

Notice of Invitation for Bids

The Jordanelle Special Service District ("JSSD") is issuing an Invitation for Bids ("IFB") from contractors interested in constructing an addition to the existing JSSD Office Building . The project is identified as **JSSD Office Building Addition**.

The IFB can be downloaded from the JSSD website at <http://www.jssd.us/jordanelle-ssd>

For questions regarding the IFB contact the Contract Administrator for this project, Dave Fuller, at dave@jssd.us.

The IFB will be available on March 12, 2026. Bids will be due April 7, 2026, at 3:00 p.m.

JORDANELLE SPECIAL SERVICE DISTRICT

Invitation for Bids

Cover Sheet

General Information	
Project Name	JSSD Office Building Addition
Project Description	The Jordanelle Special Service District ("JSSD") desires to construct an addition to the existing Office Building with associated site improvements.
Contract Type	Construction – Unit Prices/Lump Sum (See Price Form)
Procurement Process Information	
Contract Administrator	Dave Fuller 5360 Old Hwy 40 Heber City, Utah 84032 david@jssd.us
Project Manager	Tavis Timothy, PE BT Engineering tavis@b-t-eng.com
<i>All communications regarding this solicitation must be through the Contract Administrator <u>and</u> copied to the Project Manager.</i>	
Basis of Award	Award of contract will be made to the low Responsive and Responsible bidder.
Submittal Instructions	Email or deliver your bid to the Contract Administrator listed above, before the Deadline. If delivery by email, also send to Tavis Timothy at tavis@b-t-eng.com
IFB Schedule	
• JSSD Issues Invitation for Bids	March 12, 2026
• Site Visits – To be coordinated with Clayton Riding, phone number – 435-657-6026 (Location – JSSD Offices - 5388 N. Old Hwy 40, Heber City, Utah 84032)	Availability Monday to Thursday from March 17 th to April 1st
• Contractors Questions Due	April 1, 2026 5:00 p.m.
• Deadline to submit Bids/Public Bid opening	April 7, 2026 @ 3:00 p.m.
• Recommendation for Award at JSSD Board Meeting	April 14, 2026
• Anticipated Notice of Award	April 15, 2026
• Substantial Completion	October 1, 2026
• Final Completion	November 15, 2026

Included as part of this IFB
Part A – Project Information The following documents will accompany the Invitation for Bids: • Construction plans for Office Building Addition
Part B – Bid Content
Part C – Standard Terms of Solicitation
Part D – Construction Agreement • Exhibit A – General Conditions • Exhibit B – Supplemental Conditions • Exhibit C – Insurance Requirements
Part E – Forms • Price Form • Information Required of Bidders
Part F – Technical Specifications • Technical Specifications

JORDANELLE SPECIAL SERVICE DISTRICT

Invitation for Bids

Part A – Project Information

1. The Special Service District

The Jordanelle Special Service District (“JSSD”) is a special service district organized pursuant to Utah Code Ann. § 17D-1-101 *et seq.* JSSD provides culinary water and sanitary sewer services in portions of Wasatch County, Utah. The Wasatch County Council serves as the governing body of JSSD, which is managed by a General Manager.

2. The Project

This project includes the addition to the existing Office Building with associated site improvements.

3. Project Information

The combined project has the following components:

- Construction of Building Addition
- Associated site improvements and utilities

The following documents accompany the Invitation for Bids:

- Construction plans for the Office Building Addition
- Site Technical Specifications (Part F)

JORDANELLE SPECIAL SERVICE DISTRICT

Invitation for Bids

Part B – Bid Content

1. **BID CONTENT**

A. Unit Price Bid Schedule

Bidders to complete Price Form included in Part E – Forms.

Bidders to sign and date Price Form.

B. Information Required from Bidders

Bidders to complete and submit with Price form Information Required of Bidders included in Part E – Forms.

C. Bid Bond

Bidders to include with bid a Bid Bond (5% of Total Bid Amount). No particular form of bond is required, but the bond must be issued by a surety licensed in the State of Utah.

JORANELLE SPECIAL SERVICE DISTRICT

Invitation for Bids

Part C – Standard Terms of Solicitation

1. INSTRUCTIONS TO BIDDERS

A. Submission of Bids.

Bids will be received by the Contract Administrator via email, or as otherwise arranged between the Bidders and the Contract Administrator. The Contract Administrator will log the date and time of each Bid received. Any Bid received after the Deadline to Submit Bids listed on the IFB Cover Sheet will be considered non-responsive. It is the responsibility of the Bidder to ensure that its Bid is received by the Contract Administrator by the specified time.

B. Minimum Standards.

This IFB sets forth the minimum requirements that all Bids must meet. Failure to submit Bids in accordance with this IFB may render the Bid unacceptable or non-responsive. JSSD may, in its sole discretion, waive minor irregularities in a Bid that do not alter the quality or quantity of the information provided.

C. Confidential, Protected, and Public Information

In accordance with Utah Code Section 63G-2-305(6) of the Government Records Access and Management Act ("GRAMA"), information related to this procurement will not be made public until after execution of the contract with the successful Bidder. Procurement information includes the Bids submitted by Bidders in response to this IFB and any accompanying documentation, as well as records maintained by JSSD during the procurement process.

JSSD will maintain a process to ensure confidentiality for the duration of this procurement. If the Bidder submits information in its Bid that it believes is "trade secret," the Bidder must follow the procedure set forth in Section 63G-2-309 of GRAMA.

Additionally, for ease of Bid evaluation, JSSD requests that each Bidder also follow the steps identified below:

- 1) Clearly mark all trade secret information as such in its Bid at the time the Bid is submitted, and state in a cover letter that the "DOCUMENT CONTAINS TRADE SECRET INFORMATION," and identifying each section and page which has been so marked;

2) Include a statement with its Bid justifying the Bidder's determination that certain records are trade secret information for each record so defined;

3) In addition to the Bid copies submitted in accordance with the Submittal Instructions on the IFB Cover Sheet, submit one electronic copy of the Bid that has all the trade secret information deleted from the Bid and label such copy of the Bid "Public Copy." If a Bidder submits a Bid containing no trade secret information, no "Public Copy" need be submitted. However, any Bidder that submits a Bid containing no trade secret information must so certify in a cover letter to its Bid; and

4) Defend any action seeking release of the records it believes to be trade secret information and indemnify, defend, and hold harmless JSSD and its agents and employees from any judgments awarded against JSSD or its agents and employees in favor of the party requesting the records, including any and all costs connected with that defense. This indemnification survives JSSD's cancellation or termination of this procurement or award and subsequent execution of the contract. In submitting a Bid, the Bidder agrees that this indemnification survives as long as the trade secret information is in possession of JSSD.

All records pertaining to this procurement will become public information after execution of the Contract, unless such records are identified as trade secret information as specified above. No liability will attach to JSSD or its agents for the errant release of trade secret information by JSSD or its agents under any circumstances.

D. Submitting Questions to JSSD

Questions and Requests for changes to the IFB must be submitted via email. All questions must be directed to the Contract Administrator and to the Project Manager identified on the IFB Cover Sheet.

E. Requests for Approved Equals or Changes

Whenever a brand, manufacturer, or product name is indicated in this IFB, they are included only for the purpose of establishing identification and a general description of the item. Wherever such names appear, the term "or approved equal" is considered to follow.

Requests for Approved Equals must be submitted to the Contract Administrator via email.

Any request for an approved equal must be fully supported with technical data, test results, or other pertinent information as evidence that the substitute offered is equal or better than the IFB requirement.

It should be understood that specifying a brand name, components, and/or equipment in this IFB will not relieve the Bidder from its responsibility to provide the product in accordance with the performance specifications, warranty, and contractual requirements. The Bidder shall notify JSSD of any inappropriate brand name, component, and/or equipment that may be called for in this IFB and shall propose a suitable substitute for consideration.

F. Multiple or Alternative Bids

Submission of multiple or alternative Bids, except as specifically called for in the IFB, may render all such Bids non-responsive and may cause the rejection of some or all of such Bids.

G. Withdrawal of Bids

A Bidder may withdraw its Bid before the Bid due date without prejudice to itself by submitting a written request for its withdrawal to the Contracts Administrator. If a Bidder withdraws its Bid prior to the Deadline to Submit Bids, JSSD will return the Bid to the Bidder.

H. Cost of Bids

JSSD is not liable for any costs incurred by Bidders in the preparation of Bids submitted in response to this IFB.

I. Examination of Request for Bids

The submission of a Bid constitutes an acknowledgment upon which JSSD may rely that the Bidder: (i) has thoroughly examined and is familiar with the IFB, including any contractual terms included in the IFB, (ii) is familiar with any work site identified in the IFB, and (iii) has reviewed and inspected all applicable statutes, regulations, ordinances, and resolutions addressing or relating to the goods and services to be provided hereunder. The failure or neglect of a Bidder to receive or examine such documents, work sites, statutes, regulations, ordinances, or resolutions will in no way relieve the Bidder from any obligations with respect to the Bidder's Bid or to any contract awarded pursuant to this IFB. No reduction or modification in the Bidder's obligations will be allowed based upon a lack of knowledge or misunderstanding of this IFB, work sites, statutes, regulations, ordinances, or resolutions.

J. Firm Offer

Unless otherwise stated in this IFB, submission of a Bid constitutes an offer to provide the goods or services described in the IFB, for the price set forth in the Bid. Such offer must be good and firm for a period of ninety (90) days after the Deadline to Submit Bids.

K. No Collusion

By submitting a Bid, the Bidder represents and warrants that its Bid is genuine and not a sham, and that the Bidder has not colluded with any other parties regarding this procurement process. If JSSD learns that the Bid is not genuine, or that the Bidder did collude with other parties, or engaged in any anti-competitive or fraudulent practices in connection with this procurement process, JSSD may immediately terminate any resulting contract and seek any remedies available in equity or at law.

2. SELECTION PROCESS

A. Changes to the IFB Schedule

JSSD may make changes to the IFB Schedule, in its sole discretion. Deadlines shown on the IFB Cover Sheet that apply to JSSD are estimates only, and may be adjusted by JSSD in its sole discretion.

B. Addenda to the Request for Bids

JSSD may make changes to the IFB, by issuing a written addendum to the IFB.

C. Public Opening

This is an IFB and, as such, the Bids submitted in response to this IFB will be publicly opened.

D. JSSD's Procurement Options

Based on submitted information, JSSD may do or take any of the following actions, without limitation:

- award to the low responsive and responsible bidder,
- ask for more information or Clarifications before making a selection;
- if a material error in the IFB is discovered during the process, JSSD may issue an addendum to all Bidders that have submitted Bids requesting revised Bids based upon the corrected IFB;
- decline to accept any Bid;
- re-advertise;
- cancel the procurement; or
- elect to otherwise procure the needed services in accordance with JSSD policy and procedures.

E. Responsiveness

Bids that are conditional, that attempt to modify the IFB requirements, that contain additional terms or conditions, or that fail to conform to the requirements or specifications of the IFB may be considered non-responsive.

F. Responsibility

JSSD will not select a Bidder who is deemed by JSSD, in its sole discretion, to lack the ability or responsibility to perform successfully under the terms of the contract. Such determination of responsibility may encompass management, technical, legal, and financial matters.

G. Checking References

JSSD reserves the right to contact any reference specifically named by the Bidder in its Bid or any other additional references as deemed appropriate by JSSD, including references suggested by the Bidder's named references or references known to JSSD through its own knowledge of the industry.

H. Requests for Clarification

The Bidder shall provide accurate and complete information to JSSD. If information is incomplete, appears to include a clerical error, or is otherwise unclear, JSSD may either (i) declare the Bid non-responsive, (ii) evaluate the Bid as submitted, or (iii) issue a Request for Clarifications to the Bidder stating the information needed and a date and time by which the information must be provided. If the Bidder does not respond to the Request for Clarifications in a timely manner, or if the Bidder's response is deemed to be insufficient by JSSD, in its sole discretion, then JSSD may declare the Bid non-responsive.

JORDANELLE SPECIAL SERVICE DISTRICT

Invitation for Bids

Part D – Construction Agreement

CONSTRUCTION AGREEMENT

This Construction Agreement (“**Agreement**”) is between the Jordanelle Special Service District, a special service district organized pursuant to Utah Code Ann. §§ 17D-1-101 *et seq.* (the “**District**”), and _____, (“**Contractor**”).

RECITALS

- A. The District is engaged in a project to construct an addition to the existing office building (the “**Project**”).
- B. On or about March 12, 2026, the District issued an Invitation for Bids (the “**IFB**”), seeking interested parties to submit Bids for the work required by the Project.
- C. The Contractor submitted the lowest responsive and responsible bid, in the amount of \$ _____ (the “**Bid Amount**”).
- D. The District and the Contractor desire to enter into this Agreement to define their respective roles and responsibilities with respect to the Project.

AGREEMENT

Therefore, the parties agree as follows:

1. Scope of Work. (a) Contractor shall perform the Work. In the Contract Documents, “**Work**” means all design, procurement, construction, installation, startup, commissioning, and other services required by the Contract Documents, including procuring and furnishing all material, equipment, services and labor reasonably inferable from the Contract Documents as necessary to complete the Project.

(b) The Work will take place at the Site. In the Contract Documents, “**Site**” means the property identified in the construction drawings included in the IFB.

2. Schedule. (a) Contractor shall commence the Work within seven (7) days of Contractor’s receipt of a Notice to Proceed (“**NTP**”) from the District. The District is not required to issue a NTP until all insurance, bonding, and other required documentation is submitted and deemed acceptable by the District.

(b) The District may issue a limited NTP on a portion of the Work, and may issue a series of limited NTPs to provide for progression of the Work in phases. Issuance of a limited NTP will not be deemed to require the District to issue any subsequent NTPs, and will not be deemed to obligate the District to complete the Project or to pay Contractor for any portion of the Work not encompassed by an NTP issued by the District.

(c) The Contractor shall (i) achieve Substantial Completion of the Work no later than **October 1, 2026**. In the Contract Documents, “**Substantial Completion**” means that the Work has been

completed in accordance with the Contract Documents, such that the District can use the respective facilities for their intended purpose.

(d) The Contractor shall achieve Final Completion of the Work at no later than **November 15, 2026**. In the Contract Documents, “**Final Completion**” means that all Work is complete in accordance with the Contract Documents, as determined by the District’s Engineer, including but not limited to, final completion of all punch list items and delivery of all documents in accordance with the Contract Documents.

(e) Time is of the essence with respect to the dates set forth in this section.

(f) Contractor acknowledges that if Substantial Completion is not attained by the applicable Substantial Completion Date, the District will suffer damages that are difficult to measure and determine with precision. If Substantial Completion is not attained by the Substantial Completion Date, Contractor shall pay the District, or the District may deduct from any money due to Contractor, **\$1,000.00** as liquidated damages for each Day that Substantial Completion extends beyond the Substantial Completion Date.

3. Price and Payment. (a) Payment for the Work will be based on the Contractor’s Price Form submitted in response to the IFB. For line items with a unit price basis, the District will compensate Contractor at the unit price set forth on the Contractor’s Price Form, based on the actual measured quantities in the Work. For line items with a lump sum basis, the District will compensate Contractor based on the lump sum set forth on the Contractor’s Price Form (such unit price and lump sum amounts, collectively, the “**Contract Price**”). The procedures for invoicing and payment are set forth in Article 4 of the General Conditions.

(b) For purposes of calculating changes in the Contract Price pursuant to Section 7.7 of the General Conditions, Contractor will be entitled to a markup of 10% for overhead and profit. Subcontractors will be entitled to a markup of 10% for overhead and profit, but the cumulative markup may not exceed 20%. An increase or decrease in the Total Price Amount as set forth on the Contractor’s Price Form, as a result of actual quantities for unit price line items being different from the estimated quantities on the Price Form, will not be a basis for the Contractor charging an additional markup.

4. Contract Documents. (a) The Contract Documents consist of the following:

(1) All written amendments and Change Orders to this Agreement executed in accordance with Article 7 of the General Conditions;

(2) This Agreement, including the following exhibits,

Exhibit A – General Conditions

Exhibit B – Supplemental Conditions

Exhibit C – Insurance Requirements

(3) The IFB, including each Part and Section thereof;

(4) The Contractor's Proposal in response to the IFB.

(5) All addenda issued during the bidding process

(b) The parties intend that the Contract Documents include and provide for all aspects of the Work that are necessary for the proper initiation, performance, and substantial completion of the Project by the Contractor, prior to the Substantial Completion Date, and for the Contract Price. The parties intend that the Contract Documents be interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards.

(c) Where any two or more parts or provisions of Contract Documents conflict or are inconsistent with each other, the Contract Documents will be interpreted in the manner most likely to have been intended by the District. For example, where any two or more parts of the Contract Documents impose upon Contractor differing standards or obligations with respect to substantially the same subject-matter, then the more stringent standard or obligation will apply in the absence of any intention to the contrary.

(d) Contractor acknowledges that, prior to the execution of this Agreement, it has carefully reviewed the Contract Documents for errors, omissions, conflicts or ambiguities (each, a "**Discrepancy**"), and is not aware of any Discrepancies as of the execution of this Agreement. If the Contractor becomes aware of a Discrepancy, the Contractor shall immediately notify the District's Project Director of that Discrepancy in writing. the District's Project Director shall promptly resolve the Discrepancy in writing. Contractor's failure to promptly notify the District of an apparent discrepancy will be deemed a waiver of Contractor's right to seek an adjustment of the Contract Price and Substantial Completion Date due to the discrepancy.

(e) The Contract Documents form the entire contract between the District and the Contractor and by incorporation in this Agreement are as fully binding on the parties as if repeated in this Agreement. The Contract Documents are the only contract between the District and the Contractor with respect to the Project, and supersede any other or prior agreements, commitments or representations regarding the Project. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

5. Representatives of the Parties. (a) The District designates **Tavis Timothy** as its Project Manager. The District's Contract Administrator for this Agreement is **Dave Fuller**. The District's Engineer is **Tavis Timothy**. The District's Senior Representative is **Max Covey**. Questions or correspondence regarding the contractual aspects of this Agreement should be directed to the Contract Administrator, at the address set forth in section 12. The District's Project Manager, and Contract Administrator are referred to collectively as the "**the District Representatives**."

(b) Contractor designates _____ as its Project Manager, and _____ as its Senior Representative (collectively, the "**Contractor Representatives**").

6. Bonds and Insurance. (a) Contractor shall obtain and maintain the insurance coverages set forth in Exhibit C, and shall comply with the obligations set forth in Exhibit C.

(b) The Contractor shall provide to the District a performance bond and a payment bond (the “**Bonds**”), each in an amount equal to 100% of the Bid Amount. Contractor shall provide the Bonds to the District within ten (10) days after execution of this Agreement, and prior to commencing any Work.

7. E-Verify. (a) Contractor hereby certifies that it has registered and is participating in the Status Verification System to verify the work eligibility status of Contractor’s new employees that are employed in the State of Utah, as required by Utah Code Ann. § 63G-12-302. Contractor shall require any Subcontractors that perform Work in the State of Utah to certify to Contractor by affidavit that they have verified the employment status of each new employee through the Status Verification System.

8. Notices. (a) To be deemed valid, any notice, request, claim, demand or other formal communication between the parties pertaining to any legal or contractual dispute (“**Legal Notices**”) must be in writing and addressed as follows:

If to the District:

Jordanelle Special Service District
ATTN: Max Covey
5360 Old Hwy 40
Heber City, UT, 84032

With a required copy to:

Parsons Behle & Latimer
ATTN: Rob Hughes
201 South Main Street, Suite 1800
Salt Lake City, UT 84111.

If to the Contractor:

(b) To be deemed valid, Legal Notices must be given by one of the following methods: (i) by delivery in person (ii) by a nationally recognized next day courier service, (iii) by first class, registered or certified mail, postage prepaid.

(c) Either party may change the address at which that party desires to receive written notice by delivery of Legal Notice of such change to the party as set forth above. Legal Notices will be deemed effective on delivery to the notice address then applicable for the party to which the Legal Notice is directed, provided, however, that refusal to accept delivery of a Legal Notice or the inability to deliver a Legal Notice because of an address change that was not properly communicated shall not defeat or delay the effectiveness of a Legal Notice.

(d) Nothing in this section 8 is intended to limit or prohibit the parties from engaging in informal verbal or written communications using email or other means of communication

9. Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter herein, and supersedes any and all other prior and contemporaneous agreements and understandings between the parties, whether oral or written. The terms of this Agreement supersede any additional or conflicting terms or provisions that may

be set forth or printed on the Contractor's invoices or other standard forms or documents that may subsequently be used to implement, record, or bill for services under this Agreement. The terms of this Agreement prevail in any dispute between the terms of this Agreement and the terms printed on any such standard forms or documents.

10. Counterparts. The parties may execute this Agreement in any number of counterparts, each of which when executed and delivered will constitute a duplicate original, but all counterparts together will constitute a single agreement.

11. Effectiveness; Date. The Agreement will become effective when all parties have fully signed it. The date of this Agreement will be the date it is signed by the last individual to sign it (as indicated by the date associated with that individual's signature).

Each individual is signing this Agreement on the date stated opposite that individual's signature.

JORDANELLE SPECIAL SERVICE DISTRICT By: _____ Max Covey General Manager	Date: _____
By: _____	Date: _____

Exhibit A

General Conditions

1.0 General

1.1 **Cooperation.** The District and Contractor commit at all times to cooperate fully with each other, and proceed on the basis of trust and good faith, so as to permit each party to realize the benefits afforded under the Contract Documents.

1.2 **Professional Standards.** Contractor shall perform the Work in a good and workmanlike manner, and shall use reasonable skill, care, and diligence. If the Work includes professional services, Contractor shall perform those services in a professional manner, using at least that standard of care, skill and judgment that can reasonably be expected from similarly situated professionals. Work, equipment, materials, and supplies that are not expressly specified in the Contract Documents must conform to the best commercial practice for the type of Work, equipment, materials, or supplies in question. Contractor shall be solely responsible for the Work, whether performed by Contractor directly or by Contractor's Subcontractors.

1.3 **Definitions.** Terms that are defined anywhere in the Contract Documents have the same definition in all the Contract Documents, including in these General Conditions. In the Contract Documents, the following definitions apply:

“Agreement” means the document signed by Contractor and the District, in which these General Conditions are incorporated as an exhibit.

“Basis of Design Documents” means those preliminary drawings, concept design drawings, technical requirements, performance requirements, project criteria, or other documents that are (i) included in the Contract Documents, and (ii) serve as the basis or starting point for design services to be performed by Contractor, if any.

“Building Codes” means the most recent version of all applicable local, state, national, and international building codes.

“Construction Documents” means the final drawings and specifications that set forth in detail the requirements for construction of the Project.

“Contract” means the entire contract between the District and the Contractor, including all of the Contract Documents and every Part and Section thereof.

“Contract Documents” means those documents designated as Contract Documents in the Agreement.

“Contract Times” means the Substantial Completion Date, the Final Completion Date, and any other deadlines for completion of the Work, or a part thereof, as set forth in the Contract Documents.

“Contractor” means the entity that has entered into a contract with the District to perform engineering, procurement, construction, installation, and other services as detailed in the Contract Documents.

“Day” means a calendar day unless otherwise specifically noted in the Contract Documents.

“Engineering Standards” means the most recent version of all applicable standards published by engineering or construction industry groups such as ANSI, AISC, ASME, AWWA, IEEE, TEMA, NFPA, ASHRAE, UL, ARI, ASTM, CTI, SMACNA, and AMCA.

“Force Majeure Events” means unpredictable events beyond the control of Contractor that impede performance of the Work, such as riots, earthquakes, epidemics, and extreme weather events.

“General Conditions” means this document.

“Legal Requirements” means the most recent version of all applicable federal, state, and local laws, codes, Building Codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work.

“Site” means the land or premises on which the Project is located, and might be more particularly defined in the Agreement.

“Subcontractor” means any person or entity retained by Contractor as an independent contractor to perform a portion of the Work, including materialmen and suppliers, and includes any person or entity retained by a Subcontractor.

2.0 Contractor’s Services

2.1 General Services.

2.1.1 Contractor’s Project Manager shall be reasonably available to the District and shall have the necessary expertise and experience required to supervise the Work. Contractor’s Project Manager shall communicate regularly with the District and shall be vested with the authority to act on behalf of Contractor.

2.1.2 Contractor shall provide the District with a monthly status report detailing the progress of the Work, including (i) whether the Work is proceeding according to schedule, (ii) whether Discrepancies, conflicts, or ambiguities exist in the Contract Documents that require

resolution, (iii) whether health and safety issues exist in connection with the Work; (iv) other items that require resolution so as not to jeopardize Contractor's ability to complete the Work for the Contract Price and within the Contract Times.

2.1.3 Unless a schedule for the execution of the Work has been attached to the Agreement as an exhibit at the time the Agreement is executed, Contractor shall prepare and submit, within thirty (30) days of the execution of the Agreement, a schedule for the execution of the Work for the District's review and approval. The schedule must indicate the dates for the start and completion of the various stages of Work, including any engineering, manufacturing, testing, and shipment of the principal items of equipment, and the dates when the District information and approvals are required to enable Contractor to achieve the Contract Times. The District may identify one or more dates on the schedule when Contractor's actual progress on the Work will be measured against the scheduled progress (those dates, "**Milestone Dates**").

2.1.4 The schedule shall be revised as required by conditions and progress of the Work, but such revisions shall not relieve Contractor of its obligations to complete the Work within the Contract Times, as such dates may be adjusted in accordance with the Contract Documents. The District's review of, and response to, the schedule shall not be construed as relieving Contractor of its complete and exclusive control over the means, methods, sequences and techniques for executing the Work.

2.1.5 Contractor shall at all times employ such force, plant, materials, and tools as necessary to assure compliance with the Contract Documents and to progress the Work at such a rate as to assure achievement of the Contract Times.

2.2 **Design Services.** If the Work includes any engineering or design services sections 2.2.1 through 2.2.8 apply.

2.2.1 Contractor shall provide the necessary design services, including architectural, engineering and other design professional services, for the preparation of the required drawings, specifications and other design submittals to permit Contractor to complete the Work consistent with the Contract Documents. Contractor shall ensure that design services are performed by qualified, licensed design professionals employed by Contractor, or by qualified, independent licensed design consultants procured by Contractor.

2.2.2 Contractor and the District shall, consistent with any applicable provision of the Contract Documents, agree upon any interim design submissions that the District may wish to review, which interim design submissions may include design criteria, drawings, diagrams, and specifications setting forth the Project requirements. Interim design submissions must be consistent with the Basis of Design Documents, as the Basis of Design Documents may have been changed through the design process set forth in this Section 2.2.2. On or about the time of the scheduled submissions, Contractor and the District shall meet and confer about the submissions, with Contractor identifying during such meetings, among other things, the evolution of the design

and any changes to the Basis of Design Documents, or, if applicable, previously submitted design submissions. Changes to the Basis of Design Documents, including those that are deemed minor changes under Section 7.4.1, shall be processed in accordance with Article 7. Minutes of the meetings, including a full listing of all changes, will be maintained by Contractor and provided to all attendees for review. Following the design review meeting, the District will be entitled to at least ten (10) working days to review and comment on the interim design submissions and meeting minutes.

2.2.3 To the extent not prohibited by the Contract Documents or Legal Requirements, and with the approval of the District, Contractor may prepare interim design submissions and Construction Documents for a portion of the Work to permit construction to proceed on that portion of the Work prior to completion of the Construction Documents for the entire Work.

2.2.4 Contractor shall submit proposed Construction Documents to the District, which must be consistent with the latest set of interim design submissions, as such submissions may have been modified in a design review meeting and recorded in the meeting minutes. The parties shall have a design review meeting to discuss, and the District shall review and approve, the Construction Documents in accordance with the procedures set forth in Section 2.2.2 above. Contractor shall submit copies of approved Construction Documents to the District prior to commencement of construction.

2.2.5 The District's review and comment on interim design submissions, meeting minutes, and the Construction Documents is for the purpose of mutually establishing a conformed set of Contract Documents compatible with the requirements of the Work. Neither the District's review nor approval of any interim design submissions, meeting minutes, and Construction Documents shall be deemed to transfer any design liability from Contractor to the District, nor relieve Contractor from the obligation to perform the Work and complete the Project in full compliance with the Contract Documents.

2.2.6 Upon completion of the Work, and as a condition to receiving final payment pursuant to Section 4.7, Contractor shall prepare and provide to the District a final set of as-built drawings, depicting the Project as completed, including all changes to the Project made subsequent to the approval of the Construction Documents.

2.2.7 All drawings, specifications, interim design submissions, Construction Documents, and other documents furnished by Contractor to the District pursuant to the Contract Documents (those documents, the "**Work Product**") are deemed to be instruments of service and Contractor shall retain the ownership and intellectual property rights therein.

2.2.8 Upon the District's payment in full for the Work required for Contractor to prepare any Work Product, Contractor will be deemed to have granted to the District a perpetual license to use that Work Product in connection with the construction, occupancy, and maintenance of the Project.

2.3 Procurement Services. If the Work includes any procurement services, sections 2.3.1 through 2.3.7 apply

2.3.1 In the performance of its procurement services, Contractor shall at all times be and act subject to the direction and control of the District as the District's authorized limited agent. By "limited agent" the parties mean that Contractor shall have authority to represent and act for the District for the purpose of procuring equipment, materials, and supplies as necessary to complete the Project. Contractor will maintain direct supervision and complete charge and control of and responsibility for its personnel in the performance of these procurement services.

2.3.2 Equipment, materials, and supplies purchased by Contractor, and paid for by the District, that are left over at the Site or any other location where the Work is completed, shall remain the sole property of the District. Contractor shall endeavor to purchase only sufficient material, equipment and supplies that are necessary for the Project. Contractor shall endeavor to purchase on the basis that surplus materials may be returned to the vendor at a reasonably discounted price. If requested by the District, Contractor shall be responsible for disposing of all surplus equipment, materials, and supplies and shall credit the Project with the amount recovered. Contractor shall not, at any time or for any reason, knowingly or negligently acquire equipment, materials, or supplies unreasonably in excess of what will be required for completion of the Work, and Contractor shall manage Subcontractors so as to prevent them from acquiring equipment, materials, or supplies unreasonably in excess of what is required to complete the Work. Any amount of materials, equipment or supplies that is acquired in an unreasonable quantity because of negligence in contravention of the foregoing sentence shall be paid for by Contractor out of amounts otherwise payable to Contractor under the Contract, directly or by way of set off by the District.

2.3.3 Contractor shall determine and then requisition and purchase or otherwise arrange for the provision of all equipment, materials, supplies, and construction tools and equipment, except as may be furnished by the District, required for the accomplishment of the Work. With regard to the procurement of equipment, materials, and supplies intended to become a permanent part of the Project, Contractor shall purchase such materials, equipment, and supplies as limited agent for, and on behalf of, and in the name of the District on terms consistent with this Contract and acceptable to the District. Contractor shall be responsible for all aforesaid items being furnished in accordance with the requirements of this Contract.

2.3.4 Contractor shall be responsible for arrival on the Site of all items described in the preceding section in such time as to avoid any delay in the continuous prosecution of the Work. Unless otherwise directed by the District, Contractor shall, in consultation with the District and the District's insurance advisors, purchase, or arrange for the purchase of, freight forwarder insurance or similar insurance for all items described in the preceding section.

2.3.5 For equipment furnished by the District to be incorporated in the Work, if any, Contractor shall assume responsibility for administration of any purchase order in connection therewith, with respect to inspection, expediting and delivery, and the resolution of technical problems relating to manufacture.

2.3.6 Unless otherwise agreed by the District in writing, Contractor shall cause title, possession, control and risk of loss of all equipment, materials, and supplies procured by or through Contractor to remain in third parties and not to pass or be deemed to pass to the District until such equipment, materials, and supplies arrive at or are delivered to the Site. Title to all equipment, materials, and supplies must pass to the District free and clear of any and all liens, encumbrances or claims whatsoever in favor of Contractor or any third parties.

2.3.6 Contractor shall be responsible for, and shall indemnify and hold the District harmless from, all export clearances and license fees in connection with the shipment to the United States of any equipment, materials, or supplies of foreign manufacture covered by this contract and any and all taxes, duties, imports, or similar charges levied or assessed by any governmental authority having jurisdiction upon or against such equipment, materials, or supplies or the transaction giving rise to such shipment, regardless of whether title to such equipment, materials, or supplies shall have passed to or become vested in the District.

2.3.7 The District shall have the right to approve the suppliers of equipment, materials and supplies covered by this Contract. Contractor shall allow the District to personally inspect the place of manufacture of any equipment, materials, or supplies, and to observe the manufacturing process and any tests performed on equipment, materials, or supplies covered by this Contract. Contractor shall provide the District with copies of inspection reports for equipment, material, equipment, and supplies covered by this Contract, and shall draw the District's attention to any potential problem areas.

2.4 Government Approvals, Permits, and Legal Requirements.

2.4.1 Unless otherwise provided in the Contract Documents to be the responsibility of the District, Contractor shall obtain and pay for all necessary permits, approvals, licenses, government charges and inspection fees required for the prosecution of the Work by any government or quasi-government entity having jurisdiction over the Project. Contractor shall provide reasonable assistance to the District in obtaining those permits, approvals, and licenses that are the District's responsibility, as set forth elsewhere in the Contract Documents.

2.4.2 Contractor shall perform the Work in accordance with all Legal Requirements and shall provide all notices applicable to the Work as required by the Legal Requirements.

2.4.2 Contractor shall take all necessary steps to prevent the filing of any mechanic's liens on any District property. If a lien of any nature arising from or related to the Work is filed

against any District property, the Contractor shall promptly take any and all actions necessary to cause such lien to be released or discharged.

2.5 Construction Services.

2.5.1 Contractor shall proceed with construction in accordance with the approved Construction Documents.

2.5.2 Unless otherwise provided in the Contract Documents to be the responsibility of the District or a separate contractor, Contractor shall provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities to permit Contractor to complete construction of the Project consistent with the Contract Documents.

2.5.3 Contractor is responsible for securing the Site until Substantial Completion of the Project.

2.5.4 Contractor shall perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Contract Documents. Contractor shall at all times exercise complete and exclusive control over the means, methods, sequences and techniques of construction.

2.5.5 Contractor shall employ only Subcontractors who are duly licensed and qualified to perform the Work consistent with the Contract Documents. The District may require Contractor to remove from the Project a Subcontractor, or anyone employed directly or indirectly by Contractor or a Subcontractor, if the District reasonably believes that the person or firm is not performing its assigned Work in a safe, careful, or timely manner.

2.5.6 Contractor is responsible for the proper performance of the Work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between the District and any Subcontractor, including but not limited to any third-party beneficiary rights.

2.5.7 Contractor shall coordinate the activities of all of its Subcontractors. If the District performs other work on the Project or at the Site with separate contractors under the District's control, Contractor agrees to reasonably cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

2.5.8 Contractor shall keep the Site reasonably free from debris, trash and construction wastes to permit Contractor to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Contractor shall remove materials and equipment from the Site as soon as they are no longer necessary. Upon Substantial Completion of the Work, or a portion of the Work, Contractor shall remove all debris, trash, construction wastes, materials,

equipment, machinery and tools arising from the Work or applicable portions thereof to permit the District to occupy the Project or a portion of the Project for its intended use.

2.6 Quality Assurance/Quality Control.

2.6.1 As a means of assuring that the performance of the Work fulfills the requirements of the Contract Documents, the Contractor and Contractor's Subcontractors shall implement a quality assurance and quality control program ("**QA/QC Plan**") for all the Work. The QA/QC Plan must provide assurance that design, procurement, manufacturing, shipping, construction, testing, storage, and examination of all equipment, materials, and services will comply with the requirements of the Contract Documents.

2.6.2 Contractor shall submit its QA/QC Plan to the District for review and approval within thirty (30) days of the execution of the Agreement.

2.6.3 Throughout the course of the Work, Contractor shall provide the District with access to Contractor's QA/QC personnel and processes to enable monitoring and quality auditing.

2.6.4 The QA/QC Plan is only an aid to achieving compliance with the Contract Documents and to documenting such compliance. The QA/QC Plan will not relieve Contractor of the responsibility to comply with other requirements of the Contract Documents.

2.7 Inspection and Approval by the District.

2.7.1 All Work done and all equipment, materials, and supplies are subject to inspection by the District to determine if they conform to the Contract Documents. The District shall at all times have access to the Work, including equipment, materials, and supplies being fabricated or stored off site. Contractor shall furnish at the Contractor's cost any facilities necessary for sufficient and safe access to the Work.

2.7.1 Inspections, tests, measurements, or other acts of the District are for the sole purpose of assisting the District in determining that the Work, equipment, materials, supplies, rate of progress, and quantities comply with the Contract Documents and/or Contractor's Applications for Payment. These acts or functions will not relieve the Contractor from performing the Work in full compliance with the Contract Documents nor relieve the Contractor from any of the quality, compliance, and responsibility for the Work assigned to it by the Contract Documents. No inspection by the District will constitute or imply acceptance or waiver of rights.

2.7.3 Any Work required to be inspected by the District prior to being covered, which is covered up without prior inspection or without prior consent of the District, must be uncovered and recovered by the Contractor, if requested by the District, at no cost to Owner, notwithstanding the provisions of Section 2.7.4.

2.7.4 Contractor shall provide the District with at least 48 hours advance written notice of the time at which the District must be present to perform an inspection. Failure to provide such notice will place the Contractor at risk for all consequences of non-inspection and having to uncover work.

2.7.5 The District may reject any nonconforming Work, equipment, materials, or supplies, and Contractor shall correct such rejected Work without additional compensation, even if the Work, equipment, materials, or supplies have been previously inspected or accepted by the District or even if the District failed to observe the unsuitable Work, equipment, materials, or supplies. Contractor shall bear all costs of correcting such Work, equipment, materials, or supplies, including the cost of necessary additional professional services and the cost of repairing or replacing all Work of separate contractors or Subcontractors damaged by such removal or correction.

2.7.6 If the Contractor does not promptly replace or correct such Work or material, the Owner may replace or correct the Work or material, and charge or deduct the cost of removal and replacement from any monies due to the Contractor, or recover such costs from the Contractor.

2.7.7 The District's exercise of any of its rights under this Section 2.7 will not relieve Contractor of its obligation to achieve the Contract Times, nor entitle Contractor to a Change Order.

2.8 Contractor's Warranty.

2.8.1 Contractor warrants to the District that the construction, including all materials and equipment furnished as part of the construction, shall be new (unless otherwise specified in the Contract Documents), of good quality, fit for their intended use as contemplated by the Contract Documents, in conformance with the Contract Documents, and free of defects in design, materials, and workmanship. Nothing in this warranty is intended to limit any manufacturer's warranty that provides the District with greater warranty rights than set forth in this Section or the Contract Documents. Contractor shall provide the District with all manufacturers' warranties upon Substantial Completion.

2.8.2 If Contractor becomes aware of any fault or defect in the Work, or non-conformance with the Contract Documents, Contractor shall give prompt written notice of that fault, defect, or non-conformance to the District.

2.8.3 Except as otherwise stated in the Contract Documents, Contractor shall correct any Work that is found to not be in conformance with the Contract Documents within a period of one (1) year from the date of Contractor's Application for Final Payment.

2.8.4 Contractor shall, within seven (7) days of receipt of written notice from the District that the Work is not in conformance with the Contract Documents, take meaningful steps to

commence correction of such nonconforming Work, including the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. Any such corrective work must be taken with due regard with the need to maintain service to the District's customers. If Contractor fails to commence the necessary steps within such seven (7) day period, the District, in addition to any other remedies provided under the Contract Documents, may provide Contractor with written notice that the District will commence correction of such nonconforming Work with its own forces or other contractors. If the District does perform, or cause to be performed, such corrective Work, Contractor will be responsible for all reasonable costs incurred by the District in performing such correction. If the nonconforming Work creates an emergency requiring an immediate response, including an outage or reduction in capacity, the seven (7) day period identified herein will be deemed inapplicable.

2.8.5 Contractor shall bear the cost of any corrective work described in Section 2.8.4, whether those costs are incurred by Contractor or by the District. Those costs include the costs of (a) locating and identifying the defective design, equipment, component, program, or device within the failed equipment, (b) removal, correction, or replacement including transportation charges, (c) retesting, and (d) providing any the District personnel necessary to facilitate the corrective work.

2.8.6 Whenever any defect covered by the Contractor's warranty has been corrected, or any defective or failed item has been repaired or replaced pursuant hereto, the one-year warranty period will recommence as to the repaired or replaced item.

2.8.7 The one-year period referenced in Section 2.8.3 above applies only to Contractor's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies the District may have regarding Contractor's other obligations under the Contract Documents.

2.8.8 Notwithstanding anything in this Section 2.8 to the contrary, the District may elect to continue to use and operate any nonconforming Work or equipment until it can be taken out of service or until corrective Work can be performed. Any such election by the District will not relieve Contractor from any of its warranty obligations.

3.0 Site Conditions

3.1 Unless otherwise expressly provided in the Contract Documents to be part of the Work, Contractor is not responsible for any Hazardous Materials encountered at the Site, that were not brought onto the Site by the Contractor or Subcontractor. "**Hazardous Materials**" means any substance that is deemed a hazardous waste or substance under any Legal Requirement.

3.2 If Contractor discovers at the Site any substance the Contractor reasonably believes to be a Hazardous Material, Contractor shall immediately stop Work in the area of the discovery and immediately report the discovery to the District. The District shall determine how to deal with the Hazardous Material, and Contractor shall resume Work in the area when directed to do so by the District.

3.3 Contractor will be entitled to an adjustment to the Contract Price and/or Contract Times to the extent Contractor's cost and/or time of performance have been adversely impacted by the presence of Hazardous Materials.

3.4 Notwithstanding Sections 3.1 through 3.3, the District is not responsible for Hazardous Materials introduced to the Site by Contractor, its Subcontractors, or anyone for whose acts Contractor is responsible. To the fullest extent permitted by law, Contractor shall defend and indemnify the District from and against all claims, losses, damages, liabilities and expenses, including attorneys' fees and expenses, arising out of or resulting from those Hazardous Materials introduced to the Site by Contractor, its Subcontractors, or anyone for whose acts Contractor is responsible.

3.5 If Contractor encounters a Differing Site Condition, Contractor may request a Change Order to adjust the Contract Price and/or Contract Times, to the extent Contractor's cost and/or time of performance have been adversely impacted by the Differing Site Condition. **"Differing Site Condition"** means concealed or latent physical conditions at the Site that (i) materially differ from the conditions indicated in the Contract Documents, and (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work.

3.6 Upon encountering a Differing Site Condition, Contractor shall provide prompt written notice to the District of such condition, which notice shall not be later than five (5) days after such condition has been encountered. Contractor shall, to the extent reasonably possible, provide such notice before the Differing Site Condition has been substantially disturbed or altered. Failure to promptly provide such notice will constitute a waiver of any claim for an adjustment to the Contract Times and Contract Price.

4.0 Payment

4.1 Schedule of Values.

4.1.1 Unless required by the District upon execution of this Contract, within ten (10) days of execution of the Agreement, Contractor shall submit for the District's review and approval a schedule of values for all of the Work. The Schedule of Values will (i) subdivide the Work into its respective parts, including but not limited to design, manufacture, and delivery of equipment

and materials, and engineering and construction services, (ii) include values for all items comprising the Work and, (iii) serve as the basis for monthly progress payments made to Contractor throughout the Work.

4.1.2 The District will timely review and approve the Schedule of Values so as not to delay the submission of the Contractor's first application for payment. The District and Contractor shall timely resolve any differences so as not to delay the Contractor's submission of its first application for payment.

4.2 Application for Payment.

4.2.1 To receive payment, Contractor shall submit to the District an Application for Payment requesting payment for all Work performed as of the date of the Application for Payment. Contractor shall not submit Applications for Payment more often than once per month. The Application for Payment must be accompanied by supporting documentation sufficient to establish, to the District's reasonable satisfaction, Contractor's entitlement to receive payment.

4.2.2 The Application for Payment may request payment for equipment and materials not yet incorporated into the Project, provided that (i) the District is satisfied that the equipment and materials are suitably stored at either the Site or another acceptable location, (ii) the equipment and materials are protected by suitable insurance, and (iii) upon payment, the District will receive the equipment and materials free and clear of all liens and encumbrances.

4.2.3 The Application for Payment will constitute Contractor's representation that the Work described therein has been performed consistent with the Contract Documents, has progressed to the point indicated in the Application for Payment, and that title to all materials and equipment will pass to the District free and clear of all claims, liens, encumbrances, and security interests upon the incorporation of the materials and equipment into the Project, or upon Contractor's receipt of payment, whichever occurs earlier.

4.3 Sales Tax

4.3.1 Contractor shall pay all applicable sales and use taxes, and shall itemize those amounts separately on each Application for Payment.

4.4 The District's Payment Obligations.

4.4.1 The District shall pay Contractor all amounts properly requested and documented within thirty (30) days of receipt of an Application for Payment.

4.4.2 Notwithstanding Section 4.4.1, the District may withhold a percentage of each payment as retention in accordance with applicable law.

4.4.3 Notwithstanding Section 4.4.1, if the District identified Milestone Dates pursuant to Section 2.1.3, and if Contractor's actual progress on the Work has fallen behind the scheduled

progress as of a Milestone Date, the District may withhold 10 percent of each subsequent payment, until Contractor has initiated remedial action to get the Work back on schedule, to the satisfaction of the District. Any amounts withheld under this section will be placed in an interest-bearing account, and the withheld money, plus accrued interest, will be released to Contractor when the Work is back on schedule, to be determined by the District in its reasonable discretion. No interest will be paid to the Contractor if the Contractor fails to meet a Substantial Completion Date. Remaining withheld payments under this section will be released to the Contractor upon Substantial Completion of the entire Work.

4.4.4. Notwithstanding Section 4.4.1, if the District determines that Contractor is not entitled to all or part of an Application for Payment as a result of Contractor's failure to meet its obligations hereunder, the District will notify Contractor in writing at least five (5) days prior to the date payment is due. The notice must indicate the specific amounts the District intends to withhold, the reasons and contractual basis for the withholding, and the specific measures Contractor must take to rectify the District's concerns. Contractor and the District will attempt to resolve the District's concerns prior to the date payment is due. If the parties cannot resolve such concerns, Contractor may pursue its rights under the Contract Documents, including those under Section 8 of these General Conditions. Contractor shall continue to perform the Work pending the resolution of any such dispute.

4.5 Contractor's Payment Obligations.

4.5.1 Contractor shall pay its Subcontractors and suppliers, in accordance with its contractual obligations to such parties, all the amounts Contractor has received from the District on account of their work. Contractor shall indemnify and defend the District against any claims for payment and mechanic's liens as set forth in Section 5.2.

4.6 Substantial Completion.

4.6.1 Contractor shall notify the District when it believes the entire Work is ready for Substantial Completion. Within five (5) days of the District's receipt of Contractor's notice, the District and Contractor will jointly inspect such Work to verify that it has met the requirements for Substantial Completion. If the Work meets the requirements for Substantial Completion, the District shall prepare and issue a Certificate of Substantial Completion that will set forth (i) the date of Substantial Completion of the Work or portion thereof, (ii) the remaining items of Work that have to be completed before Final Completion, if applicable, (iii) the remaining items of Work that have to be completed before final payment, and (iv) provisions (to the extent not already provided in the Contract Documents) establishing the District's and Contractor's responsibility for the Project's security, maintenance, utilities and insurance pending final payment.

4.6.2 Promptly after issuing the Certificate of Substantial Completion, the District shall release to Contractor all retained amounts, less an amount equal to two times the reasonable value of all remaining or incomplete items of Work as noted in the Certificate of Substantial Completion.

4.6.3 Upon Contractor's request or upon the District's own initiative, the District may, in its sole discretion, accept a portion of the entire Work as Substantially Complete. The provisions of Sections 4.6.1 and 4.6.2 will apply to that portion of the Work. The District's acceptance of a portion of the Work as Substantially Complete will not relieve Contractor of its responsibility for protection and care of the entire Work. In addition, before the District may take possession of or place into service a portion of the Work, the District and Contractor shall obtain the consent of their sureties, insurers, and any government authorities having jurisdiction over the Project.

4.6.4 Following Substantial Completion, the District may restrict Contractor's access to the Site. The District shall allow Contractor reasonable access to the Site in order for the Contractor to achieve Final Completion.

4.7 Final Payment.

4.7.1 When Contractor has achieved Final Completion of the Work, Contractor shall submit a Final Application for Payment and the following information:

4.7.1.1 An affidavit that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, material, equipment, taxes or other items performed, furnished or incurred for or in connection with the Work which will in any way affect the District's interests;

4.7.1.2 A general release executed by Contractor waiving, upon receipt of final payment, all claims, except those claims previously made in writing to the District and remaining unsettled at the time of final payment;

4.7.1.3 Consent of Contractor's surety, if any, to final payment;

4.7.1.4 All operating manuals, warranties and other deliverables required by the Contract Documents; and

4.7.1.5 Certificates of insurance confirming that required coverages will remain in effect consistent with the requirements of the Contract Documents.

4.7.2 Upon making final payment, the District waives all claims against Contractor except claims relating to (i) Contractor's failure to satisfy its payment obligations, if such failure affects the District's interests, (ii) Contractor's failure to complete the Work consistent with the Contract Documents, including defects appearing after Substantial Completion, and (iii) the terms of any warranties required by the Contract Documents.

4.7.3 Final payment by the District constitutes an acknowledgment that warranties commence to run on the date of Contractor's Final Application for Payment.

4.7.4 Deficiencies in the Work discovered after Substantial Completion, whether or not such deficiencies would have been included on a punch list if discovered earlier, will be deemed

warranty Work. Contractor shall correct such deficiencies pursuant to Section 2.8, and the District may withhold from the final payment the reasonable value of completion of the deficient work until that work is completed.

5.0 Indemnification and Loss

5.1 Patent and Copyright Infringement.

5.1.1 Contractor shall defend any action or proceeding brought against the District based on any claim that the Work, or any part thereof, or the operation or use of the Work or any part thereof, constitutes infringement of any patent or copyright, now or hereafter issued. the District shall give prompt written notice to Contractor of any such action or proceeding and will reasonably provide authority, information and assistance in the defense of same. Contractor shall indemnify the District from and against all damages and costs, including but not limited to attorneys' fees and expenses awarded against the District or Contractor in any such action or proceeding. Contractor shall keep the District informed of all developments in the defense of such actions.

5.1.2 If the District is enjoined from the operation or use of the Work, or any part thereof, as the result of any patent or copyright suit, claim, or proceeding, Contractor shall at its sole expense take reasonable steps to procure the right to operate or use the Work. If Contractor cannot so procure such right within a reasonable time, Contractor shall promptly, at Contractor's expense, either (i) modify the Work so as to avoid infringement of any such patent or copyright or (ii) replace said Work with Work that does not infringe or violate any such patent or copyright.

5.1.3 Sections 5.1.1 and 5.1.2 above shall not be applicable to any suit, claim or proceeding based on infringement or violation of a patent or copyright arising from modifications to the Work by the District or its agents after acceptance of the Work.

5.1.4 The obligations set forth in this Section 5.1 shall constitute the sole agreement between the parties relating to liability for infringement or violation of any patent or copyright.

5.2 Payment Claim Indemnification.

5.2.1 Provided that the District is not in breach of its contractual obligation to make payments to Contractor for the Work, Contractor shall indemnify, defend and hold harmless the District from any claims or mechanic's liens brought against the District or against the Project as a result of the failure of Contractor, its Subcontractors, or others for whose acts Contractor is responsible, to pay for any services, materials, labor, equipment, taxes or other items or obligations furnished or incurred for or in connection with the Work. Within three (3) days of receiving written notice from the District that such a claim or mechanic's lien has been filed, Contractor shall

commence to take the steps necessary to discharge said claim or lien, including, if necessary, the furnishing of a mechanic's lien bond. If Contractor fails to do so, the District will have the right to discharge the claim or lien and hold Contractor liable for costs and expenses incurred, including attorneys' fees.

5.3 Contractor's General Indemnification.

5.3.1 Contractor shall indemnify and hold harmless the District and all of its officers and employees (the "**Indemnitees**") from and against any and all suits and causes of action, claims, charges, damages, demands, judgments, civil fines and penalties, or losses of any kind or nature whatsoever, for death, bodily injury or personal injury to any person, including the employees of Contractor and Subcontractors of any tier, or damage or destruction to any property caused by reason of the negligent acts, errors, omissions or willful misconduct incident to the performance of this Agreement on the part of the Contractor, Subcontractors of any tier, or any of their respective officers or employees.

5.3.2 The Contractor shall comply, and cause its Subcontractors to comply with all Legal Requirements, specifically including Legal Requirements relating to workplace safety. Contractor shall indemnify and hold harmless the Indemnitees from and against any and all suits and causes of action, claims, charges, damages, demands, judgments, civil fines and penalties, or losses of any kind or nature whatsoever, presented, brought or recovered against the Indemnitees or that may be incurred by the Indemnitees as a result of the Contractor's failure to comply with such Legal Requirements.

5.3.3 At the option of the affected Indemnitees, Contractor shall defend the affected Indemnitees against any and all suits and causes of action, claims, charges, damages, demands, judgments, civil fines and penalties, or losses of any kind or nature whatsoever, for which Contractor has an indemnification obligation. Subject to the approval of affected Indemnitees, which shall not be unreasonably withheld, the Contractor shall retain legal counsel for the purpose of defending any affected Indemnitees. Contractor shall not settle, discontinue, or allow judgment to be entered in any such suit or action without the written consent of the affected Indemnitee(s), which consent shall not be unreasonably withheld.

5.3.4 Contractor's indemnification obligations will not be limited or affected by any insurance Contractor is required to maintain pursuant to the terms of this Agreement.

5.4 Risk of Loss.

5.4.1 Contractor bears all risk of loss to the Project, including materials and equipment not yet incorporated into the Project, until Substantial Completion.

5.5 Bonds.

5.5.1 Contractor shall furnish and maintain a satisfactory performance bond. The performance bond must guarantee the faithful performance of the Contract in a manner satisfactory to the District, and that materials furnished and quality of Work shall be free from defects.

5.5.2 Contractor shall furnish and maintain a satisfactory labor and material payment bond. The bond must guarantee that Subcontractors and suppliers of equipment and materials will be paid.

5.5.3 The Bonds must be executed by a responsible corporate surety, authorized to issue such bonds in the State of Utah. Unless otherwise provided in the Agreement, the bonds must be in an amount of not less than 100 percent of the Contract Price. The bonds must be accompanied by a current copy of the surety company's license issued by the Utah Insurance Department. The Bonds must extend to Work performed pursuant to Change Orders, and to purchase of optional quantities of equipment and supplies, even if such changes are made or options exercised without notice to the surety.

5.5.4 If the District at any time deems the Bonds or other surety to be insufficient or unsatisfactory, the District may require the Contractor to replace, increase, or supplement the Bonds or other surety. In that event, the District will not be required to make further payment to the Contractor until the Contractor replaces, increases, or supplements the Bonds or other surety to the District's satisfaction.

6.0 Time

6.1 Obligation to Achieve the Contract Times.

6.1.1 Contractor shall commence performance of the Work and achieve the Contract Times in accordance with the Agreement.

6.2 Delays to the Work.

6.2.1 If Contractor is materially delayed in the performance of the Work due to Differing Site Conditions, Hazardous Materials, Force Majeure Events, changes in the Work, or acts or omissions of the District or anyone under the District's control (including separate contractors), the Contract Times for performance shall be reasonably extended by Change Order.

6.2.2 In addition to Contractor's right to a time extension for those events set forth in Section 6.2.1 above, Contractor will also be entitled to an appropriate adjustment of the Contract Price provided, however, that the Contract Price will not be adjusted for Force Majeure Events unless otherwise provided in the Agreement.

7.0 Changes

7.1 Change Orders.

7.1.1 Contractor shall not undertake any activity that materially changes the Work, or materially deviates from the requirements of the Contract Documents, except as authorized in this Article 7. Any costs incurred by Contractor without authorization as provided in this Article 7 will be considered non-reimbursable.

7.1.1 A Change Order is a written instrument, signed by the District and Contractor, issued after execution of the Agreement, stating their agreement on a change in the scope of the Work, the Contract Price, and/or the Contract Times.

7.1.2 All changes in the Work authorized by applicable Change Order shall be performed under the applicable conditions of the Contract Documents. The District and Contractor shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for such changes.

7.2 Requests for Information.

7.2.1 The District may deliver to Contractor Requests for Information ("RFI") regarding specified changes in the Work. Upon receipt of the RFI, Contractor shall prepare an estimate of the cost and schedule impact of the change. Upon agreement between the District and Contractor on the scope of the change to the Work, and the adjustment, if any, to the Contract Price and/or Contract Times, the District and Contractor shall execute a written Change Order.

7.3 Direction or Authorization to Proceed.

7.3.1 A Direction or Authorization to Proceed ("DAP") is a written order prepared and signed by the District directing or authorizing a change in the Work prior to agreement on an adjustment in the Contract Price and/or the Contract Times. The District may issue a DAP at any time, and Contractor shall undertake the Work as set forth in the DAP, and in accordance with the Contract Documents.

7.3.2 The District and Contractor shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for the DAP. Upon reaching an agreement, the parties shall prepare and execute an appropriate Change Order reflecting the terms of the agreement.

7.4 Minor Changes in the Work.

7.4.1 Minor changes in the Work do not involve an adjustment in the Contract Price and/or Contract Times and do not materially and adversely affect the Work, including the design, quality, performance and workmanship required by the Contract Documents. Contractor may make minor changes in the Work consistent with the intent of the Contract Documents, provided, however, that Contractor shall promptly inform the District, in writing, of any such changes and record such changes on the documents maintained by Contractor.

7.5 Constructive Changes.

7.5.1 A written or verbal order from the District that causes a material change in the Work will be treated as a Change Order under this Article if Contractor delivers to the District's Project Manager a written notice identifying (i) the date, circumstances, and source of the order, and (ii) an explanation of why the Contractor regards the order to be a change order. To be valid, such notice must be delivered within twenty-one (21) Days of the order.

7.6 Equivalent Materials.

7.6.1 Whenever in the Contract Documents any particular equipment, material, or process is indicated or specified by a patent or proprietary name, or by a trade or brand name, or by the name of a manufacturer, such wording is used for the purpose of facilitating description of the equipment, material, or process required, and for fixing the standard of quality required. The parties intend that any such wording be deemed to be followed by the words "or equivalent."

7.6.2 The Contractor may propose an equivalent alternative to any equipment, material or process specified in the Contract Documents. To make such a proposal, the Contractor must submit a written request to the District for approval at least 30 days prior to the use of such equipment, material, or process. The request shall contain the name of the manufacturer, brand, catalog number or other designation, description of the materials used, detailed descriptions, general drawings, photographs, or illustrations, and all other information showing that the equipment, material, or process is equivalent to that specified. If requested by the District, the Contractor shall have such equivalent material or equipment tested as to its quality, strength, durability, design, efficiency, finish, service, or chemical characteristics. The District may approve or deny any such request in its sole discretion.

7.6.3 If the District approves a Contractor request to use an equivalent alternative to any equipment, material, or process specified in the Contract Documents, it may do so on the condition that the Contract Price be reduced to account for the cost savings to the Contractor.

7.6.4 Any change to the requirements of the Contract Documents as described in this Section 7.6 must be documented in a Change Order.

7.7 Contract Price Adjustments.

7.7.1 The increase or decrease in Contract Price resulting from a change in the Work will be determined by one or more of the following methods:

7.7.1.1 Unit prices set forth in the Agreement or as subsequently agreed to between the parties;

7.7.1.2 A mutually accepted lump sum, properly itemized and supported by sufficient substantiating data to permit evaluation by the District;

7.7.1.3 Costs, fees and any other markups set forth in the Agreement; or

7.7.1.4 If an increase or decrease cannot be agreed to as set forth in items 7.7.1.1 through 7.7.1.3 above and the District issues a DAP, the cost of the change of the Work shall be determined by the actual cost or savings in the performance of the Work resulting from the change, including a reasonable markup for overhead and profit, as may be set forth or limited in the Agreement.

7.7.2 If unit prices are set forth in the Contract Documents or are subsequently agreed to by the parties, but application of such unit prices will cause substantial inequity to the District or Contractor because of differences in the character or quantity of such unit items as originally contemplated, such unit prices shall be equitably adjusted.

7.7.3 Negotiations over changes in the Contract Price will be conducted using an open-book cost-estimating process. The District defines “open-book” to include all elements of Contractor’s costs, including labor hours and rates, units and estimated quantities, unit prices, equipment estimates, material costs, and subcontractor costs. Contractor shall openly share its detailed cost estimate, material and subcontractor quotations and any other information used to compile its cost estimate.

7.7.4 If the District and Contractor disagree upon whether Contractor is entitled to be paid for any services required by the District, or if there are any other disagreements over the scope of Work or proposed changes to the Work, the District and Contractor shall resolve the disagreement pursuant to Section 8 hereof.

7.8 Emergencies.

7.8.1 In any emergency affecting the safety of persons and/or property, Contractor shall act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Contract Price and/or Contract Times on account of emergency work shall be determined as provided in this Section 7.

8.0 Claims and Claim Resolution

8.1 Claims.

8.1.1 “**Claim**” means a demand or assertion by one of the parties to the Agreement seeking, as a matter of right, adjustment of contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract Documents. The term “Claim” also includes other disputes between the District and the Contractor arising out of or relating to the Contract Documents. Claims must be made by written notice. The responsibility to substantiate claims rests with the party making the claim.

8.1.2 Claims by Contractor must be made within twenty-one (21) days after occurrence of the event giving rise to the Claim or within twenty-one (21) days after the Contractor first recognizes, or reasonably should have recognized, the condition giving rise to the Claim, whichever is later. An additional Claim made after the initial Claim has been resolved will not be considered unless submitted in a timely manner.

8.1.3 Pending final resolution of a Claim, including litigation, unless otherwise directed by the District in writing, Contractor shall proceed diligently with performance of the Work and the District shall continue to make payments in accordance with the Contract Documents.

8.2 Claim Resolution.

8.2.1 The parties shall attempt in good faith to resolve promptly through negotiation any Claim or dispute arising out of or relating to this Contract. If a dispute or Claim should arise, the District’s Project Director and Contractor’s Project Manager will meet at least once to attempt to resolve the dispute. For such purpose, either may request the other to meet within seven (7) days of the date the Claim is made, at a mutually agreed upon time and place.

8.2.2 If the District’s Project Director and Contractor’s Project Manager are not able to resolve the dispute within fourteen (14) days after their first meeting (or such longer period of time as may be mutually agreed upon), either party may request that the District’s Senior Representative and the Contractor’s Senior Representative meet at least once to attempt to resolve the dispute.

8.2.3 If the Claim or dispute has not been resolved within sixty (60) days of the date the Claim is made, either party may refer the Claim or dispute to non-binding mediation by sending a written mediation request to the other party. In the event that such a request is made, the Parties agree to participate in the mediation process. Non-binding mediation of claims or controversies under this Contract shall be conducted by a professional mediator that is mutually acceptable to and agreed upon by both parties (the “Mediator”). The parties and the Mediator may join in the mediation any other party necessary for a mutually acceptable resolution of the dispute. The mediation procedure shall be determined by the Mediator in consultation with the parties. The fees and expenses of the Mediator shall be borne equally by the parties.

8.2.4 If the Claim or dispute is not resolved within thirty (30) days after the commencement of mediation, or if no mediation has been commenced within one hundred and twenty (120) days of the date the Claim is made, either party may commence litigation to resolve the dispute, in accordance with the Contract Documents.

9.0 Suspension and Termination

9.1 The District's Right to Suspend Work.

9.1.1 The District may, without cause and for its convenience, order Contractor in writing to stop and suspend the Work.

9.1.2 Contractor is entitled to seek an adjustment of the Contract Price and/or Contract Times if its cost or time to perform the Work has been adversely impacted by any suspension or stoppage of the Work by the District.

9.2 The District's Right to Terminate for Convenience.

9.2.1 Upon ten (10) days' written notice to Contractor, the District may, for its convenience and without cause, elect to terminate this Agreement. In such event, the District shall pay Contractor for the following:

9.2.1.1 All Work executed and for proven loss, cost or expense in connection with the Work;

9.2.1.2 The reasonable costs and expenses attributable to such termination, including demobilization costs and amounts due in settlement of terminated contracts with subcontractors and consultants; and

9.2.1.3 The fair and reasonable sums for overhead and profit on the sum of items 9.2.1.1 and 9.2.1.2 above.

9.3 The District's Right to Perform and Terminate for Cause.

9.3.1 If Contractor fails to (i) provide a sufficient number of skilled workers, (ii) supply the equipment, materials, or supplies required by the Contract Documents, (iii) comply with applicable Legal Requirements, (iv) timely pay, without cause, consultants or subcontractors, (v) prosecute the Work with promptness and diligence to ensure that the Work is completed by the Contract Times, as such times may be adjusted, or (vi) perform the Work in accordance with the Contract Documents, then the District, in addition to any other rights and remedies provided in the Contract Documents or by law, shall have the rights set forth in Sections 9.3.2 and 9.3.3 below.

9.3.2 Upon the occurrence of an event set forth in Section 9.3.1 above, the District may provide written notice to Contractor that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within ten (10) days of Contractor's receipt of such notice. If Contractor fails to cure, or reasonably commence to cure, such problem, then the District may declare the Agreement terminated for default by providing written notice to Contractor of such declaration.

9.3.3 Upon declaring the Agreement terminated pursuant to Section 9.3.2 above, the District may enter upon the premises and take possession, for the purpose of completing the Work, of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been purchased or provided for the performance of the Work, all of which Contractor hereby transfers, assigns and sets over to the District for such purpose, and to employ any person or persons to complete the Work and provide all of the required labor, services, materials, equipment and other items. In the event of such termination, Contractor shall not be entitled to receive any further payments under the Contract Documents until the Work shall be finally completed in accordance with the Contract Documents. At such time, if the unpaid balance of the Contract Price exceeds the cost and expense incurred by the District in completing the Work, such excess shall be paid by the District to Contractor. If the District's cost and expense of completing the Work exceeds the unpaid balance of the Contract Price, then Contractor shall pay the difference to the District. Such costs and expenses include not only the cost of completing the Work, but also losses, damages, costs and expenses, including attorneys' fees and expenses, incurred by the District in connection with the repurchase and defense of claims arising from Contractor's default.

9.3.4 If the District improperly terminates the Agreement for cause, the termination for cause will be converted to a termination for convenience in accordance with the provisions of Section 9.2 above.

9.4 Contractor's Right to Stop Work.

9.4.1 Contractor may, in addition to any other rights afforded under the Contract Documents or at law, stop the Work for the District's failure to timely pay amounts properly due under Contractor's Application for Payment.

9.4.2 If the District fails to timely pay amounts properly due to Contractor, Contractor may provide the District with written notice that Contractor will stop the Work unless payment is made within thirty (30) Days from the District's receipt of Contractor's notice. If the District does not cure the problem within such thirty (30) Day period, Contractor may stop the Work. In such case, Contractor shall be entitled to make a claim for adjustment to the Contract Price and Contract Times to the extent it has been adversely impacted by such stoppage.

9.5 Contractor's Right to Terminate for Cause.

9.5.1 Contractor, in addition to any other rights and remedies provided in the Contract Documents or by law, may terminate the Agreement for cause for the following reasons:

9.5.1.1 The Work has been stopped for one hundred and twenty (120) consecutive Days, or more than two hundred and forty (240) Days in the aggregate during the duration of the Project, because of court order, any government authority having jurisdiction over the Work, or orders by the District under Section 9.1.1 hereof, provided that such stoppages are not due to the acts or omissions of Contractor or anyone for whose acts Contractor may be responsible.

9.5.1.2 The District's failure to provide Contractor with any information, permits or approvals that are the District's responsibility under the Contract Documents which result in the Work being stopped for one hundred and twenty (120) consecutive Days, or more than two hundred and forty (240) Days in the aggregate during duration of the Project, even though the District has not ordered Contractor in writing to stop and suspend the Work pursuant to Section 9.1.1 hereof.

9.5.1.3 The District's continued failure to cure a non-payment after Contractor has stopped the Work in accordance with Section 9.4.2, above.

9.5.2 Upon the occurrence of an event set forth in Section 9.5.1 above, Contractor may provide written notice to the District that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within twenty-one (21) Days of the District's receipt of such notice. If the District fails to cure, or reasonably commence to cure, such problem, then Contractor may give a second written notice to the District of its intent to terminate within an additional seven (7) Day period. If the District, within such second seven (7) Day period, fails to cure, or reasonably commence to cure, such problem, then Contractor may declare the Agreement terminated for default by providing written notice to the District of such declaration. In such case, Contractor shall be entitled to recover in the same manner as if the District had terminated the Agreement for its convenience under Section 9.2 of the Agreement.

9.6 Bankruptcy of Contractor.

9.6.1 If Contractor institutes or has instituted against it a case under the United States Bankruptcy Code, or any equivalent law of another country, such event may impair or frustrate the Contractor's ability to perform its obligations under the Contract Documents. Accordingly, should such event occur:

9.6.1.1 Contractor, its trustee or other successor, shall furnish, upon request of the District, adequate assurance of the ability of the Contractor to perform all future material

obligations under the Contract Documents, which assurances shall be provided within ten (10) days after receiving notice of the request; and

9.6.1.2 Contractor shall file an appropriate action within the bankruptcy court to seek assumption or rejection of the Agreement within sixty (60) days of the institution of the bankruptcy filing and shall diligently prosecute such action. If Contractor fails to comply with its foregoing obligations, the District shall be entitled to request the bankruptcy court to reject the Agreement, declare the Agreement terminated and pursue any other recourse available to the District under this Section 9, specifically including termination for cause.

9.6.2 The rights and remedies under Section 9.6.1 above shall not be deemed to limit the ability of the District to seek any other rights and remedies provided by the Contract Documents or by law, including its ability to seek relief from any automatic stays under the United States Bankruptcy Code.

10.0 Miscellaneous

10.1 Confidential Information.

10.1.1 “**Confidential Information**” means information that is determined by the transmitting party to be of a confidential or proprietary nature and: (i) the transmitting party identifies as either confidential or proprietary; (ii) the transmitting party takes steps to maintain the confidential or proprietary nature of the information; and (iii) the document is not otherwise available in or considered to be in the public domain. The receiving party shall maintain the confidentiality of the Confidential Information and shall use the Confidential Information solely in connection with the Project.

10.2 Prohibited Interest.

10.2.1 No member, officer, agent, or employee of the District during his or her tenure or for one year thereafter shall have any interest, direct or indirect, including prospective employment by, Contractor or the proceeds under this Contract without specific written authorization by the District.

10.3 No Publicity.

10.3.1 Contractor shall not make any disclosure or publicize in any way its Work on the Project, or disclosure any information about the District or the Site, without the express written consent of the District.

10.4 Assignment.

10.4.1 Contractor acknowledges that the Work to be performed by Contractor is considered personal by the District. Contractor shall not assign or transfer its interest in this Contract without prior written approval by the District. Any attempt to assign or transfer Contractor's interest in this Contract without prior written approval by the District will be void.

10.5 Successorship.

10.5.1 Contractor and the District intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and permitted assigns.

10.6 Governing Law.

10.6.1 The Agreement and all Contract Documents are governed by the laws of the State of Utah, without giving effect to its conflict of law principles. Actions to enforce the terms of this Agreement may only be brought in the Third District Court for Salt Lake County, Utah, or the Federal District Court for the District of Utah, in Salt Lake City, Utah.

10.7 Governmental Immunity.

10.7.1 The District does not, by entering into this Contract, waive any protections afforded by the Governmental Immunity Act of Utah, Utah Code Ann. § 63G-7-101 *et seq.*

10.8 Severability.

10.8.1 If any provision or any part of a provision of the Contract Documents is finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable Legal Requirements, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

10.9 No Waiver.

10.9.1 The failure of either Contractor or the District to insist, in any one or more instances, on the performance of any of the obligations required by the other under the Contract Documents shall not be construed as a waiver or relinquishment of such obligation or right with respect to future performance.

10.10 Headings.

10.10.1 The headings used in these General Conditions of Contract, or any other Contract Document, are for ease of reference only and shall not in any way be construed to limit or alter the meaning of any provision.

10.11 Amendments.

10.11.1 The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

Exhibit B
Supplemental Conditions

[To be negotiated prior to contract execution, if necessary]

Exhibit C

Insurance Requirements

1. During the term of the Contract, Contractor shall maintain at its own expense, and provide proof of said insurance to the District, the following types of insurance:
 - i. General Liability Insurance: Commercial general liability insurance on an occurrence basis arising out of claims for bodily injury (including death) and property damage. Such insurance shall provide coverage for ongoing operations and products-completed operations, blanket contractual, broad form property damage, personal and advertising injury, independent contractors and sudden and accidental pollution liability [pollution liability arising out of a hostile fire] with a \$3,000,000 minimum per occurrence limit combined bodily injury and property damage, with a \$3,000,000 minimum aggregate limit, provided the general policy aggregate shall apply separately to the Contractor on a per project basis. Any aggregate limit that does not apply separately to the premises shall be at least double the required per occurrence limit.
 - ii. Automobile insurance covering owned, if any, non-owned, and hired automobile with limits not less than \$1,000,000 combined single limit of coverage.
 - iii. Workers' Compensation Insurance: Statutory workers' compensation insurance (Part A). Such insurance shall also include employer's liability (Part B) insurance in a limit of no less than \$1,000,000 for each: accident, disease, employee. No owner or officer may be excluded.
 - iv. Builder's Risk / Installation Floater: Contractor shall provide optional terms for builder's risk and/or installation floater insurance. Contractor agrees to have the District approve builder's risk / installation floater insurance program including limits, deductibles, terms, etc. The District shall maintain the right to obtain and implement builder's risk / installation floater coverage at their discretion.
2. Additional Insured Endorsements: All policies of liability insurance required to be maintained by the Contractor shall be endorsed to name the District as additional insured for ongoing operations (ISO CG 20 10 or equivalent) and completed operations (ISO CG 20 37 or equivalent).
3. Primary and Non-Contributory Endorsements: The Contractor's insurance coverage shall be a primary insurance as respects to the District, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the District, its officers, officials, and employees shall be in excess of the contracting party's insurance and shall

not contribute with it.

4. Waiver of Subrogation Endorsements: The Contractor hereby waives any and every claim for recovery from the District, its officers, officials, and employees for any and all loss or damage covered by any of the insurance policies to be maintained under this Contractor agreement to the extent that such loss or damage is recovered under any such policy. To the extent the foregoing waiver would preclude coverage under any insurance required by this Section, the Contractor shall give written notice of the terms of such waiver to each insurance company which has issued, or which may issue in the future, any such policy of insurance (if such notice is required by the insurance policy) and shall cause each such insurance policy to be properly endorsed, or to otherwise contain one or more provisions that prevent the invalidation of the insurance coverage by reason of such a waiver.
5. Contractor states that this Agreement has been thoroughly reviewed by its insurance agent, broker or consultant, and that said agent/broker/ consultant has been instructed to procure for Contractor the insurance coverage and endorsements required herein.

INFORMATION REQUIRED OF BIDDERS

JSSD Office Building Addition

JORDANELLE SPECIAL SERVICE DISTRICT

Invitation for Bids

Part E – Forms

BID SCHEDULE

JSSD Office Building Addition
Base Bid Schedule

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Estimated Price
1	Mobilization	1	LS		\$
2	Provide Materials Testing / Special Inspections	1	LS		\$
3	Demolition	1	LS		\$
4	Site Work	1	LS		\$
5	Building Structure	1	LS		\$
6	Site Concrete Walkway (6" Thick)	935	SF	\$	\$
7	Site Asphalt (3" Asphalt, 8" Road Base)	4,640	SF	\$	\$
8	Dumpster Enclosure and Concrete Apron	1	LS		\$

TOTAL BID PRICE FOR BASE BID SCHEDULE

\$ _____

Company Name: _____

Receipt of Addenda:

Authorized Signature: _____

Addendum #1 _____

Addendum #2 _____

Date: _____

Addendum #3 _____

INFORMATION REQUIRED OF BIDDERS

JSSD OFFICE BUILDING ADDITION

The BIDDER shall furnish the following information on the following form. Failure to comply with this requirement, misrepresent or provide inaccurate information will render the BID informal and may cause its rejection. Additional sheets shall be attached as required.

- (1) Contractor's name and address:

- (2) Contractor's telephone number: _____.

- (3) Contractor's license: Primary Classification:_____.

State License No.: _____ Supplemental

Classification held, if any: _____.

Bid Limit : _____.

- (4) Number of years as a contractor in construction work of this type under the present firm name:

_____ years.

- (5) List of subcontractors and suppliers for this project:

INFORMATION REQUIRED OF BIDDERS
JSSD OFFICE BUILDING ADDITION

- (6) Complete this form by listing all construction contracts completed as the General Contractor during the last 3 years involving work of similar type and comparable value.

- **Name of project:** _____

- Names, address and telephone number of the owner:

- Name, address and telephone number of the engineer or architect:

- Location of project: _____

- Original Contract amount: _____

- Total Change Order amount: _____

- Brief description of the work involved: _____

- **Name of project:** _____

- Names, address and telephone number of the owner:

- Name, address and telephone number of the engineer or architect:

- Location of project: _____

- Contract amount: _____

- Total Change Order amount: _____

- Brief description of the work involved: _____

INFORMATION REQUIRED OF BIDDERS
JSSD OFFICE BUILDING ADDITION

- **Name of project:** _____

- Names, address and telephone number of the owner:

- Name, address and telephone number of the engineer or architect:

- Location of project: _____

- Contract amount: _____

- Total Change Order amount: _____

- Brief description of the work involved: _____

- **Name of project:** _____

- Names, address and telephone number of the owner:

- Name, address and telephone number of the engineer or architect:

- Location of project: _____

- Contract amount: _____

- Total Change Order amount: _____

- Brief description of the work involved: _____

Part F – Technical Specifications

TABLE OF CONTENTS

JSSD Office Building Addition

Reference Number	Title	No. of Pages
TECHNICAL SPECIFICATIONS		
01 11 00	Summary of Work.....	1
01 10 25	Measurement and Payment.....	4
01 14 13	Site Access	2
01 30 00	Administrative Requirements	3
01 33 00	Submittal Procedures	4
01 35 00	Safety and Site Guidelines.....	5
01 45 00	Quality Control and Materials Testing.....	5
01 45 23	Testing Agency Services	3
01 50 00	Temporary Controls	4
01 52 00	Construction Facilities	3
01 71 13	Mobilization	1

END OF TABLE OF CONTENTS

**SECTION 01 10 00
SUMMARY OF WORK**

PART 1 GENERAL

1.1 GENERAL

- A. The work to be performed under this project shall consist of furnishing all labor, materials, and equipment necessary or required to complete the work in all respects as shown on the plans Drawings and as herein specified.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work includes the addition to the existing Office Building with associated site improvements.

1.3 CONTRACTOR USE OF PREMISES

- A. CONTRACTOR's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities.

1.4 PROJECT SECURITY

- A. CONTRACTOR shall make all necessary provisions to protect the project and CONTRACTOR's facilities from fire, theft, and vandalism, and the public from unnecessary exposure to injury.

1.5 CHANGES IN THE WORK

- A. It is mutually understood that it is inherent in the nature of public works construction that some changes in the plans and specifications may be necessary during the course of construction to adjust them to unforeseen field conditions, and that it is of the essence of the Contract to recognize a normal and expected margin of change. ENGINEER shall have the right to make such changes, from time to time, in the plans, in the character if the work, and in the scope of the project as may be necessary or desirable to ensure the completion of the work in the most satisfactory manner without invalidating the Contract.

END OF SECTION

SECTION 01 10 25
MEASUREMENT AND PAYMENT

1.1 GENERAL

- A. All work completed under this contract shall be in accordance with the Plans and Specifications and will be measured by ENGINEER/OWNER. The quantities appearing on the Bid Schedule are approximate only, and are prepared for the comparison of bids. Payment to CONTRACTOR on bid items with unit prices other than "Lump Sum" will be made for actual quantities of work performed and accepted, or material furnished in accordance with the Contract. The scheduled quantities of work to be done and materials to be furnished may be increased or decreased.
- B. The term "Lump Sum" when used as an item of payment will mean complete payment for the work described in the contract. When a complete structure, portion of work, or unit is specified "Lump Sum" as the unit of measurement, the unit will include fittings, accessories, and all work necessary to complete the work as shown on the plans and as specified.
- C. When the accepted quantities of work vary from the quantities in the bid schedule, CONTRACTOR shall accept as payment in full, so far as contract items are concerned, payment at the original contract unit prices for the work done. OWNER reserves the right to add to or delete from quantities listed in the bid schedule in order to match the total bid with the budgeted money available.

1.2 BID SCHEDULE

A. BID ITEM 1 – MOBILIZATION

- 1. **GENERAL** This bid item is provided to cover CONTRACTOR's cost for general and miscellaneous responsibilities and operations not normally attributed to any other single bid item within this schedule.
- 2. **METHOD OF MEASUREMENT** Lump Sum
- 3. **BASIS OF PAYMENT** Includes all preparatory work and operations, including, but not limited to, those necessary for movement of personnel, equipment, supplies and incidental items to the project site; for establishment of all offices, buildings and other facilities necessary for work on the project; for cleanup and demobilization as required; and for all other work and operations which must be performed, or costs incurred, not otherwise paid for prior to beginning work on various items on the project site.

Payment covers the cost of noise control, dust and mud control, surface water control, ground water control, pollution control, and all erosion control required for the project. Payment also includes the cost of complying with State of Utah

UPDES Permit, and complying with County and State approval to address any erosion control measures.

All Wasatch County Building Permit fees shall be paid for by Owner. Because the fee will not be known at the time of bid, Contractor shall not include the fee in the bid. If there are fees required of the Contractor for the Building Permit a Change Order will be issued to cover the fee once the cost is known. The change order will be for the actual County Fee without any markup.

B. BID ITEM 2 - MATERIALS TESTING / SPECIAL INSPECTIONS

1. **GENERAL** This item is provided to cover the Contractor's cost for general and miscellaneous responsibilities and operations associated with providing Materials Testing and Special Inspections.
2. **METHOD OF MEASUREMENT** Lump Sum
3. **BASIS OF PAYMENT** Payment will be made at the contract lump sum bid price as shown and accepted by the Owner and Engineer in the Bid Schedule. Payments will be made in accordance with the following schedule:
 - a) When 10% of the original contract amount is earned, 25% of the amount bid for materials testing will be paid.
 - b) When 25% of the original contract amount is earned, an additional 25% for a total of 50% of the amount bid for materials testing will be paid.
 - c) When 50% of the original contract amount is earned, an additional 25% for a total of 75% of the amount bid for materials testing will be paid.
 - d) When 75% of the original contract amount is earned, an additional 25% for a total of 100% of the amount bid for materials testing will be paid.

C. BID ITEM 3 – DEMOLITION

1. **METHOD OF MEASUREMENT** Lump Sum
2. **BASIS OF PAYMENT** Payment covers the cost of demolition, removal and disposal of all indicated items as shown on the Drawings.

D. BID ITEM 4 – SITE WORK

1. **METHOD OF MEASUREMENT** Lump Sum
2. **BASIS OF PAYMENT** Payment covers all cost of remaining site improvements as indicated on the Drawings and not included in other specific bid items, including final grading of entire project site including but not limited to the cost of placing, compacting, screening of material and finish grading for all fill as shown on the drawings and according to required specifications including all materials, equipment, and labor required to perform the work. Payment covers placement of rock mulch, landscaping sprinklers, weed barrier, and other items within the plans. Payment also includes all indicated underground utilities unless paid for otherwise.

E. BID ITEM 5 – BUILDING STRUCTURE

1. **METHOD OF MEASUREMENT** Lump Sum.
2. **BASIS OF PAYMENT** Payment covers all labor, material and equipment to complete the erection of the structure and expansion of the Office Building.

F. BID IBID ITEM 6 – SITE CONCRETE WALKWAY (6" THICK)

1. **METHOD OF MEASUREMENT** Square Foot
2. **BASIS OF PAYMENT** Payment shall be considered complete compensation for all labor, equipment, and materials necessary, including but not limited to proof-rolling of existing native soils; placement and compaction of required road base materials, placement and installation of all concrete form work, reinforcement, shoring, concrete materials, curing, removal of forms; and all other incidentals not specifically paid for in other bid items but which are shown or otherwise required to complete the installation as herein described and as shown on the Drawings.

G. BID ITEM 7 – SITE ASPHALT (3" ASPHALT, 8" ROAD BASE)

1. **METHOD OF MEASUREMENT** Square foot basis based on the asphalt identified on the Drawings and Bid Schedule. Measurement shall be based on in-place areas measured by the Owner. Minimum asphalt thickness shall be measured at 3 inches.
2. **BASIS OF PAYMENT** Payment covers the cost of all labor, equipment and materials including but not limited to material conforming to the specifications, preparation of surfaces including cracks, edges, removing debris, tack coat, etc.; furnishing, installing and compacting the untreated base-course; handling,

placement, compaction, and all other operations, materials and incidentals required to complete this item.

M. BID ITEM 8 – DUMPSTER ENCLOSURE AND CONCRETE APRON

1. **METHOD OF MEASUREMENT** Lump Sum
2. **BASIS OF PAYMENT** Payment shall be considered complete compensation for all labor, equipment, and materials necessary to construct the 3-sided CMU dumpster enclosure and adjacent concrete apron as shown on the drawings. Payment shall include furnishing all labor, material and equipment including, but not limited to excavation, backfill and compaction, installing all reinforced concrete, masonry, and miscellaneous items to complete the dumpster enclosure and concrete apron.

- END OF SECTION -

SECTION 01 14 13
SITE ACCESS

PART 1 HIGHWAY LIMITATIONS

- A. The Contractor shall make its own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the site of the work. It shall be the Contractor's responsibility to construct, maintain and restore, at his own expense, any haul roads or staging areas required for his construction operations.

PART 2 TEMPORARY ACCESS

- A. General. Wherever necessary or required for the convenience of the public or individual residents at street or highway crossings, private driveways, or elsewhere, the Contractor shall provide suitable temporary bridges over unfilled excavations, except in such cases as the Contractor shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges, which written consent shall be delivered to the Engineer prior to excavation. All such bridges shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges, or shall submit designs to said authority having jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges, or shall submit designs to said authority for approval, as may be required.
- B. Street Use. Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, alley, way, or parking area during the performance of the work hereunder, and he shall so conduct his operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such streets, alleys, ways, or parking areas. No street shall be closed to the public without first obtaining permission of the Engineer and proper governmental authority. Where excavation is being performed in primary streets or highways, one lane in each direction shall be kept open to traffic at all times unless otherwise provided or shown. Toe boards shall be provided to retain excavated material if required by the Engineer or the agency having jurisdiction over the street or highway. Fire hydrants on or adjacent to the work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the Contractor to assure the use of sidewalks and the proper functioning of all gutters, sewer inlets, and other drainage facilities.

- D. Street Closure. If closure of any street is required during construction, a formal application for a street closure shall be made to the authority having jurisdiction at least 30 days prior to the required street closure in order to determine necessary signing and detour requirements.
- E. Construction Through Private Property. The Owner will provide easement agreements with private property owners along the construction routes.

The Contractor shall confine all his operation to the area within the easement limits. In general, the easement area is intended to provide reasonable access and working area for efficient operation by the Contractor.

If the Contractor desires to have additional easement width and/or additional access routes, the Contractor shall negotiate with and compensate the private property owners for such use at the Contractor's expense.

END OF SECTION 01 14 13

SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.
- B. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.
- C. OWNER, and/or utility owners may be working within the project area while this contract is in progress. If so, CONTRACTOR shall schedule his work in conjunction with these other organizations to minimize mutual interference.
- D. If required to work in City or County streets or Utah Department of Transportation (UDOT) right-of-way, CONTRACTOR shall notify City, County, or UDOT 72 hours prior to work being performed therein. Work within the City or County streets or UDOT right-of-way shall be in accordance with their required permits and any license agreements with OWNER. CONTRACTOR shall obtain and comply with all required permits.

1.2 FIELD ENGINEERING

- A. Contractor shall provide all construction staking as necessary to complete the required work according to the Contract Documents.
- B. Locate and protect survey control and reference points. Promptly notify ENGINEER of discrepancies discovered.
- C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- D. Promptly report to ENGINEER loss or destruction of reference point or relocation required because of changes in grades or other reasons.

1.3 PRECONSTRUCTION MEETING

- A. Prior to the commencement of work at the site, a preconstruction conference will be held at a mutually agreed time and place which shall be attended by CONTRACTOR's Project Manager, its superintendent, and its subcontractors as appropriate. Other attendees will be:
 - 1. ENGINEER and the Resident Project Representative (RPR),
 - 2. Representatives of OWNER,

3. Governmental representatives as appropriate, and
 4. Others as requested by CONTRACTOR, OWNER, or ENGINEER.
- B. Unless previously submitted to ENGINEER, CONTRACTOR shall bring to the conference one copy of each of the following:
1. Progress schedule,
 2. Procurement schedule of major equipment and materials and items requiring long lead time, and
 3. Shop Drawings/Sample/Substitute or "Or Equal" submittal schedule.
- C. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The agenda may include the following:
1. CONTRACTOR's tentative schedules.
 2. Transmittal, review, and distribution of CONTRACTOR's submittals.
 3. Processing applications for payment.
 4. Maintaining record documents.
 5. Critical work sequencing.
 6. Field decisions and Change Orders.
 7. Use of project site, office and storage areas, security, housekeeping, and OWNER's needs.
 8. Major equipment deliveries and priorities.
 9. CONTRACTOR's assignments for safety and first aid.

1.4 PROGRESS MEETINGS

- A. CONTRACTOR shall schedule and hold regular on-site progress meetings at least bi-weekly and at other times as required by ENGINEER or as required by progress of the work. CONTRACTOR, ENGINEER, and all subcontractors active on the site shall be represented at each meeting. CONTRACTOR may at its discretion request attendance by representatives of its suppliers, manufacturers', and other subcontractors.

- B. The purpose of the meetings will be to review the progress of the work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.
- C. At each construction progress meeting a progress report shall be presented by the CONTRACTOR containing an updated Progress Schedule. Where the delayed completion date of a project phase is noted, the CONTRACTOR shall describe the anticipated delays or problems and outline the action plan being taken to resolve the issues.

- END OF SECTION –

SECTION 01 33 00 SUBMITTAL PROCEDURES

GENERAL

1.1 SUBMITTAL PROCEDURES

- A. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- B. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- C. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- D. Schedule submittals to expedite Project, and deliver to Engineer at business address. Coordinate submission of related items.
- E. Submittals shall be submitted sufficiently in advance to allow the ENGINEER not less than ten regular working days for examining the drawings. These drawings shall be accurate, distinct, and complete and shall contain all required information, including satisfactory identification of items and unit assemblies in relation to the contract drawings and/or specifications.
- F. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
- G. When revised for resubmission, identify changes made since previous submission.
- H. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- I. Submittals not requested will not be recognized or processed.
- J. The ENGINEER's review of CONTRACTOR submittals shall not relieve CONTRACTOR of the entire responsibility for the corrections of details and dimensions. CONTRACTOR shall assume all responsibility and risk for any misfits due to any errors in CONTRACTOR submittals. CONTRACTOR shall be responsible for dimensions and the design of adequate connections and details.

1.2 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules within 30 days after date of Owner-Contractor Agreement. After review, resubmit required revised data within ten days.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Submit computer generated horizontal bar chart with separate line for each major portion of Work or operation, identifying first work day of each week.
- F. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- G. Indicate estimated percentage of completion for each item of Work at each submission.
- H. Submit separate schedule of submittal dates for shop drawings, product data, and samples.

1.3 PRODUCT DATA

- A. Product Data: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

1.4 SHOP DRAWINGS

- A. Shop Drawings: Submit to Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Fabrication of an item may be commenced only after the ENGINEER has reviewed the pertinent submittals and returned copies to CONTRACTOR marked either "Approved", or "Approved - Except as Noted". Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis of claims for extra work.

- C. When required by individual specification sections, provide shop drawings signed and sealed by professional engineer responsible for designing components shown on shop drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 78 50 - Project Closeout.

1.5 SAMPLES

- A. Whenever indicated in the specifications or requested by the ENGINEER, CONTRACTOR shall submit at least 1 sample of each item or material to the ENGINEER for acceptance at no additional cost to OWNER.
- B. Samples, as required herein, shall be submitted for acceptance prior to ordering such material for delivery to the jobsite, and shall be submitted in an orderly sequence so that dependent materials or equipment can be assembled and reviewed without causing delay in the Work.
- C. Unless otherwise specified, all colors and textures of specified items will be selected by the ENGINEER from the manufacturer's standard colors and standard materials, products, or equipment lines.

1.6 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Engineer, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

1.7 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Engineer for delivery to Owner in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.8 MANUFACTURER'S FIELD REPORTS

- A. When required in individual sections, have manufacturer or Supplier provide qualified representative to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment as applicable and to make written report of observations and recommendations to ENGINEER.

PRODUCTS - Not Used

EXECUTION - Not Used

END OF SECTION

SECTION 01 35 00
SAFETY AND SITE GUIDELINES

PART 1 GENERAL

1.1 CONSTRUCTION AREA PLAN

- A. Construction activities are to be limited to within limits of disturbance as per plans or elements with the exception of access drives and utility improvements.

1.2 OSHA COMPLIANCE

- A. All applicable Occupational Safety and Health Act (OSHA) regulations and guidelines are to be observed at all times.

1.3 ACCESS TO CONSTRUCTION AREA

- A. Access during construction of the meter vault, pump station or other improvements is to be approved by the OWNER in accordance with the following requirements:
 - 1. All Construction Vehicles are to be identified with the Contractor's name.
 - 2. Material and equipment deliveries are to be consolidated to the extent feasible.

