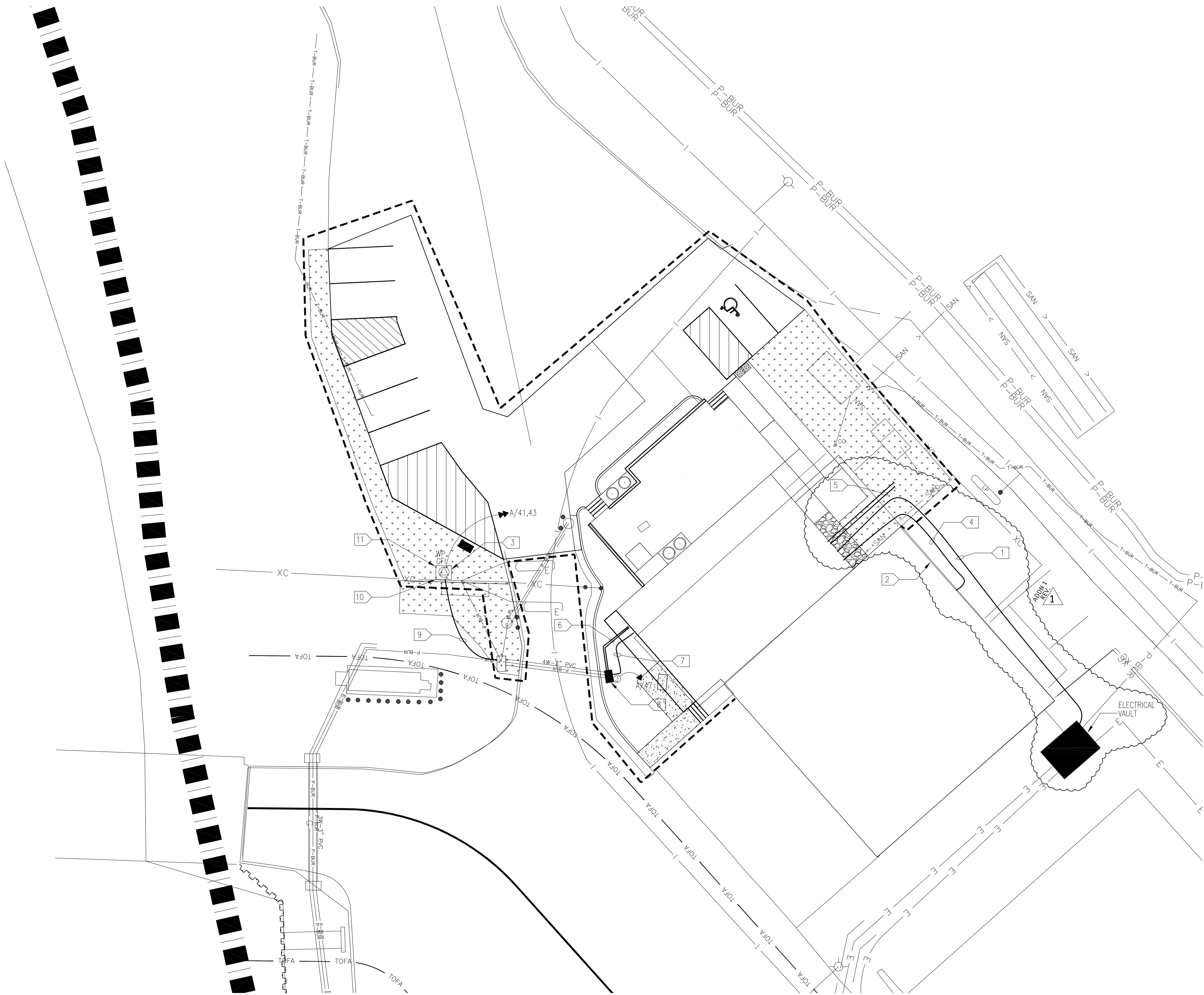
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OWM
TDG