1.4 CONSTRUCTION PARKING AREAS

- A. All vehicle and parking areas are to be managed in accordance with the following requirements:
 - 1. Construction crews are not to park on, or otherwise use, the natural area, streets, and neighboring properties. All vehicles are to be parked in approved parking areas.
 - 2. During busy construction periods involving multiple trades when all Construction Vehicles cannot be accommodated on the site, the OWNER may grant permission for overflow vehicles to temporarily park in designated areas.
 - 3. Vehicles parked on the road may not impede access to normal traffic and emergency vehicles, including fire trucks. Where parking on the shoulder occurs, all damage to the shoulder and landscape is to be repaired by the CONTRACTOR continually and not left for the end of construction. Vehicles may not be parked outside of the Construction Area.
 - 4. No vehicle repair is allowed on the site except in case of emergency or within a fully-enclosed garage. Normal maintenance of CONTRACTOR equipment is allowed.

1.5 DELIVERY AND STORAGE OF MATERIALS & EQUIPMENT

- A. CONTRACTOR is responsible for ensuring all SUBCONTRACTORS and SUPPLIERS obey all posted speed limits and traffic regulations. The following, additional Guidelines apply to all material delivery and storage:
 - 1. All building materials, equipment and machinery are to be delivered to and remain within the limits of disturbance. This requirement includes all building materials, earth-moving equipment, trailers, generators, mixers, cranes and any other equipment or machinery that will remain on the Construction Site overnight.
 - 2. Delivery vehicles may not drive across neighboring properties to access a construction site.
 - 3. Delivery route maps and site supervisor contact information sheets are to be provided to all delivery personnel.
 - 4. Delivery personnel are to use adequate winter tires and/or chains during inclement winter weather.

1.6 SITE VISITATIONS

- A. Due to the inherent danger associated with Construction Activities, visitors to any Construction Site are limited to those persons (such as construction workers, tradesmen, County or City agents, security staff and OWNER staff) with official business relating to the construction. Construction personnel are not to invite or bring family members or friends, especially children, to the job site.

1.7 FIRE AND SAFETY PRECAUTIONS

- A. The following fire and safety precautions are to be adhered to at all Construction Sites:
 - 1. On-site fires are not allowed.
 - 2. All fires are to be reported even if it is thought to be contained or extinguished.
 - 3. One or more persons are to be appointed as the individual(s) responsible for reporting emergencies and/or phoning 911.
 - 4. Access for emergency vehicles is to be maintained at all times.
 - 5. Access to fire hydrants, emergency water tanks and emergency turnouts are not to be blocked at any time.
 - 6. Smoking materials are to be discarded in approved containers.
 - 7. A minimum of one shovel and two 20-pound ABC-Rated Dry Chemical Fire Extinguishers are to be mounted in plain view.
 - 8. All equipment, including small tools, must utilize a working spark arrestor.

PART 2 EQUIPMENT

2.1 CONSTRUCTION TRAILERS AND/OR TEMPORARY STRUCTURES

- A. Upon approval, a temporary construction trailer or portable field office may be located on the project site within limits of disturbance,

2.2 SANITARY FACILITIES

- A. CONTRACTOR is responsible for providing adequate sanitary facilities for construction workers. Portable toilets are to be located within the limits of disturbance and are not to be located within 50 feet of drainages and/or other sensitive resources.

2.3 DEBRIS AND WASTE REMOVAL

- A. The following debris and waste removal procedures are to be adhered to at all Construction Sites:
 - 1. Dumping, burying and/or burning trash is not permitted anywhere within the Project Site. No trash of any kind is to be placed in utility trenches.
 - 2. Heavy and large debris, such as broken stone and wood scraps, are to be removed from the site immediately upon completion of each work trade.
 - 3. Concrete washout, from both trucks and mixers, is to be contained within the limits of disturbance and concealed by structure or covered with backfill. Concrete washout in road rights-of-way, setbacks or on neighboring properties is strictly prohibited.
 - 4. Dirt, mud and/or other debris are to be promptly removed from public or private roads, open spaces, and driveways. Trucks and other equipment are to be washed clean of dirt and other debris prior to leaving the site.

2.4 HAZARDOUS WASTE

- A. In order to monitor hazardous material use and/or respond quickly to spills, the CONTRACTOR is to comply with the following criteria:
 - 1. The CONTRACTOR is to provide a contact person and telephone number for a company experienced in emergency response for vacuuming and containing spills for oil or other petroleum products.
 - 2. In the event of a spill, the CONTRACTOR is to immediately attempt to stop the flow of contaminants.
 - 3. Absorbent sheets are to be used for spill prevention and clean up. Several boxes are to be located at fuel trucks, storage areas and in maintenance vehicles. Inventories are to be maintained as necessary.
 - 4. The responsible on-site CONTRACTOR is to commit all necessary manpower, equipment and materials to the containment and rapid clean-up of spills.

5. After any reportable spill (one or more gallons) is contained; the CONTRACTOR is to notify the appropriate local, state and federal agencies as well as the OWNER.
6. The CONTRACTOR is to maintain a list of product names and a Materials Safety Data Sheet (MSDS) for all hazardous material products used or located on-site. In the event of a leak, spill or release, the CONTRACTOR is to provide the MSDS to emergency personnel.
7. Equipment is to be fueled in designated staging areas only. Equipment that cannot be readily moved to designated staging areas is to be fueled a minimum of 100 feet from known drainage courses.
8. Fuel storage tanks must have adequately constructed catch basins.
9. Prior to storing a hazardous material, the CONTRACTOR is to ensure that:
 - The material is stored in an approved container
 - The container is tightly sealed
 - The container has the proper warning label
 - The container is inspected for leaks
10. Inspect equipment and vehicles for damaged hoses, leaks and hazards prior to the start and end of each shift. Do not run equipment that is leaking hazardous products.
11. Intentional or unreported spillage or dumping of fuels, hydraulics, solvents and other hazardous materials will be cause for eviction.

2.5 TREE/SHRUB AND HABITAT PROTECTION

- A. The following Guidelines apply to the protection of trees, shrubs and other vegetation during construction operations:
 1. Trees/shrubs are not to be removed without prior approval from the OWNER.
 2. Before construction starts, exclusionary fencing is to be installed around the perimeter of all trees/shrubs not approved for removal.
 3. Fencing material is to be highly visible and sturdy.
 4. Construction equipment or activity is not permitted within the fenced area (exclusionary zone) without written authorization from the OWNER.
 5. Adequate drainage is to be provided to prevent ponding of water around the base of trees/shrubs.
 6. Soil compaction is to be avoided around all trees/shrubs.
 7. Mesh netting is to be used to protect trees/shrubs from dust and paint drift.

2.6 AIR QUALITY CONTROL

- A. Air quality control procedures are to be in accordance with the following requirements:
 1. Construction equipment exhaust emissions are not to exceed local code requirements for air pollution limitations.
 2. Open burning of removed vegetation is not permitted.

2.7 DAMAGE, REPAIR AND RESTORATION

- A. Damage and scarring to other property, including streets, neighboring properties, existing buildings, roads, driveways and/or other Improvements will not be permitted. If any such damage occurs, it is to be repaired and/or restored promptly at the expense of the person causing the damage or the CONTRACTOR whose personnel or subcontractor caused the damage.
 - 1. Upon completion of construction, each OWNER and CONTRACTOR is to clean his Construction Site and any neighboring sites that have been impacted and repair all property, which has been damaged.
 - 2. The CONTRACTOR is financially responsible for site restoration/revegetation and refuse removal necessitated on any and all adjacent properties as a result of trespass or negligence by their employees or sub-contracted agents.

2.8 FIREARMS

- A. The possession or discharge of any type of firearm by construction personnel anywhere within the Project Site is prohibited.

PART 3 EXECUTION

3.1 ALCOHOL AND CONTROLLED SUBSTANCES

- A. The consumption of alcohol or use of any controlled substance by construction personnel anywhere within the project is prohibited.

3.2 NO PETS

- A. No pets may be brought to the project site by construction personnel.

3.3 NOISE CONTROL

- A. The CONTRACTOR is to make every effort to keep noise to a minimum. Radios and other audio equipment may not be audible beyond the confines of the Construction Site. Violations of this provision will precipitate a total prohibition of any radios and/or other audio equipment.

3.4 SPEED LIMIT

- A. All vehicles are to adhere to posted speed limits. Fines will be issued for those exceeding the speed limit as posted or as required by road and weather conditions.

END OF SECTION 01 35 00

SECTION 01 45 00
QUALITY CONTROL AND MATERIALS TESTING

PART 1 GENERAL

1.1 MATERIALS

- A. All materials incorporated in the project shall be new and shall fully comply with the specifications. Unless otherwise clearly provided in the specifications, all workmanship, equipment, materials, and articles incorporated in the work covered by the contract are to be of the best available grade of their respective kinds. Whenever, in the specifications, any material, article, device, product, fixture, form, type of construction, or process indicated or specified by patent or proprietary name, by name of manufacturer, or by catalog number, such specifications shall be deemed to be used for the purpose of establishing a standard of quality and facilitating the description of the material or process desired and shall be deemed to be followed by the words "or approved equal" and CONTRACTOR may in such case, upon receiving the ENGINEER's approval, purchase and use any item, type, or process which shall be substantially equal in every respect to that indicated or specified.
- B. Materials and equipment may be used in the Work based upon receipt of a Supplier's certificate of compliance. Certificate must be in possession of CONTRACTOR and reviewed by ENGINEER prior to use.
- C. Quality Assurance Testing by the OWNER and/or ENGINEER shall not relieve CONTRACTOR of responsibility to furnish materials and work in full compliance with Contract Documents.

1.2 MANUFACTURER'S INSTRUCTIONS

- A. Should instructions conflict with Contract Documents, request clarification before proceeding.
- B. When required in individual sections, submit manufacturer's instructions in the quantity required for product data, delivery, handling, storage, assembly, installation, start-up, adjusting, balancing, and finishing, as appropriate.

1.3 WORKMANSHIP

- A. Maintain performance control and supervision over Subcontractors, Suppliers, manufacturer's, products, services, workmanship, and site conditions, to produce work in accordance with Contract Documents.
- B. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.

- C. Provide suitable qualified personnel to produce specified quality.
- D. Ensure finishes match approved samples.

1.4 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.5 TESTING AND INSPECTION SERVICES

- A. Testing agency and testing for quality control and material testing shall be furnished by CONTRACTOR as part of the project. Results of testing shall be reported to CONTRACTOR and ENGINEER on site. Reports of the testing shall be transmitted directly to the ENGINEER.
- B. Materials to be supplied under this contract will be tested and/or inspected either at their place of origin or at the site of the work by the testing agency. CONTRACTOR shall give ENGINEER written notification well in advance of actual readiness of materials to be tested and/or inspected at point of origin so ENGINEER may witness testing by the testing agency. Satisfactory tests and inspections at the point of origin shall not be construed as a final acceptance of the material nor shall it preclude retesting or re-inspection at the site of the work.
- C. CONTRACTOR shall furnish such samples of materials as are requested by the ENGINEER, without charge. No material shall be used until reports from the testing agency have been reviewed and accepted by the ENGINEER.

1.6 UNSATISFACTORY CONDITIONS

- A. Examine areas and conditions under which materials and products are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to installer.

1.7 QUALITY CONTROL TESTING

- A. ENGINEER's failure to detect any defective Work or materials does not prevent later rejection when such defect is discovered nor does it obligate ENGINEER for acceptance.

- B. CONTRACTOR shall provide 24-hours minimum notice to ENGINEER for all testing required by these specifications so that ENGINEER may coordinate or be present during testing.

1.8 TESTING ACCEPTANCE AND FREQUENCY

- A. Minimum Quality Control Testing Frequency: As defined in Table 01 45 00-1, the CONTRACTOR shall be responsible to ensure that all testing is performed at the frequencies shown. CONTRACTOR shall uncover any work at no cost to OWNER to allow the testing agency to perform required testing at the frequency shown.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

TABLE 01 45 00-1: QUALITY CONTROL TESTING FREQUENCY

SYSTEM or MATERIAL	TESTS	MINIMUM REQUIRED FREQUENCY
SUBGRADE AND BACKFILL MATERIALS		
Section 33 05 20 Trenching	Field Density	1 test per 200 linear feet per lift. Lift thickness before compaction – 8 inches for other than hand operated compactors, and 6 inches for hand operated compactors.
	Laboratory	1 test for each material type which includes proctor, classification and gradation.
Section 31 23 23 Backfill	Field Density	1 test for each 1.5 feet of backfill thickness.
	Laboratory	1 test for each material type which includes proctor, classification and gradation.
ASPHALT		
Section 32 12 16 Hot-Mix Asphalt Concrete Paving		<u>Marshall Test Method</u> : 1 test initially per each type of material and each change in target, and for each day of production thereafter.
	Mix Design	<u>Specific Gravity</u> : 1 per each Marshall Test <u>Extraction</u> : 1 test per each Marshall Test
	Field Density	<u>Bituminous surfaces</u> : 1 test per 2,000 square feet placed or part thereof.
	Asphalt Thickness and Core Density	<u>Bituminous surfaces</u> : 1 test sample every 300 linear feet of completed roadway
PORTLAND CEMENT CONCRETE		
Cast-in-Place Concrete	Slump	1 test every day of placement or 1 test for every 50 cubic yards and more frequently if batching appears inconsistent. Conduct with strength tests.
	Entrained air	1 test with slump test.
	Ambient and concrete tem- peratures	1 test with slump test.
	Water cement ratio.	to be verified and provided with batch tickets.

SYSTEM or MATERIAL	TESTS	MINIMUM REQUIRED FREQUENCY
	Compressive strength	1 set of 4 cylinders every 50 c.y. or part thereof per day.
NOTES: 1 Additional tests shall be conducted when variations occur due to the contractor's operations, weather conditions, site conditions, etc. 2 Classification, moisture content, Atterberg limits and specific gravity tests shall be conducted for each compaction test if applicable. 3 Tests can substitute for same tests required under "Aggregates" (from bins or source), although gradations will be required when blending aggregates. 4 Aggregate moisture tests are to be conducted in conjunction with concrete strength tests for water/cement calculations.		

END OF SECTION

SECTION 01 45 10
TESTING AGENCY SERVICES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. CONTRACTOR shall be responsible for providing Construction Quality Control Testing of all soils, concrete, etc. as required by the various sections of these specifications.
- B. This section includes the following:
 - 1. Use of independent testing agency.
 - 2. Control testing report submittal requirements.
 - 3. Responsibilities of testing agency.

1.2 REFERENCES

- A. ASTM D 3740: Standard Recommended Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- B. ASTM D 4561: Standard Practice for Quality Control Systems for and Inspection and Testing Agency for Bituminous Paving Materials.
- C. ASTM E 329: Standard Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.

1.3 DEFINITIONS

- A. Independent Testing Agency: A testing agency NOT owned by CONTRACTOR, and an agency that does not have any preferential affiliation or association with CONTRACTOR, or any of CONTRACTOR's Subcontractors and Suppliers other than entering into a contract with CONTRACTOR to perform the duties defined in these specifications.
- B. Professional Engineer: An engineer who complies with Utah licensing law and is acceptable to the authority having jurisdiction.

1.4 QUALITY ASSURANCE

- A. CONTRACTOR shall employ and pay for, all material testing services as described in Paragraph 1.1 A, through an independent testing agency which complies with ASTM D 3740, ASTM D 4561, and ASTM E 329 to test materials for contract compliance.
- B. Concrete Technician: Approved by ENGINEER or ACI certified.

1.5 CONTRACTOR SUBMITTALS

- A. Prior to start of Work, submit testing agency's name, address, telephone number and the following:
 - 1. Person charged with engineering managerial responsibility.
 - 2. Professional engineer on staff to review services.
 - 3. Level of certification of technicians.

1.6 TESTING AGENCY SUBMITTALS

- A. Field Test Report: Submit report no later than the end of the current day.
- B. Laboratory Test Report: Submit original report within 48 hours after test results are determined.
- C. Final Summary Report: Submit prior to final payment.
- D. On all reports include:
 - 1. Project title, number and date of the report.
 - 2. Date, time and location of test
 - 3. Name and address of material Supplier.
 - 4. Identification of product being tested and type of test performed.
 - 5. Identify whether test is initial test or retest.
 - 6. Results of testing and interpretation of results.
 - 7. Name of technician who performed the testing.

1.7 RESPONSIBILITIES OF TESTING AGENCY

- A. Calibrate testing equipment at least annually with devices of an accuracy traceable to either National Bureau of Standards or acceptable values of natural physical constraints.
- B. Provide sufficient personnel at site and cooperate with CONTRACTOR, ENGINEER and OWNER's Representative in performance of testing service.
- C. Secure samples using procedures specified in the applicable testing code.
- D. Perform testing of products in accordance with applicable sections of the Contract Documents.
- E. Immediately report any compliance or noncompliance of materials and mixes to CONTRACTOR, ENGINEER and OWNER's Representative.

- F. When an out-of-tolerance condition exists, perform additional inspections and testing until the specified tolerance is attained, and identify retesting on test reports.
- G. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by same independent firm on instructions by Engineer. Payment for re-testing or re-inspection will be paid for by Contractor.

1.8 LIMITS ON TESTING AGENCY AUTHORITY

- A. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B. Agency may not suspend Work.
- C. Agency may not assume duties of Contractor.
- D. Agency has no authority to accept Work for OWNER.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 50 00 TEMPORARY CONTROLS

1.01 SITE MAINTENANCE

The Contractor shall keep the work site clean and free from rubbish and debris. Materials and equipment shall be removed from the site when they are no longer necessary. Upon completion of the work and before final acceptance, the work site shall be cleared of equipment, unused materials, and rubbish to present a clean and neat appearance.

2.01 DISPOSAL OF WASTE MATERIAL

When burning is not prohibited or restricted by law, pile all combustible material within the designated or approved cleared area and dispose of by burning. Remove material from the site which is not combustible or not practicable to burn. Accomplish burning and disposal in accordance with all Federal, State and local laws relating to fire prevention, air pollution control, and other restrictions in regard to burning materials. When burning is prohibited, dispose of waste materials in accordance with the governing agency safety and health requirements.

If perishable material is burned, it shall be burned under the constant care of competent watchmen at such times and in such a manner that anything designated to remain on the property, or other adjacent property will not be jeopardized. Burning shall be done in accordance with applicable laws and ordinances.

3.01 "NO BURNING" PERIODS

During periods when burning operations are prohibited by local, State or Federal authorities, haul combustible material and debris from the site. If approved, pile where it will not interfere with the work, and burn when prohibition against burning is removed.

4.01 AIR POLLUTION CONTROL

The Contractor shall not discharge smoke, dust, and other contaminants into the atmosphere that violate the regulations of any legally constituted authority. He shall also abate dust nuisance by cleaning, sweeping, and sprinkling with water, or other means as necessary. The use of water, in amounts which result in mud on public streets, is not acceptable as a substitute for sweeping or other methods.

5.01 NOISE CONTROL

The Contractor shall conform to all local, state and federal noise control ordinances

6.01 DUST ABATEMENT

The Contractor shall furnish all labor, equipment, and means required and shall carry out effective measures wherever, whenever and as often as necessary to prevent his operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance to persons living in or occupying buildings in the vicinity. The Contractor shall conform to all local, state and federal dust abatement ordinances. The Contractor shall be responsible for any damage resulting from any dust originating from his operations. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the Engineer. No separate payment will be allowed for dust abatement measures and all costs thereof shall be included in the Contractor's bid price.

7.01 RUBBISH CONTROL

During the progress of the work, the Contractor shall keep the site of the work and other areas used by him in a neat and clean condition, and free from any accumulation of rubbish. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the work site, and shall establish regular intervals of collection and disposal of such materials and waste. He shall also keep his haul roads free from dirt, rubbish, and unnecessary obstructions resulting from his operations. Equipment and material storage shall be confined to areas approved by the Engineer. Disposal of all rubbish and surplus materials shall be off the site of construction, at the Contractor's expense, all in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Subpart H, Section 1926.252 of the OSHA Safety and Health Standards for Construction.

8.01 SANITATION

- A. Toilet Facilities. Fixed or portable chemical toilets shall be provided wherever needed for the use of employees. Toilets at construction job sites shall conform to the requirements of Subpart D, Section 1926.51 of the OSHA Standards for Construction.
- B. Sanitary and Other Organic Wastes. The Contractor shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic material wastes from any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the Engineer and in accordance with all laws and regulations pertaining thereto. Disposal of all such wastes shall be at the Contractor's expense.

9.01 CHEMICALS

All chemicals used during project construction or furnished for project operation, whether defoliant, soil sterilant, herbicide, pesticide, disinfectant, reactant or of other classification, shall show approval of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture. Use of all such chemicals and disposal of residues shall be strict accordance with the printed instructions of the manufacturer.

10.01 EROSION CONTROL

Plan and execute construction and earthwork by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas to prevent erosion and sedimentation. Periodically inspect earthwork to detect any evidence of the start of erosion, apply corrective measures as required to control erosion.

Furnish material and construct temporary erosion control including berms, dikes, sediment basins, slope drains, check dams, sediment barriers, fiber mats, mulches, etc. The Engineer may direct the Contractor to install additional erosion controls if, in the opinion of the Engineer, the risk of potential erosion is not adequately addressed. Coordinate temporary control measures with permanent erosion control requirements.

- A. Do not start grading work until installation of all temporary erosion control measures is complete.
- B. Complete installation of all erosion control in a timely manner.
- C. Do not pollute streams, canals, lakes, and other water courses. Use the erosion control measures indicated.
- D. Follow the more restrictive requirements when conflicts occur between erosion control specifications and federal, state, or local agencies laws, rules, or regulations.

11.01 FAILURE TO EXECUTE

Failure to execute any of the temporary controls shall be sufficient cause for the Owner to stop forward progression of the work and hold progress payments until acceptable limits and standards are met.

12.01 FIRE SUPPRESSION PLAN

The Contractor shall be required to maintain adequate equipment, manpower and water sources available to extinguish any fires which may be started, directly or indirectly, through activities of the Contractor.

13.01 SMOKING

Due to a substantial risk of wildfires, smoking shall be restricted to occur only inside of enclosed equipment or other designated area. During times of higher fire danger, the local authority may place additional restrictions on smoking in the canyon area.

14.01 COSTS

All costs in connection with the work specified herein will be considered to be incidental to the project.

END OF SECTION 01 50 00

SECTION 01 52 00
CONSTRUCTION FACILITIES

1.01 GENERAL

The Contractor shall set up construction facilities in a neat and orderly manner. The Contractor shall be responsible for providing the site to establish the temporary construction facilities, where not specifically provided for in the Contract.

2.01 SECURITY

The Contractor shall at all times provide such permanent and temporary fencing as may be necessary to restrict unauthorized entry to the site. Contractor shall abide by the Owner's security requirements.

3.01 CONTRACTOR'S EQUIPMENT

- A. General. It shall be the Contractor's responsibility to provide equipment that is adequate for the performance of the work under this Contract within the time specified. All equipment shall be kept in satisfactory operating condition, shall be capable of safely and efficiently performing the required work, and shall be subject to inspection and approval by the Engineer at any time within the duration of the Contract. All work hereunder shall conform to the applicable requirements of the OSHA Standards for Construction.
- B. Separate Contracts. Whenever portions of the work hereunder are let under separate contracts, all of the provisions of this Section shall apply to each such prime contractor, including the requirements for separate field offices and communications facilities.
- C. Construction Lighting. All work conducted at night or under conditions of deficient daylight shall be suitably lighted to ensure proper work and to afford adequate facilities for inspection and safe working conditions.

4.01 UTILITIES

- A. Water Supply. All drinking water on the site during construction shall be furnished by the Contractor.
- B. Water Connections. The Contractor shall not make connection to, or draw water from, any fire hydrant or pipeline without first obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the affected water system. For each such connection made, the Contractor shall first attach to the fire hydrant or pipeline a valve and a meter, if required by said authority, of a size and type acceptable to said authority and agency.

- C. Removal of Water Connections. Before final acceptance of the work on the project, all temporary connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the Engineer and to the agency owning the affected utility.
- D. Power. The Contractor shall provide, at his own expense, all necessary power required for his operations under the Contract, and shall provide and maintain all temporary power lines required to perform the work in a safe and satisfactory manner. Temporary electric power installation shall meet the construction safety requirements of OSHA, State and other governing agencies.
- E. Approval of Electrical Connections. All temporary connections for electricity shall be subject to approval of the Engineer and the power company representative, and shall be removed in like manner at the Contractor's expense prior to final acceptance of the work.
- F. Communication. Contractor shall provide his own telephone or communication system at the site as required to complete the project.

5.01 SAFETY

- A. General. Appropriate first aid facilities and supplies shall be kept and maintained by the Contractor at the site of the work. All persons within the construction area shall be required to wear protective helmets, protective eye wear as required, and steel toed safety shoes. In addition, all employees of the Contractor and his subcontractors shall be provided with, and required to use, personal protective and life saving equipment as set forth in Subpart E of the OSHA Safety and Health Standards for Construction (29 CFR 1926).
- B. Public Safety. During the performance of the work the Contractor shall erect and maintain temporary fences, bridges, railings, and barriers and shall take all other necessary precautions and place proper guards for the prevention of accidents and he shall erect and maintain suitable and sufficient lights and other signals.

6.01 PROJECT SIGN

No project sign is required.

7.01 SANITARY FACILITIES

The Contractor shall provide and maintain sanitary facilities (toilet and wash-up facilities) for his employees and his subcontractors' employees that will comply with the regulations of the local and State Departments of Health and as directed by the Engineer.

8.01 STORAGE OF MATERIALS

Materials shall be so stored as to insure the preservation of their quality and fitness for the work. When considered necessary by the Engineer, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground. Delicate instruments and materials subject to vandalism shall be placed under locked cover and, if necessary, provided with temperature control as recommended by the manufacturer. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without the written permission of the Owner or lessee.

END OF SECTION 01 52 00

SECTION 01 71 13
MOBILIZATION

PART 1 GENERAL

- A. This specification covers the following:
1. Organization and mobilization of Contractor's forces and equipment; and
 2. Transporting various tools, materials, and equipment to the site.
- B. Temporary Facilities and other mobilization items are specified in the General Conditions and in various sections under Division 1 and 2. Payment, however, will be included under mobilization.

PART 2 DESCRIPTION

- A. Mobilization shall include mobilization of all construction equipment, materials, supplies, appurtenances, and the like, manned and ready for commencing and prosecuting the work; and the subsequent demobilization and removal from the site of said equipment, appurtenances and the like upon completion of the work.
- B. Mobilization shall also include assembly and delivery, to the project site, of equipment, materials, and supplies necessary for the prosecution of work but which are not intended to be incorporated in the work; the clearing of and preparation of the Contractor's work area; the complete assembly, in working order, of equipment necessary to perform the required work; personnel services preparatory to commencing actual work; and all other preparatory work required to permit commencement of the actual work on the construction items for which payment is provided for under the contract.

END OF SECTION 01 71 13

JSSD OFFICE BUILDING ADDITION

5360 NORTH OLD HIGHWAY 40 HEBER CITY, UT 84032



DRAWING INDEX

GENERAL DRAWINGS

G0.0	COVER SHEET
G1.2	SPECIFICATIONS
G1.3	SPECIFICATIONS
G1.4	SPECIFICATIONS
G2.1	CODE ANALYSIS
G3.1	WALL TYPES/HORIZONTAL ASSEMBLIES
G4.1	ACCESSIBILITY DETAILS
G4.2	ACCESSIBILITY DETAILS

CIVIL DRAWINGS

CS 100	SITE PLAN
CS 101	SITE PLAN

ARCHITECTURAL DRAWINGS

A0.1	ARCHITECTURAL SITE PLAN
A1.0	DEMO PLANS
A1.1	BUILDING PLAN
A1.2	R.C.P.
A1.3	ROOF PLAN
A2.1	ELEVATIONS
A3.1	BUILDING SECTIONS
A5.1	ARCHITECTURAL DETAILS
A5.2	ARCHITECTURAL DETAILS
A5.3	DUMPSTER ENCLOSURE DETAILS
A5.4	CEILING DETAILS
A6.2	DOOR & WINDOW DETAILS

STRUCTURAL DRAWINGS

SN1	GENERAL STRUCTURAL NOTES
S1-0	STRUCTURAL PLANS
SI1	SPECIAL INSTRUCTIONS
SD1	STRUCTURAL DETAILS
SD2	STRUCTURAL DETAILS

MECHANICAL DRAWINGS

M0.1	MECHANICAL NOTES & LEGENDS
M1.1	MECHANICAL DEMO PLAN
M1.2	MECHANICAL PLAN
M5.1	MECHANICAL DETAILS
M5.2	MECHANICAL DETAILS
M5.3	MECHANICAL DETAILS
M6.1	MECHANICAL SCHEDULES
M7.1	MECHANICAL SPECIFICATIONS
M7.2	MECHANICAL SPECIFICATIONS
M7.3	MECHANICAL SPECIFICATIONS

PLUMBING DRAWINGS

P0.1	PLUMBING NOTES & LEGENDS
P1.1	PLUMBING DEMO PLAN
P1.2	PLUMBING PLAN
P5.1	PLUMBING DETAILS
P6.1	PLUMBING SCHEDULE & SCHEMATICS
P7.1	PLUMBING SPECIFICATIONS
P7.2	PLUMBING SPECIFICATIONS

ELECTRICAL DRAWINGS

E0.0	ELECTRICAL COVER SHEET
E0.1	SITE ELECTRICAL PLAN
E0.2	SITE PHOTOMETRIC PLAN
E1.1	POWER PLAN
E1.2	LIGHTING PLAN
E5.1	ELECTRICAL DETAILS
E5.2	ELECTRICAL DETAILS
E6.1	ELECTRICAL SCHEDULES
E7.1	ELECTRICAL SPECIFICATIONS

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TBD

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PROJECT DIRECTORY

PROJECT INFORMATION

DEFERRED SUBMITTALS

THESE DRAWINGS ARE PART OF A SET OF CONSTRUCTION DOCUMENTS. THE CONSTRUCTION DOCUMENTS CONSIST OF ONE OR MORE OF THE FOLLOWING ELEMENTS:

CONSTRUCTION DRAWINGS
SPECIFICATIONS
STRUCTURAL CALCULATIONS
CONTRACT FORMS AND CONDITIONS
ADDENDA
MODIFICATIONS AND REVISIONS

CONTRACTORS, SUBCONTRACTORS, AND OTHERS WHO PROVIDE LABOR AND/OR MATERIALS REFERENCING THESE DRAWINGS ARE RESPONSIBLE FOR OBTAINING AND REVIEWING ALL CURRENT CONSTRUCTION DOCUMENTS.

CONTRACTORS, SUBCONTRACTORS, AND OTHERS ARE TO REPORT ANY DISCREPANCIES OR ERRORS TO JZW ARCHITECTS IMMEDIATELY. ANY CHANGES TO THE PROJECT WILL BE VERIFIED WITH THE OWNER BY THE ARCHITECT AND REVISIONS WILL BE ISSUED BY ARCHITECT. CONTRACTORS ARE NOT TO MAKE ALTERATIONS OF ANY KIND WITHOUT THE PRIOR WRITTEN CONSENT OF ARCHITECT. DISCREPANCIES NOT REPORTED IMMEDIATELY ARE RESPONSIBILITY OF CONTRACTOR.

CONTRACTORS SHALL NOT SCALE FROM DRAWINGS. DIMENSIONS ARE PROVIDED TO ALLOW FOR ACCURATE CONSTRUCTION OF BUILDING. QUESTIONS ARISING FROM DIMENSIONS SHOULD BE RESOLVED BY CONTACTING ARCHITECT.

TRUSS DESIGN

CODE SUMMARY

APPLICABLE CODES:

2021 INTERNATIONAL BUILDING CODE (I.B.C.)
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2020 NATIONAL ELECTRIC CODE

OCCUPANCY CLASS: B
CONSTRUCTION TYPE: VB
SPRINKLER SYSTEM: NONE

BUILDING AREAS:
EXISTING: 3,384 SF
NEW: 4,895 SF

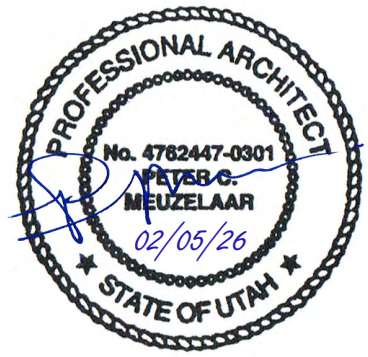


ISSUED:

FEBRUARY 05, 2026

REVISIONS:

NO.	DATE	DESCRIPTION
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PROJECT NUMBER:

25152

COVER SHEET

G0.0



ARCHITECTURAL SPECIFICATIONS			CONSULTANT
01 - GENERAL REQUIREMENTS			JSSD OFFICE BUILDING ADDITION 5360 NORTH OLD HIGHWAY 40 HEBER CITY, UT 84032
01.0 GENERAL	03.0 CONCRETE	06.1 ROUGH CARPENTRY	
01.0.1 ALL EXTERIOR DIMENSIONS ARE TO OUTSIDE FACE OF STUD. ALL INTERIOR DIMENSIONS ARE TO FACE OF STUD.	03.0.1 CONTRACTOR SHALL COORDINATE WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS PRIOR TO POURING CONCRETE. PROVIDE SLEEVES, BLOCK-OUTS, ETC. AS REQUIRED.	06.1.1 ALL JOISTS AND RAFTERS SHALL HAVE SOLID BLOCKING AT THE BEARING LOCATIONS. CONNECT BLOCKING TO TOP OF WALL WITH SIMPSON A34 FRAMING ANCHORS. ROOF JOISTS TO HAVE HURRICANE CLIPS AT 24" O.C. MINIMUM, UNLESS NOTED OTHERWISE.	
01.0.2 ALL DIAGONAL WALLS ARE AT A 45 DEG. ANGLE UNLESS NOTED OTHERWISE. SEE FLOOR PLANS. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.	03.0.2 ALL EXTERIOR FOOTINGS SHALL BEAR BELOW FROST DEPTH AS DEFINED BY THE LOCAL JURISDICTION.	06.1.2 ALL JOISTS, RAFTERS BEAMS, HEADERS AND COLUMNS SHALL BE DOUGLAS FIR LARCH NO.2 OR BETTER, UNLESS NOTED OTHERWISE.	
01.0.3 SEE STRUCTURAL CALCULATIONS FOR ADDITIONAL GENERAL STRUCTURAL NOTES AND REQUIREMENTS. ANY NOTES AND/OR REQUIREMENTS FROM STRUCTURAL ENGINEER SHALL GOVERN EXCEPT WHEN REQUIREMENTS SET FORTH IN THIS SPECIFICATION EXCEED ENGINEER'S REQUIREMENTS.	03.0.3 CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO POURING CONCRETE.	06.1.3 ALL WOOD CONNECTIONS MUST CARRY THE CAPACITY OF THE SUPPORTED MEMBERS. CONTRACTOR IS RESPONSIBLE FOR CONNECTION IF OTHER THAN STANDARD CONNECTIONS ARE REQUIRED. SEE PROJECT ENGINEER FOR ADDITIONAL ASSISTANCE.	
01.0.4 CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. ARCHITECT TO BE MADE AWARE OF ANY DISCREPANCIES BETWEEN CONTRACT DOCUMENTS AND EXISTING CONDITIONS.	03.0.4 ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO THE STANDARD SPECIFICATIONS ASTM A615 GRADE 60, AND MUST BE PROPERTY TIED INTO PLACE PRIOR TO POURING CONCRETE, (FIELD BENT DOWELS MAY BE GRADE 40).	06.1.4 ALL LUMBER IN CONTACT WITH CONCRETE OR WITHIN 6" OF EARTH SHALL BE EITHER FOUNDATION REDWOOD MARKED BY THE REDWOOD INSPECTION SERVICE OR PRESSURE TREATED LUMBER.	
01.0.5 CLEAN PROJECT SITE AND WORK AREAS DAILY, INCLUDING COMMON AREAS. ENFORCE REQUIREMENTS STRICTLY. DISPOSE OF MATERIAL LAWFULLY.	03.0.5 ALL SPLICES IN CONTINUOUS CONCRETE REINFORCING BARS SHALL LAP 40 BAR DIAMETERS MIN. ALL SPLICES SHALL BE MADE IN A COMPRESSION ZONE UNLESS OTHERWISE NOTED. ALL CON. REINFORCING SHALL TERMINATE WITH A 90 DEG. BEND OR SEPARATE CORNER BARS.	06.1.5 ALL CORNERS, INTERSECTIONS, AND BEAMS MUST HAVE ONE OF THE DOUBLE TOP CHORDS CONTINUOUS, LAPPED AS PER CODE, OR STRAPPED WITH SIMPSON ST22.	
01.0.6 REMOVE DEBRIS FROM CONCEALED SPACES BEFORE ENCLOSING SPACE.	03.0.6 ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI DETAILING MANUAL AND CURRENT ACI STANDARDS.	06.1.6 FLOOR JOISTS SHALL HAVE ALL BLOCKING, BRACING, BRIDGING, ETC. AS RECOMMENDED BY THE STRUCTURAL ENGINEER AND THE MANUFACTURER.	
01.0.7 PROVIDE FINAL PROTECTION AND MAINTAIN CONDITIONS THAT ENSURE INSTALLED WORK IS WITHOUT DAMAGE RO DETERIORATION AT TIME OF SUBSTANTIAL COMPLETION.	03.0.7 ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS. FLAT SLABS AND CONCRETE RETAINING WALLS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. SEE STRUCTURAL CALCULATIONS FOR ADDITIONAL CONCRETE REQUIREMENTS.	06.1.7 CONNECT ALL WOOD TO CONCRETE, WOOD TO STEEL, AND WOOD TO WOOD WITH SIMPSON OR APPROVED EQUAL CONNECTIONS UNLESS MEMBER IS TOP BEARING AS PER ENGINEER.	
01.0.8 ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE NOTED ADDITION OF THE INTERNATIONAL BUILDING CODE (IBC) AND LOCAL ORDINANCES.	03.2 FLATWORK	06.1.8 WHEN POSSIBLE BEAMS SHALL BE RECESSED IN FLOOR/CEILING ASSEMBLY. BEAMS SHALL NOT PENETRATE CEILING PLANE.	
01.1 SUBSTITUTIONS	03.2.1 PROVIDE 4" GRANULAR FILL MIN. UNDER ALL SLABS.	06.1.9 ALL COLUMNS SHALL EXTEND DOWN THROUGH THE STRUCTURE TO THE FOUNDATION. ALL COLUMNS SHALL BE BRACED AT ALL FLOOR LEVELS. COLUMNS SHALL BE AS WIDE AS THE MEMBER THEY SUPPORT.	
01.1.1 CONTRACTOR TO PROVIDE SUBMITTAL FOR CONSIDERATION ON ANY SUBSTITUTION REQUEST. SUBMITTAL TO PROVIDE ADEQUATE INFORMATION TO DETERMINE COMPLIANCE WITH DESIGN INTENT.	03.2.2 TO MINIMIZE CRACKING OF SLABS, PROVIDE #4 BARS @ 18" OC EACH WAY 1" CLEAR FROM TOP, TYPICAL ALL SLABS ON GRADE.	06.1.10 ALL HEADERS (6'-0" IN LENGTH OR LESS) SHALL BE SUPPORTED BY ONE TRIMMER AND A KING STUD EACH END. MINIMUM. ALL BEAMS (LONGER THAN 6'-0" IN LENGTH) SHALL BE SUPPORTED BY TWO TRIMMERS AND A KING STUD EACH END, MINIMUM, UNLESS NOTED OTHERWISE.	
01.1.2 SUBSTITUTIONS FOR CONVENIENCE SUBMITTED 60 DAYS OR MORE AFTER THE COMMENCEMENT OF WORK MAY NOT BE CONSIDERED BY ARCHITECT FOR APPROVAL.	03.3 CAST-IN-PLACE	06.1.11 PREFABRICATED AND ENGINEERED TRUSSES ARE TO BE USED FOR THE ROOF UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. TRUSS MANUFACTURER SHALL DESIGN TRUSSES FOR ALL LOADS PER CURRENT I.B.C. INCLUDING UNBALANCED SNOW LOADS, SNOW DRIFTING, SNOW BUILD-UPS IN VALLEYS AND ON EAVES, ETC.. TRUSSES TO BE DESIGNED TO CARRY POINT LOADS INDICATED IN FRAMING PLANS AND STRUCTURAL CALCULATIONS.	
01.1.3 MINOR CHANGES IN WORK WILL BE DIRECTED VIA 'ARCHITECTURAL SUPPLEMENTAL INSTRUCTIONS' (ASI)	03.3.1 CONTRACTOR SHALL PROVIDE ALL SHORING AS REQUIRED. BRACE WALLS AS REQUIRED UNTIL FLOOR DIAPHRAGMS ARE IN PLACE.	06.1.12 TRUSS MANUFACTURER SHALL DESIGN TRUSSES IN STRICT COMPLIANCE WITH FRAMING PLANS IN THIS PLAN SET. ANY ALTERATIONS FROM INDICATED TRUSS LAYOUT MUST HAVE WRITTEN APPROVAL FROM ARCHITECT.	
01.1.4 AN EXECUTED CHANGE ORDER IS REQUIRED BEFORE PROCEEDING WITH WORK OUTSIDE OF THE SCOPE OF THE CONTRACT DOCUMENTS.	03.3.2 TOP OF FOUNDATION TO BE 6" MIN. ABOVE FINISH GRADE, UNO.	06.1.13 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE TRUSSES AS PER TRUSS MANUFACTURER'S RECOMMENDATIONS. NO PREFABRICATED TRUSS SHALL BE MODIFIED IN THE FIELD.	
01.2 CONSTRUCTION PROGRESS	03.3.3 FOOTINGS, FOUNDATION, AND SLABS SHALL BE CONSTRUCTED ON PROPERLY PREPARED MATERIAL. SUB-BASE TO BE UNDISTURBED, NATURAL SOIL OR ENGINEERED FILL PER THE SOIL ENGINEER'S RECOMMENDATIONS. ENGINEERED FILL SHALL BE TESTED AND APPROVED BY A LICENSED SOILS ENGINEER.	06.1.14 FULL BEARING IS REQUIRED UNDER ROOF TRUSSES. BLOCK THE STUDS TO THE CONCRETE FOUNDATION. USE LUS26 HANGERS FOR ALL MONO-JACK TRUSSES, HUS26 HANGERS FOR ALL TRUSSES ON GIRDERS AND HGUS28-2 GIRDER TO GIRDER HANGERS UNLESS NOTED OTHERWISE BY TRUSS MANUFACTURER. HANGERS MUST BE CAPABLE OF SUPPORTING FULL WEIGHT CAPACITY OF MEMBER.	
01.2.1 CONTRACTOR IS RESPONSIBLE TO COORDINATE CONSTRUCTION OPERATIONS FOR EACH PART OF THE WORK. WORK IS TO BE SCHEDULED IN SEQUENCE TO OBTAIN THE BEST RESULTS OF INSTALLATION.	03.3.4 RECESS FOUNDATION AND POUR SLAB THROUGH, TYPICAL ALL OVERHEAD DOORS AND STOREFRONT OR CURTAIN WALL SYSTEMS AS INDICATED IN FOOTING AND FOUNDATION PLAN.	06.1.15 TRUSS MANUFACTURER SHALL FIELD VERIFY ALL TRUSS REQUIREMENTS AND DIMENSIONS PRIOR TO FABRICATION.	
01.2.2 CONTRACTOR TO CONDUCT PREINSTALLATION CONFERENCE AT PROJECT SITE BEFORE EACH CONSTRUCTION ACTIVITY THAT REQUIRES COORDINATION WITH OTHER CONSTRUCTION.	03.3.5 WHERE FOUNDATION WALLS OR FOOTINGS SUPPORT MASONRY WALLS, PROVIDE MATCHING DOWELS OF SAME SIZE AND SPACING.	06.1.16 BOTTOM CHORDS OF TRUSSES ACTING AS CEILING MEMBERS MUST BE ABLE TO SUPPORT A 10 P.S.F. LIVE LOAD.	
01.2.3 CONTRACTOR TO CONDUCT PROGRESS MEETINGS AS DIRECTED BY OWNER. CONTRACTOR TO PREPARE AGENDA AND MEETING MINUTES AND DISTRIBUTE TO OWNER AND ARCHITECT.	03.3.6 CONTRACTOR IS RESPONSIBLE FOR PROPER LOCATING AND PLACING OF ALL ANCHOR BOLTS, HOLD DOWNS, ANCHORS, STRAPS, ETC. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.	06.1.17 TRUSS MANUFACTURER SHALL INDICATE PROPER BRACING OF ALL COMPRESSION CHORD MEMBERS AS WELL AS PROPER BRACING DURING TRUSS ERECTION.	
01.2.4 CONTRACTOR TO CONDUCT PROJECT COORDINATION MEETINGS AT WEEKLY INTERVALS IN ADDITION TO SPECIFIC MEETINGS HELD FOR OTHER PURPOSES.	03.3.7 USE FORM-FACING PANELS THAT WILL PROVIDE CONTINUOUS, TRUE, AND SMOOTH CONCRETE SURFACES. FURNISH IN LARGEST PRACTICABLE SIZES TO MINIMIZE NUMBER OF JOINTS.	06.1.18 TRUSS MANUFACTURER SHALL PROVIDE SHOP DRAWINGS FOR TRUSS DESIGN. FABRICATE TRUSSES FROM APPROVED SHOP DRAWINGS ONLY.	
01.2.5 CONTRACTOR TO PROVIDE PRELIMINARY CONSTRUCTION SCHEDULE, REVISED CONSTRUCTION SCHEDULE, AND THREE-WEEK CONSTRUCTION SCHEDULE TO OWNER AT OWNER'S DISCUSSION.	03.3.8 PLACE AND SECURE ANCHORAGE DEVICES AND OTHER EMBEDDED ITEMS REQUIRED FOR ADJOINING WORK THAT IS ATTACHED TO OR SUPPORTED BY CAST-IN-PLACE CONCRETE.	06.1.19 FABRICATE TRUSSES IN JIGS WITH MEMBERS ACCURATELY CUT TO PROVIDE GOOD BEARING AT JOINTS. JOINTS SHALL BE ACCEPTABLE IF THE AVERAGE OPENING BETWEEN ENDS OF MEMBERS IMMEDIATELY AFTER FABRICATION IS LESS THAN 1/16". EXCEPT THAT TRUSS COMPRESSION CHORD JOINTS AT SPLICES AND RIDGES SHALL HAVE FULL CONTACT BETWEEN MEMBERS.	
01.2.6 CONTRACTOR TO PROVIDE WEEKLY PROGRESS PHOTOGRAPHS AS DIRECTED BY OWNER.	04.0 GENERAL	06.1.20 EACH CHORD SECTION SHALL BE ENGAGED IN TWO PANEL POINTS BEFORE BEING SPLICED.	
01.2.7 ALL TEMPORARY FACILITIES AND SERVICES ARE TO BE INCLUDED IN THE CONTRACT COSTS.	04.0.1 PREVENT GROUT, MORTAR, AND SOLID FROM STAINING THE FACE OF MASONRY TO BE LEFT EXPOSED OR PAINTED. IMMEDIATELY REMOVE GROUT, MORTAR, AND SOIL THAT COME IN CONTACT WITH SUCH MASONRY.	06.1.21 UNLESS OTHERWISE NOTED, PROVIDE 1/8" CAMBER FOR EACH 6 FEET OF HORIZONTAL TRUSS LENGTH.	
01.3 SUBMITTALS	04.0.2 STORE CEMENTITIOUS MATERIALS ON ELEVATED PLATFORMS, UNDER COVER, AND IN DRY LOCATION. DO NOT USE CEMENTITIOUS MATERIALS THAT HAVE BECOME DAMP.	06.1.22 TRUSS FABRICATORS USING METAL PLATES MUST HAVE FABRICATION PLANT INSPECTED FOUR TIMES PER YEAR BY AN INDEPENDENT TESTING LABORATORY IN ACCORDANCE WITH T.P.I. REGULATIONS. COPIES OF INSPECTIONS ARE TO BE MADE AVAILABLE UPON REQUEST.	
01.3.1 PROJECT SHOP DRAWINGS FOR REVIEW BY ARCHITECT ARE TO BE SUBMITTED DIGITALLY WITH A COVER SHEET THAT ALLOWS SPACE FOR ARCHITECT RESPONSE (APPROX. 4X5 INCHES). ALL DEVIATIONS FROM CONTRACT DOCUMENTS ARE TO BE HIGHLIGHTED, CIRCLED, OR OTHERWISE IDENTIFIED.	04.0.3 STORE MASONRY ACCESSORIES, INCLUDING METAL ITEMS, TO PREVENT CORROSION AND ACCUMULATION OF DIRT AND OIL.	06.1.23 OBTAIN EACH TYPE OF ENGINEERED WOOD PRODUCT FROM ONE SOURCE FROM A SINGLE MANUFACTURER.	
01.3.2 PRODUCT SUBMITTALS FOR REVIEW BY ARCHITECT ARE TO BE SUBMITTED WITH A COVER SHEET THAT ALLOWS SPACE FOR ARCHITECT RESPONSE (APPROX. 4X5 INCHES). ALL DEVIATIONS FROM CONTRACT DOCUMENTS ARE TO BE HIGHLIGHTED, CIRCLED, OR OTHERWISE IDENTIFIED.	04.2 STONE	06.1.24 FURNISH LUMBER MANUFACTURED TO COMPLY WITH PS 20 "AMERICAN SOFTWOOD LUMBER STANDARD"	
01.3.3 CONTRACTOR TO ALLOW FOR 15 WORKING DAYS FOR SUBMITTAL AND SHOP DRAWING REVIEW BY ARCHITECT. WHERE CONCURRENT REVIEW BY ENGINEERS IS REQUIRED 21 WORKING DAYS FOR INITIAL REVIEW IS TO BE ALLOWED.	04.2.1 STORE MASONRY UNITS ON ELEVATED PLATFORM IN DRY LOCATION. IF UNIT BECOMES WET, DO NOT INSTALL UNTIL THEY ARE DRY.	06.2 INTERIOR ARCHITECTURAL WOODWORK	
01.4 CLOSEOUT PROCEDURES	04.2.2 SUBMIT SAMPLES OF STONE VENEER FOR EACH COLOR, GRADE, FINISH, AND VARIETY OF STONE REQUIRED.	06.2.1 COORDINATE CABINET DESIGN, CONSTRUCTION AND INSTALLATION WITH MECHANICAL AND ELECTRICAL CONTRACTORS. OWNER TO SELECT CABINET MANUFACTURER, STYLES, FINISHES, AND COLORS.	06.5 WOOD ROOF DECKING
01.4.1 CONTRACTOR TO PROVIDE PROJECT WARRANTIES TO OWNER IN ORGANIZED BINDER UPON COMPLETION OF THE PROJECT.	04.2.3 STONE VENEER TO BE SOURCED FROM A SINGLE QUARRY WITH RESOURCES TO PROVIDE MATERIALS OF CONSISTENT QUALITY IN APPEARANCE AND PHYSICAL PROPERTIES.	06.2.2 CABINetry SHOP DRAWINGS TO BE APPROVED PRIOR TO FABRICATION OF CABINETS.	
01.4.2 CONTRACTOR TO SUBMIT 1 HARD COPY AND 1 DIGITAL COPY OF MARKED UP RECORD PRINTS UPON PROJECT COMPLETION.	04.2.4 BUILD MOCKUP FOR EACH TYPE OF STONE VENEER ASSEMBLY IN SIZES APPROXIMATELY 48 IN LONG BY 96 IN HEIGHT BY FULL THICKNESS, INCLUDING FACE AND BACKUP.	06.2.3 CONTRACTOR TO SUBMIT PLASTIC LAMINATE SAMPLES FOR APPROVAL FOR ALL CABINetry.	
01.4.3 CONTRACTOR TO OBTAIN AND SUBMIT RELEASES FROM AUTHORITIES HAVING JURISDICTION INCLUDING OCCUPANCY PERMITS, OPERATING CERTIFICATES, AND SIMILAR RELEASES.	04.2.5 STORE STONE AGGREGATES WHERE GRADING AND OTHER REQUIRED CHARACTERISTICS CAN BE MAINTAINED AND CONTAMINATION AVOIDED.	06.2.4 MILLWORK TO COMPLY WITH APPLICABLE REQUIREMENTS OF "ARCHITECTURAL WOODWORK QUALITY STANDARDS" PUBLISHED BY THE ARCHITECTURAL WOODWORK INSTITUTE (AWI) EXCEPT AS OTHERWISE INDICATED.	
02.0 EXISTING CONDITIONS	04.2.6 INSTALL EMBEDDED FLASHING AND WEEP HOLES AT SHELF ANGLES, LINTELS, LEDGES, OTHER OBSTRUCTIONS TO DOWNWARD FLOW OF WATER IN WALL, AND WHERE INDICATED.	06.2.5 PROTECT ALL MILLWORK FROM DAMAGE AND SOILAGE DURING TRANSIT, DELIVERY, AND STORAGE.	
02.0 SELECTIVE DEMOLITION	04.2.7 REMOVE AND REPLACE STONE VENEER ASSEMBLIES WHERE DAMAGED, DEFECTIVE, OR NOT MATCHING APPROVED SAMPLES AND MOCKUPS.	06.2.6 OBTAIN AND COMPLY WITH WOODWORK MANUFACTURER'S AND INSTALLER'S COORDINATED ADVICE FOR OPTIMUM TEMPERATURE AND HUMIDITY DURING STORAGE AND INSTALLATION. DO NOT INSTALL MILLWORK UNTIL THESE CONDITIONS HAVE BEEN ATTAINED AND STABILIZED SO THAT WOODWORK IS WITHIN PLUS OR MINUS 1.0% OF OPTIMUM MOISTURE CONTENT FROM DATE OF INSTALLATION THROUGH REMAINDER OF CONSTRUCTION PERIOD.	
02.0.1 UNLESS OTHERWISE INDICATED, DEMOLITION WASTE BECOMES PROPERTY OF THE CONTRACTOR.	06.0 GENERAL	06.2.7 MILLWORK MANUFACTURER TO FIELD-VERIFY DIMENSIONS PRIOR TO FABRICATION.	
02.0.2 STORAGE OR SALE OF REMOVED ITEMS ON SITE IS NOT PERMITTED.	06.0.1 ALL DIMENSIONS AND CONDITIONS TO BE VERIFIED BY BUILDER PRIOR TO ANY WORK.	06.4 SHEATHING	
02.0.3 MAINTAIN EXISTING UTILITIES IN SERVICE AND PROTECT THEM FROM DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.	06.0.2 KEEP MATERIALS UNDER COVER AND DRY. PROTECT AGAINST EXPOSURE TO WEATHER AND CONTACT WITH DAMP OR WET SURFACES. STACK LUMBER AS WELL AS PLYWOOD AND OTHER PANELS; PROVIDE FOR AIR CIRCULATION WITHIN AND AROUND STACKS AND UNDER TEMPORARY COVERINGS INCLUDING POLYETHYLENE AND SIMILAR MATERIALS.	06.4.1 ALL STRUCTURAL PLYWOOD SHALL BE STRUCTURAL GRADE I OR STRUCTURAL GRADE II.	
02.0.4 COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE BEGINNING DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.		06.4.2 COORDINATE SHEATHING REQUIREMENTS WITH SHEAR WALL SCHEDULES AND STRUCTURAL CALCULATIONS.	
02.0.5 ENGAGE A PROFESSIONAL ENGINEER TO PERFORM AN ENGINEERING SURVEY OF CONDITION OF BUILDING TO DETERMINE WHETHER REMOVING ANY ELEMENT MIGHT RESULT IN STRUCTURAL DEFICIENCY OR UNPLANNED COLLAPSE OF ANY PORTION OF STRUCTURE DURING SELECTIVE DEMOLITION.		06.4.3 ALL EXTERIOR SHEATHING TO BE O.S.B. WITH 8D COMMON NAILS AT 6" O.C. FOR EDGE NAILING AND 12" O.C. FIELD NAILING UNLESS NOTED OTHERWISE. BLOCK ALL PANEL EDGES AND START SHEATHING AT BASE PLATE AND NAIL INTO BOTH PLATES. SHEATHING MUST BE CONTINUOUS FROM BASE PLATE TO TOP PLATE. COORDINATE WITH SHEAR WALLS AS INDICATED ABOVE.	
02.0.6 PROTECT ITEMS TO REMAIN FROM DAMAGE DURING SELECTIVE DEMOLITION.		06.4.4 NAILS OR OTHER APPROVED SHEATHING CONNECTIONS SHALL BE DRIVEN FLUSH BUT NOT BREAK THE SURFACE OF THE SHEATHING. NAIL ALL SHEAR WALLS AS PER SHEAR WALL SCHEDULE AND STRUCTURAL CALCULATIONS.	
02.0.7 DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO THE EXTENT REQUIRED BY NEW CONSTRUCTION AND AS INDICATED. USE METHODS REQUIRED TO COMPLETE THE WORK THAT ARE LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION.		06.4.5 ALL ROOF SHEATHING TO BE AS INDICATED ON PLANS AND IN STRUCTURAL CALCULATIONS. BLOCK ALL PANEL EDGES UNLESS NOTED OTHERWISE. PROVIDE (2) 2 X SHAPED BLOCKING AT RIDGES UNLESS CONTINUOUS MEMBER EXISTS.	
		06.4.6 COMPLETELY SHEATH ROOF UNDER OVER BUILD AREAS PRIOR TO FRAMING OVERBUILD. OVER BUILD AREAS TO BE FRAMED AS PER STRUCTURAL DETAILS. FRAME SO AS TO AVOID POINT LOADS ON ROOF.	
			07.0 GENERAL
			07.0.1 PROVIDE CONTINUOUS VAPOR BARRIER TO WARM SIDE (WINTER) OF ALL EXTERIOR WALLS.
			07.0.2 COVER SHEATHING OF ALL EXTERIOR WALLS WITH CONTINUOUS TYVEK HOUSE WRAP OR APPROVED EQUAL.
			07.0.3 PROVIDE VENTILATION OF ATTIC AND CRAWL SPACES AS PER CODE. SEE ELEVATIONS FOR LOCATION AND TYPE OF ATTIC VENTING.
			07.0.4 PROVIDE FLASHING AT BASE OF ALL FRAMED WALLS. FLASHING TO DIRECT WATER TO EXTERIOR OF FOUNDATION WALL.
			07.0.5 AIRTIGHT DRYWALL SYSTEMS SHALL BE USED (USE VAPOR BARRIERS AT ALL EXTERIOR WALLS AND CEILINGS).
			07.0.6 ALL EXTERIOR DOORS SHALL BE WEATHER STRIPPED AND AIR TIGHT ASSEMBLIES.
			07.0.7 SEAL AROUND ALL ELECTRICAL, PLUMBING, OR MECHANICAL PENETRATIONS AT EXTERIOR WALL AND IN CEILING/FLOOR OR CEILING ROOF ASSEMBLIES.
			07.0.8 SEAL AND INSULATE AROUND ALL MECHANICAL DUCTS.
			07.0.9 BUILD MOCKUPS TO VERIFY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND TO SET QUALITY STANDARDS FOR FABRICATION AND INSTALLATION.
			07.0.10 INSTALL ALL EXTERIOR FINISHES AS PER MANUFACTURER'S RECOMMENDATIONS.
			07.0.11 PROCEED WITH ROOFING WORK ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS ARE CONGRUENT WITH MANUFACTURERS RECOMMENDATIONS.
			07.0.12 PROVIDE SUBMITTALS FOR APPROVAL ON ALL ROOFING MATERIALS. SUBMITTAL TO INCLUDE TYPE, COLOR, AND PHYSICAL SAMPLE.
			07.0.13 ALL ROOFING TO BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
			07.0.14 PROVIDE PHYSICAL SUBMITTALS FOR APPROVAL ON ALL COPINGS, RAIN GUTTERS, AND COUNTERFLASHING.
			07.0.15 PROVIDE MANUFACTURED ROOF SPECIALTIES CAPABLE OF WITHSTANDING WIND LOADS, STRUCTURAL MOVEMENT, THERMALLY INDUCED MOVEMENT, AND EXPOSURE TO WEATHER WITHOUT FAILING.
			07.0.16 BEFORE WATERPROOFING WORK IS STARTED THE WATERPROOFING APPLICATOR SHALL THOROUGHLY EXAMINE ALL SURFACES FOR ANY DEFICIENCIES OR UNSATISFACTORY CONDITIONS DETRIMENTAL TO THE PROPER COMPLETION OF WORK. DO NOT PROCEED WITH WORK UNTIL ALL DEFICIENCIES OR UNSATISFACTORY CONDITIONS ARE CORRECTED.
			07.0.17 PROVIDE HEAT TAPE AT ALL GUTTER AND DOWNSPOUT LOCATIONS.
			07.1 FOUNDATIONS
			07.1.1 PROVIDE 4" PERFORATED DRAIN PIPE ON CRUSHED ROCK BED AT FOOTING PERIMETER. DRAIN TO SUMP UNLESS NOTED OTHERWISE.
			07.1.2 APPLY ASPHALT WATERPROOFING, OR APPROVED EQUAL, TO ALL FOUNDATION WALLS. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
			07.2 BUILDING INSULATION
			07.2.1 SEE BUILDING ENVELOPE RESCHECK FOR MINIMUM INSULATION R-VALUES FOR ALL BUILDING ELEMENTS.
			07.2.3 EXTERIOR CORNERS SHALL BE FRAMED AS "CALIFORNIA" CORNERS TO ALLOW FOR CORNER INSULATION.
			07.2.4 INSULATE AT ALL FLOOR/CEILING ASSEMBLY CONNECTIONS. (I.E. BEHIND RIM BOARDS AND JOIST BEARING LOCATIONS)
			07.2.5 PROVIDE RIGID FOUNDATION INSULATION (HALF DRAPED) AT INSIDE OF STEM WALLS BELOW BASEMENT.
			07.2.6 PROTECT INSULATION MATERIALS FROM PHYSICAL DAMAGE AND FROM DETERIORATION BY MOISTURE, SOILING, AND OTHER SOURCES.
			07.3 SINGLE PLY MEMBRANE ROOFING
			07.3.1 INSTALL SHEET MEMBRANE ROOFING AND BASE FLASHING THAT ARE WATERTIGHT; WILL NOT PERMIT THE PASSAGE OF LIQUID WATER; AND WILL WITHSTAND WIND LOADS, THERMALLY INDUCED MOVEMENT, AND EXPOSURE TO WEATHER WITHOUT FAILURE.
			07.3.2 PROVIDE ROOFING MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER UNDER CONDITIONS OF SERVICE AND APPLICATION REQUIRED.
			07.4 ASPHALT SHINGLE
			07.4.1 PROVIDE 30# ASPHALT SATURATED FELT OVER ALL ROOF SHEATHING AT SHINGLED ROOF - LAP OVER ICE AND WATER SHIELD.
			07.4.2 PROVIDE CORROSION RESISTANT CONTINUOUS METAL DRIP-EDGE AT ROOF PERIMETER.
			07.4.3 ALL PITCHED ROOFS WITH SHINGLE FINISH SHALL HAVE SELF-ADHERING SHEET MEMBRANE (GRACE ICE AND WATER SHIELD OR APPROVED EQUAL) AT ALL VALLEYS TO 2'-0" MIN. FROM VALLEY LINE, AND AT ALL SOFFITS/OVERHANGS OF ROOF (EXTEND MEMBRANE TO 2'-0" MIN. OVER INSULATED ATTIC SPACE).
			07.5 METAL ROOFING
			07.5.1 METAL ROOFING TO COMPLY WITH DETAILS SHOWN AND APPLICABLE REQUIREMENTS OF SMACNA "ARCHITECTURAL SHEET METAL MANUAL" AND OTHER RECOGNIZED INDUSTRY PRACTICES.
			07.5.2 PROVIDE SEPARATION OF METAL ROOFING FROM NONCOMPATIBLE METAL OR CORROSIVE SUBSTRATES BY COATING CONCEALED SURFACES AT LOCATIONS OF CONTACT, WITH BITUMINOUS COATING OR OTHER PERMANENT SEPARATION AS RECOMMENDED BY MANUFACTURER/FABRICATOR.
			07.5.3 WHERE STAINLESS STEEL OR ALUMINUM ROOFING IS TO BE INSTALLED DIRECTLY ON CEMENTITIOUS OR WOOD SUBSTRATES, INSTALL A SLIP SHEET OF RED ROSIN PAPER AND COURSE OF POLYETHYLENE UNDERLAYMENT. BED FLANGES OF WORK IN THICK COAT OF BITUMINOUS ROOFING CEMENT WHERE REQUIRED FOR WATERPROOFING PERFORMANCE.
			07.5.4 ALL METAL FINISHES TO COMPLY WITH NAAMM'S "METAL FINISHES MANUAL FOR ARCHITECTURAL METAL PRODUCTS" FOR RECOMMENDATIONS RELATIVE TO APPLYING AND DESIGNATING FINISHES.

ARCHITECTURAL SPECIFICATIONS (CONT.)				CONSULTANT
07.7.1 PROVIDE COLOR SAMPLE CHART FOR SELECTION OF COLOR FOR TRAFFIC COATINGS.		07.15 JOINT SEALANTS		31 - EARTHWORK
07.7.2 PROVIDE MIN. 4-INCH SQUARE SIZE OF COATING MOUNTED ON PLYWOOD BACKING ILLUSTRATING COLOR AND TEXTURE SELECTED.		07.15.1 SPECIAL INSTALLER'S WARRANTY: INSTALLER AGREES TO REPAIR OR REPLACE JOINT SEALANTS THAT DO NOT COMPLY WITH PERFORMANCE AND OTHER REQUIREMENTS SPECIFIED IN THIS SECTION WITHIN A 2 YEAR WARRANTY PERIOD.	09 - FINISHES	
07.7.3 PROVIDE MOCKUP OF SIZE INDICATED OR DIRECTED OF EACH TRAFFIC COATING APPLICATION AND SUBSTRATE TO RECEIVE TRAFFIC COATING FOR EVALUATION. MOCKUP MAY REMAIN AS PART OF WORK.		07.15.2 SPECIAL MANUFACTURER'S WARRANTY: MANUFACTURER AGREES TO FURNISH JOINT SEALANTS TO REPAIR OR REPLACE THOSE JOINT SEALANTS THAT DO NOT COMPLY WITH PERFORMANCE AND OTHER REQUIREMENTS SPECIFIED IN THIS SECTION WITHIN A 5 YEAR WARRANTY PERIOD.	09.1 GYPSUM BOARD	31.0 GENERAL
07.8.4 TRAFFIC COATINGS TO BE TRAFFIC-BEARING, SEAMLESS, HIGH-SOLIDS-CONTENT, ONE-PART, COLD-LIQUID-APPLIED, POLYURETHANE WATERPROOFING SYSTEM COMPLYING WITH ASTM C 957.		07.15.3 COLOR OF EXPOSED JOINT SEALANTS AS PER ARCHITECT.	09.1.1 ALL INTERIOR WALLS TO BE WRAPPED WITH 5/8" GYPSUM WALL BOARD, TAPED, FILLED, AND FINISHED AS PER ROOM FINISH SCHEDULE AND OWNER.	31.0.1 ALL FINISH GRADING TO SLOPE AWAY FROM PROPOSED STRUCTURES AT 5% MIN. FOR A MIN. OF 10'-0" FROM STRUCTURE.
07.7.5 ALLOW TRAFFIC COATINGS TO CURE A MIN. OF 48 HOURS BEFORE OPENING AREAS TO TRAFFIC.		07.15.4 CONTRACTOR TO SUBMIT PROPOSED JOINT SEALANTS FOR REVIEW AND APPROVAL BY ARCHITECT PRIOR TO APPLICATION.	09.1.2 PROVIDE INTERIOR GYPSUM WALLBOARD IN MAXIMUM PANEL LENGTHS AND WIDTHS AVAILABLE THAT WILL MINIMIZE JOINTS IN EACH AREA AND CORRESPOND WITH SUPPORT SYSTEM INDICATED.	31.0.2 ALL SITE CONCRETE TO SLOPE AWAY FROM PROPOSED STRUCTURE AT 2% SLOPE MIN. FOR A MIN. OF 10'-0" FROM STRUCTURE.
07.8 FIBER CEMENT SIDING		07.15.5 JOINT SEALANT APPLICATION TO COMPLY WITH ASTM C 1193 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.	09.1.3 FINISH GYPSUM BOARD PANELS AS PER ASTM C 840 AND GA-216.	31.0.3 OWNER TO ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY-CONTROL TESTING FOR ALL BACKFILL.
07.8.1 PROVIDE SAMPLES FOR EACH TYPE OF FIBER-CEMENT SIDING INDICATED IN DRAWINGS. SAMPLE TO INCLUDE 12-INCH LONG BY ACTUAL PRODUCT WIDTH FOR EACH TYPE, COLOR, TEXTURE, AND PATTERN.		07.15.6 INSTALL SEALANT BACKINGS OF KIND INDICATED TO SUPPORT SEALANTS DURING APPLICATION AND AT POSITION REQUIRED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS OF INSTALLED SEALANTS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.	09.2 INTERIOR TRIM	31.0.4 CONTRACTOR TO PROTECT NEWLY GRADED AREAS FROM TRAFFIC, FREEZING, AND EROSION. KEEP FREE OF TRASH AND DEBRIS.
07.8.2 PROCEED WITH SIDING ONLY IF SUBSTRATE IS COMPLETELY DRY AND IF EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT SIDING TO BE INSTALLED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.		07.15.7 INSTALL BOND-BREAKER TAPE BEHIND SEALANTS WHERE SEALANT BACKINGS ARE NOT USED BETWEEN SEALANTS AND BACKS OF JOINTS.	09.2.1 INTERIOR TRIM ACCESSORIES TO COMPLY WITH ASTM C 104 7.	31.0.5 CONTRACTOR TO DISPOSE OF ALL WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRAS, AND DEBRIS, OFF OWNER'S PROPERTY.
07.8.3 COORDINATE INSTALLATION OF SIDING WITH FLASHINGS AND OTHER ADJOINING CONSTRUCTION TO ENSURE PROPER SEQUENCING.			09.3 CEILINGS	31.1 DRAINAGE
07.8.4 FIBER-CEMENT SIDING AND TRIM TO BE PURCHASED FROM THE SAME MANUFACTURER.			09.3.1 COORDINATE INSTALLATION OF CEILING SUSPENSION SYSTEMS WITH INSTALLATION OF OVERHEAD STRUCTURE TO ENSURE THAT INSERTS AND OTHER PROVISIONS FOR ANCHORAGES TO STRUCTURE HAVE BEEN INSTALLED TO RECEIVE HANGERS.	31.1.1 DRAINAGE PATTERN OF FINISH GRADE SHALL NOT CHANGE DRAINAGE PATTERN ONTO ADJACENT LOTS.
07.8.5 COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR FIBER-CEMENT SIDING UNLESS MORE STRINGENT REQUIREMENTS APPLY.			09.3.2 INSTALL SUPPLEMENTARY FRAMING, BLOCKING, AND BRACING TO SUPPORT FIXTURE, EQUIPMENT , HEAVY TRIM, GRAB BARS, TOILET ACCESSORIES, FURNISHINGS, OR SIMILAR CONSTRUCTION.	31.1.2 CONTRACTOR TO PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
07.9 FLASHING			09.3.3 DO NOT INSTALL ACOUSTICAL PANELS CEILING UNTIL SPACES ARE ENCLOSED AND WEATHERPROOFED. WET-WORK IN SPACES IS COMPLETE AND DRY, WORK ABOVE CEILING IS COMPLETE, AND AMBIENT TEMPERATURE AND HUMIDITY CONDITIONS ARE MAINTAINED AT DESIRED LEVELS.	31.2 IRRIGATION
07.9.1 INSTALL SHEET METAL FLASHING AND TRIM TO WITHSTAND WIND LOADS, STRUCTURAL MOVEMENT, THERMALLY INDUCED MOVEMENT, AND EXPOSURE TO WEATHERING WITHOUT FAILING, RATTLING, LEAKING, OR FASTENER DISENGAGEMENT.			09.3.4 BALANCE BORDER WIDTHS AT OPPOSITE EDGES OF EACH CEILING. AVOID USING LESS-THAN-HALF WIDTH PANELS AT BORDERS, AND COMPLY WITH LAYOUT SHOWN IN REFLECTED CEILING PLAN.	31.2.1 IF NOT PROVIDED BY ENGINEER CONTRACTOR IS TO SUBMIT AUTOMATIC UNDERGROUND IRRIGATION SYSTEM DESIGN FOR APPROVAL AT LEAST 30 DAYS PRIOR TO INSTALLATION.
07.9.2 QUALIFIED INDIVIDUAL REPRESENTING INSTALLER SHALL DESIGN GUTTER AND DOWNSPOUT CAPACITIES BASED ON 10 YEAR STORM CRITERIA FOR LOCALE.			09.3.5 INSTALL ACOUSTICAL PANEL CEILINGS TO COMPLY WITH PUBLICATIONS REFERENCED BELOW PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND CISCAS "CEILING SYSTEMS HANDBOOK"	
07.9.3 PROVIDE SHEET METAL FLASHING AND TRIM THAT DO NOT ALLOW WATER INFILTRATION TO BUILDING INTERIOR.			09.6 PAINTING	
07.9.4 SUBMIT SAMPLES OF SHEET METAL FLASHING AND TRIM INDICATING FACTORY-APPLIED COLOR FINISHES FOR INITIAL SELECTION.			09.6.1 PAINT ALL EXPOSED SURFACES U.N.O., EXCEPT PREFINISHED ITEMS, CONCEALED SURFACES, FINISHED METAL SURFACES, OPERATING PARTS, AND LABELS.	
			09.6.2 PROTECT WORK OF OTHER TRADES, WHETHER BEING PAINTED OR NOT, AGAINST DAMAGE BY PAINTING.	
07.11 THROUGH-PENETRATION FIRESTOP			09.7 CARPET	
07.11.1 FOR PENETRATIONS THROUGH FIRE-RESISTANCE-RATED CONSTRUCTIONS PROVIDE THROUGH-PENETRATION FIRESTOP SYSTEMS PRODUCED AND INSTALLED TO RESIST SPREAD OF FIRE ACCORDING TO REQUIREMENTS INDICATED, RESIST PASSAGE OF SMOKE AND OTHER GASES, AND MAINTAIN ORIGINAL FIRE-RESISTANCE RATING OF CONSTRUCTION PENETRATED.			09.7.1 PROVIDE SAMPLES FOR EACH CARPET COLOR AND TEXTURE REQUIRED. LABEL EACH SAMPLE WITH MANUFACTURER'S NAME, MATERIAL DESCRIPTION, COLOR, PATTERN, AND DESIGNATION INDICATED ON DRAWINGS AND SCHEDULES.	
07.11.2 PROVIDE THROUGH-PENETRATION FIRESTOP SYSTEMS DETERMINED IN ACCORDANCE WITH ASTM E 814 OR UL 1479.			09.7.2 COMPLY WITH CRI 104 FOR ALL CARPET INSTALLATION.	
07.11.3 FOR THROUGH-PENETRATION FIRESTOP SYSTEMS EXPOSED TO VIEW, PROVIDE PRODUCTS WITH FLAME-SPREAD AND SMOKE-DEVELOPED INDEXES OF LESS THAN 25 AND 450, RESPECTIVELY, AS DETERMINED IN ACCORDANCE WITH ASTM E 84.			09.7.3 COMPLY WITH CRI 104, SECTION 5 "STORAGE AND HANDLING" FOR CARPET STORAGE AND HANDLING.	
07.11.4 PROVIDE SHOP DRAWINGS INDICATING LOCATION OF EACH THROUGH-PENETRATION FIRE STOP SYSTEM ALONG WITH THE TYPES OF PENETRATING ITEM, TYPES OF CONSTRUCTION PENETRATED, AND THROUGH-PENETRATION FIRESTOP SYSTEM FOR EACH LOCATION.			09.7.4 COMPLY WITH CRI 104, SECTION 7.2 "SITE CONDITIONS; TEMPERATURE AND HUMIDITY" AND SECTION 7.12 "VENTILATION" DURING CARPET INSTALLATION.	
07.11.5 INSTALL THROUGH-PENETRATION FIRESTOP SYSTEM AS PRE MANUFACTURER, INCLUDING AMBIENT AND SUBSTRATE TEMPERATURES AT TIME OF INSTALLATION.			09.7.5 DO NOT INSTALL CARPET AND CARPET CUSHION OVER CONCRETE SLABS UNTIL SLABS HAVE CURED, ARE SUFFICIENTLY DRY TO BOND WITH ADHESIVE, A DN HAVE PH RANGE RECOMMENDED BY MANUFACTURER.	
07.11.6 VENTILATE THROUGH-PENETRATION FIRESTOP SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTION.			09.7.6 COMPLY WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR SEAM LOCATIONS AND DIRECTION OF CARPET; MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE. AT DOORWAYS, CENTER SEAMS UNDER THE DOOR IN CLOSED POSITION.	
07.12 FOAMED-IN-PLACE INSULATION			09.7.7 CUT AND FIT CARPET TO BUTT TIGHTLY TO VERTICAL SURFACES, PERMANENT FIXTURES, AND BUILT-IN FURNITURE INCLUDING CABINETS, PIPES, OUTLETS, EDGINGS, THRESHOLDS, AND NOSINGS. BIND OR SEAL CUT EDGES AS RECOMMENDED BY MANUFACTURER.	
07.12.1 CLOSED-CELL SPRAY POLYURETHANE FOAM: ASTM C 1029, TYPE II, MINIMUM DENSITY OF 1.5 LB./CU.FT. AND MINIMUM AGED R-VALUE AT 1 IN. THICKNESS OF R-6.2.			09.7.8 EXTEND CARPET INTO TOE SPACES, DOOR REVEALS, CLOSETS, OPEN-BOTTOMED OBSTRUCTION, REMOVABLE FLANGES, ALCOVES, AND SIMILAR OPENINGS.	
07.12.2 INSTALL AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS APPLICABLE TO PRODUCTS AND APPLICATIONS.			09.7.9 INSTALL CARPET CUSHION SEAMS AT 90-DEG ANGLE WITH CARPET SEAMS.	
07.12.3 APPLY IN MULTIPLE PASSES TO NOT EXCEED MAXIMUM THICKNESSES RECOMMENDED BY MANUFACTURER. DO NOT SPRAY INTO RISING FOAM.			09.8 RESILIENT TILE FLOOR	
07.13 WEATHER BARRIERS			10.1 WALL PROTECTION	
07.13.1 BUILDING WRAP: ASTM E 1677, TYPE I AIR BARRIER; WITH FLAME-SPREAD AND SMOKE-DEVELOPED INDEXES OF LESS THAN 25 AND 450, RESPECTIVELY, WHEN TESTED ACCORDING TO ASTM E 84; UV STABILIZED; AND ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. WATER-VAPOR PERMANENCE OF NOT LESS THAN 50 PERMS PER ASTM E 96/E 96M.			10.1.1 PROVIDE SUBMITTAL FOR EACH TYPE OF WALL AND CORNER GUARD OF 12-INCH LONG INCLUDING EXAMPLES OF JOINERY, CORNERS, END CAPS AND FIELD SPLICES.	
07.13.2 BUILDING-WRAP TAPE; PRESSURE-SENSITIVE PLASTIC TAPE RECOMMENDED BY BUILDING-WRAP MANUFACTURER FOR SEALING JOINTS AND PENETRATIONS IN BUILDING WRAP.			10.1.2 VERIFY LOCATIONS OF WALLS, COLUMNS, AND OTHER CONSTRUCTION CONTIGUOUS WITH IMPACT-RESISTANT WALL-PROTECTION UNITS BY FIELD MEASUREMENTS BEFORE FABRICATION AND INDICATE MEASUREMENTS ON SHOP DRAWINGS.	
07.13.3 COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS FOR BUILDING WRAP INSTALLATION. SEAL SEAMS, EDGES, FASTENERS, AND PENETRATIONS WITH TAPE. EXTEND INTO JAMBS OF OPENINGS AND SEAL CORNERS WITH TAPE.			10.2 TOILET AND BATH ACCESSORIES	
07.14 VAPOR RETARDER			10.2.1 SUBMIT FULL SIZE SAMPLES FOR EACH TOILET AND BATH ACCESSORY ITEM TO VERIFY DESIGN, OPERATION, AND FINISH REQUIREMENTS. APPROVED FULL SIZE SAMPLES WILL BE RETURNED AND MAY BE USED IN THE WORK.	
07.14.1 POLYETHYLENE VAPOR RETARDERS: ASTM D 4397, 10-MIL THICK SHEET, WITH MAX. PERMANENCE RATING OF 0.1 PERM.			10.2.2 SUBMIT PRODUCT SCHEDULE INDICATING TYPES, QUANTITIES, SIZES, AND INSTALLATION LOCATIONS BY ROOM FOR EACH TOILET AND BATH ACCESSORY.	
07.14.2 EXTEND VAPOR RETARDERS TO EXTREMITIES OF AREAS TO PROTECT FROM VAPOR TRANSMISSION. SECURE VAPOR RETARDERS IN PLACE WITH ADHESIVES, VAPOR RETARDER FASTENERS, OR OTHER ANCHORAGE SYSTEM AS RECOMMENDED BY MANUFACTURER. EXTEND VAPOR RETARDERS TO COVER MISCELLANEOUS VOIDS IN INSULATED SUBSTRATES, INCLUDING THOSE FILLED WITH LOOSE-FIBER INSULATION.			10.2.3 COORDINATE ACCESSORY LOCATIONS WITH OTHER WORK TO PREVENT INTERFERENCE WITH CLEARANCES REQUIRED FOR ACCESS BY PEOPLE WITH DISABILITIES, AND FOR PROPER INSTALLATION, ADJUSTMENT, OPERATION, CLEANING, AND SERVICING OF ACCESSORIES.	
07.14.3 SEAL VERTICAL JOINTS IN VAPOR RETARDERS OVER FRAMING BY LAPPING NO FEWER THAN TWO STUDS AND SEALING WITH VAPOR-RETARDER TAPE ACCORDING TO VAPOR-RETARDER MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE ALL JOINTS OVER FRAMING MEMBERS OR OTHER SOLID SUBSTRATES.			10.2.4 PROVIDE MANUFACTURER'S WARRANTY IN WHICH MANUFACTURER AGREES TO REPLACE MIRRORS THAT DEVELOP VISIBLE SILVER SPOILAGE DEFECTS AND THAT FAIL IN MATERIAL OR WORKMANSHIP WITHIN A 15-YEAR WARRANTY PERIOD.	
07.14.4 SEAL JOINTS CAUSED BY PIPES, CONDUITS, ELECTRICAL BOXES, AND SIMILAR ITEMS PENETRATING VAPOR RETARDERS WITH VAPOR-RETARDER TAPE TO CREATE AN AIRTIGHT SEAL BETWEEN PENETRATING OBJECTS AND VAPOR RETARDERS.			10.2.5 PROVIDE BLOCKING FOR ALL TOILET AND BATH ACCESSORIES.	
07.14.5 REPAIR TEARS OR PUNCTURES IN VAPOR RETARDERS IMMEDIATELY BEFORE CONCEALMENT BY OTHER WORK. COVER WITH VAPOR-RETARDER TAPE OR ANOTHER LAYER OF VAPOR RETARDERS.			10.3 FIRE EXTINGUISHERS	
			10.3.1 SUBMIT PRODUCT DATA INCLUDING CONSTRUCTION DETAILS, MATERIAL DESCRIPTIONS, DIMENSIONS OF INDIVIDUAL COMPONENTS AND PROFILES, AND FINISHES FOR FIRE EXTINGUISHERS AND CABINETS.	
			10.3.2 FURNISH AND INSTALL PORTABLE FIRE EXTINGUISHERS AND FIRE PROTECTION CABINETS IN ACCORDANCE WITH CONTRACT DOCUMENTS AND IN COORDINATION WITH THE FIRE MARSHAL.	
			10.3.3 FIRE EXTINGUISHERS TO BE FABRICATED AND LABELED TO COMPLY WITH NFPA 10 "PORTABLE FIRE EXTINGUISHERS"	
			10.3.4 FIRE EXTINGUISHER CABINETS TO COMPLY WITH REQUIREMENTS OF ASTM E 814 FOR FIRE-RESISTANCE RATING OF WALLS WHERE INSTALLED.	
			10.3.5 EXAMINE FIRE EXTINGUISHERS FOR PROPER CHARGING AND TAGGING. REMOVE AND REPLACE DAMAGED, DEFECTIVE, OR UNDERCHARGED UNITS.	

CIVIL GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE FOLLOWING: PROJECT PLANS AND SPECIFICATIONS, JORDANELLE SPECIAL SERVICE DISTRICT STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS.
2. PRIOR TO PERFORMING ANY WORK, THE CONTRACTOR SHALL CONTACT CONSTRUCTION MANAGER FOR A PRE-CONSTRUCTION CONFERENCE
3. IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND CONTRACTOR PROVIDED MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IMMEDIATELY REGARDING ANY DISCREPANCIES OR DISCREPANCIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. THE CONSTRUCTION MANAGER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE.
4. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.
5. THE CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR, IT SHALL BE EXPECTED THAT PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND CONTRACTOR PROVIDED MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE, AND HAVE SPECIAL SKILLS ON THE NATURE, EXTEND, AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN PECULIAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES, WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR PECULIAR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS AND CONDITIONS OF ALL PERMITS AND APPROVALS APPLICABLE TO THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT THE NECESSARY RIGHTS-OF-WAY, EASEMENTS, AND/OR PERMITS ARE SECURED PRIOR TO CONSTRUCTION
7. CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT WHERE APPLICABLE FOR ANY WORK DONE WITHIN RIGHTS-OF-WAY OR EASEMENTS FROM HEBER CITY, WASATCH COUNTY, AND/OR UDOT. CONTRACTOR SHALL NOTIFY CITY, COUNTY, AND/OR STATE, 24 HOURS IN ADVANCE OF COMMENCING THE WORK, OR AS REQUIRED BY SAID PERMITS
8. THE CONTRACTOR SHALL, AT THE TIME OF BIDDING, AND THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE OF UTAH AND SHALL BE BONDABLE FOR AN AMOUNT EQUAL TO OR GREATER THAN THE AMOUNT BID AND TO DO THE TYPE OF WORK CONTEMPLATED IN THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PLANS AND SPECIFICATIONS
9. CONTRACTOR SHALL INSPECT THE SITE OF THE WORK PRIOR TO BIDDING TO SATISFY THEMSELVES BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS THEY MAY PREFER, OF THE LOCATION OF THE PROPOSED WORK, AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK. IF, DURING THE COURSE OF THEIR EXAMINATION, A BIDDER FINDS FACTS OR CONDITIONS WHICH APPEAR TO THEM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, THEY SHALL CONTACT THE CONSTRUCTION MANAGER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING THEIR BID.
10. SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, THEY HAVE RELIED AND ARE RELYING ON THEIR OWN EXAMINATION OF: (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON THEIR OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT.
11. THE INFORMATION PROVIDED BY THE OWNER OR THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF THE SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT THEY HAVE NOT RELIED SOLELY UPON OWNER OR ENGINEER FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING THEIR BID.
12. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
13. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTORS USE DURING CONSTRUCTION
14. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE CONSTRUCTION MANAGER.
15. THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.
16. THE CONTRACTOR AGREES THAT:
- A. THEY SHALL BE RESPONSIBLE TO CLEAN THE JOB SITE AT THE END OF EACH PHASE OF WORK
 - B. THEY SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL TRASH, SCRAP AND UNUSED MATERIAL AT THEIR OWN EXPENSE IN A TIMELY MANNER.
 - C. THEY SHALL BE RESPONSIBLE TO MAINTAIN THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES
 - D. THEY SHALL BE RESPONSIBLE TO KEEP MATERIALS, EQUIPMENT, AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS NOT TO DELAY THE JOB. FAILURE TO DO SO WILL RESULT IN A DEDUCTION FOR THE COST OF CLEAN UP FROM THE FINAL PAYMENT
 - E. THEY SHALL BE RESPONSIBLE FOR THEIR OWN SAFETY, TRAFFIC CONTROLS, PERMITS, RETESTING AND RE-INSPECTIONS AT THEIR OWN EXPENSE
 - F. UNLESS OTHERWISE NOTED ALL EXCESS SOILS AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LAWFULLY DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.
 - G. MAINTAIN EROSION CONTROL MEASURES ASSOCIATED WITH THE JOBS SITE AS DESIGNATED IN SWPPP
 - H. COMPLY WITH APPLICABLE OSHA AND RSHS STANDARDS
16. THE CONTRACTOR SHALL PROVIDE PROOF OF INSURANCE WITH JSSD AND BT ENGINEERING IDENTIFIED "ADDITIONAL INSURED".
17. DUST TO BE CONTROLLED 24 HOURS PER DAY, 7 DAYS PER WEEK, AS CONDITIONS DICTATE
18. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKING
19. FOR ALL WORK WITHIN PUBLIC RIGHTS-OF-WAY OR EASEMENTS, THE CONTRACTOR SHALL PRESERVE THE INTEGRITY AND LOCATION OF ANY AND ALL PUBLIC UTILITIES AND PROVIDE THE NECESSARY CONSTRUCTION PROTECTIVE CONTROL. CONTRACTOR SHALL, THROUGH THE ENCROACHMENT PERMIT PROCESS, VERIFY WITH THE NECESSARY REGULATORY AGENCIES, THE NEED FOR ANY TRAFFIC ROUTING PLAN. IF A PLAN IS REQUIRED, CONTRACTOR SHALL PROVIDE A PLAN AND RECEIVE PROPER APPROVALS PRIOR TO BEGINNING CONSTRUCTION.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR; ALL RE-TESTING AND/OR RE-INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.
21. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT OF EXISTING IMPROVEMENTS. THERE WILL BE NO EXTRA COST DUE THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.

22. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, AFTER PROPER BACKFILLING AND/OR CONSTRUCTION, WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE CONSTRUCTION MANAGER, AND THE RESPECTIVE REGULATORY AGENCY.
23. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF PIPING, STRUCTURES AND OTHER FACILITIES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR PRIOR TO ACCEPTANCE OF THE PROJECT. THE CONTRACTOR SHALL DELIVER TO THE CONSTRUCTION MANAGER, ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD PRECONDITION TO FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.
24. WORK IN EASEMENTS AND/OR RIGHTS-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE REGULATORY AGENCY RESPONSIBLE FOR OPERATION AND/OR MAINTENANCE OF SAID EASEMENTS AND/OR RIGHTS-OF-WAY.

CLEARING AND GRADING NOTES

1. THE EXISTING TOPOGRAPHY SHOWN ON THESE PLANS IS BASED ON TOPOGRAPHIC SURVEY PREPARED BY LAYTON SURVEYS
2. CONTRACTOR SHALL PROVIDE A TEMPORARY EROSION CONTROL PLAN AND SUBMIT REQUEST FOR SWPPP PERMIT. OWNER REQUIRED TO OBTAIN OTHER PERMITS FROM WASATCH COUNTY AND THE STATE OF UTAH FOR TEMPORARY EROSION CONTROL. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ALL TEMPORARY EROSION CONTROL AND MAINTENANCE, AND SHALL PROVIDE EROSION AND SEDIMENT CONTROL FORMS TO THE COUNTY.

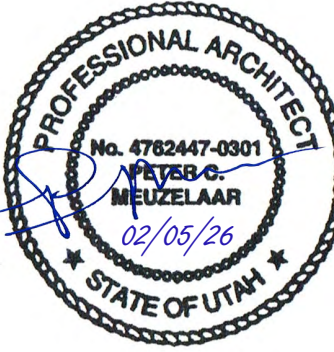
EROSION CONTROL NOTES

1. CONTROLLING SEDIMENT TRANSPORT AND PREVENTING AND/OR CORRECTING PROBLEMS ASSOCIATED WITH EROSION AND RUNOFF PROCESSES WHICH COULD OCCUR BOTH DURING AND AFTER PROJECT CONSTRUCTION WILL BE CLOSELY MONITORED. PERIODIC MAINTENANCE AND INSPECTION OF SEDIMENT CONTROL DEVICES WILL BE SCHEDULED BY CONTRACTOR. PARTICULAR ATTENTION SHALL BE GIVEN TO EXISTING DRAINAGE PATTERNS WHICH RUN THROUGH DISTURBED AREAS AND OVER EXTREME SLOPES, THESE PATTERNS WILL BE IDENTIFIED TO ISOLATE PROBLEM AREAS WHERE WATER WILL CONCENTRATE. PROVISIONS SHALL BE MADE TO CHANNEL RUNOFF AWAY FROM NEW OR EXISTING IMPROVEMENTS TO PREVENT UNDERMINING AND GENERAL SITE EROSION. THESE PROVISIONS SHALL BE STABILIZED AND SHALL REMAIN IN PLACE UNTIL THE PERMANENT STORM DRAINAGE FACILITIES ARE INSTALLED AND FUNCTIONAL.
2. BEFORE CONSTRUCTION BEGINS, THE LIMITS OF DISTURBANCE BOUNDARY SHALL BE FLAGGED ON SITE AND APPROVED BY OWNER AND THE ENGINEER. UNDER NO CIRCUMSTANCES SHALL SITE DISTURBANCE OCCUR OUTSIDE THE DESIGNATED AREAS AT ANY TIME DURING CONSTRUCTION
3. EXCAVATION AND EMBANKMENT OPERATIONS SHALL PROCEED IN SUCH A MANNER SO THAT FINISHING OF SLOPES SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER ROUGH GRADING. ALL SLOPES 2:1 OR FLATTER SHALL BE COMPACTED WITH HEAVY EQUIPMENT, LEAVING TRACKS PERPENDICULAR TO THE SLOPE.
4. CONTRACTOR TO PROVIDE STORM WATER POLLUTION PROTECTION PLAN TO THE OWNER AND ENGINEER FOR APPROVAL BEFORE COMMENCING ANY CONSTRUCTION ACTIVITIES. CONTRACTOR TO ALSO SUBMIT NOTICE OF INTENT TO STATE OF UTAH AND COMPLY WITH UPDES PERMIT REQUIREMENTS AND WASATCH COUNTY REQUIREMENTS.
5. SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED (PREFERABLY UNDISTURBED) GROUND, INTO A WATER COURSE, OR (IN THE CASE OF A SMALL DRAINAGE WAY) LEFT TO PERCOLATE INTO THE GROUND
6. STOCK PILES SHALL BE ENCIRCLED BY SILT FENCE. EROSION CONTROL TEMPORARY DIVERSIONS SHALL BE PLACED UPHILL OF STOCKPILES
7. ALL SLOPES 2:1 OR STEEPER SHALL BE SEEDED AND BLANKETED WITH AN APPROVED STRAW OR WOOD FIBER BLANKET PROPERLY STAPLED IN PLACE
8. SILT FENCE SHALL BE INSTALLED AT THE TOE OF ALL DOWN HILL SLOPES IN THE CONSTRUCTION AREAS. NO GRUBBED AREA SHALL BE WITHOUT SILT FENCE OR OTHER EROSION CONTROL DEVICE FOR LONGER THAN 48 HOURS. ALL SILT FENCE OR L.O.D. FENCING IS TO BE REPAIRED/REPLACED AS NECESSARY.
9. SILT DEPOSITED BEHIND SILT FENCES WILL BE REMOVED AS NECESSARY AFTER STORMS. REPORTING OF SILT REMOVAL WILL OCCUR DURING WEEKLY CONSTRUCTION MEETINGS
10. CONTRACTORS WILL MAINTAIN SILT FENCES UNTIL PERMANENT LANDSCAPING OR VEGETATIVE COVER IS ESTABLISHED.
11. ALL NATIVE DRAINAGE WAYS INTERCEPTED BY CONSTRUCTION WILL REQUIRE A SEDIMENT TRAP CONSTRUCTED IN THE NATURAL DRAINAGE COURSE. TRAPS MUST BE PLACED IN SURFACE DRAIN DITCHES UPSTREAM OF THE PROPERTY BOUNDARY PRIOR TO ENTERING A WATER COURSE OR IMMEDIATELY PROCEEDING INLETS OR AT DRAINAGE OUTLETS.

ISSUED:
FEBRUARY 05, 2026

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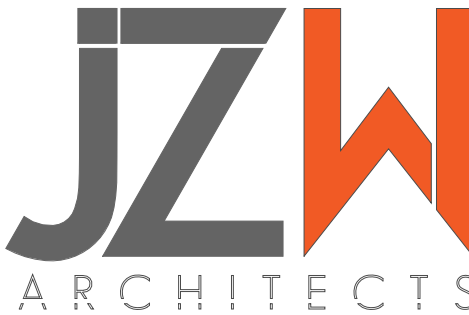
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PROJECT NUMBER:
25152

SPECIFICATIONS

G1.4



CHAPTER 3 - OCCUPANCY CLASSIFICATION

304 - BUSINESS GROUP **B**

CHAPTER 5 - GENERAL BUILDING HEIGHTS & AREAS

502 - BUILDING ADDRESS
502.1 - NEW AND EXISTING BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION

504 - BUILDING HEIGHT AND NUMBER OF STORIES
504.3 - ALLOWABLE BUILDING HEIGHT - 40' - 0"
- PROVIDED BUILDING HEIGHT - **27' - 6"**
504.4 - ALLOWABLE NUMBER OF STORIES - 2
- PROVIDED NUMBER OF STORIES - **1**

506 - BUILDING AREA
506.2 - ALLOWABLE AREA - 15,750 SF
TOTAL PROVIDED AREA - **5,040 SF**
(EXISTING AREA - 3,531 SF)
(ADDITION AREA - 1,517 SF)

$$A_a = A_t + (NS \times I)$$

A_t = TABULAR AREA = 9,000SF
 NS = TABULAR AREA = 9,000SF
 I = INCREASE FACTOR = 0.75
 A_a = ALLOWABLE AREA = **15,750SF**

CHAPTER 6 - TYPES OF CONSTRUCTION

601 - FIRE-RESISTANCE RATE REQUIREMENTS - **VB**
PRIMARY STRUCTURAL FRAME 0HR
BEARING WALLS
EXTERIOR 0HR
INTERIOR 0HR
NON BEARING WALLS 0HR
FLOOR CONSTRUCTION 0HR
ROOF CONSTRUCTION 0HR

CHAPTER 9 - FIRE PROTECTION AND LIFE SAFETY SYSTEMS

906 - PORTABLE FIRE EXTINGUISHERS
906.3 - MAXIMUM DISTANCE OF TRAVEL TO EXTINGUISHER = 75' - 0"

CHAPTER 10 - MEANS OF EGRESS

1004 - OCCUPANT LOAD
1004.2 - CUMULATIVE OCCUPANT LOADS
EXISTING OCCUPANT LOAD = 72
ADDITIONAL OCCUPANT LOAD = 11
TOTAL OCCUPANT LOAD = **83**

1006 - NUMBER OF EXITS
1006.3 - MINIMUM NUMBER OF EXITS
NUMBER OF EXITS REQUIRED = 2
NUMBER OF EXITS PROVIDED = **2**

1013 - EXIT SIGNS
1013.1 - EXIT SIGN PLACEMENT SHALL BE SUCH THAT ANY POINT IN AN EXIT ACCESS CORRIDOR OR EXIT PASSAGEWAY IS WITHIN 100 FEET FROM THE NEAREST VISIBLE EXIT SIGN

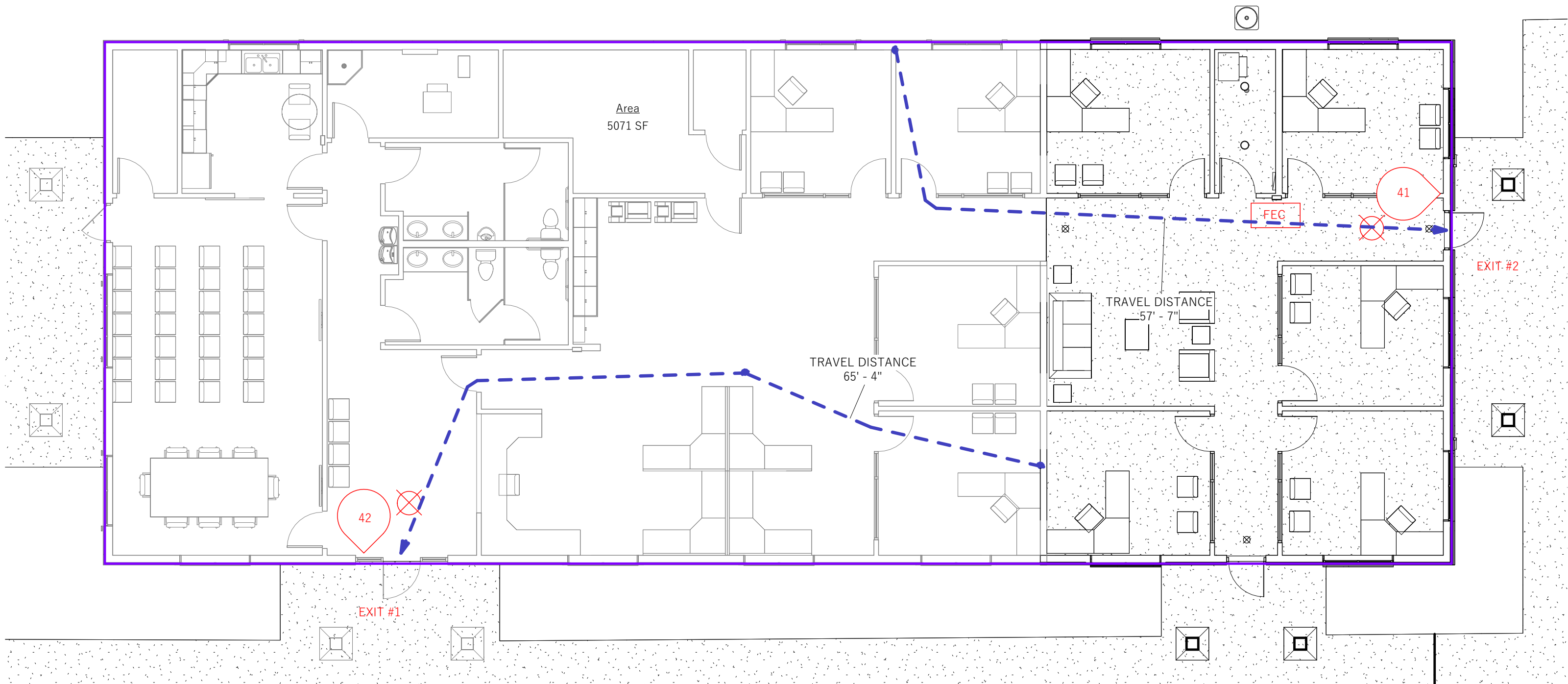
1017 - EXIT TRAVEL DISTANCE
1017.2 - MAXIMUM EXIT TRAVEL DISTANCE: 200' - 0"

CHAPTER 11 - ACCESSIBILITY

1106 - PARKING AND PASSENGER LOADING FACILITIES
1106.2 - ACCESSIBLE PARKING SPACES
ACCESSIBLE STALLS REQUIRED = 1 PER 25 STALLS
TOTAL PARKING STALLS PROVIDED = **20**
ACCESSIBLE STALLS PROVIDED = **1**
(HEBER CITY ZONING REQUIRES 4 PARKING STALLS PER 1,000 NET SF - 4,896 SF = 20 STALLS REQUIRED)

CHAPTER 29 - PLUMBING SYSTEMS

2902 - MINIMUM PLUMBING FACILITIES
2902.1 - MINIM NUMBER OF REQUIRED PLUMBING FIXTURES
TOTAL OCCUPANTS: 83
FACILITY
WATER CLOSETS
83 OCCUPANTS - 42 F/42 M = 1.68 F/1.68 M
PROVIDED = 2 F/2 M
LAVATORIES
83 OCCUPANTS - 42 F/42 M = 2 F/2 M
PROVIDED = 2 F/2 M
DRINKING FOUNTAINS
83 OCCUPANTS = 1 REQUIRED
PROVIDED = 1
SERVICE SINK
REQUIRED = 1
PROVIDED = 1



1
G2.1
LIFE SAFETY PLAN
1/8" = 1'-0"

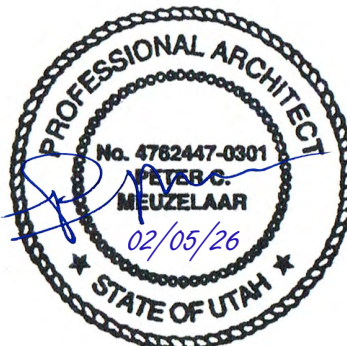
LIFE SAFETY LEGEND

- FIRE EXTINGUISHER LOCATION
- OCCUPANT LOAD AT EXIT
- EGRESS PATH OF TRAVEL
- CEILING MOUNTED EXIT SIGN

NOTE: REFER TO WALL TYPES FOR ASSEMBLY DETAILS

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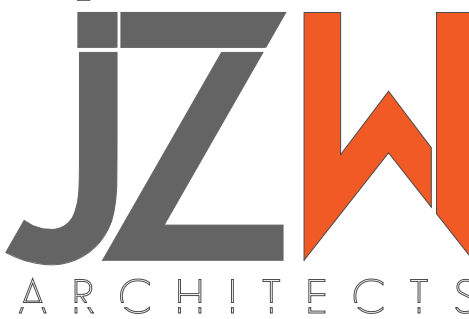
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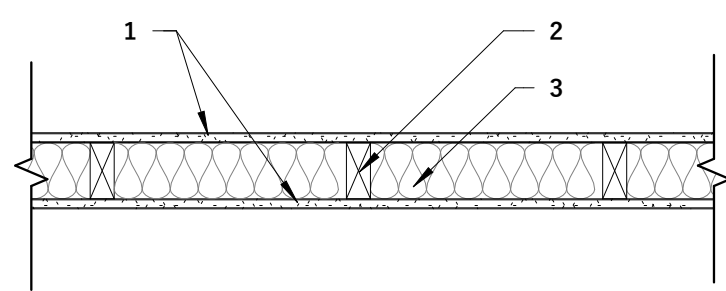


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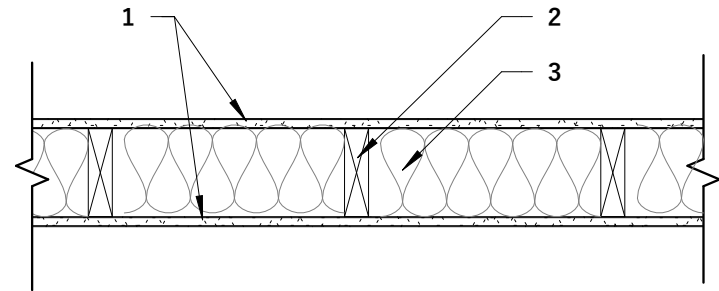
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ANALYSIS

G2.1

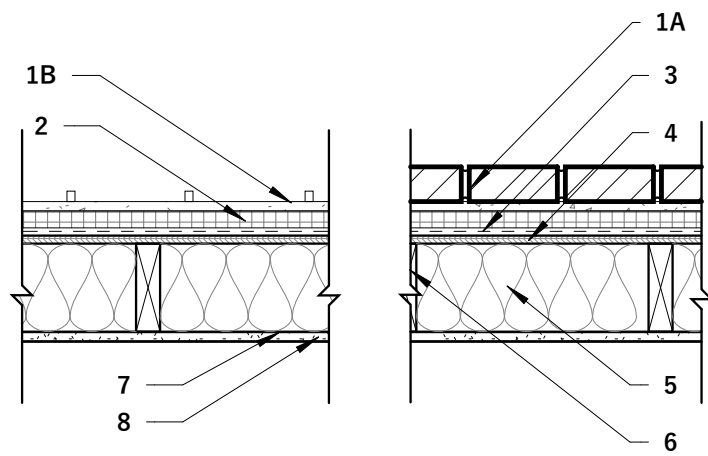




CONSTRUCTION:
1. GYPSUM BOARD: 5/8 IN.
2. WOOD STUDS: NOM 2X4 SPACED 16" O.C. UNO BY STRUCTURAL
3. SOUND BATT INSULATION: SOUND INSULATION PLACED IN STUD CAVITY

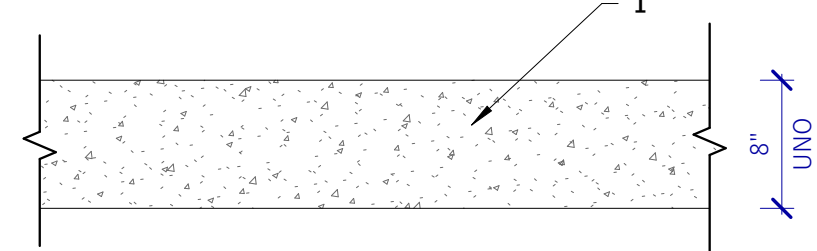


CONSTRUCTION:
1. GYPSUM BOARD: 5/8 IN.
2. WOOD STUDS: NOM 2X6 SPACED 16" O.C. UNO BY STRUCTURAL
3. SOUND BATT INSULATION: SOUND INSULATION PLACED IN STUD CAVITY



CONSTRUCTION FROM EXTERIOR SIDE:
1. **FINISH MATERIAL:** SEE BUILDING ELEVATIONS AND DETAILS FOR FINISH
A. STONE VENEER (MATCH EXISTING) - INSTALLED OVER CEMENT BACKER BOARD.
B. FIBER CEMENT BOARD AND BATTEN SIDING
2. **CONTINUOUS RIGID INSULATION:** R-3.8 MIN
3. **WEATHER RESISTIVE BARRIER:** VYCOR enV-S WRB, OR APPROVED EQUAL
4. **WOOD STRUCTURAL PANEL SHEATHING:** SEE STRUCTURAL DRAWINGS FOR REQUIREMENTS
5. **BATT INSULATION:** MIN. R-19 BATT INSULATION PLACED IN STUD CAVITY
6. **WOOD STUDS:** NOM 2X6 STUDS - SEE STRUCTURAL FOR REQUIREMENTS
7. **CONTINUOUS VAPOR BARRIER**
8. **GYPSUM BOARD:** 5/8" THICK, 4 FT WIDE, APPLIED VERTICALLY & NAILED TO STUDS & BEARING PLATES

NOTES:
A. REFER TO STRUCTURAL DRAWINGS FOR STUD SIZE, SHEATHING THICKNESS & NAILING PATTERNS.



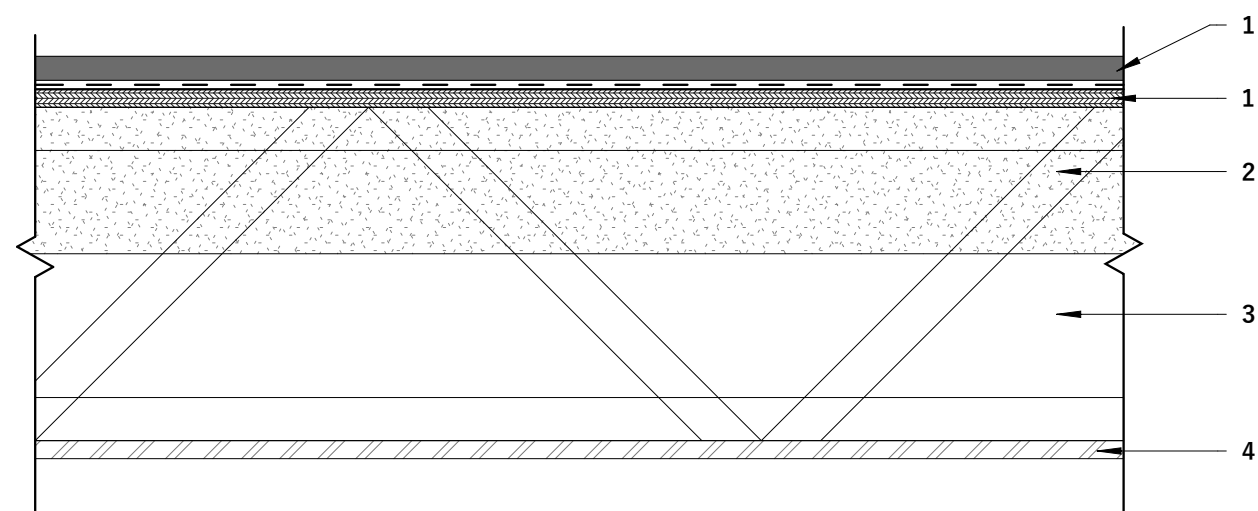
CONSTRUCTION FROM EXTERIOR SIDE:
1. **CONCRETE:** SEE STRUCTURAL FOR REQUIREMENTS

1A WALL TYPE 1A - INT WD - 2X4
G3.1 1" = 1'-0"

1B WALL TYPE 1B - INT WD - 2X6
G3.1 1" = 1'-0"

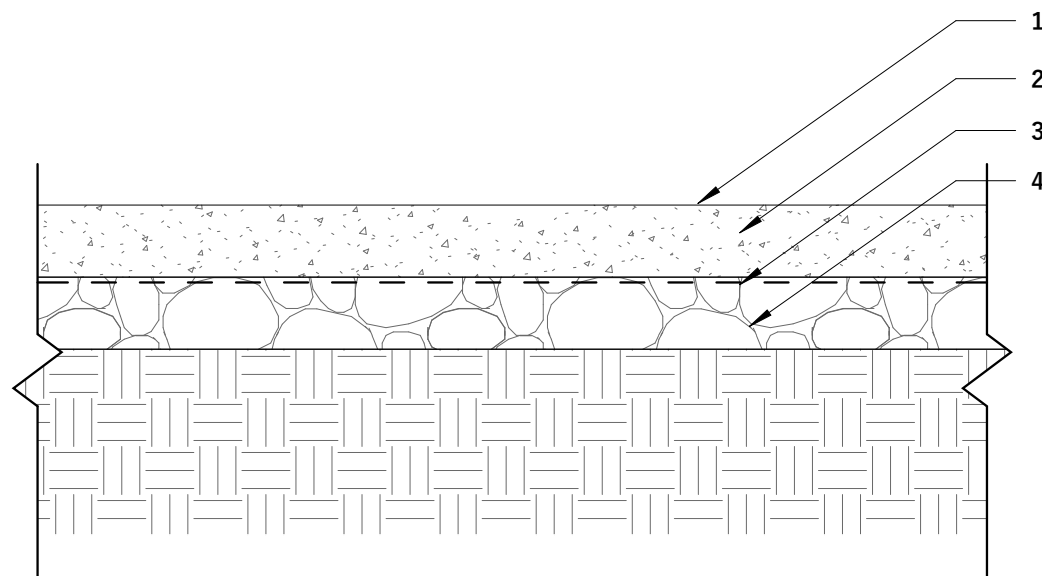
2A WALL TYPE 2A - EXT WD - 2X6 STONE
G3.1 1" = 1'-0"

3A WALL TYPE 3A - 8" CONCRETE - FOUNDATION WALL
G3.1 1" = 1'-0"



CONSTRUCTION:
1. **ROOFING SYSTEM:**
• SHEATHING: WOOD STRUCTURAL PANELS, SEE STRUCTURAL
• ROOF FINISH: ASPHALT SHINGLES (TO MATCH EXISTING) OVER GAF FELTBUSTER UNDERLAYMENT, OR APPROVED EQUAL)
2. **WOOD TRUSS:** SEE STRUCTURAL
3. **SPRAY FOAM INSULATION:** R-49 CLOSED CELL SPRAY FOAM INSULATION
4. **SOFFIT:** PRE-FINISHED METAL SOFFIT - COLOR AS PER OWNER

NOTES:
- REFER TO STRUCTURAL DRAWINGS FOR FRAMING, SHEATHING, AND NAILING REQUIREMENTS.



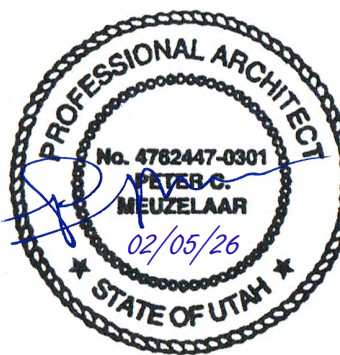
CONSTRUCTION:
1. **FINISH FLOORING:** PER OWNER
2. **CONCRETE SLAB:** 4" SLAB
3. **VAPOR BARRIER:** 10-MIL MIN. POLYETHYLENE SHEETING THAT MEETS ASTM E1745
4. **GRAVEL:** 4" COMPACTABLE GRANULAR FILL

1 TYP NON-RATED ROOF/CEILING (EXTERIOR)
G3.1 1 1/2" = 1'-0"

2 HORIZONTAL ASSEMBLY
G3.1 1 1/2" = 1'-0"

ISSUED:
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REVISIONS:
NO. DATE DESCRIPTION

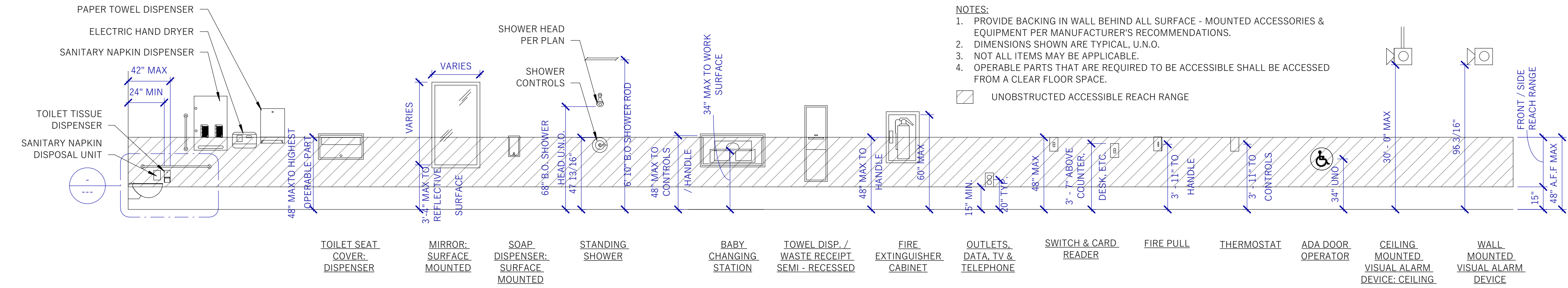


PROJECT NUMBER:
25152

WALL
TYPES/HORIZONT
ASSEMBLIES

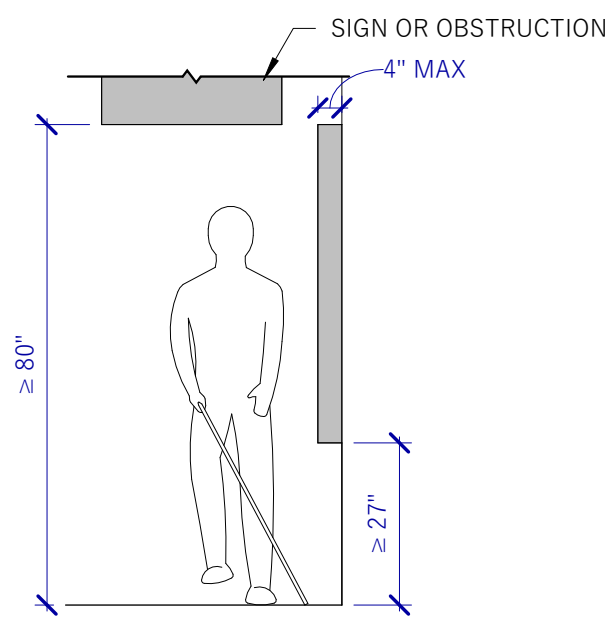
G3.1





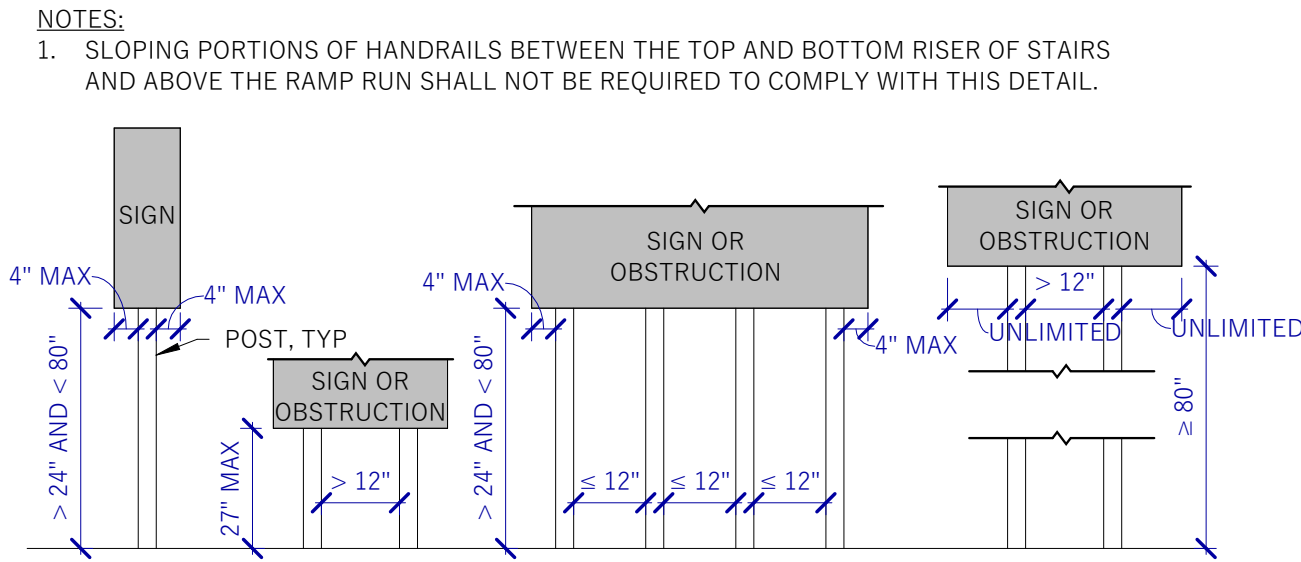
1
G4.2
1/4" = 1'-0"

ACCESSORIES AND EQUIPMENT



3
G4.2
3/8" = 1'-0"

LIMITS OF PROTRUDING OBJECTS



2
G4.2
3/8" = 1'-0"

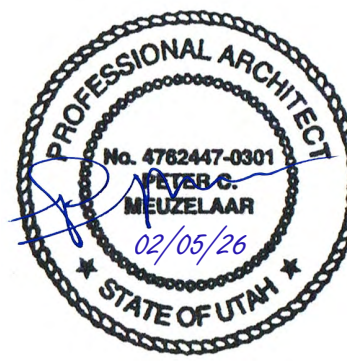
POST-MOUNTED PROTRUDING OBJECTS

CONSULTANT

JSSD OFFICE BUILDING ADDITION
5360 NORTH OLD HIGHWAY 40 HEBER CITY, UT 84032

ISSUED:
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PROJECT NUMBER:
25152

ACCESSIBILITY
DETAILS



TOTAL = 3,880 SF = 20 PARKING STALLS

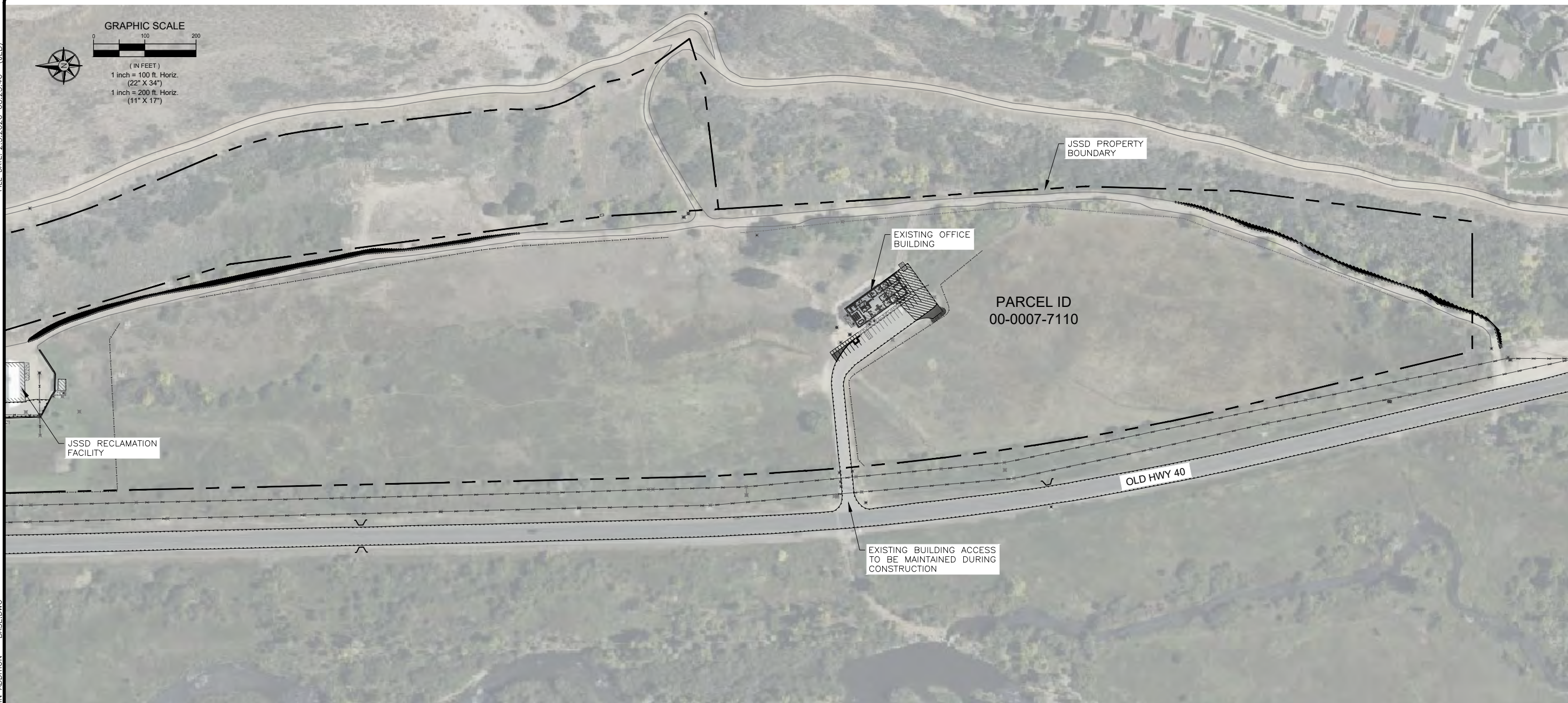
PROFESSIONAL ENGINEER
No. 324092
TAVIS B.
TIMOTHY
2-5-2020
STATE OF UTAH

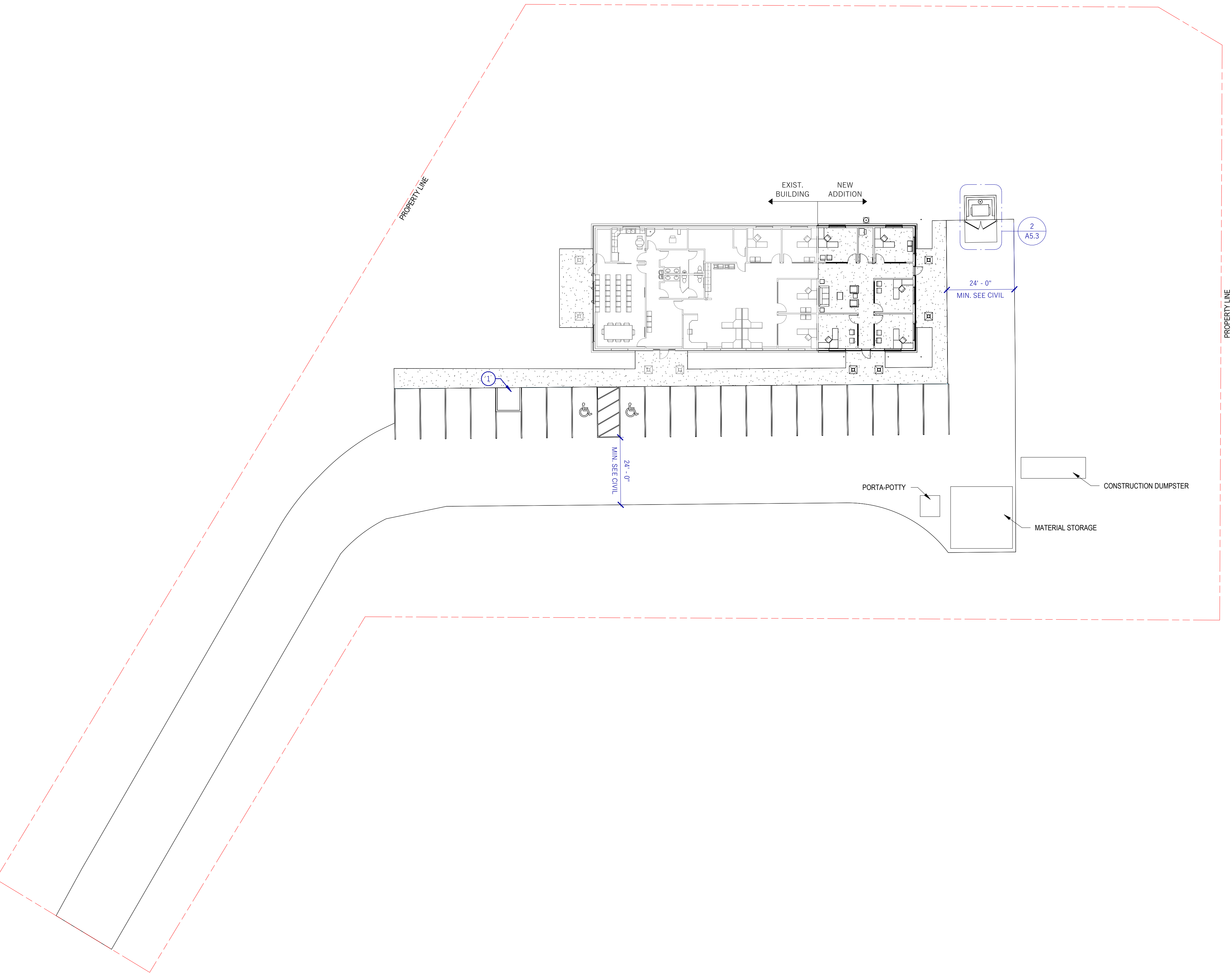
[illegible]

PROJECT NO.:	DATE:
09.01.007	02/05/2026
DRAWN BY:	CHECKED BY:
JB	TT
PROJECT MANAGER:	
T. TIMOTHY	

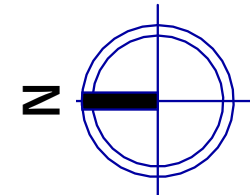
SITE VICINITY PLAN

CS 101





1
A0.1
ARCHITECTURAL SITE PLAN
1" = 20'-0"



GENERAL NOTES - SITE PLAN

- A SEE GENERAL PROJECT NOTES, ROOF PLAN AND/OR FRAMING PLAN FOR ROOF PITCHES, ROOF BEARING AND STRUCTURAL REQUIREMENTS.
- B CONCRETE TO SLOPE AWAY FROM BUILDING AT 2% SLOPE MIN.
- C ALL CONCRETE STAIRS TO CONFORM TO I.B.C. REQUIREMENTS.
- D COORDINATE WITH CIVIL ENGINEERING DRAWINGS AND LANDSCAPE DRAWINGS FOR FINISH FLOOR ELEVATION OF BUILDING AND CUT AND FILL FOR SITE WORK.

KEYED NOTES

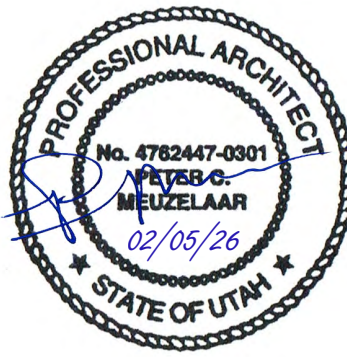
- 1 ISLAND; SEE CIVIL

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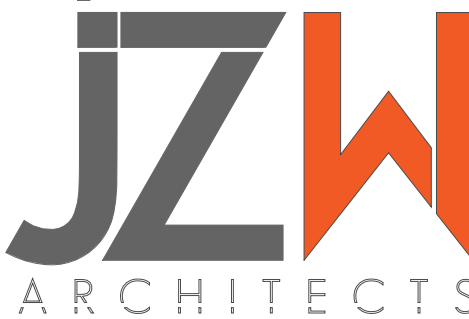
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NO. DATE DESCRIPTION

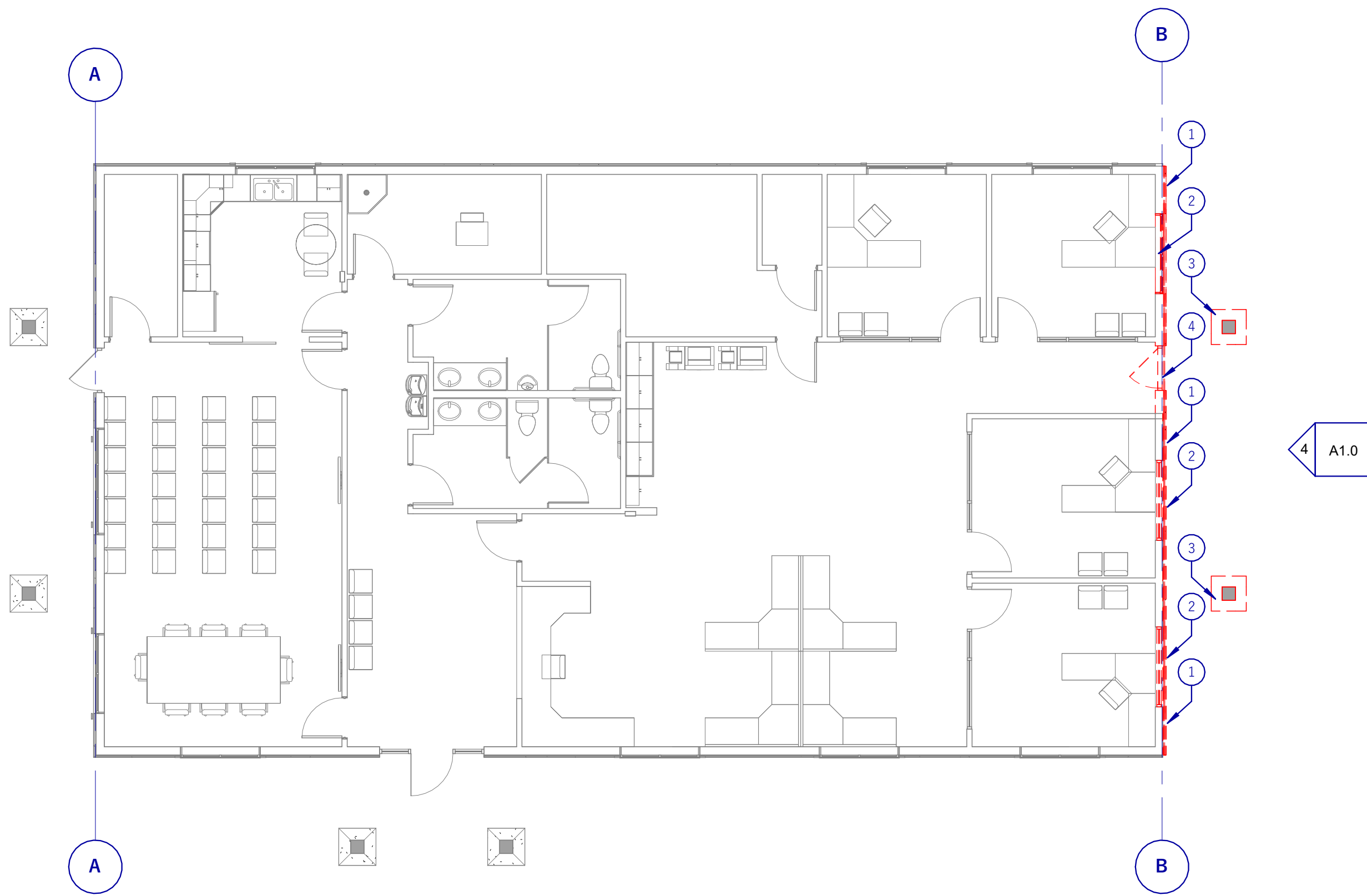


PROJECT NUMBER:
25152

ARCHITECTURAL
SITE PLAN

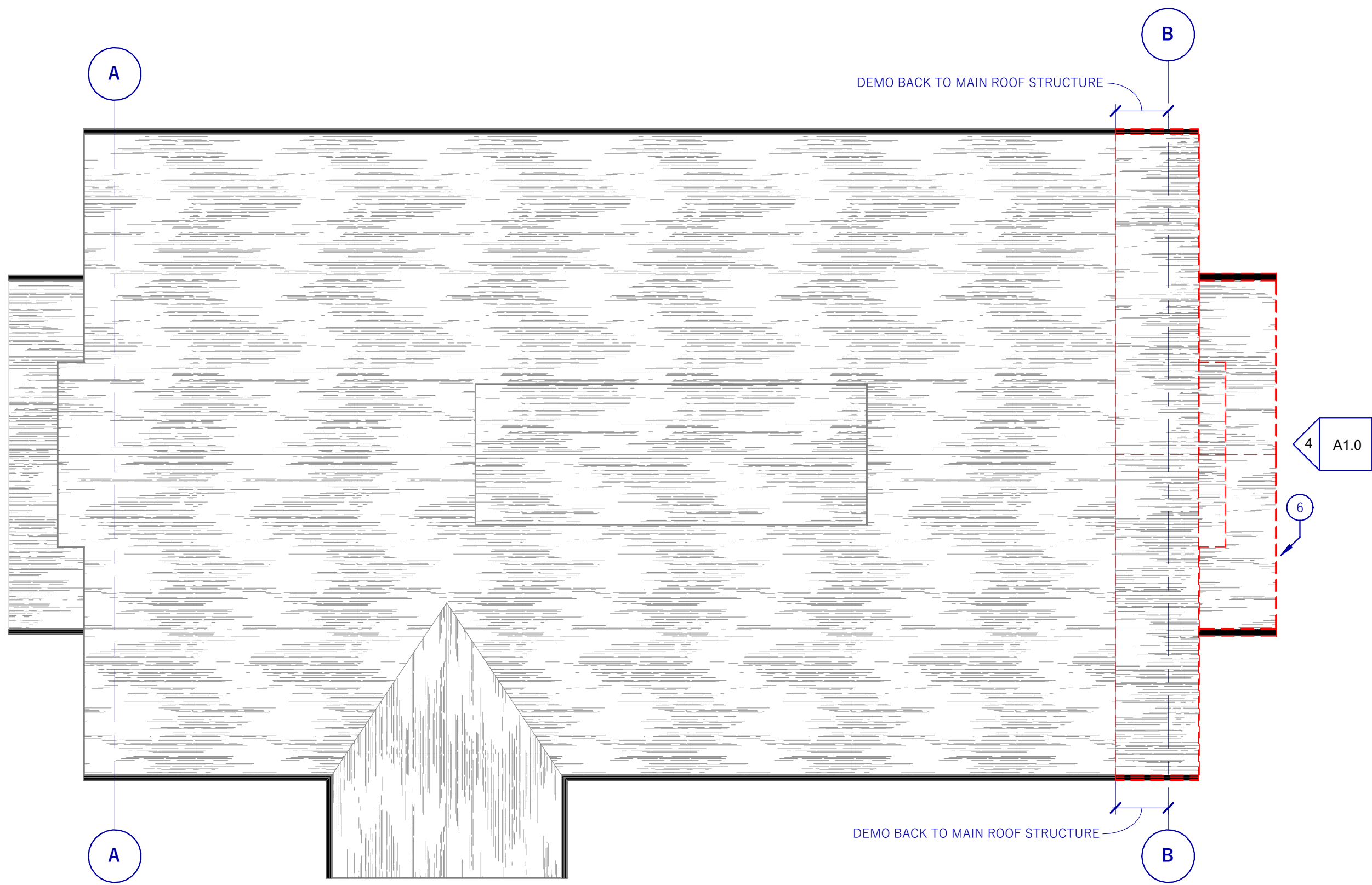
A0.1





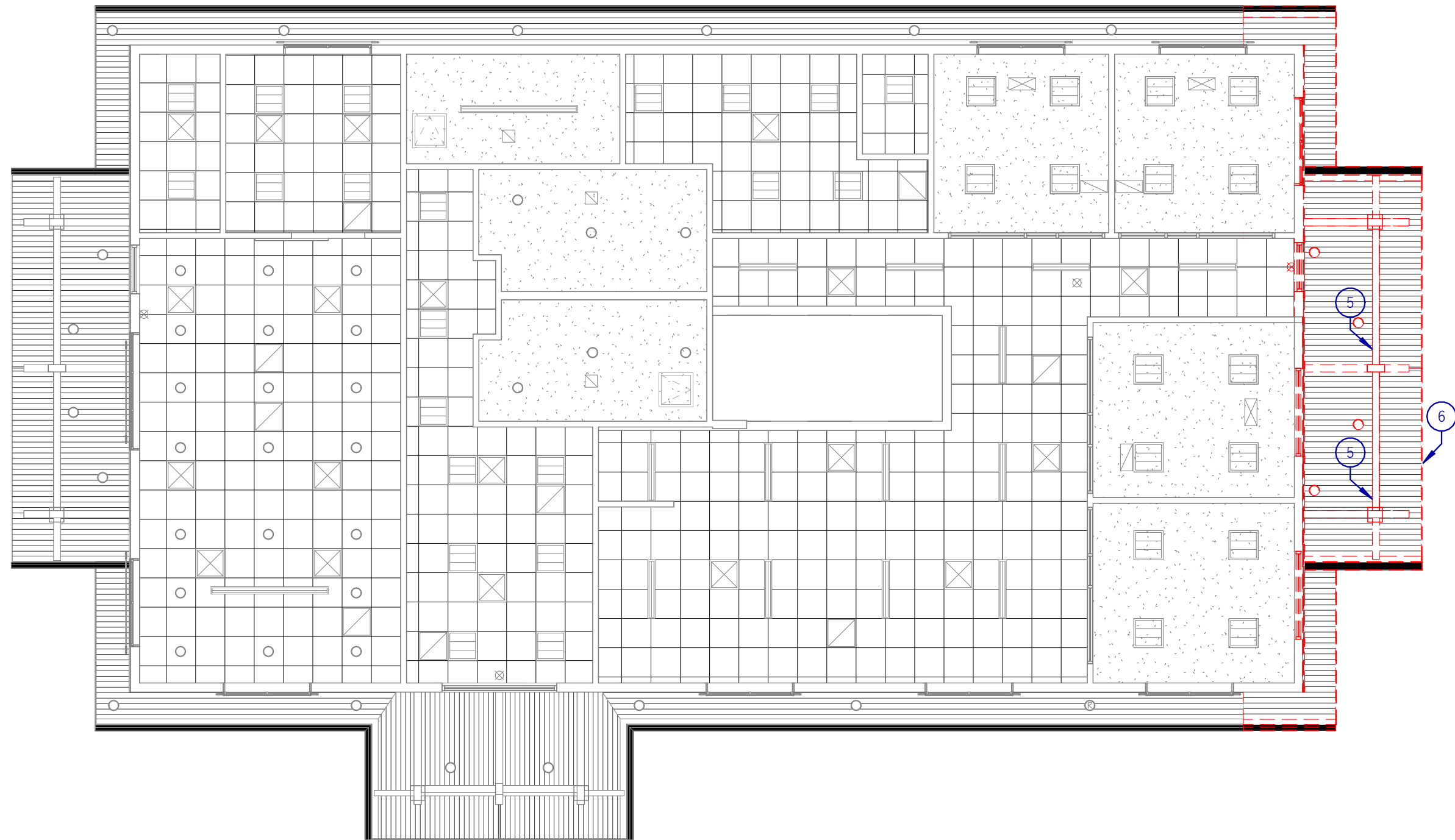
1
A1.0
1/8" = 1'-0"

DEMOLITION PLAN



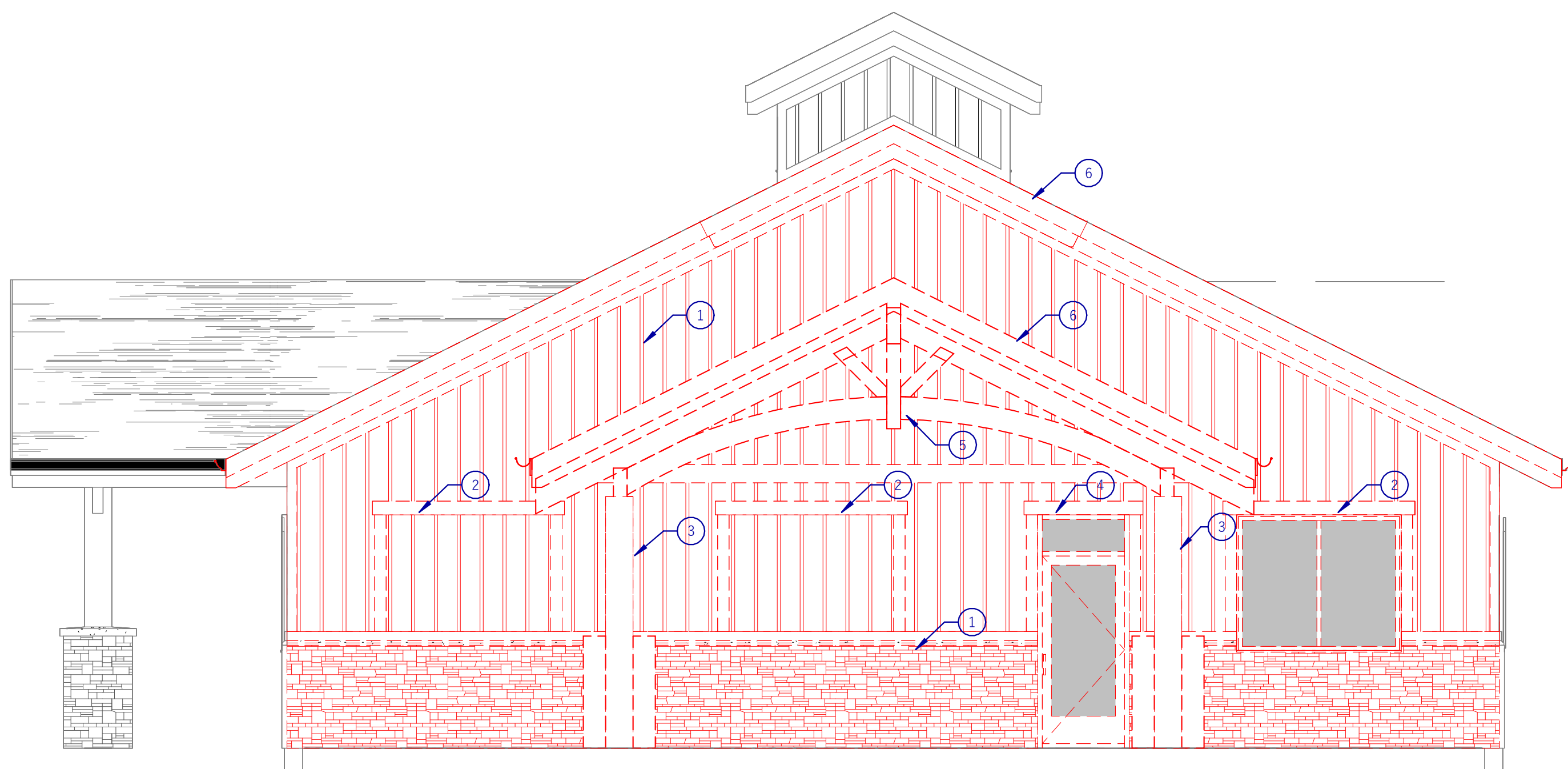
2
A1.0
1/8" = 1'-0"

DEMOLITION ROOF PLAN



3
A1.0
1/8" = 1'-0"

DEMOLITION REFLECTED CEILING PLAN



4
A1.0
1/4" = 1'-0"

DEMOLITION ELEVATION

GENERAL NOTES - DEMOLITION PLAN

- A GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS, MATERIALS, FINISHES, AND DIMENSIONS BEFORE AND AFTER DEMOLITION
- B PROTECT ALL EXISTING AND NEW CONSTRUCTION TO REMAIN FREE FROM DAMAGE
- C AT ALL WALL TRANSITIONS FROM NEW TO EXISTING WALLS, PATCH, REPAIR, AND/OR REPLACE GYP. BOARD AS REQUIRED TO PROVIDE FLUSH TRANSITIONS BETWEEN NEW AND EXISTING WALL SURFACES. PATCH/REPAIR/PAINT WALLS AS NECESSARY AT LOCATIONS WHERE EQUIPMENT WAS REMOVED
- D CONTRACTOR TO ENSURE THAT ALL COORIDORS OUTSIDE OF CONSTRUCTION AREA ARE KEPT CLEAN AND CLEAR OF DEBRIS AND OBSTRUCTION AT ALL TIMES
- E PREP ALL SURFACES PRIOR TO PAINTING - REMOVE ALL DUST AND SAWDUST ON WALLS, CEILINGS, AND FLOORS
- F COORDINATE ALL MECHANICAL, PLUMBING & ELEC. DEMOLITION AND/OR REUSE W/MECH., PLUMB., AND ELEC. ENGINEER
- G CONTRACTOR TO DISPOSE ALL DEMOLITION ITEMS AS PER LOCAL CODES & REGULATIONS
- H UNKNOWN CONDITIONS MAY EXIST. DEMOLITON SHALL BE DONE W/CARE TO ENSURE THAT THERE IS NO DAMAGE TO UNSEEN COMPONENTS OR MATERIALS THAT MAY NEED TO REMAIN OR BE RELOCATED

KEYED NOTES

- 1 EXISTING WOOD FRAMED WALL AND WOOD SHEATHING TO REMAIN. REMOVE ALL EXTERIOR VENEERS, INCLUDING ALL RELATED ASHESIVES AND FASTENERS. PATCH/REPAIR EXISTING WALL AS NECESSARY TO RECEIEVE NEW SCHEDULED MATERIALS/FINISHES
- 2 REMOVE EXISTING WINDOW AND ALL RELATED FASTENERS, SALVAGE FOR REUSE ON NEW EXTERIOR WALL AS DETAILED
- 3 REMOVE EXISTING STONE PIERS, INCLUDING ALL RELATED FASTNERS. PATCH/REPAIR REMANING ADJACENT SURFACES AS NECESSARY TO RECEIVE NEW SCHEDULED MATERIALS/FINISHES. SALVAGE STONE AND CAP AS POSSIBLE FOR REUSE
- 4 REMOVE EXISTING STOREFRONT AND ALL RELATED FASTENERS, SALVAGE FOR REUSE ON NEW EXTERIOR WALL AS DETAILED
- 5 REMOVE EXISTING TIMBER FRAMING, INCLUDING ALL RELATED FASTENERS. PATCH/REPAIR REMAINING ADJACENT SURFACES AS NECESSARY TO RECEIVE NEW SCHEDULED MATERIALS/FINISHES. SALVAGE TIMBERS AS POSSIBLE FOR REUSE
- 6 REMOVE EXISTING ROOF AS SHOWN, INCLUDING FRAMING, SHEATHING, WATERPROOFING, SHINGLES, GUTTERS, AND DOWNSPOUTS. PATCH/REPAIR REMAINING ADJACENT SURFACES AS NECESSARY TO RECEIVE NEW SCHEDULED MATERIALS/FINISHES

CONSULTANT

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DEMO PLANS

A1.0

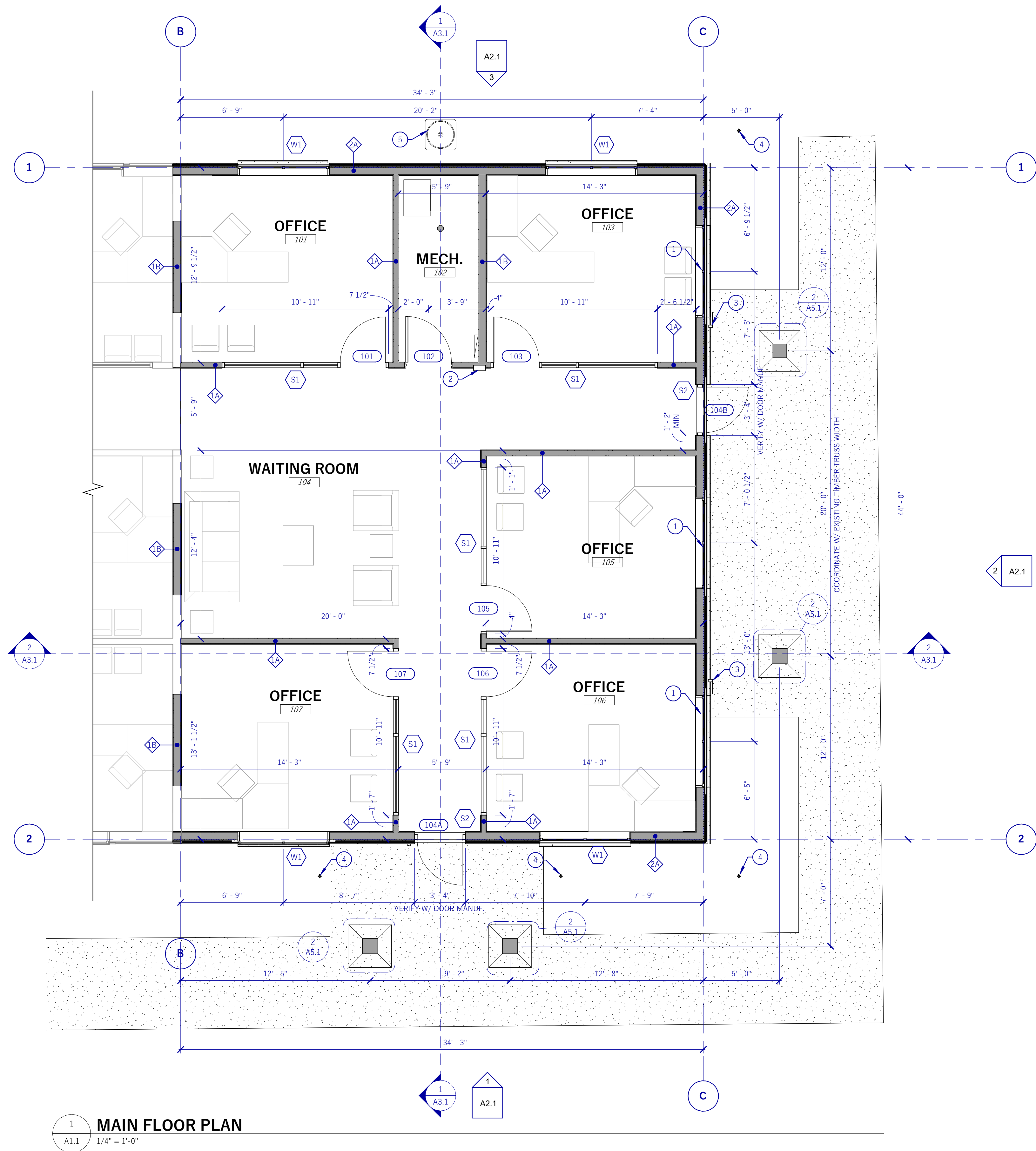


GENERAL NOTES - FLOOR PLAN

- A SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
- B DIMENSIONS TO DOORS AND WINDOWS ARE TO CENTER OF FRAMED OPENING UNLESS NOTED OTHERWISE
- C SEE STRUCTURAL DRAWINGS AND CALCULATIONS FOR ALL STRUCTURAL REQUIREMENTS INCLUDING FOUNDATION WALL SPECIFICATIONS AND SHEARWALL AND HOLDDOWN REQUIREMENTS
- D EXTERIOR GRID LINES AND DIMENSIONS ARE TO EXTERIOR FACE OF SHEATHING. SEE ARCHITECTURAL AND STRUCTURAL DETAILS FOR FOUNDATION LOCATION
- E FURNITURE IS FOR REPRESENTATION PURPOSES ONLY; OWNER TO FURNISH NEW SPACE
- F FIELD VERIFY ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES
- G NOTIFY ARCHITECT OF ANY DISCREPANCIES WITHIN THE DRAWINGS AND/OR SPECIFICATIONS BEFORE PROCEEDING WITH ANY WORK THAT IS IN ANY WAY RELATED TO THE DISCREPANCY(S) DISCOVERED
- H COORDINATE ALL WORK WITH CIVIL, LANDSCAPING, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AS APPLICABLE
- I COORDINATE ALL DOOR/WINDOW HEAD AND SILL HEIGHTS AND SIZE WITH ELEVATIONS AND DOOR/WINDOW SCHEDULE
- J PROVIDE BLOCKING IN WALLS AND CEILINGS AS NEEDED FOR MILLWORK, ACCESSORIES, AND FIXTURES
- K ALL WALL TYPES ARE CONTINUOUS ABOVE AND BELOW OPENINGS, U.N.O.
- L ALL DIMENSIONS FROM NEW WALLS ARE MEASURED TO EDGE OF STUD, FRAMING U.N.O.
- M SEE EXTEROPR ELEVATIONS, SECTIONS, AND DETAILS FOR FULL EXTENT OF EXTERIOR AND INTERIOR WALLS
- N SEE SHEETS G4.1 & G4.2 FOR TYPICAL MOUNTED HEIGHTS AND ACESIBILITY DETAILS
- O VERIFY ALL DOOR/WINDOW ROUGH OPENINGS W/ DOOR/ WINDOW MANUFACTURER

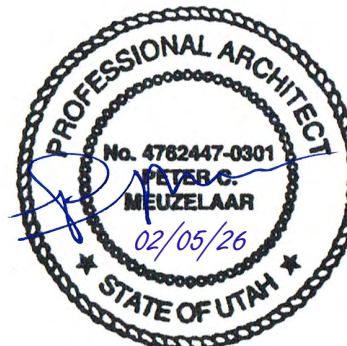
KEYED NOTES

- 1 INSTALL EXISTING WINDOW; VERIFY SIZE OF EXISTING WINDOWS PRIOR TO FRAMING OPENING
- 2 FIRE EXTINGUISHER; RECESSED FIRE EXTINGUISHER CABINET INSTALLED AS PER IBC
- 3 DOWNSPOUT LOCATIONS; SEE ELEVATION DRAWINGS
- 4 RAIN CHAIN; DOWNSPOUT TO MATCH EXISTING
- 5 CONDENSING UNIT



JSSD OFFICE BUILDING ADDITION

5360 NORTH OLD HIGHWAY 40 HEBER CITY, UT 84032

ISSUED:
FEBRUARY 05, 2026REVISIONS:
NO. DATE DESCRIPTIONPROJECT NUMBER:
25152BUILDING
PLAN

A1.1



A	SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
B	REFER TO DETAILS FOR REQUIRED ANCHORING AND BRACING OF SUSPENDED CEILING SYSTEM.
C	ALL CEILING MOUNTED EQUIPMENT (LIGHT FIXTURES, EXIT SIGNS, MOTION SENSORS, FIRE SPRINKLER HEADS, ETC.) TO BE CENTERED IN ACOUSTICAL PANEL OR GYP. BD. CEILING.

- ## KEYED NOTES

 SURFACE MOUNTED EXIT SIGN. REFER TO ELECTRICAL DRAWINGS

 RECESSED CAN FIXTURE. REFER TO ELECTRICAL DRAWINGS

 **24" X 24' LAY-IN FIXTURE**
REFER TO ELECTRICAL
DRAWINGS

EXTERIOR SOFFIT.
PRE-FINISHED ALUMINUM
SOFFIT FRAMED BELOW
RAFTERS, MATCH EXIST.
STYLE AND FINISH

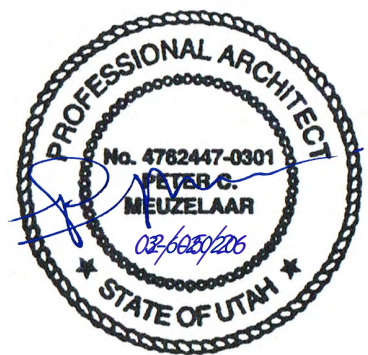
 12" X 24" SUPPLY AIR VENT.
REFER TO MECHANICAL
DRAWINGS

 **24" X 24" SUPPLY AIR VENT.**
REFER TO MECHANICAL
DRAWINGS

 **12" X 12" RETURN AIR VENT.**
REFER TO MECHANICAL
DRAWINGS



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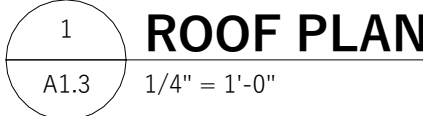


R.C.P.

A1.2

A	SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. COORDINATE ALL STRUCTURAL ELEMENTS WITH STRUCTURAL CALCULATIONS.
B	ROOF DRAINAGE TO BE PIPED TO UNDERGROUND VAULT - SEE PLUMBING

1	TIE ROOF FRAMING INTO EXISTING ROOF STRUCTURE
2	DOWNSPOUT LOCATIONS; SEE ELEVATION DRAWINGS
3	ASPHALT SHINGLE ROOF TO MATCH EXISTING ROOF, INSTALL PER MANUF. SPECIFICATIONS
4	PREFINISHED METAL GUTTER W/CHAIN DOWNSPOUTS TO MATCH EXISTING



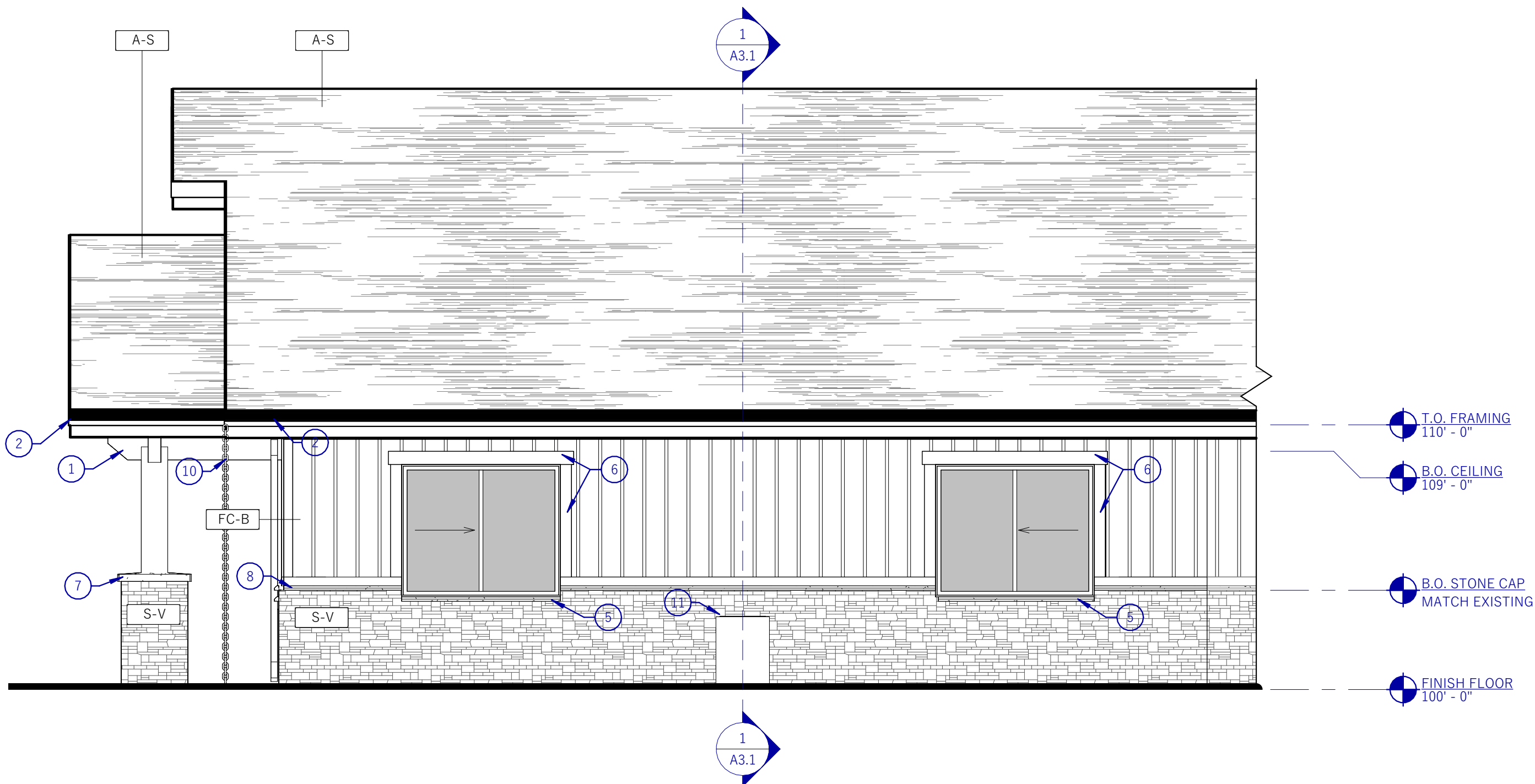
A1.3

GENERAL NOTES - ELEVATIONS

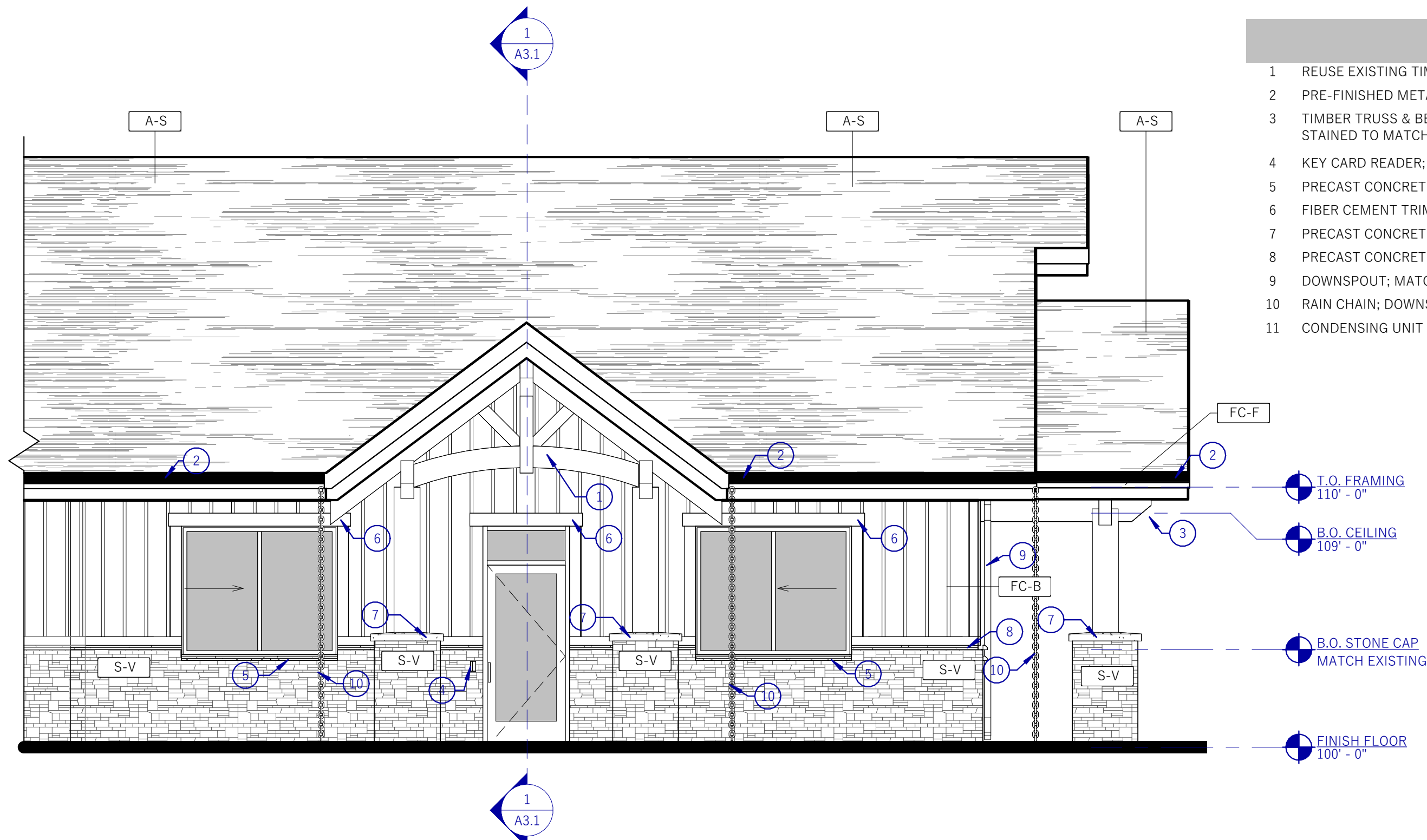
- A SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
B COORDINATE WINDOW HEIGHTS WITH WINDOW SCHEDULE.
C SEE ROOF PLAN FOR ALL ROOF SLOPES AND EAVE DIMENSIONS

KEYED NOTES

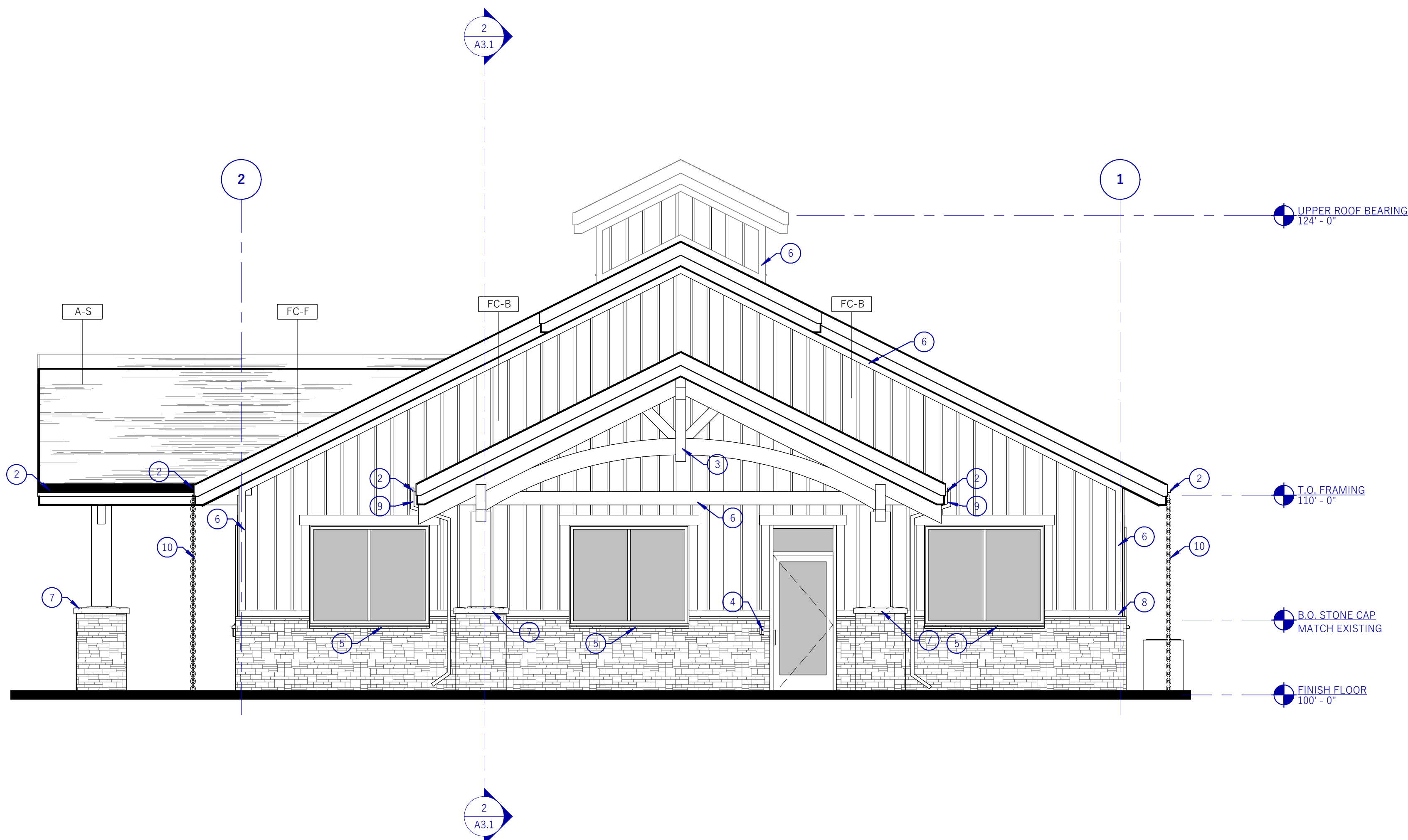
- 1 REUSE EXISTING TIMBER TRUSS, BEAMS, AND COLUMNS
2 PRE-FINISHED METAL GUTTER; TO MATCH EXISTING
3 TIMBER TRUSS & BEAMS; SEE ARCHITECTURAL DETAILS AND STRUCTURAL; STAINED TO MATCH EXISTING
4 KEY CARD READER; SEE DOOR HARDWARE
5 PRECAST CONCRETE SILL TO MATCH EXISTING; SEE WINDOW SILL DETAILS
6 FIBER CEMENT TRIM TO MATCH EXISTING BUILDING, TYP.
7 PRECAST CONCRETE CAP TO MATCH EXISTING
8 PRECAST CONCRETE SILL TO MATCH EXISTING; SEE ARCHITECTURAL DETAILS
9 DOWNSPOUT; MATCH EXISTING
10 RAIN CHAIN; DOWNSPOUT TO MATCH EXISTING
11 CONDENSING UNIT



3 REAR ADDITION ELEVATION
A2.1 1/4" = 1'-0"



1 FRONT ADDITION ELEVATION
A2.1 1/4" = 1'-0"



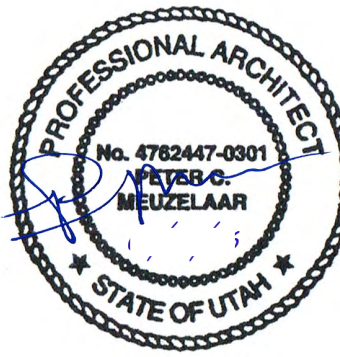
2 RIGHT SIDE ADDITION ELEVATION
A2.1 1/4" = 1'-0"

EXTERIOR MATERIAL LEGEND

IMAGE	TAG	DESCRIPTION	COLOR/MANUF.
	S-V	STONE VENEER	DELTA STONE, SIGNATURE LINE, GRAY LEDGE
	FC-B	BOARD AND BATTEN FIBER CEMENT SIDING	PAINT SW 7039
	A-S	ARCHITECTURAL ASPHALT SHINGLES	LANDMARK, MAX. DEF. DRIFTWOOD
	FC-F	FIBER CEMENT FASCIA	PAINT SW 7039; TO MATCH EXISTING

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PROJECT NUMBER:
25152

ELEVATIONS

A2.1

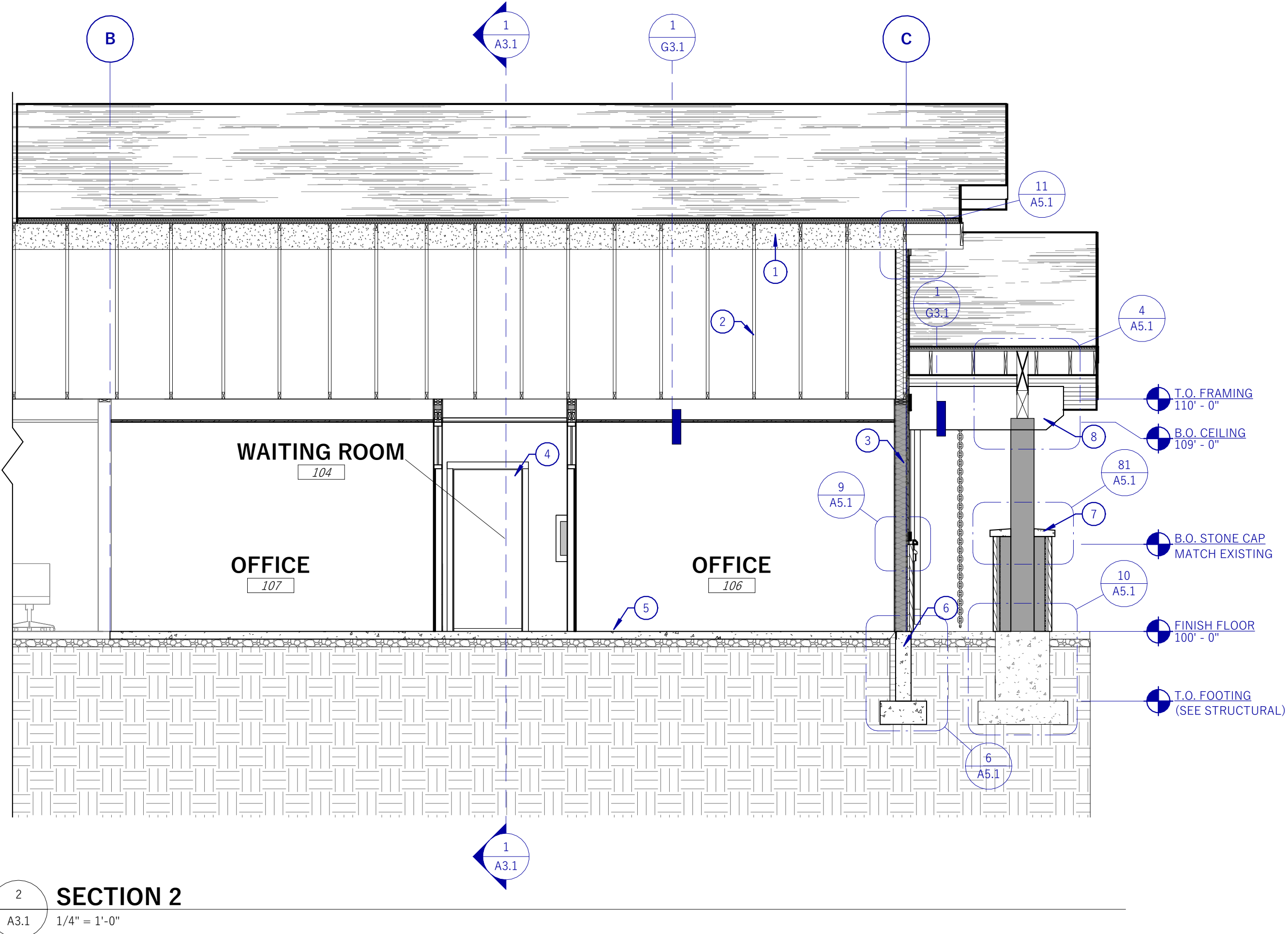
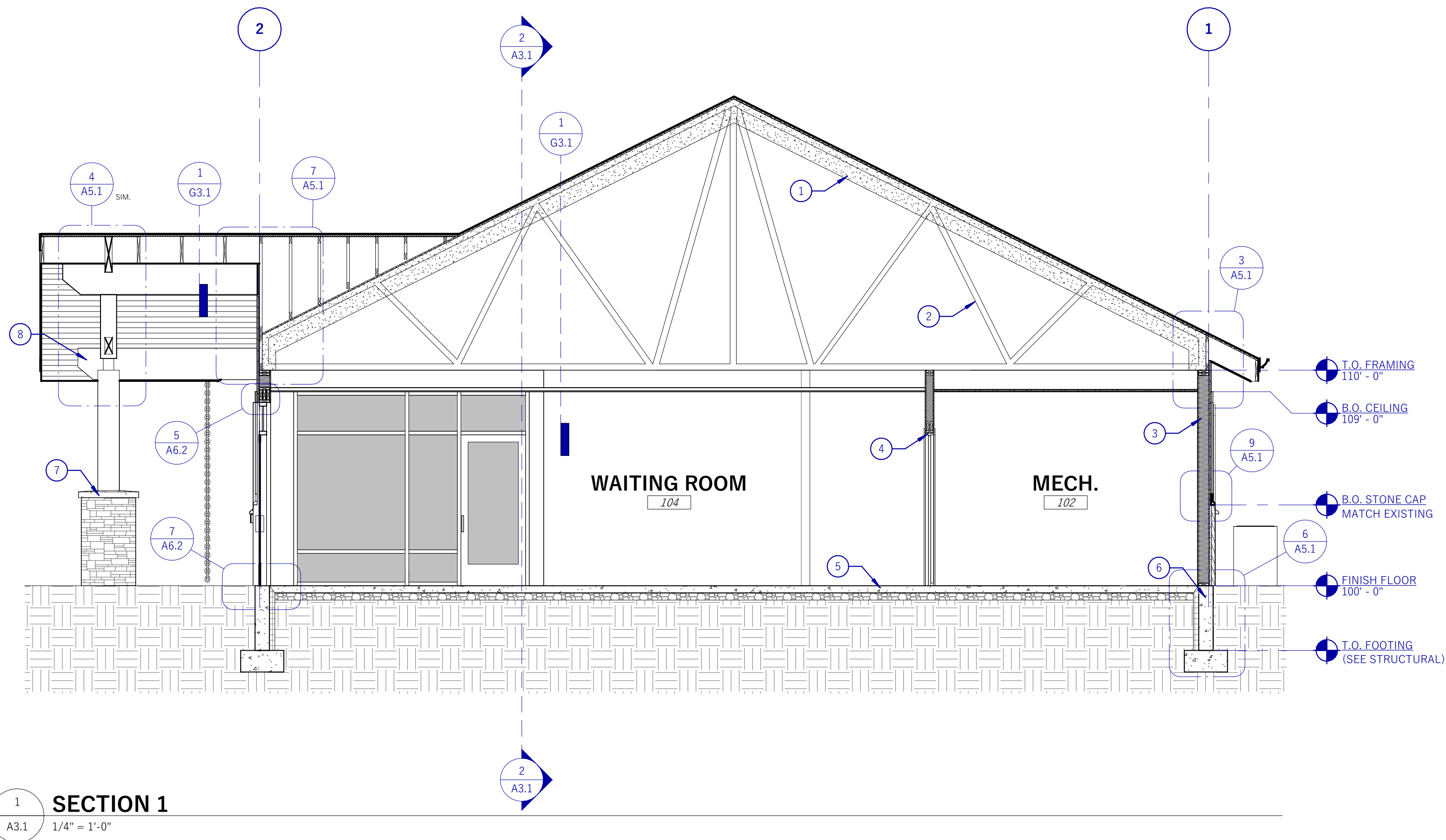


GENERAL NOTES - SECTIONS

- A SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 B REVIEW ALL STRUCTURAL PLANS AND SPECIFICATIONS AS WELL AS STRUCTURAL CALCULATIONS FOR ALL STRUCTURAL REQUIREMENTS
 C REFER TO ELEVATION DRAWINGS FOR ALL EXTERIOR FINISHES
 D ALL WINDOWS AND DOORS TO BE AS INDICATED IN FLOOR PLANS AND WINDOW/DOOR SCHEDULES.
 E ALL INSULATION, VAPOR BARRIERS, BUILDING PAPER, ETC. AS INDICATED IN GENERAL NOTES

KEYED NOTES

- 1 CLOSED-CELL SPRAY FOAM INSULATION; R-49 MIN.
 2 PREMANUFACTURED WOOD TRUSS; SEE STRUCTURAL
 3 WALL AS SCHEDULED; SEE FLOOR PLAN
 4 DOOR/WINDOW AS SCHEDULED; SEE FLOOR PLAN AND DOOR/WINDOW SCHEDULES
 5 CAST-IN-PLACE CONCRETE FLOOR SLAB OVER VAPOR BARRIER AND COMPACT GRAVEL
 6 CONCRETE FOOTING AND FOUNDATION WALL; SEE STRUCTURAL
 7 STONE PIER W/PRECAST CAP; SEE FLOOR PLANS AND DETAILS
 8 TIMBER POST/BEAM; SEE STRUCTURAL



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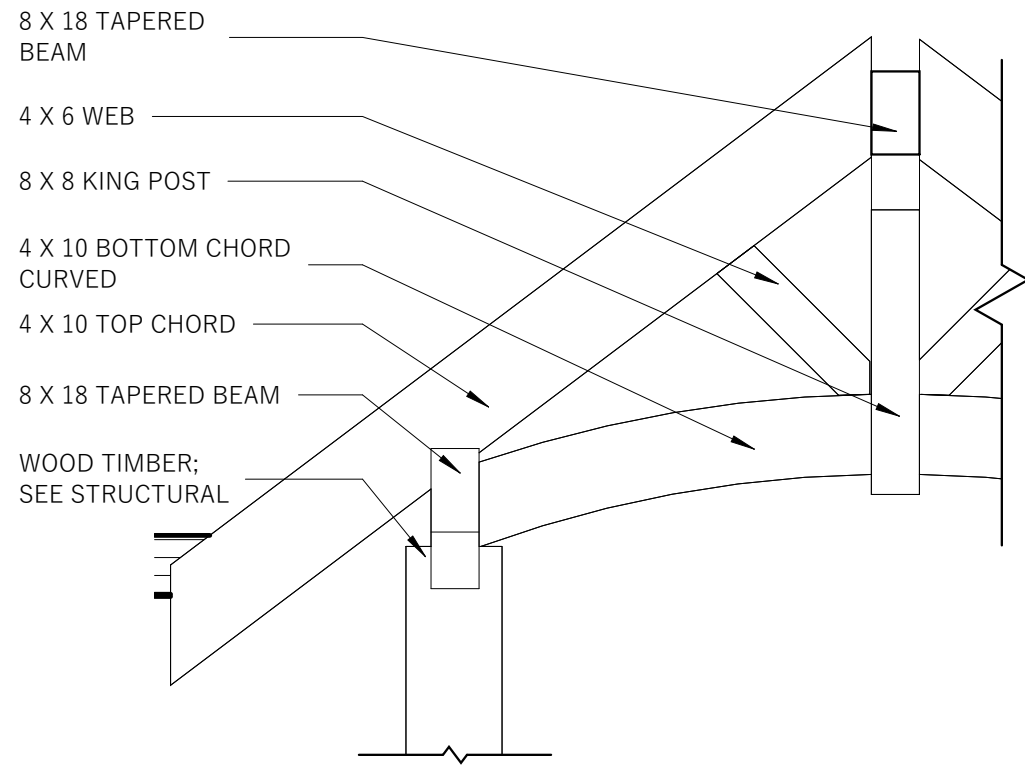
REVISIONS:
 NO. DATE DESCRIPTION