Project Status
CONSTRUCTION
PLANS

Issue Date
05-17-2023

REV. #	DESCRIPTION	DATE
ADDENDUM 1		5-26-2023

ELECTRICAL SCHEDULES & DETAILS



1 ELECTRICAL SITE PLAN
1/16" = 1'-0"

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES IN ORDER TO AVOID ALL INTERFERENCE.
2. CONTRACTOR SHALL VERIFY ALL EXISTING SIZES, FUNCTIONS, LOCATIONS AND CONDITIONS PRIOR TO BEGINNING WORK.
3. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY FITTINGS, FIXTURES, AND/OR APPURTENANCES FOR THE COMPLETE INSTALLATION, OPERATION AND CONNECTION OF THE EQUIPMENT SHOWN AND/OR SPECIFIED.
4. ALL DEVICES SHOWN ON THE DEMOLITION DRAWING ARE TO BE DISCONNECTED AND REMOVED UNLESS NOTED. ALL MATERIALS REMOVED BY THIS CONTRACTOR SHALL BE REVIEWED BY THE OWNER. MATERIAL NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. MATERIAL THE OWNER ELECTS TO KEEP SHALL BE STORED BY THE OWNER. THIS CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING EQUIPMENT, WIRING, CONDUIT ETC. AS INDICATED ON THE DRAWINGS OR AS REQUIRED TO COMPLETE THE WORK. CONCEALED ITEMS NOT TO BE REUSED MAY BE ABANDONED IF DISCONNECTED FROM THE SYSTEM.
5. CONTRACTOR SHALL INSTALL EQUIPMENT, FIXTURES, IN SUCH A MANNER AS TO AVOID ALL INTERFERENCE WITH THE NEW AND EXISTING EQUIPMENT AND SYSTEMS.
6. WHEN REMOVING EXISTING EQUIPMENT AS SHOWN AND AS NOTED, INCLUDING, BUT NOT LIMITED TO ELECTRICAL WIRING AND ANY OTHER DEMOLITION WORK; ALL WIRING AND ANY OTHER CONNECTIONS SHALL BE REMOVED BELOW FLOORS, INSIDE WALL AND/OR ABOVE CEILINGS. THE FLOORS, WALLS, AND/OR CEILINGS SHALL BE PATCHED TO MATCH THE EXISTING CONDITIONS BY THIS CONTRACTOR.
7. ALL OPENINGS AND PENETRATIONS REQUIRED FOR INSTALLATIONS SHOWN ON THE DRAWINGS SHALL BE BY THIS CONTRACTOR, PATCH AND PAINT TO MATCH EXISTING.
8. SEE ARCHITECTURAL PLANS FOR FIRE RATED PARTITIONS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING ALL NEW PENETRATIONS OF FLOORS, WALLS AND CEILINGS (NEW AND EXISTING CONSTRUCTION) WHERE NEW CONDUIT AND WIRING PASS THROUGH FIRE RATED PARTITIONS. REFER TO SPECIFICATION SECTION "FIRE STOPPING".

ELECTRICAL NUMBERED NOTES (THIS SHEET):

- 1 (2)SETS PARALLEL, (3)#2/0, (1)#4 GRD, 2" BELOW GROUND FROM VAULT TO NEW PANEL.
- 2 DISCONNECT AN REMOVE EXISTING FEED, CONDUIT AND SERVICE FROM VAULT TO EXISTING PANELS IN HANGAR. DISCONNECT AND REMOVE EXISTING METER.
- 3 50A/30A/20A NEMA 3R LOCKABLE RV PEDESTAL MOUNTED IN CONCRETE PIER. VERIFY FINAL LOCATION WITH ARCHITECT AND OWNER BEFORE INSTALLATION. DIRECTIONAL BORE UNDER ROADS & WALKWAYS.
- 4 (2) 2" PVC CONDUITS FOR AWOS ANTENNA MOUNTING. PROVIDE PULL WIRE FOR FUTURE USE. CONDUITS SHALL USE SWEEP ELBOWS.
- 5 POWER FOR SEPTIC TANKS AND OVERFILL ALARMS (TYP.). COORDINATE FINAL LOCATIONS.
- 6 PROVIDE POWER TO FUEL SYSTEM AND SECURITY GATE. PROVIDE NEW WIRING FROM EACH LOCATION TO TERMINAL BUILDING. CONTRACTOR SHALL MATCH EXISTING CONDUIT AND WIRING.
- 7 PROVIDE DATA CABLE FOR FUEL SYSTEM, FROM FUEL SYSTEM TO TERMINAL BUILDING.
- 8 PROVIDE L-867 COMPOSITE HANDHOLE (36"x24"x24") AND CONNECT PVC DUCT BANK TO HANDHOLE. CONTRACTOR TO LOCATE EXISTING DUCTS AND INTERCEPT ROUTE.
- 9 POWER ROUTE FOR PEDESTAL. PULL THROUGH EXISTING PVC DUCT BANK AND HANDHOLES. CONNECT TO NEW BREAKER IN NEW PANEL.
- 10 INSTALL POWER ROUTE BENEATH FENCE, IN A MANNER TO NOT DISTURB FENCE LINE. CONTRACTOR MAY EXPOSE AND PULL BACK FENCE TO COMPLETE INSTALLATION.
- 11 INSTALL PEDESTAL ON RAISED CONCRETE PAD, 1-FT ABOVE GRADE



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Otto W. Maki
OTTO W. MAKI
DATE 05-17-23 LICENSE NO. 23569



DULUTH INTERNATIONAL AIRPORT

SKY HARBOR AIRPORT
2023 RECONSTRUCT TERMINAL BUILDING
DULUTH, MN

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SEH Project	DULAL_172133
Checked By	OWM
Drawn By	TDG

Project Status	Issue Date
CONSTRUCTION	05-17-2023
PLANS	

REVISION SCHEDULE		
REV. #	DESCRIPTION	DATE
ADDENDUM 1		5-26-2023

ELECTRICAL SITE PLAN

E400