PROJECT NUMBER:
25152

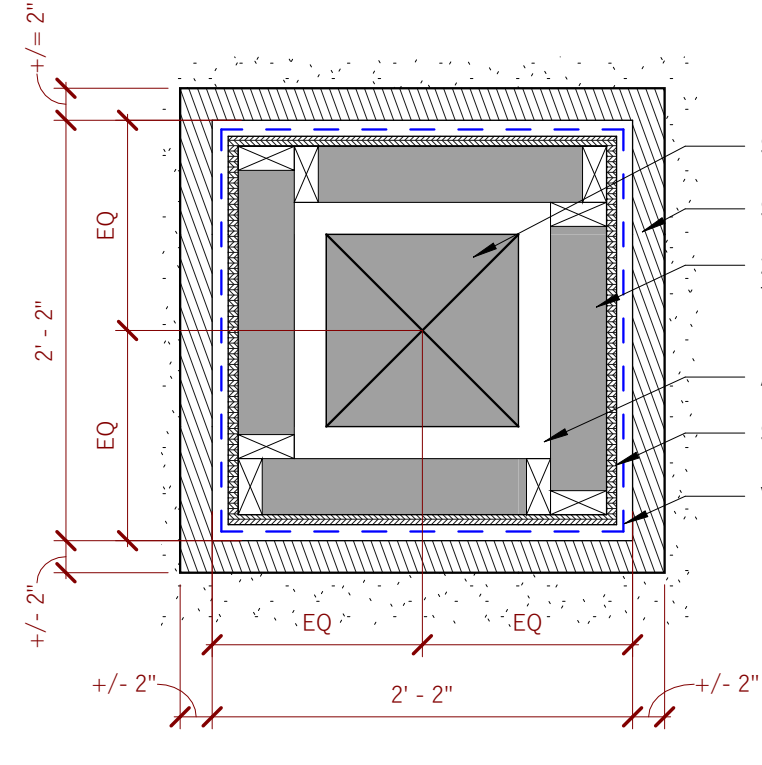
**BUILDING
 SECTIONS**

A3.1



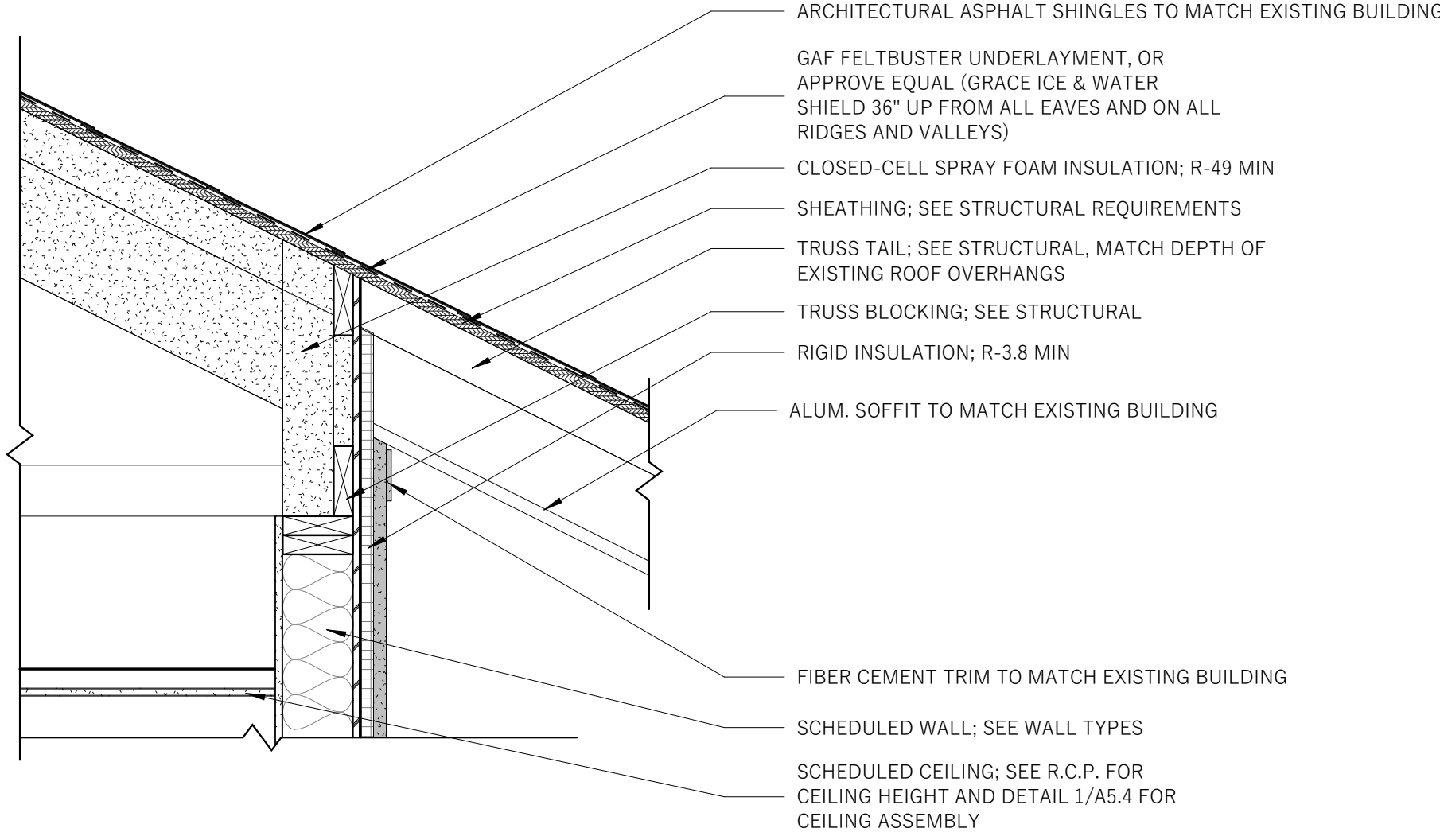
1
A5.1 1/2" = 1'-0"

TYPICAL TRUSS ELEVATION



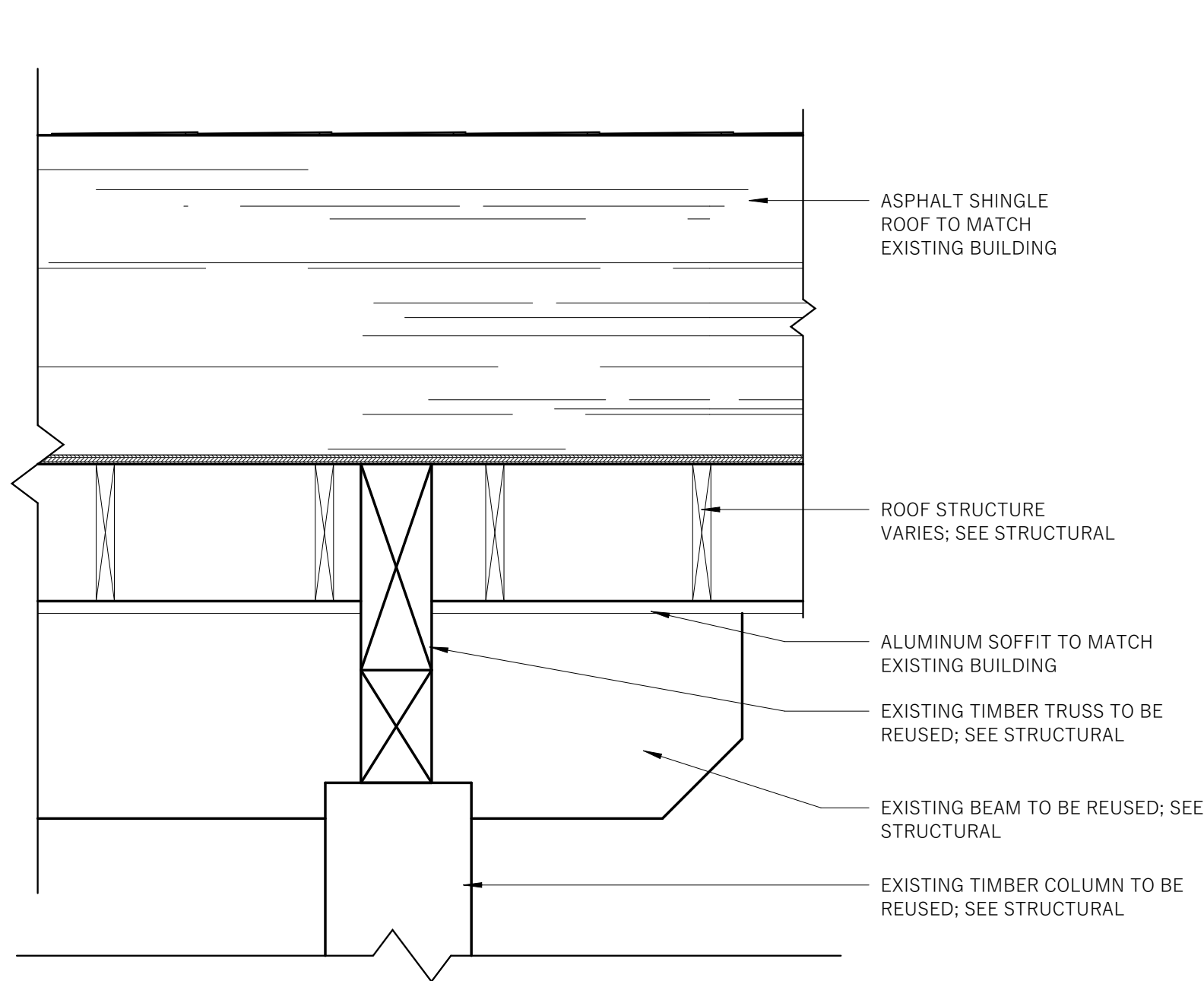
2
A5.1 1" = 1'-0"

COLUMN CALLOUT



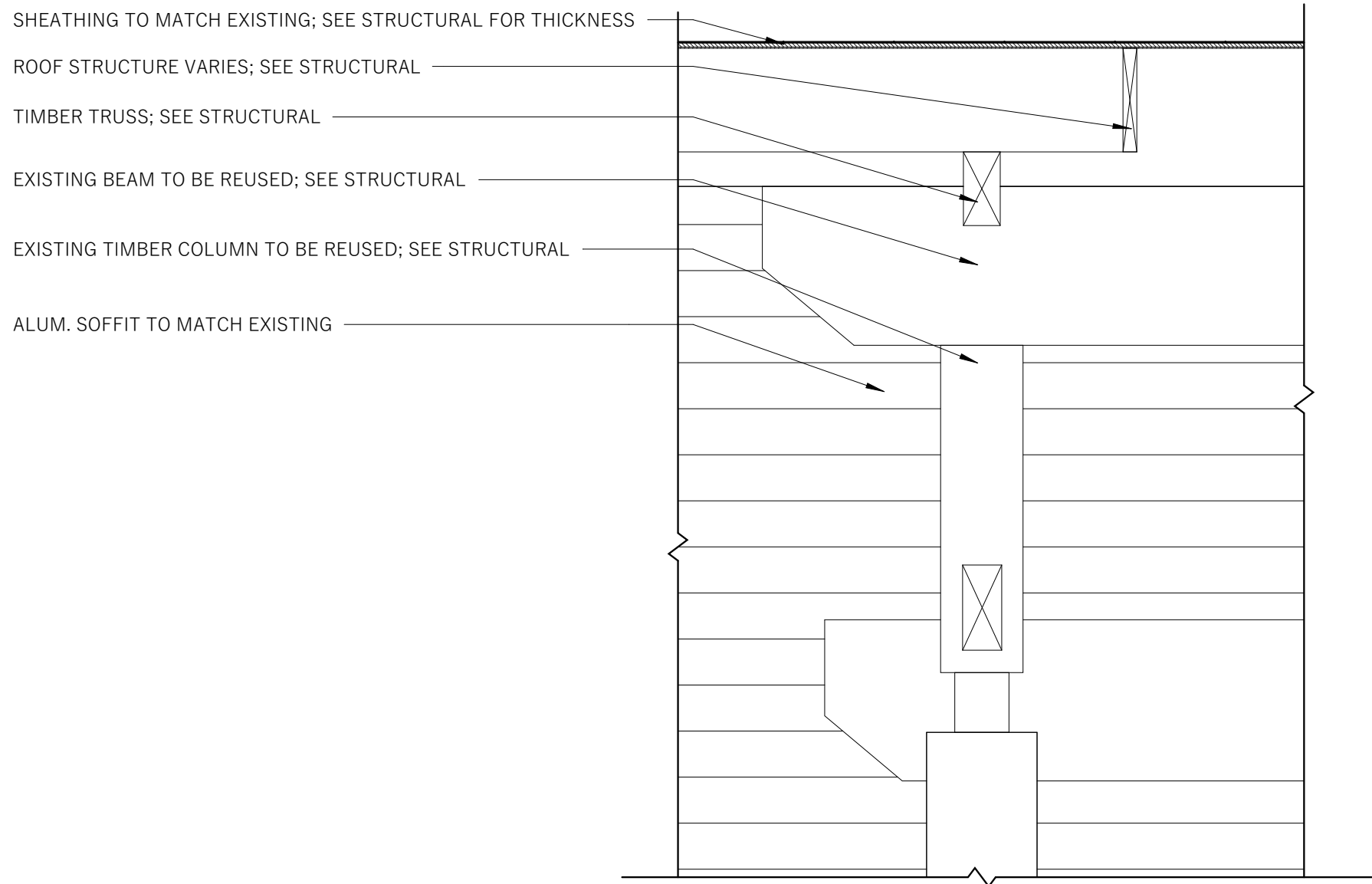
3
A5.1 1" = 1'-0"

ROOF EAVE AT WALL DETAIL



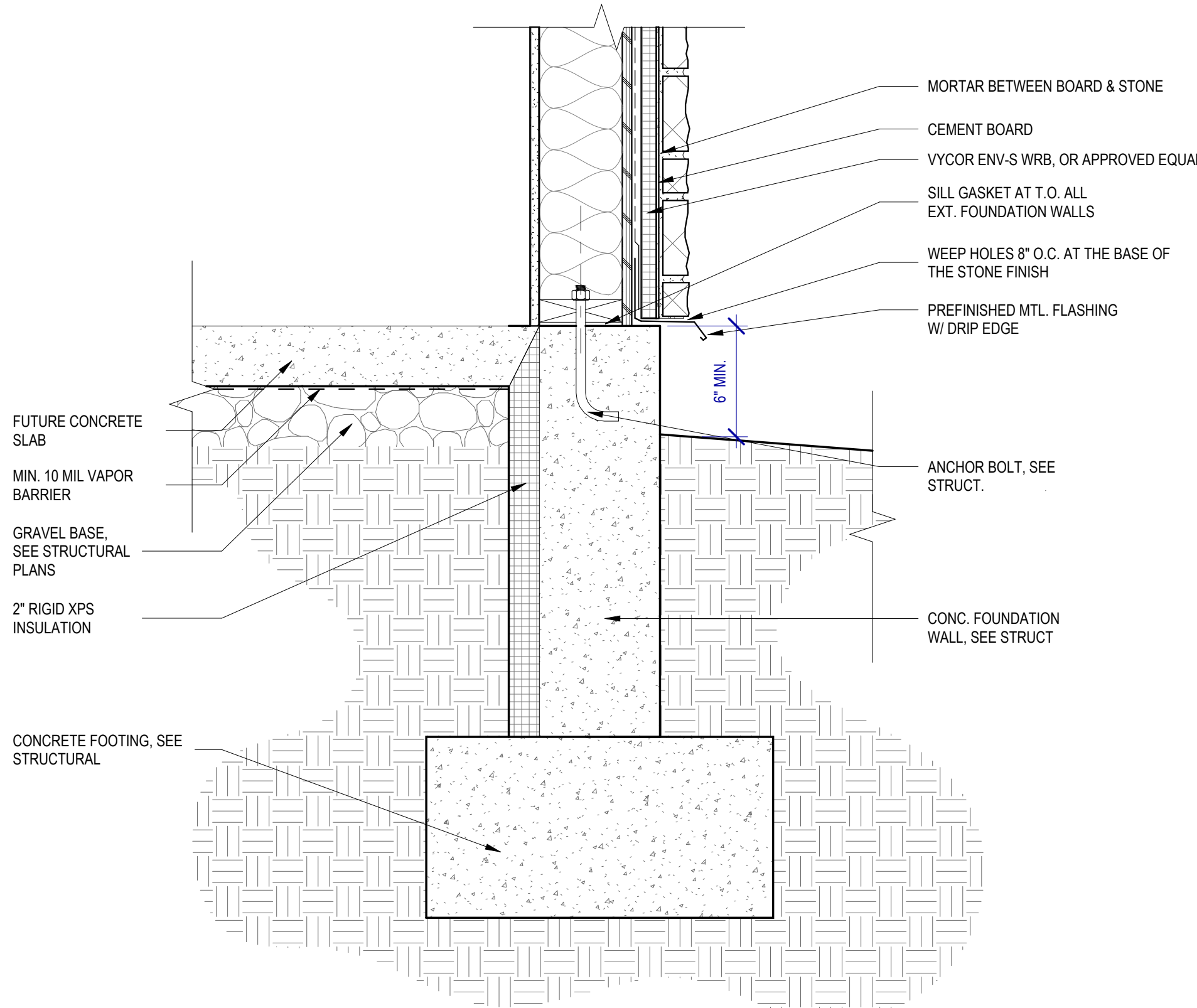
4
A5.1 1" = 1'-0"

COLUMN AT ROOF DETAIL



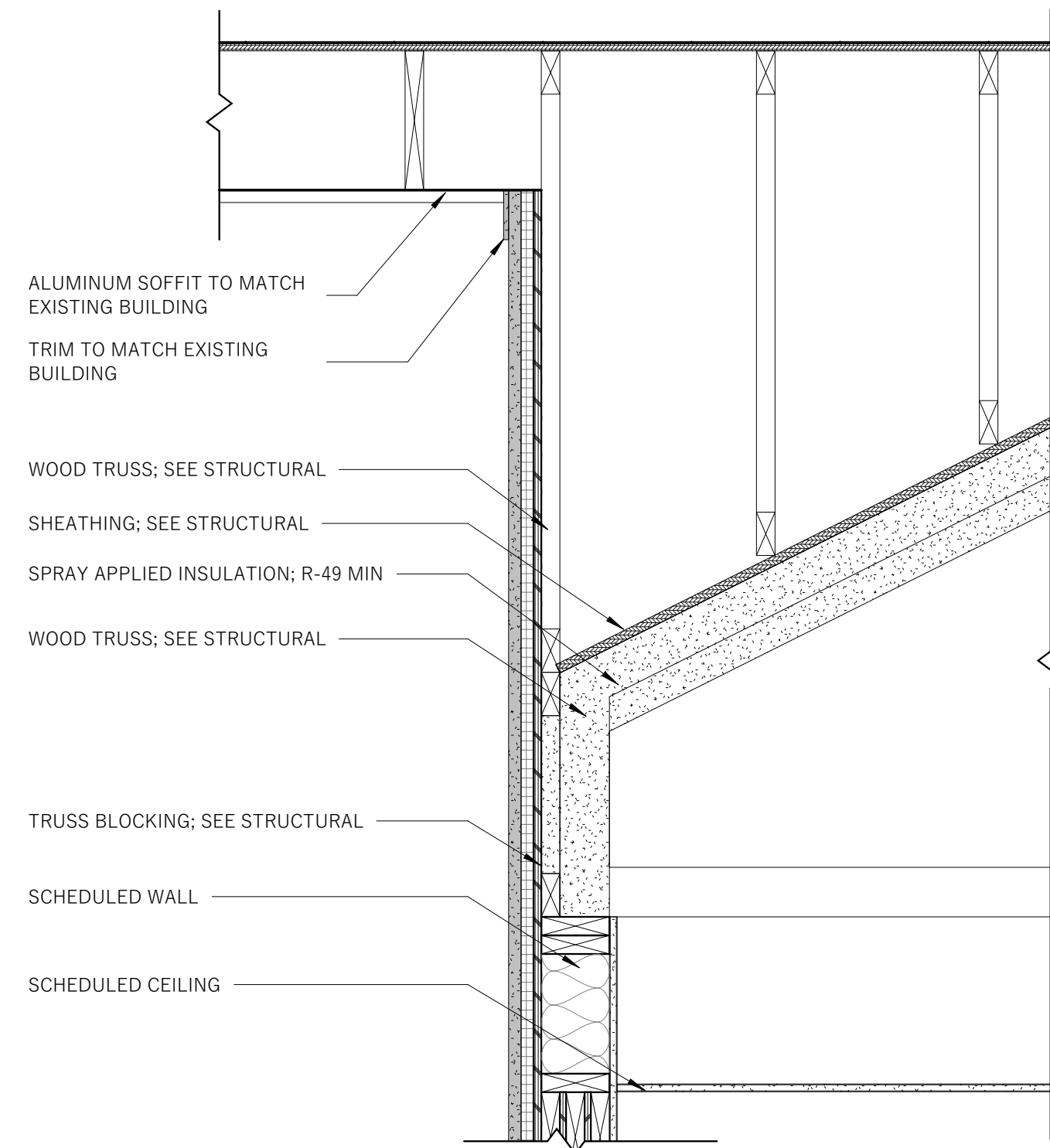
5
A5.1 3/4" = 1'-0"

WOOD TRUSS AT ROOF DETAIL



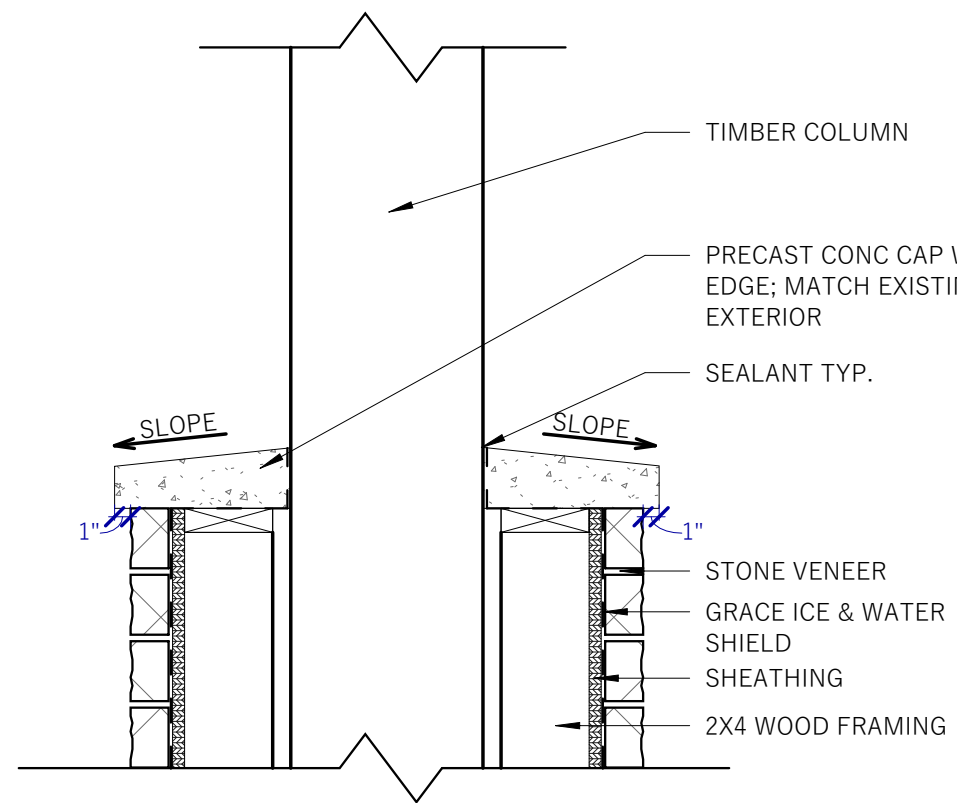
6
A5.1 1 1/2" = 1'-0"

FOUNDATION WALL DETAIL AT STONE WALL



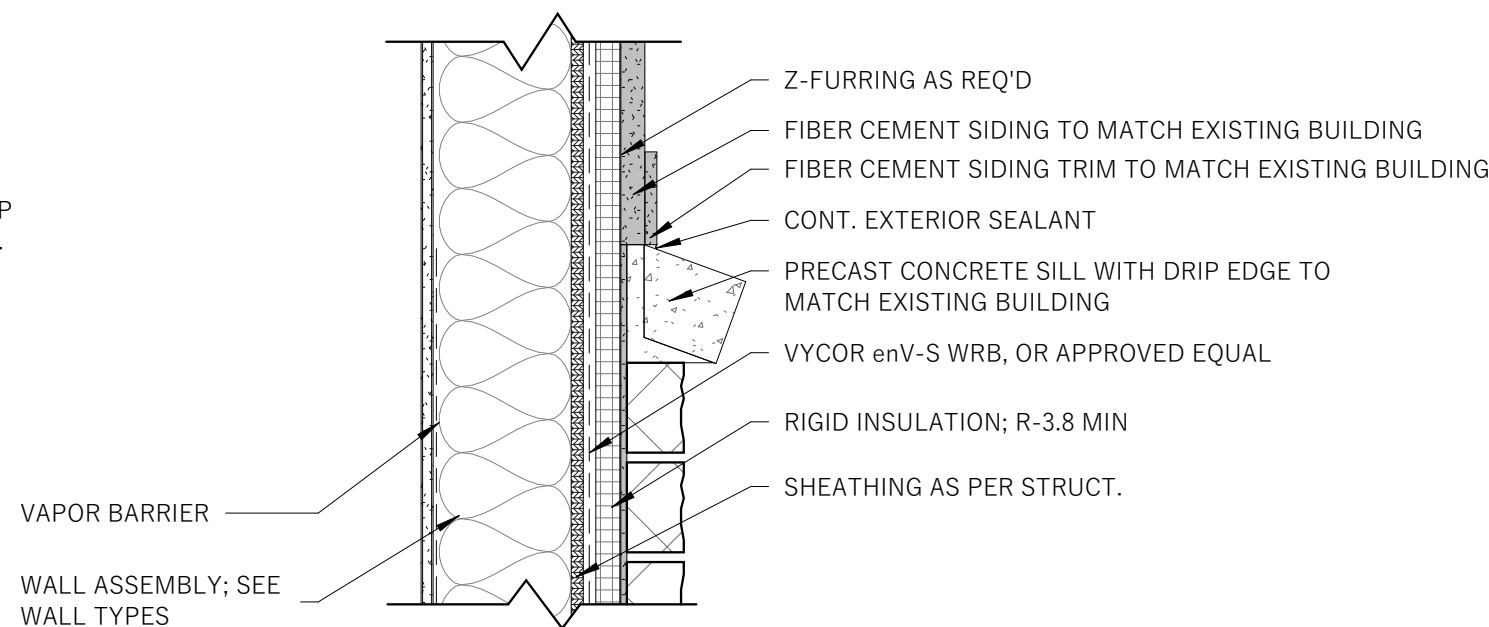
7
A5.1 1" = 1'-0"

ROOF TRUSS ON WALL



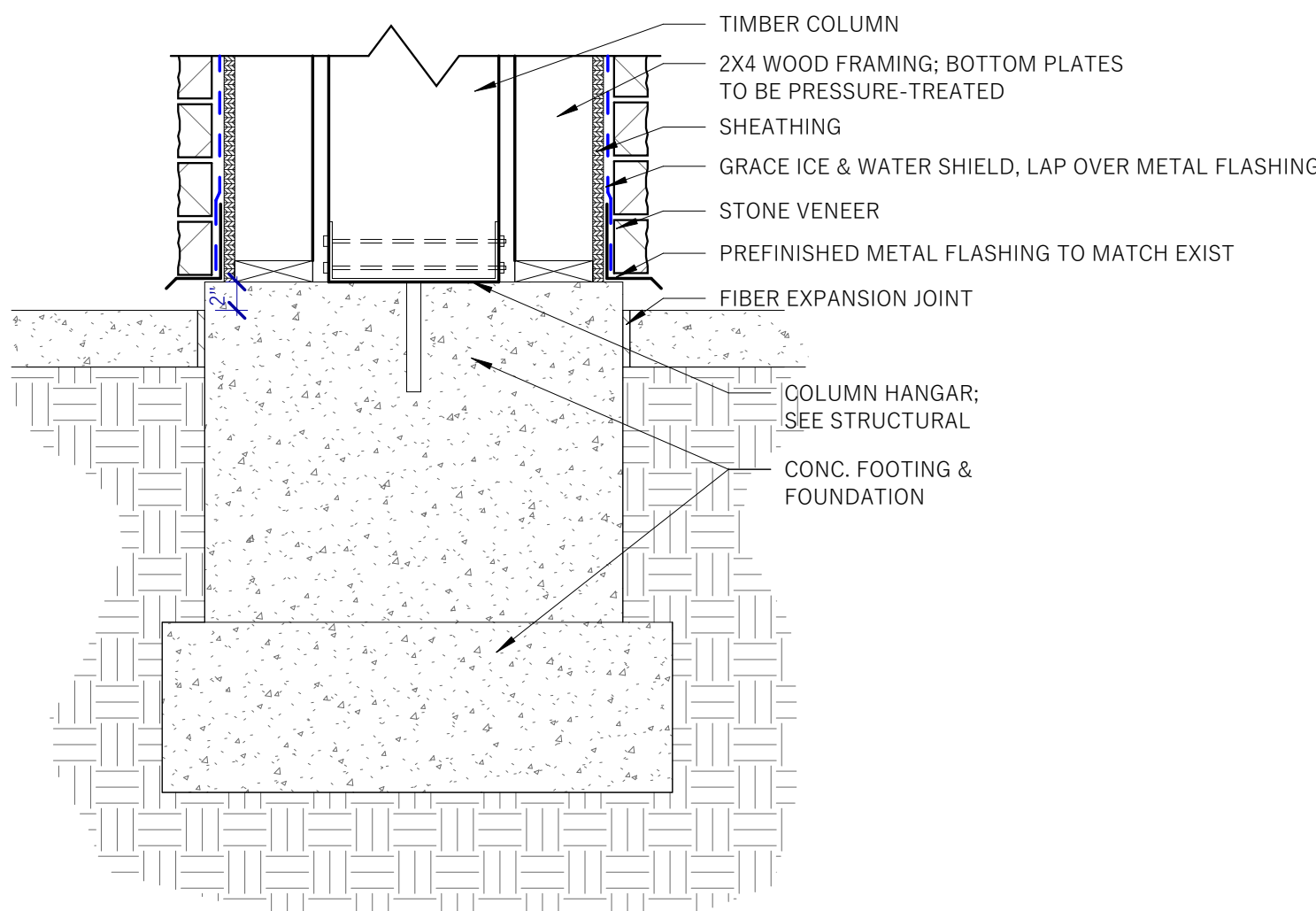
81
A5.1 1" = 1'-0"

COLUMN AT SILL



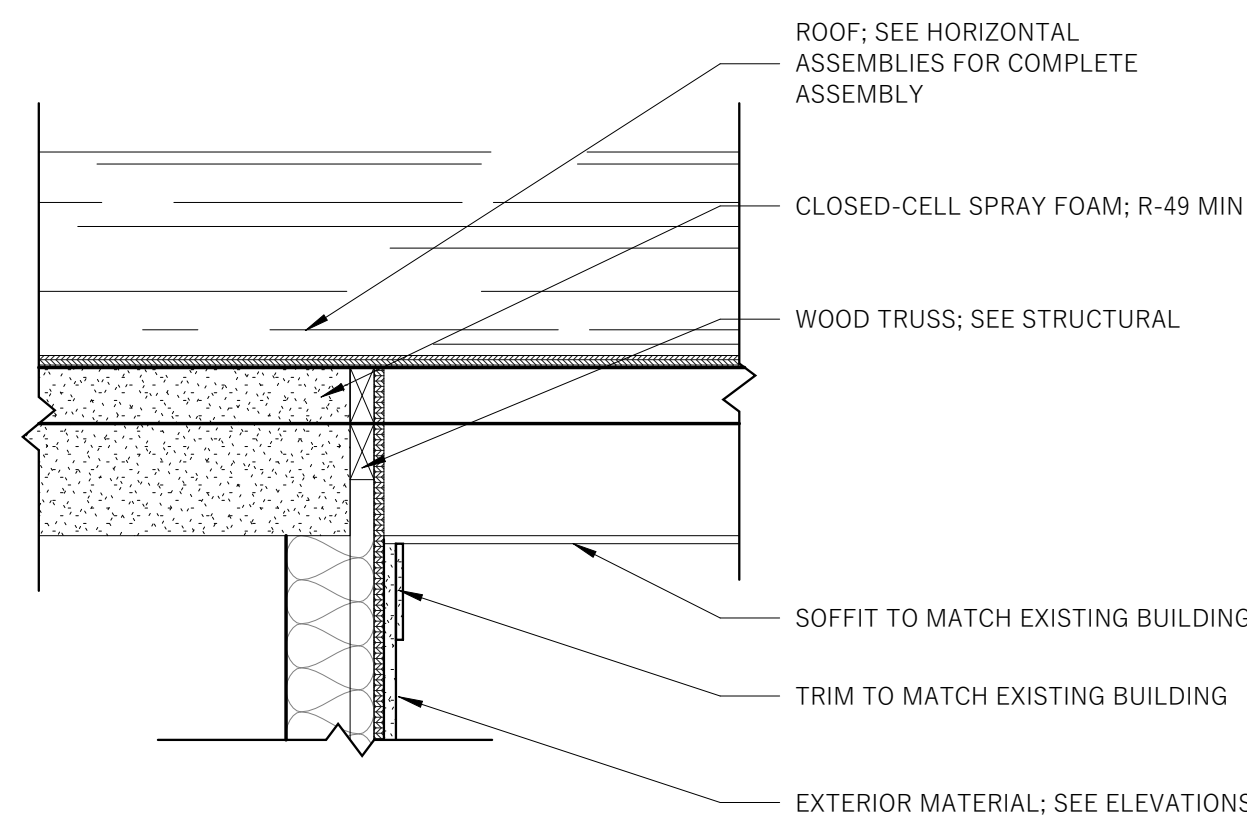
9
A5.1 1 1/2" = 1'-0"

SILL DETAIL



10
A5.1 1" = 1'-0"

COLUMN AT FOUNDATION



11
A5.1 1" = 1'-0"

ROOF OVER WALL

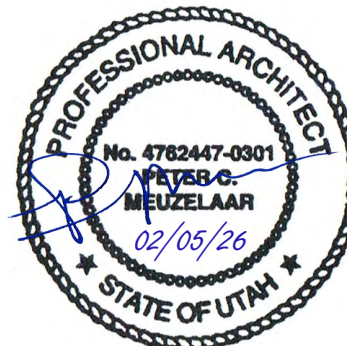
CONSULTANT

JSSD OFFICE BUILDING ADDITION

5360 NORTH OLD HIGHWAY 40 HEBER CITY, UT 84032

ISSUED:
FEBRUARY 05, 2026

REVISIONS:
NO. DATE DESCRIPTION

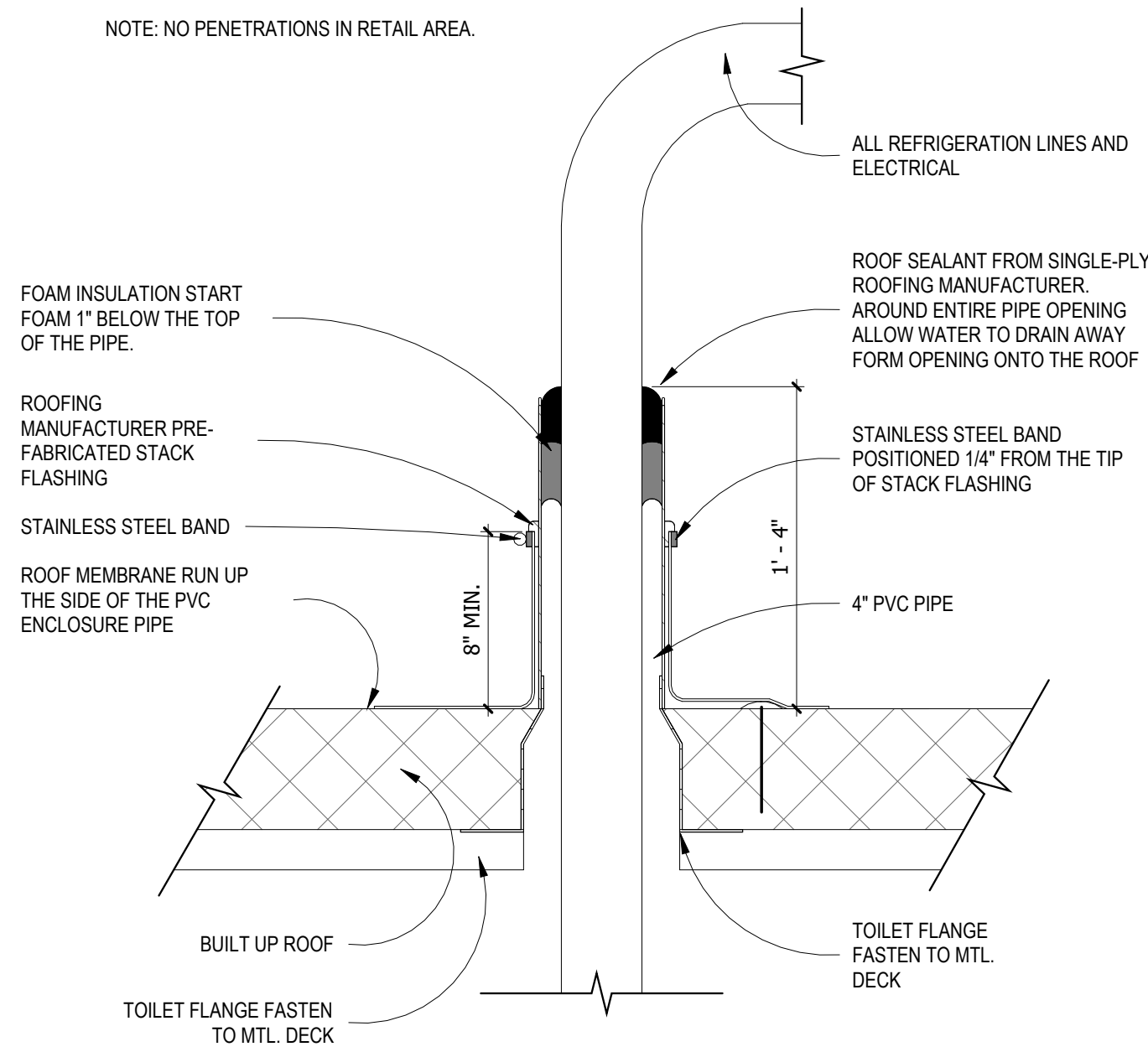


PROJECT NUMBER:
25152

ARCHITECTURAL
DETAILS

A5.1

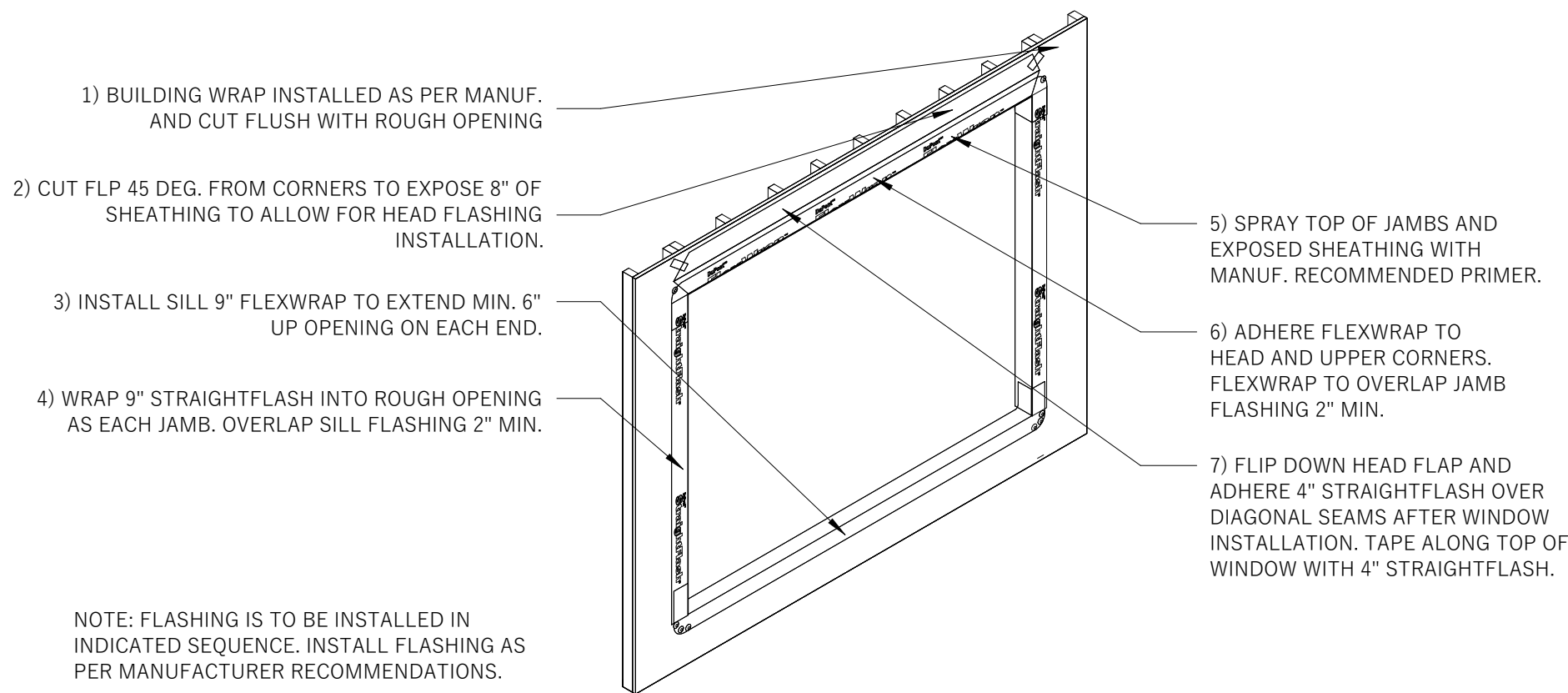




1
A5.2

ROOF PENETRATION

1 1/2" = 1'-0"



2
A5.2

FLASHING DETAIL

1/2" = 1'-0"

CONSULTANT

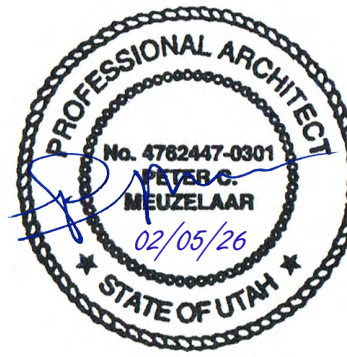
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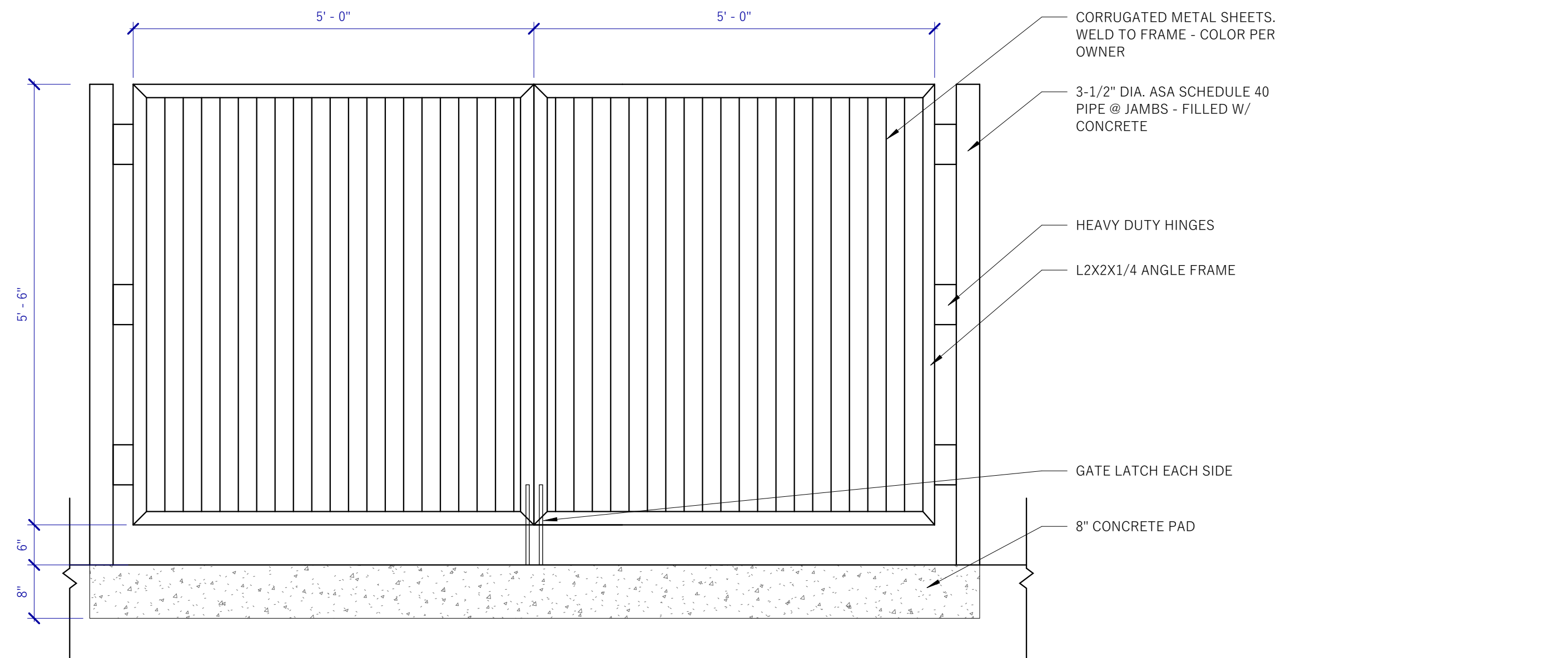


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**ARCHITECTURAL
DETAILS**

A5.2

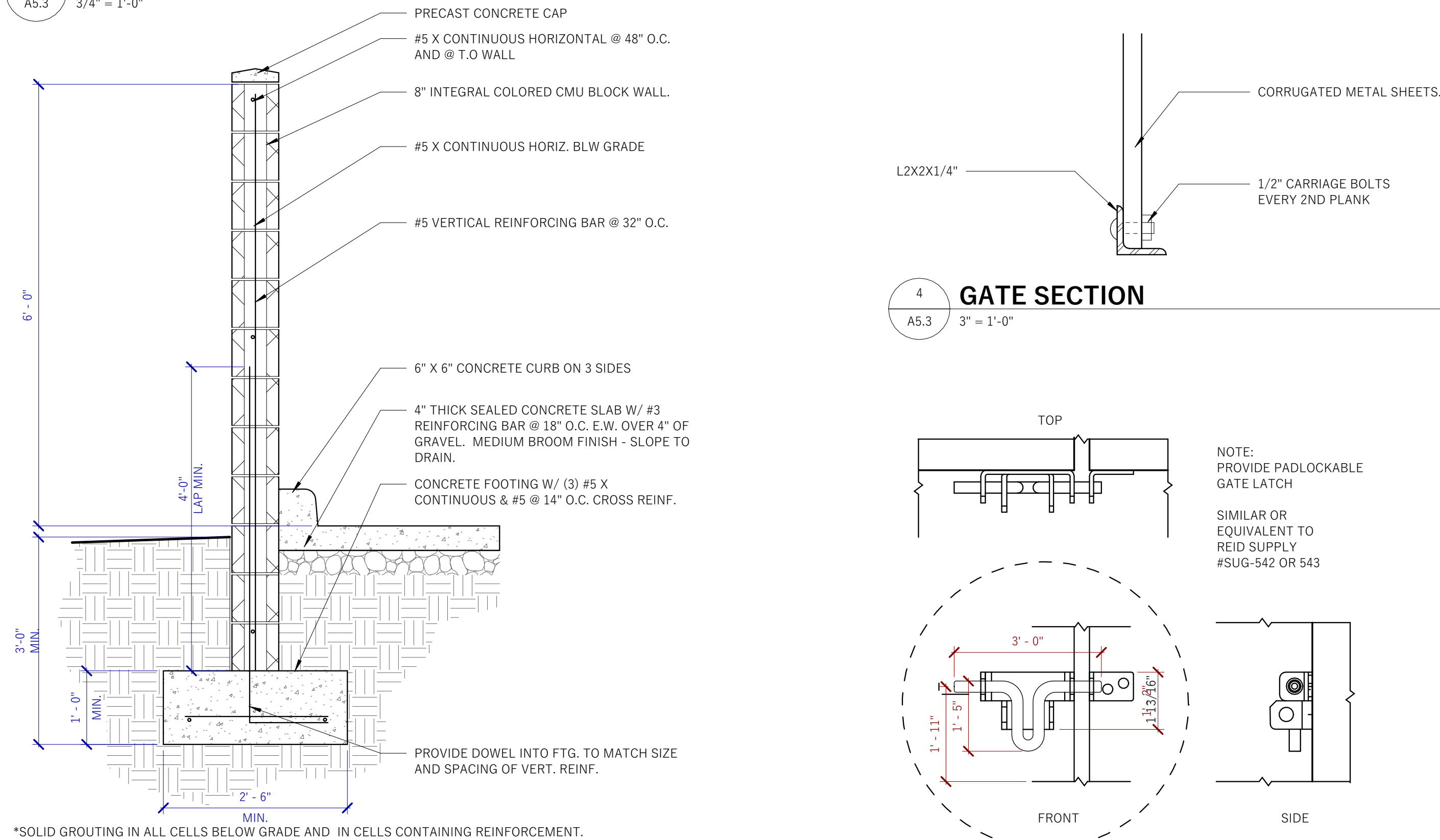




1
A5.3

DUMPSTER GATE

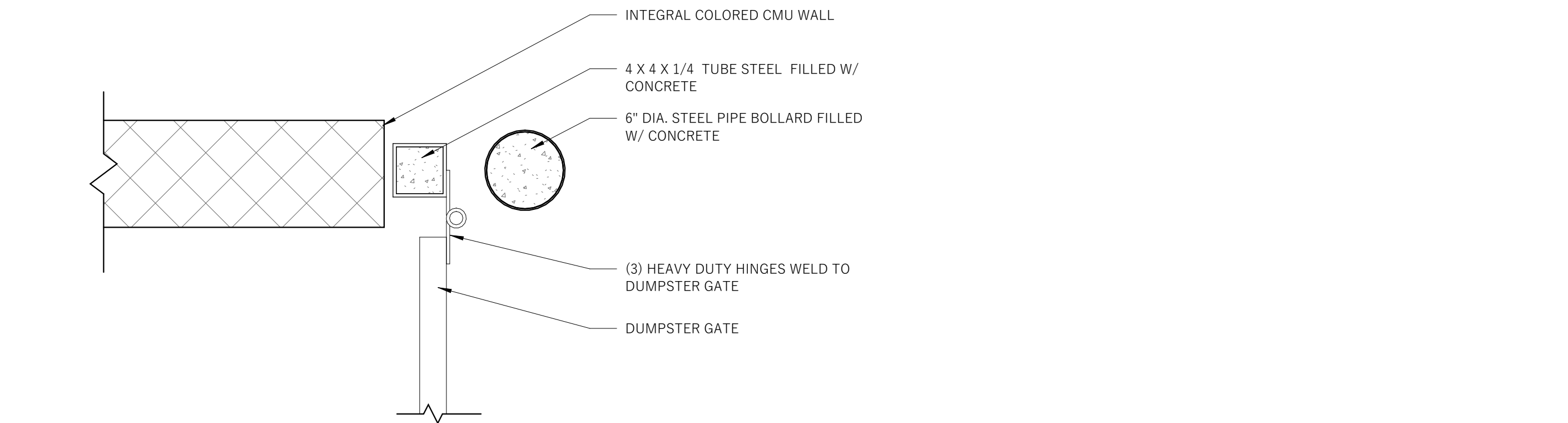
3/4" = 1'-0"



3
A5.3

DUMPSTER ENCLOSURE WALL SECTION

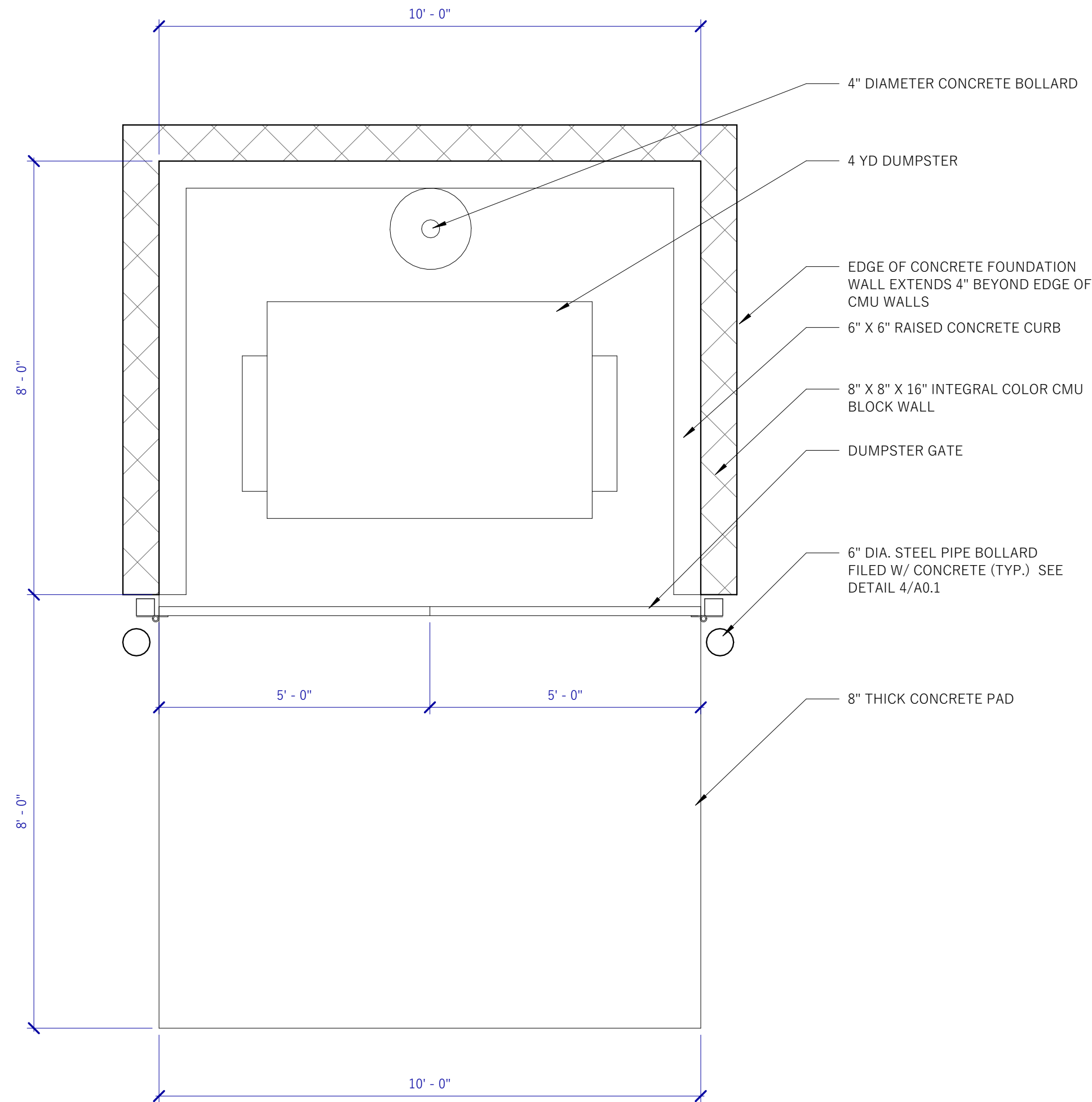
3/4" = 1'-0"



6
A5.3

DUMPSTER ENCLOSURE DETAIL

1 1/2" = 1'-0"



2
A5.3

DUMPSTER ENCLOSURE PLAN

1/2" = 1'-0"

CONSULTANT

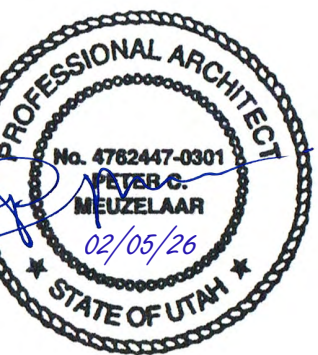
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DUMPSTER ENCLOSURE DETAILS

A5.3



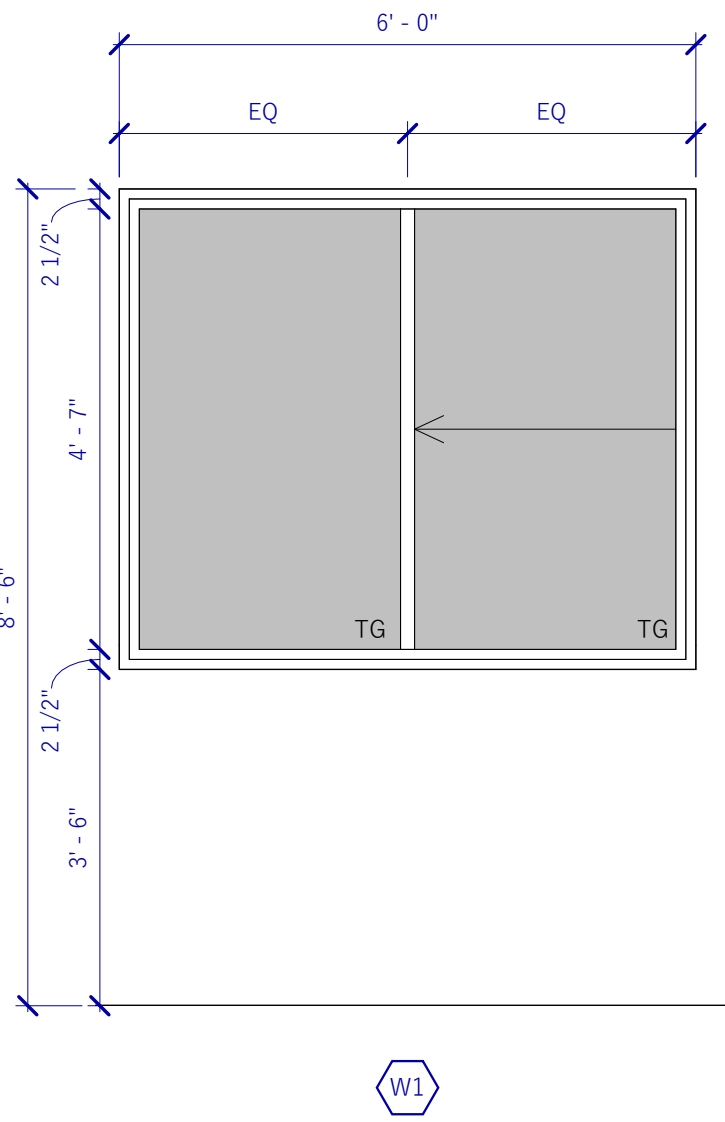
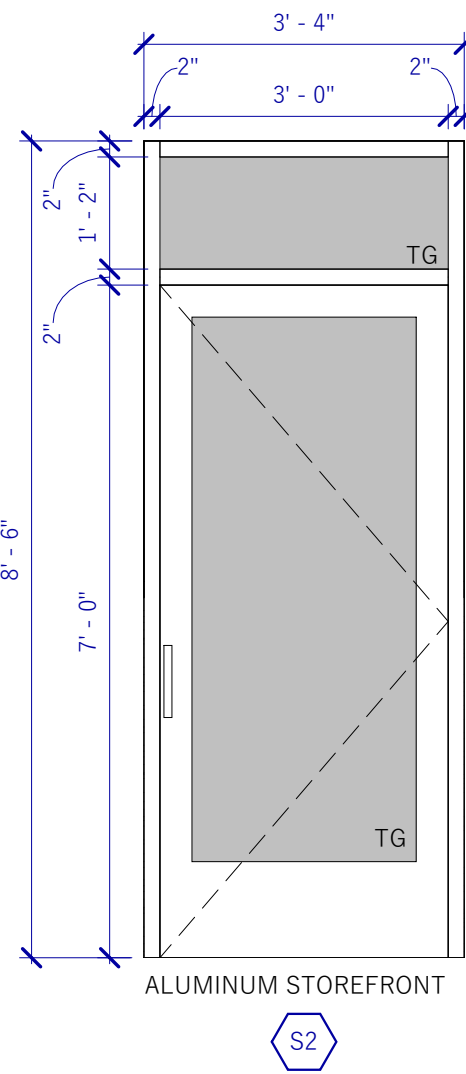
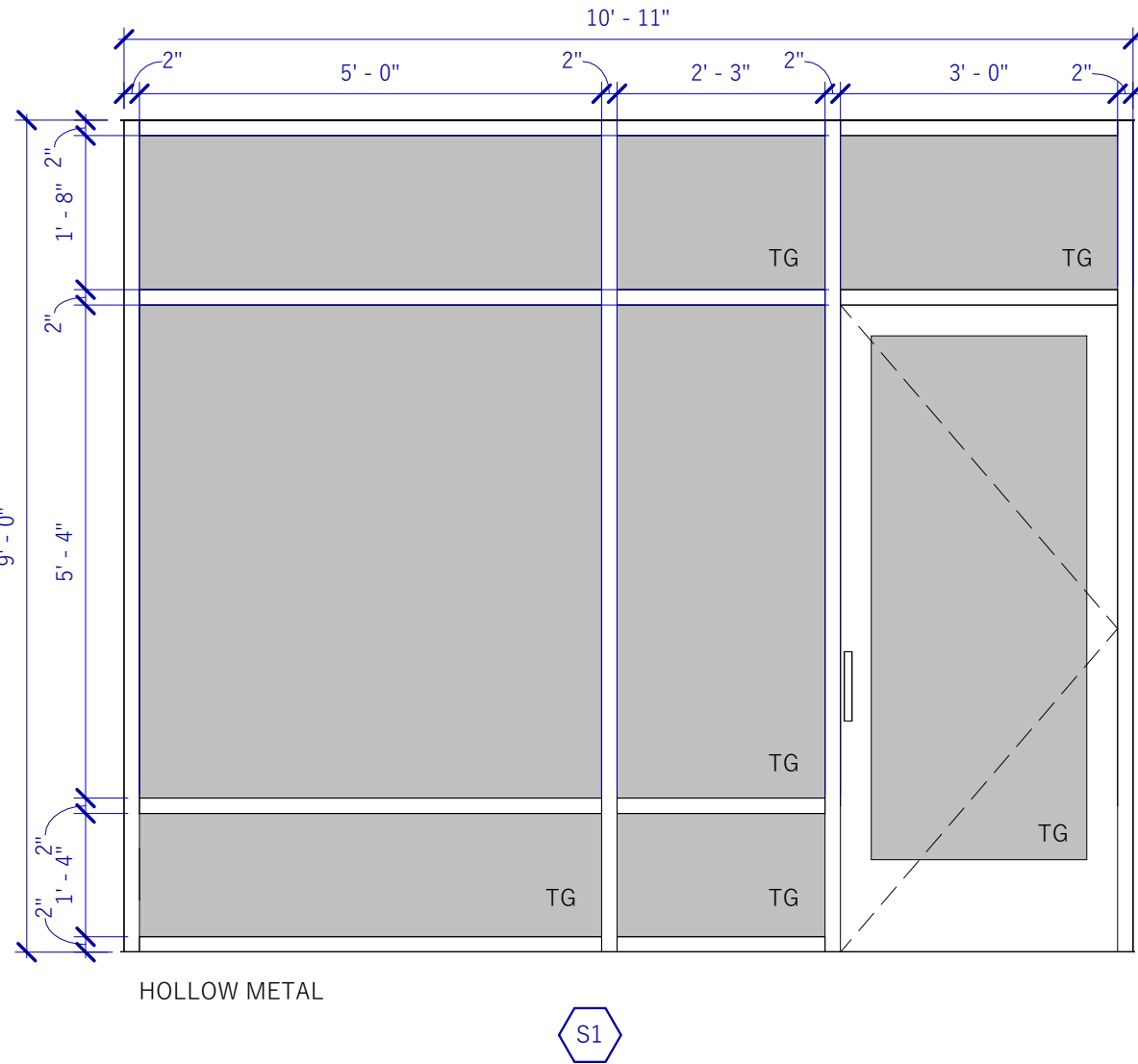
DOOR SCHEDULE								
DOOR #	WIDTH	HEIGHT	DOOR		FRAME		HARDWARE GROUP	REMARKS
			MATERIAL	FINISH	MATERIAL	FINISH		

101	3' - 0"	7' - 0"	WOOD/GLAZE	STAIN	HM	PAINT	H1	
102	3' - 0"	7' - 0"	WOOD	PAINT	HM	PAINT	H2	MATCH EXISTING MECH. ROOM DOOR
103	3' - 0"	7' - 0"	WOOD/GLAZE	STAIN	HM	PAINT	H1	
104A	3' - 0"	7' - 0"	ALUM/GLAZE	PREFIN	ALUM	PREFIN	H3	
104B	3' - 0"	7' - 0"	ALUM/GLAZE	PREFIN	ALUM	PREFIN	H3	
105	3' - 0"	7' - 0"	WOOD/GLAZE	STAIN	HM	PAINT	H1	
106	3' - 0"	7' - 0"	WOOD/GLAZE	STAIN	HM	PAINT	H1	
107	3' - 0"	7' - 0"	WOOD/GLAZE	STAIN	HM	PAINT	H1	

WINDOW SCHEDULE							
WINDOW	WIDTH	HEIGHT	OPERATION	MATERIAL	FINISH	REMARKS	
W1	6' - 0"	5' - 0"	OPERABLE	ALUM	PREFIN		

NOTES

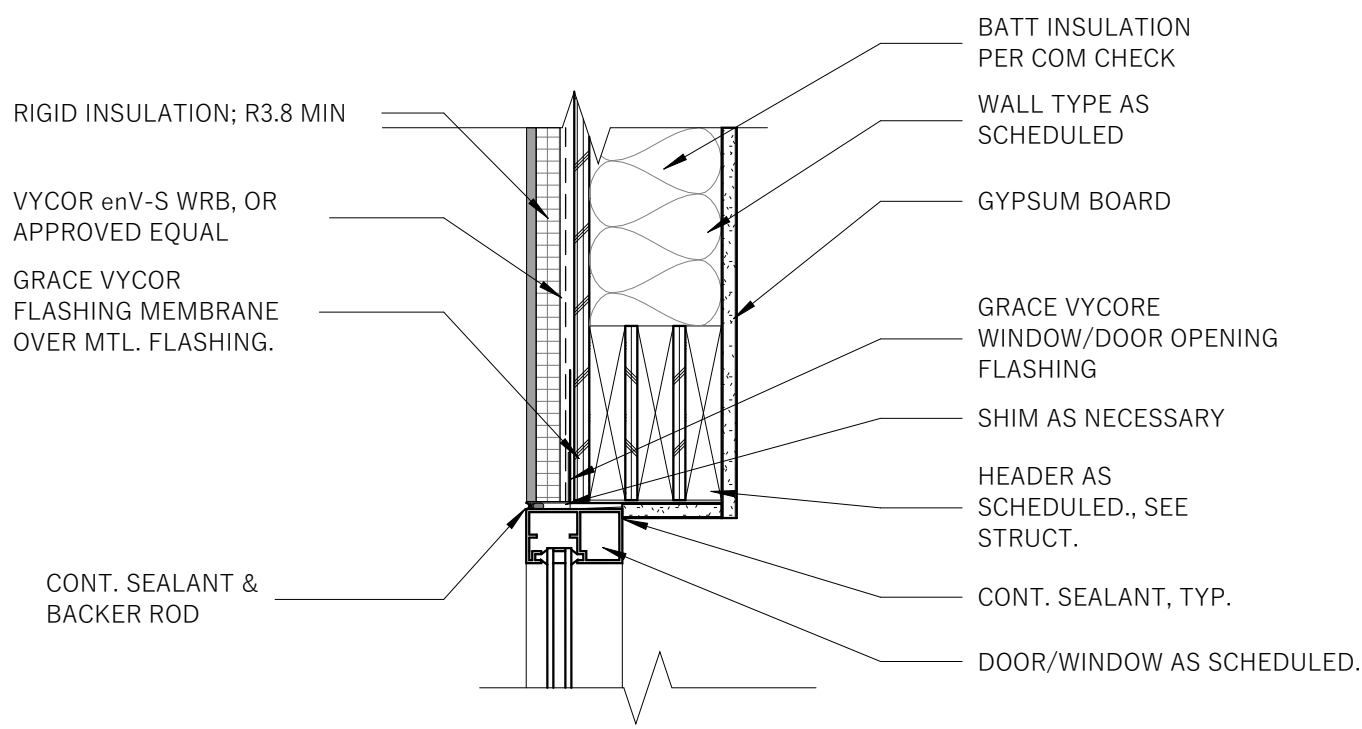
1. COORDINATE WITH OWNER ON ALL DOORS, WINDOWS, AND STOREFRONT AS REQUIRED
2. DOORS AND WINDOW STYLES, MATERIALS AND FINISHES TO MATCH EXISTING
3. FIELD VERIFY THAT ALL DOOR HEIGHTS, WINDOW SIZE AND WINDOW MOUNTING HEIGHTS MATCH EXISTING CONDITIONS



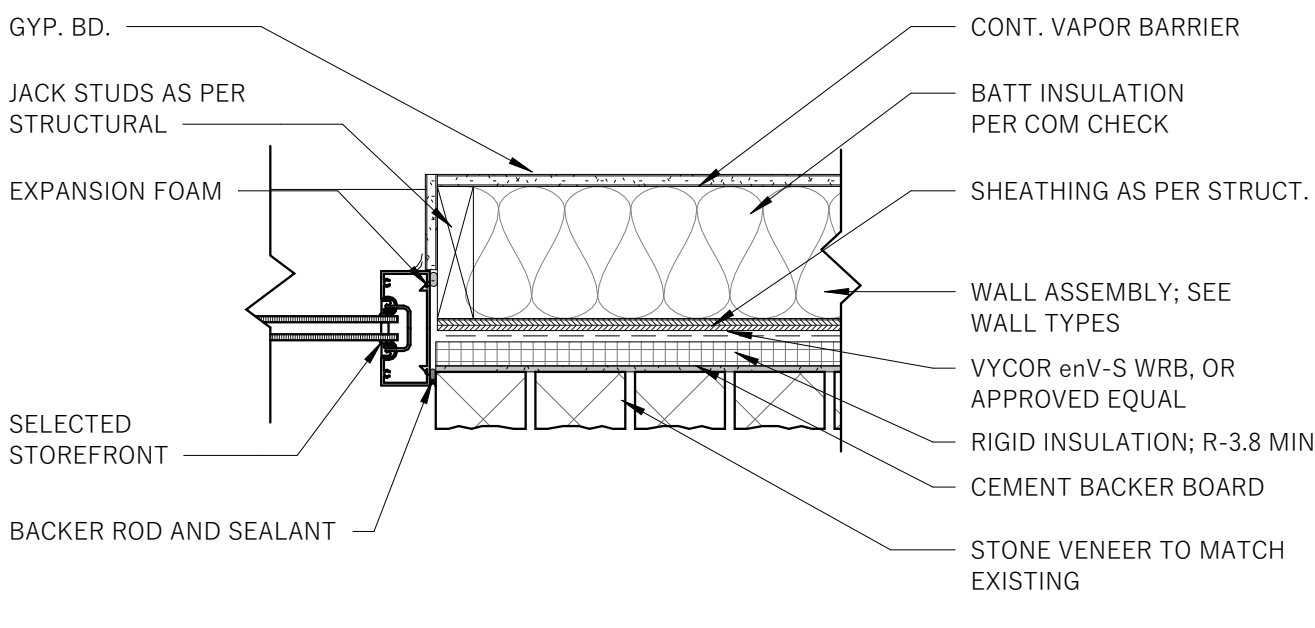
1 HOLLOW METAL / STOREFRONT LEGEND
A6.2 1/2" = 1'-0"

2 WINDOW LEGEND
A6.2 1/2" = 1'-0"

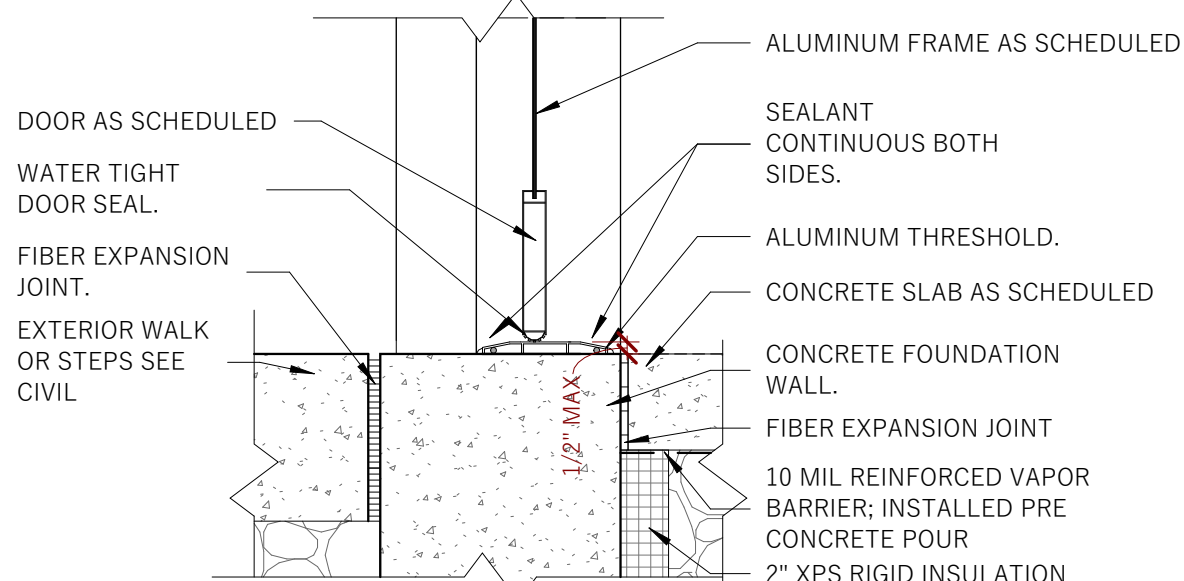
NOTE: TG = TEMPERED GLASS



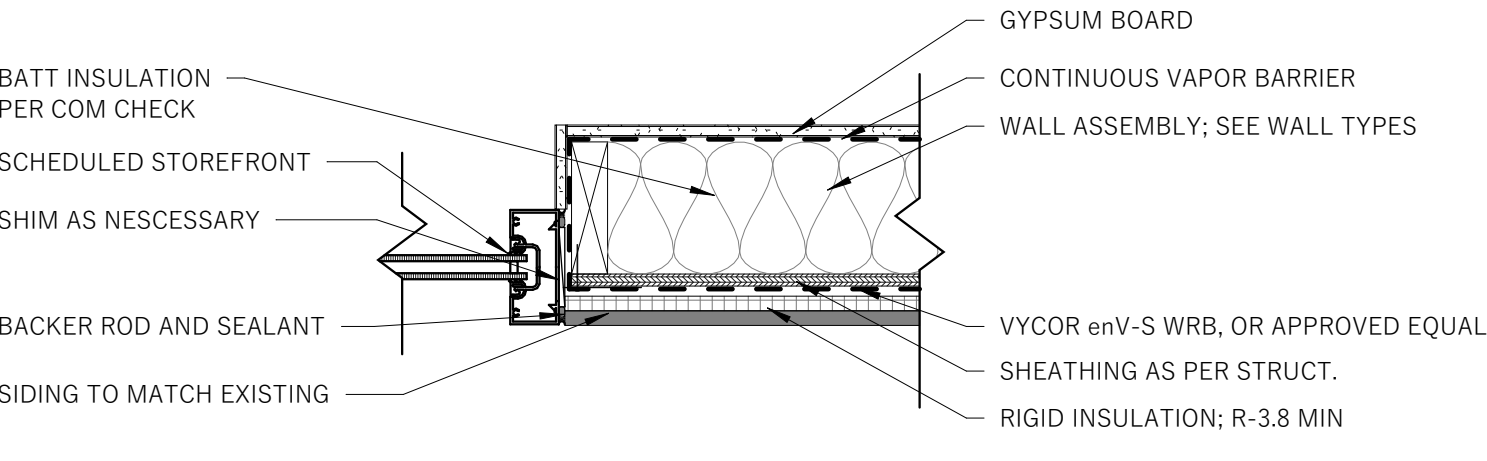
5 STOREFRONT HEAD SIDING
A6.2 1 1/2" = 1'-0"



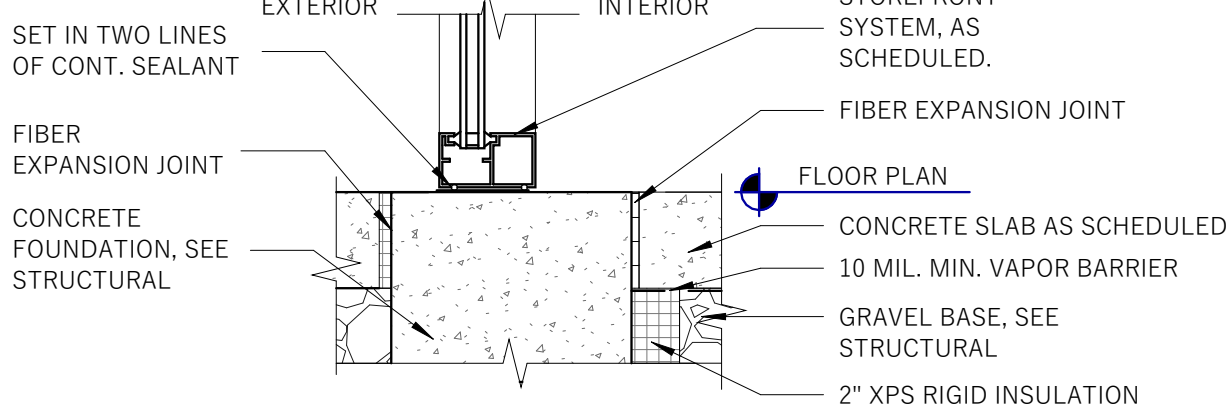
6 STOREFRONT JAMB - STONE
A6.2 1 1/2" = 1'-0"



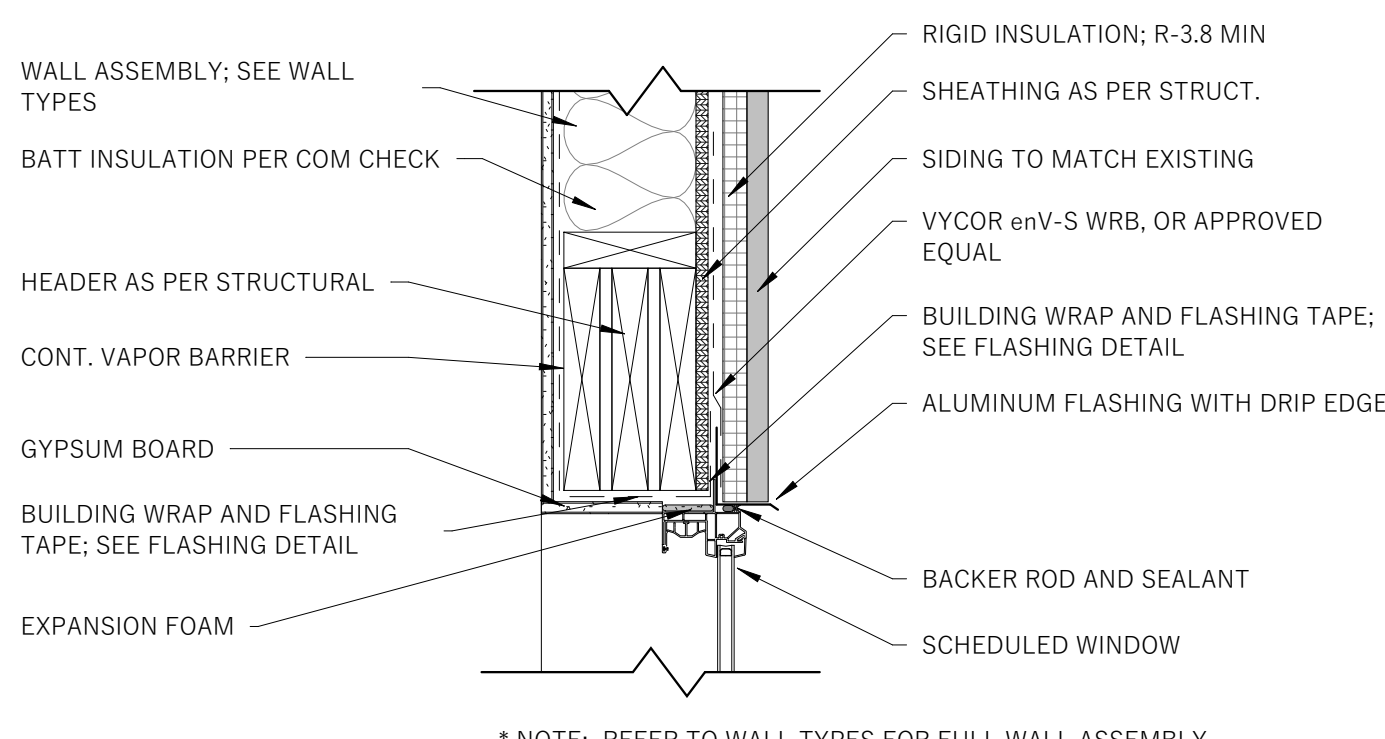
7 STOREFRONT DOOR THRESHOLD
A6.2 1 1/2" = 1'-0"



9 STOREFRONT JAMB - SIDING
A6.2 1 1/2" = 1'-0"

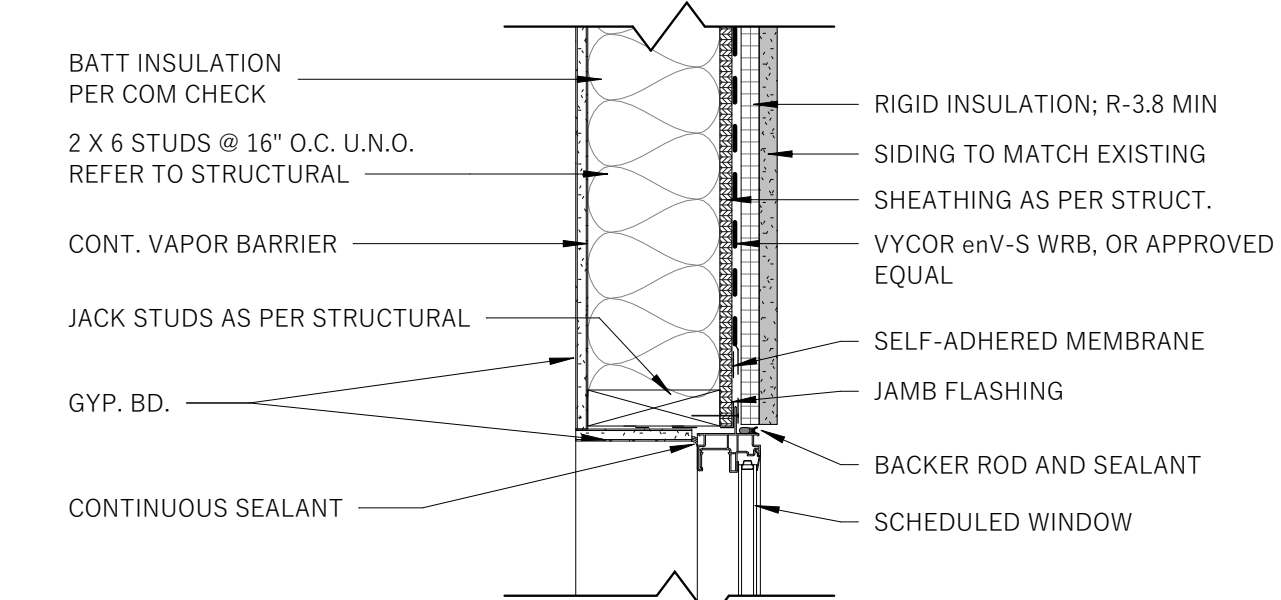


10 STOREFRONT AT FLOOR DETAIL
A6.2 1 1/2" = 1'-0"



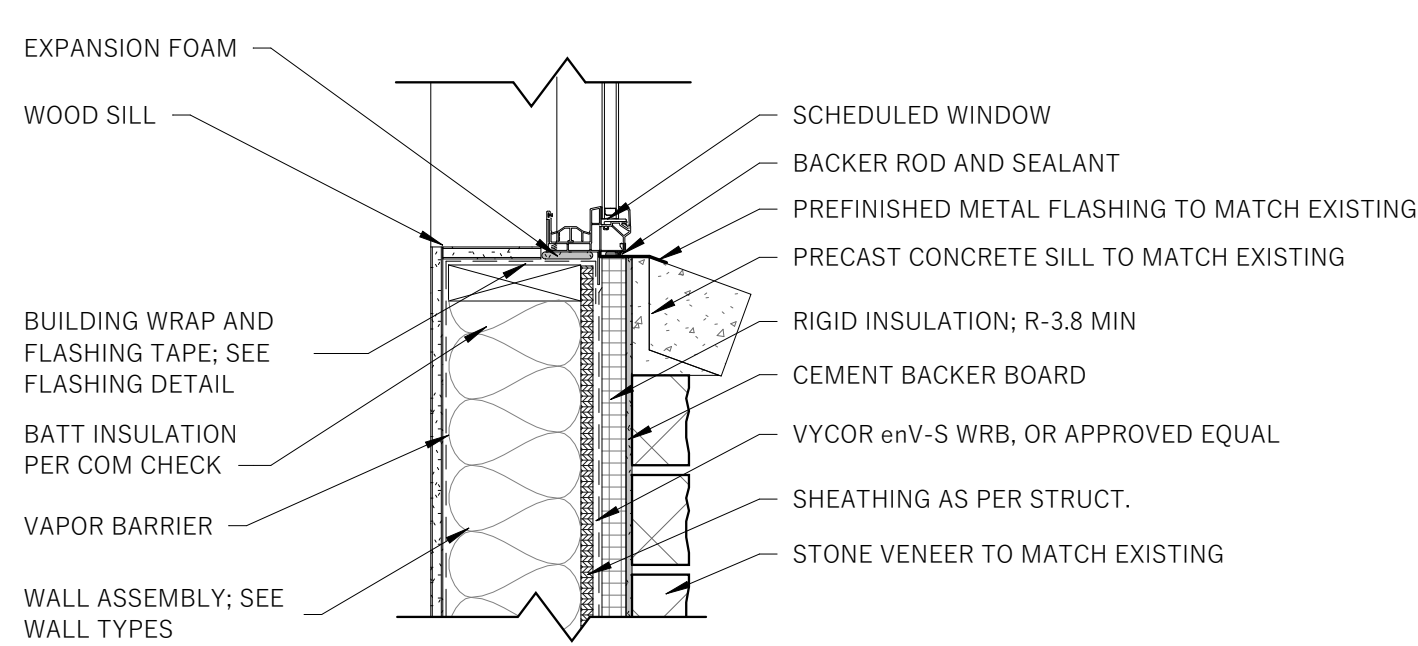
* NOTE: REFER TO WALL TYPES FOR FULL WALL ASSEMBLY

3 WINDOW HEAD AT SIDING
A6.2 1 1/2" = 1'-0"



* NOTE: REFER TO WALL TYPES FOR FULL WALL ASSEMBLY

4 WINDOW JAMB - SIDING
A6.2 1 1/2" = 1'-0"



* NOTE: REFER TO WALL TYPES FOR FULL WALL ASSEMBLY

8 WINDOW SILL AT STONE WALL
A6.2 1 1/2" = 1'-0"

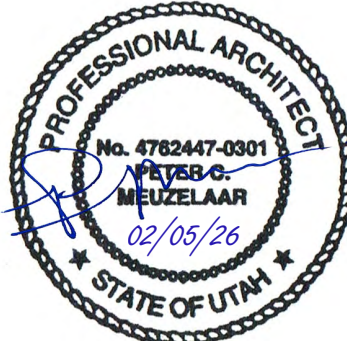
CONSULTANT

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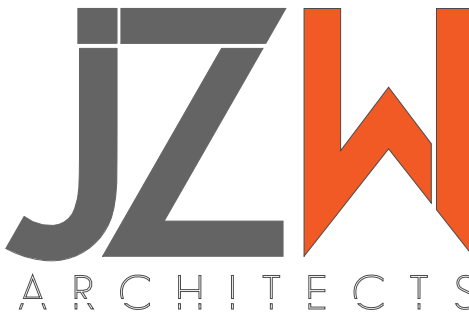
REVISIONS:
NO. DATE DESCRIPTION



PROJECT NUMBER:
25152

DOOR &
WINDOW
DETAILS

A6.2



GENERAL STRUCTURAL NOTES

DESIGN CRITERIA JZW Architects Jordanelle Special Service District Addition (Heber) 1021125

1. Building code: Utah Code, Title 15A
- 1.1 Model building code: 2021 IBC
- 1.2 Use and occupancy classification: B (Business)
- 1.3 Risk Category: II (Not risk categories I, III, IV)
2. Dead loads
- 2.1 Roof = 20 psf (15 psf top chord, 5 psf bottom chord)
- 2.2 Floor = 0 psf
- 2.3 Walls = 10 psf (interior walls), 12 psf (exterior walls)
3. Live loads
- Roofs (ordinary construction) = 20 psf (or 300 lb point load)
4. Rain load
- 4.1 Median 15-minute duration rainfall intensity = 4.08 in/hr
- 4.2 Median 60-minute duration rainfall intensity = 1.7 in/hr
5. Snow load
- 5.1 Ground snow load, Pg = 66 psf (elevation 5835 ft)
- 5.2 Exposure factor, Ce = 1
- 5.3 Thermal factor, Ct = 1.1
- 5.4 Snow importance factor, Is = 1
- 5.5 Flat roof snow load, Pf = 51 psf
- 5.6 Roof slope factor, Cs = 1
6. Earthquake design data
- 6.1 Mapped acceleration parameters
- 6.1.1 Latitude, Longitude: 40.573, -111.426
- 6.1.2 MCE short period Ss = 0.55 SDS = 0.5
- 6.1.3 MCE 1.0 sec. period S1 = 0.2 SD1 = 0.29
- 6.2 Seismic design category: D
- 6.3 Seismic importance factor, Ie = 1
- 6.4 Basic structural system: Bearing wall systems
- 6.5 Seismic force-resisting system: Light-frame wood walls (wood sheathing)
- 6.5.1 Response modification factor R = 6.5
- 6.5.2 System overstrength factor Omega = 3
- 6.5.3 Deflection amplification factor Cd = 4
- 6.6 Equivalent Lateral Force Procedure
- 6.6.1 Seismic response coefficient Cs = 0.08
- 6.6.2 Seismic base shear (LRFD) V = 17399 lb
7. Wind design data
- 7.1 Exposure category: C
- 7.2 Basic design wind speed, V = 105 mph
- 7.3 Components and cladding pressure = 24 psf (end), 21 psf (interior), 45 psf (eave), 41 psf (roof)
- 7.4 Internal pressure coeff., Gcpi = 0.18
8. Geotechnical design basis:
- Presumptive values, 2021 IBC Table 1806.2
- 8.2 Site class = D-Default
- 8.3 Soil notes: None
- 8.4 Lateral earth pressure
- 8.4.1 Active = 30 psf/ft
- 8.4.2 At-rest = 60 psf/ft
- 8.5 Allowable foundation parameters
- 8.5.1 Allowable soil bearing, Qa = 1500 psf
- 8.5.2 Allowable lateral bearing = 150 psf/ft
- 8.5.3 Coefficient of friction = 0.25
- 8.6 Minimum frost cover = 36 in.

DEFERRED SUBMITTALS

1. The following items are to be submitted subsequent to the time of application (deferred submittals):
- Prefabricated metal plate wood trusses - roof (truss manufacturer)
- Timber frames (timber frame manufacturer)
2. Deferred submittals shall have the prior approval of the building official (2021 IBC 107.3.4.1).
3. Deferred submittal documents shall be submitted to the registered design professional in responsible charge who shall review and forward them to the building official with a notation indicating that the documents have been reviewed and found to be in general conformance to the design of the building (2021 IBC 107.3.4.1).
4. Deferred submittal items shall not be installed until the design and submittal documents have been approved by the building official (2021 IBC 107.3.4.1).

GENERAL

1. Construction documents are valid for a single use at the project location and shall not be reused, copied, or reproduced without written approval of the registered design professional in responsible charge.
2. General notes and typical details are provided as a supplement to the construction documents and apply where specific notes and details are not available. Specific notes and structural details shall take precedence over general notes and typical details. Structural requirements shown in the framing plans and in structural details shall take precedence over structural notes indicated in architectural sections.
3. Printed dimensions shall take precedence over scales shown on construction documents. The registered design professional in responsible charge does not warrant the accuracy of scaled dimensions.
4. Approval by the inspector does not imply approval by the registered design professional in responsible charge. Structural specifications that are unclear or ambiguous shall be referred to the registered design professional in responsible charge for interpretation or clarification.
5. The registered design professional in responsible charge assumes no liability for the accuracy, completeness, or code compliance of architectural, electrical, mechanical, drainage, or other non-structural specifications.
6. Omissions in and conflicts between the various elements of the construction documents shall be brought to the immediate attention of the registered design professional in responsible charge and shall be resolved by the same before proceeding with any work involved.
7. Requests for substitutions shall be submitted in writing to the registered design professional in responsible charge and shall include the reasons for the request and any cost differentials. Substitutions are not allowed unless approved in writing by the registered design professional in responsible charge.
8. The contractor shall become familiar with all portions of the construction documents and shall ensure that all subcontractors are familiar with those portions pertaining to their area of work. The contractor shall verify all site conditions, dimensions, elevations, coordinate all doors, windows, non-bearing interior and exterior walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfer, kerfs, and so forth, and immediately notify the registered design professional in responsible charge regarding actual conditions which are not in agreement with the construction documents.
9. The contractor is responsible for the method, means, and sequence of all structural erection except when specifically noted otherwise in the construction documents. The contractor shall provide temporary shoring and bracing, providing adequate vertical and lateral support during erection. Shoring and bracing shall remain in place until all permanent members are placed and all final connections are completed.
10. The contractor is responsible for standard connections, unless noted otherwise. The contractor shall obtain additional assistance from the registered design professional in responsible charge for non-standard connections.

SOIL AND FOUNDATIONS

1. Geotechnical investigations shall conform to 2021 IBC 1803. Excavation, grading and fill shall conform to 2021 IBC 1804. Footings and foundations shall be constructed in accordance with 2021 IBC 1807 through 1810.
2. Where required, the owner shall submit a geotechnical investigation report to the building official in accordance with 2021 IBC 1803. The contractor shall inform the registered design professional in responsible charge if the soil conditions are not consistent with the investigation report and the foundation design data.
3. Excavations for any purpose shall not remove lateral support from any footing or foundation without first underpinning or protecting the footing or foundation against settlement or lateral translation (2021 IBC 1804.1).
4. Excavation outside the foundation shall be backfilled with soil that is free of organic material, construction debris, cobbles and boulders or with a controlled low-strength material (CLSM). The backfill shall be placed in lifts and compacted, in a manner that does not damage the foundation or the waterproofing or dampproofing material (2021 IBC 1804.3).
5. The ground immediately adjacent to the foundation shall have a 5-percent slope away from the building for a minimum distance of 10 feet measured perpendicular to the face of the foundation wall. If physical obstructions or lot lines prohibit 10 feet of horizontal distance, a 5-percent slope shall be provided to an approved alternative method of diverting water away from the foundation. Impervious surfaces within 10 feet of the building foundation shall have a minimum 2-percent slope (2021 IBC 1804.4).
6. Footings and foundations shall be built on undisturbed soil, compacted fill material or CLSM. Compacted fill material and CLSM shall conform to 2021 IBC 1804.6 and 2021 IBC 1804.7, respectively (2021 IBC 1809.2).
7. The top surface of the footings shall be level. The bottom surface of footings is permitted to have a maximum 10-percent slope. Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground has more than a 10-percent slope (2021 IBC 1809.3).
8. The minimum depth of footings below the undisturbed ground surface shall be 12 inches (2021 IBC 1809.4). Foundation walls, piers and other permanent supports shall be extended below the frost line, except where otherwise protected from frost (2021 IBC 1809.5).
9. The placement of footings on or adjacent to 33-percent slopes and steeper shall conform to 2021 IBC 1808.7.
10. Floors of basements shall be placed over base course not less than 4 inches in thickness and a drain shall be installed around the foundation perimeter that consists of gravel or crushed stone containing not more than 10-percent material that passes through a No. 4 sieve (2021 IBC 1805.4.1, 1805.4.2).
11. Backfill shall not be placed against a foundation wall until the wall has sufficient strength and is anchored to the floor above, or is sufficiently braced to prevent damage by the backfill, except bracing is not required for walls supporting less than 4 feet of unbalanced backfill (R404.1.7).

CONCRETE

1. Concrete materials, quality control, and construction shall comply with 2021 IBC Chapter 19 and ACI 318-19.
2. Compressive strength (minimum specified at 28 days)
- 2.1. Footings: 3,000 psi (2021 IBC 1808.8.1)
- 2.2. Interior floor slabs on grade: 3,000 psi
- 2.3. Exterior floor slabs on grade: 4,000 psi
- 2.4. Suspended slabs: 4,000 psi
- 2.5. Walls: 3,000 psi (2021 IBC 1904.1) for R-2, R-3 occupancies and appurtenances
- 4,000 psi for other occupancies
3. Materials
- 3.1. Aggregates (ASTM C150). Concrete exposed to freezing and thawing or deicing chemicals shall conform to the maximum water-cementitious material ratios and minimum compressive strength requirements of ACI 318-19 Table 19.3.1.1 & 19.3.2.1.
- 3.2. Aggregates (ASTM C33): nominal maximum size of coarse aggregate shall not be larger than 1/5 the narrowest dimension between forms, nor 1/3 the depth of slabs, nor 3/4 the minimum clear spacing between reinforcing bars or wires, tendons, or ducts (ACI 318-19 26.4.2.1).
- 3.3. Water used in mixing concrete shall conform to ASTM C1602 (ACI 318-19 26.4.1.4.1)
- 3.4. Admixtures shall be subject to prior approval by the registered design professional in responsible charge (ACI 318-19 26.4.1.5.(b)).
- 3.5. Concrete exposed to freezing and thawing or deicing chemicals shall be air-entrained with air content indicated in ACI 318-19 Table 19.3.3.1. Tolerance on air content as delivered shall be plus/minus 1.5 percent (ACI 318-19 R26.4.2.1(a)(6)).
4. Steel Reinforcement
- 4.1. Deformed bars: fy = 60 ksi (ASTM A615)
- 4.2. Welded plain wire: fy = 60 ksi (ASTM A1064)
- 4.3. Deformed Bar Anchors (DBA) (ASTM A1064)
- 4.4. Headed Stud Anchors (HSA) (ASTM A108)
- 4.5. At the time concrete is placed, reinforcement shall be free from ice, mud, oil, or other deleterious coatings that decrease bond (ACI 318-19 26.6.1.2(d)).
- 4.6. Reinforcement shall be accurately placed and adequately supported before concrete is placed, and shall be secured against displacement.
- 4.7. Details of reinforcement shall conform to ACI 318-19 Chapter 25.
5. Minimum concrete cover (ACI 318-19 Table 20.5.1.3.1)
- 5.1. Concrete cast against and exposed to earth: 3 inches
- 5.2. Concrete exposed to earth or weather:
- 5.2.1. No. 6 through No. 18 bars: 2 inches
- 5.2.2. No. 5 bar, W31 wire, and smaller: 1.5 inches
- 5.3. Concrete not exposed to earth or weather:
- 5.3.1. Slabs, walls, joists No. 11 bar and smaller: 0.75 inches
- 5.3.2. Beams, columns primary reinf., ties, stirrups: 1.5 inches
6. Formwork shall conform to ACI 318-19 Sections 26.11 and 26.12 and ACI 347. Forms shall be removed in a manner as not to impair safety and serviceability of the structure. Concrete exposed by form removal shall have sufficient strength not to be damaged by removal operation (ACI 318-19 26.11.2).
7. Conduits, pipes, and sleeves of any material not harmful to concrete and within the limitations of ACI 318-19 20.6 shall be approved by the registered design professional in responsible charge (ACI 318-19 20.6).
8. Construction joints shall be so made and located as not to impair the strength of the structure (ACI 318-19 18.10.10). Sawcut or tooled joint 25% of slab thickness within 12 hours of pour or provide expansion strips with #4x48" @ 16" O.C. crossing the joint. Max spacing between joints shall not exceed 36 times the slab thickness or 15'-0".
9. The thickness of concrete floor slabs on grade shall not be less than 4 inches. A 10-mil polyethylene vapor retarder with joints lapped not less than 6 inches (or an equivalent material) shall be placed between the base course or subgrade and the concrete floor slab, except a vapor retarder is not required in detached utility buildings or other unheated facilities (2021 IBC 1907).

MASONRY

1. Masonry materials, construction, and quality shall conform to 2021 IBC 2103-2105, TMS 402/602-16.
- 1.1. Compressive strength: fc = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
2. Concrete masonry units (CMU) (ASTM C90)
- 2.1. Grade N
- 2.2. Compressive strength: fm = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
3. Mortar (ASTM C270)
- 3.1. Type S Portland cement (TMS 402-16 7.4.4.2.2)
- 3.2. Compressive strength: fc = 2,000 psi (TMS 602-16 1.4B.2 TABLE 2)
4. Grout (ASTM C476)
- 4.1. Type: fine or coarse (2021 IBC 2103.3)
- 4.2. Compressive strength (minimum specified at 28 days): fc = 2,000 psi (ASTM C1019)
5. Steel reinforcement
- 5.1. Deformed bars: fy = 60 ksi (ASTM A615 Gr. 60)
6. Bed joint thickness shall be 5/8 inch maximum (TMS 602-16 1.4B.2)
7. Grout shall have an 8'-11" slump using a 3/8" maximum aggregate. Grout lifts shall not exceed 5 feet in height unless noted otherwise. Consolidate by mechanical vibration pours that exceed 12 inches in height of the bars, nor less than 1 inch (TMS 402-16 6.1.3). Joint reinforcement shall have cover not less than 5/8" (TMS 402-16 6.1.4.2)
8. The diameter of bend measured on the inside of reinforcing bars, other than for stirrups and ties, shall not be less than specified in table 6.1.8 (TMS 402-16 6.1.8.2)
10. All masonry below grade shall be solid grouted.
11. Control joint spacing not to exceed 30'-0". See Architectural for locations.

MASONRY AND STONE VENEER

1. Masonry veneer materials, construction, and quality shall conform to 2021 IBC 2103-2105 and TMS 402-16 Chap. 6.
2. Lintels
- 2.1. Veneer shall not support any vertical load other than the dead load of the veneer above. Veneer above openings shall be supported on lintels of noncombustible materials. Lintels shall have 1 inch of bearing for each 1 foot of span, but not less than 4 inches of bearing.
3. Anchorage
- 3.1. Veneer shall be anchored to the supporting wall framing with hot-dipped galvanized metal ties. (Strand wire or corrugated sheet metal)
- 3.2. Engage all anchor ties with a No. 9 gage wire in the center of the veneer and embedded in the mortar joint. (R703.8.4.1)
- 3.3. Each tie shall be spaced not more than 16 inches on center horizontally and vertically and shall support not more than 2 square feet of wall area. Additional metal ties shall be provided around all wall openings greater than 16 inches in either dimension. (R703.8.4.1)

WOOD

1. Wood materials, quality, and construction shall conform to 2021 IBC Chapter 23 and Table 2304.10.
2. Structural lumber (2021 IBC 2303.1.1-9, 2021 NDS)
- 2.1. Bearing walls: Douglas-Fir Larch (DF) Stud (ASTM D1990, DOC PS 20)
- 2.2. Posts: Douglas-Fir Larch (DF) Stud (ASTM D1990, DOC PS 20)
- 2.3. Beams and headers: Douglas-Fir Larch (DF) No. 2 (ASTM D1990, DOC PS 20)
- 2.4. Heavy timber: Douglas-Fir Larch (DF) No. 1 (ASTM D1990, DOC PS 20)
- 2.5. Sill plates: Preservative-treated wood, redwood (AWPA U1 M4)
- 2.6. Naturally durable or preservative-treated wood shall be used where structural lumber is 18 inches or closer to exposed ground; where structural lumber is in contact with exterior masonry or concrete walls below grade; where sleepers, sills, posts, and columns are on a concrete or masonry slab or footing that is in direct contact with earth; and where structural lumber is attached directly to exterior masonry or concrete walls, unless a 0.5 inch air space on top, sides, and end is provided (2021 IBC 2304.12)
3. Structural logs (ASTM D 3957) - ICC - 400 standard for the design and construction of log structures
4. Structural glued-laminated timber (2021 IBC 2303.1.3, 2021 NDS 5.1.1)
- 4.1. Single span: 24F-1.8E (24F-V4) (ASTM D3737, ANSI/AITC A190.1)
- 4.2. Multiple span: 24F-1.8E Balanced layup (24F-V8) (ASTM D3737, ANSI/AITC A190.1)
- 4.3. Cantilever span: 24F-1.8E Balanced layup (24F-V8) (ASTM D3737, ANSI/AITC A190.1)
5. Structural composite lumber and engineered wood (2021 IBC 2303.1.10, 2021 NDS 8.1.1)
- 5.1. Laminated strand lumber (LSL)
- 5.1.1. Ex = 1.3E (ASTM D5456)
- 5.1.2. Ex = 1.5E (ASTM D5456)
- 5.1.3. Ex = 1.55E (ASTM D5456)
- 5.1.4, 1-125 inch APA Performance-Rated (or equivalent) rim board - (2021 IBC 2303.1.13, ASTM 7672, ANSI/APA PRR410)
- 5.2. Laminated veneer lumber (LVL)
- 5.2.1. Ex = 2.0E (ASTM D5456)
- 5.3. Parallel strand lumber (PSL)
- 5.3.1. Ex = 2.0E (beams) (ASTM D5456)
- 5.3.2. Ex = 1.8E (columns) (ASTM D5456)
- 5.4. Prefabricated wood Joist (2021 IBC 2303.1.2, 2021 NDS 7.1.1) (ASTM D5065)
6. Wood structural panels (2021 IBC 2304.8, 2021 NDS 9.1.3)
- 6.1. Roof, floor, and wall sheathing: oriented strand board (OSB) (DOC PS 1.2).
- 6.2. Sheathing shall be manufactured with exterior glue and not less than 4X8 feet, except at boundaries and at changes in framing (2021 IBC 2305.1, AWC SDPWS-2021).
- 6.3. Wall sheathing
- 6.3.1. Oriented strand board (OSB) (DOC PS 1.2)
- 6.3.2. All panel joints in walls shall occur over studs or blocking using a minimum of 8d common nails spaced a maximum of 6 inches at panel edges and 12 inches at intermediate framing (2021 IBC 2306.3).
- 6.4. Roof and floor sheathing shall be placed perpendicular to supporting framing. Stagger sheathing joints.
7. Fasteners
- 7.1. Nails (2021 IBC 2303.6, 2021 NDS Table L4) (ASTM F1667)
- Common
- 7.1.1. 8d = 0.131" X 2.5" 0.113" X 2.5" 0.113" X 2.375"
- 7.1.2. 10d = 0.148" X 3.0" 0.128" X 3.0" 0.120" X 2.875"
- 7.1.3. 16d = 0.162" X 3.5" 0.135" X 3.5" 0.148" X 3.250"
- 7.2. Staples (2021 IBC 2303.6)
- 7.2.1. 16 gage = 1.5X0.4375 inch crown (ASTM F1667)
- 7.3. Bolts (2021 NDS 12.1.3, Table L1)
- 7.3.1. Connector bolts (A307)
- 7.3.2. Anchor bolts (A307) with a 3X30X.229 inch washer (2021 IBC 2308.3.1) and 7" min embedment.
- 7.3.3. Bolt holes shall be drilled with a bit 1/32 inch to 1/16 inch larger than the nominal bolt diameter.
- 7.4. Lag Screws (2021 NDS 12.1.4, Table L2) (A307)
- 7.4.1. Lag screws shall be inserted in a drilled pilot hole that is 60%-75% of the shank diameter by turning with a wrench. Do not drive screws with a hammer. Lag screws shall be provided with an oversizwed washer.
- 7.5. Fasteners in preservative-treated and fire-retardant-treated wood shall be of not dipped zinc-coated galvanized steel, silicon bronze or copper (2021 IBC 2304.10.5).
- 7.6. Sheathing fasteners shall be driven so the head or crown is flush with the sheathing surface (2021 IBC 2304.10.2).
8. Joist hangers and connectors (2021 IBC 2303.5)
- 8.1. Hanger hardware and other wood connections shall be designed to carry the capacity of the supporting members.
9. Floor framing (2021 IBC 2308.4.2)
- 9.1. Joists shall not have less than 1.5 inches of bearing on wood or metal, or less than 3 inches on masonry (2021 IBC 2308.4.2.2). Pre-fabricated wood Joists shall have minimum bearing according to the manufacturer's recommendations and specifications.
- 9.2. Joists shall be supported laterally at the ends and at each support by full-depth solid blocking, except where nailed to a header or band or rim joist. Solid blocking shall not be less than 2 inches thick (2021 IBC 2308.4.2.3).
- 9.3. Notches on the ends of joists shall not exceed one-fourth the joist depth. Holes bored in joists shall not be within 2 inches of the top or bottom of the joist. Notches in the top or bottom of joists shall not exceed one-sixth the depth and shall not be located in the middle third of the span (2021 IBC 2308.4.2.4).
- 9.4. The diameter of holes bored or cut into structural floor members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches to the notch (R502.8.1).
10. Wall construction (2021 IBC 2308.5)
- 10.1. Studs shall be placed with their wide dimension perpendicular to the wall. Not less than three studs shall be installed at each corner of an exterior wall (2021 IBC 2308.5.2).
- 10.2. Bearing and exterior wall studs shall be capped with 2-inch thick nominal (or nominal double top plates, have a width at least equal to the width of the studs, and shall be installed to provide overlapping at corners and intersections with other partitions. End joints in partitions shall be offset at least 48 inches, and shall be nailed with not less than eight 16d common face nails on each side of the joint. (2021 IBC 2308.5.3.2).
- 10.3. Studs shall have full bearing on a 2-inch thick nominal (or larger) bottom plate or sill having a width at least equal to the width of the stud (2021 IBC 2308.5.3.1).
- 10.4. In exterior walls and bearing partitions, a wood stud shall not be cut or notched in excess of 25 percent of its depth. In nonbearing partitions, a stud shall not be cut or notched in excess of 40 percent of its depth (2021 IBC 2308.5.9).
- 10.5. The diameter of bored holes in wood studs shall not exceed 40 percent of the stud depth. The edge of the bored hole shall not be closer than 0.626 inches to the edge of the stud. Bored holes shall not be located at the same section of stud as a cut or notch (2021 IBC 2308.5.10).
- 10.6. Bearing walls without wood sheathing or gypsum wall board on either side shall have blocking between wall studs at mid-height.
- 10.7. Studs shall be spaced at 16 inches on center for exterior walls, interior bearing walls, and shear walls, unless noted otherwise on the plans.
11. Posts and columns
- 11.1. Columns shall be as wide as the member they support, laterally supported at all floor levels, and extend down through the structure to the foundation. Provide squash blocking at rim joist below all columns, trimmers, and posts.
- 11.2. Wood columns and posts shall be framed to provide full end bearing (2021 IBC 2304.10.7).
- 11.3. Posts and columns shall be supported by concrete piers or metal pedestals projecting above concrete or masonry floors or decks exposed to weather or water splash, or in basements, and which support permanent structures, unless naturally durable or preservative-treated wood is used. The pedestal shall project at least 6 inches above exposed earth and at least 1 inch above floors.
- 11.4. Built-up 2x posts/columns shall have plies face nailed together with (2) rows 16d common @ 12" O.C.
12. Roof and ceiling framing (2021 IBC 2308.7).
- 12.1. Roof rafters and ceiling joists shall be supported laterally to prevent rotation and lateral displacement in accordance with 2021 IBC 2308.7.8.
- 12.2. Rafter and joists over three feet long shall be supported using hanger hardware if not supported by bearing.
- 12.3. Panel edge clips at unsupported roof sheathing edges are recommended for improved performance (APA N335).

PREFABRICATED METAL PLATE WOOD TRUSSES

1. Prefabricated metal plate wood trusses shall be designed in accordance with 2021 IBC 2303.4 and shall conform to the structural specifications and design criteria.
2. The truss designer shall provide a truss package that includes the following items:
- 2.1. Design drawings of each individual truss (2021 IBC 2303.4.3).
- 2.2. Truss placement diagram for the project (2021 IBC 2303.4.2).
- 2.3. Truss member permanent bracing specification (2021 IBC 2303.4.1.2).
3. Transfer of loads and anchorage of each truss to the supporting structure shall be approved by the registered design professional in responsible charge (2021 IBC 2303.4.4).
4. Truss members and components shall not be cut, notched, drilled, spliced or otherwise altered in any way without written concurrence and approval of the registered design professional in responsible charge. Alterations resulting in the addition of loads to any member (e.g. HVAC equipment) shall not be permitted without verification that the truss is capable of supporting such additional loading (2021 IBC 2303.4.5).

STEEL

1. Structural steel work shall conform to 2021 IBC 2205, AISC 341-16, AISC 358-16, and AISC 360-16.
2. Structural shapes
- 2.1. W: fy = 50 ksi (ASTM A992)
- 2.2. M, S, C, MC, and L: fy = 36 ksi (ASTM A36)
- 2.3. HSS Rectangular: fy = 46 ksi (ASTM A500 Gr.B)
- 2.4. HSS Round: fy = 42 ksi (ASTM A500 Gr.B)
- 2.5. Pipe: fy = 35 ksi (ASTM A53 Gr.B)
3. Plates and bars: fy = 36 ksi (ASTM A36)
4. Structural fasteners
- 4.1. High-strength bolts: fu = 120-150 ksi (ASTM F3125)
- 4.2. Common bolts: fu = 60 ksi (ASTM A307 Gr. A)
- 4.2.1. Nuts (ASTM A563)
- 4.2.2. Washers (ASTM F436)
- 4.2.3. Steel to steel bolted connections shall be made with high strength-bolts, unless noted otherwise. Bolts shall carry the identifying mark of three radial lines. All other bolted connections shall be made with bolts and nuts conforming to ASTM A307 unless note otherwise. Bolted connections shall be tightened and shall have washers as required by AISC unless noted otherwise. Enlarging holes shall be accomplished by means of reaming. Do not use a torch on any bolt holes.
- 4.3. Shear studs: fu = 65 ksi (ASTM A108)
- 4.4. Threaded rods: fy = 36 ksi (ASTM A36)
- 4.5. Anchor rods: fy = 36 ksi (ASTM F1554 Gr. 36)
5. Steel deck: fy = 36 (ASTM A1008)
6. Welding: fu = 70 ksi
- 6.1. Welding work shall comply with the American Welding Society (AWS) "Structural Welding Code," excluding items conflicting with AISC requirements.

STATEMENT OF SPECIAL INSPECTIONS

1. Special inspections shall conform to 2021 IBC 1704. Special inspections are not required for occupancies in Group U that are accessory to a residential occupancy, and work of a minor nature, unless otherwise required by the building official (2021 IBC 1704.2).
2. The owner shall employ one or more approved agencies to perform inspections during construction where special inspections are required. The special inspector shall provide written documentation to the building official demonstrating his or her competence, for inspection of the particular type of construction or operation requiring special inspection (2021 IBC 1704.2).
3. Special inspectors shall keep records of inspections. The special inspector shall furnish inspection reports to the building official, and to the registered design professional in responsible charge. Reports shall indicate that work inspected was or was not done in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report documenting required special inspections and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon by the permit applicant and the building official prior to the start of work (2021 IBC 1704.2.4).
4. Special inspections shall be required for proposed work that is, in the opinion of the building official, unusual in nature, such as, but not limited to, construction materials and systems that are alternatives to materials and systems prescribed by code and materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in code (2021 IBC 1705.1.1).
5. Soils
- 5.1. Special inspections for existing site soil conditions, fill placement, and load-bearing requirements shall be as required by 2021 IBC 1705.6 and 2021 IBC Table 1705.6.
- 5.2. The approved geotechnical report, and the documents prepared by the registered design professional shall be used to determine compliance. During fill placement, the special inspector shall determine that proper materials and procedures are used in accordance with the provisions of the approved geotechnical report (2021 IBC 1705.6).
6. Concrete
- 6.1. Special inspections for concrete construction shall conform to 2021 IBC 1705.3.
- 6.2. Special inspections are not required for isolated spread concrete footings of buildings three stories or less in height that are fully supported on earth or rock, or for continuous concrete footings supporting walls of buildings three stories or less in height that are fully supported on earth or rock where (1) the footings support walls of light-frame construction, (2) the footings are designed in accordance with 2021 IBC Table 1809.7, or (3) the structural design of the footing is based on a specified compressive strength no greater than 2,500 psi, regardless of the compressive strength specified in the construction documents or used in the footing construction. Special inspections are not required for nonstructural concrete slabs on grade, including pre-stressed slabs on grade, where the effective pre-stress in the concrete is less than 150 psi. Special inspections are not required for concrete foundation walls constructed in accordance with 2021 IBC Table 1807.1.6.2, or for concrete patios, driveways and sidewalks on grade (2021 IBC 1705.3).
7. Wood
- 7.1. Special inspection is required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other components of the seismic-force-resisting system, where the fastener spacing of the sheathing is 4 inches on center or less (2021 IBC 1705.12.1).
- 7.2. The special inspector shall inspect high-load diaphragms built on site. The special inspector shall inspect the wood structural panel sheathing to ascertain whether it is of the grade and thickness shown on the approved building plans. The special inspector must verify the nominal size of framing. The special inspector shall inspect members at adjoining panel edges, the nail or staple diameter and length, the number of fastener lines and that the spacing between fasteners in each line and at edge margins agrees with the approved building plans (2021 IBC 1705.5.1).
8. Steel
- 8.1. Special inspections for steel elements shall be as required by 2021 IBC 1705.2, 2021 IBC Table 1705.2.3, AISC 341 and AWS D1.1.
- 8.2. Special inspection of the steel fabrication process shall not be required where the fabricator does not perform any welding, thermal cutting or heating operation of any kind as part of the fabrication process. In such cases, the fabricator shall be required to submit a detailed procedure for material control that demonstrates the fabricator's ability to maintain suitable records and procedures such that, at any time during the fabrication process, the material specification and grade for the main stress-carrying elements are capable of being determined. Mill test reports shall be identifiable to the main stress-carrying elements when required by the approved construction documents (2021 IBC 1705.2).
9. Masonry
- 9.1. Special inspections for masonry elements shall conform to 2021 IBC 1705.4.
- 9.2. Special inspections shall not be required for (1) empirically designed masonry, glass unit masonry or masonry veneer designed by Section 2109, 2110 or Chapter 14, respectively, where they are part of structures classified as Risk Category I, II or III in accordance with Section 1604.5, (2) masonry foundation walls constructed in accordance with 2021 IBC Tables 1807.1.6.3 (1-4); (3) masonry fireplaces, masonry heaters or masonry chimneys installed or constructed in accordance with 2021 IBC 2111, 2112, or 2113 (2021 IBC 1705.4).
- 9.3. The minimum specially designed masonry inspection program for unit masonry and masonry veneer designed by Section 2109, 2110 or Chapter 14, respectively, in structures classified as Risk Category IV, shall comply with TMS 402 Level B Quality Assurance (2021 IBC 1705.4.1).
10. Architectural components
- 10.1. Periodic special inspection is required during the erection and fastening of exterior cladding and veneer except for architectural components in structures 30 feet or less in height, for cladding and veneer weighing 5 psf or less or for interior non-bearing walls weighing 15 psf or less. (2021 IBC 1705.13.5).

POST-INSTALLED ANCHORS

1. Epoxy adhesive anchoring systems:
- 1.1. Concrete: Hilti HIT-RE 500 V3 (ICC ES ESR-3814) or Simpson SET-3G (ICC ES Pending) or USP/Mitek CIA-GEL 7000-C (ICC ES ESR-5003)
- 1.2. Masonry (grouted): Hilti HIT 270 (ICC ES ESR-4143) or Simpson SET-3G (ICC ES Pending) or USP/Mitek CIA-GEL 7000 (ICC ES ESR-1702)
- 1.3. The calculated strength of anchorage assumes the following conditions for installation: 21 day minimum age of concrete, maximum short term concrete temperature= 150° F, maximum long term concrete temperature= 110° F, dry concrete surface, and normal weight concrete. See adhesive manufacturer notes for minimum temperature requirements. If conditions are otherwise, contact engineer for anchor specifications.
- 1.4. Steel reinforcement and rods shall be embedded 10 bar diameters unless noted otherwise in the structural drawings and details.
- 1.5. Embedded portions of steel reinforcement and rods shall be clean, straight, and free of mill scale, rust and other coatings that impair the bond with the adhesive. Reinforcement must not be bent after installation (ICC ES ESR-3829).
- 1.6. Installation of adhesive anchors shall be performed by personnel trained to install adhesive anchors.
2. Mechanical expansion anchors:
- 2.1. Concrete: Hilti KWIK BOLT TZ (ICC ES ESR-1917)
- 2.2. Masonry: Hilti KWIK BOLT 3 (ICC ES ESR-1385)
- 2.3. Expansion anchors shall not be used in tensile load applications (e.g. hold-downs, moment frames).
3. Post-installed anchoring systems shall be installed according to the Manufacturer's Printed Installation Instructions (MPII). Hole cleaning method shall be based on drilling method and borehole conditions and shall conform to the manufacturer's instructions.

STRUCTURAL OBSERVATIONS

1. Where required by the Provisions of Section 1704.6.1, the owner shall employ a registered design professional to perform structural observations as defined in 2021 IBC 202. Prior to the commencement of observations, the structural observer shall submit to the building official a written statement identifying the frequency and extent of the structural observations. At the conclusion of the work, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies which have not been resolved (2021 IBC 1704.6).



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THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS. SEE CURRENT ISSUE OR REVISION DATE.</

ORIGINAL PROJECT #

1021125

DATE:

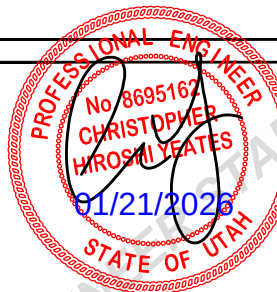
20 JAN 2026

JORDANELLE SPECIAL SERVICE DISTRICT ADDITION

5760 NORTH OLD HIGHWAY 40
HEBER CITY, UT 84032

SPECIAL INSPECTIONS

ISSUES / REVISIONS



SPECIAL INSPECTIONS

1/4" = 1'-0"

SI1

2018 IBC TABLE 1705.6 REQUIRED VERIFICATION AND INSPECTION OF SOILS			
Verification and inspection	Continuous	Periodic	Special Inspection Agency
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	--	X	
2. Verify excavations are extended to proper depth and have reached proper material.	--	X	
3. Perform classification and testing of compacted fill materials.	--	X	
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	--	
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	--	X	
TASKS REQUIRED FOR THIS SPECIFIC PROJECT:	1, 2, 3, 4, 5		

2018 IBC TABLE 1705.3 REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION					
Verification and inspection	Continuous	Periodic	Standard	IBC Reference	Special Inspection Agency
1. Inspect reinforcement, including prestressing tendons, and verify placement.	--	X	ACI 318-14 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4	
2. Reinforcing bar welding:					
a. Verify weldability of reinforcing bars other than ASTM A706	--	X	AWS D1.4 ACI 318: 26.6.4	--	
b. Inspect single-pass fillet welds, maximum 5/16"; and	--	X			
c. Inspect all other welds	X	--			
3. Inspect anchors cast in concrete.	--	X	ACI 318-14: 17.8.2	--	
4. Inspect anchors post-installed in hardened concrete members.b					
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X	--	ACI 318-14: 17.8.2.4 ACI 318-14: 17.8.2	--	
b. Mechanical anchors and adhesive anchors not defined in 4.a.		X			
5. Verify use of required design mix.	--	X	ACI 318-14: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3	
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	--	ASTM C 172, ASTM C 31, ACI 318: 26.4, 26.12	1908.10	
7. Inspect concrete and shotcrete placement for proper application techniques.	X	--	ACI 318-14: 26.5	1908.6, 1908.7, 1908.8	
8. Verify maintenance of specified curing temperature and techniques.	--	X	ACI 318-14: 26.5.3-26.5.5	1908.9	
9. Inspect prestressed concrete for:					
a. Application of prestressing forces; and	X	--	ACI 318-14: 26.10	--	
b. Grouting of bonded prestressing tendons.	X	--			
10. Inspect erection of precast concrete members.	--	X	ACI 318-14: Ch. 26.9	--	
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	--	X	ACI 318-14: 26.11.2	--	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	--	X	ACI 318-14: 26.11.1.2(b)	--	
b Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.					
TASKS REQUIRED FOR THIS SPECIFIC PROJECT:	5, 6, 7, 8				

FOOTING SCHEDULE					
MARK	WIDTH	LENGTH	THICKNESS	REINFORCEMENT	
				TRANSVERSE	LENGTHWISE
FT24T	24"	CONT.	12"	-	(3) #4
SF42	42"	42"	12"	(5) #4	(5) #4

1. CONTINUOUS FOOTINGS SHALL BE CENTERED UNDER WALLS AND SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS UNLESS NOTED OTHERWISE.

2. FOOTINGS AND FOUNDATIONS, EXCAVATIONS, GRADING, AND FILL SHALL COMPLY WITH THE PROVISIONS OF THE GEOTECHNICAL REPORT (SEE GSN)

FOUNDATION WALL SCHEDULE					
MARK	HEIGHT	WIDTH	REINFORCEMENT		
			VERTICAL	HORIZONTAL	PLACEMENT
FW3	3'	8"	#4 @ 18"	(3) #4	CENTER

1. DOWEL VERTICAL BARS INTO FOOTING. SEE BELOW FOR EXTENSION INTO WALL.

2. PLACE TOP AND BOTTOM BARS WITHIN 4" OF TOP AND BOTTOM OF WALL.

3. PLACE REINFORCEMENT IN CENTER OF WALL OR NEAR EACH FACE, AS NOTED.

4. DOWELS EXTENDED INTO WALL THE FULL WALL HEIGHT MINUS 3" OR AS FOLLOWS: 24" FOR #4 BARS, 44 BAR DIAMETERS FOR ALL OTHER BARS.

SHEAR WALL SCHEDULE					
MARK	SHEATHING	EDGE NAILING	ABUTTING PANEL EDGE FRAMING	ANCHORAGE	
				SOLE PLATE	SILL PLATE
SW1	7/16"	8d @ 6"	2X	16d @ 12"	5/8" A.B. @ 32"

1. SHEATHING SHALL CONSIST OF WOOD STRUCTURAL PANELS (SEE GSN).

2. UNLESS NOTED ON DRAWINGS, EXTERIOR STUDS SHALL BE SPACED AT 16" O.C.

3. SHEATHING NAILS SHALL BE COMMON OR GALVANIZED BOX NAILS - FIELD NAIL SPACING SHALL BE 12" FOR STUDS SPACED 16" O.C. OR LESS AND 6" O.C. FOR STUDS SPACED AT 24" O.C.

4. FOR SW1 ONLY, EDGE NAILS MAY BE SUBSTITUTED WITH 1-1/2" 16 GAGE STAPLES SPACED AT 3" O.C. AND FIELD NAILS MAY BE SUBSTITUTED WITH 16 GAGE STAPLES AT 12" O.C.

5. ANCHORAGE NAILS SHALL BE COMMON NAILS.

6. ANCHOR BOLTS SHALL HAVE A 3X30 22# WASHER AND 7" MIN EMBEDMENT. THE WASHER SHALL EXTEND TO WITHIN 1/2" FROM THE SHEATHING.

7. ANCHOR BOLTS MAY BE SUBSTITUTED WITH TITEN HD AT SAME DIAMETER AND SPACING. PROVIDE MIN. 4-1/4" EMBEDMENT FOR 1/2" DIA. BOLTS AND MIN. 4-3/4" EMBEDMENT FOR 5/8" DIA. BOLTS.

HOLD-DOWN SCHEDULE				
MARK	HOLD-DOWN	MINIMUM FASTENERS	ANCHOR	POST
A	LSTHDB (SEE NOTE 3)	10d X 2-1/2" (148 X 2-1/2")	STRAP 8" EMBED.	(2) 2X POST

1. HOLD-DOWNS SHALL BE SIMPSON STRONG-TIE OR EQUIVALENT.

2. SHEAR WALL EDGE NAILING SHALL BE TO HOLD-DOWN POST.

3. STD STRAPS SHALL BE "R,I" TYPE AT RIM JOIST LOCATIONS.

SHEATHING SCHEDULE	
TYPE	THICKNESS
ROOF	19/32" OSB (40/20 SPAN RATING)

1. SHEATHING PERPENDICULAR TO SUPPORTS.

2. FLOOR SHEATHING NAILED & GLUED TO SUPPORT

3. 8d COMMON NAILS 6" O.C. (EDGES) 12" O.C. (FIELD)

4. NAILING NO CLOSER THAN 3/8" FROM PANEL EDGE

ROOF TRUSS LOADS	
GROUND SNOW LOAD, P_g	= 66 PSF
FLAT ROOF SNOW LOAD	= 51 PSF
TOP CHORD DEAD LOAD	= 15 PSF
BOTTOM CHORD DEAD LOAD	= 5 PSF

1. DESIGN SNOW LOADS SHALL BE IN ACCORDANCE WITH ASCE 7-16 CHAP.7 (2021 IBC 1608.1)

POST SCHEDULE	
MARK	TYPE
T 02	(2) TRIM
P 16	12 X 12 POST

1. PARALLEL STRAND LUMBER (PSL) 1.8E

2. STEEL PIPE (PIPE STD) A53

3. STEEL HOLLOW SECTION (HSS) A500

4. STEEL COLUMNS REQUIRE BEARING PLATES

5. CONTINUE POSTS TO FDN / STRUCT MEMBER

ROOF RAFTER SCHEDULE	
MARK	TYPE
RR 01	2 X 6 @ 16" O.C.
RR 02	2 X 8 @ 24" O.C.
RR 03	2 X 8 @ 16" O.C.

1. DIMENSIONAL LUMBER DF #2 U.N.O.

2. SUFFIXES (A, B, ETC.) DENOTE ALTERNATIVES FOR THE SPECIFIED RAFTER

BEAM SCHEDULE	
MARK	TYPE
RB 01	(2) 1-3/4 X 9-1/2 LVL
RB 02	(3) 2 X 6
RB 03	(3) 2 X 6
RB 04	(3) 2 X 8
RB 05	8 X 18 DF #1
RB 06	8 X 18 DF #1
RB 07	(3) 2 X 8
RB 08	8 X 18 DF #1
RB 09	(2) 2 X 6

1. DIMENSIONAL LUMBER DF #2 U.N.O.

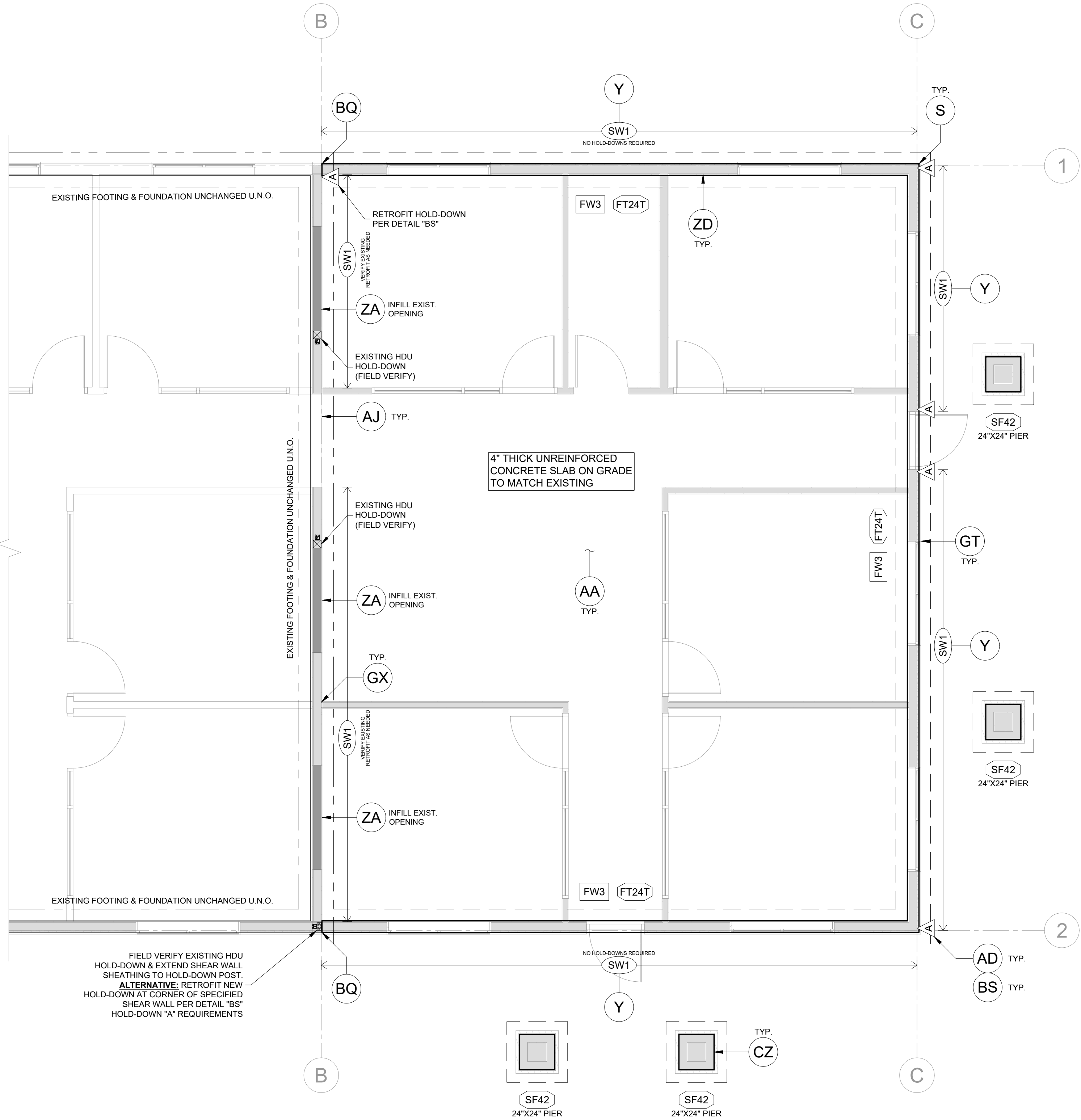
2. LAMINATED VENEER LUMBER (LVL) 2.0E

3. GLUED-LAMINATED TIMBER (GLB) 24F-1.8E

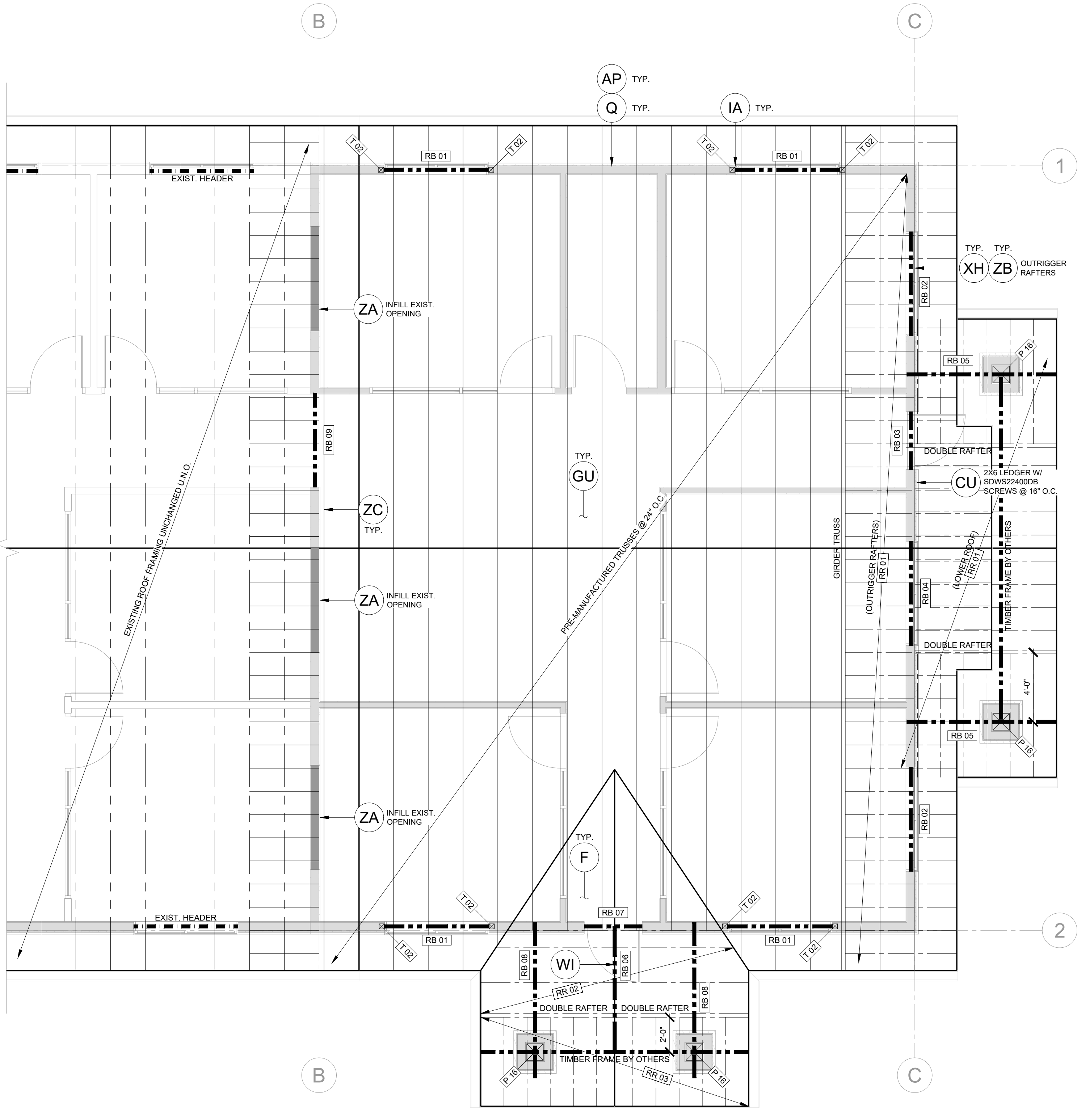
4. STEEL W-SHAPES A992-50

5. SUFFIXES (A, B, ETC.) DENOTE ALTERNATIVES FOR THE SPECIFIED BEAM

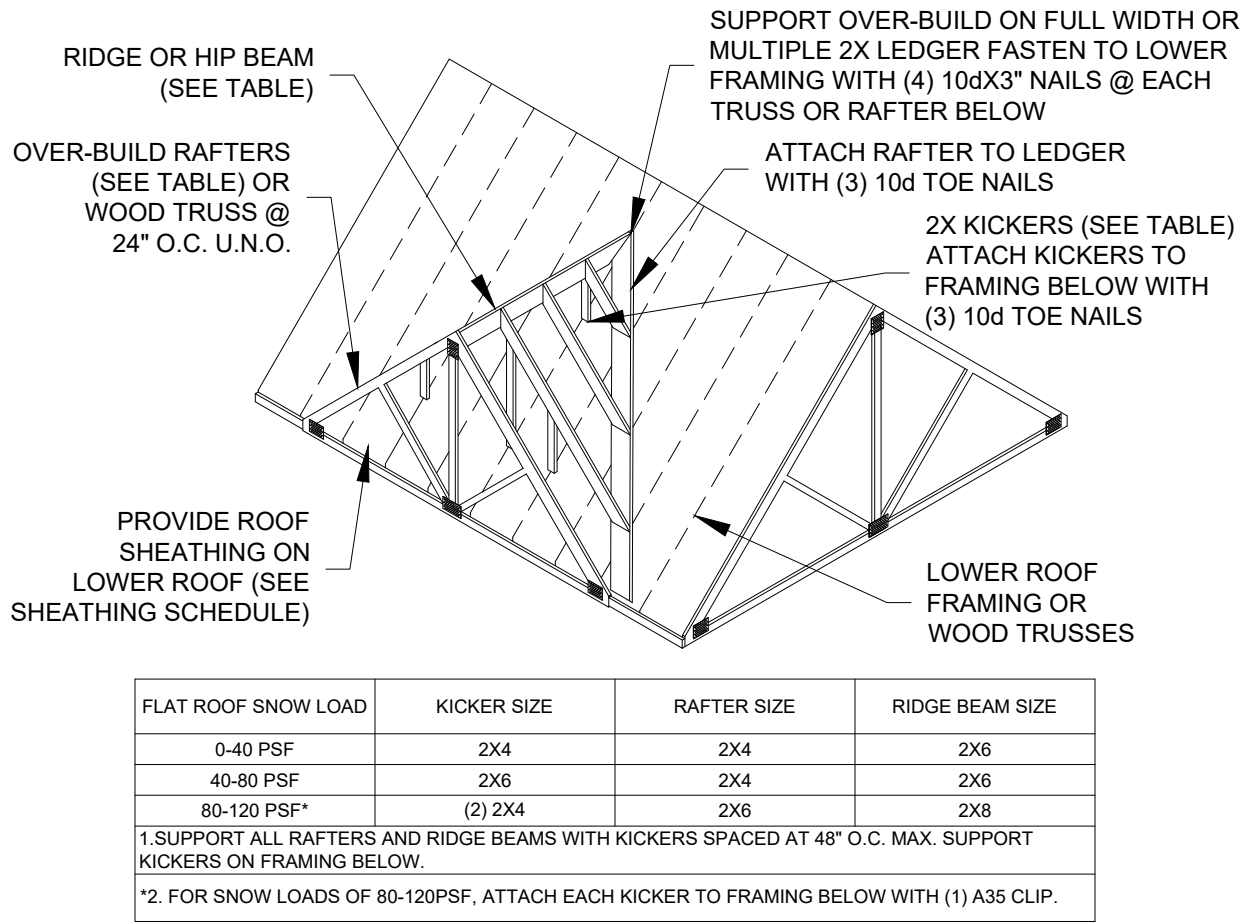
6. ALL HEADERS IN BEARING WALLS TO HAVE MIN. (1) TRIMMER & (1) KING STUD U.N.O. ALL OTHER BEAMS AND GIRDER TRUSSES TO HAVE MIN. (2) 2X SUPPORTS U.N.O.



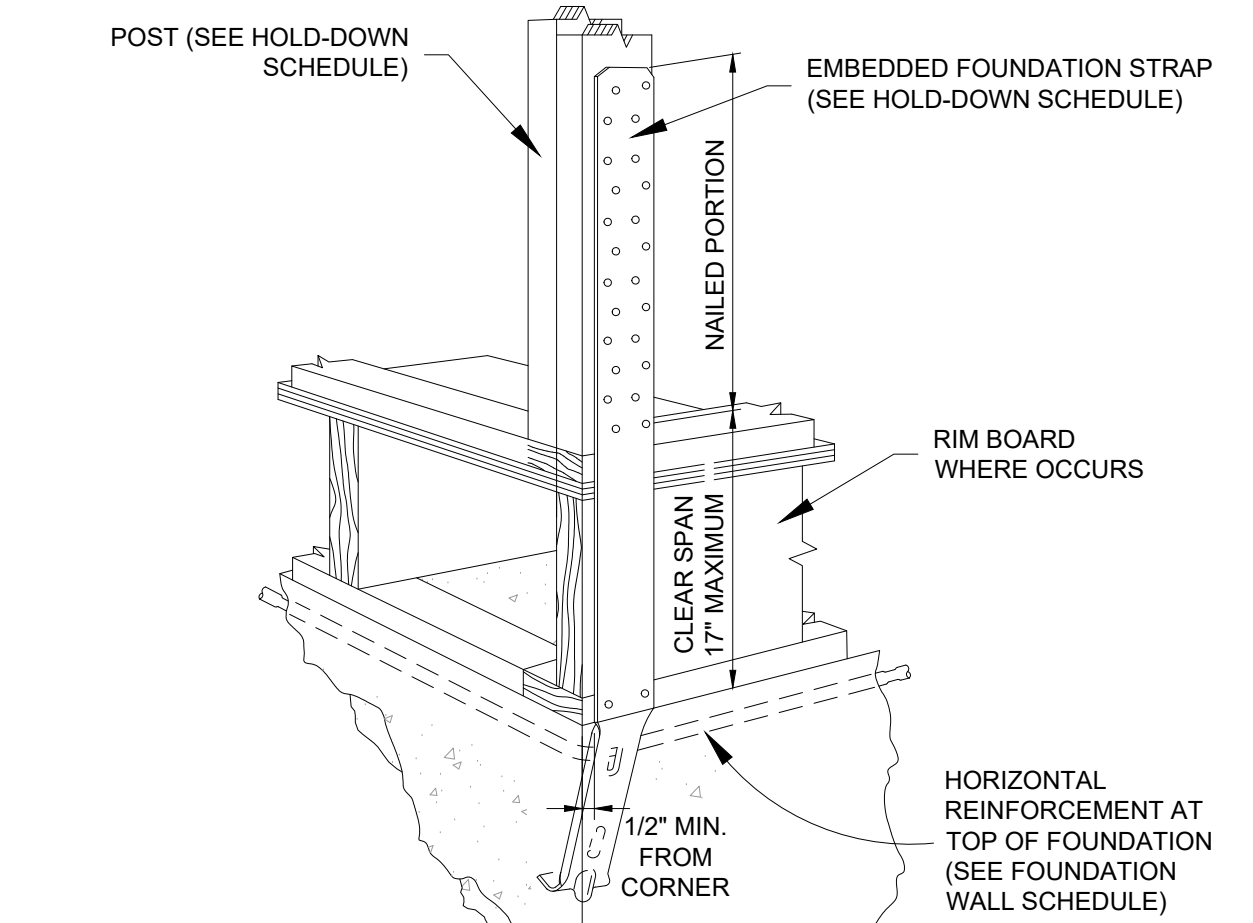
1 FOUNDATION & SHEAR WALL PLAN
SCALE: 1/4" = 1' - 0"



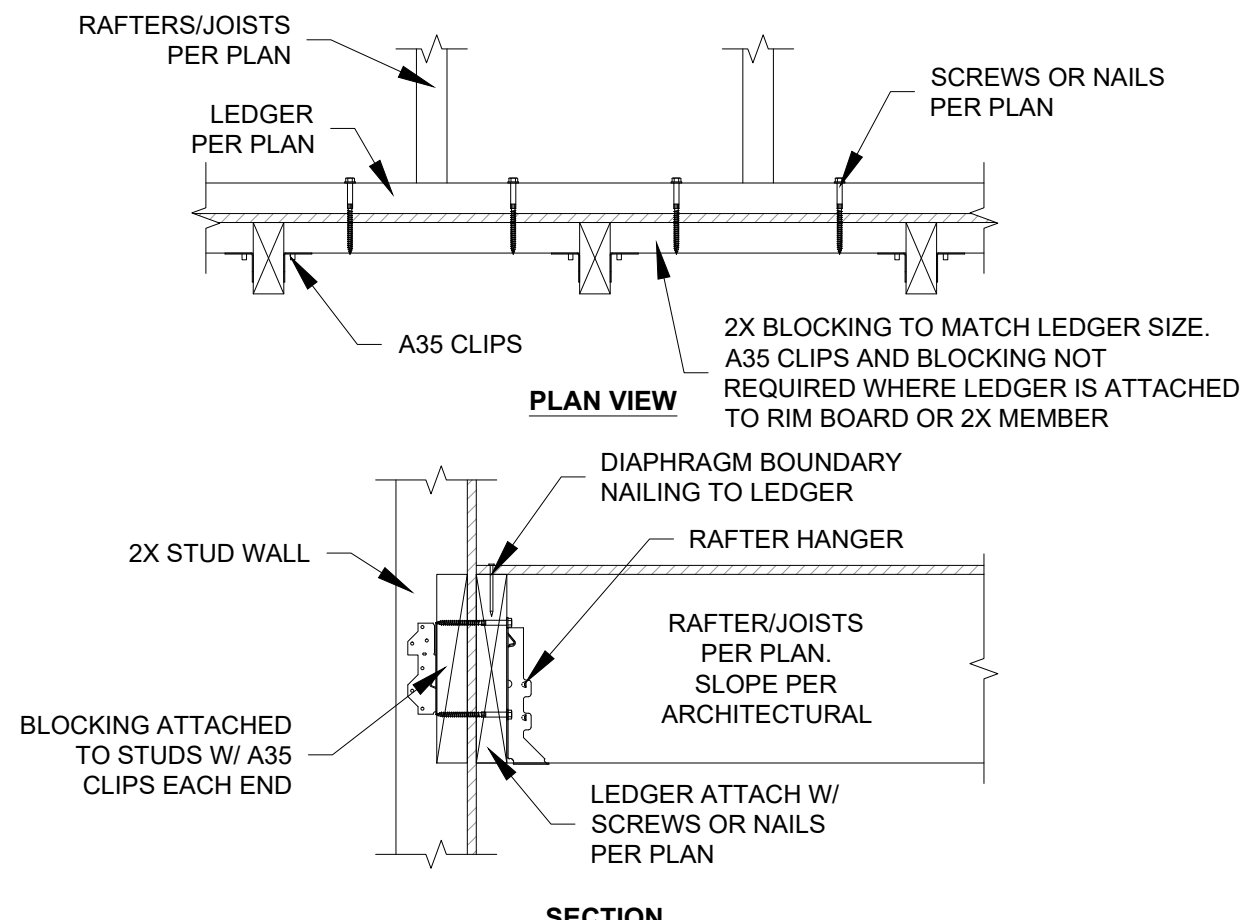
2 ROOF FRAMING PLAN
SCALE: 1/4" = 1' - 0"



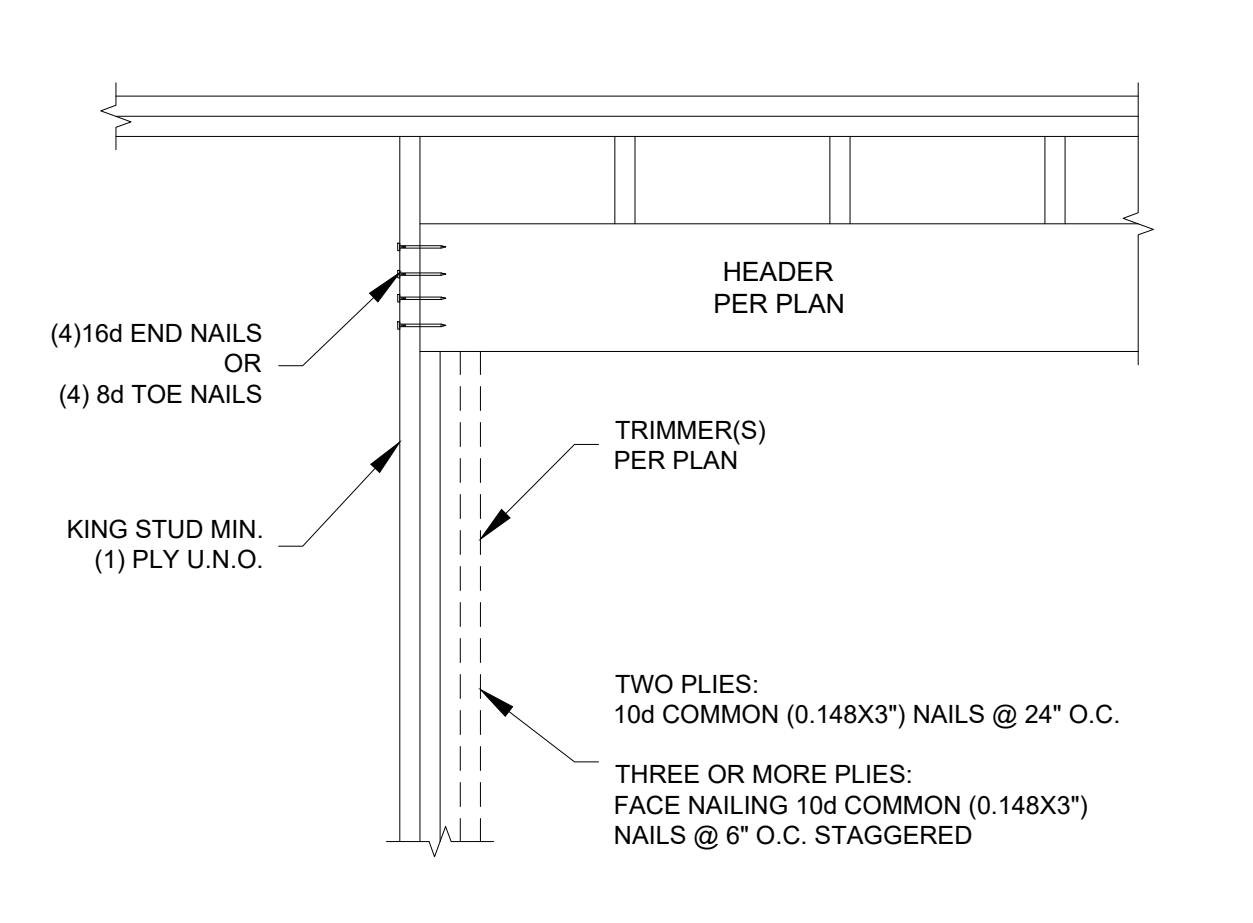
F ROOF FRAMING - OVER BUILD FRAMING
NO SCALE



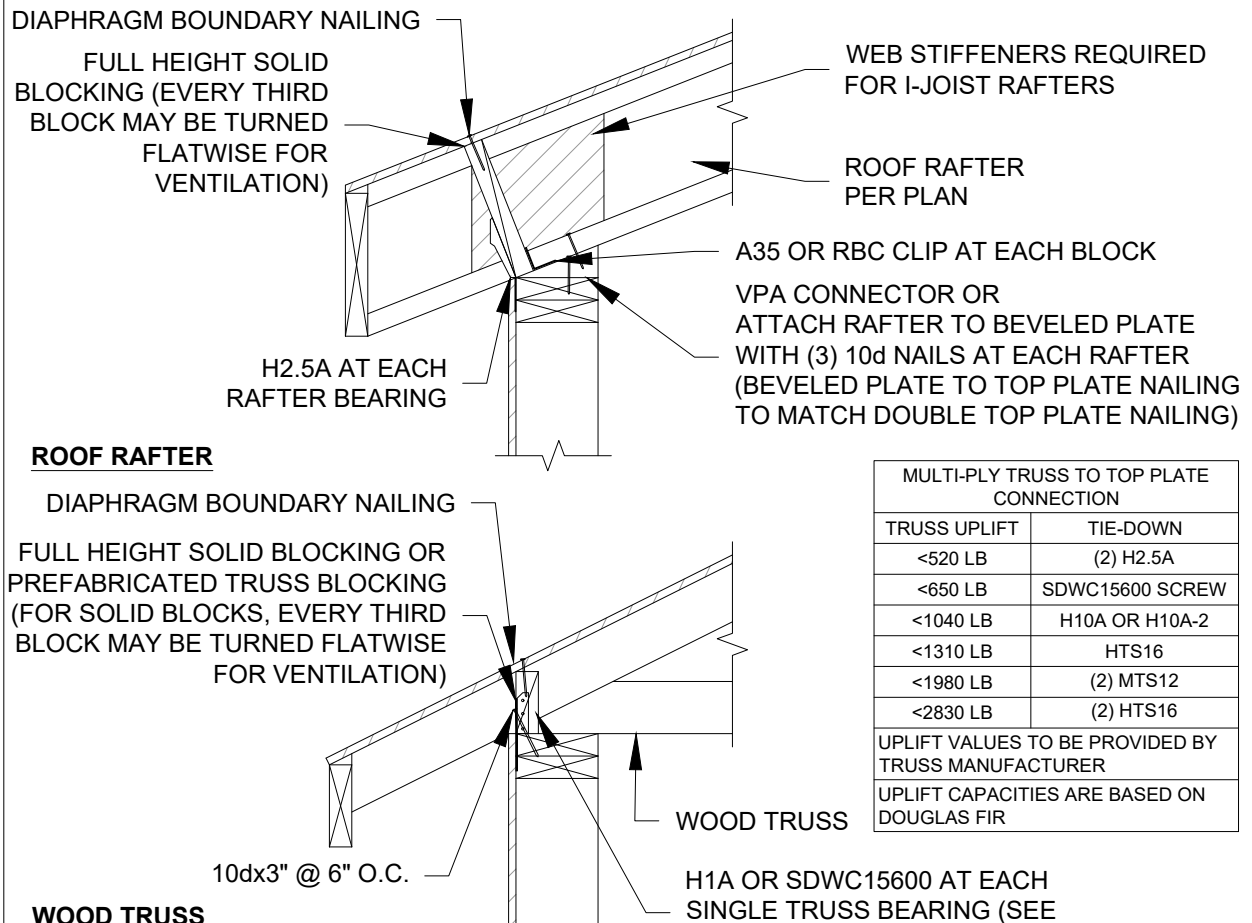
AD HOLD-DOWN - FOUNDATION STRAP
NO SCALE



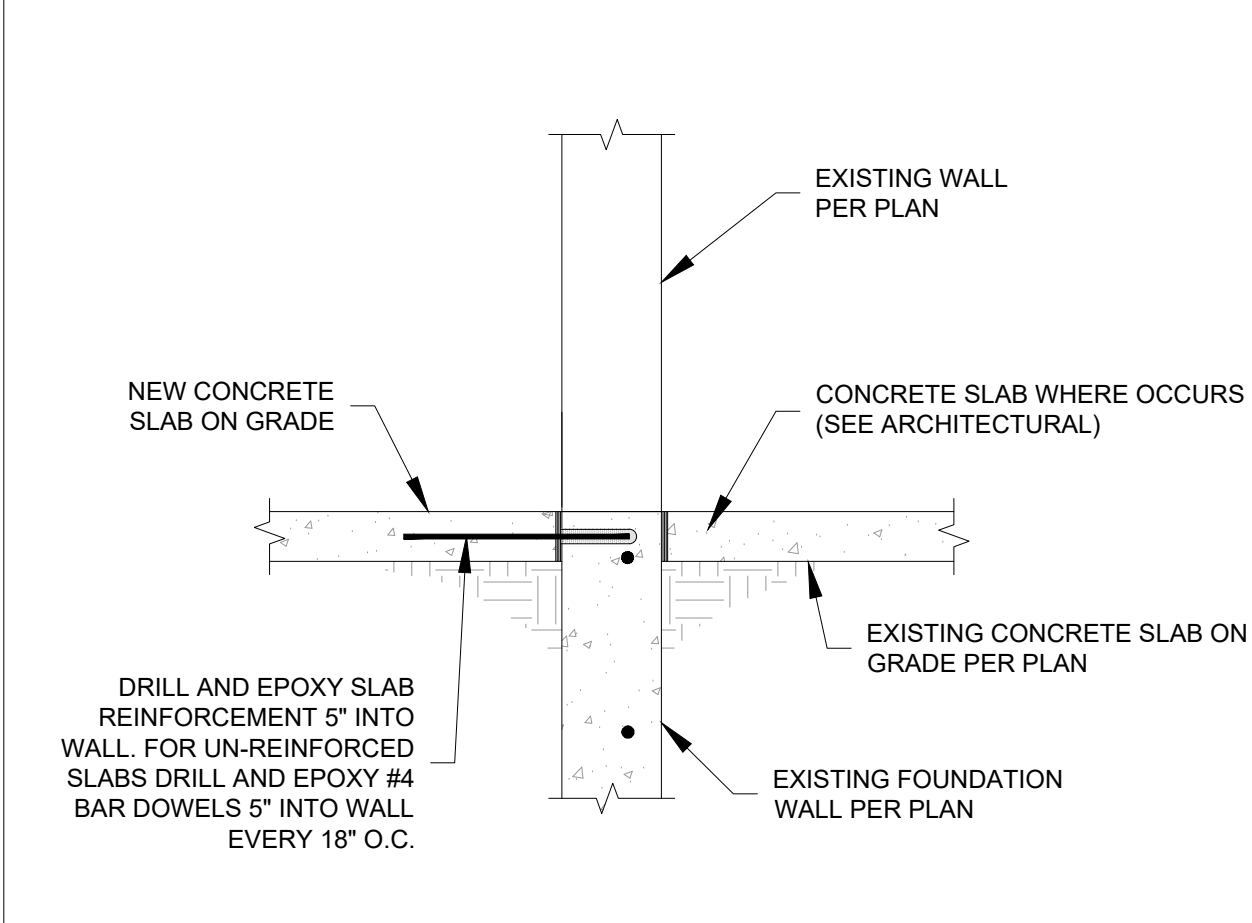
CU LEDGER - RAFTER/JOISTS TO FRAMED WALL
NO SCALE



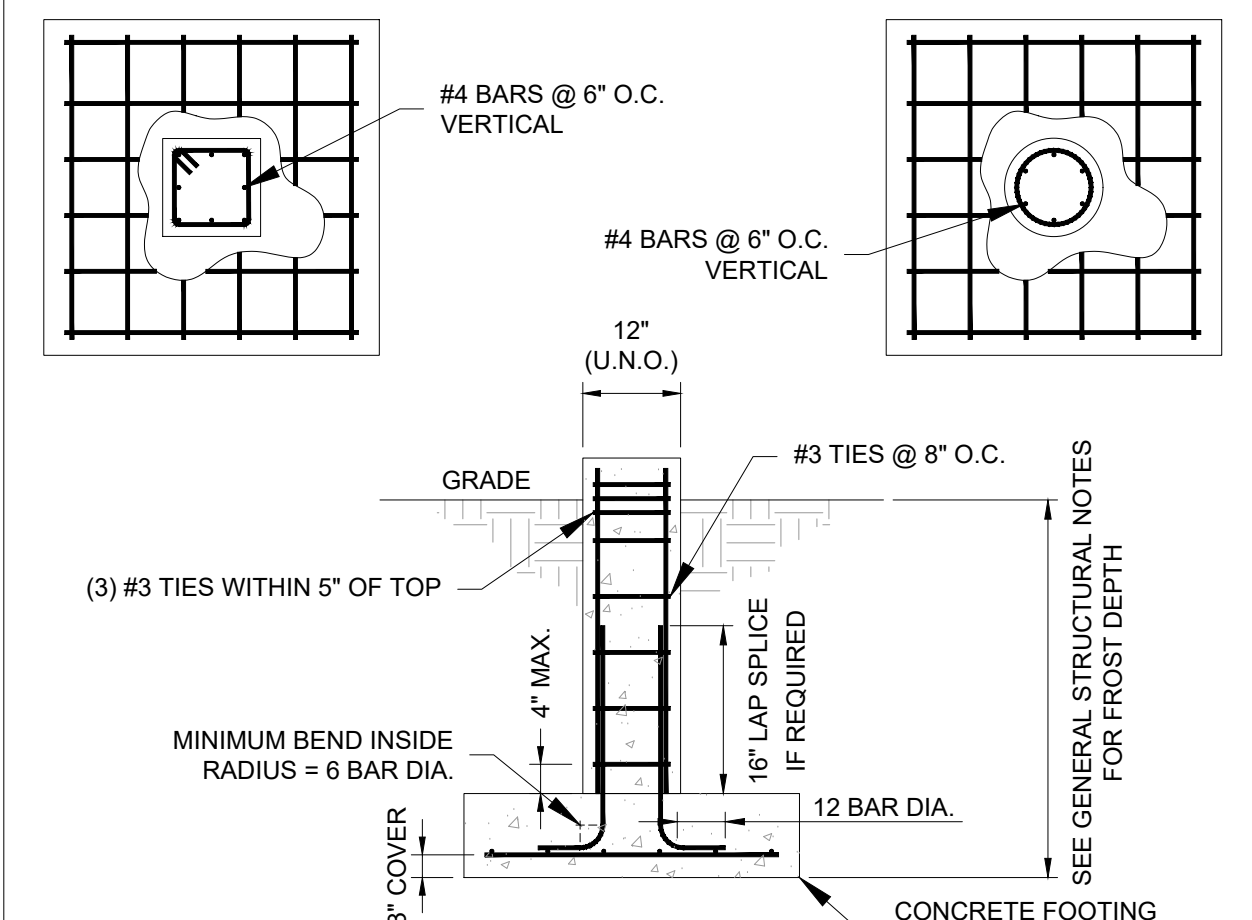
IA WOOD BEAM - WALL HEADER FRAMING
NO SCALE



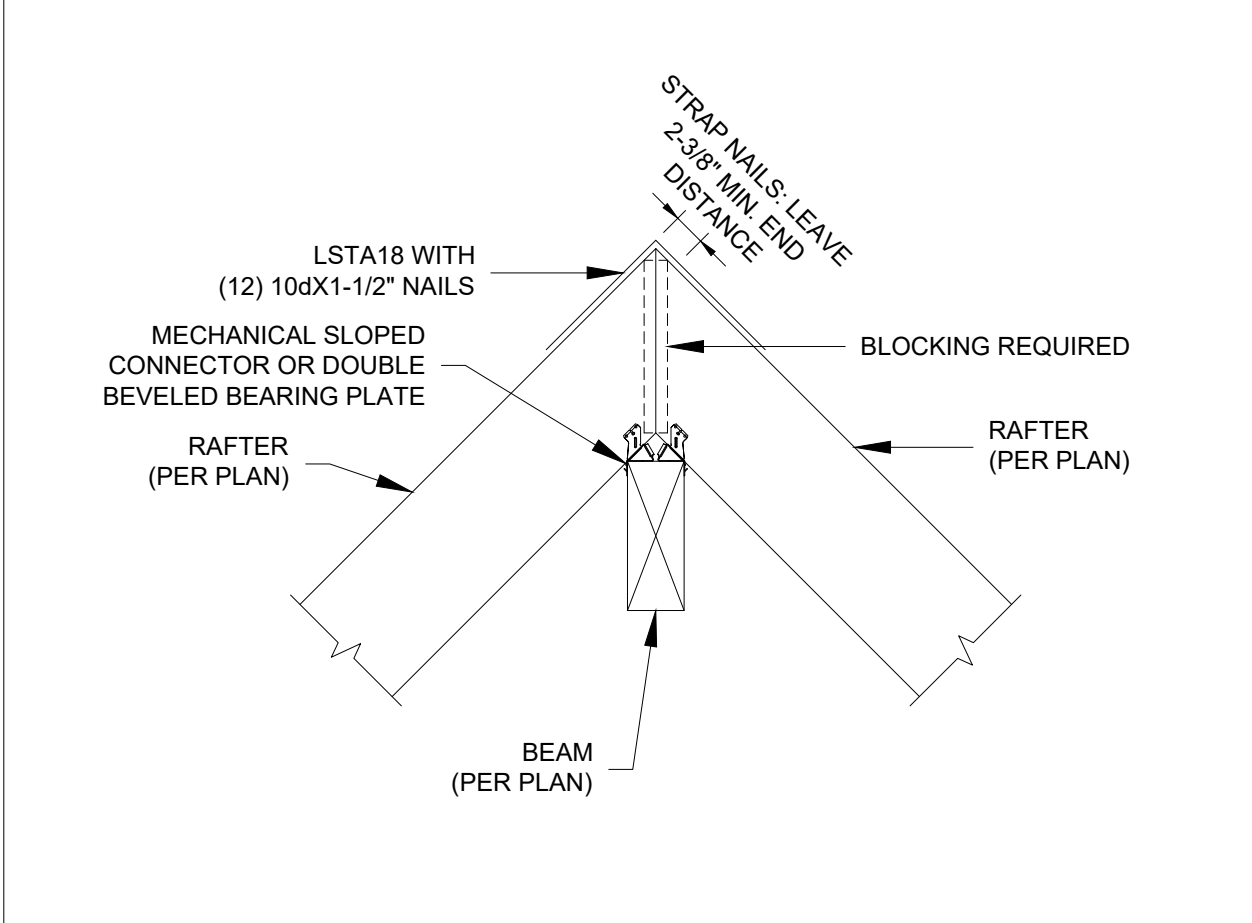
Q ROOF FRAMING - BLOCKING (150 PLF UNIT SHEAR)
NO SCALE



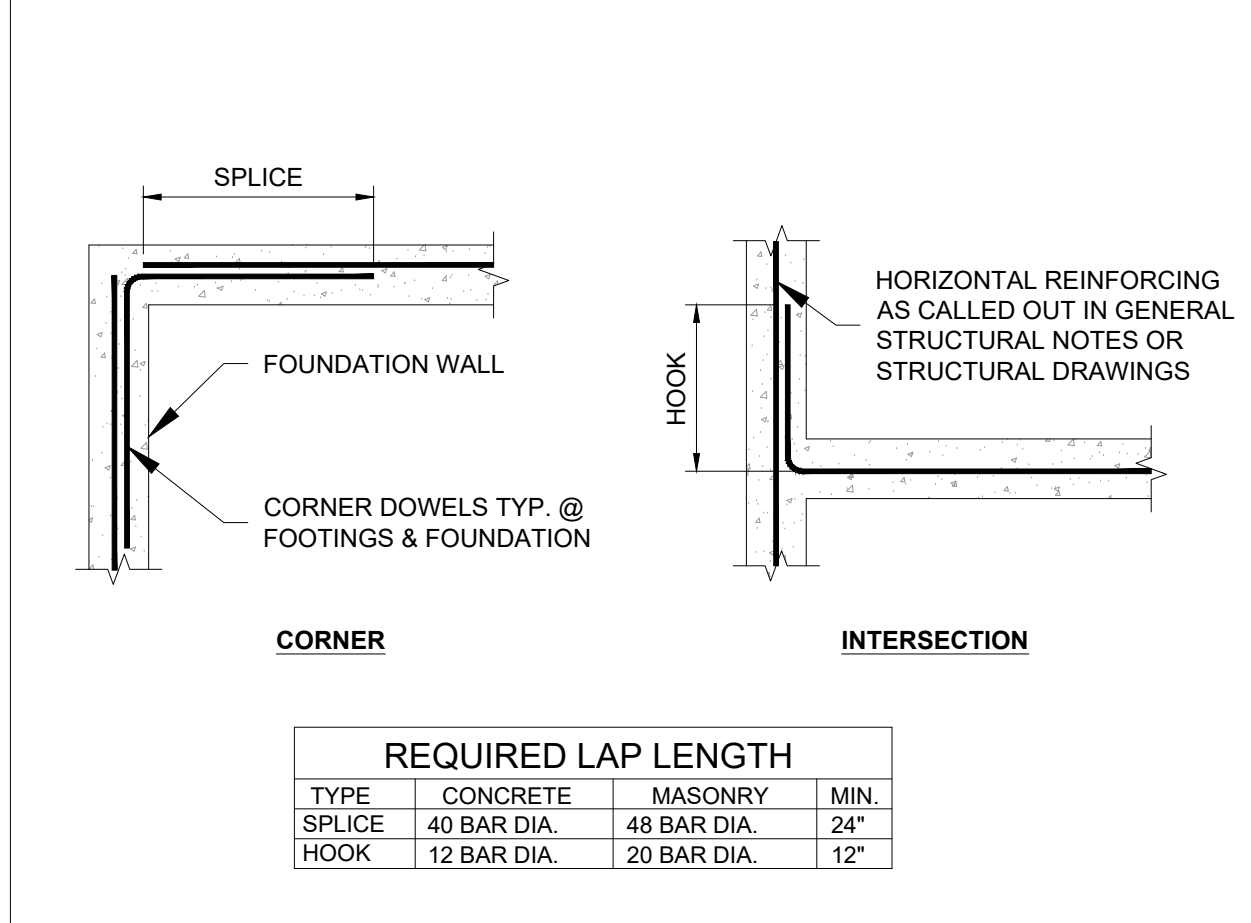
AJ CONCRETE SLAB ON GRADE - NEW SLAB TO EXISTING WALL
NO SCALE



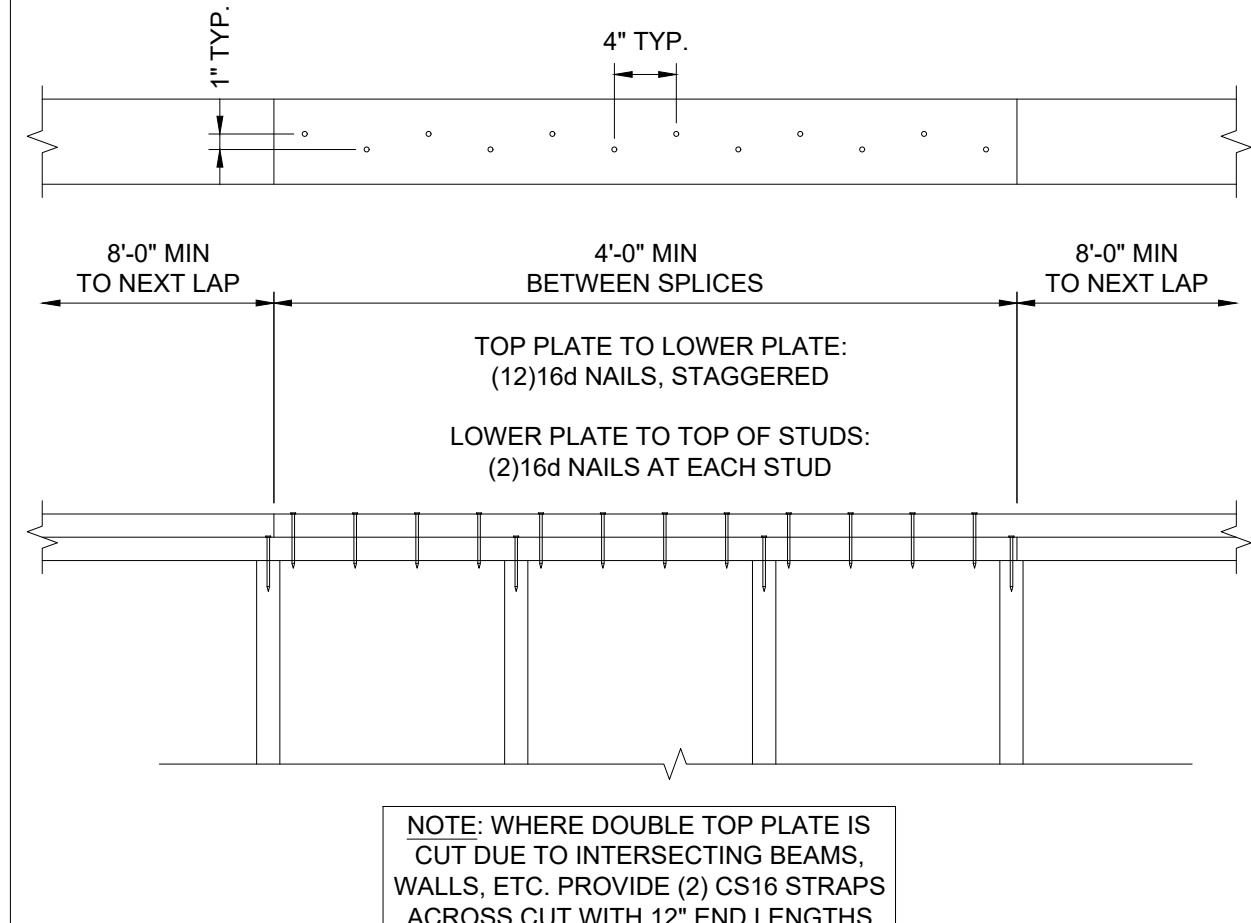
CZ FOOTING - CONCRETE PIER TO SPOT FOOTING
NO SCALE



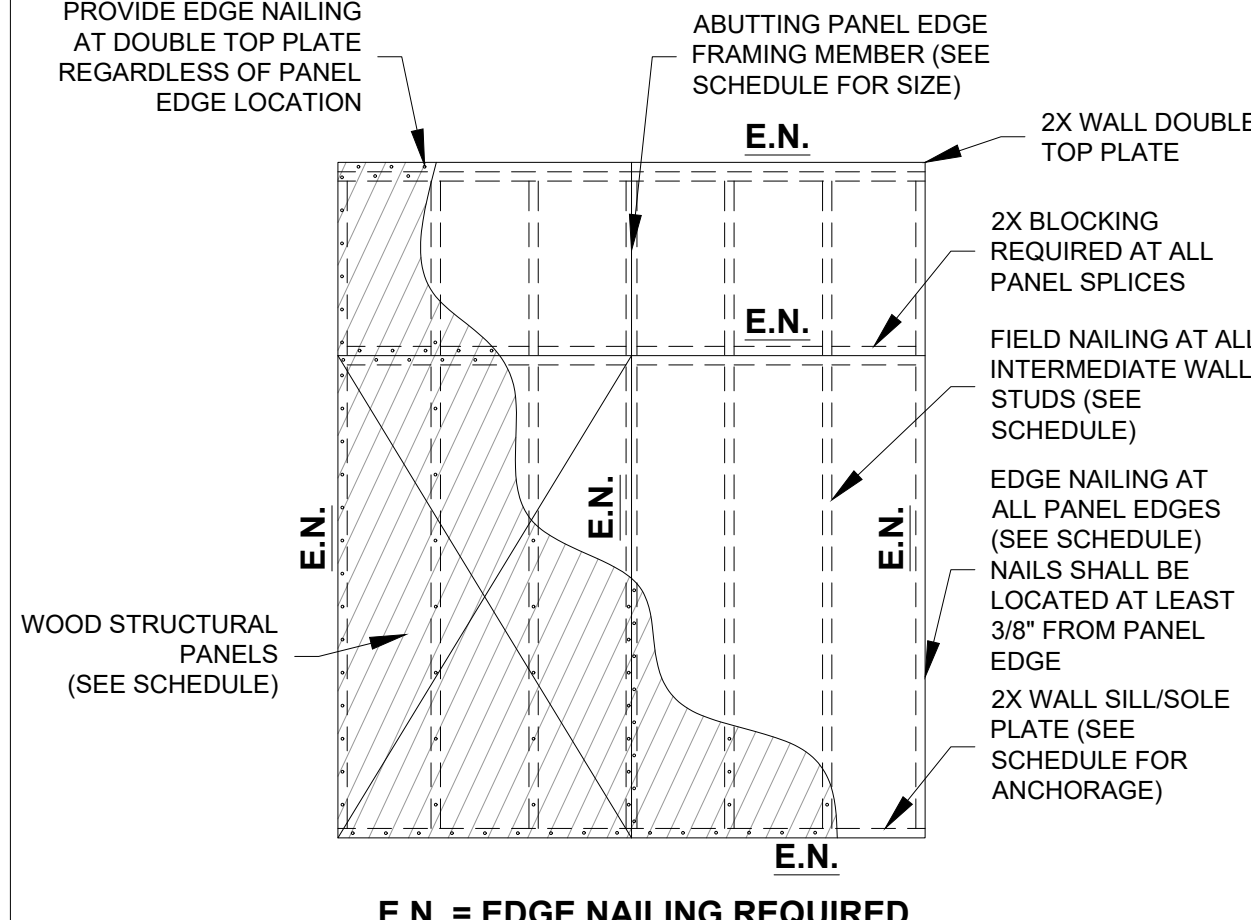
WI RAFTER TO DROPPED RIDGE CONNECTION
NO SCALE



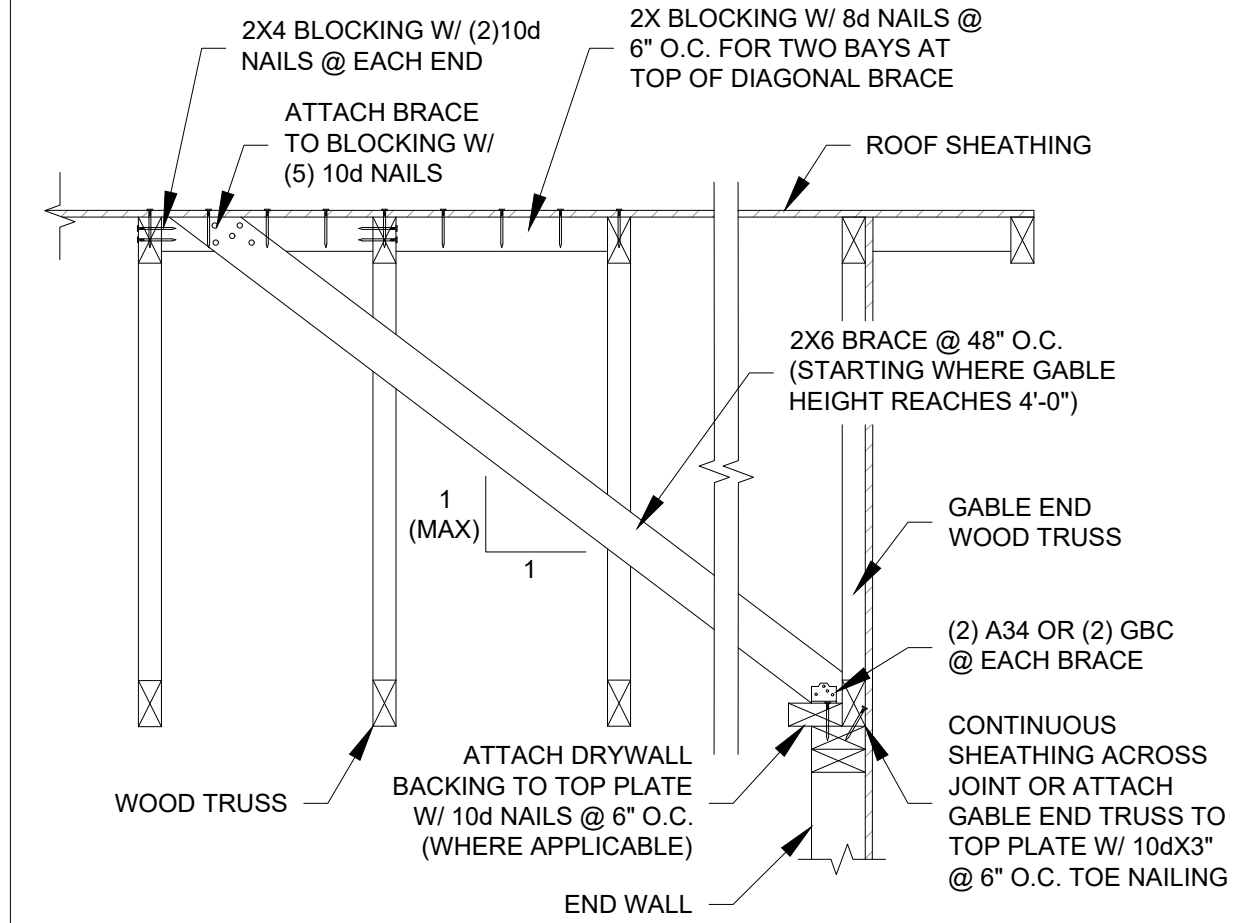
S FOUNDATION WALL - CORNER & INTERSECTION REINFORCING
NO SCALE



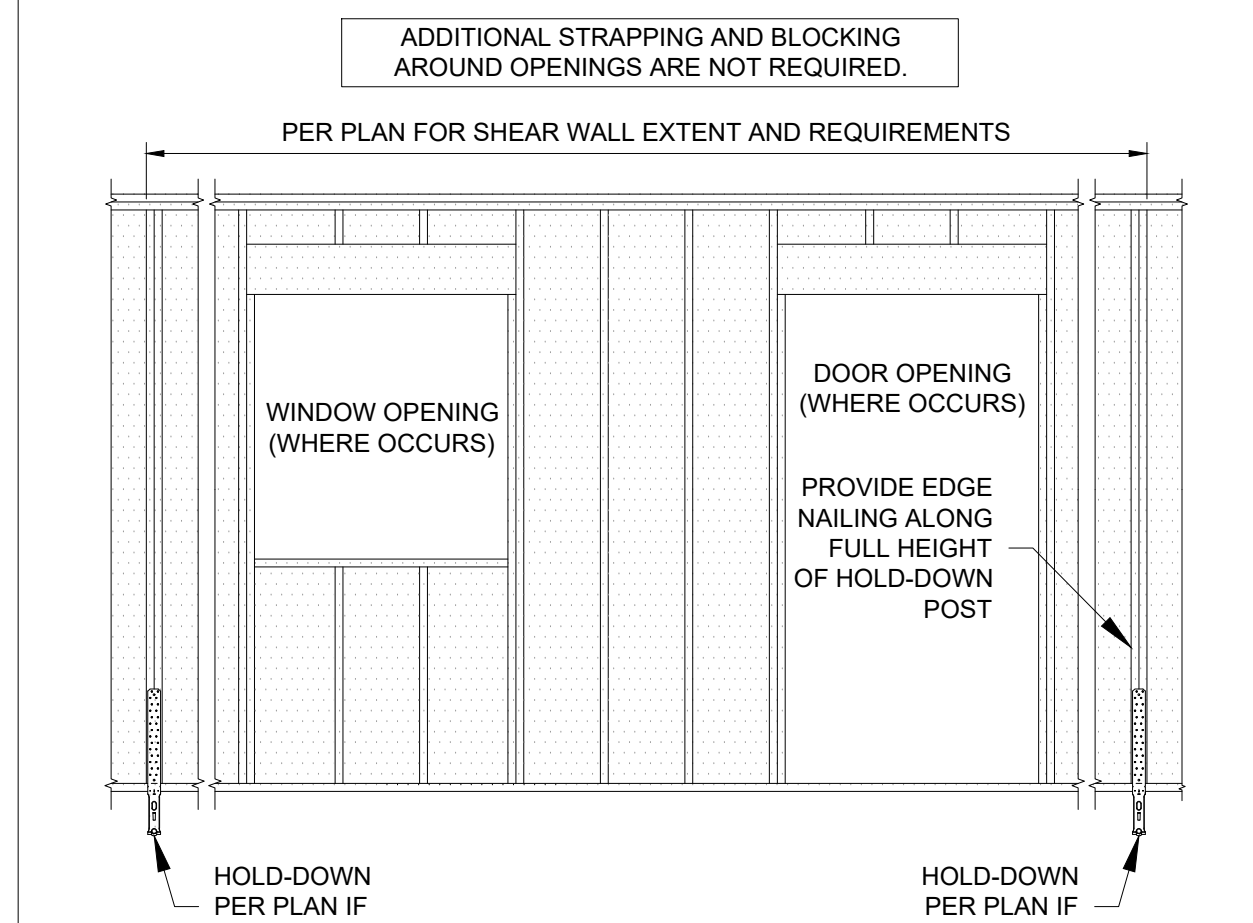
AP DIAPHRAGM - TOP PLATE SPLICE
NO SCALE



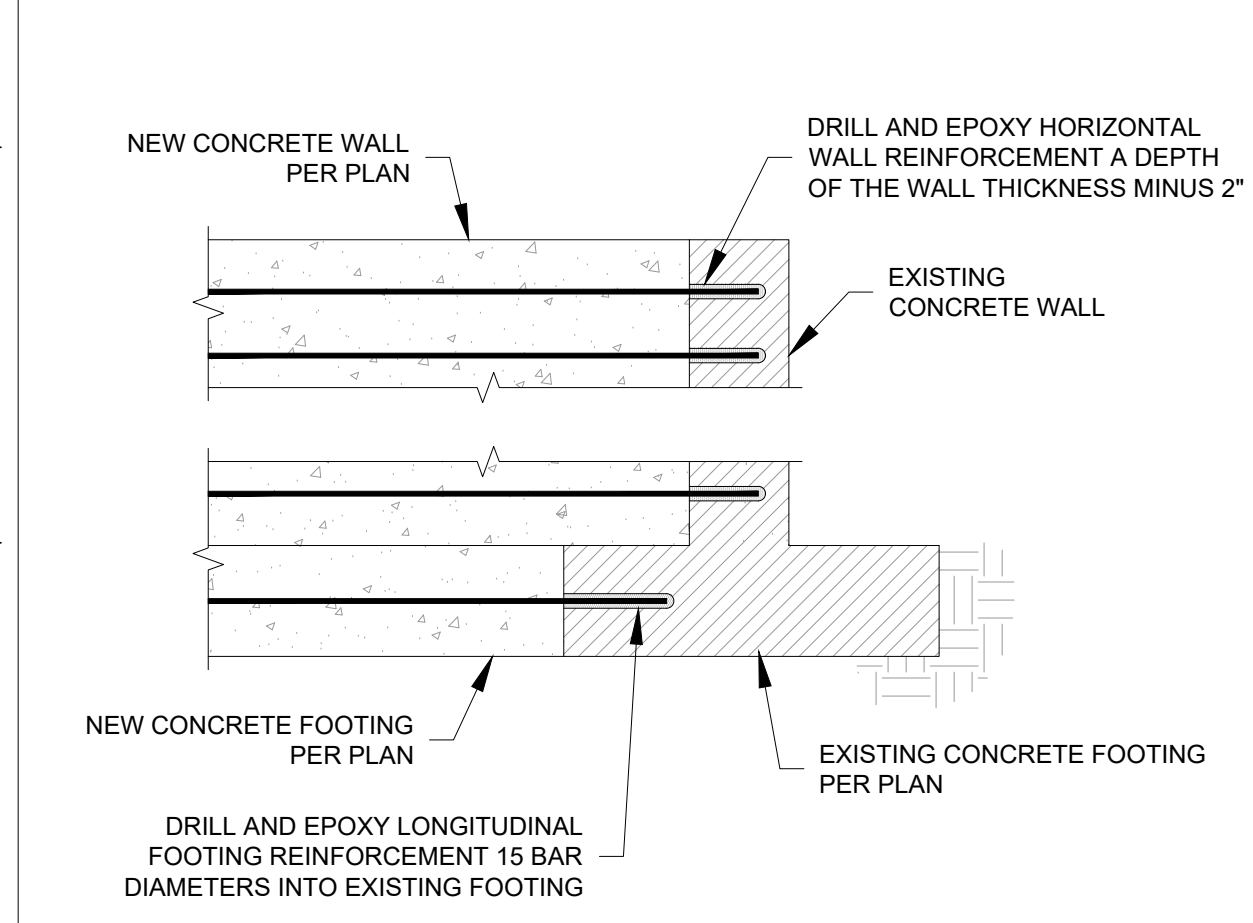
GT WOOD STRUCTURAL PANEL SHEAR WALL
NO SCALE



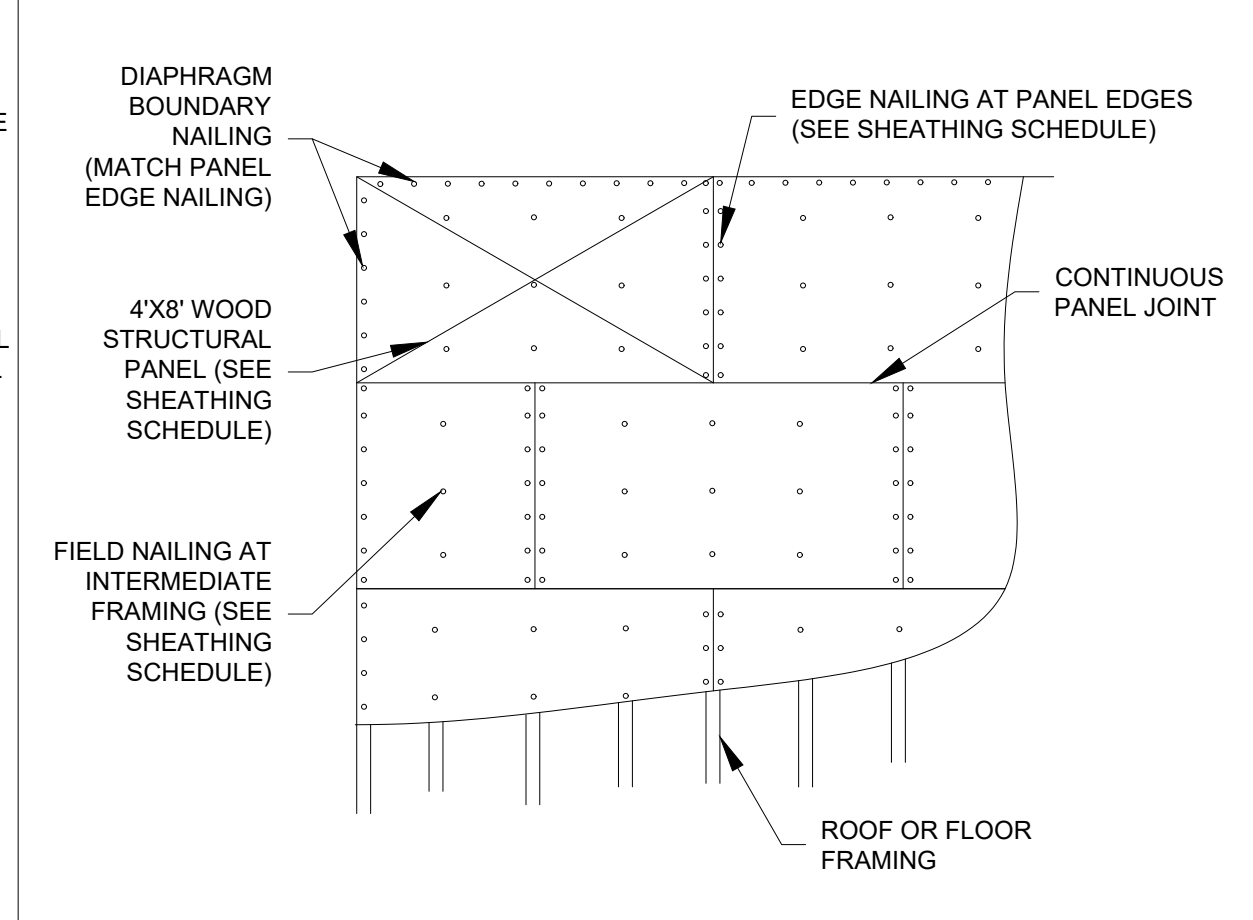
XH WOOD TRUSS - WOOD WALL GABLE END BRACING
NO SCALE



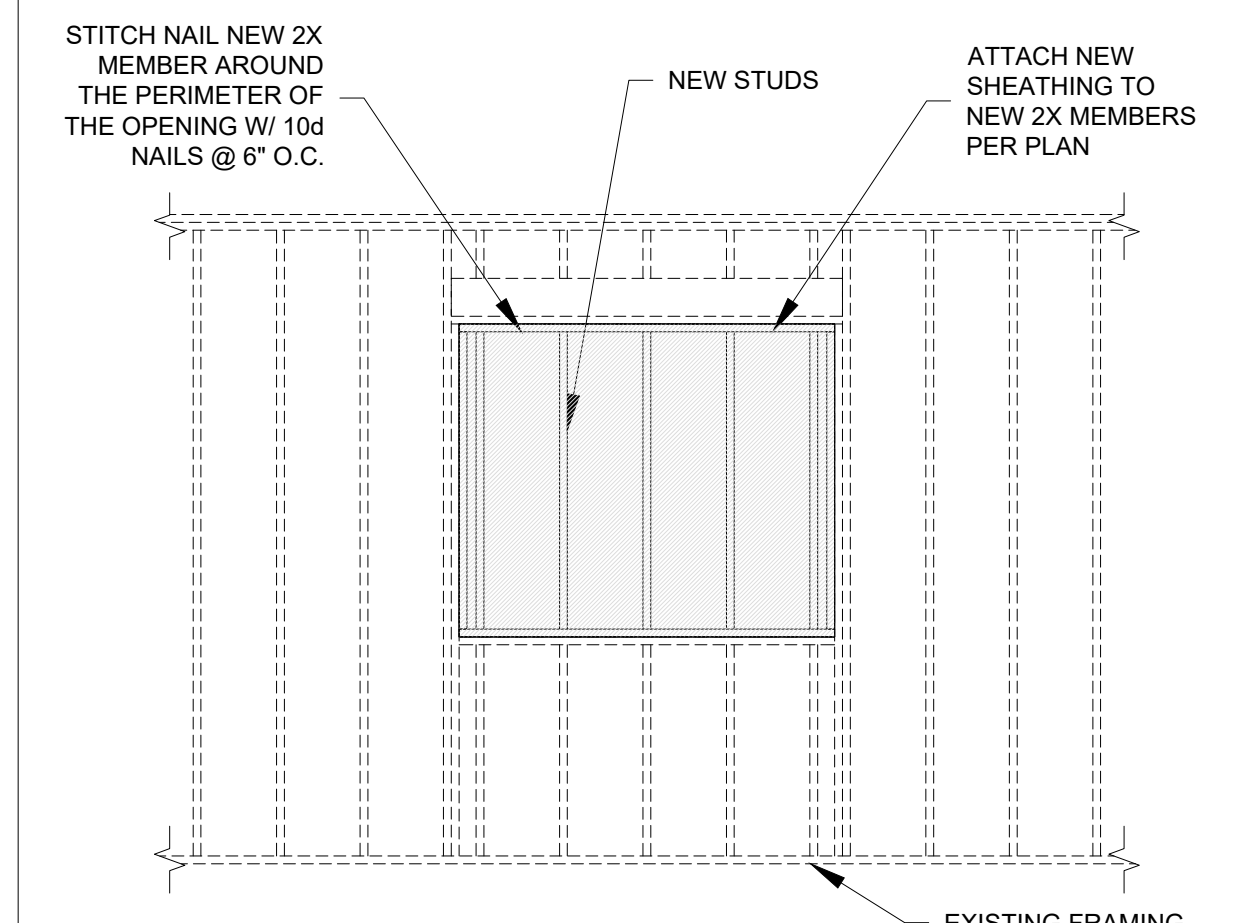
Y SHEAR WALL - PERFORATED
NO SCALE



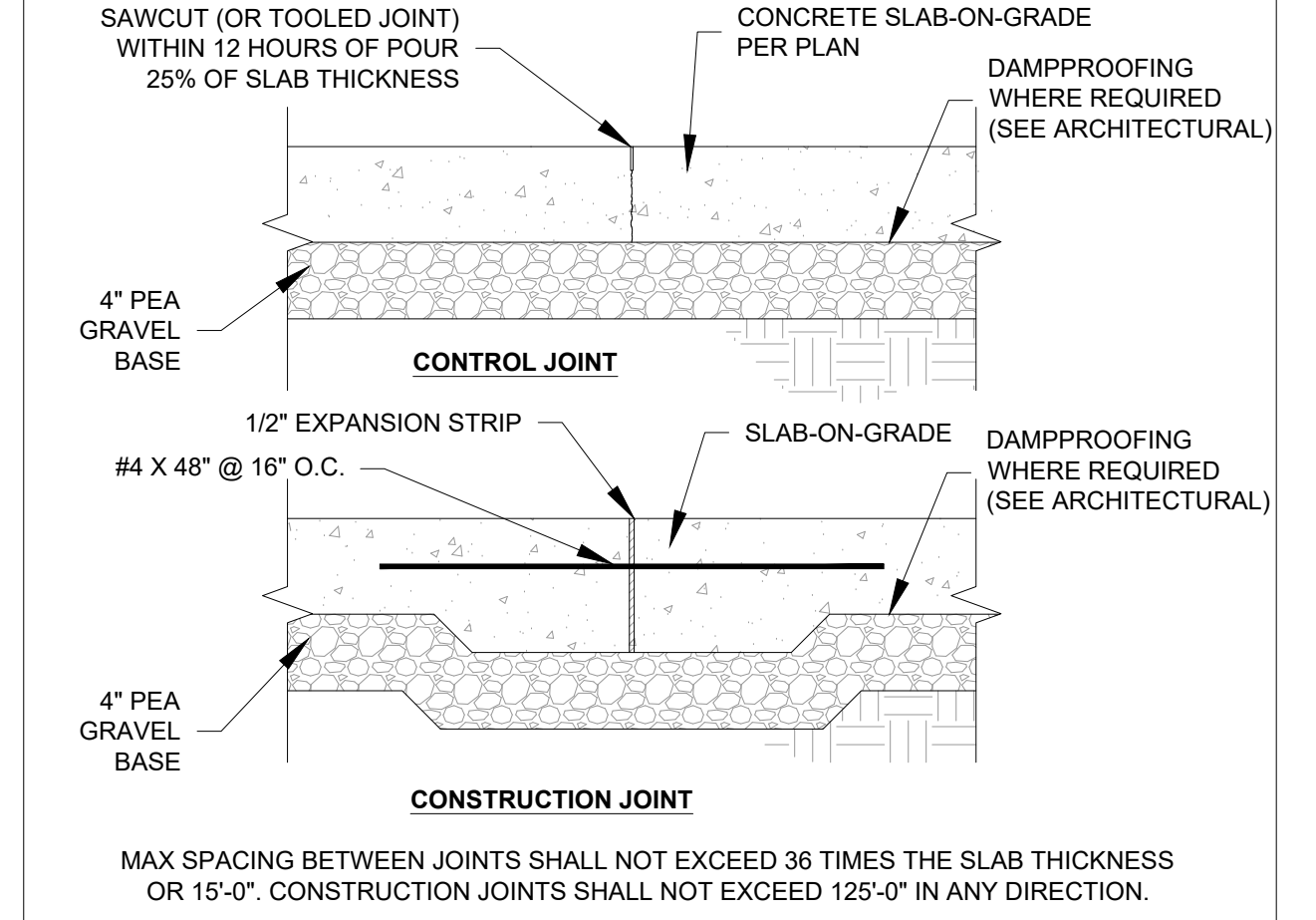
BQ CONCRETE WALL - NEW WALL TO EXISTING WALL
NO SCALE



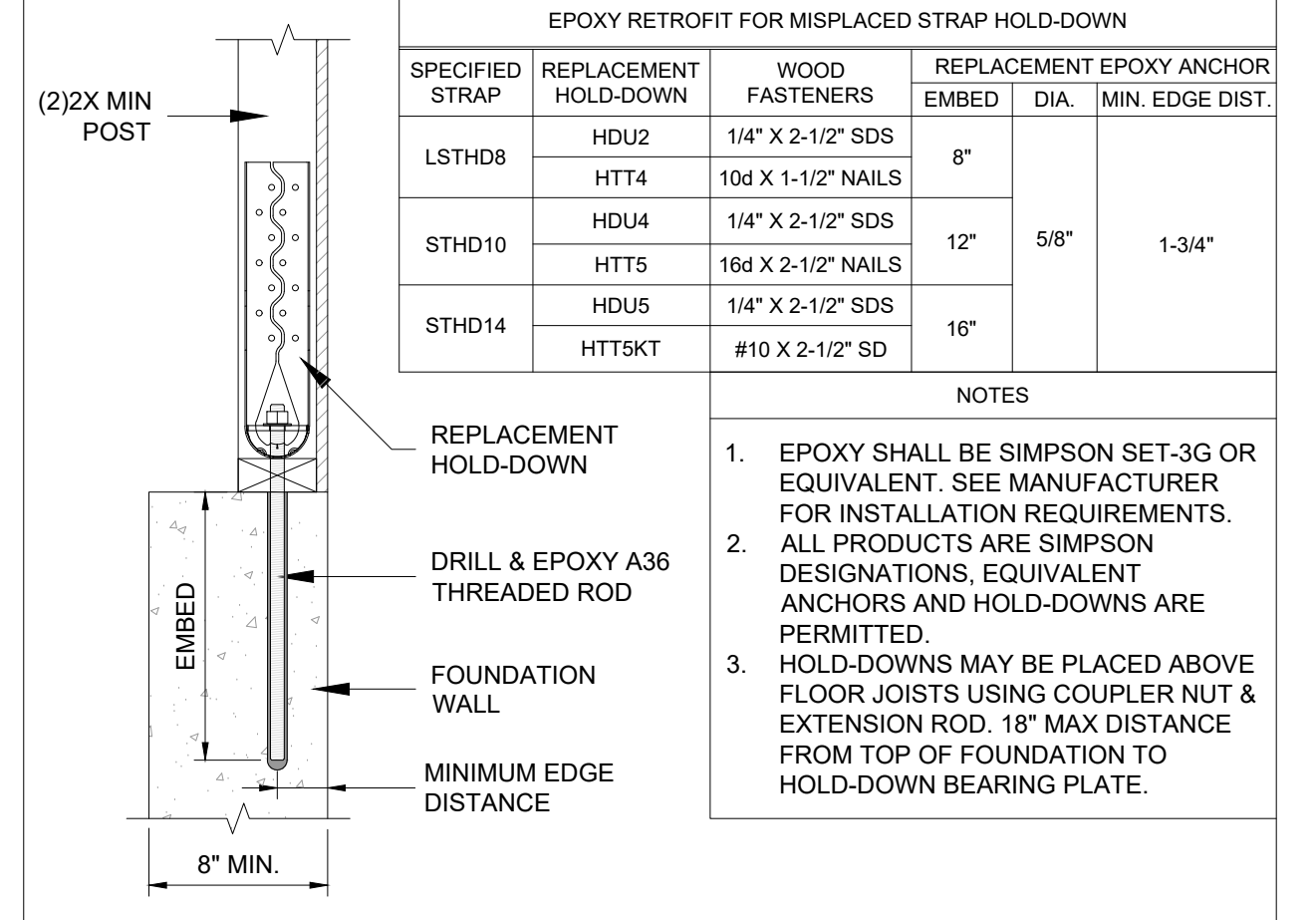
GU WOOD STRUCTURAL PANEL DIAPHRAGM - UNBLOCKED
NO SCALE



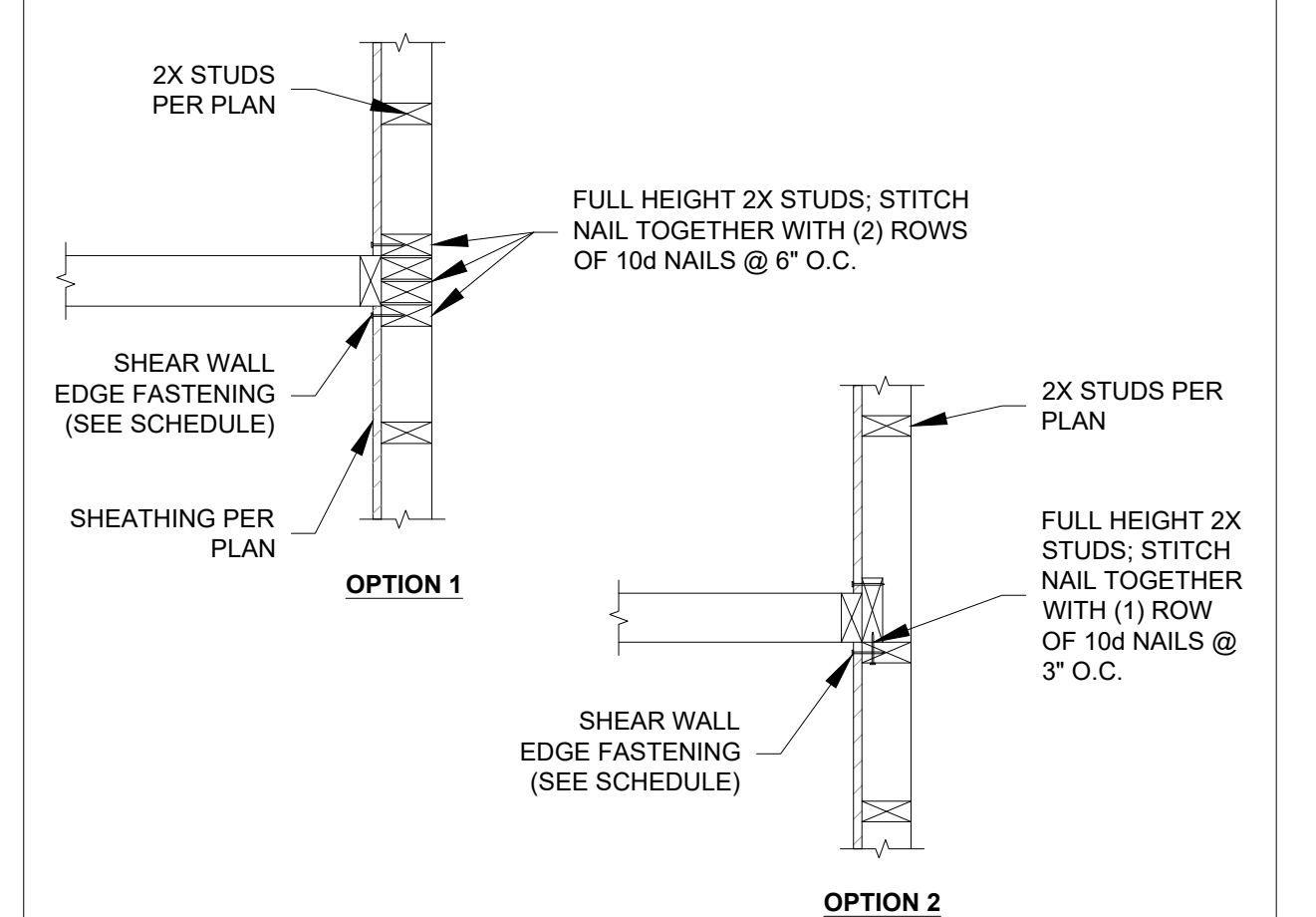
ZA WINDOW OPENING - FILL IN FRAMING
NO SCALE



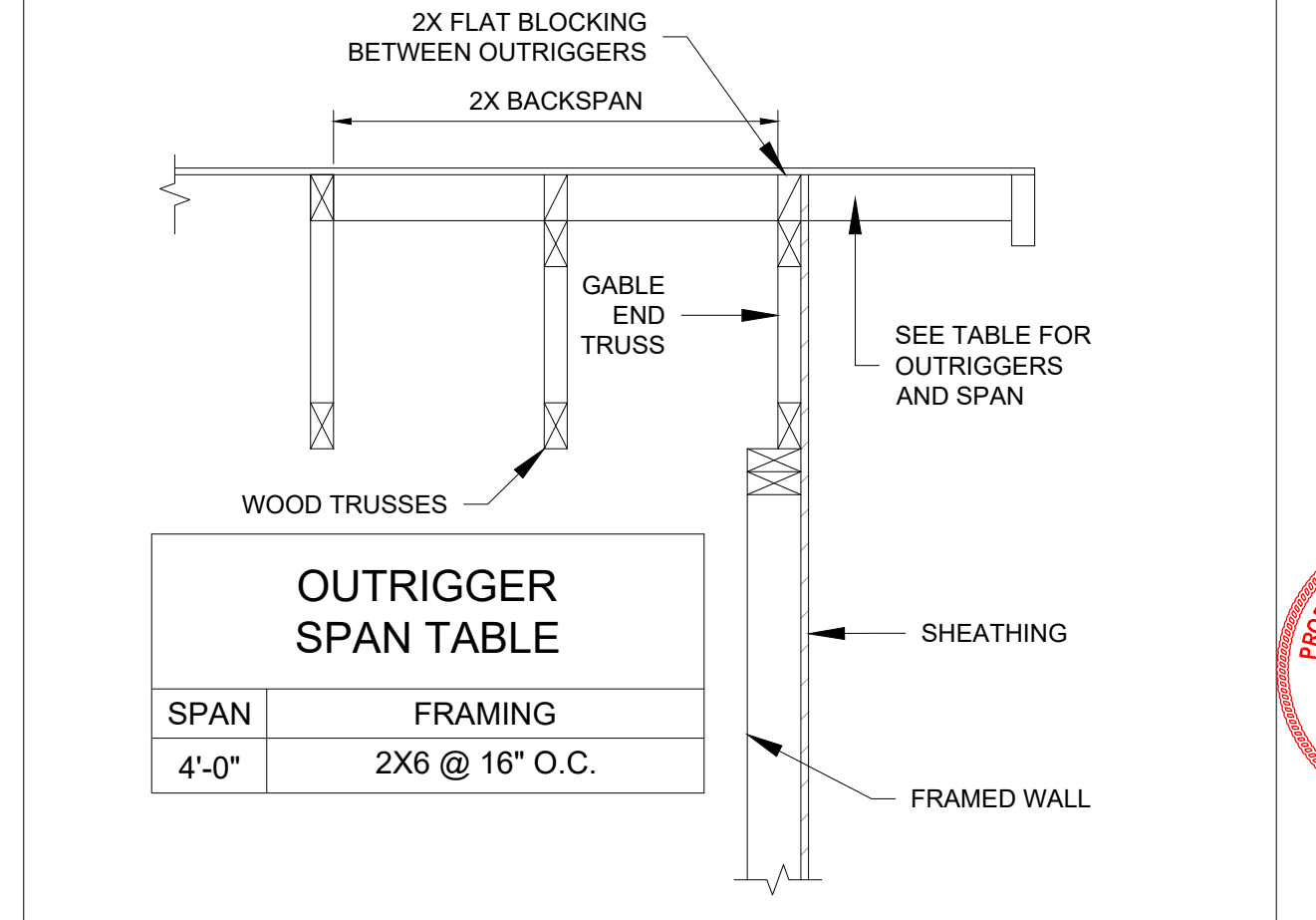
AA CONCRETE SLAB ON GRADE - JOINTS
NO SCALE



BS RETROFIT EPOXY ANCHOR IN FOUNDATION WALL
NO SCALE



GX SHEAR WALL TRANSFER - WALL INTERSECTION
NO SCALE

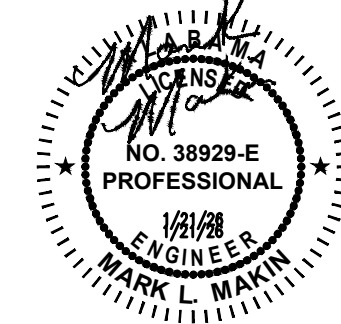


ZB WOOD TRUSS - WOOD WALL OUTRIGGER (HIGH SNOW)
NO SCALE

ZC NEW TO EXISTING ROOF TRANSITION NO SCALE	ZD FOUNDATION WALL - SLAB ON GRADE NO SCALE				Phone 801.229.9020 Fax 801.224.0050 info@acuteengineering.com THESE STRUCTURAL DRAWINGS ARE BASED ON ARCHITECTURAL DRAWINGS. SEE CURRENT ISSUE OR REVISION DATE. DIMENSIONS AND ELEVATIONS ARE SUPPLIED BY THE ARCHITECT. THEY MAY BE PROVIDED ON THE STRUCTURAL PLANS AND DETAILS FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS. ORIGINAL PROJECT # 1021125 DATE: 20 JAN 2026																					
					JORDANELLE SPECIAL SERVICE DISTRICT ADDITION 5760 NORTH OLD HIGHWAY 40 HEBER CITY, UT 84032 STRUCTURAL DETAILS																					
					ISSUES / REVISIONS <table><tr><td>-</td><td>-</td><td>-</td></tr><tr><td>-</td><td>-</td><td>-</td></tr><tr><td>-</td><td>-</td><td>-</td></tr><tr><td>-</td><td>-</td><td>-</td></tr><tr><td>-</td><td>-</td><td>-</td></tr><tr><td>-</td><td>-</td><td>-</td></tr><tr><td>-</td><td>-</td><td>-</td></tr></table>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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ISSUED:
JANUARY, 2026REVISIONS:
NO. DATE DESCRIPTION

STAMP

PROJECT NUMBER:
25152**MECHANICAL
NOTES &
LEGENDS****M0.1****DUCTWORK SEISMIC SUPPORT NOTES:**

- PER ASCE STANDARD 7-22 (OR MOST RECENT VERSION) SEISMIC SUPPORTS ARE NOT REQUIRED FOR THE FOLLOWING CONDITIONS:
 - HVAC DUCTS ARE SUSPENDED WITH HANGERS 12" OR LESS IN LENGTH.
 - HVAC DUCTS HAVE A CROSS-SECTIONAL AREA OF LESS THAN 6 SQUARE FEET.
- IF INSTANCES OCCUR WHERE HVAC DUCT IS SUSPENDED WITH HANGERS GREATER THAN 12" IN LENGTH AND HVAC DUCT HAS A CROSS-SECTIONAL AREA GREATER THAN 6 SQUARE FEET SYSTEM CONNECTORS AND COMPONENTS SHALL BE COMPATIBLE AND DESIGNED FOR THE APPLICATION THAT THEY ARE USED FOR. SHALL HAVE A MINIMUM OF TWO TRANSVERSE BRACES PER STRAIGHT DUCT RUN WITH A MAXIMUM DISTANCE OF 30' BETWEEN TRANSVERSE BRACES. SHALL HAVE A MINIMUM OF ONE LONGITUDINAL BRACE PER STRAIGHT DUCT RUN WITH A MAXIMUM DISTANCE OF 40' BETWEEN LONGITUDINAL BRACES. BRACING SHALL ONLY OCCUR AT OR NEAR AREAS WHERE SUFFICIENT DUCT STIFFNESS IS PRESENT (AT OR NEAR JOINT CONNECTIONS).
- FOR SEISMIC BRACING OF MECHANICAL EQUIPMENT AN INDEPENDENT SEISMIC AND VIBRATION CONTROL SUBCONTRACTOR WITH EXPERIENCE, COMPUTING CAPABILITIES, AND MANUFACTURED PRODUCTS SHALL BE FURNISHED BY MECHANICAL CONTRACTOR. INDEPENDENT SEISMIC CONSULTANT SHALL PROVIDE REQUIRED COMPUTATIONS, SHOP DRAWINGS, AND MANUFACTURED PRODUCTS TO MEET THE MINIMUM REQUIREMENTS OF ASCE 7-22 AND INTERNATIONAL BUILDING CODES (LATEST ADOPTED EDITION) FOR THE RESPECTIVE SEISMIC DESIGN FOR SEISMIC ZONE WITH IMPORTANCE FACTOR 1.5. SEISMIC SUBCONTRACTOR SHALL EXERCISE THE QUALITY CONTROL FOR THIS WORK AND SHALL NOT BE LIMITED TO INSTRUCTIONS DIRECTED TO THE MECHANICAL CONTRACTOR. THE SEISMIC SUBCONTRACTOR SHALL CERTIFY IN WRITING THAT THEY HAVE INSPECTED THE INSTALLATION AND THAT ALL ISOLATION ANCHORS AND SEISMIC RESTRAINT MATERIALS ARE INSTALLED CORRECTLY AND FUNCTIONING PROPERLY. CERTIFICATION SHALL BE PROVIDED AFTER ALL CORRECTIVE WORK HAS BEEN COMPLETED.

SUBMITTALS:

- CONTRACTOR TO ALLOW 10 WORKING DAYS FOR SUBMITTAL TURNAROUND.
- CONTRACTOR TO PROVIDE SUBMITTALS FOR ALL EQUIPMENT AND MATERIALS IN A SINGLE PACKAGE. PIECEMEAL SUBMITTALS WILL BE RETURNED WITH A NOTE TO REVISE AND RESUBMIT.
- SUBMITTALS WILL BE CHECKED FOR COMPLIANCE WITH CAPACITY REQUIREMENTS AND ELECTRICAL REQUIREMENTS. CONTRACTOR TO VERIFY THAT WEIGHTS, DIMENSIONS, AND DUCT CONNECTIONS ON SUBMITTED EQUIPMENT IS CONSISTENT WITH SCHEDULED EQUIPMENT PRIOR TO SUBMITTAL. CHANGES IN SCOPE BROUGHT ABOUT BY SUBMITTED EQUIPMENT THAT DOES NOT COMPLY WITH THE WEIGHTS, DIMENSIONS, OR CONNECTION LOCATIONS ON SCHEDULED EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

APPLICABLE CODES

- 2021 INTERNATIONAL MECHANICAL CODE (IMC)
- 2021 INTERNATIONAL BUILDING CODE (IBC)
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- 2021 INTERNATIONAL PLUMBING CODE (IPC)
- 2021 INTERNATIONAL FUEL GAS CODE (IFGC)
- ASHRAE 90.1 – 2022

NOTE: CURRENT CODES ADOPTED BY THE RESPECTIVE JURISDICTION WILL SUPERCEDE THIS LIST OF CODES.

DESIGN CONTACTS

PROJECT MANAGER	CHRIS FALSLEV
MECHANICAL ENGINEER:	MARK MAKIN
MECHANICAL DESIGNER:	MIKE PRESSON

COMMISSIONING NOTES:

MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL DOCUMENTATION TO THE OWNER AS PER THE LISTED 2021 IECC CODE REFERENCES BELOW:

C408.2.1 A COMMISSIONING PLAN SHALL BE DEVELOPED BY A REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY AND SHALL INCLUDE THE FOLLOWING ITEMS:

- A NARRATIVE DESCRIPTION OF THE ACTIVITIES THAT WILL BE ACCOMPLISHED DURING EACH PHASE OF COMMISSIONING, INCLUDING THE PERSONNEL INTENDED TO ACCOMPLISH EACH OF THE ACTIVITIES.
- A LISTING OF THE SPECIFIC EQUIPMENT, APPLIANCES OR SYSTEMS TO BE TESTED AND A DESCRIPTION OF THE TESTS TO BE PERFORMED.
- FUNCTIONS TO BE TESTED, INCLUDING, BUT NOT LIMITED TO CALIBRATIONS AND ECONOMIZER CONTROLS.
- CONDITIONS UNDER WHICH THE TESTS WILL BE PERFORMED, AT A MINIMUM, TESTING SHALL AFFIRM WINTER AND SUMMER DESIGN CONDITIONS AND FULL OUTSIDE AIR CONDITIONS.
- MEASURABLE CRITERIA FOR PERFORMANCE.

C408.2.4 PRELIMINARY COMMISSIONING REPORT. A PRELIMINARY REPORT OF COMMISSIONING TEST PROCEDURES AND RESULTS SHALL BE COMPLETED AND CERTIFIED BY THE REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY AND PROVIDED TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT. THE REPORT SHALL BE ORGANIZED WITH MECHANICAL AND SERVICE HOT WATER FINDINGS IN SEPARATE SECTIONS TO ALLOW INDEPENDENT REVIEW. THE REPORT SHALL BE IDENTIFIED AS "PRELIMINARY COMMISSIONING REPORT". SHALL INCLUDE THE COMPLETED COMMISSIONING COMPLIANCE CHECKLIST, FIGURE C408.2.4, AND SHALL IDENTIFY:

- ITEMIZATION OF DEFICIENCIES FOUND DURING TESTING REQUIRED BY THIS SECTION THAT HAVE NOT BEEN CORRECTED AT THE TIME OF REPORT PREPARATION.
- DEFERRED TESTS THAT CANNOT BE PERFORMED AT THE TIME OF REPORT PREPARATION BECAUSE OF CLIMATIC CONDITIONS.
- CLIMATIC CONDITIONS REQUIRED FOR PERFORMANCE OF THE DEFERRED TESTS.
- RESULTS OF FUNCTIONAL PERFORMANCE TESTS.
- FUNCTIONAL PERFORMANCE TEST PROCEDURES USED DURING THE COMMISSIONING PROCESS, INCLUDING MEASURABLE CRITERIA FOR TEST ACCEPTANCE.

C408.2.4.1 ACCEPTANCE OF REPORT. BUILDINGS, OR PORTIONS THEREOF, SHALL NOT BE CONSIDERED AS ACCEPTABLE FOR A FINAL INSPECTION PURSUANT TO SECTION C105.2.6 UNTIL THE CODE OFFICIAL HAS RECEIVED THE PRELIMINARY COMMISSIONING REPORT FROM THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT.

C408.2.4.2 THE CODE OFFICIAL SHALL BE PERMITTED TO REQUIRE THAT A COPY OF THE PRELIMINARY COMMISSIONING REPORT BE MADE AVAILABLE FOR REVIEW BY THE CODE OFFICIAL.

C408.2.5 DOCUMENTATION REQUIREMENTS. THE CONSTRUCTION DOCUMENTS SHALL SPECIFY THAT THE DOCUMENTS DESCRIBED IN THIS SECTION BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS OF THE RECEIPT OF THE CERTIFICATE OF OCCUPANCY.

DOCUMENTS SHALL INCLUDED BUT ARE NOT LIMITED TO: DRAWINGS, MANUALS, SYSTEM BALANCING REPORT, AND FINAL COMMISSIONING REPORT.

SITE CONDITIONSSITE:CITY: HEBER CITY, UT
ELEVATION: 5,790'OUTDOOR CONDITIONS:WINTER: HTG: -3° F
SUMMER: CLG: 91° FINDOOR CONDITIONSWINTER: HTG: 75° F
SUMMER: CLG: 72° F

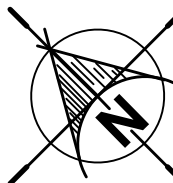
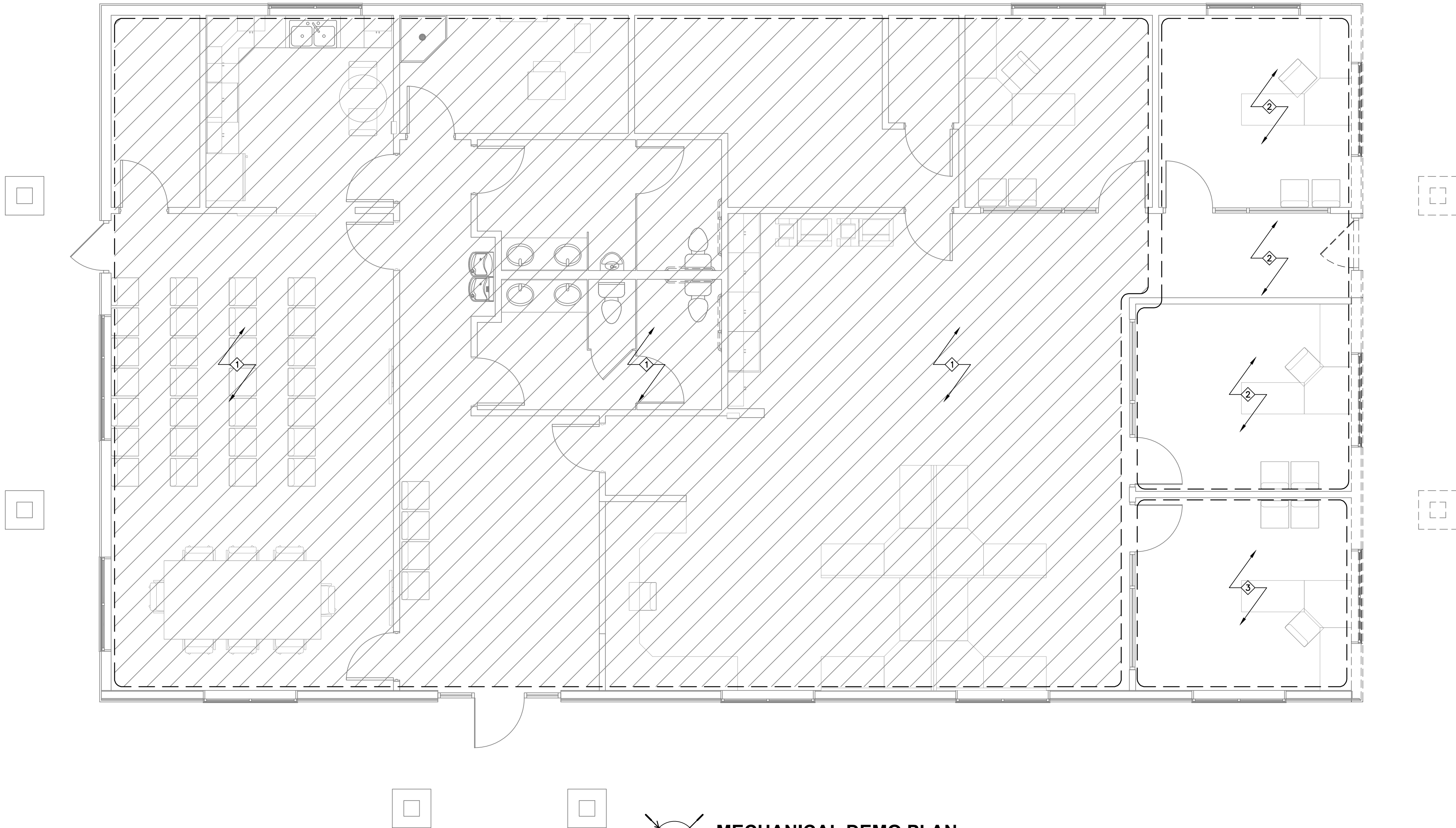
IF TEMPERATURES SHOWN DO NOT MATCH CONDITIONS DESIRED FOR THIS PROJECT CONTACT THE ENGINEER OF RECORD.

MECHANICAL SHEET INDEX

SHEET NUMBER	SHEET TITLE
M0.1	MECHANICAL NOTES & LEGENDS
M1.1	MECHANICAL DEMO PLAN
M1.2	MECHANICAL PLAN
M5.1	MECHANICAL DETAILS
M5.2	MECHANICAL DETAILS
M5.3	MECHANICAL DETAILS
M6.1	MECHANICAL SCHEDULES
M7.1	MECHANICAL SPECIFICATIONS
M7.2	MECHANICAL SPECIFICATIONS
M7.3	MECHANICAL SPECIFICATIONS

PROJECT MECHANICAL NOTES:

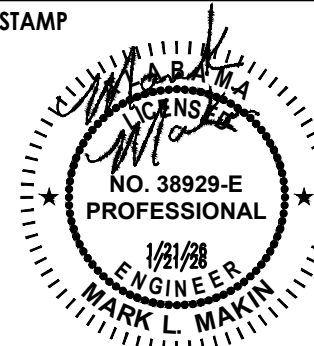
- MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL A 7-DAY PROGRAMMABLE THERMOSTAT FOR EACH NEW FURNACE. VERIFY THERMOSTAT LOCATION WITH OWNER REPRESENTATIVE IN FIELD.
- FIELD VERIFY LOCATION OF ALL EXISTING MECHANICAL UNITS WITH GENERAL CONTRACTOR/OWNER REPRESENTATIVE.
- COORDINATE EXACT LOCATION IN FIELD OF ALL NEW MECHANICAL UNITS WITH GENERAL CONTRACTOR/OWNER REPRESENTATIVE
- PROVIDE AND INSTALL MANUAL CONTROL DAMPERS AT EACH BRANCH TAKE-OFF. EACH SUPPLY AIR GRILLE SHALL BE DOWNSTREAM FROM A CONTROL DAMPER FOR BALANCING AND ADJUSTMENT. SOME INSTALLATIONS MAY REQUIRE OPPOSED BLADE DAMPERS OR CONCEALED DAMPER REGULATORS THAT ARE REMOTELY ADJUSTED.
- MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SINGLE THICKNESS TURNING VANES AT EACH 90 DEGREE SQUARE DUCT ELBOW ON ALL NEW DUCTING.
- USING CFM NOTED ON PLANS INSTALL GRILLES AND DIFFUSERS WITH MAXIMUM NOISE CRITERIA (NC) OF 25 FOR ALL PUBLIC/Common AREAS.
- DUCTWORK SIZING, ROUTING, AND LOCATION TO BE FIELD VERIFIED AND APPROVED FOR ANY CHANGES TO THE DUCT SIZING AND/OR ROUTING PRIOR TO DUCT FABRICATION AND INSTALLATION. DUCTWORK FABRICATED PRIOR TO FIELD VERIFICATION AND APPROVALS THAT NEEDS TO BE ALTERED WILL BE ALTERED AS NEEDED BY THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- ANY NEW FRESH/OUTSIDE AIR INTAKES SHALL BE 10 FEET MIN. FROM ALL EXHAUST & PLUMBING VENTS.
- NEW RETURN AIR & SUPPLY AIR DUCTWORK IN UNCONDITIONED SPACES SHALL BE INSULATED PER APPLICABLE CODES.
- ALL NEW EQUIPMENT SHALL HAVE A FLEXIBLE CONNECTION FOR THE RETURN AIR & SUPPLY AIR DUCTWORK.
- BALANCE ALL NEW SYSTEMS TO CFM NOTED AT EACH DIFFUSER AND GRILLE BY AN INDEPENDENT BALANCING CONTRACTOR.
- ALL NEW GAS FIRED EQUIPMENT WILL BE TESTED BY CERTIFIED GAS INSTALLERS AND HAVE GREEN STICKERS STATING COMPLIANCE WITH ALL REQUIRED LOCAL AND 2021 IFGC REQUIREMENTS.
- HEATING AND COOLING LOADS FOR THIS PROJECT HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN ASHRAE 183.
- CEILING SPACE AVAILABLE TO MECHANICAL DUCTING AND EQUIPMENT IS LIMITED FOR THIS PROJECT. SEE ARCHITECTURAL CROSS SECTIONS FOR ANTICIPATED AVAILABLE SPACE. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR LOCATIONS OF STRUCTURAL BEAMS THAT MIGHT CONFLICT WITH THE SHOWN DUCT SIZING. DUCT DIMENSIONS REFLECT THE ANTICIPATED SPACE AVAILABLE BETWEEN THE BOTTOM OF TRUSS AND CEILING FRAMING. DUCTING IN CONFLICT AREAS WILL REQUIRE AN IN FIELD ADJUSTMENT. ONLY ADJUST SHOWN DUCT SIZES IN AREAS THAT CONFLICTS OCCUR. RE-SIZE SHOWN DUCT SIZES IN CONFLICT AREAS ACCORDING TO SHOWN CFM VALUES AND USE A .08 FRICTION LOSS.
- REFRIGERANT PIPING INSULATION.
- INSULATE ALL REFRIGERANT SUCTION PIPING WITH 1/2" THICK FLEXIBLE FOAMED PLASTIC CLOSED CELL PIPE INSULATION.
- INSULATION SHALL HAVE A "K" FACTOR OF NOT MORE THAN .28 AT 70°F AND A WATER VAPOR TRANSMISSION RATE OF 0.1 PERM-INCH OR LESS IN CONFORMANCE WITH ASTM C-177 & ASTM C-355 WATER METHOD.
- WHEN INSULATION IS EXPOSED TO SUNLIGHT WRAP WITH POLYTAPE WITH ONE THIRD OVERLAP.
- INSTALL INSULATION BY SLITTING TUBULAR SECTIONS AND APPLYING OVER PIPING.
- PAINT ALL INSULATION AND/OR TAPE EXPOSED TO THE EXTERIOR WITH ULTRAVIOLET RESISTING PAINT.
- MECHANICAL CONTRACTOR SHALL CLEAN EXISTING DUCT SYSTEM AND GRILLES CONNECTED TO ALL EXISTING AIR HANDLER(S).
- PROVIDE AND INSTALL NEW FILTERS FOR EXISTING AIR HANDLER(S) AT THE COMPLETION OF THIS PROJECT.
- MECHANICAL CONTRACTOR SHALL TEST THE EXISTING AIR HANDLER(S) FOR PROPER OPERATION. INFORM THE GENERAL CONTRACTOR/OWNER REPRESENTATIVE OF ANY PROBLEMS OR CONCERNS.
- MECHANICAL CONTRACTOR SHALL RELOCATE EXISTING SUPPLY AIR & RETURN AIR DUCTING AND REGISTERS AS REQUIRED TO ACCOMMODATE NEW WALLS AND LIGHTING LAYOUT. EXTEND AND/OR MODIFY DUCTWORK AS REQUIRED. COORDINATE WITH GENERAL CONTRACTOR/OWNER REPRESENTATIVE IN FIELD.
- MECHANICAL CONTRACTOR SHALL VISIT THE PROJECT SITE DURING THE BIDDING PROCESS.



MECHANICAL DEMO PLAN
SCALE: 1/4" = 1'-0"

- MECHANICAL KEYED NOTES:**
- ① NO WORK TO BE DONE IN THIS AREA.
 - ② THE GRILLES, REGISTERS, AND DIFFUSERS IN THIS AREA WILL NEED TO BE REMOVED AND SAVED FOR RE-USE. THE MECHANICAL SYSTEM IN THIS LOCATION SHALL BE UNCHANGED. IF IT IS NECESSARY TO REMOVE PORTIONS OF THE MECHANICAL SYSTEM FOR DEMOLITION PURPOSES IE: DUCTS, REGISTERS, ETC. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO PROTECT DURING DEMOLITION AND RE-INSTALL THE PORTIONS OF THE REMOVED SYSTEM IN THE ORIGINAL LOCATIONS DURING THE REMODEL PHASE.
 - ③ THE GRILLES, REGISTERS, AND DIFFUSERS IN THIS AREA WILL NEED TO BE REMOVED AND SAVED FOR RE-USE. THE DEDICATED HEAT PUMP SPLIT SYSTEM (CEILING CASSETTE/HEAT PUMP) IN THIS LOCATION SHALL BE DEMOLISHED AND REMOVED OFF-SITE. ANY DUCTING FROM THE EXISTING FURNACE SYSTEM THAT SERVES THIS SPACE SHALL BE TERMINATED AND CAPPED. SEE MECHANICAL PLAN FOR MORE INFORMATION IN THIS AREA.

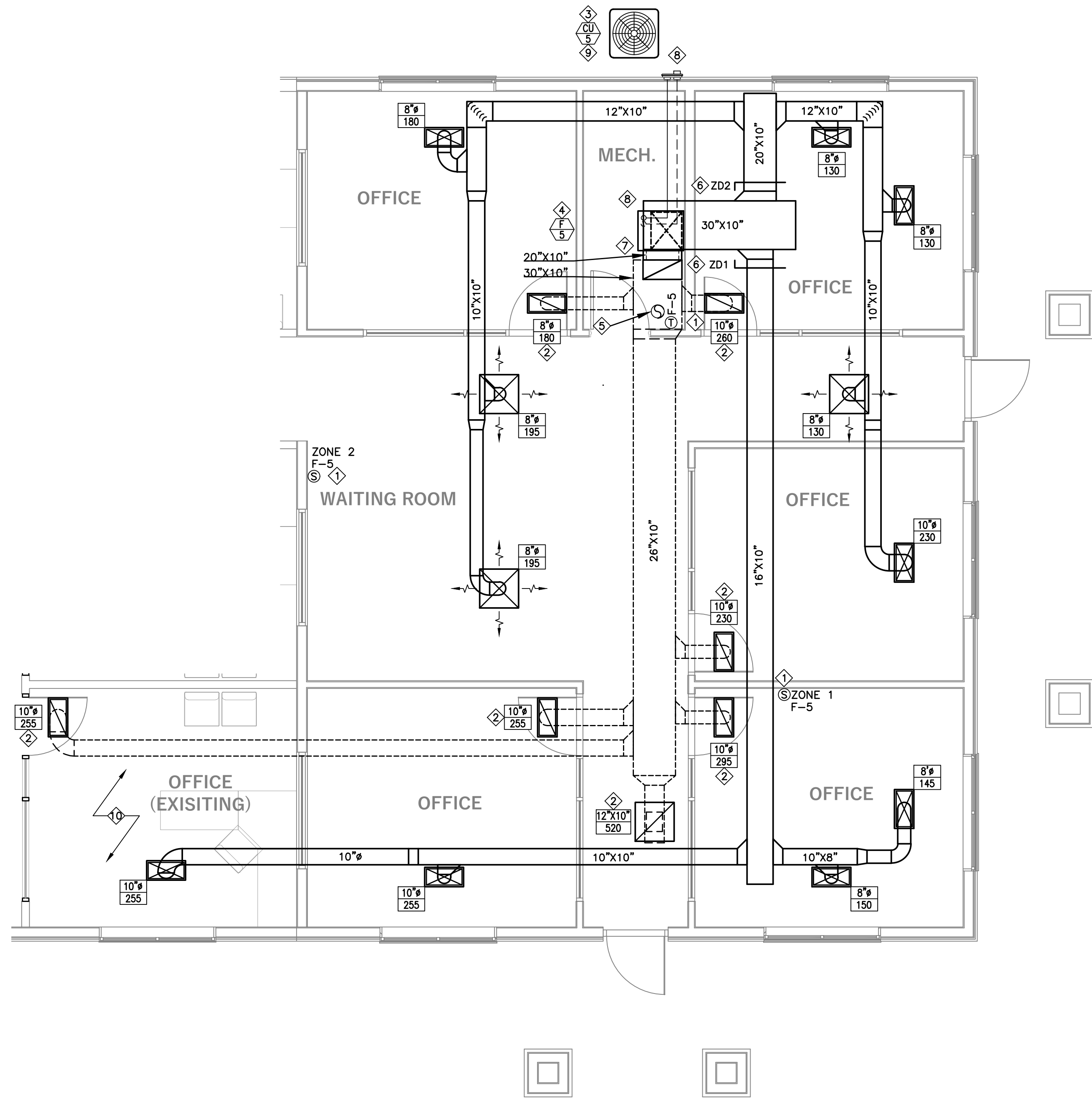
ISSUED: JANUARY, 2026		
REVISIONS:		
NO.	DATE	DESCRIPTION



PROJECT NUMBER:
25152

**MECHANICAL
DEMO
PLAN**

M1.1



MECHANICAL PLAN
SCALE: 1/4" = 1'-0"

MECHANICAL KEYED NOTES:

1. FIELD VERIFY 7-DAY PROGRAMMABLE THERMOSTAT/ZONE DAMPER CONTROL LOCATION WITH OWNERS REPRESENTATIVE. INSTALL THERMOSTAT AT 48" A.F.F.. PROVIDE AND INSTALL HEAVY DUTY LOCKABLE COVER.
2. PROVIDE AND INSTALL RETURN AIR GRILLE CAPABLE OF CFM NOTED WITH AN NC OF NO GREATER THAN 25.
3. PROVIDE AND INSTALL 4" HOUSEKEEPING PAD FOR CONDENSING UNIT BY MECHANICAL CONTRACTOR. PROVIDE MANUFACTURER REQUIRED CLEARANCES.
4. PROPOSED LOCATION OF FLOOR MOUNTED FURNACE. TRANSITION RETURN AND SUPPLY DUCT AS REQUIRED FOR CONNECTION TO AIR HANDLER. PROVIDE FILTER SECTION AT AIR HANDLER AFTER FRESH AIR INTAKE. PROVIDE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS. CONDENSATE DRAIN PIPE FROM FURNACE COOLING COIL TO FLOOR DRAIN OR CONDENSATE RECEPTOR, & COMBUSTION/EXHAUST PIPES TO ROOF PER MANUFACTURER RECOMMENDATIONS. COORDINATE ROOF PENETRATION WITH OWNERS REPRESENTATIVE. SEAL ALL PENETRATIONS WEATHER TIGHT. SEE DETAILS FOR MORE INFORMATION.
5. PROVIDE AND INSTALL OUTSIDE AIR DUCT TO FURNACE SYSTEM PER OUTSIDE AIR SCHEDULE THRU ROOF (SEAL WEATHER TIGHT). PROVIDE AND INSTALL ALL DAMPERS, WEATHER PROOFING, ETC. PER MANUFACTURER RECOMMENDATIONS.
6. PROPOSED LOCATION FOR ZONE CONTROL DAMPER. SEE ZONE CONTROL SCHEDULE.
7. PROVIDE AND INSTALL BYPASS DUCTWORK AND COUNTERBALANCED DAMPER SIZED FOR 1190 CFM (20"x10"). SEE ZONE CONTROL SCHEDULE FOR MORE INFORMATION.
8. SUGGESTED LOCATION OF EXHAUST/COMBUSTION AIR VENTS FROM FURNACE F-5 TO SIDEWALL TERMINATION. INSTALL PER MANUFACTURERS SPECIFICATIONS. COORDINATE FINAL LOCATION WITH STRUCTURE AND OWNER REPRESENTATIVE. SEE MECHANICAL SCHEDULES AND DETAILS.
9. PROVIDE AND INSTALL REFRIGERANT PIPING FROM CONDENSING UNIT TO FURNACE COOLING COIL.
10. THE OFFICE AT THIS LOCATION IS PART OF THE ORIGINAL STRUCTURE. THIS OFFICE PREVIOUSLY HAS THE DEDICATED SPLIT SYSTEM WHICH WAS REMOVED. THE DUCTING FROM THE EXISTING FURNACE HAS BEEN CAPPED.

SHEET NOTES:

1. ALL DUCTING IS ANTICIPATED TO BE ROUTED IN THE DROPPED CEILING AREA. ANY DUCTING THAT IS ROUTED THROUGH THE ATTIC WILL REQUIRE INSULATION. PROVIDE AND INSTALL RADIATION DAMPERS AT PENETRATIONS OF RATED ASSEMBLIES.
2. MANUFACTURER INSTALLATION INSTRUCTIONS FOR HIGH EFFICIENCY HVAC MUST BE AVAILABLE FOR THE INSPECTOR AT THE TIME OF ROUGH INSPECTION.

CONSULTANT

MECHANICAL, ELECTRICAL
& PLUMBING
1837 S. EAST BAY BLVD.
PROVO, UTAH 84606
PHONE: 801.375.2228
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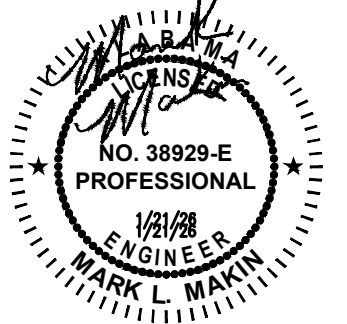
JORDENELLE SPECIAL SERVICE DISTRICT

5360 OLD HWY 40,
HEBER CITY, UT 84032

ISSUED:
JANUARY, 2026

REVISIONS:
NO. DATE DESCRIPTION

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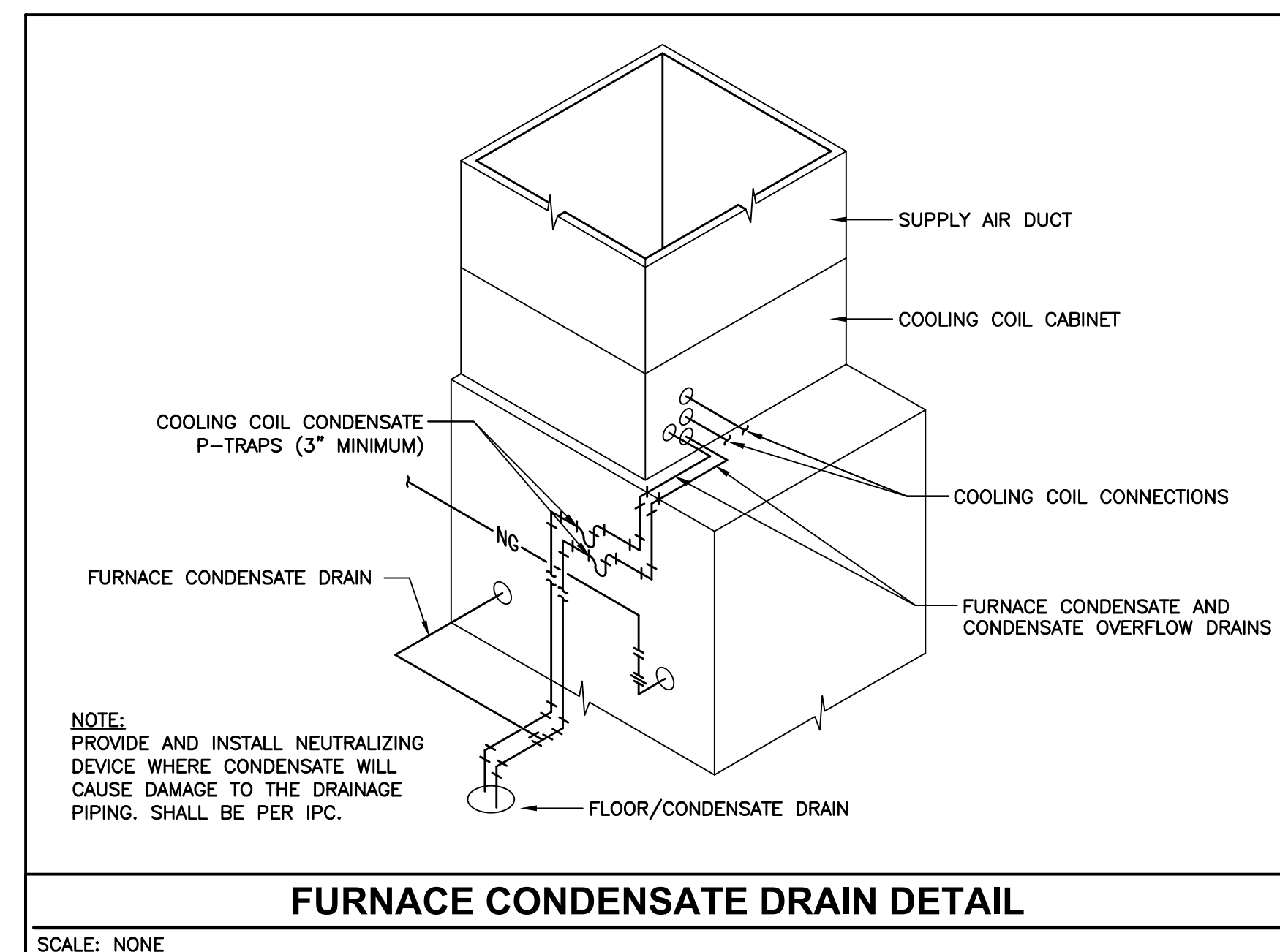
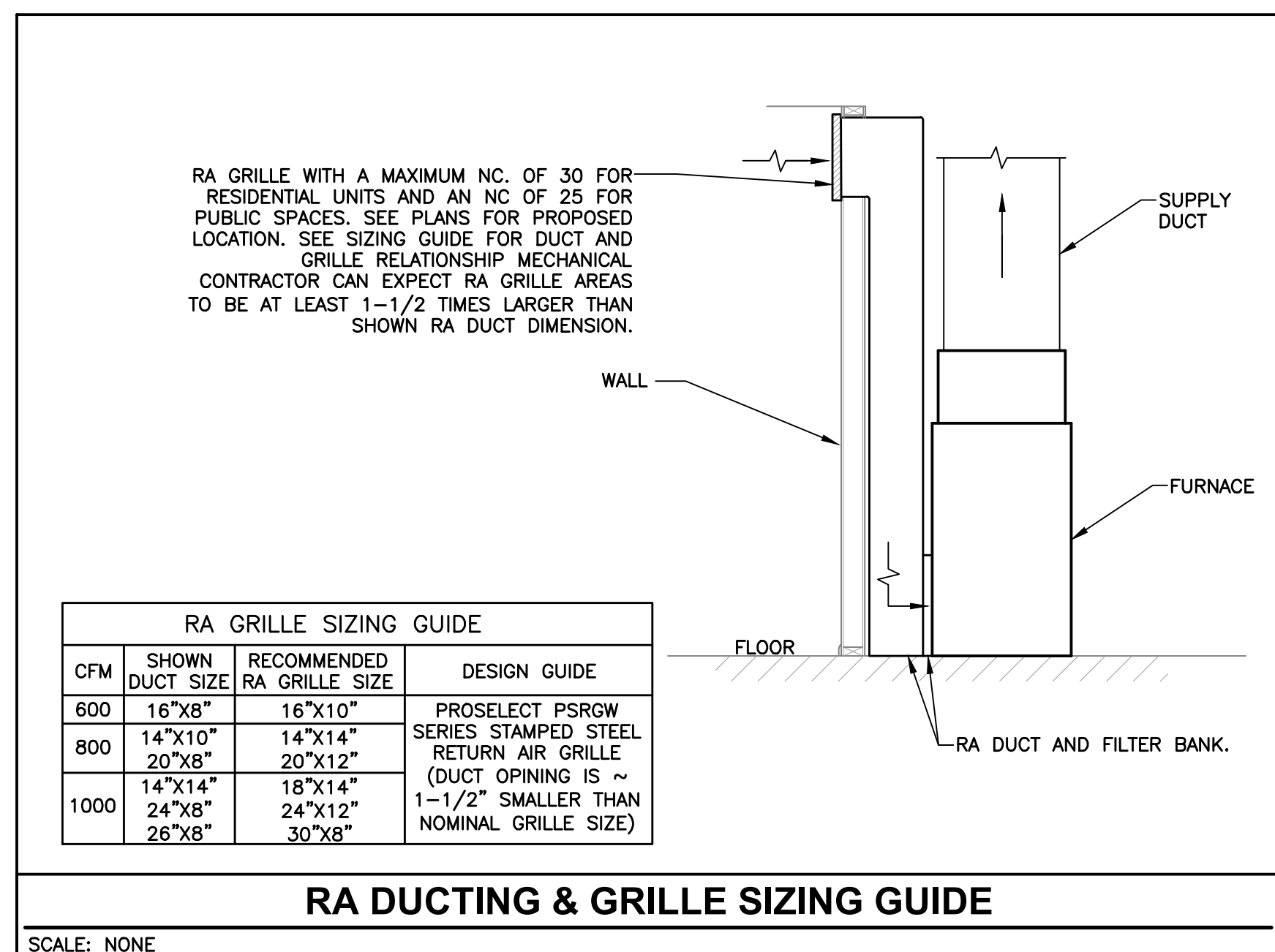
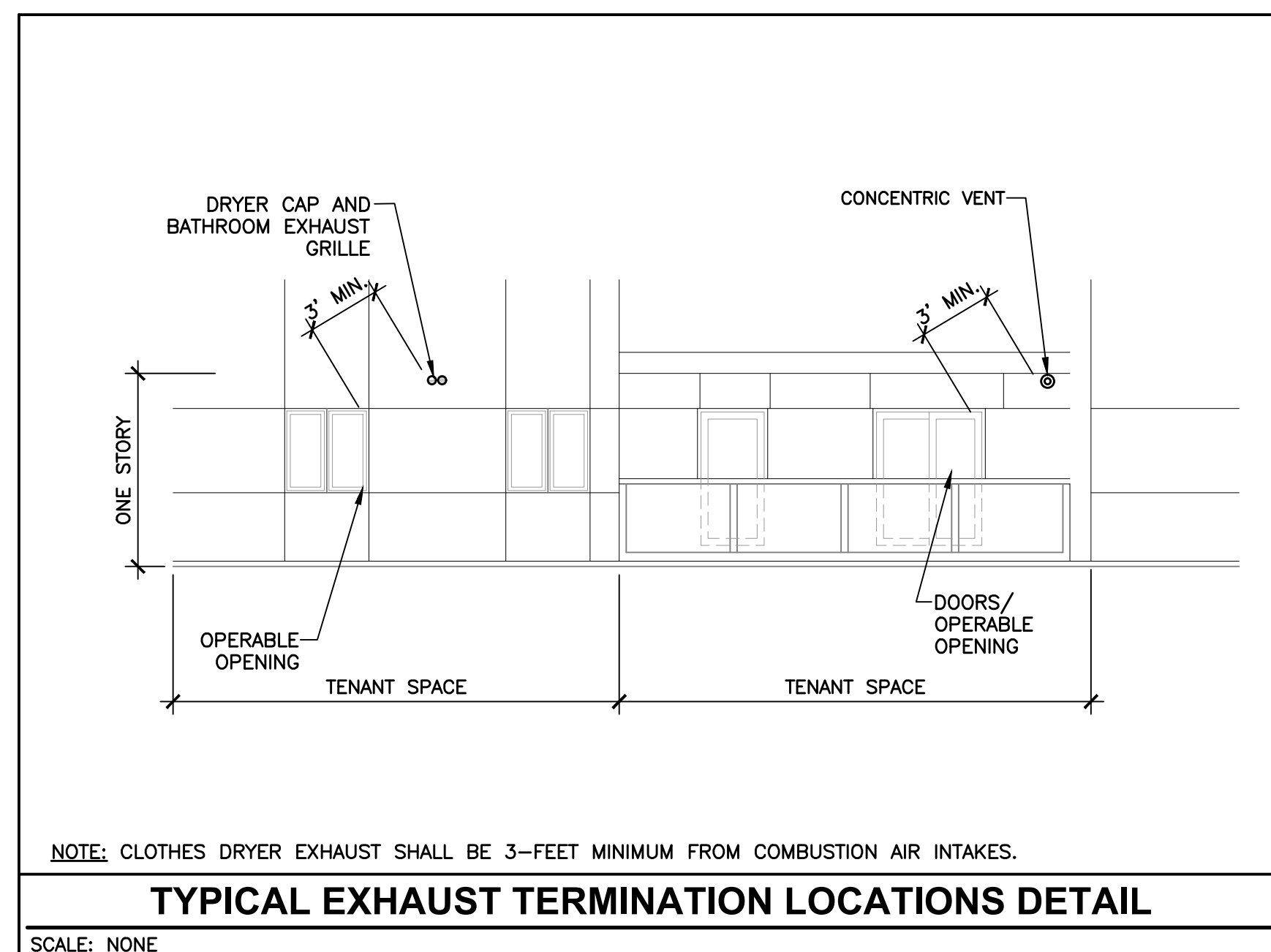
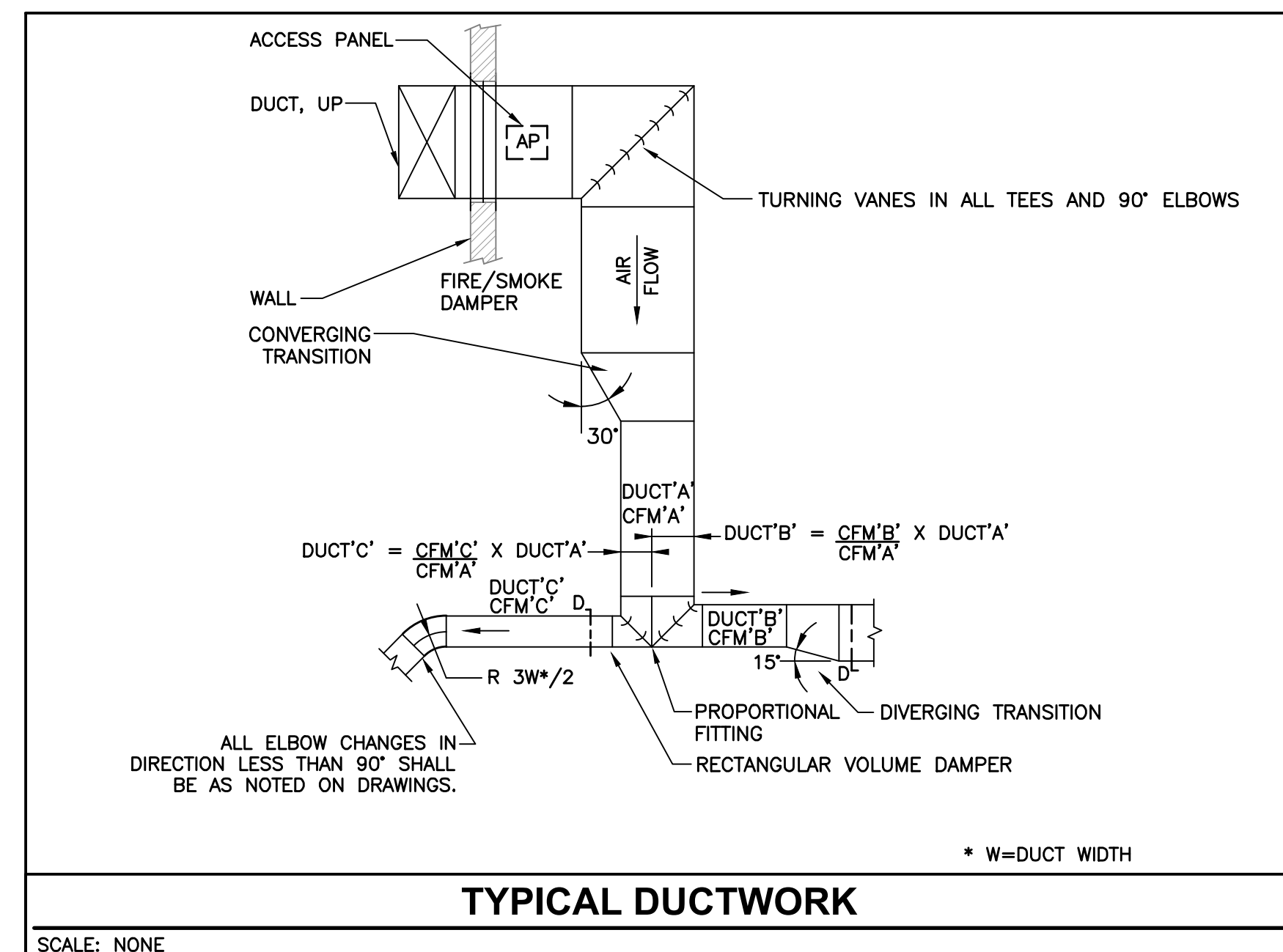
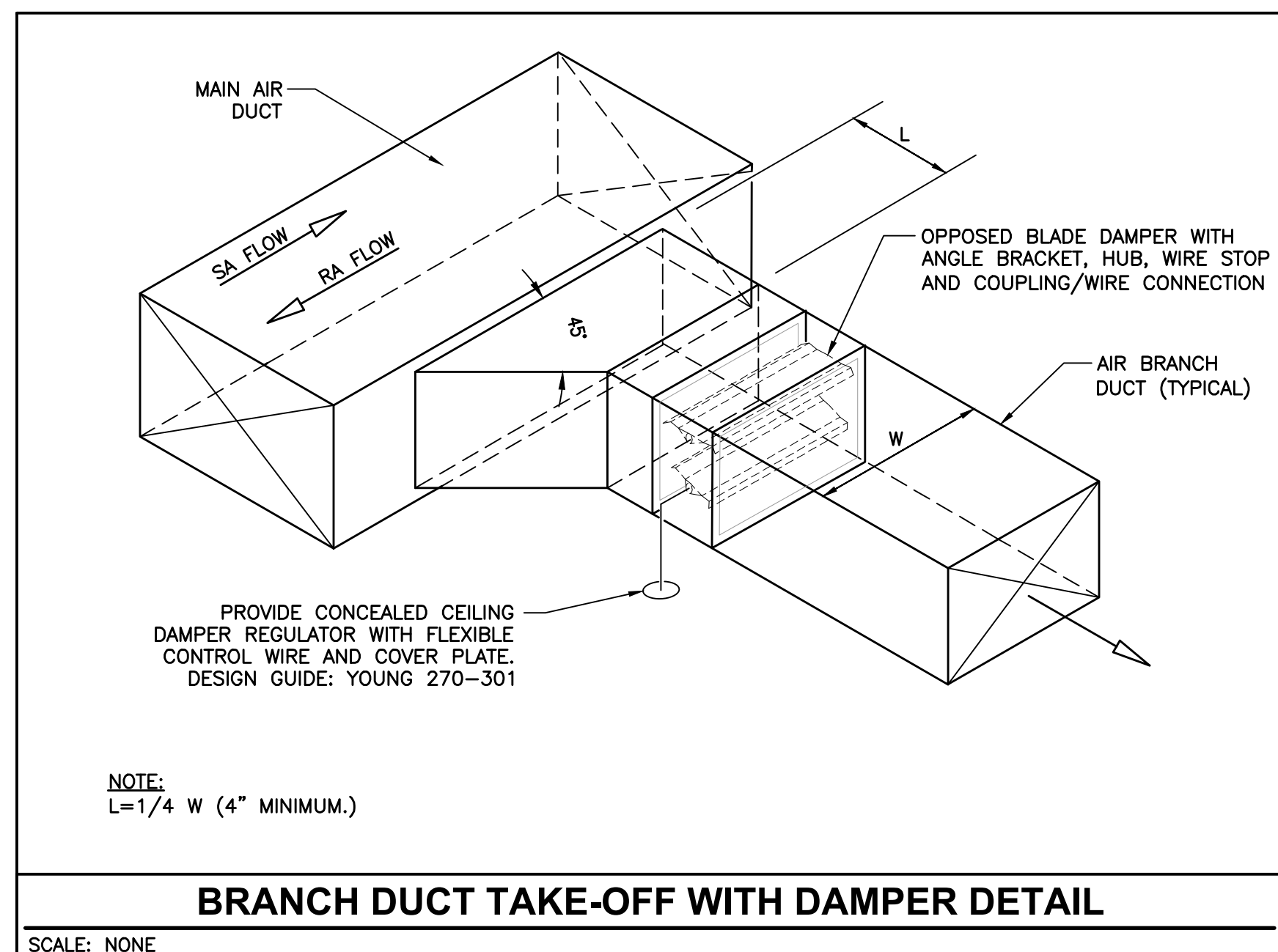
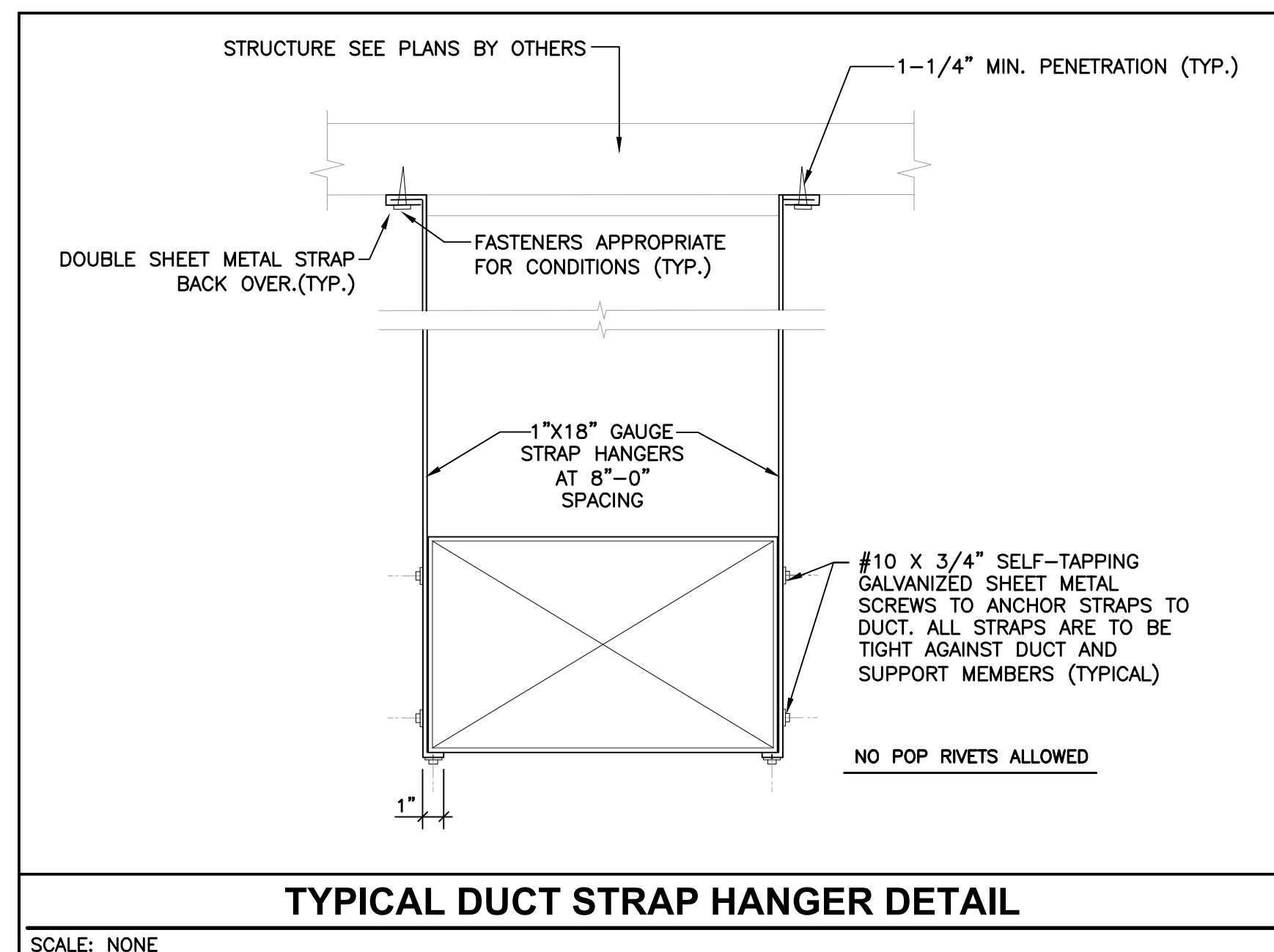
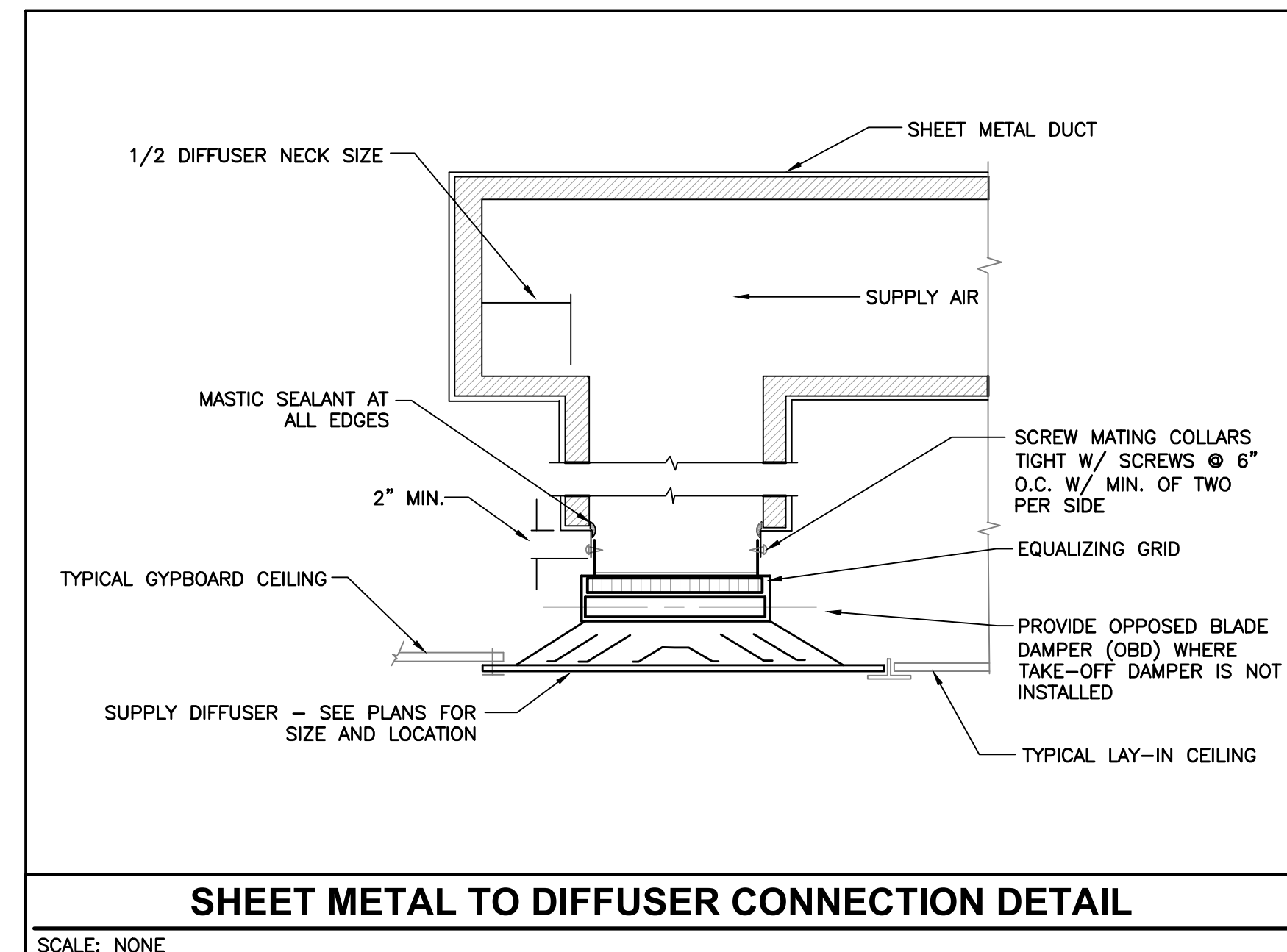
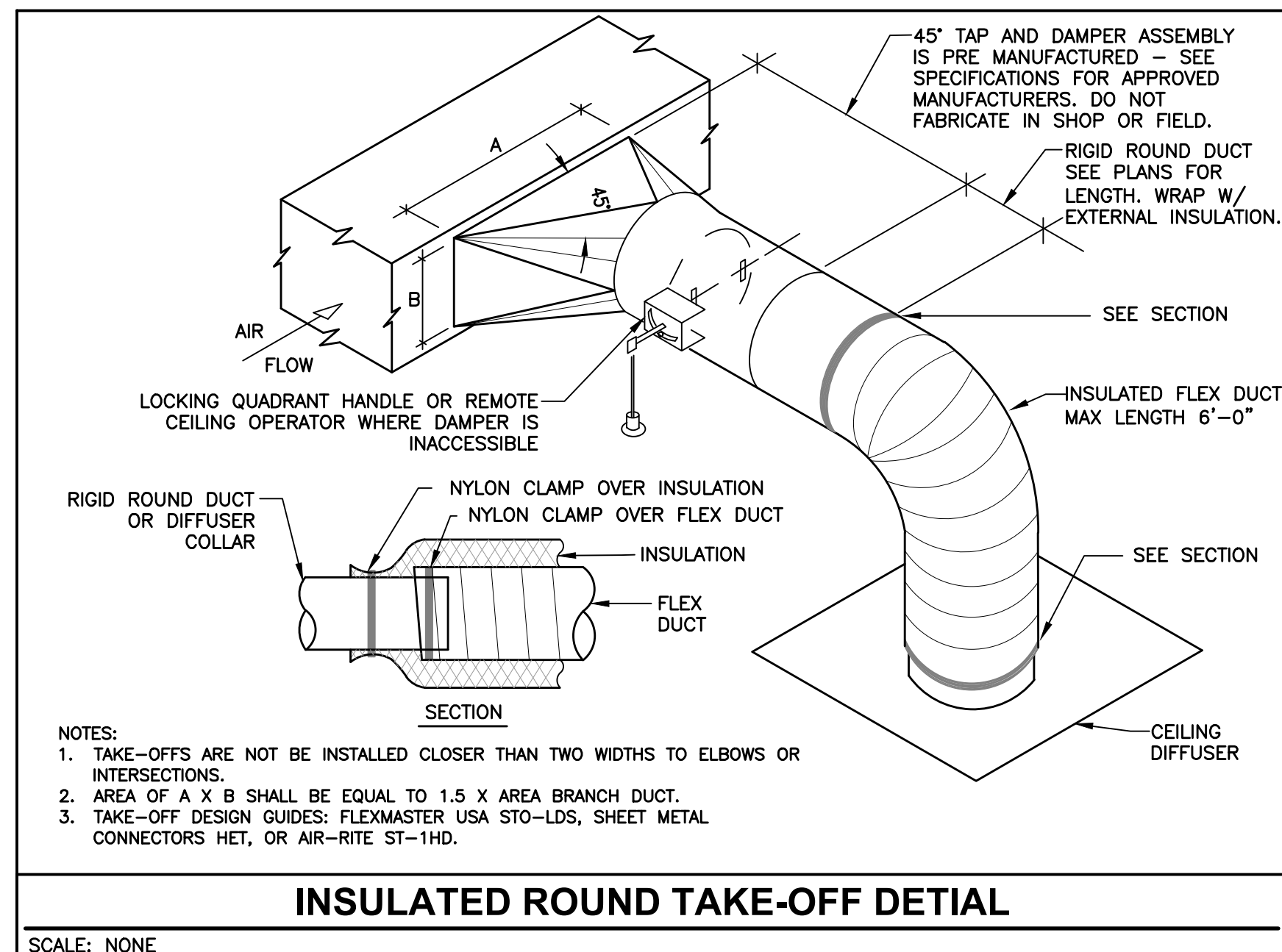
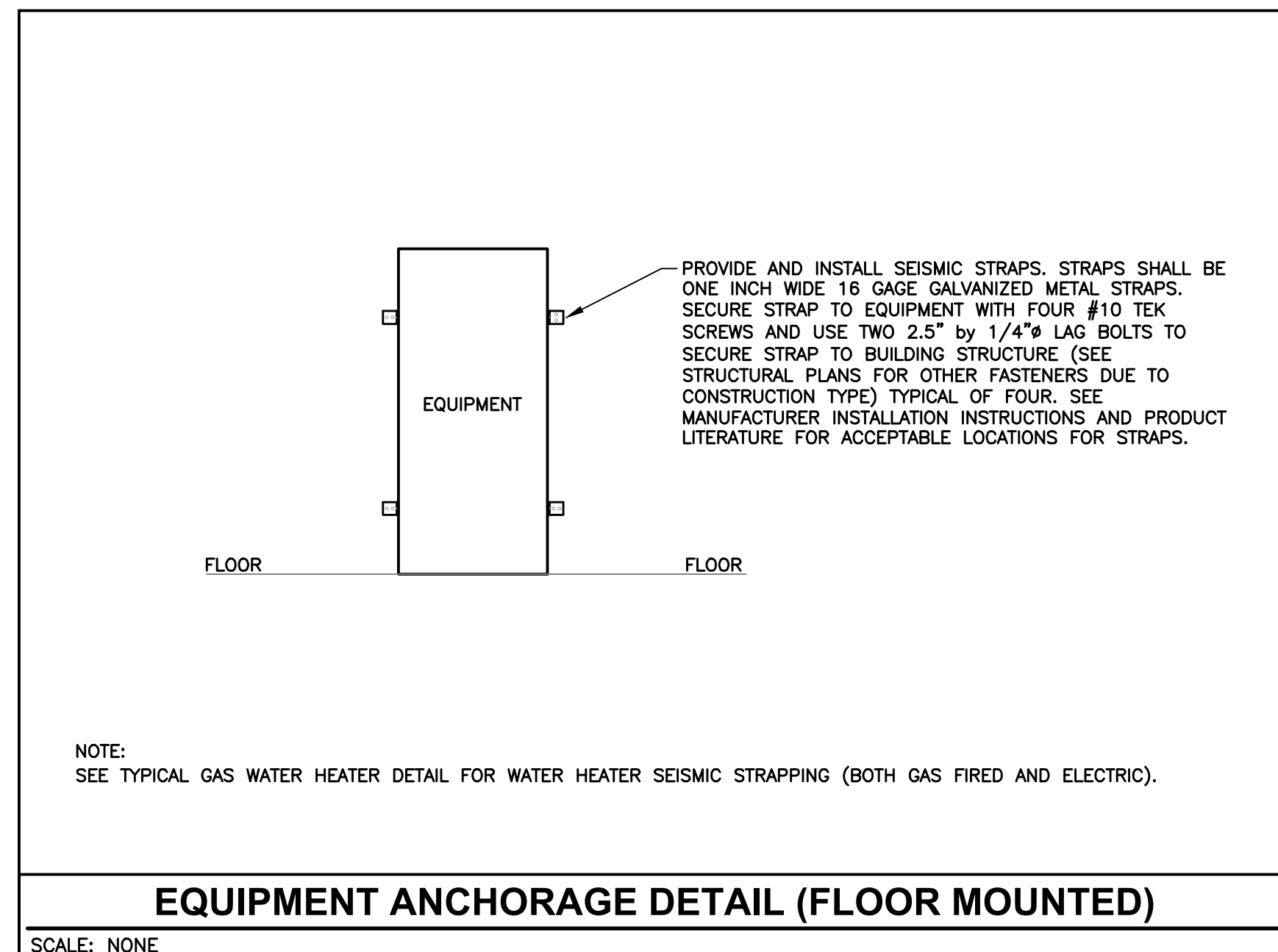


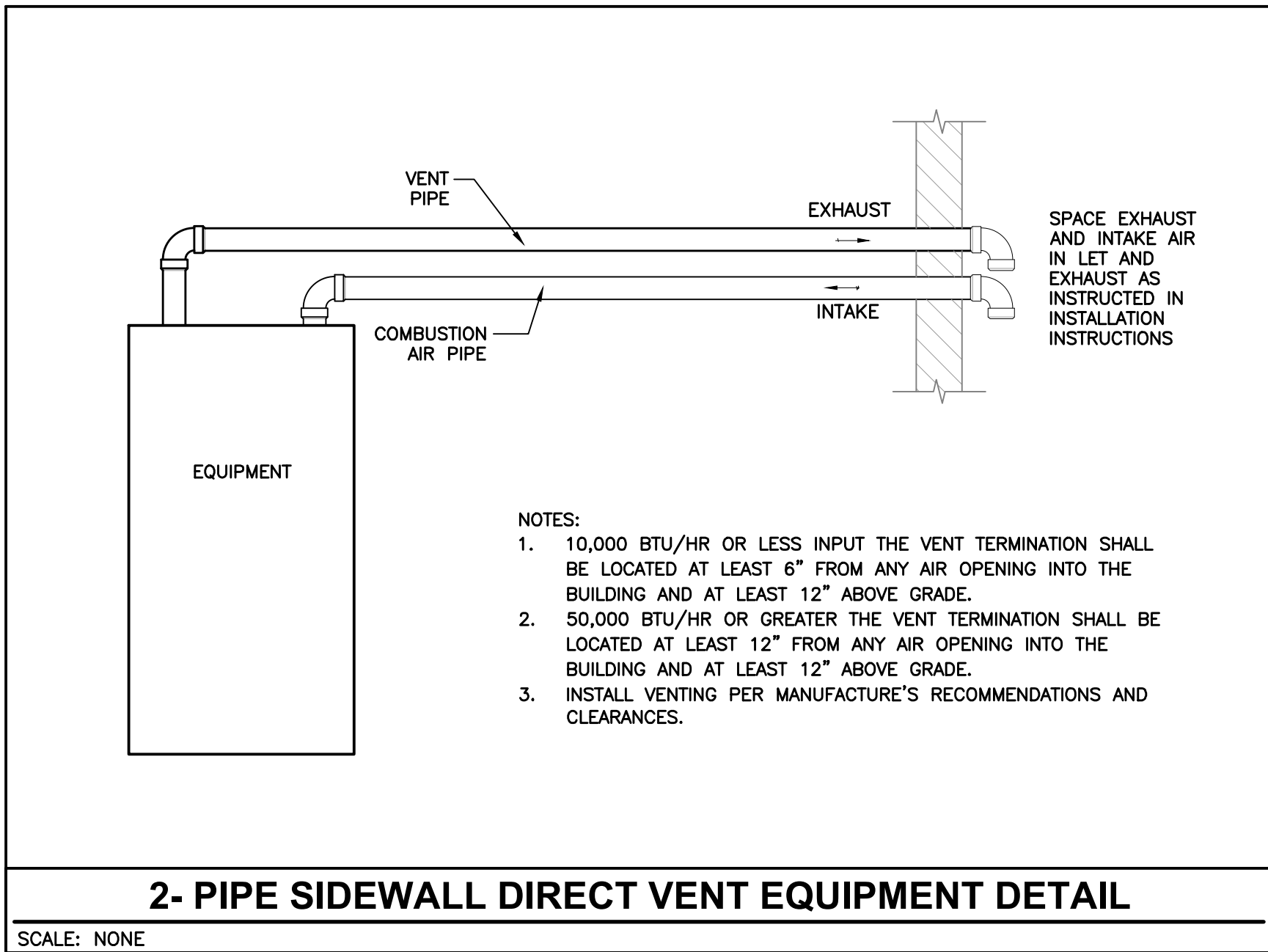
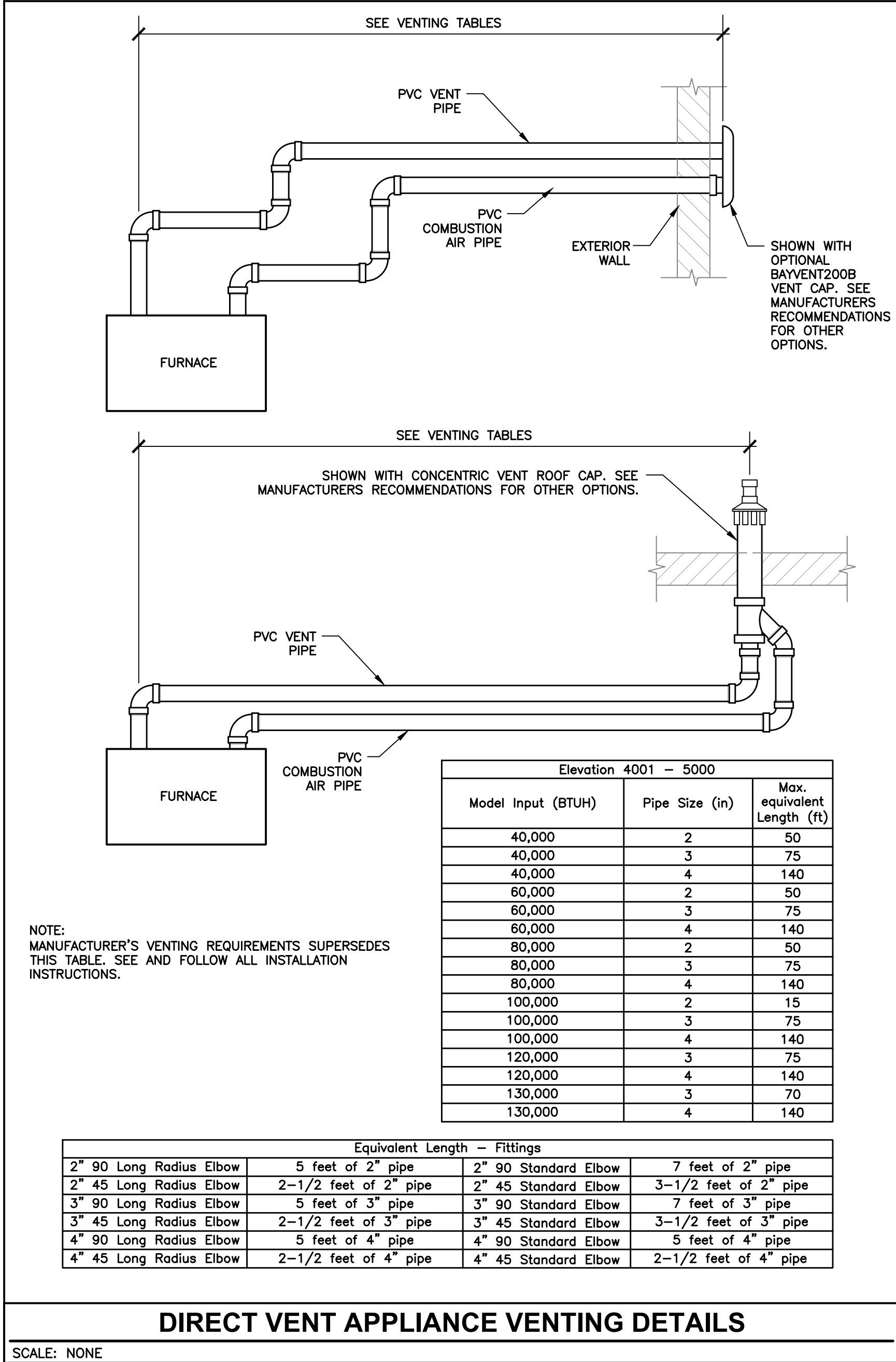
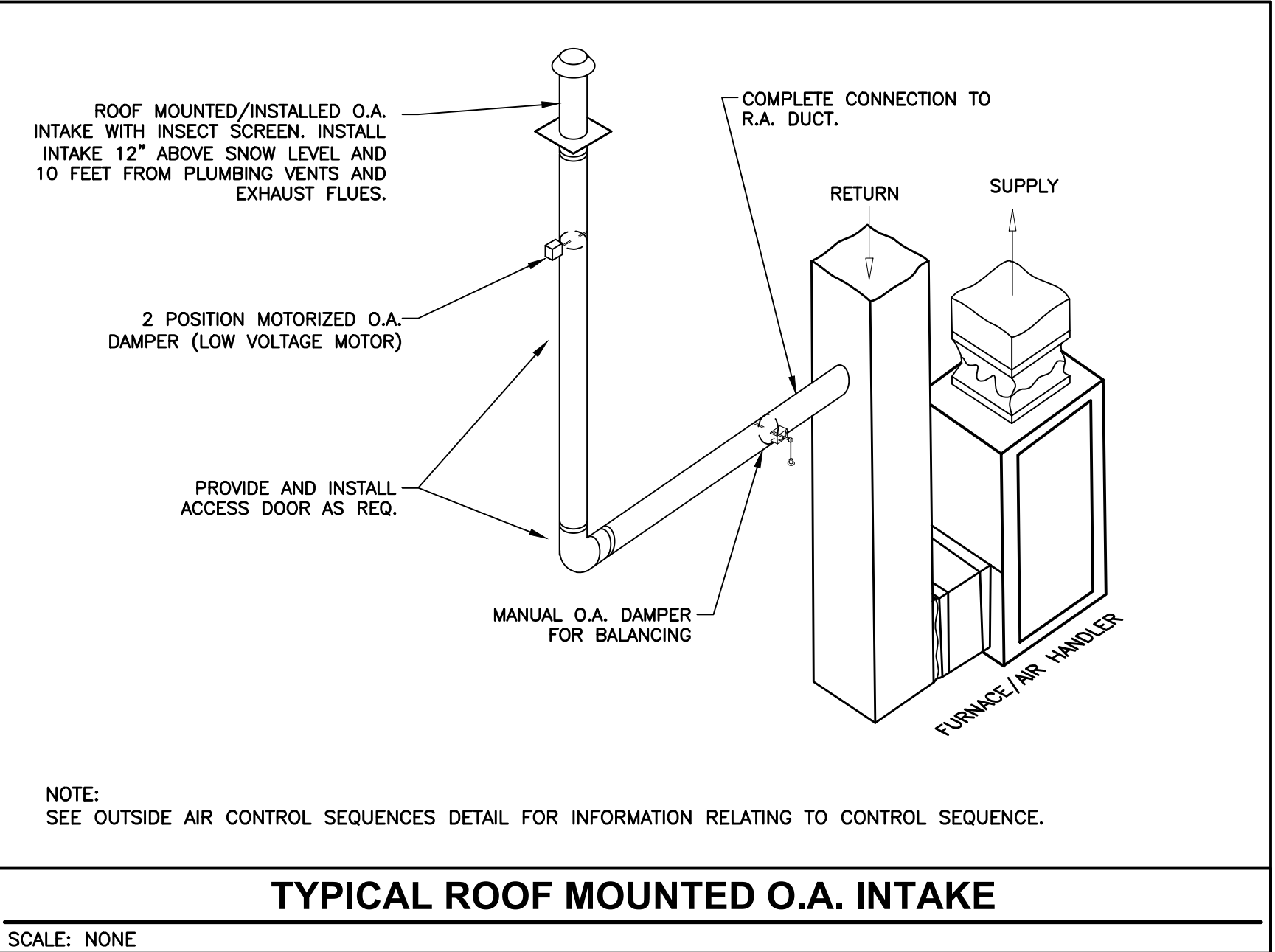
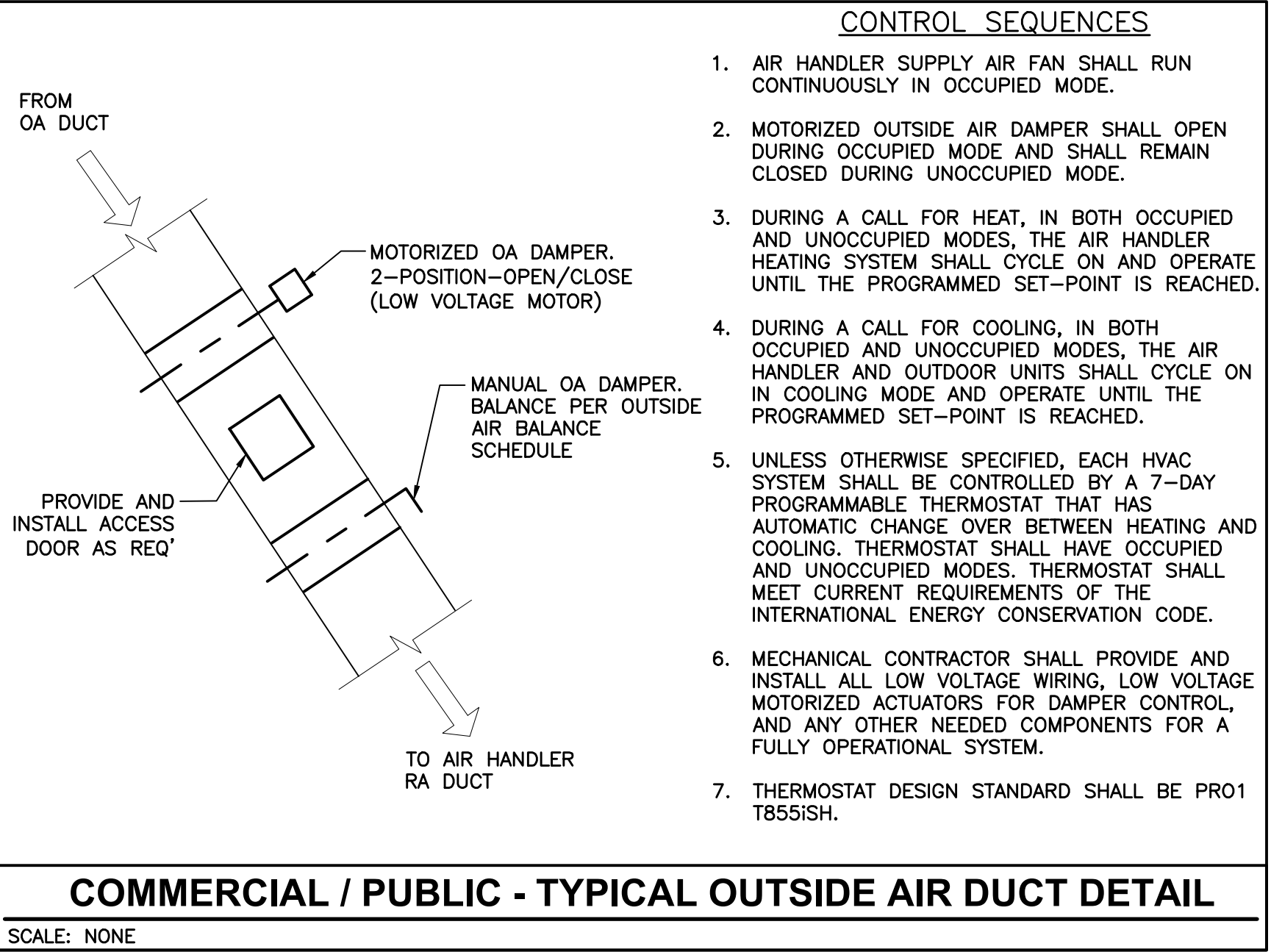
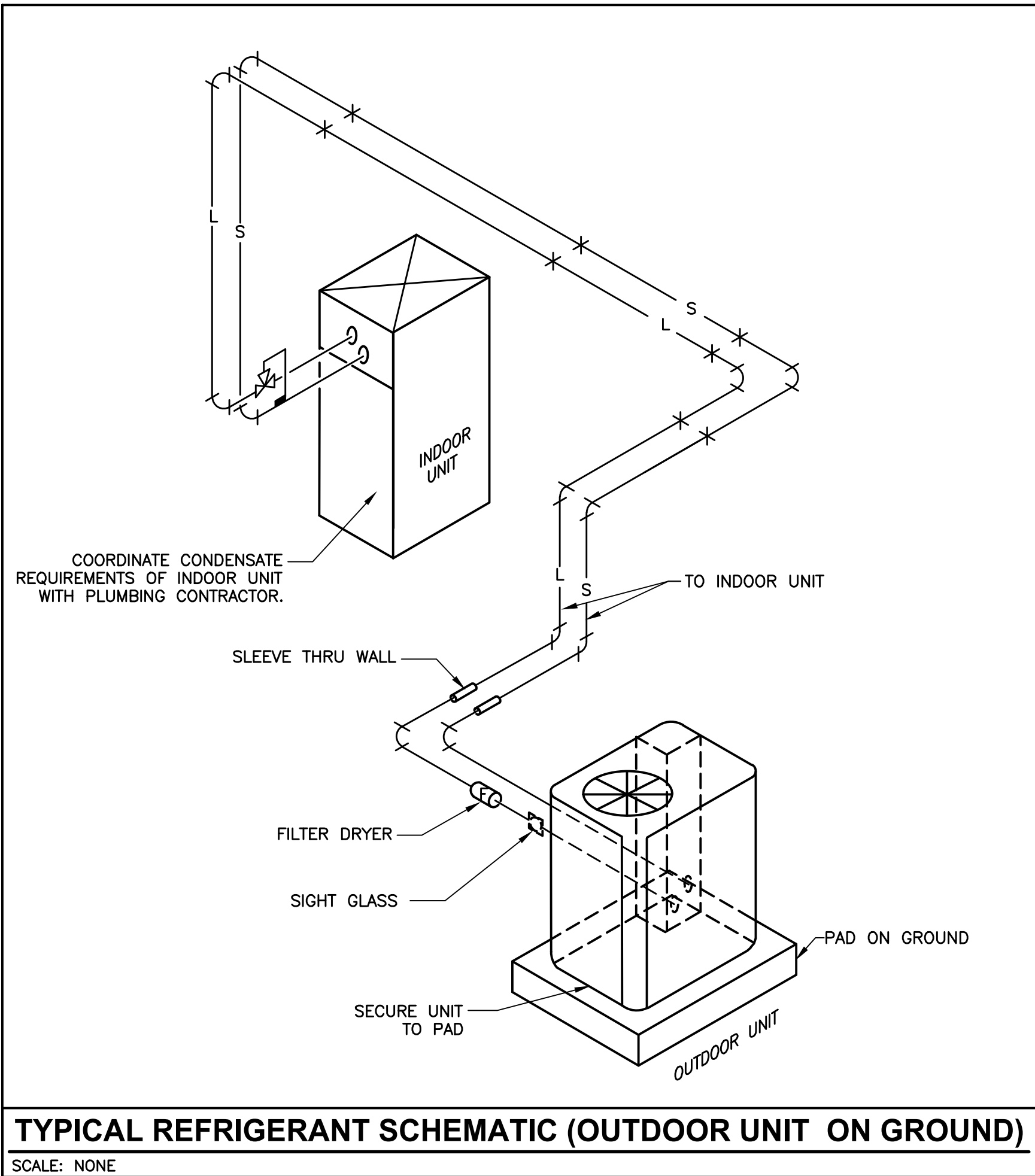
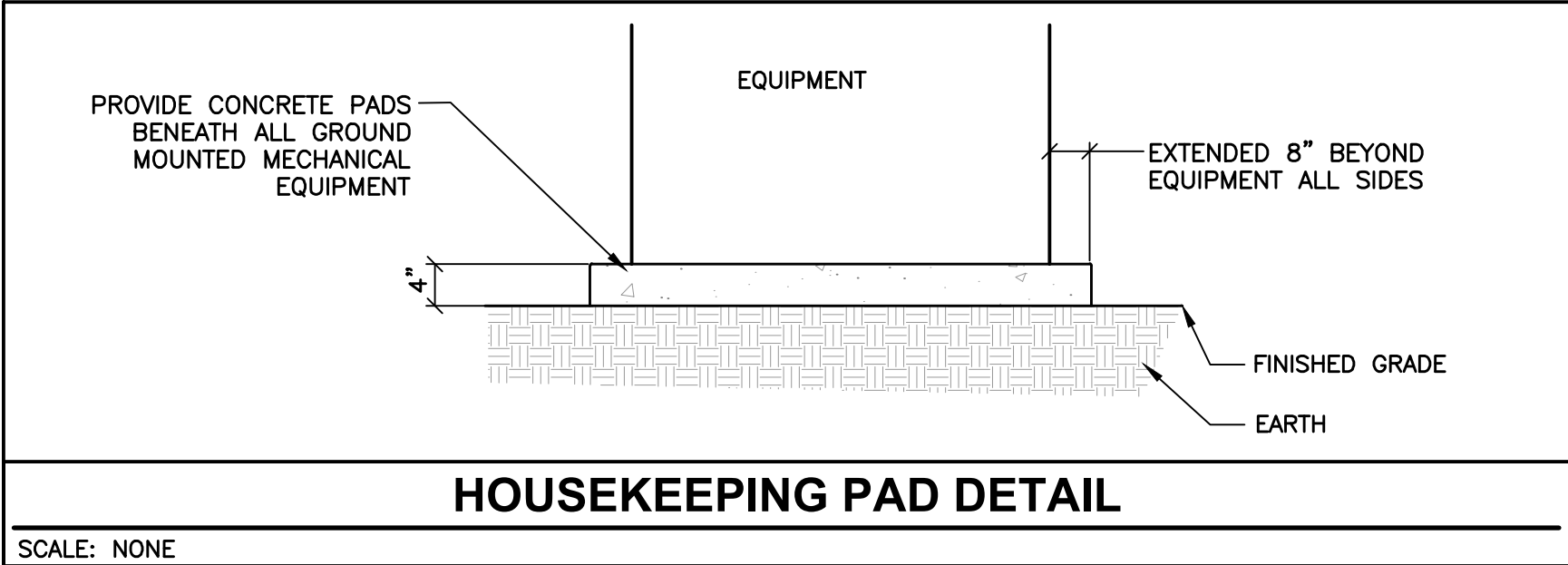
PROJECT NUMBER:
25152

**MECHANICAL
PLAN**

M1.2

**JZW
ARCHITECTS**





- (1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.
- (2) LONGITUDINAL JOINTS TO BE PITTSBURG OR SNAP LOCK TYPE.
- (3) ALL DUCTING TO BE CONSTRUCTED TO SMACNA INSTALLATION STANDARDS AND SPECIFICATIONS.
- (4) ENERGY STAR PROJECTS: DUCT SYSTEM SHALL BE TESTED AND ACHIEVE THE "ACCEPTABLE DUCT LEAKAGE RATE" SPECIFIED IN THE ENERGY STAR DOCUMENTS. SEAL ALL DUCTS TO SMACNA SEAL CLASS C. SEALANTS: USE MASTIC SEALANT, FOIL-BACKED TAPE, OR AEROSOL SEALANT. ENERGY STAR PROHIBITS THE USE OF CLOTH-BACKED "DUCT TAPE".

SCALE: NONE

SCALE: NONE

JORDENELLE SPECIAL SERVICE DISTRICT

5360 OLD HWY 40,
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REVISIONS:

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MECHANICAL SCHEDULES

M6.1

FURNACE 96% AFUE (2-STAGE w/ EC MOTOR, SPLIT SYSTEM)

FURNACE										CONDENSING UNIT										REMARKS					
MARK	NOMINAL COOLING SUPPLY CFM	ESP (IN)	COOLING LAT DB/WB (°F)	COOLING LAT DB/WB (°F)	MINIMUM COOLING AT SITE (BTU/hr)	MINIMUM HEATING AT SITE (BTU/hr)	HEATING EAT/LAT DB (°F)	ELECTRICAL			MARK	MINIMUM NOMINAL SIZE (TONS)	ELECTRICAL			SEER	REFRIGERANT	MAX OPERATING WEIGHT							
								VOLT/PH/HZ	UNIT MCA	UNIT MOPP			VOLT/PH/HZ	UNIT FLA	UNIT MOPP										
F S	1,995	0.5	80/62	55.2/53.6	49,500	30,000	65/95	120/1/60	12.6	20	CU S	5	208/1/60	28	40	15	A2L	300	1 2 3 4 5 6						
① SITE CONDITIONS ARE 91/62° DB/WB SUMMER, −3°F DB WINTER, AND AN ELEVATION OF 5,790 FEET ABOVE SEA LEVEL.																									
② APPROVED MANUFACTURERS: AMERICAN STANDARD, CARRIER, LENNOX, TRANE, YORK. (SUBJECT TO DOCUMENT CONFORMANCE).																									
③ WITH CONCENTRIC VENT KIT AND TXV.																									
④ MATCH COOLING COIL WITH CONDENSING UNIT. SHALL BE COMPATIBLE WITH FURNACE. FURNACE SHALL BE DESIGNED FOR MULTI-POSITION INSTALLATION. COORDINATE COIL WITH FURNACE ORIENTATION.																									
⑤ TWO STAGE HEATING & SINGLE STAGE COOLING.																									
⑥ WITH LOW AMBIENT OPERATION KIT AND HARD-START ASSIST AT CONDENSING UNIT.																									

ZONE CONTROL SCHEDULE

ZONE #	EQUIPMENT	# OF ZONES	BYPASS SIZE	BYPASS DAMPER PRESSURE SETTING	BYPASS CFM
1	F-5	2	20"X10"	0.60"	805
2	F-5	2	20"X10"	0.60"	1190

OUTSIDE AIR BALANCING SCHEDULE

MARK	ZONE / AREA	BALANCE TO CFM	MINIMUM DUCT SIZE	REMARKS VENTILATION RATES PER 2021 IMC 403.3 AND EQUATION 4-1. $(V_{bz} = R_p P_z + R_a A_z)$
	NEW ADDITION	170	8"ø OR 10"x6"	SEE OUTSIDE AIR DUCT DETAIL

SECTION 23 Mechanical - GENERAL PROVISIONS
Not all specification items are used in every project.

PART 1 - GENERAL

- Scope:
 - A. Provisions of this section apply to all work specified in all sections under Division 23.
 - B. In addition, work in Division 23 is governed by the provisions of the Bidding Requirements, Contract Forms, General Conditions and all sections under Division 1, General Requirements.
 - C. Contractor is responsible for results deviating from the plans.
- Examination of Premises: Visit the site, verify all measurements and job conditions, and pay all costs necessary to perform the work. Coordinate division of fee responsibilities with the General Contractor.
- The Mechanical Contractor shall be licensed and hold a current contracting license that has been valid for a minimum of two years as a Mechanical Contractor in the State where the project is located.
- The Mechanical Contractor shall have a minimum of five years experience installing commercial cooling and heating systems similar to those described in these specifications and provide a list of previous projects, including name of project and contact person names and phone numbers as a separate document in addition to the mechanical bid submitted if required by the General Contractor.
- The Mechanical Contractor shall be able to bond work he is bidding to perform and shall provide a written statement from the bonding agency proposed to be used for this project as a separate document in addition to the mechanical bid submitted if required by the General Contractor. The bonding agency shall be one having a Best's insurance rating of A or A+.
- Regulations, Permits, Fees, Charges, Inspections:
 - A. Regulations: Comply with all applicable codes, rules and regulations. All materials and work must comply with local construction, mechanical, plumbing, electrical and fire codes. As a minimum, comply with the following: IBC, IMC, IPC, NEC, NFPA codes and all City codes.
 - B. In addition to the requirements of all governing codes, ordinances and agencies, conform to the requirements of the following codes and standards.
 - 2021 International Mechanical Code
 - 2021 International Building Code
 - 2021 International Energy Conservation Code
 - 2021 International Plumbing Code
 - 2021 International Fuel Gas Code
 - ASHRAE 90.1 - 2022***Current codes adopted by the respective jurisdiction will supercede this list of codes.
 - C. Fees and Permits: Pay all connection, installation, use, development, etc., fees and/or charges. Obtain and pay for all required permits and licenses. Coordinate division of fee responsibilities with the General Contractor.
 - D. Inspections: All work must be inspected and approved by local authorities. Prior to final approval, furnish the Architect with certificates of inspections and approvals by the local authorities in accordance with Division 1.
 - Preheat and interpass temperature shall be determined by temperature indicating stick (crayon), contact pyrometers or other equally suitable means.
- Drawings and Specifications:
 - A. Refer to Division 1 for information on submittals and shop drawings.
 - B. If a conflict exists between the drawings and specifications, promptly notify the Architect and Engineer.
- Record Drawings:
 - A. Provide record drawings for all work under sections in Division 22 & 23. See Division 1 for detailed requirements covering preparation of record drawings.
- Work and Materials:
 - A. Unless otherwise specified, all materials must be new and of the quality specified. The workmanship shall be of a quality that is acceptable to the Architect and is equal to the standards of the trades. Contractor must staff the project with sufficient skilled workmen, including a fully qualified construction Superintendent, to complete the work in the time allotted. The Superintendent must be qualified to supervise all of the work in his work category.
- Approvals of Materials and Equipment:
 - A. Refer to Division 1 for description of material and equipment for prior approvals and substitutions. Submittals Must be received by Engineer 10 days prior to due date/bid opening.
- Maintenance Manual:
 - A. Prior to completion of the project, compile a complete equipment and maintenance manual for all equipment supplied under sections of Division 23, as described in Division 1.
 - B. Manuals shall be bound in a three-ring binder. A preliminary submittal of the manual shall be made to the Architect 90 days after receiving approved submittals. Final submittal of the manual shall be made four weeks prior to substantial completion of the project.
- Equipment Purchases:
 - A. Arrange for purchase and delivery of all materials and equipment within 15 days after approval of submittals. Coordinate with General Contractor.
- Cooperative Work:
 - A. Correct without charge any work requiring alteration due to lack of proper supervision or failure to make proper provision in time. Correct without charge any damage to adjacent work caused by the alteration. See Division 1 for additional requirements.
 - B. Cooperative Work Includes:
 - General supervision and responsibility for proper location, rough-in and size of work related to Division 22 & 23 but provided under other divisions of these specifications.
 - Installation of sleeves, inserts and anchors bolts for work under sections in Division 23.
 - Electrical work as specified herein. Refer to Division 26 for requirements.
- Construction Facilities:
 - A. General: Under this division of the specifications execute all work in a manner to provide safe and lawful ingress and egress to the Owner's establishment and such facilities shall be kept clear of materials or equipment as directed by the Architect. Refer to Division 1 for additional requirements.
 - B. Furnish and maintain from the beginning to the completion of all work all lawful and necessary guards, railings, fences, canopies, lights, and warning signs. Take all necessary precautions required by city and state laws to avoid injury or damage to any and all persons and property.
- Guarantee:
 - A. Guarantee all material, equipment, and workmanship for all sections under Division 23 in writing to be free from defects of material and workmanship for one year from date of final acceptance as outlined in Division 1.
 - B. Replace without charge any material or equipment proving defective during this period.
 - C. The guarantee shall include performance of the equipment under all conditions of load, installing any additional items of control and/or protective devices as required and the replacing of any refrigerant lost.
- Mechanical Wiring:
 - A. Provide all temperature control wiring, all interlock wiring, and equipment control wiring for the equipment that is to be provided under this Division unless specifically shown on electrical drawings. All wiring shall be not less than No. 14 insulated, color coded wire in electrical metallic tubing. Installation shall comply with Division 26.
 - B. Before ordering motors, equipment, etc., verify the available voltage and phase with the electrical trades.
- Electrical Work:
 - A. Electrical wiring, including power wiring and control wiring (except as otherwise specified under Automatic Temperature Controls), all raceways, wiring, outlet and junction boxes, and labor for installation of the wiring and equipment shall be included in Electrical Division 26 of the specifications.
 - B. All starters in motor control centers are to be furnished and installed under the Electrical Division of the specifications.

- C. Under the Automatic Temperature Control section of these specifications, furnish and install all wiring, conduit, electric automatic temperature control devices, thermostats, relays, pneumatic electric switches, automatic control switches and pilot lights. See the Automatic Temperature Control Section, for additional detailed information.
- D. All loose starters and control devices for equipment furnished under Division 23 (except as otherwise specified under Automatic Temperature Control Section) are to be furnished under that particular section of Division 23 and installed under the electrical division.
- E. Contractor shall be responsible for the checking and testing of all controls and the interlocks for a complete and satisfactory operating system.
- F. Before ordering any motors and equipment. Verify the available voltage and phase for all motors with the Electrical Contractor.
- G. Submit a complete list of all motors prior to final closeout of job indicating the location, horsepower, voltage, phase specified in Table 132 of ANSI B.1.
- Welding Codes and Standards:
 - A. All welding and other criteria covered by this specification shall be in accordance with the following code:
 - ASME Boiler and Pressure Vessel Code
 - Section IX ANSI Code for Power Piping: B31.1
 - Product Handling
 - A. Protection: Take all precautions necessary to protect the materials of this section, before, during and after installation.
 - B. Replacements: In the event of damage immediately repair all damaged and defective work to the approval of the Engineer, at no additional cost to the Owner.
 - Job Conditions
 - A. Examination of site: Examine the site and include in bid proposal all conditions under which work is to be performed.
 - Miscellaneous
 - A. Permit and Fees: Apply and pay for all necessary permits, inspections, examinations and fees or charges required by Public Authorities having jurisdiction.
 - B. Locations and Accessibility: Contractor shall fully inform their self regarding peculiarities and limitations of space available for installation of work under this section for valves, motors, controls and other devices requiring service. Maintenance and adjustments shall be placed in fully accessible positions and locations, provide access doors and/or panels where required in ductwork and/or construction whether specifically detailed or not, and render all such devices accessible.
 - C. Scaffolding: Furnish all scaffolding, rigging and hoisting as required for the proper execution of the work.
 - D. All HVAC equipment shall be labeled. Information on labels shall include: Identification number and name same as the drawings, flow and static pressure and the area to which the unit serves. Labels shall be black faced laminate with white engraved lettering at least 3/16 inch high.
 - E. All gas fired equipment shall include a label indication that the appliance has been adjusted, modified or re-calibrated for the altitude wherein the project is to be located. The appliance shall also include a compliance statement indicating that the appliance has been adjusted, modified or re-calibrated for the proper operation at the altitude of the project and shall be listed capable for use with natural gas or propane gas if propane is listed on the drawings.
 - Submittals
 - A. Shop Drawings: Within 15 days after award of contract, and before any of the materials of this section are fabricated and delivered to the jobsite, submit complete shop drawings and equipment submittals for the Engineer to review in accordance with these specifications. Show all details of all ductwork and equipments pads.
 - B. Product Data:
 - Submit six (6) copies of all manufacturer's product data simultaneously with all shop drawings submittals.
 - Product data to include, all air conditioning equipment, hangers, fans and other standard items as required to complement shop drawings for a submittal indications products to be used on this work.
 - C. Record Drawings: Maintain throughout the progress of the work project record drawings and submit to the Owner.
 - D. Operating Manuals and Maintenance Manuals:
 - Submit four (4) copies of all operating instructions, control diagrams and maintenance manuals to owner representative.
 - Fully instruct Owner's operating personnel and demonstrate performance, operation and maintenance of equipment. Amount of allocated for said instruction and demonstration of equipment and systems shall be part of these obligations. Submit to Engineer a letter signed by Owner's representative who will operate system stating that he has been fully instructed by contractor about operation and maintenance of equipment and system.
 - E. Guarantees: In addition to equipment warranties, furnish a written guarantee against defects in materials and workmanship for one year. Guarantee shall include repair of damage to, or replacement of any part of equipment or premises caused by leaks or breaks in pipe or equipment provided under this section.
 - Equipment Identification
 - A. Except for individual room heating units and items furnished under temperature control all items of mechanical equipment, including fans, pumps, boilers, electrical switches, starters for mechanical equipment and gauges shall be labeled.
 - B. Information on labels shall include the following:
 - Identification number and name. Generally this number and name shall be the same as that shown on the drawings or in the specifications.
 - If the item is a fan provide/show cfm.
 - If the item is a pump, provide/show, show gpm flow and feet of head.
 - If the item is part of a unit, the label shall have in addition to its item number, the number of the main item it is serving.
 - Valves shall be tagged with the area/rooms served and their normal operating positions shall be indicated.
 - Where the main unit is served by the valve is apparent, only the valve function needs to be included on the nameplate.
 - C. The types of Nameplates shall be as follows:
 - The valve tags shall be 1/2 inch embossed aluminum tapes with identification on one side for valves. Tags for magnetic starters shall be screwed to the metal starter cover. Gauge tags shall be 1 inch x 2 inch embossed aluminum with identification on one side listing area/system served with a stainless steel tag wire.
 - Equipment nameplates shall be black faced laminate with white engraved lettering at least 3/16 inches high.
 - D. Valve tags shall be connected to valve stems by steel rings or chains. Screws shall be used for equipment labels prior to installation. The contractor shall submit to the Engineer a complete list of all valves and each item of equipment to be identified with the proper identification.
 - Fire Stopping
 - A. Only tested and approved fire stop systems shall be used.
 - B. Fire stop system installation must meet requirements of ASTM E-814, UL 1479 or UL 2079 tested assemblies that provide a fire rating equal to that of construction being penetrated.
 - C. Proposed fire stop materials and methods shall conform to applicable having codes having local jurisdiction.
 - D. Fire stop systems are not to reestablish the structural integrity of the load bearing partitions/assemblies, or support live loads and traffic. Installer shall consult the Structural Engineer prior to penetrating any load bearing assembly.
 - E. For those fire stop applications that exist for which no UL tested system is available through a manufacturer, and engineering judgment derived from similar UL system design or other test, will be submitted to local authorities having jurisdiction for their review and approval prior to installation. Engineer judgment drawings must follow requirements set forth by the International Fire stop Council.
 - F. The work of this section shall be accomplished by a single source contractor or by those contractors who, by their contract, are penetrating rated construction with their work. Regardless of responsibility the General Contractor shall be responsible to assure and verify that all products, systems, etc. used under this section are appropriate and meet the intent of this specification and is accomplished by factory trained workmen.
 - G. Acceptable manufacturers are subject to compliance with through penetration firestop systems listed in the UL fire resistance directory. Provide products from the following manufacturers as identified:
 - Hilti Inc.
 - 3M Corporation
 - STI/Specified Technologies Inc.
 - Metacaulk/Rectorseal Corporation
 - Tremco
 - Calco/Isolatek International
 - Nelson Firestop Product.
 - H. Use only firestop products that have been UL 1479, ASTM E-814, or UL 2079 listed for specific fire-rated construction conditions conforming to construction assembly type, penetrating item type, annular space requirements and fire-rating involved for each separate instance.

- I. Cast-in-place firestop devices for use with non-combustible and combustible plastic pipe (closed and open piping systems) penetrating concrete floors, the following products are acceptable:
 - HILTI CP 680 cast-in-place firestop device.
 - HILTI CP 681 Tub box kit for use with tub installations.
- J. Sealants, caulking materials, or foams for use with non-combustible items including steal pipe, copper pipe, rigid steel conduit and electrical metallic tubing (EMT). The following products are acceptable:
 - HILTI FS-One Intumescent Firestop Sealant
 - HILTI CP 604 Self-leveling Firestop Sealant
 - HILTI CP 620 Fire Foam
 - HILTI CP 606 Flexible Firestop Sealant
 - HILTI CP 601S Elastomeric Firestop Sealant
- K. Sealants or caulking materials for use with sheet metal ducts. The following products are acceptable:
 - HILTI CP 601S Elastomeric Firestop Sealant
 - HILTI CP 606 Flexible Firestop Sealant
 - HILTI FS-One Intumescent Firestop Sealant
- L. Intumescent sealants, caulking materials for use with combustible items (penetrants consumed by high heat and flame) including insulated metal pipe, PVC jacketed, flexible cable or cable bundles and plastic pipe. The following products are acceptable:
 - HILTI FS-One Intumescent Firestop Sealant
- M. Firestop collar or wrap devices attached to assembly around combustible plastic pipe (closed or open piping systems). The following products are acceptable.
 - HILTI CP 642 Firestop Collar
 - HILTI CP 643 Firestop Collar
 - HILTI CP 645 Firestop Sleeve
- N. Materials used for complex penetrations made to accommodate cable trays, multiple steel and copper pipes, electrical busways in raceways. The following products are acceptable.
 - HILTI CP 637 Trowelable Firestop Mortar/Compound
 - HILTI FS 657 Fire Block
 - HILTI CP 620 fire Foam
- O. Non curing, re-penetrable materials used for large size/complex penetrations made to accommodate cable trays, multiple steel and copper pipes, electrical busways in raceways. The following products are acceptable:
 - HILTI FS 657 Fire Block

PART 2 - PRODUCTS

- Machinery Belt Drives:
 - A. Use V-belts designed for 150% of capacity for all belt drives. For multiple belt drives, use matched sets, so marked at the factory.
 - B. On drives with not more than two belts, provide adjustable pitch motor sheaves with the midpoint of the adjustment range equal to that required to achieve the specified fan capacity.
 - C. On motors with drives with more than two belts, furnish nonadjustable sheaves, providing the specified fan capacity.
- Machinery Accessories:
 - A. Lubricating Devices: Provide all oil level gauges, oil pressure gauges, grease cups, grease gun fittings, as required by the equipment. Extend all lubricating fittings to readily accessible locations.
 - B. Guards: Provide totally-enclosed OSHA type belt guards for all rotating equipment. Design guards to be readily removable for access to belt drives.
- Equipment Design and Installation:
 - A. Uniformity: Unless otherwise specified, provide all equipment of same type or classification by the same manufacturer.
 - B. Design: Design all equipment in accordance with ASME, AGA, UL and other applicable technical standards as follows:
 - C. Pressure vessels - ASME Code constructed and stamped
 - D. Electric appliances - UL labeled
 - E. Fire protection equipment - UL approved and labeled
 - F. Fans - AMCA rated and stamped
 - G. Cooling equipment - ARI certified
 - H. Fire dampers, smoke dampers, combination fire and smoke dampers - UL listed
- I. Concrete Inserts:
 - The work under this section includes furnishing and installing all concrete inserts required for all materials and equipment specified herein or in other sections of Division 23.
 - Provide concrete inserts equal to Unistrut "P" Series with standard, plain, oiled finish. Provide exposed Unistrut pipe supports with electrogalvanized factory finish.

CONSULTANT



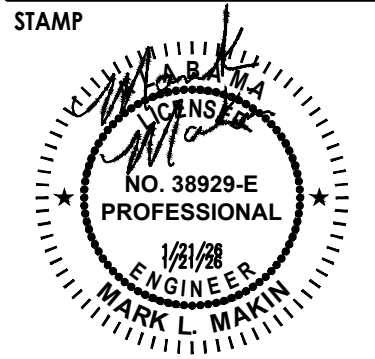
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JORDENELLE SPECIAL SERVICE DISTRICT

5360 OLD HWY 40,
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ISSUED:
JANUARY, 2026

REVISIONS:
NO. DATE DESCRIPTION



PROJECT NUMBER:
25152

MECHANICAL
SPECIFICATIONS

M7.1



- A. Thermal/Acoustical duct insulation: Line the first 10 feet of supply air and return air ducts from the mechanical unit, unless otherwise specified with Knauf duct insulation or equal. Duct Liner shall be mat-faced to provide a smooth air stream surface, mold resistant, 1-1/2 inches thick insulation wrapped entirely around duct with joints lapped at least 2 inches and secured with 16 gauge galvanized wire on 12 inch centers. Insulation shall cover all surfaces including standing seams.

- A. Split System Condensing Unit
- A. Condensing unit shall be by the same manufacturer as the furnace and of size and capacity indicated. Units shall be completely assembled and tested complete with refrigerant charge and ready to operate. Unit shall be UL listed and carry a UL Label.
1. Cabinet shall be constructed of galvanized steel, bonderized and coated with a powder coat paint.
 2. Coils shall be of nonferrous construction with aluminum plate fins mechanically bonded to seamless copper tubes with all joints brazed.
 3. Compressors shall be hermetically sealed. Compressor will be mounted on rubber vibrations isolators.
 4. Refrigerant circuit components shall include the following: Liquid tube shutoff valve with sweat connections, suction tube shutoff valves with sweat connections. System charged with refrigerant, compressor oil, accumulator, and valve(s).
 5. System shall have a low ambient kit installed when noted in the schedules or on the plans.
 6. Compressor fans shall be direct drive propeller type, discharging air upward. Fan motors shall be totally enclosed 1-phase type with class B insulation and permanently lubricated bearings. Shafts shall be corrosion resistant. Fan blades shall be statically and dynamically balanced. Condenser fan openings shall be equipped with steel wire safety guards.
 7. Unit shall be from same manufacturer as the furnace and an approved manufacturer as listed in the equipment schedule.

- Duct Penetrations
- A. All ducts penetrating through the fire rated walls and floors shall be properly sealed with fire chalking/sealant as note in the Fire Stop section and specified herein. Install all materials per manufacturers directions.
- Turning Vanes
- A. Turning vanes shall be furnished and installed in all 90-degree turns in rectangular low velocity supply, return, mixed air and fresh air ducts, and elsewhere as shown on the drawings. Material of turning vanes shall match ductwork. Vanes are to be single blade, of size, gauge, and fabrication in accordance with SMACNA recommendations.
- Equal Materials and Substitutions
- A. In addition to manufacturers specified, the following shall also be considered equal. Provided corresponding models meet specified requirements. Equivalent substituted equipment named herein shall be submitted to Architect for approval. Submit alternate selections at time of bid, listing major equipment:
- | | |
|------------------------|--|
| Insulation: | Certaineed, Johns Manville, Owens Corning, Knauf |
| Air Filters: | AAF (American Filter), Farr, Camfil |
| Split System: | From manufacturers listed as approved in the schedule. |
| Diffusers and Grilles: | Titus, Nalor, Price, Krueger, Hart and Cooley, Carnes, Greenheck, Anemostat, Tuttle and Bailey, or Engineer approved equivalent. |
| Ceiling Exhaust Fan: | Broan, Fantech, ACME, Carnes, Cook, Breidert, Coolair, Captiveaire, S&P, Greenheck, Twin City Fan, Delta Breeze, Air King, (subject to project document conformance) |
| Roof Top Unit: | From manufacturers listed as approved in the schedule. |

- Refrigerant Lines
 - A. Refrigerant lines are to be sized as per manufacturer's requirements. Lines to be fully insulated with 1 inch foam flex or equal. Insulation exposed to the sun shall be painted with two coats of protective paint. The system is to be evacuated to 20 microns, hold vacuum 24 hours. Each heat pump/condensing unit is to be provided with a refrigerant line kit. Follow manufacturers installation instructions if more stringent than noted.
- Fire and Smoke Dampers (AS NEEDED)
 - A. Fire/smoke design guide dampers shall be Ruskin FSD-36 multiblade. Acceptable manufacturers are: Ruskin, Venco, Louvers and Dampers, Greenheck, C&S, Safe Air, NCA, or Air Balance. Damper shall be complete with blade lever arm 120 volt, electric damper motor or fusible and blade reset fusible link.
 - B. Fire/Smoke dampers shall be interlocked to the fire detection system by the electrical contractor. Damper motors shall be capable of closing the damper against system air pressure when the fan is operating. Each damper shall be complete with duct connections for round or rectangular ducts. Minimum 1-1/2 foot by 1-1/2 inch 14-gauge mounting angles shall be provided for all dampers.
 - C. Damper motors, where required, are to be supplied as an integral part of the assembly to meet UL rating requirements. Damper installation shall conform to manufacturers' instructions.
 - D. Access opening shall be provided at each damper for servicing the damper. The opening or openings shall be of sufficient size and locations so that the damper can be easily inspected and serviced. A sheet metal-hinged door and cover shall be provided and shall be insulated.
- Pipe Identification

- A. Identification of piping color and style coding shall comply with OSHA ANSI Safety Color Coding Regulations.
- B. The identifying color coded bands, legends, and directional arrows on piping and duct systems shall be located adjacent to each valve, at every point of entry and exit where piping passes through a wall or ceiling, on each riser and junction, every 50 feet on long continuous lines and adjacent to all special fittings (regulating valves, etc.)
- C. Legends shall be applied on the color band on the perimeter of the pipe in a location that will be readily visible to operating personnel from the floor in the area.
- D. Color coding shall follow ANSI standards:

MATERIAL	BACKGROUND COLOR	IDENTIFYING LEGEND	LETTERING
Chiller Water	Green	Chilled Water Supply	White
Chilled Water Return	Green	Chiller Water Return	White
Domestic Cold Water	Yellow	Domestic Cold Water	White
Domestic Hot Water	Yellow	Domestic Hot Water	Black
Domestic Hot Water Return	Yellow	Domestic Hot Water Return	Black
Fire Protection	Red	Fire Protection Water	White
Heating Water Supply	Yellow	Heating Water Supply	Black
Heating Water Return	Yellow	Heating Water Return	Black
Roof Drain	Green	Roof Drain	White
Waste	Yellow	Waste Water	Black
Natural Gas	Yellow	Natural Gas	Black

- ### Pipe Hangers
- A. All necessary structural members, hangers, and supports of approved design shall be provided to keep piping in proper alignment and to prevent transmission of injurious thrusts and vibrations. Pipe hangers shall generally be of the clevis pipe-clamp type with suspension bolts. All bolts shall have provision for vertical adjustment and shall be equipped with locknuts.
 - B. No hanger shall be welded directly to steel joists. Where joist occur, clips shall be installed and hanger rod attached to clips. All piping hung from joists shall be hung from joists panel points. Protective saddles shall be provided on all insulated piping at point of hanger. Hangers shall not penetrate insulation.
 - C. For 1-1/4" diameter and smaller piping use 1/2" diameter rod with a maximum spacing of 6 feet. An additional hanger shall be provided 1 foot from each pipe drop rise, or turn.
 - D. Pipe hangers shall not be welded to metal pan floor.
 - E. When pipe hangers are to be installed in concrete, inserts shall be in holes drilled in concrete.
 - F. All hangers, supports, and anchors shall be assembled with heavy pattern, hexagon carbon steel nuts.
 - G. Perforated metal strap shall only be permitted when approved by local code official.
 - H. All pipe hangers, inserts, trapezes, etc., and all necessary accessories required to support the piping shall be provided by contractor.
 - I. All pipe hangers shall be installed outside of insulation on the insulated lines.
- Motorized Volume Dampers
- A. Motorized dampers used in low velocity branch ducts to control the volume or air flow. Design guides: Carrier model Dampnd-B for round ducts and Damprec-B for rectangle ducts or equal.
 - B. Compatible with 24 VAC direct drive actuator
 - C. 1/2 inch direct-drive mounting hub
 - D. Position indicator and angular rotation stop for viewing or manually setting positions
 - E. A spring loaded disengagement button to momentarily release
 - F. Damper motor and terminal block wiring are protected by a plastic cover with a removable door.
 - G. Permanently lubricated bushings, with a split shaft design for round and rectangular style dampers
- High Efficiency Branch Take-Offs

- Verification of Dimensions:
 - A. Scaled and figured dimensions are approximate only. Before proceeding with work, carefully check and verify dimensions at site, and be responsible for properly fitting equipment and materials together and to the structure in spaces provided.
 - B. Drawings are essentially diagrammatic and many offsets, bends, special fittings and exact locations are not indicated. Carefully study drawings and premises in order to determine best methods, exact locations, routes, building obstructions, and install apparatus and equipment in available locations. Install apparatus and equipment in manner and in locations to avoid obstructions, preserve headroom, and keep openings and passageways clear.
- Cutting and Patching:
 - A. Cut work and patch per Division 1 as necessary to properly install the new work. As the work progresses, coordinate necessary openings, holes, chases, etc., in their correct location. If the required openings, holes and chases are not in their correct locations, make the necessary corrections at no cost to the Owner. Avoid excessive cutting and do not cut structural members without the consent of the Architect and structural engineer. Patching by General Contractor at Mechanical, Plumbing or Fire Protection Contractor's expense. Include as a part of the work under this contract all structural framing required by penetrations through the roof and necessary steel to support ducts and pipes between structural steel unless shown on the structural drawings.
- Closing-in of Unfinished Work:
 - A. Cover no work until inspected, tested and approved by local code official and general contractor. Where work is covered before inspection and test, uncover it, and when inspected, tested and approved, restore all work to original proper condition.
- Excavation and Backfill:
 - A. Perform all necessary excavation, shoring and backfilling required for the proper laying of all pipes and conduits inside the building and premises, and outside as may be necessary. Conform to Division 2 requirements. Remove all excess excavated materials from the site or dispose of on site as directed by General Contractor.
 - B. Excavate all trenches open cut, keep trench banks as nearly vertical as practicable, and sheet and brace trenches where required for stability and safety. Excavate trenches true to line and make bottoms not less than 18" wide but no wider than necessary to provide ample work room. Grade trench bottoms accurately to provide uniform bearing and support for each section of pipe on undisturbed soil along its entire length. Dig "bell" holes after the trench bottom has been graded. Machine grade only to the top line of the pipes, do the balance by hand. Do not cut any trench near or under footings without first consulting the Architect and structural engineer. Comply with all OSHA requirements.
 - C. Provide backfilling and compaction in accordance with requirements of Division 2 and under the direction of the Architect and/or general contractor and the testing firm as the required density. Make and compact in 6" layers, equipment as directed, and free from rocks, large clods of earth, leaves, branches, and debris. Compact the rest of the backfill to prevent settlement as directed, using in the backfill no rocks larger than 4" in diameter, and using no rocks at all in the top 12".

- Accessibility:
 - A. Install valves, dampers, thermometers, gauges, traps, cleanouts, control devices or other specialties requiring reading, adjustment, inspection, repairs, removal or replacement conveniently and accessibly throughout the finished building. Where any of these devices are shown on the contract drawings to be installed above any inaccessible ceiling, the Mechanical Contractor shall furnish access doors or panels as required.
 - B. All access doors or panels in walls and ceilings required for access to control devices, traps, valves and similar devices are to be furnished and installed as part of the work under this section. Provide type as specified under Division 8.
 - C. Provide ducts which pierce a fire separation with fire dampers of same fire rating as the separation.
 - D. Refer to drawings and "Finish Schedule" for type of wall and ceiling in each area and for rated construction.
 - E. Coordinate work of various sections to locate valves, traps, and dampers with others to avoid unnecessary duplication of access doors.
- Roof Flashings:
 - A. Flash and counterflash all piping, conduits and ductwork penetrating roofing membrane with flashing per roofing manufacturer's recommendations. Refer to architectural drawings for detailing of duct and pipe penetrations through roof.
- Equipment Rough-in:
 - A. Rough in all equipment and fixtures as designated on the drawings and in the specifications. The drawings indicate only the approximate location of rough-ins. The exact rough-in locations must be determined from large-scale certified drawings. The Contractor shall obtain all certified/approved rough-in information before progressing with any work for rough-in final connections.
 - B. Be responsible for providing all outlets and services of proper size at the required locations.
 - C. Minor changes in the contract drawings shall be anticipated and provided for under this division of the specifications.
 - D. Rough-in only (unless otherwise designated on the drawings) shall include the following:
 - 1. Mechanical: Provide all services as indicated and required, including all ductwork, piping and valves. Valve and cap all piping stub-outs. Cap all ductwork stub-outs in a manner suitable for future extension.
 - E. Mechanical equipment installed on the roof shall not be installed any closer than 10'-0" to the edge of the roof unless there is a 42" high parapet or equipment guardrail.
- Owner-Furnished and Other Equipment:
 - A. Rough-in only for all Owner-furnished equipment (see Division 1) and all equipment furnished under other sections of the specifications, except as otherwise specified and/or noted on the drawings.
- Equipment Identification
 - A. All major equipment shall bear firmly attached metal nameplates which state name of manufacturer, model number and electrical data.
- Discrepancies
 - A. In the event of discrepancy, immediately notify the General Contractor and/or Owner.
 - B. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.
- Initial Lubrication, Adjusting, and Filling Systems
 - A. Before operating any mechanical system, equipment bearings shall be lubricated and bolts, pulleys, and other moving parts checked for alignment and tolerances in accordance with manufacturer's operating instructions. Vibrations and noise shall be suppressed.
- Cleaning of Equipment, Materials and Premises
 - A. Clean entire premises of unused materials, rubbish, debris, grease spots and dirt left by mechanical systems installation.
- Equipment and Material
 - A. Install all equipment and material per manufacturer's recommendations.
- Accessibility
 - A. Install work readily accessible for normal operation, reading of instruments, adjustment, service inspection and repair, provide access panels where indicated and required. Access panels shall be the responsibility of respective subcontractors.
 - B. Provide all services designated, valve and cap all piping, cap all waste piping and ductwork and leave in a clean and orderly manner.
 - C. Rough-in requirements shall be as outlined in the preceding paragraph titled "Equipment Rough-In."
- Equipment Final Connections:
 - A. Provide all piping and duct final connections for all equipment under Division 22 & 23 as required herein specified and indicated on the drawings.
 - B. Air Conditioning, Heating, and Ventilating: Provide final connections complete with necessary valves, drains, unions, flanges and duct connections for equipment furnished and installed under other sections of the specifications, except as otherwise designated. Included under the HVAC sections of the specifications are the final connections to the following:
 - 1. Condensate and evaporative cooler drain piping from air conditioning equipment.
 - 2. Supply, return, relief, outside air and exhaust duct connections for all equipment including exhaust fans.
 - 3. Piping connections for all equipment.
 - 4. Duct connections for all hoods.
- Machinery Drives:
 - A. After tests have been performed on the air conditioning and air handling systems, make without cost not more than two changes in the size of the nonadjustable sheaves to obtain the required air quantities.
- Machinery Accessories:
 - A. Application: Do not install any equipment in an application not recommended by the manufacturer.
 - B. Installation: Align, level and adjust all equipment for proper operation. Install so connecting and disconnecting of piping and accessories can readily be done and so all parts are readily accessible for inspection, service and repair. Install equipment in accordance with manufacturer's recommendations.
- Pipe and Equipment Supports:
 - A. Where supports, foundations, stands, suspended platforms for machinery, tanks, or other equipment are indicated or specified, perform the following:
 - 1. Locate support members to avoid equipment strains and interference with piping connections, tube pulling or other maintenance operations.
 - 2. Where saddles are required, use cast iron or welded steel saddles with curvature to fit the tank shell.
 - 3. Mount power-driven equipment on common base with driver.
 - B. Concrete Inserts: Furnish and install all concrete inserts required for all materials and equipment specified and/or shown on the drawings for Division 22.
 - C. Concrete Foundations: Work under this section includes coordination of construction of all concrete foundations indicated or required for equipment specified herein or in other sections under Division 22. Materials and workmanship shall be described under Division 3.
 - D. Grout under all equipment after leveling, filling completely the space between machinery bed plate and foundation surface as specified in Division 3. Finish exposed surface of grout for a neat appearance.
 - E. Floor Stands: Where equipment is mounted standard or on legs, construct of structural steel or steel pipe and fittings, cross-brace and fasten with flanges or plates bolted to floor.
 - F. Ceiling or Wall Supports: Use suspended platform, strap hangers, bracket or shelf, whichever is most suitable for equipment and location. Construct of structural steel members, steel plates, rods or pipe as required. Cross-brace and fasten to building structure or inserts in an approved manner.
 - G. Steel Work: Neatly fabricate and erect steel work with burrs and welding spatter ground off. Paint after fabrication with a rust-inhibitive primer.
 - H. Roof Mounted Equipment (Steel Supported): Provide curbs and flashings for metal support structures as shown in the latest SMACNA manual for roof supports.

- Cleanup:
 - A. In addition to cleanup specified under Division 1, thoroughly clean all parts of the equipment. Where exposed parts are to be painted, thoroughly clean off any splattered construction materials and remove all oil and grease spots. Wipe the surface carefully and scrape out all cracks and corners.
 - B. Thoroughly flush and clean out all water circulating systems. Remove, clean and replace all strainer elements.
 - C. During the progress of the work, keep the premises clean and free of debris.
- Painting:
 - A. Except as otherwise specified or indicated in the architectural drawings and/or specifications, paint all exposed unfinished metal with one coat of rust-inhibiting primer. (Galvanized ductwork and factory painted equipment shall be considered as having primed surface.)
 - B. Finished painting is specified under Division 9.
- Objectionable Noise and Vibration:
 - A. Construct and brace the metal partitions, ducts and sheet metal housings to prevent vibration or rattling when systems are in operation. Install connections to equipment so noise and vibration will not reach the conditioned area through ducts, piping, conduit, sheet metal work, or the building structure. Provide power-driven equipment suspended from the structure with spring type isolation.
- Welding:
 - A. Procedures:
 - 1. All procedures and welders must be qualified in accordance with the requirements of Section IX, ASME Boiler and Pressure Vessel Code and ANSI code for power piping B31.1. Procedure qualification test records and acceptance shall be submitted with the welding procedure prior to the start of fabrication.
 - 2. Architect's inspector or authorized representative will review performance qualification records of individual welders.
 - B. Welding Processes: The following welding processes are permitted, provided that the procedure is qualified in accordance with Section IX, ASME Boiler and Pressure Vessel Code.
 - 1. Manual shielded metal-arc.
 - 2. Gas tungsten-arc.
 - 3. Other welding processes may be used providing they are qualified in accordance with Section IX, ASME Boiler and Pressure Vessel Code.
 - C. Restrictions: Weld bevel preparations shall be provided on all welding fittings and shall be machined or ground to remove all discoloration if flame or arc cut.
 - D. Welding Filler Material:
 - 1. A filler material control procedure shall be submitted to General Contractor for review and acceptance prior to performing any welding.
 - 2. All shielded metal-arc welding shall be performed using low-hydrogen type electrodes such as E 7018.
 - E. Preheat and Interpass Temperature:
 - F. Preheat for pressure components shall be as specified in Table 132 of ANSI B.1.
- System Balancing
 - A. Balancing work included:
 - 1. Complete testing and balancing of the HVAC system as herein specified.
 - B. Verification of Conditions: Prior to testing and balancing, inspect equipment and materials and arrange with General Contractor for satisfactory correction of all defects in workmanship and/or material that could affect the work specified herein.
 - C. Protection: As specified herein.
 - D. System Operation: Contractor shall put all parts of systems in full operation and shall continue to operation of same during each working day of testing and balancing.
 - E. Test Data: Submit copy of test data to General Contractor on completion of work under this section.
 - F. Test and balance contractor shall certify in writing that system has been adjusted and balanced and design conditions have been attained in all areas of the building.
 - G. Instruments: Instruments used by contractor shall be accurately calibrated and maintained in good working order.
 - H. Air Distribution Testing and Balancing:
 - 1. Test and record motor full load amperes and RPM.
 - 2. Test and record system static pressures, suction and discharge.
 - 3. Adjust all supply and return air ducts to proper design CFM.
 - 4. In cooperation with the control manufacturer's representative, the setting adjustment of automatically operated controls to operate as specified indicated and/or noted.
 - I. Witness: Notify Owner in writing two weeks prior to testing and balancing of all major equipment in order to arrange that General Contractor and/or Owner's representative will witness the test.
- Operation
 - A. Place system in operation and regulate and adjust to Owner's satisfaction. System shall operate quietly and without vibration or noise.
 - B. Contractor shall make necessary field adjustments for even temperatures throughout the project.
- Certification
 - A. Upon completion, the contractor shall inspect work of this section and deliver to Owner a written certification that installed materials and workmanship conform to specifications.

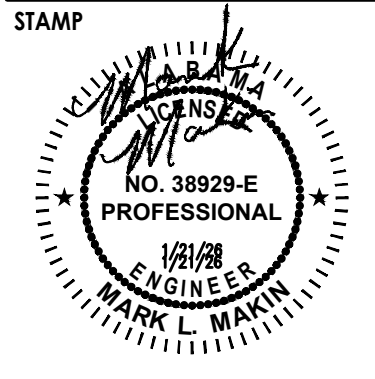
CONSULTANT



JORDENELE SPECIAL SERVICE DISTRICT

5360 OLD HWY 40,
HEBER CITY, UT 84032

ISSUED: JANUARY, 2026		
REVISIONS:		
NO.	DATE	DESCRIPTION



PROJECT NUMBER:
25152

MECHANICAL
SPECIFICATIONS

M7.3



1. PER ASCE STANDARD 7-22 SEISMIC SUPPORTS ARE NOT REQUIRED FOR THE FOLLOWING CONDITION:
 - 1.1. PIPING IS SUPPORTED BY ROD HANGERS 12" OR LESS IN LENGTH FROM THE TOP OF THE PIPE TO THE SUPPORTING STRUCTURE.
 - 1.2. HIGH-DEFORMABILITY PIPING IS USED.
2. IF INSTANCES OCCUR WHERE PIPING IS SUSPENDED BY HANGERS GREATER THAN 12" IN LENGTH, SYSTEM CONNECTORS AND COMPONENTS SHALL BE COMPATIBLE AND DESIGNED FOR THE APPLICATION THAT THEY ARE USED FOR. SHALL HAVE A MINIMUM OF TWO TRANSVERSE BRACES PER STRAIGHT PIPING RUN. THE MAXIMUM DISTANCE BETWEEN TRANSVERSE BRACES WILL BE DETERMINED BY PIPE SIZE AND PIPING COMPOSITION. SHALL HAVE A MINIMUM OF ONE LONGITUDINAL BRACE PER STRAIGHT DUCT RUN. IF LENGTH OF PIPING EXCEEDS LONGITUDINAL BRACE SPACING, ADDITIONAL LONGITUDINAL BRACES WILL BE REQUIRED.
3. FOR SEISMIC BRACING OF PLUMBING EQUIPMENT AND PIPING AN INDEPENDENT SEISMIC AND VIBRATION CONTROL SUBCONTRACTOR WITH EXPERIENCE, COMPUTING CAPABILITIES, AND MANUFACTURED PRODUCTS SHALL BE FURNISHED BY PLUMBING CONTRACTOR. INDEPENDENT SEISMIC CONSULTANT SHALL PROVIDE REQUIRED COMPUTATIONS, SHOP DRAWINGS, AND MANUFACTURED PRODUCTS TO MEET THE MINIMUM REQUIREMENTS OF ASCE 7-22 AND INTERNATIONAL BUILDING CODES (LATEST ADOPTED EDITION) FOR THE RESPECTIVE SEISMIC HAZARD ZONE WITH IMPORTANCE FACTOR 1.5. SEISMIC SUBCONTRACTOR SHALL EXERCISE THE QUALITY CONTROL FOR THIS WORK AND SHALL NOT BE LIMITED TO INSTRUCTIONS DIRECTED TO THE PLUMBING CONTRACTOR. THE SEISMIC SUBCONTRACTOR SHALL CERTIFY IN WRITING THAT HE HAS INSPECTED THE INSTALLATION AND THAT ALL ISOLATION ANCHORS AND SEISMIC RESTRAINT MATERIALS ARE INSTALLED CORRECTLY AND FUNCTIONING PROPERLY. CERTIFICATION SHALL BE PROVIDED AFTER ALL CORRECTIVE WORK HAS BEEN COMPLETED.

1. CONTRACTOR TO ALLOW 10 WORKING DAYS FOR SUBMITTAL TURNAROUND.
2. CONTRACTOR TO PROVIDE SUBMITTALS FOR ALL EQUIPMENT AND MATERIALS IN A SINGLE PACKAGE. PIECEMEAL SUBMITTALS WILL BE RETURNED WITH A NOTE TO REVISE AND RESUBMIT.
3. SUBMITTALS WILL BE CHECKED FOR COMPLIANCE WITH CAPACITY REQUIREMENTS AND ELECTRICAL REQUIREMENTS. CONTRACTOR TO VERIFY THAT WEIGHTS, DIMENSIONS, AND DUCT CONNECTIONS ON SUBMITTED EQUIPMENT IS CONSISTENT WITH SCHEDULED EQUIPMENT PRIOR TO SUBMITTAL. CHANGES IN SCOPE BROUGHT ABOUT BY SUBMITTED EQUIPMENT THAT DOES NOT COMPLY WITH THE WEIGHTS, DIMENSIONS, OR CONNECTION LOCATIONS ON SCHEDULED EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

PROJECT MANAGER	CHRIS FALSLEV
MECHANICAL ENGINEER:	MARK MAKIN
PLUMBING DESIGNER:	MIKE PRESSON

- 2021 INTERNATIONAL MECHANICAL CODE (IMC)
- 2021 INTERNATIONAL BUILDING CODE (IBC)
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- 2021 INTERNATIONAL PLUMBING CODE (IPC)
- 2021 INTERNATIONAL FUEL GAS CODE (IFGC)
- ASHRAE 90.1 – 2022

NOTE: CURRENT CODES ADOPTED BY THE RESPECTIVE JURISDICTION WILL SUPERCEDE THIS LIST OF CODES.

SHEET NUMBER	SHEET TITLE
P0.1	PLUMBING NOTES & LEGENDS
P1.1	PLUMBING DEMO PLAN
P1.2	PLUMBING PLAN
P5.1	PLUMBING DETAILS
P6.1	PLUMBING SCHEDULE & SCHEMATICS
P7.1	PLUMBING SPECIFICATIONS
P7.2	PLUMBING SPECIFICATIONS

1. SEE PIPING SCHEMATIC(S) FOR ADDITIONAL INFORMATION ON WASTE & VENT, GAS AND CULINARY WATER PIPING DIAMETERS.
2. COORDINATE ALL WORK WITH OTHER TRADES AS REQUIRED. CONCEAL ALL PIPING IN FINISHED AREAS.
3. PROVIDE AND INSTALL ALL REQUIRED VALVES IN PIPING SYSTEM. REMOVE OR RELOCATE ANY EXISTING PLUMBING FIXTURES & ASSOCIATED PIPING IN CONFLICT WITH THIS PLUMBING PLAN. COORDINATE ALL REQUIREMENTS WITH OWNER REPRESENTATIVE. EXTEND OR REMOVE & TERMINATE ANY PIPING AS REQUIRED. MAINTAIN FUNCTIONALITY OF ALL DOWN-LINE FIXTURES. RETURN ANY REMOVED FIXTURES & PIPING TO OWNER REPRESENTATIVE OR DISPOSE FIXTURES AND PIPING AS DIRECTED BY OWNER REPRESENTATIVE. VERIFY ALL ITEMS WITH OWNER REPRESENTATIVE.
4. MAKE CONNECTION TO EXISTING WATER SUPPLY LINE. VERIFY PROPER FUNCTION OF EXISTING MAIN SHUT-OFF, PRV, ETC. (FIELD VERIFY LOCATION) AND REPAIR/REPLACE AS REQUIRED UNDER DIRECTION OF OWNERS REPRESENTATIVE.
5. MAKE CONNECTION TO EXISTING SEWER LINE. MODIFY SEWER LINE TO ACCOMMODATE NEW PLUMBING FIXTURES. PROVIDE AND INSTALL ALL REQUIRED CLEANOUTS.
6. MAKE CONNECTION TO EXISTING NATURAL GAS LINE. VERIFY SIZE AND ALL REQUIREMENTS. SEE PLANS FOR MINIMUM GAS PIPE SIZE. SEE GAS PIPING SCHEMATICS FOR SYSTEM PRESSURE.
7. WHERE REQUIRED PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL 2 POUND TO 4 OUNCE PRESSURE REGULATORS WITH LEAK-LIMITING DEVICE AND TEST TEE FITTING. IFGC 410.
8. COORDINATE ALL REQUIRED SAW CUTTING OF EXISTING FLOOR OR SLAB FOR DRAIN PIPING, ETC. WITH GENERAL CONTRACTOR. REPAIR FLOOR OF SLAB AS DIRECTED BY OWNER REPRESENTATIVE. PROVIDE AND INSTALL EPOXY DOWELS AT SLAB TO SLAB JOINTS.
9. INSULATE ALL HOT AND COLD WATER PIPING PER APPLICABLE CODES. ALL EXPOSED HOT AND COLD WATER PIPING SHALL BE INSULATED. INSULATE HOT WATER PIPING THAT IS PLACED IN UN-INSULATED INTERIOR WALLS. EXCEPTION: VERTICAL AND HORIZONTAL COLD WATER PIPING LOCATED INSIDE OF INTERIOR WALLS MAY HAVE THE INSULATION OMITTED.
9. MAKE PROVISIONS FOR A BARRIER-TYPE TRAP SEAL PROTECTION (I.E. TRAP GUARD) WHERE NOTED AND/OR CALLED FOR.
10. PIPING LOCATIONS ARE GRAPHICALLY SHOWN. PLUMBING CONTRACTOR SHALL DETERMINE ACTUAL PIPE ROUTING IN FIELD PER AVAILABLE SPACE AND BUILDING CONSTRUCTION.
11. NOT ALL CLEANOUTS ARE SHOWN. PROVIDE AND INSTALL ALL REQUIRED CLEANOUTS. CLEANOUTS FOR HORIZONTAL DRAINS SHALL BE INSTALLED NO MORE THAN 100' APART. CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION GREATER THAN 45°. A CLEAN-OUT SHALL BE PROVIDED AT THE BASE OF EACH WASTE OR SOIL STACK. CLEANOUTS SHALL BE ACCESSIBLE AND THE SAME SIZE AS THE WASTE LINES ON WHICH THEY ARE INSTALLED.
12. COORDINATE WITH OTHER TRADES TO ENSURE AND ALL PLUMBING VENTS ARE A MINIMUM OF 10- FEET FROM ALL FRESH AIR INTAKES.
13. WATER PIPING MATERIAL SHALL MEET THE STANDARDS SET FORTH IN 2021 IPC TABLES 605.3, 605.4 & 605.5.
14. SANITARY WASTE AND VENT PIPING MATERIAL SHALL MEET THE STANDARDS SET FORTH IN 2021 IPC TABLES 702.1, 702.2 AND 702.3 & 702.4.
15. NATURAL GAS PIPING MATERIAL SHALL MEET THE STANDARDS SET FORTH IN 2021 IFGC SECTION 403.
17. TRENCHES THAT ARE EXCAVATED BELOW THE INSTALLATION LEVEL OF PIPE (SUCH THAT THE TRENCH BOTTOM DOES NOT FORM THE BED FOR THE PIPE) SHALL BE BACKFILLED TO THE INSTALLATION LEVEL OF THE BOTTOM OF THE PIPE WITH SAND OR FINE GRAVEL PLACED IN LAYERS OF 6 INCHES MAXIMUM DEPTH. THE BACKFILL SHALL BE COMPACTED AFTER EACH PLACEMENT. 2021 IPC 306.2.1.
18. PROVIDE AND INSTALL MARKING/LOCATING TAPE FOR ALL BURIED GAS LINES.
27. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL A BACK-FLOW PREVENTER AND SHUT-OFF VALVE AT ALL HOSE BIB LOCATIONS.
28. PAINT ALL EXTERIOR GAS PIPING WITH WEATHER RESISTANT PAINT.
29. PLUMBING CONTRACTOR SHALL INCLUDE PRICING TO INVESTIGATE EXISTING SEWER LINE LOCATIONS AND INVERT ELEVATIONS. GIVE RECOMMENDATIONS TO OWNER FOR MOST ECONOMICAL AND LEAST INTRUSIVE WAY TO CONNECT NEW DRAIN PIPING IN ADDITION TO EXISTING DRAIN PIPING.
30. PLUMBING CONTRACTOR SHALL VISIT THE PROJECT SITE DURING THE BIDDING PROCESS.
31. CONTRACTOR SHALL VERIFY LOCATION, SIZE, AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION.
33. EXISTING PLUMBING FIXTURES AND ASSOCIATED SYSTEMS TO REMAIN. PLUMBING CONTRACTOR SHALL INCLUDE PRICING TO VERIFY PROPER FUNCTION OF ALL PLUMBING FIXTURES. THIS WILL INCLUDE BUT NOT BE LIMITED TO VERIFYING: COLD WATER CONNECTION & DELIVERY, HOT WATER CONNECTION & DELIVERY, DRAIN LINE CONNECTION & PROPER FUNCTION, HOT WATER HEATER FUNCTION & CONDITION, ETC. FOR FULLY FUNCTIONING PLUMBING FIXTURES & ASSOCIATED PLUMBING SYSTEMS. PLUMBING CONTRACTOR SHALL REPORT FINDINGS & CONCERNS BACK TO GENERAL CONTRACTOR & PROJECT OWNER.

- WATER PIPING = PEX WITH METAL FITTINGS (I.E. VIEGA PRO PRESS OR SIMILAR).
- SEWER = SOLID CORE PVC.
- GAS = BLACK METAL PIPING



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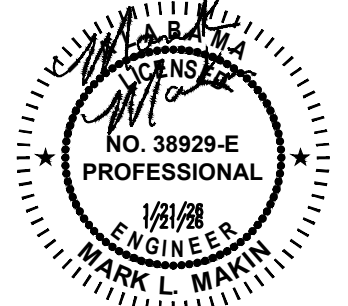
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JORDENELLE SPECIAL SERVICE DISTRICT

ISSUED:
JANUARY, 2026

REVISIONS:		
NO.	DATE	DESCRIPTION

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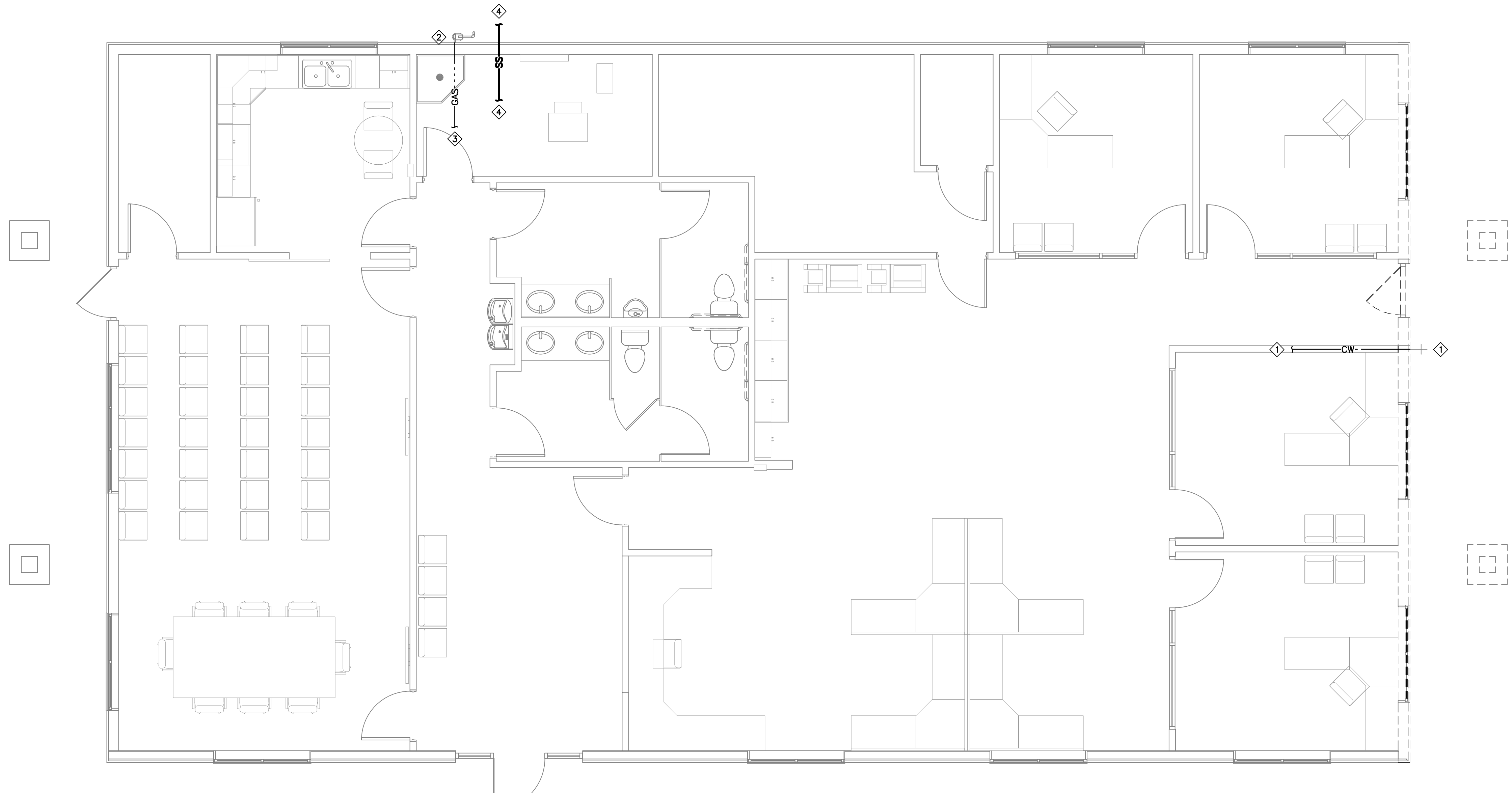


PROJECT NUMBER:
25152

PLUMBING DEMO PLAN

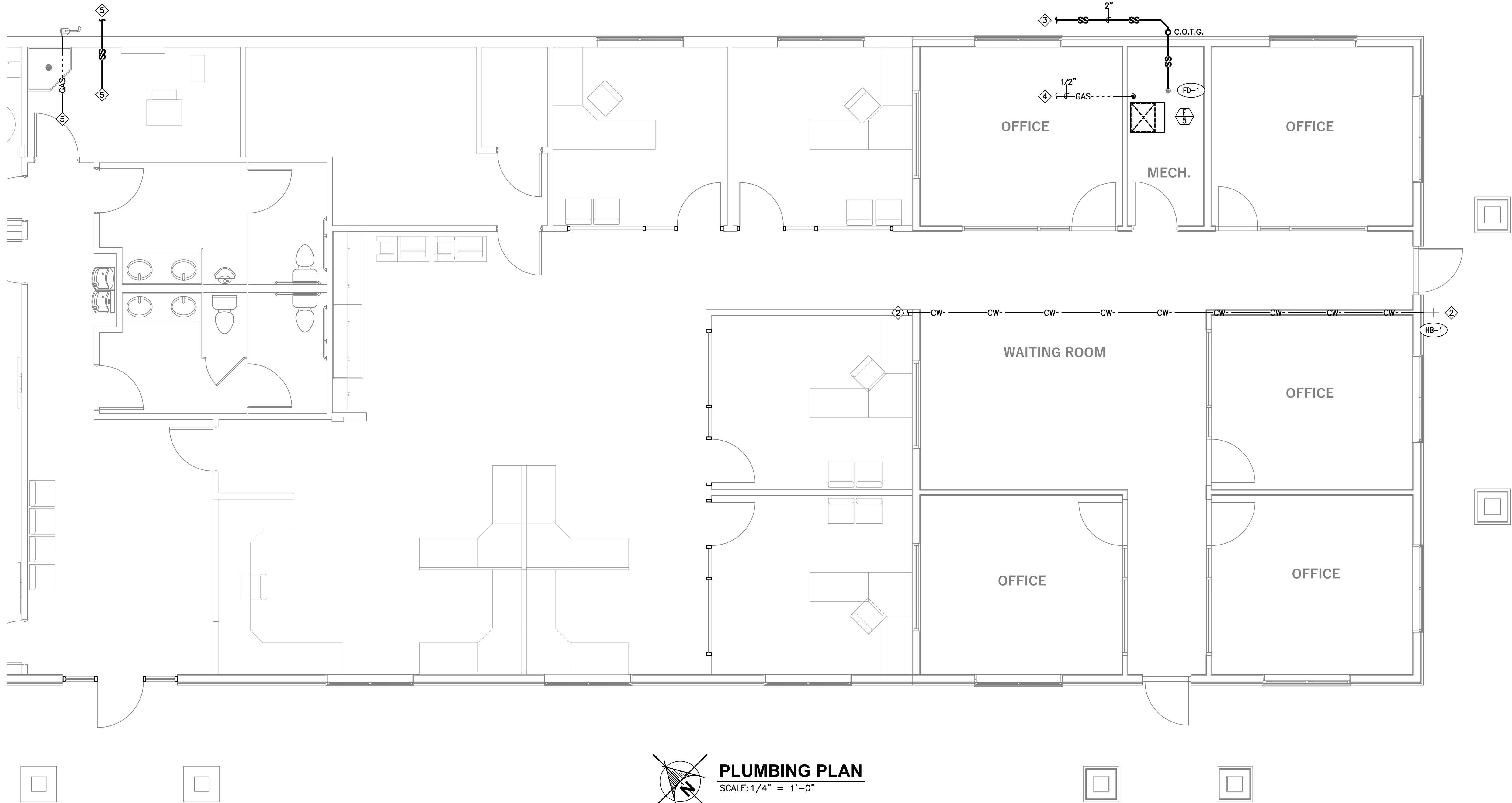
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PLUMBING DEMO PLAN

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

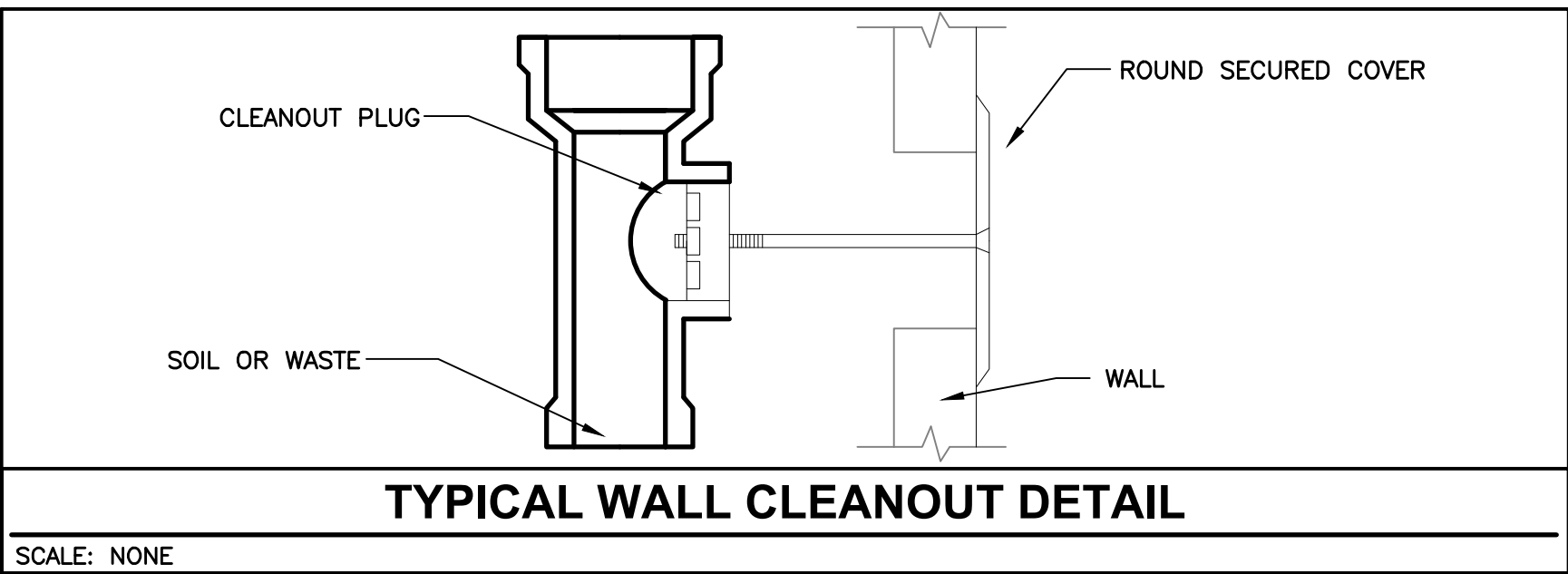
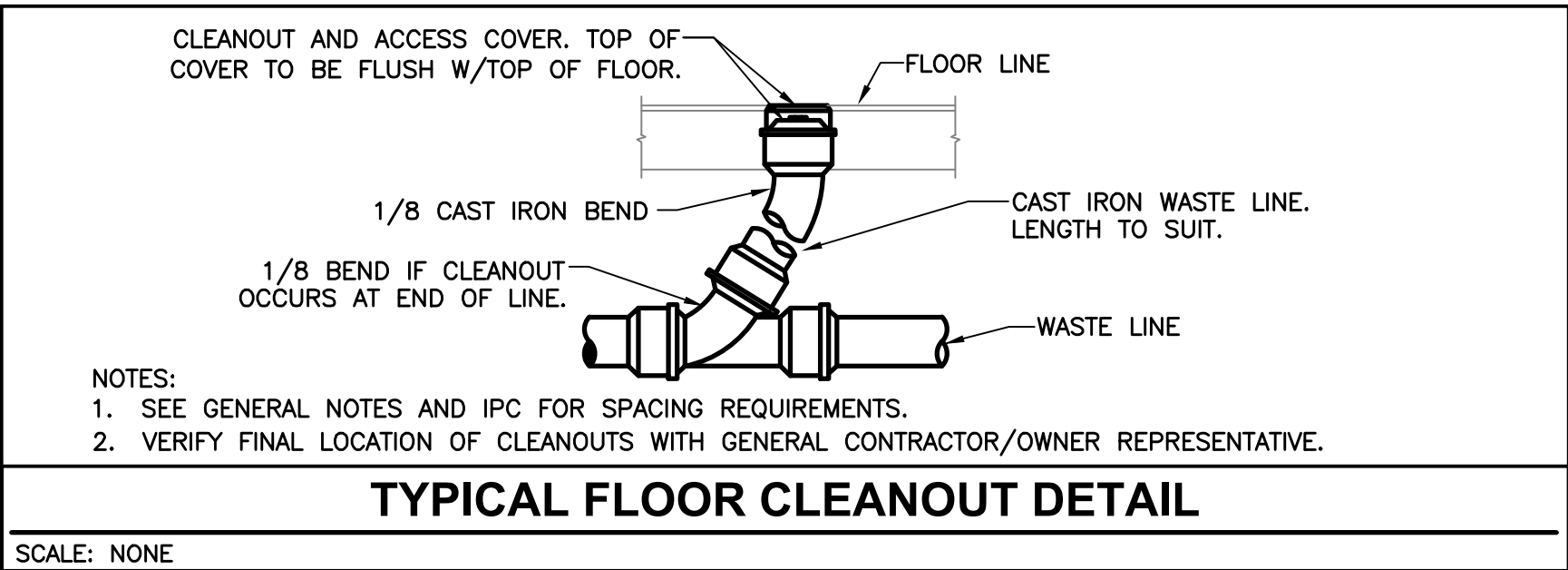
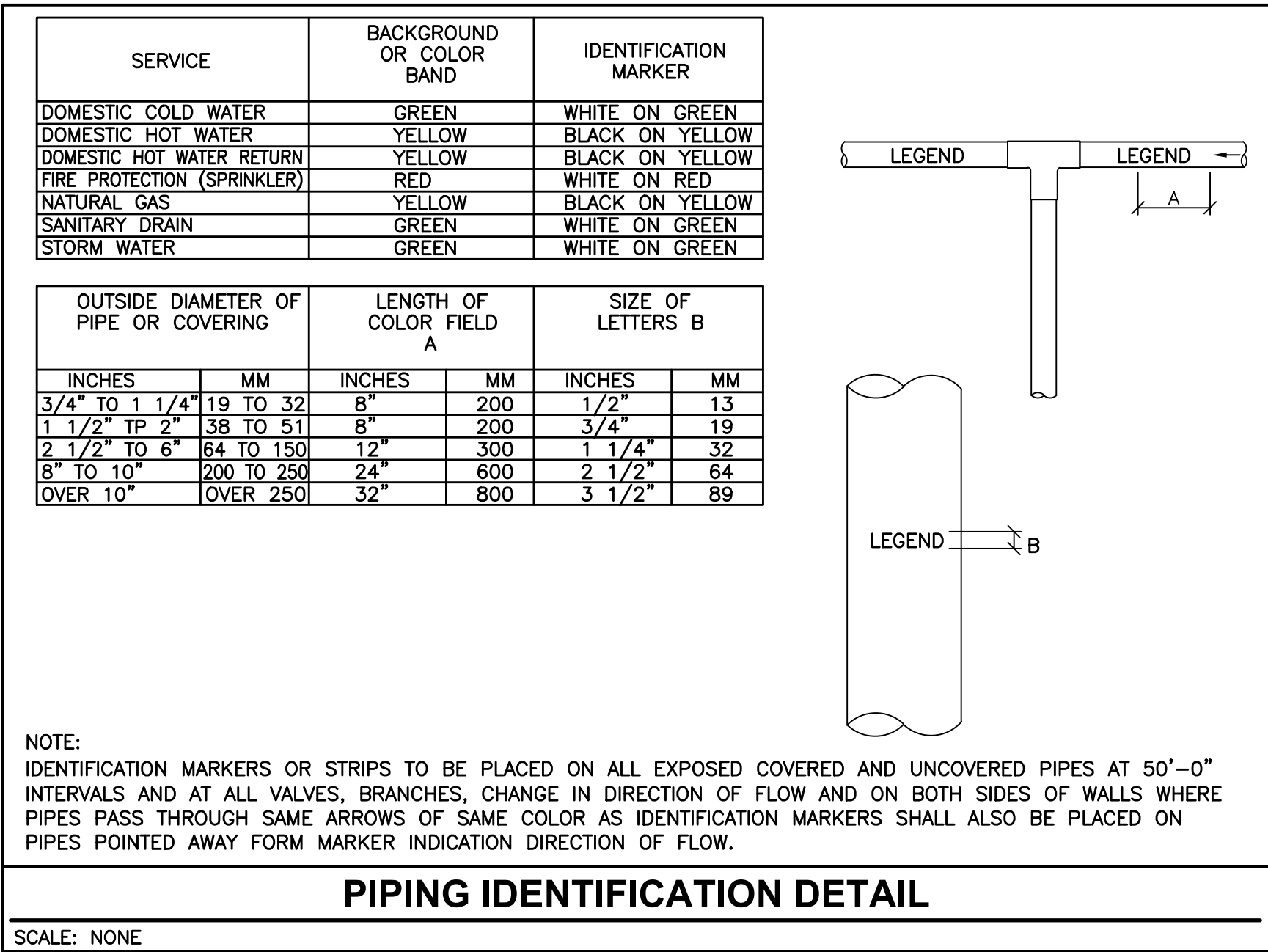
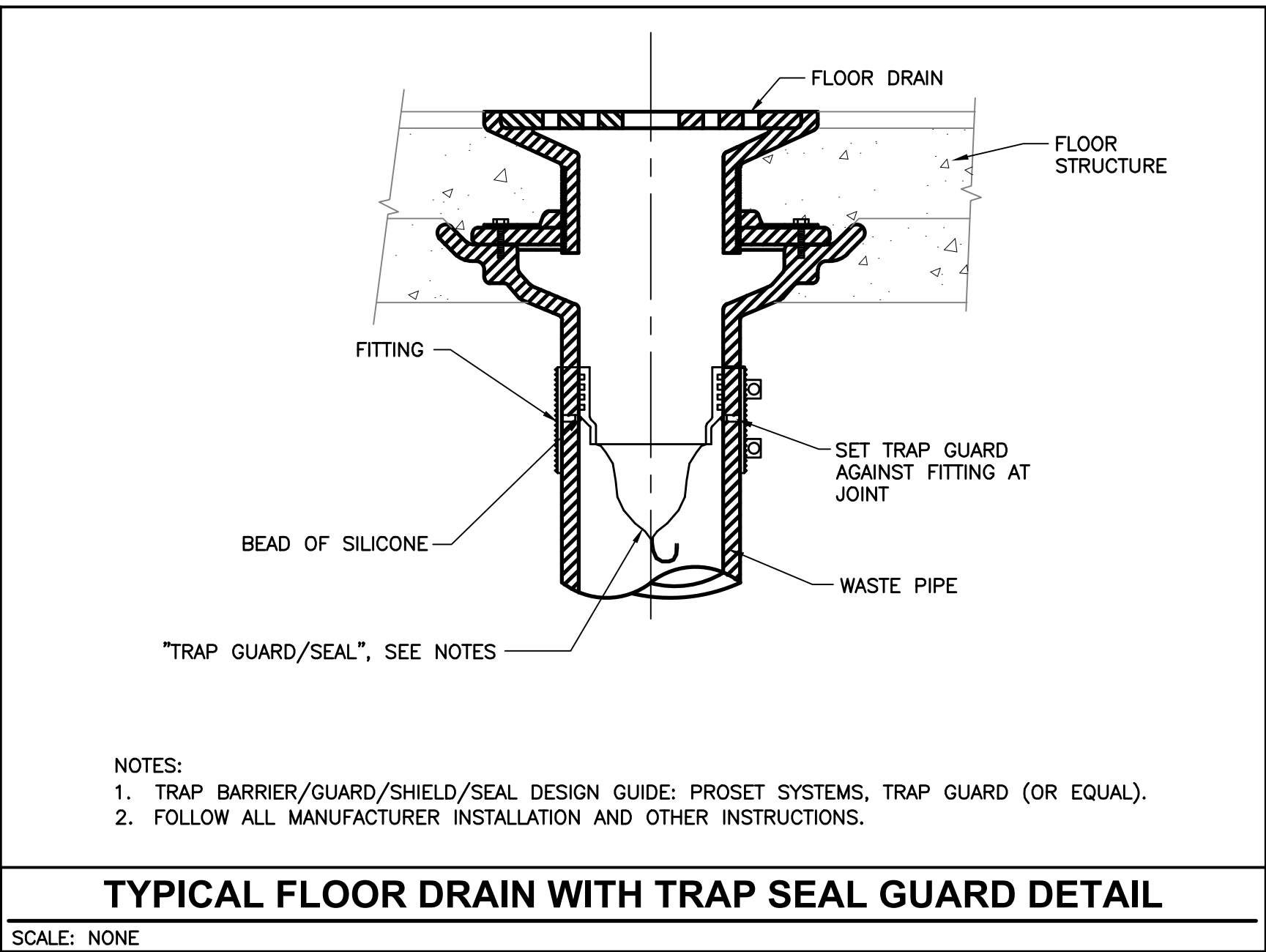
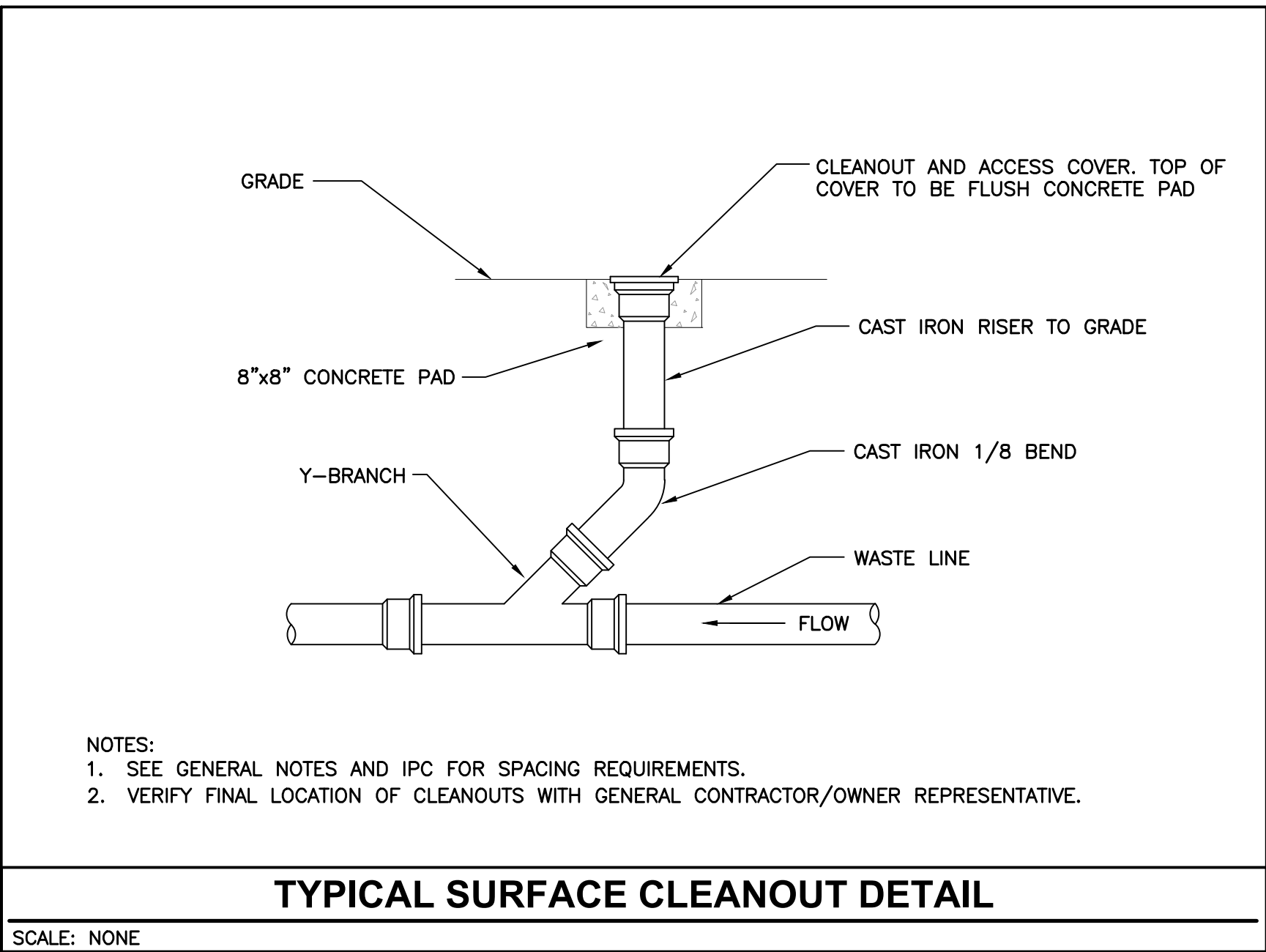
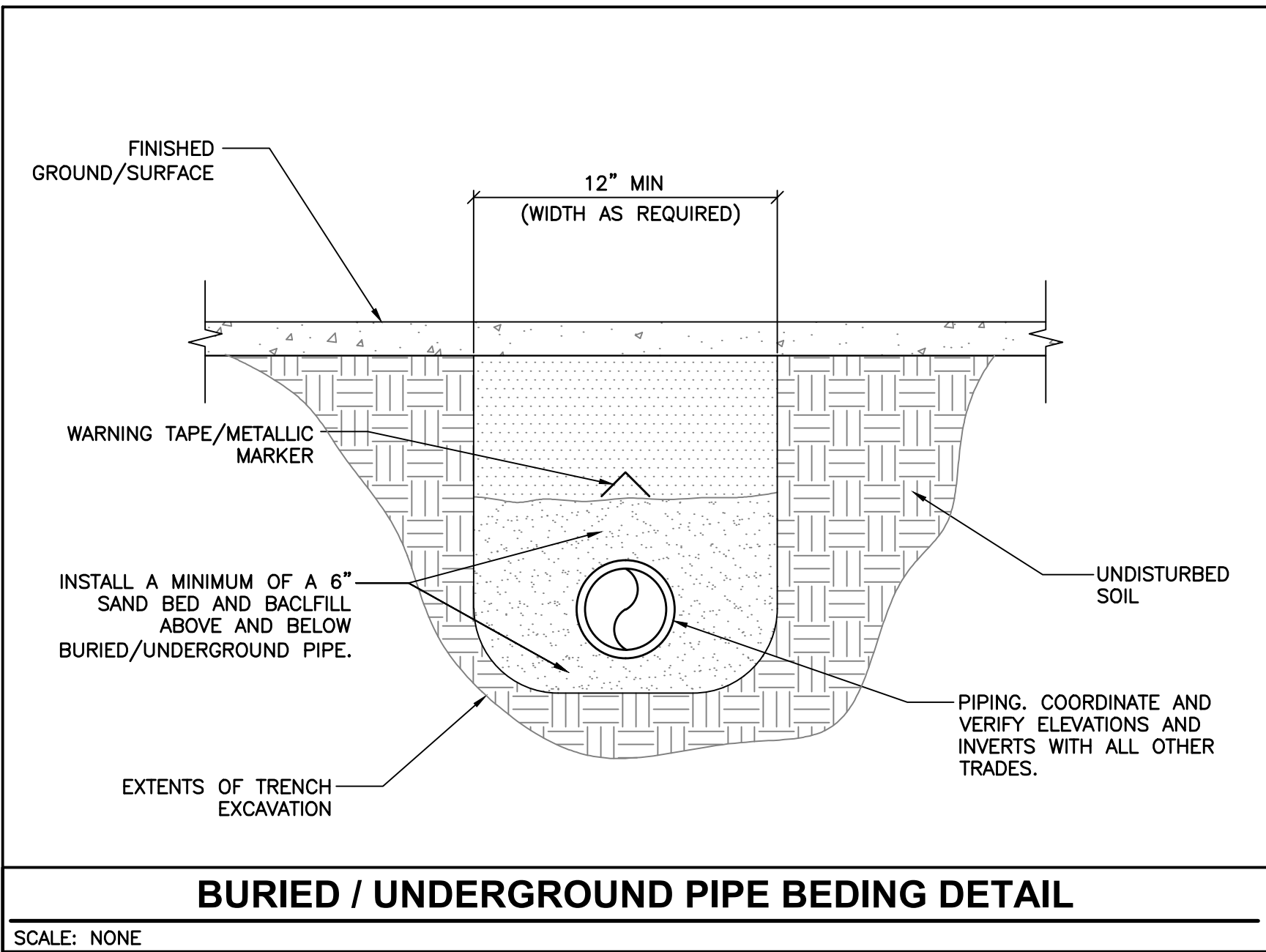
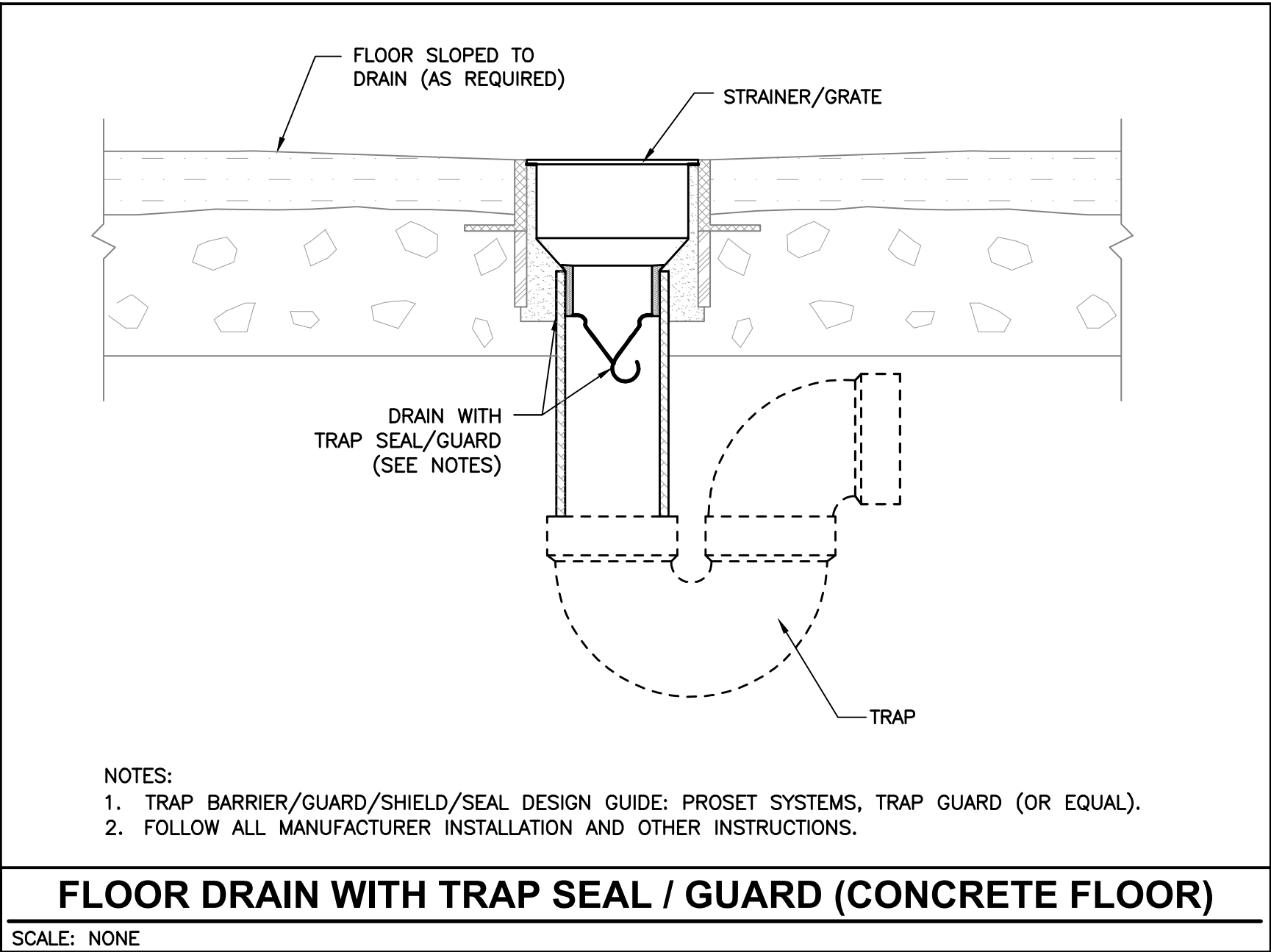
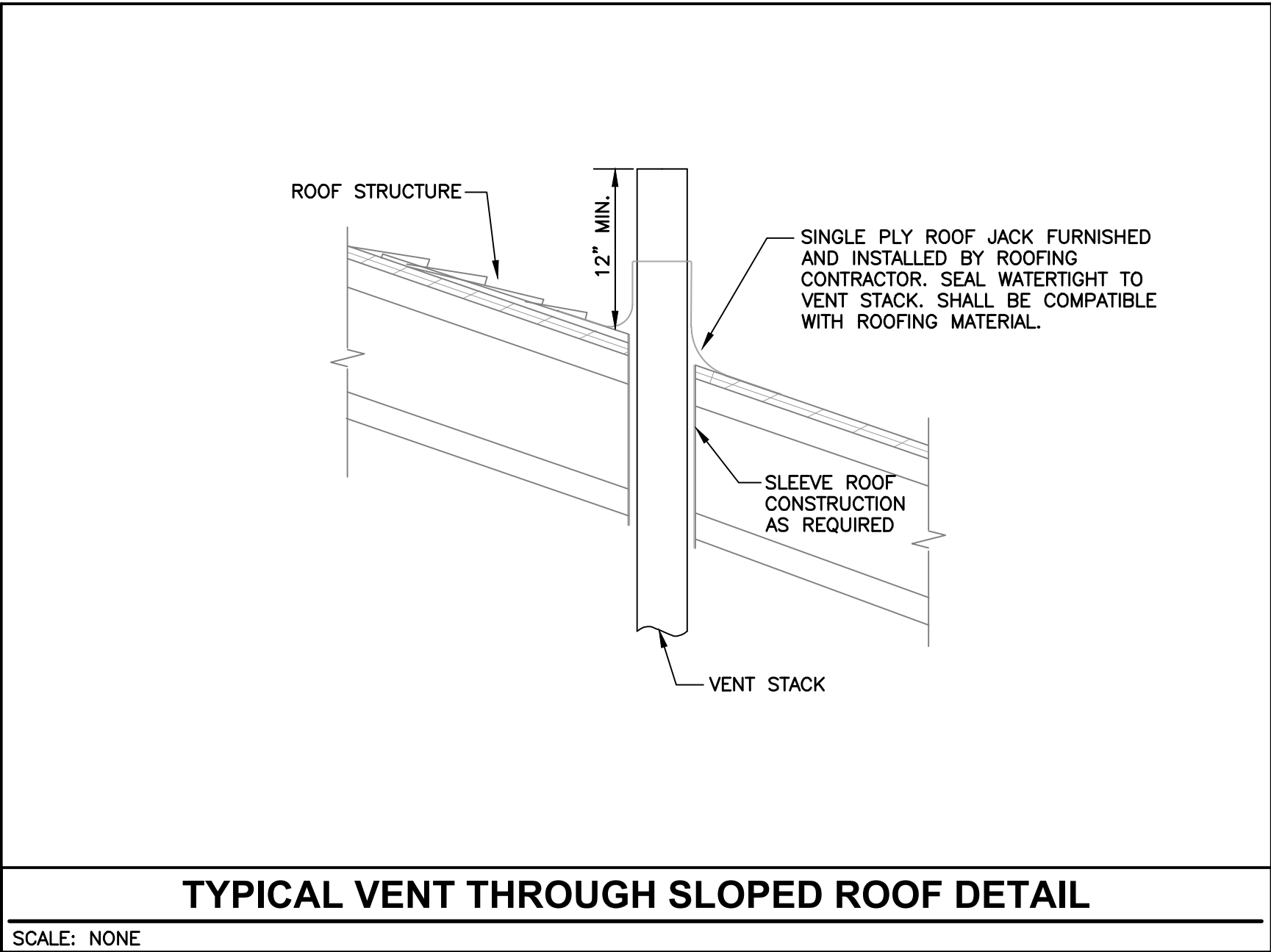
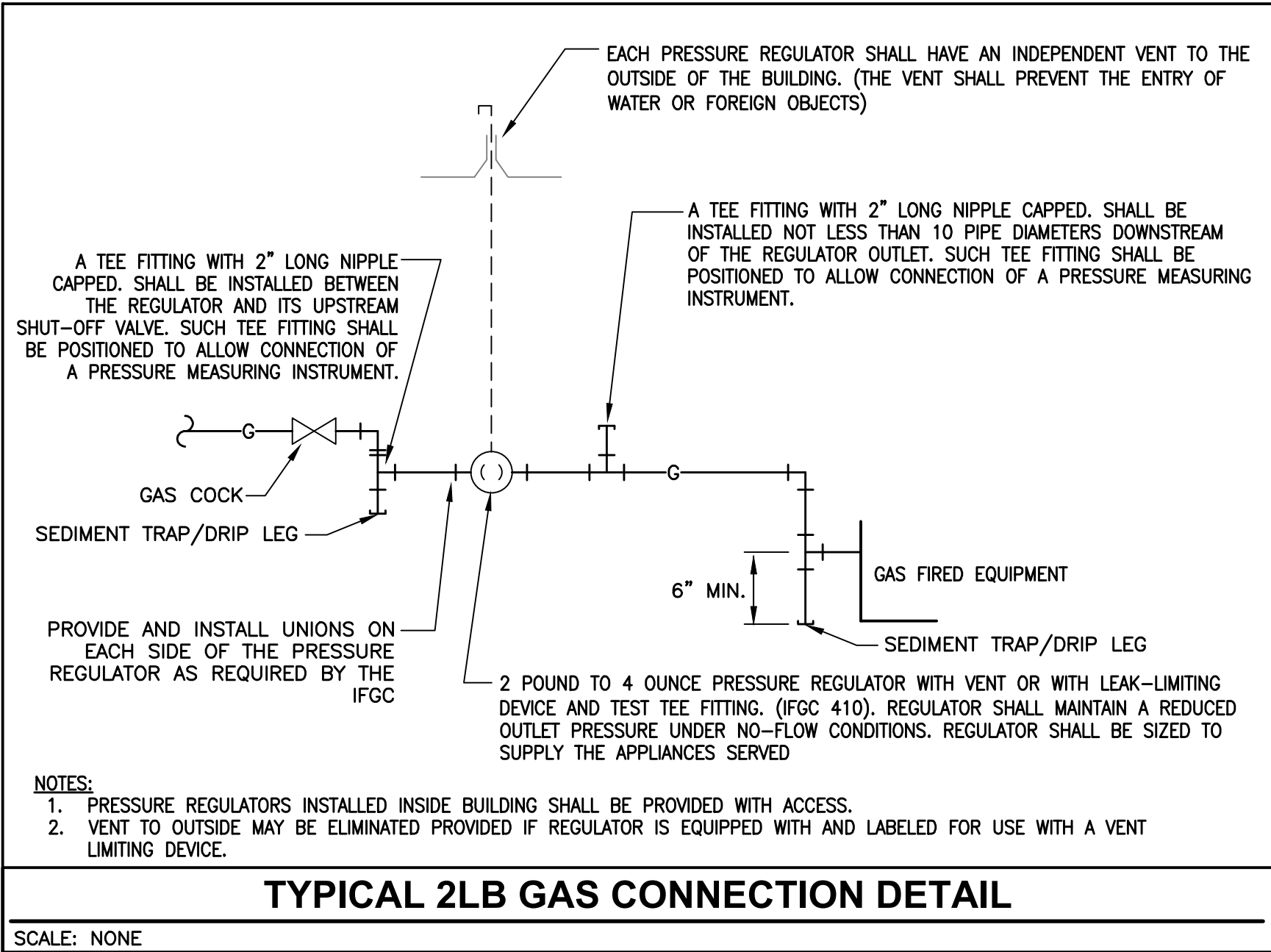


PLUMBING KEYED NOTES:

1. APPROXIMATE LOCATION OF EXISTING HOSE BIB TO BE RELOCATED. FIELD VERIFY ACTUAL INSTALLED LOCATION. COORDINATE RE-USE WITH OWNER REPRESENTATIVE. SEE PLUMBING SCHEDULE FOR NEW FIXTURE SELECTION AS NEEDED.
2. LOCATION OF EXISTING HOSE BIB IN NEW LOCATION. COORDINATE FINAL LOCATION WITH OWNER REPRESENTATIVE. MAKE NEW CONNECTION TO EXISTING WATER LINE.
3. MAKE CONNECTION OF NEW FLOOR DRAIN TO EXISTING SANITARY SEWER SYSTEM. FIELD VERIFY LOCATION AND INVERT DEPTH OF EXISTING SANITARY SEWER.
4. MAKE CONNECTION OF NEW FURNACE (F-5) TO EXISTING NATURAL GAS PIPING SYSTEM. FIELD VERIFY LOCATION OF EXISTING GAS METER & PIPING. SEE NATURAL GAS PIPING SCHEMATIC.
5. LOCATION OF EXISTING UTILITY. FIELD VERIFY EXACT LOCATION AND MAKE NEW CONNECTIONS AS DIRECTED.

SHEET NOTES:

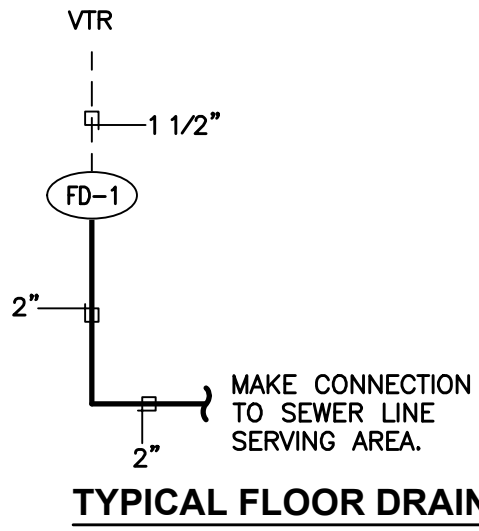
1. WATER LINES ARE ANTICIPATED TO BE ROUTED IN THE CEILING SPACE AND DROP TO EACH FIXTURE.
2. WATER LINES ARE SHOWN SCHEMATICALLY FOR CLARITY AND SHALL BE ROUTED WITHIN CONCEALED SPACES (I.E. WALLS, DROPS, CHASES, ETC.)



MARK	FIXTURE	PIPE SIZE					REMARKS
		TRAP	WASTE	VENT	C.W.	H.W.	
(FD-1)	FLOOR DRAIN	2"	2"	1 1/2"	—	—	FLOOR DRAIN WITH STRAINER. PROVIDE AND INSTALL TRAP BARRIER-TYPE SEAL PROTECTION (I.E. TRAP GUARD). SEE ARCHITECTURAL DRAWINGS FOR FLOOR TYPE.
(HB-1)	HOSE BIB, EXTERIOR	—	—	—	1/2"	—	WOODFORD MODEL 67, FREEZELESS WALL MOUNTED HOSE BIB WITH ANTI-SIPHON VACUUM BREAKER. PROVIDE AND INSTALL BRANCH SHUT-OFF VALVE.

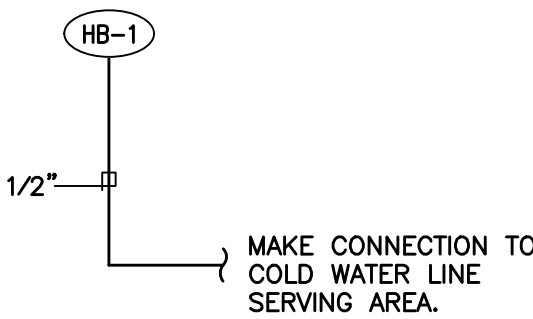
NOTES:

1. VERIFY ALL MANUFACTURERS, FINISHES, AND OPTIONS WITH OWNER BEFORE ORDERING ANY PLUMBING FIXTURES.
2. MINIMUM UNDERGROUND SANITARY SEWER PIPING SIZE SHALL BE 2 INCHES.



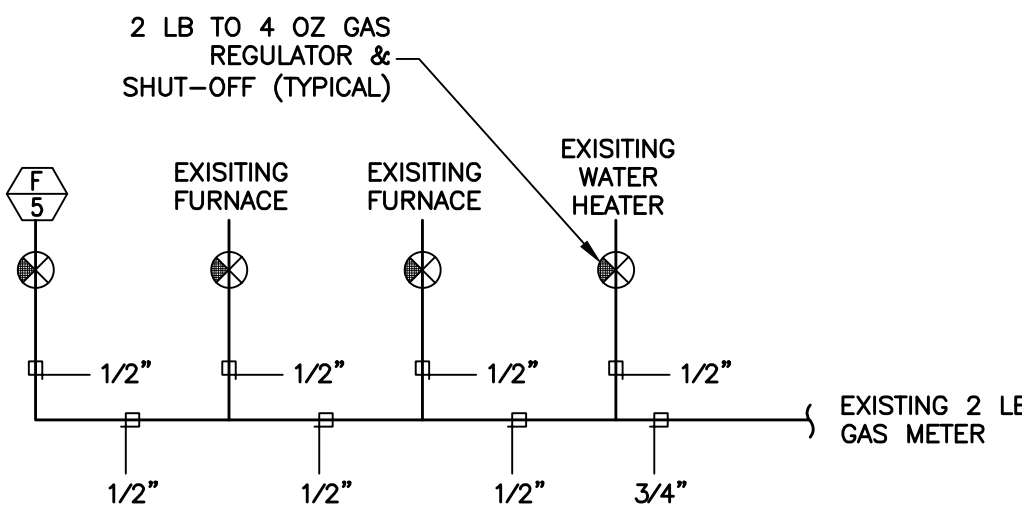
SCALE: NONE

GENERAL NOTE: VENT & CONDENSATE SHALL BE 12"-24" BELOW DECK/ROOF ABOVE TO
AVOID CONDENSATION ICING



SCALE: NONE

GAS PIPING CALCULATIONS		
<u>DESIGN CONDITIONS</u>		
CITY	- HEBER CITY, UT	
LONGEST GAS PIPE	- 100 FEET (VERIFY)	
GAS PRESSURE	- 2 POUND (VERIFY)	
DERATION FACTOR	- B34	
<u>EQUIPMENT</u>		
EXISTING WH-1	48 CFH	(40,000 BTU/HR)
EXISTING F-1	106 CFH	(88,000 BTU/HR)
EXISTING F-2	106 CFH	(88,000 BTU/HR)
NEW F-5	106 CFH	(88,000 BTU/HR)
TOTAL	366 CFH	(304,000 BTU/HR)



SCALE: NONE

ISSUED:
JANUARY, 2026

REVISIONS:		
NO.	DATE	DESCRIPTION

STAME



PROJECT NUMBER
25152

PLUMBING SCHEDULE & SCHEMATICS

P6.1

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SECTION 22 PLUMBING – GENERAL PROVISIONS
Not all specification items are used in every project.

PART 1 – GENERAL

- **Scope:**
- A. Furnish all labor, materials, equipment, appliances and necessary incidentals for the complete installation of all plumbing shown on the drawings and as specified.
- B. Work specified in this section:
- Sanitary soil, waste and vent systems.
 - Domestic hot and cold water systems.
 - Domestic water heaters.
 - Furnish and set all sleeves for pipes passing through walls and floors.
 - Pipe covering, insulation and wrapping.
 - Excavation and backfill.
 - Rough-in and final connections to air conditioning equipment of condensate drains.
 - All plumbing fixtures, water heaters, valves, and other miscellaneous items or equipment required for a complete installation.
 - Colors at fire rated penetrations.
- C. Provisions of this section apply to all work specified in all sections under Division 22. All items indicated on site, Architectural, Mechanical, or Plumbing drawings are to be provided complete from point of connection to finished fixture in conformance with all governing authority requirements. Nothing in these drawings or specifications shall be construed to permit work in violation of governing codes.
- D. In addition, work in Division 22 is governed by the provisions of the Bidding Requirements, Contract Forms, General Conditions and all sections under Division 1, General Requirements.
- Examination of Premises: Visit the site (as required), verify all measurements and job conditions, and pay all costs necessary to perform the work. Coordinate division of fee responsibilities with the General Contractor.
 - The Plumbing Contractor shall be licensed and hold a current contracting license as a Plumbing Contractor that has been valid for a minimum of two (2) years in the State where the project is located.
 - The Plumbing Contractor shall have a minimum of five (5) years experience installing commercial plumbing systems similar to those described in these specifications and provide a list of previous projects, including name of project and contact person names and phone numbers if required by the General Contractor.
 - The Plumbing Contractor shall be able to bond the work being bid to perform and shall provide a written statement from the bonding agency proposed to be used for this project as a separate document in addition to the plumbing bid submitted if required by the General Contractor. The bonding agency shall be one having a Best's insurance rating of A or A+.
- E. Contractor is responsible for results caused by deviating from the plans.

– **Regulations, Permits, Fees, Charges, Inspections:**

- A. Regulations: Comply with all applicable codes, rules and regulations. All materials and work must comply with local construction, mechanical, plumbing, electrical and fire codes. As a minimum, comply with the following: IMC, IPC, IECC, NEC, NFPA codes and all City codes.
- B. In addition to the requirements of all governing codes, ordinances and agencies, conform to the requirements of the following codes and standards:
- 2021 International Plumbing Code
 - 2021 International Building Code
 - 2021 International Mechanical Code
 - 2021 International Energy Conservation Code.
- C. Current codes adopted by the respective jurisdiction will supercede the listed codes.
- D. Fees and Permits: Pay all connection, installation, use, development, etc., fees and/or charges. Obtain and pay for all required permits and licenses. Coordinate division of fee responsibilities with the General Contractor.
- E. Inspections: All work must be inspected and approved by local authorities. Prior to final approval, furnish the Architect with certificates of inspections and approvals by the local authorities in accordance with Division 1.
- Preheat and interpass temperature shall be determined by temperature indicating crayons, contact pyrometers or other equally suitable means.
- F. Postweld Heat Treatment: Postweld heat treatment for pressure components shall be as specified in Table 131 of ANSI B31.1.

– **Drawings and Specifications:**

- A. Refer to Division 1 for information on submittals and shop drawings.
- B. If a conflict exists between the drawings and specifications, promptly notify the Architect and Engineer.

– **Record Drawings:**

- A. Provide record drawings for all work under sections in Division 22. See Division 1 for detailed requirements covering preparation of record drawings.

– **Work and Materials:**

- A. Unless otherwise specified, all materials must be new and of the quality specified. The workmanship shall be of a quality that is acceptable to the Architect and is equal to the standards of the trades. Contractor must staff the project with sufficient skilled workmen, including a fully qualified construction Superintendent, to complete the work in the time allotted. The Superintendent must be qualified to supervise all of the work in his work category.

– **Approvals of Materials and Equipment:**

- A. Refer to Division 1 for description of material and equipment for prior approvals and substitutions. Must be received by Engineer 10 days prior to due date/bid opening.

– **Maintenance Manual:**

- A. Prior to completion of the project, compile a complete equipment and maintenance manual for all equipment supplied under sections of Division 22 as described in Division 1.
- B. Manuals shall be bound in a three-ring binder. A preliminary submittal of the manual shall be made to the Architect 90 days after receiving approved submittals. Final submittal of the manual shall be made four weeks prior to substantial completion of the project.

– **Equipment Purchases:**

- A. Arrange for purchase and delivery of all materials and equipment within 15 days after approval of submittals. Coordinate with General Contractor.

– **Cooperative Work:**

- A. Correct without charge any work requiring alteration due to lack of proper supervision or failure to make proper provision in time. Correct without charge any damage to adjacent work caused by the alteration. See Division 1 for additional requirements.
- B. Cooperative Work Includes:
- General supervision and responsibility for proper location, rough-in and size of work related to Division 22 but provided under other divisions of these specifications.
 - Installation of sleeves, inserts and anchors bolts for work under sections in Division 22.
 - Electrical work as specified herein. Refer to Division 26 for requirements.

– **Construction Facilities:**

- A. General: Under this division of the specifications execute all work in a manner to provide safe and lawful ingress and egress to the Owner's establishment and such facilities shall be kept clear of materials or equipment as directed by the Architect. Refer to Division 1 for additional requirements.
- B. Furnish and maintain from the beginning to the completion of all work all lawful and necessary guards, railings, fences, canopies, lights, and warning signs. Take all necessary precautions required by city and state laws to avoid injury or damage to any and all persons and property.

– **Guarantees:**

- A. Guarantee all material, equipment, and workmanship for all sections under Division 22 in writing to be free from defects of material and workmanship for one year from date of final acceptance as outlined in Division.
- Replace without charge any material or equipment proving defective during this period.
 - The guarantee shall include performance of the equipment under all conditions of load, installing any additional items of control and/or protective devices as required and the replacing of any refrigerant lost.

– **Electrical Work:**

- A. Electrical wiring, including power wiring and control wiring (except as otherwise specified under Automatic Temperature Controls), all raceways, wiring, outlet and junction boxes, and labor for installation of the wiring and equipment shall be included in Electrical Division 26 of the specifications.
- B. All starters in motor control centers are to be furnished and installed under the Electrical Division of the specifications.
- C. Before ordering any motors and equipment. Verify the available voltage and phase for all motors with the Electrical Contractor.
- D. Submit a complete list of all motors prior to final closeout of job indicating the locations, horsepower, voltage, phase specified in Table 132 of ANSI B.1.
- E. All field wiring and equipment must conform to the applicable sections of the Electrical specifications, Division 26.

– **Welding Codes and Standards:** All welding and other criteria covered by this specification shall be in accordance with the following code:

- A. ASME Boiler and Pressure Vessel Code
- B. Section IX ANSI Code for Power Piping: B31.1
- C. AWS D10.12.D10.12M Welded joints for gas piping.

– **Product Handling**

- A. Protection: Take all precautions necessary to protect the materials of this section before, during, and after installation.
- B. Replacements: In the event of damage, immediately repair all damaged and defective work to the approval of the Engineer, at no additional cost to the Owner.

– **Submittals:**

- A. Manufacturer's Literature: Within 35 days after award of contract and before any of the materials of this section are delivered to the job site submit seven complete brochures of all materials and equipment, per Division 1 of the specifications.
- B. Other Submittals:
- Shop Drawings.
 - Sterilization Test Report
 - Test Data.
- C. Sets in bound booklet form of written operating and maintenance instructions and brochures for equipment specified in this section. Fully instruct Owners Operating Personnel.
- D. Record Drawings: Keep an accurate dimensioned record of As-Built locations and elevations, as referred to approved base datum, of buried concealed.
- E. Operation and Maintenance Instructions: Deliver to Architect complete as built locations or line work of manholes, cleanouts, valves, plugged tees, capped ends, and of work which is installed different from shown in the plans.

– **Miscellaneous:**

- A. Examination of the site: Exercise care in examining the site and coordinate all work indicated on the drawings with existing conditions. Report to Architect in writing conditions that will prevent proper provisions of this work. Verify depth and location of all service lines with servicing companies having jurisdiction before excavating, by submission of the bid. The contractor warrants that he has familiarized himself with the existing conditions and will perform all work as required for hookup and as required by the contract documents at no additional cost.
- B. Permits and fees: Arrange and pay for all permits, inspections and fee required by all governing agencies.
- C. Service connections: Make all necessary arrangements with applicable utility company for connection to existing service lines. Pay all fees associated with work including meters, hookup charge and utility assessments fees.
- D. Drawings: Coordinate all space requirements with other trades, drawings indicate desired location and arrangement of piping, equipment, and other items and are to be followed as closely as possible.

PART 2 – PRODUCTS

– **General**

- A. Pipe sleeves and wrapping:
- Provide polished chromium plated and brass set screw flanges where plumbing piping pass through walls, floors, ceilings, and partitions in finished portions of building including flanges on pipes at fixtures.
 - All sleeves in concrete and exterior walls shall be 20 GA. galvanized iron one inch O.D. larger than the pipe, caulked if below grade in a moisture proof manner.
 - All pipes penetrating through fire walls and floors shall be properly safed with Dow Corning 3–6548 silicone RTV foam or equal. Install per manufacturer's directions.
- B. Pipe Identification:
- Piping identification per ANSI and OSHA Standards: Each individual pipeline shall be marked for quick and easy identification as to contents and character of material carried in the pipes by set on SNA or STR Marker.
 - Markers shall be installed and spaced at not more than 20 foot intervals and so located that markers shall be visible where piping is exposed.
 - Color scheme shall be as follows:
- | | Background or Color Band | Identification Marker |
|-----------------------------------|--------------------------|-----------------------|
| Domestic Hot Water – | Yellow | Black on Yellow |
| Domestic Hot Water Return – | Yellow | Black on Yellow |
| Domestic Cold Water – | Green | White on Green |
| Sanitary Sewer – | Green | White on Green |
| Sanitary Vent – | Green | White on Green |
| Fire Protection (Sprinkler) – | Red | White on Red |
| Natural Gas – | Yellow | Black on Yellow |
| Storm Water – | Green | White on Green |
| Steam – | Orange | White on Orange |
| Chiller Water Supply & Return – | Blue | White on Blue |
| Condenser Water Supply & Return – | Blue | White on Blue |
| Glycol Solution – | Purple | White on Purple |
| Secondary Heating Water Supply – | Brown | White on Brown |
| Secondary Heating Water Return – | Brown | White on Brown |
- C. One marker shall installed at each side of valves, special fittings and at branch take-offs. In furred spaces install one band 2 feet above floor and 19 inches below ceiling line.
- D. Materials: Materials when not otherwise definitely specified shall conform to the applicable ASTM, ASME, AGA and ASA standards.
- E. All gas fired equipment shall include a label indicating that the appliance has been adjusted, modified or re-calibrated for the altitude where in the project is to be located (Green Sticker). The appliance shall also include a compliance statement indicating that the appliance has been adjusted, modified or re-calibrated for the proper operation at the altitude of the project and shall be listed capable for use with natural gas or propane gas if propane is listed on the drawings.

– **Pipe and Fittings:**

- A. All piping, fittings, flanges, etc. shall be free from defects and shall comply with the appropriate ASTM specifications.
- B. Black steel pipe: ASTM A53 ERW Grade B, standard weight (schedule 40) or extra strong (schedule 80) as specified.
- C. Copper tubing: ASTM B88, Type L or K as specified.

- D. PVC pipe and fittings: ASTM D1785 Class 150 with ASTM D 2564 solvent cement joints unless otherwise specified. Schedule 40. PVC plastic pipe fittings: ASTM F 628, schedule 40.
- E. PEX–AL–HDPE distribution system: ASTM F 1986 tubing and metal-insert type with copper or stainless-steel crimp ring and matching PEX–AL–HDPE tube dimensions. Manifold: Multiple-outlet, plastic or corrosion-resistant-metal assembly complying with ASTM F 877: with plastic or corrosion-resistant-metal valve for each outlet.
- F. PP piping and fittings: ASTM F 2389; CSA B137.11
- G. Acrylonitrile Butadiene Styrene (ABS) plastic pipe: ASTM D 2661, schedule 40, ASTM F 628 schedule 40. ABS plastic pipe fittings: ASTM F 409, accessible and replaceable, solvent cement and threaded types, drain pattern.
- H. Cast iron soil pipe and fittings: ASTM A74
- I. Welded black steel fittings: ASTM A234 grade B, 150–Pound for standard weight piping, 300–Pound for extra strong piping, or of weight or schedule of matching piping.
- J. Threaded malleable iron fittings: ANSI B16.3, 150–Pound for standard weight piping, 300–Pound for extra strong piping, or weight or schedule of matching piping either black or galvanized to match piping.
- K. Welded flanges: ASTM A181 grade B, 150–Pound for standard weight piping, 300–Pound for extra strong piping or of equal weight of connected equipment.
- L. Copper fittings: Wrought copper, ANSI specification B16.22.
- M. Ball valves domestic water: Bronze, fullport, class 150, threaded. NIBCO T–585 or equal.
- N. Partition stop valves: Loose key type with wall flange. T&S B–0415 oe equal.
- O. Balancing cocks 2 inches and smaller shall be by Armstrong, NIBCO, Taco or Watts.
- P. Solder: Joints in copper piping above grade shall be stay safe 50 solder or 95–5 solder.
- Q. Condensate drains shall be Type L hard copper tubing with wrought–copper fittings (can't be used for condensing gas-fired applications) or PVC pipe and fittings where allowed. A P–trap shall be provided at drains.
- R. Gas piping in the building and not buried shall be standard weight black steel pipe and shall have welded fittings. Any alternate above ground material must be approved by the stamping engineer. Gas piping buried shall be polyethylene pipe with continuous 18 gauge tracing wire with schedule 40 black steel epoxy coated transition risers and/or transition fittings per ASTM D2513 and installed in accordance with local utility company regulations. Paint all exterior exposed gas piping.
- S. Chilled water and heating system lines shall be standard weight black steel. Pipe 2–1/2 inch and smaller shall either have welded fittings, mechanical grooved fittings or malleable iron screwed fittings.
- T. Domestic hot water, hot water return, and cold water piping shall be Type L or K hard tempered copper pipe with wrought–copper fittings using 95–5 solder. Any alternate piping for lines over 2 inches must be approved by the stamping engineer. Pex tube piping may be used in lieu of copper on sizes 2-inches and smaller. Where piping is exposed outside partitions, use Type L or K hard copper tubing and wrought copper fittings.
- U. Domestic hot water and cold water piping buried below grade shall be Type K soft tempered (annealed) copper without fittings or joints and covered with cellular insulation. Polypropylene Heat fused may be used underground when approved by the stamping engineer. PEX tube piping may be used in lieu of copper on sizes 2" and smaller.
- V. Chilled water and heating system lines shall be standard weight black steel pipe. Pipe 2–1/2" and smaller shall either have welded fittings, mechanical grooved fittings or malleable iron screwed fittings.
- W. All soil, waste, vent, roof drain and roof drain overflow piping below ground shall be ABS or PVC plastic pipe, rated for domestic waste and vent, with ABS or PVC plastic socket type drain, waste vent pattern fittings, solvent cemented joints. Install ABS drainage pipe and fittings according to ASTM D661. Install PVC drainage pipe and fittings according to ASTM F891.
- X. All soil, waste, vent, roof drain and overflow piping above ground shall be standard weight cast iron with no hub coupling, ABS, PVC or approved material meeting the standards set forth in IPC acceptable materials tables 702.1, 702.2, and 702.3 & 702.4..
- Y. Kitchen waste and vent serving fixtures capable of discharging or receiving waste liquids with temperatures in excess of 120°F shall be piped using No-Hub standard weight cast iron pipe for a minimum of 20 feet before changing to ABS pipe or CPVC for a minimum of 20 feet before transitioning to PVC/ABS.

– **Roof Flashing:**

- A. Sanitary Vent Flashings shall be one-piece lead with counterflashing sleeve.

– **Pipe Sleeves:**

- A. Wall sleeves shall be flush with finished surface.
- B. Sleeves shall be sized to allow 1/2 inch clearance around pipe insulation.
- C. Insulation and covering shall be continuous through wall and floor sleeves.
- D. Floor sleeves shall extend to top of concrete curbs for piping rising through floors.
- E. Acceptable sleeves: adjust-to-crete, paramount, hole-out, Cretesleeve or equal.

– **Cleanouts:**

- A. Full size cleanouts shall be installed at the base of each soil waste stack. All other cleanouts shall be installed where shown on the drawings and where required by State, Local or National Plumbing Codes.
- B. All cleanouts shall be installed in locations easily accessible for rodding. Cleanouts shall be J.R. Smith, Wade, Josam or equal.

– **Pipe Insulation:**

- A. All domestic hot water, hot water recirculation and cold water piping shall be covered with fiberglass pipe insulation with vapor seal jacket. For insulation thickness refer to Plumbing Insulation Detail and current adopted code requirements.
- B. Insulate all piping under Lavatories accessible to physically disabled/handicapped with hot water supply and "P" trap with prefabricated insulation/safety shield/guard.

– **Pipe Hangers:**

- A. Hangers shall be supplied with factory installed isolation and DI–Chromate finish or as noted on the drawings and details.
- B. Use adjustable swivel ring hangers sized to match installed piping.
- C. Use plastic coated riser clamps for copper piping.
- D. Hanger rod diameters shall conform to the following:
- Pipe size 2 inch and smaller: 3/8 inch rods.
 - Pipe size 2–1/2 inch and 3 inch: 1/2 inch rods.
 - Pipe size 3 inch and larger: 5/8 inch rods.

– **Plumbing Fixtures:**

- A. Fixtures shall be the water saving type with maximum usage of 1.6 gallons per flush for water closets, 2.5 gallons per minute for showers, 3.0 gallons per minute for service sinks, 1.0 gallon per flush for urinals, 0.5 gallons per minute for public lavatories, 2.2 gallons per minute for private lavatories and 2.2 gallons per minute for sinks.
- B. All fixtures shall be caulked to the floor or wall with water resistant white butyl rubber caulking compound. Trim for shall match in design. Faucets shall have renewable seats.

CONSULTANT

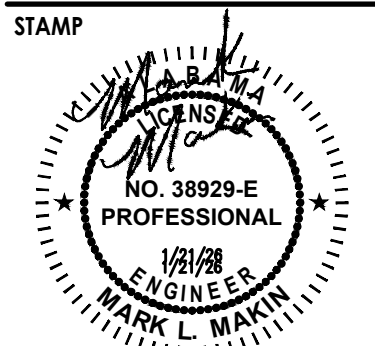


JORDENELE SPECIAL SERVICE DISTRICT

5360 OLD HWY 40,
HEBER CITY, UT 84032

ISSUED:
JANUARY, 2026

REVISIONS:
NO. DATE DESCRIPTION



PROJECT NUMBER:
25152

PLUMBING
SPECIFICATIONS

P7.1

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PLUMBING EQUIPMENT	MANUFACTURER
Floor Drains & Floor Sinks:	Zurn, JR Smith, Wade, Josam, Ancon, Mifab, Watts, or Equal
Cleanouts:	Zurn, JR Smith, Wade, Josam, Mikro, Mifab, Watts, or Equal
Valves:	Watts, Milwaukee, Crane, Kennedy, Stockham, Misson, Grinnell, Keystone, American Valve, or NIBCO
Insulation:	CertainTeed, Manville, Pittsburgh, Armstrong, LSP Products, or Owens-Corning
Eastman, Crane, Kohler, Wolverine, McGuire, Brasscraft, EBC, Zurn, Chicago	
Hose Bibs:	Chicago, Acorn, Wolverine, Woodford, McGuire, Watts, Mifab, Josam, Zurn, Sioux Chief, Prier, Smith
Gas Pressure Regulator:	Fisher, Equimeter, Pietro Fiorentini
P-Traps:	American Standard, Kohler, McGuire, Brasscraft, Dearborn, EBC
PART 3 – EXECUTION	
– Surface Conditions:	
A. Inspection: All plumbing shall be installed in accordance with the requirements of all governing authorities, The original design, and referenced standards.	
B. Discrepancies:	
1. In the event of discrepancy, immediately notify the Architect.	
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.	
3. Interferences between installed work of various trades due to lack of coordination shall be resolved by the Architect whose decision is final.	
4. Relocate or offset any work as required to accommodate work of other trades at no extra cost to the Owner when so directed by the Architect.	
– Verification of Dimensions:	
A. Scaled and figured dimensions are approximate only. Before proceeding with work, carefully check and verify dimensions at site, and be responsible for properly fitting equipment and materials together and to the structure in spaces provided.	
B. Drawings are essentially diagrammatic and many offsets, bends, special fittings and exact locations are not indicated. Carefully study drawings and premises in order to determine best methods, exact locations, routes, building obstructions, and install apparatus and equipment in available locations. Install apparatus and equipment in manner and in locations to avoid obstructions, preserve headroom, and keep openings and passageways clear.	
– Locations and Space Requirements:	
A. Contractor shall fully inform self regarding peculiarities and limitation of spaces available for installation of work under this division. Drawings indicate desired location and arrangement of piping, equipment and other items and are to be followed as closely as possible. Work specified and not clearly defined by drawings shall be installed and arranged in a satisfactory manner. In any case and at any time a change in location required by obstacles or the installation of other trades not shown on the plumbing plans shall be made by contractor without additional charge provided the change is ordered before work is installed and no extra materials are required.	
B. Verify all spaces, dimensions for all fixtures, equipment, or owner-furnished equipment and equipment furnished under other sections.	
C. Obtain all necessary rough in data and dimensions for all fixtures, equipment, or owner-furnished equipment and equipment furnished under other sections.	
D. Maintain ample headroom clearances and accessibility. Maintain ceiling heights.	
E. Constantly check work of other trades to prevent interference with this installation.	
– Cutting and Patching:	
A. Cut work and patch per Division 1 as necessary to properly install the new work. As the work progresses, coordinate necessary openings, holes, chases, etc., in their correct location. If the required openings, holes and chases are not in their correct locations, make the necessary corrections at no cost to the Owner. Avoid excessive cutting and do not cut structural members without the consent of the Architect. Patching by General Contractor at Mechanical, Plumbing or Fire Protection Contractor's expense. Include as a part of the work under this contract all structural framing required by penetrations through the roof and necessary steel to support ducts and pipes between structural steel unless shown on the structural drawings.	
– Closing-in of Unfinished Work:	
A. Cover no work until inspected, tested and approved. Where work is covered before inspection and test,uncover it, and when inspected, tested and approved, restore all work to original proper condition.	
– Excavation and Backfill:	
A. Perform all necessary excavation, shoring and backfilling required for the proper laying of all pipes and conduits inside the building and premises, and outside as may be necessary. Conform to Division 2 requirements. Remove all excess excavated materials from the site or dispose of on site as directed by General Contractor.	
B. Excavate all trenches open cut, keep trench banks as nearly vertical as practicable, and sheet and brace trenches where required for stability and safety. Excavate trenches true to line and make bottoms not less than 18 inches wide but no wider than necessary to provide ample work room. Grade trench bottoms accurately to provide uniform bearing and support for each section of pipe on undisturbed soil along its entire length. Dig "bell" holes after the trench bottom has been graded. Machine grade only to the top line of the pipes, doing the balance by hand. Do not cut any trench near or under footings without first consulting the Architect. Comply with OSHA requirements.	
C. Provide backfilling and compaction in accordance with requirement of Division 2 and under the direction of the Architect and the Owner's testing firm to the required density. Make the first 2 feet of fill in 6 inch layers, each thoroughly compacted as directed, and free from rocks, large clods of earth, leaves, branches, and debris. Compact the rest of the backfill to prevent settlement as directed, using in the backfill no rocks larger than 4" in diameter, and using no rocks at all in the top 12".	
– Accessibility:	
A. Install valves, dampers, thermometers, gauges, traps, cleanouts, control devices or other specialties requiring reading, adjustment, inspection, repairs, removal or replacement conveniently and accessibly throughout the finished building.	
B. Where any of these devices are shown on the contract drawings to be installed above any inaccessible ceiling, the Plumbing Contractor shall furnish access doors or panels as required. All access doors or panels in walls and ceilings required for access to control devices, traps, valves and similar devices are to be furnished and installed as part of the work under this section.	
C. Provide type as specified under Division 8. Refer to drawings and "Finish Schedule" for type of wall and ceiling in each area and for rated construction.	
D. Coordinate work of various sections to locate valves, traps, and dampers with others to avoid unnecessary duplication of access doors.	
– Roof Flashings:	
A. Flash and counterflash all piping, conduits and ductwork penetrating roofing membrane with flashing per roofing manufacturer's recommendations, architectural drawings and plumbing details.	
– Equipment Rough-in:	
A. Rough in all equipment and fixtures as designated on the drawings and in the specifications. The drawings indicate only the approximate location of rough-ins. The exact rough-in locations must be determined from large-scale certified drawings. The Contractor shall obtain all certified rough-in information before progressing with any work for rough-in final connections.	
B. Minor changes in the contract drawings shall be anticipated and provided for under this division of the specifications.	
C. Rough-in only (unless otherwise designated on the drawings) shall include the following:	
1. Plumbing: Provide all services designated and required, including waste and water. Valve and cap all stub-outs for water and gas. Cap all waste and vent outlets.	
2. Mechanical: Provide all services as indicated and required, including all ductwork, piping and valves. Valve and cap all piping stub-outs. Cap all ductwork stub-outs in a manner suitable for future extension.	
– Owner-Furnished and Other Equipment:	
A. Rough-in only for all Owner-furnished equipment (see Division 1) and all equipment furnished under other sections of the specifications, except as otherwise specified and/or noted on the drawings.	

Owner-Furnished and Other Equipment:

A. Rough-in only for all Owner-furnished equipment (see Division 1) and all equipment furnished under other sections of the specifications, except as otherwise specified and/or noted on the drawings.

B. Provide all services designated, valve and cap all piping, cap all waste piping and ductwork and leave in a clean and orderly manner.

C. Rough-in requirements shall be as outlined in the preceding paragraph titled "Equipment Rough-in."

Equipment Final Connections:

A. Provide all piping final connections for all equipment under Division 22 as required herein specified and indicated on the drawings.

B. Plumbing: Provide final plumbing connections complete with shutoff valves, risers, traps, vacuum breakers and indirect wastes for all equipment furnished and installed under other sections of these specifications, except as otherwise designated. Included under the Plumbing section of the specifications are the final connections to the following:

- Miscellaneous equipment specified to be furnished and installed under other divisions of the specifications.
- Cold water make-up connections to air conditioning equipment.
- Kitchen equipment, furnished under other sections of the specifications.

Sterilization:

A. Sterilize each unit of water supply and distribution system with liquid chloride or hydrochloride before acceptance of operation in accordance with AWWA C601, "Standard for Disinfection Water Mains" work shall be done by contractor and unless otherwise required by Public Authorities having Jurisdiction, shall conform to the following:

B. Material: Liquid Chlorine, Hydrochloride.

C. Method:

- The pipe system shall be flushed with clean, potable water until dirty water does not appear at the points of outlet.
- The system or part thereof shall be filled with a water/chlorine solution containing not less than 50 parts per million (50 mg/L) of chlorine, and the system or part thereof shall be valved off and allowed to stand for 24 hours; or the system or part thereof shall be filled with a water/chlorine solution containing not less than 200 parts per million (200 mg/L) of chlorine and allowed to stand for 3 hours.
- Following the required standing time, the system shall be flushed with clean potable water until the chlorine is purged from the system.
- The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.

D. Sterilization report shall be turned into the Engineer for review prior to requesting a substantial completion inspection.

Machinery Accessories:

A. Application: Do not install any equipment in an application not recommended by the manufacturer.

B. Installation: Align, level and adjust all equipment for proper operation. Install so connecting and disconnecting of piping and accessories can readily be done and so all parts are readily accessible for inspection, service and repair. Install equipment in accordance with manufacturer's recommendations.

Pipe and Equipment Supports:

A. Where supports, foundations, stands, suspended platforms for machinery, tanks, or other equipment are indicated or specified, perform the following:

- Locate support members to avoid equipment strains and interference with piping connections, tube pulling or other maintenance operations.
- Where saddles are required, use cast iron or welded steel saddles with curvature to fit the tank shell.
- Mount power-driven equipment on common base with driver.

B. Concrete Inserts: Furnish and install all concrete inserts required for all materials and equipment specified and/or shown on the drawings for Division 22.

C. Concrete Foundations: Work under this section includes coordination of construction of all concrete foundations indicated or required for equipment specified herein or in other sections under Division 22. Materials and workmanship shall be described under Division 3.

D. Grout under all equipment after leveling, filling completely the space between machinery bed plate and foundation surface as specified in Division 3. Finish exposed surface of grout for a neat appearance.

E. Floor Stands: Where equipment is mounted standard or on legs, construct of structural steel or steel pipe and fittings, cross-brace and fasten with flanges or plates bolted to floor.

F. Ceiling or Wall Supports: Use suspended platform, strap hangers, bracket or shelf, whichever is most suitable for equipment and location. Construct of structural steel members, steel plates, rods or pipe as required. Cross-brace and fasten to building structure or inserts in an approved manner.

G. Steel Work: Neatly fabricate and erect steel work with burrs and welding spatter ground off. Paint after fabrication with a rust-inhibitive primer.

Hangers and Supports:

A. Hold horizontal pipe runs firmly in place using approved steel and iron hangers, supports, and/or pipe rest unless otherwise indicated. Suspend hanger rods from concrete inserts or from approved brackets, clamps or clips. Hang pipes individually or in groups if supporting structure is adequate to support weight of piping and fluid. Except for buried piping, hang or support pipe runs so that they may expand or contract freely without strain to pipe or equipment.

- Horizontal steel piping: Provide hangers or supports every 10 ft. except every 8 ft. for piping 1-1/4 inch and smaller.
- Horizontal copper tubing: For 2 inch diameter and over, provide hangers every 10 feet, for 1-1/2 inch diameter and smaller every 6 feet.
- Horizontal cast-iron no-hub piping: Provide hangers or supports at each side of no-hub fittings. Provide anti-separation bracing at each 90 degree change in direction.
- Horizontal cast-iron hub and spigot piping: Provide hangers or supports at each hub.
- Vertical piping: Support at floor with iron pipe clamps.

Test:

A. Perform test to Architect's satisfaction. Make test in presence of Owner's Representative and at the time suitable to him if requested. Furnish necessary labor and equipment and bear cost for testing. Cost of replacing and/or repairing damage resulting therefor shall be borne by this contractor, should the contractor refuse or neglect to make test necessary to satisfy the Architect that requirement of specifications and drawings are met, such tests may be made by an independent testing company and the contractor charged for all expenses.

B. Hydrostatic test: Make by completely filling piping system with water and eliminating accumulations of air so that leakage, no matter how small, will be apparent on testing gauge immediately. Maintain pressure until pipe under test has been examined, but in no case less than 24 hours. Test system at the following pressure:

SYSTEM	TEST PRESSURE
Domestic Cold Water	150 PSIG
Domestic Hot Water	150 PSIG

C. Sanitary soil, waste, bent systems test: Before installation of fixtures, cap end of system and fill lines with water to 10 feet above the section being tested (including bends) and allow to stand for at least fifteen (15) minutes before inspection starts. Make test in sections if necessary or convenient. However, include interconnections between new sections and previously tested section in the new test.

D. Roof drainage system: Test as specified for sanitary system.

E. Gas systems: Test with compressed air at 10 PSI for six hours or longer as directed to provide a tight seal without leaks. Use pressure recorder to record pressure of all lines for duration of test.

F. Repair all leaks and retest as required.

– Cleanouts:
A. Provide cleanouts where indicated and required. Unless otherwise indicated, cleanouts shall be accessible with extensions to grade to outside of buildings, or to floors above as indicated or required. Do not locate cleanouts in public lobbies and public corridors unless approved by Architect.
B. Membranes: Where waterproofing membrane occurs under floor, bring membrane to cleanout without puncturing and permanently anchor to integral anchoring flange with heavy cast-iron clamping collar and rustproof bolts.
C. Covers: Set cleanout covers with all finished wall, floor or grade. In all cases securely anchor by means of integral lugs and bolts. Where surfacing material such as resilient coverings is specified, ascertain thickness being used and set cleanout top so finished floor is smooth.
D. Use thread compound on all threaded inspection/cleanout caps.
– Pipe Installation:
A. Make pipe runs straight and true. Springing or forcing piping into place is not permitted. Install in manner to prevent any undue strain on equipment. Make joints smooth and unobstructed inside and out, and ream pipe ends thoroughly to remove burrs. Conceal piping in finished portions of the building except as otherwise directed or indicated. Cap or plug ends and openings in pipe and fittings immediately to exclude dirt until equipment is installed or final connections are made.
B. Install piping to clear beams unless sleeving is indicated. Constantly check work of other trades to prevent interference with this installation. Obtain approval from Architect if coring or cutting of concrete work is necessary due to failure to install required sleeves prior to the time of concrete pour. Cost of coring and cutting work shall be borne by the plumbing or mechanical subcontractor.
C. Exposed plated or enameled pipe: Make connections to equipment with special care. Show no tool marks or threads.
D. Dielectric Unions: Make connections between two dissimilar metal pipes with dielectric unions.
E. Unions: Provide a unions on one side of each shutoff valve, at both sides of automatic valves, equipment connections and elsewhere indicated or required, unless flanges are indicated.
F. Floor, wall ceiling plates: Provide where pipes pierce finished surfaces.
G. Noise: Install soil, waste, and water piping in a manner that prevents any unusual noise from flow of water under normal conditions.
H. Shutoff Valves: Provide where indicated and required for adequate control of system and for isolation of fixture groups and equipment.
I. Buried Pipe: Install with minimum 36 inches coverage unless otherwise indicated. Lay piping accurately to grade where invert elevations are indicated. When required provide thrust blocks per manufacturer's recommendations.
J. Equipment and Materials: Install per manufacturer's recommendations.
K. Accessibility: Install work readily accessible for normal operation, reading of instruments, adjustments, service, inspections and repair. Provide access panels where indicated and required.
L. Pipe Joints: Make screwed joints with a minimum amount of compound applied to the male thread only. All joints shall be made per code requirements and manufacturer's recommendations.
M. Provide pipe isolation at all hangers for non-insulated materials.
N. Piping Rough-in for Fixtures: Support or secure to building construction of firmly anchored waste piping so that pipes cannot be displaced. Do not secure to walls. Use of makeshift devices, such as rope, wire, tape, etc. is prohibited.
O. Horizontal drainage piping shall be installed in uniform alignment at uniform slopes.
P. The minimum slopes for horizontal pipes:
1. 4 inches or larger in diameter, not less than 1% (1/8 inch per foot).
2. Less than 4 inches in diameter, not less than 2% (1/4 inch per foot).
– Cleanup:
A. In addition to cleanup specified under Division 1, thoroughly clean all parts of the equipment. Where exposed parts are to be painted, thoroughly clean off any splattered construction materials and remove all oil and grease spots. Wipe the surface carefully and scrape out all cracks and corners.
B. Thoroughly flush and clean out all water circulating systems. Remove, clean and replace all strainer elements.
C. During the progress of the work, keep the premises clean and free of debris.
– Painting:
A. Except as otherwise specified or indicated in the architectural drawings and/or specifications, paint all exposed unfinished metal with one coat of rust-inhibiting primer.
B. Finished painting is specified under Division 9.
– Connections to Services:
A. Provide all connections to sanitary sewer lines, storm sewer, gas lines, water lines, electrical services furnished under other contracts, except as otherwise specifically designated. Provide all necessary tees, taps and connections required to properly connect to all mains. Verify all required City requirements before making any piping connections to sanitary sewer, storm sewer, water or gas piping and conform to them during installation.
– Welding:
A. Procedures:
1. All procedures and welders must be qualified in accordance with the requirements of Section IX, ASME Boiler and Pressure Vessel Code and ANSI code for power piping B31.1. Procedure qualification test records and acceptance shall be submitted with the welding procedure prior to the start of fabrication.
2. Architect's inspector or authorized representative will review performance qualification records of individual welders.
B. Welding Processes: The following welding processes are permitted, provided that the procedure is qualified in accordance with Section IX, ASME Boiler and Pressure Vessel Code.
1. Manual shielded metal-arc.
2. Gas tungsten-arc.
3. Other welding processes may be used providing they are qualified in accordance with Section IX, ASME Boiler and Pressure Vessel Code.
C. Restrictions: Weld bevel preparations shall be provided on all welding fittings and shall be machined or ground to remove all discoloration if flame or arc cut.
D. Welding Filler Material:
1. A filler material control procedure shall be submitted to Owner for review and acceptance prior to performing any welding.
2. All shielded metal-arc welding shall be performed using low-hydrogen type electrodes such as E 7018.
E. Preheat and Interpass Temperature:
F. Preheat for pressure components shall be as specified in Table 132 of ANSI B.1.

CONSULTANT

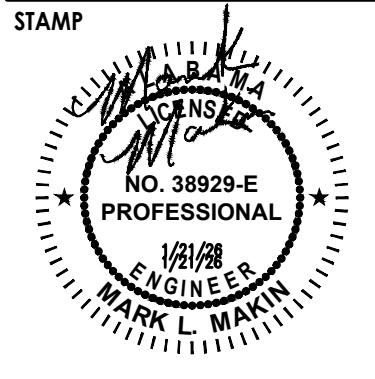


JORDENELE SPECIAL SERVICE DISTRICT

5360 OLD HWY 40,
HEBER CITY, UT 84032

ISSUED:
JANUARY, 2026

REVISIONS:
NO. DATE DESCRIPTION



PROJECT NUMBER:
25152

PLUMBING
SPECIFICATIONS

P7.2



1. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER, PER INDUSTRY STANDARD, AND TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
2. WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.
3. ELECTRICAL CONTRACTOR TO REFER TO THE CIVIL ENGINEER'S DRAWING AND COORDINATE ELECTRICAL INSTALLATION WITH ALL UTILITIES.
4. ELECTRICAL CONTRACTOR TO VERIFY ALL THE UTILITY COMPANY SERVICE (POWER, TELEPHONE, ETC.) TERMINATION POINTS PRIOR TO ROUGH-IN. PROVIDE CONDUIT AS REQUIRED TO ACCOMMODATE ALL UTILITY COMPANY SERVICES. REPORT ANY CONFLICTING CONDITIONS TO THE ARCHITECT.
5. EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE PER NEC 408.4(A).
6. ALL MATERIALS USED IN THIS INSTALLATION SHALL BE U.L. APPROVED AND NEW.
7. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOF, ETC.
8. DETAILS ARE SHOWN ON DIFFERENT SHEETS. THE CONTRACTOR SHALL REFER TO THOSE DETAILS WHETHER OR NOT CALLED IN REFERENCE NOTES.
9. ELECTRICAL CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO DUCTS, PIPING, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER, OR PASS THROUGH ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
10. NO WIRING SHALL RUN IN DUCT WORK.
11. THE MINIMUM SIZE OF THE CONDUCTORS ARE TO BE #12 AWG THHN COPPER, UNLESS INDICATED OTHERWISE ON THE DRAWINGS. STRANDED CONDUCTORS ARE NOT ALLOWED IN THE CONDUCTORS SMALLER THAN #10 AWG.
12. USE EPOXY ANCHORS TO SUPPORT THE ELECTRICAL EQUIPMENT. EXPANSION ANCHOR BOLTS ARE NOT ACCEPTED.
13. THE ELECTRICAL CONTRACTOR SHALL REVIEW AND COORDINATE WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND OTHER DRAWINGS PRIOR TO BID.
14. ELECTRICAL CONTRACTOR SHALL REVIEW ALL ARCHITECT'S ELEVATIONS, SECTIONS, AND FLOOR PLANS PRIOR TO ROUGH-IN OF ELECTRICAL JUNCTION BOXES.
15. ALL JUNCTION BOXES SHALL HAVE MINIMUM DEPTH OF 2-1/8" UNLESS OTHERWISE SPECIFIED. SECURE ALL JUNCTION BOXES AS SHOWN IN THE DETAILS. FURNISH AND INSTALL PROPER PLASTER RINGS.
16. REFER TO ARCHITECTURAL CABINET CASEWORK ELEVATION DRAWINGS FOR CLARIFICATION ON MOUNTING AND PLACEMENT OF ALL RACEWAY, RECEPTABLES, AND SWITCHES.
17. MANY DEVICE MOUNTING LOCATIONS ARE DEPENDENT ON MILLWORK LOCATIONS. COORDINATE ALL APPLICABLE LOCATIONS WITH MILLWORK INSTALLER PRIOR TO BEGINNING WORK.

18. LIGHT SWITCHES INSTALLED ADJACENT TO EACH OTHER, SHALL BE GANGED TOGETHER WITH ONE PIECE COVER PLATE.
19. ALL WALL MOUNTED MOTION SENSORS SHALL BE A DUAL TECHNOLOGY MOTION SENSOR WITH INTEGRAL OVERRIDE SWITCH. MOTION SENSOR TO MOUNT IN A STANDARD SWITCH BOX. MOTION SENSOR TO HAVE A FIFTEEN MINUTE TIME DELAY SET AT TEN MINUTES TO SENSOR SET TO MANUAL ON. USE HUBBELL, SENSOR SWITCH, LEVITON, OR APPROVED EQUAL.
20. CONSULT ARCHITECTS REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHTING FIXTURES, SMOKE DETECTORS, ETC.
21. ELECTRICAL CONTRACTOR SHALL MEET WITH THE CEILING AND MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, CEILING TYPES, AND ROUGH-IN REQUIREMENTS OF ALL LIGHTING FIXTURES PRIOR TO DUCT, PIPING, AND CEILING INSTALLATIONS.
22. ALL CEILING MOUNTED MOTION SENSORS SHALL BE A DUAL TECHNOLOGY MOTION SENSOR WITH POWER PACK AS REQUIRED TO CONTROL LIGHTING. MOTION SENSOR TO HAVE A FIFTEEN MINUTE DELAY SET AT TEN MINUTES TO SENSOR SET TO MANUAL ON. CONTRACTOR TO SUBMIT FLOOR PLAN TO MOTION SENSOR SUPPLIER FOR FACTORY TO LOCATE MOTION SENSOR FOR OPTIMAL PERFORMANCE TO AVOID NUISANCE SHUT OFF OF LIGHTING. MANUFACTURERS LAYOUT PLAN TO BE PART OF SUBMITTALS. PROVIDE SUFFICIENT BOX DEPTH AND CORRECT PLASTER RING TO ACCOMMODATE ACTUAL RELAY UNIT AND OCCUPANCY SENSOR INSTALLED. PROVIDE PROPER SEPARATION OF 120 VOLT CUG CONNECTIONS AS NECESSARY IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE. USE HUBBELL, SENSOR SWITCH, LEVITON OR APPROVED EQUAL.
23. CONNECT ALL EM FIXTURES, NIGHT LIGHTS, EGRESS LIGHTS, AND EXIT SIGNS TO UNSWITCHED CONDUCTOR.
24. THE ELECTRICAL CONTRACTOR SHALL TERMINATE THE ELECTRICAL CONNECTIONS TO ALL THE EQUIPMENT BY PROVIDING THE NECESSARY MALE/FEMALE CONNECTOR, RECEPTACLE, PLUG, ETC.
25. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED WIRING DIAGRAMS AND DETAILS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED UNDER OTHER DIVISIONS WITH APPROVED SHOP DRAWINGS PRIOR TO BEGINNING ROUGH-IN.
26. VERIFY EXACT LOCATION(S) OF ALL EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
27. AT THE END OF THE JOB, PROVIDE BLANK COVER PLATES TO MATCH THE OTHER COVER PLATES FOR ALL JUNCTION BOXES WHERE DEVICES HAVE NOT YET BEEN INSTALLED.
28. ALL PANELBOARDS SHALL BE PERMANENTLY MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THE POWER ORIGINATES. PER NEC 408.4(b).
29. EACH DISCONNECTING MEANS SHALL BE LEGIBLY MARKED TO INDICATE ITS PURPOSE UNLESS LOCATED AND ARRANGED SO THE PURPOSE IS EVIDENT. PER NEC 110.22
30. SEISMIC BRACING REQUIREMENTS SHALL FOLLOW ASCE 7-16.

SYMBOL	EXPLANATION	SYMBOL	EXPLANATION	SYMBOL	EXPLANATION
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL	F1	FIXTURE TYPE SYMBOL		TAMPER AND FLOW
	BRANCH CIRCUIT CONCEALED IN GROUND OR FLOOR		LINEAR FIXTURE (TYPICAL)		FIRE ALARM CONTROL PANEL
	BRANCH CIRCUIT HOMERUNS TO PANEL		EMERGENCY LIGHTING UNIT		REMOTE FIRE ALARM ANNUNCIATOR PANEL
	ROOM NUMBER		SURFACE OR PENDANT MOUNTED FIXTURE		FIRE ALARM NAC PANEL
	MECHANICAL EQUIPMENT SYMBOL		RECESSED FIXTURE		FIRE ALARM VOICE PANEL
	KEYED NOTE REFERENCE		WALL MOUNTED FIXTURE		DOOR HOLDER
	FEEDER TAG (SEE FEEDER SCHEDULE)		WALL PACK		FIRE/SMOKE DAMPER
	LIGHTING AND POWER PANELBOARD		STRIP FIXTURE		FIRE ALARM PULL STATION
	DISCONNECT SWITCH		TRACK LIGHTING		FIRE ALARM STROBE
	DISCONNECT SWITCH WITH MOTOR STARTER		EMERGENCY LIGHTING UNIT		FIRE ALARM HORN/STROBE
	MOTOR STARTER		WALL MOUNTED EXIT LIGHT (SINGLE FACE)		FIRE ALARM HORN/STROBE (LF = LOW FREQUENCY)
	VARIABLE FREQUENCY DRIVE		WALL MOUNTED EXIT LIGHT (DOUBLE FACE)		FIRE ALARM HORN/STROBE WITH PROTECTIVE COVER
	CONDUIT STUB		CEILING MOUNTED EXIT LIGHT (SINGLE FACE)		FIRE ALARM SPEAKER/STROBE
	JUNCTION BOX		CEILING MOUNTED EXIT LIGHT (DOUBLE FACE)		FIRE ALARM SPEAKER/STROBE (LF = LOW FREQUENCY)
	ELECTRIC VEHICLE CHARGING STATION (EVSE)		EXIT LIGHT WITH PROTECTIVE COVER		FIRE ALARM SPEAKER
	SINGLE POLE SWITCH (SUBSCRIPT AS INDICATED BELOW)		SINGLE POLE SWITCH (SUBSCRIPT AS INDICATED BELOW)		FIRE ALARM SPEAKER (LF = LOW FREQUENCY)
	SIMPLEX RECEPTACLE OUTLET		DOUBLE GANG SWITCH		SMOKE DETECTOR (SUBSCRIPT AS INDICATED BELOW)
	DUPLEX RECEPTACLE OUTLET		LOW VOLTAGE MULTI BUTTON CONTROL SWITCH (LETTER INDICATES CONTROL OF CORRESPONDING FIXTURES)		SMOKE ALARM BATTERY-BACKED
	QUAD RECEPTACLE OUTLET		CONTROLLING SWITCH (LETTER INDICATES CONTROL OF CORRESPONDING FIXTURES)		SMOKE/CARBON MONOXIDE ALARM COMBO BATTERY-BACKED
	SPLIT WIRED DUPLEX RECEPTACLE OUTLET		OCCUPANCY SENSOR (CEILING MOUNTED)		SMOKE/CARBON MONOXIDE DETECTOR WITH LOW FREQUENCY SOUNDER BASE
	220V RECEPTACLE OUTLET		DUAL TECHNOLOGY OCCUPANCY SENSOR (CEILING MOUNTED)		DUCT SMOKE DETECTOR
	ISOLATED GROUND RECEPTACLE OUTLET		ROOM CONTROLLER		SMOKE DETECTOR WITH ADDRESSABLE RELAY
	SPECIAL RECEPTACLE OUTLET		DAYLIGHT SENSOR		SMOKE DETECTOR WITH LOW FREQUENCY SOUNDER BASE
	THERMOSTAT OUTLET		PHOTOCELL		HEAT DETECTOR
	REMOTE SENSOR OUTLET		VOLUME CONTROL		GAS DETECTOR
	COMPUTER DATA OUTLET (#) INDICATES JACK QUANTITIES		WALL SPEAKER		CARBON MONOXIDE DETECTOR
	NETWORK AND VOICE OUTLET		CEILING SPEAKER		CARBON MONOXIDE/NITROGEN DIOXIDE SENSOR (GARAGE)
	WIRELESS ACCESS POINT CEILING MOUNTED		SURVEILLANCE CAMERA		ADA TWO-WAY COMMUNICATIONS SYSTEM
	TELEVISION OUTLET		SURVEILLANCE DIGITAL VIDEO RECORDER		ACCESS CONTROL KEY PAD
	MOTOR OUTLET		NURSE CALL ANNUNCIATOR PANEL		ACCESS CONTROL CARD READER
	EXHAUST FAN		NURSE CALL EMERGENCY CALL DEVICE		ACCESS CONTROL DOOR STRIKE
	FLOOR MOUNTED DEVICE		NURSE CALL EMERGENCY CALL LIGHT		ACCESS CONTROL MAG LOCK
	CEILING MOUNTED DEVICE				ACCESS CONTROL DOOR SENSOR
					ACCESS CONTROL REQUEST TO EXIT
					PUSHBUTTON
					BELL

NOTE: ALL SYMBOLS MAY NOT BE USED.

#	NUMBER	DC	DIRECT CURRENT	KW	KILOWATT	PT	POTENTIAL TRANSFORMER
Φ	PHASE	DISP	DISPOSAL	LR	LOCKED ROTOR AMPS	PV	PHOTOVOLTAIC
1Φ	SINGLE PHASE	DW	DRY	LIT	LIGHTING	PVC	POLYVINYL CHLORIDE
2Φ	TWO-POLE	DW	DISHWASHER	MATV	MASTER ANTENNA TELEVISION	(R)	RELOCATE
3Φ	THREE PHASE	DWG	DRAWING	MAX	MAXIMUM	REC	RECEPTACLE
4C	FOUR-POLE	EC	EMPTY CONDUIT	MCB	MAIN BUS	REF	REFRIGERATOR
AC	ALTERNATING CURRENT	EM	EMERGENCY	MCB	MAIN CIRCUIT BREAKER	REQ	REQUIRED
AFB	ABOVE FINISHED FLOOR	ENG	ENGINEERING GENERATOR	MCA	MOTOR CONTROL CENTER	RAT	RATED LOAD AMPS
AFG	ABOVE FINISHED GRADE	EMT	ELECTRICAL METALLIC TUBING	MCM	1000 CIRCULAR MILLS	RMS	ROOT MEAN SQUARE
AFP	ARC FAULT PROTECTOR	EPO	EMERGENCY POWER OFF	MH	MANHOLE	SE	SERVICE ENTRANCE
AHJ	AUTHORITY HAVING JURISDICTION	EW	ELECTRIC WATER COOLER	MC	MICROPHONE	SPD	SURGE PROTECTION DEVICE
AIC	AIR INTERRUPTING CURRENT (SYMMETRICAL)	EW	ELECTRIC WALL HEATER	MIN	MINIMUM	SPEC	SPECIFICATION
AL	ALUMINUM	(E)	EXISTING	MLO	MAIN LUGS ONLY	SPK	SPEAKER
AM	AMPS METER	(F)	FUTURE	MNF	MANUFACTURER	SS	SELECTOR SWITCH
AMP	AMPERE	FA	FIRE ALARM	MNT	MOUNTING	SW	SWITCH
ANN	ANNUNCIATOR	FACP	FIRE ALARM CONTROL PANEL	MTR	MOTOR	SWBD	SWITCHBOARD
ATS	AUTOMATIC TRANSFER SWITCH	FC	FOOT CANDLE	MW	MICROWAVE	SWGR	SWITCHGEAR
AUX	AUXILIARY	FLA	FULL LOAD AMPS	(N)	NEW	TB	TELEPHONE TERMINAL BOARD
AWG	AMERICAN WIRE GAUGE	FT	FOOT	N/A	NOT APPLICABLE	TBC	TELEPHONE TERMINAL CABINET
BC	BARE COPPER	FRZ	FREEZER	NC	NORMALLY CLOSED	TV	TELEVISION
BFC	BELOW FINISHED GRADE	FS	FUSED SWITCH	NEC	NATIONAL ELECTRICAL CODE	TYP	TYPICAL
C	CONDUIT	GFAF	DUAL FUNCTION GFCI/AFCI CIRCUIT BREAKER	NEMA	NATIONAL MANUFACTURING ASSOCIATION	UG	UNDERGROUND
CAB	CABINET	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	NFC	NATIONAL FIRE CODE	UNO	UNLESS NOTED OTHERWISE
CATV	COMMUNITY ANTENNA TELEVISION	GFP	GROUND-FAULT EQUIPMENT PROTECTION	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	UPS	UNINTERRUPTIBLE POWER SUPPLY
CAV	CABLE TELEVISION	GFP	GROUND FAULT PROTECTOR	NF	NON FUSED SWITCH	V	VOLT-(KV-KILOVOLT)
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	GRC	GALVANIZED RIGID CONDUIT	NIC	NOT IN CONTRACT	V/A	VOLT-AMPS/REACTIVE
CKT	CIRCUIT	GRD	GROUND	NL	NIGHT LIGHT	VM	VOLT METER
CLG	CEILING	HP	HORSE POWER	NO	NORMALLY OPEN	W	WATTS
CONTR	CONTRACTOR	HZ	HERTZ	NTS	NOT TO SCALE	W/	WITH
CO	COMMUNICATIVE OUTLET	IG	ISOLATED GROUND	OF	OWNER FURNISHED CONTRACTOR INSTALLED	WASH	WASHER
CR	COMPUTER TERMINAL	IMC	INTERMEDIATE METALLIC CONDUIT	OF	OWNER FURNISHED OWNER INSTALLED	WH	WATHOOR
CT	CURRENT TRANSFORMER	IN	INCH	OS&Y	OUTSIDE SCREW AND YOKE	W/O	WITHOUT
CU	COPPER	J-BOX	JUNCTION BOX	PF	PUSH BUTTON	WP	WEATHER PROOF
C/W	CONDUIT WITH	KV	KILOVOLT	PF	POWER FACTOR	WFR	WATER TRANSFORMER
(D)	DEMOLISH/DELETE	KVA	KILOVOLT AMPERES	FR	PHASE FAILURE RELAY	WFR-SW	TRANSFORMER SWITCH
DB	DECIBEL	KVAR	KILOVARS	PNL	PANEL	XP	EXPLOSION PROOF

NOTE: THIS IS A TYPICAL ABBREVIATION LIST. NOT ALL ABBREVIATIONS MAY BE USED ON THIS PROJECT.

ELECTRICAL ENGINEER:	DEXTON GRAVES
ELECTRICAL TEAM LEAD:	CALVIN BARLOW
ELECTRICAL DESIGNER:	MIKE NIELSON

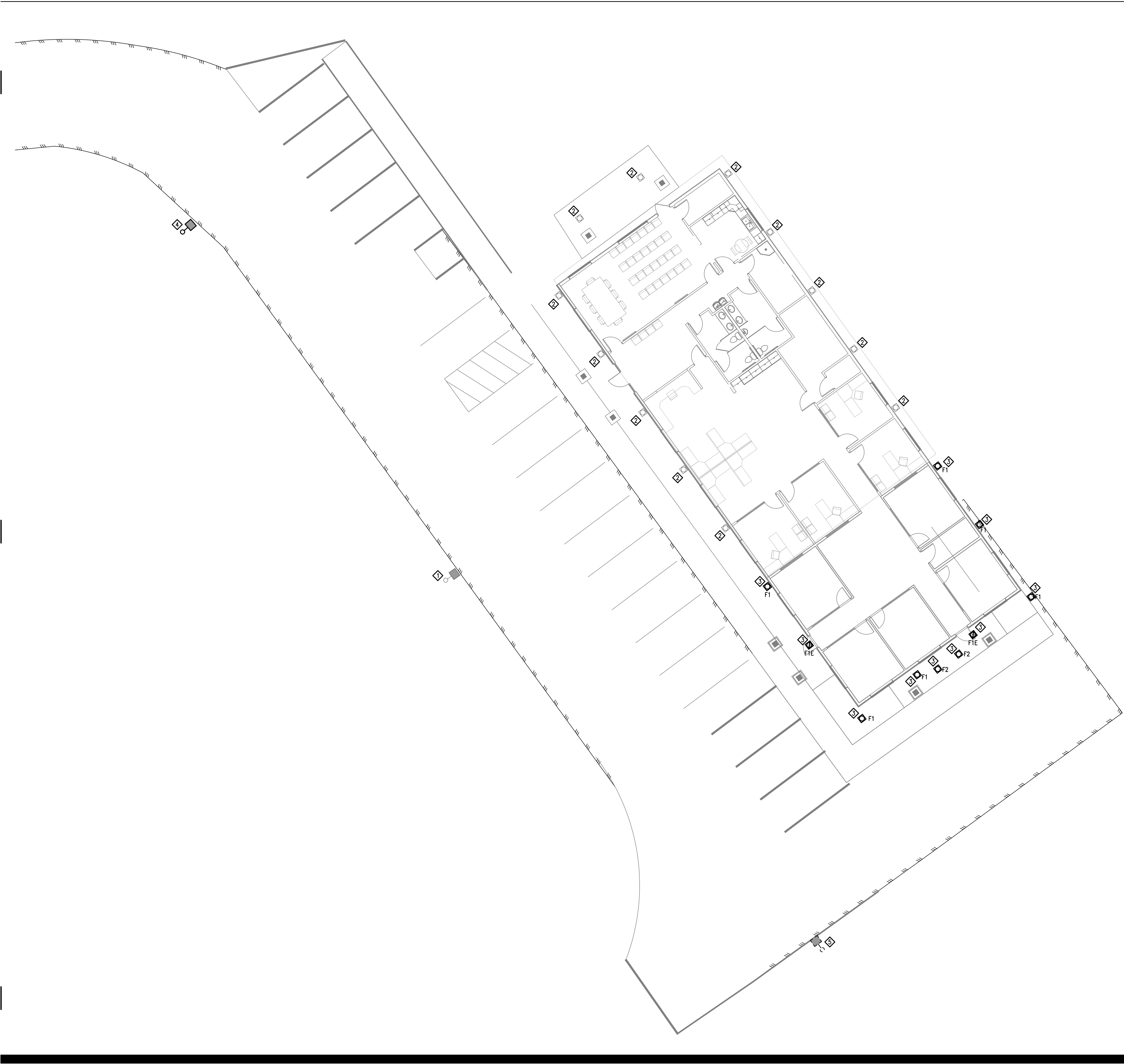
SHEET INDEX	
SHEET NUMBER	SHEET TITLE
E0.0	ELECTRICAL COVER SHEET
E0.1	SITE ELECTRICAL PLAN
E0.2	SITE PHOTOMETRIC PLAN
E1.1	POWER PLAN
E1.2	LIGHTING PLAN
E5.1	ELECTRICAL DETAILS
E5.2	ELECTRICAL DETAILS
E6.1	ELECTRICAL SCHEDULES
E7.1	ELECTRICAL SPECIFICATIONS

C408.3 LIGHTING SYSTEM FUNCTIONAL TESTING. CONTROLS FOR AUTOMATIC LIGHTING SYSTEMS SHALL COMPLY WITH SECTION C408.3.

C408.3.1 FUNCTIONAL TESTING.

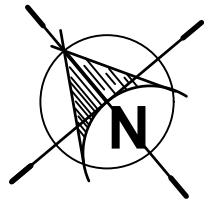
TESTING SHALL ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE CONSTRUCTION DOCUMENTS SHALL STATE THE PARTY WHO WILL CONDUCT THE REQUIRED FUNCTIONAL TESTING, WHERE REQUIRED BY THE CODE OFFICIAL, AN APPROVED PARTY INDEPENDENT FROM THE DESIGN OR CONSTRUCTION OF THE PROJECT SHALL BE RESPONSIBLE FOR THE FUNCTIONAL TESTING AND SHALL PROVIDE WRITTEN NOTIFICATION TO THE CODE OFFICIAL CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET THE PROVISIONS OF SECTION C405. WHERE OCCUPANT SENSORS, TIME SWITCHES, PROGRAMMABLE SCHEDULE CONTROLS, PHOTOSENSORS OR DAYLIGHTING CONTROLS ARE INSTALLED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED:

1. CONFIRM THAT THE PLACEMENT, SENSITIVITY AND TIME-OUT ADJUSTMENTS FOR OCCUPANT SENSORS YIELD ACCEPTABLE PERFORMANCE.
2. CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF.



ELECTRICAL KEYED NOTES:

- ◇ EXISTING POLE LIGHT TO REMAIN.
- ◇ EXISTING RECESSED SOFFIT LIGHT TO REMAIN.
- ◇ SEE LIGHTING PLAN FOR CONTROLS AND CIRCUITING OF NEW LIGHTS.
- ◇ RELOCATE EXISTING POLE TO NEW LOCATION AS SHOWN. PRESERVE CONNECTIONS TO EXISTING BRANCH CIRCUIT AND CONTROLS. EXTEND CONDUCTORS AND CONDUIT AS NECESSARY.
- ◇ EXISTING LIGHT POLE TO BE RELOCATED.



SITE ELECTRICAL PLAN

SCALE: 1" = 10'-0"

CONSULTANT

MECHANICAL, ELECTRICAL
& PLUMBING
1837 S. EAST BAY BLVD.
PROVO, UTAH 84608
PHONE: 801.375.2228
FAX: 801.375.2676

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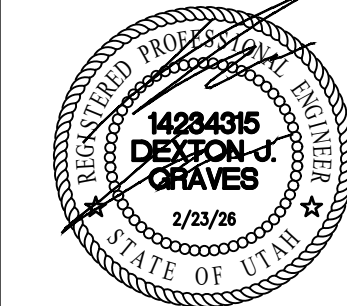
JORDENELLE SPECIAL SERVICE DISTRICT

5360 OLD HWY 40,
HEBER CITY, UT 84032

ISSUED:
JANUARY, 2026

REVISIONS:
NO. DATE DESCRIPTION
1 2-23-2026 EST #1

STAMP



PROJECT NUMBER:
25152

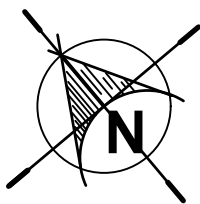
**SITE
ELECTRICAL
PLAN**

E0.1

JZW
ARCHITECTS

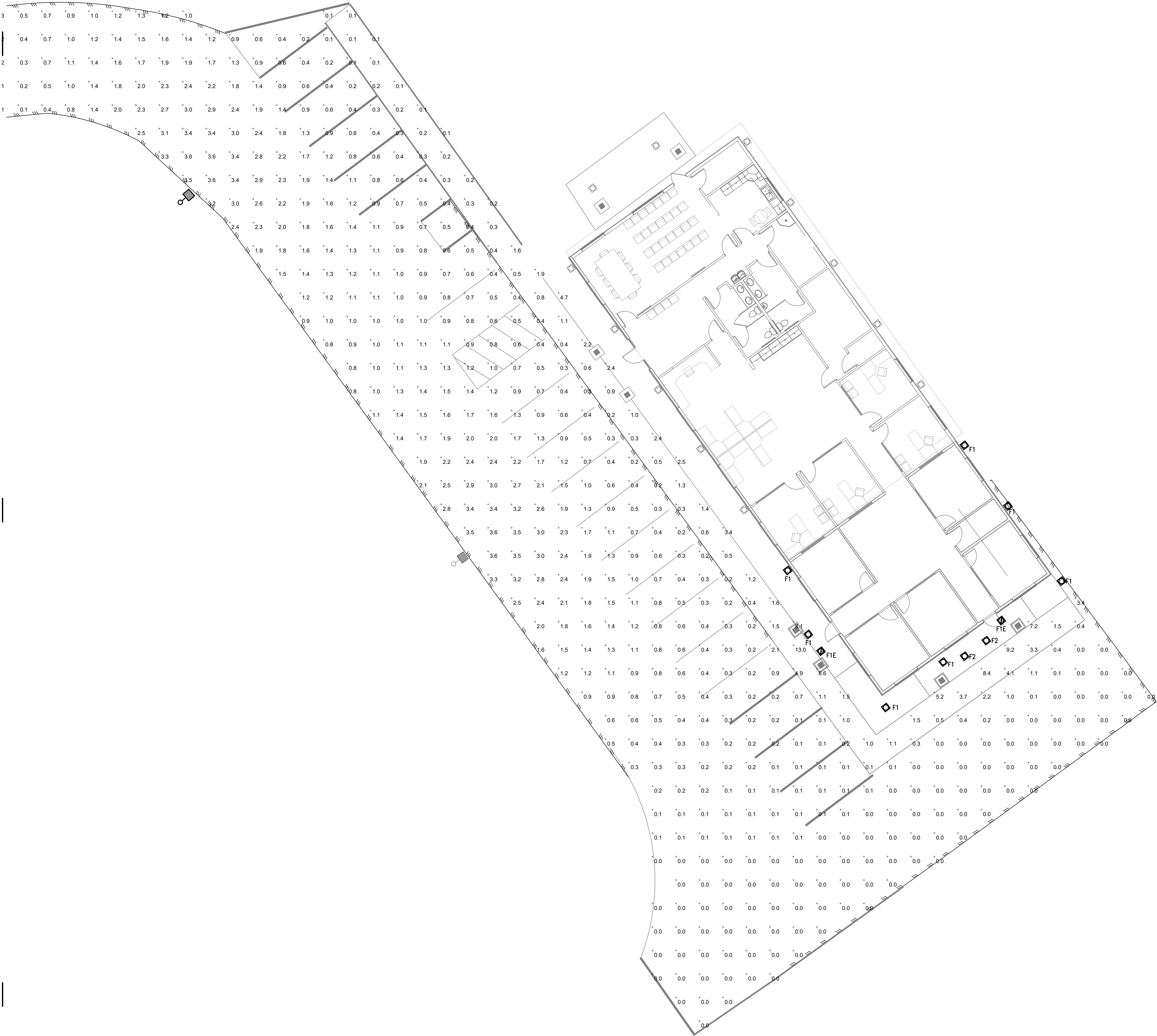
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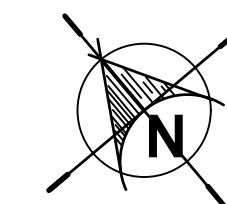
AVERAGE - 1.0 FC
MAXIMUM - 9.3 FC
MINIMUM - 0.0 FC



SITE PHOTOMETRIC PLAN

SCALE: 1" = 10'-0"





ELECTRICAL KEYED NOTES:	
	NEW LOAD CENTER "P2".
	CONNECT NEW CARD READER TO EXISTING SECURITY SYSTEM.
	CONNECT NEW SECURITY CAMERA TO EXISTING SECURITY SYSTEM.
	RELOCATE EXISTING SECURITY CAMERA TO THIS LOCATION. CONFIRM EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.

CONSULTANT

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**PROFESSIONAL
ENGINEERING**

BRN 223265.00 DATE PLOTTED: 02/23/2026

UNPUBLISHED

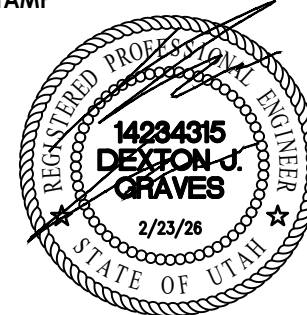
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JORDENELLE SPECIAL SERVICE DISTRICT
5360 OLD HWY 40,
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ISSUED:
JANUARY, 2026

NO.	DATE	DESCRIPTION
1	2-23-2026	ESI #1

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PROJECT NUMBER

25152

POWER PLAN

E1.1

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- ① NEW LOAD CENTER "P2".
- ② CONNECT SOFFIT MOUNTED LIGHTING TO EXISTING EXTERIOR LIGHTING CIRCUIT AND CONTROL RELAY.



**MECHANICAL, ELECTRICAL
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1937 S. EAST BAY BLVD.
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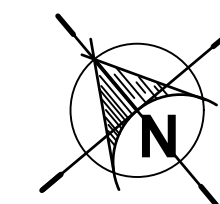
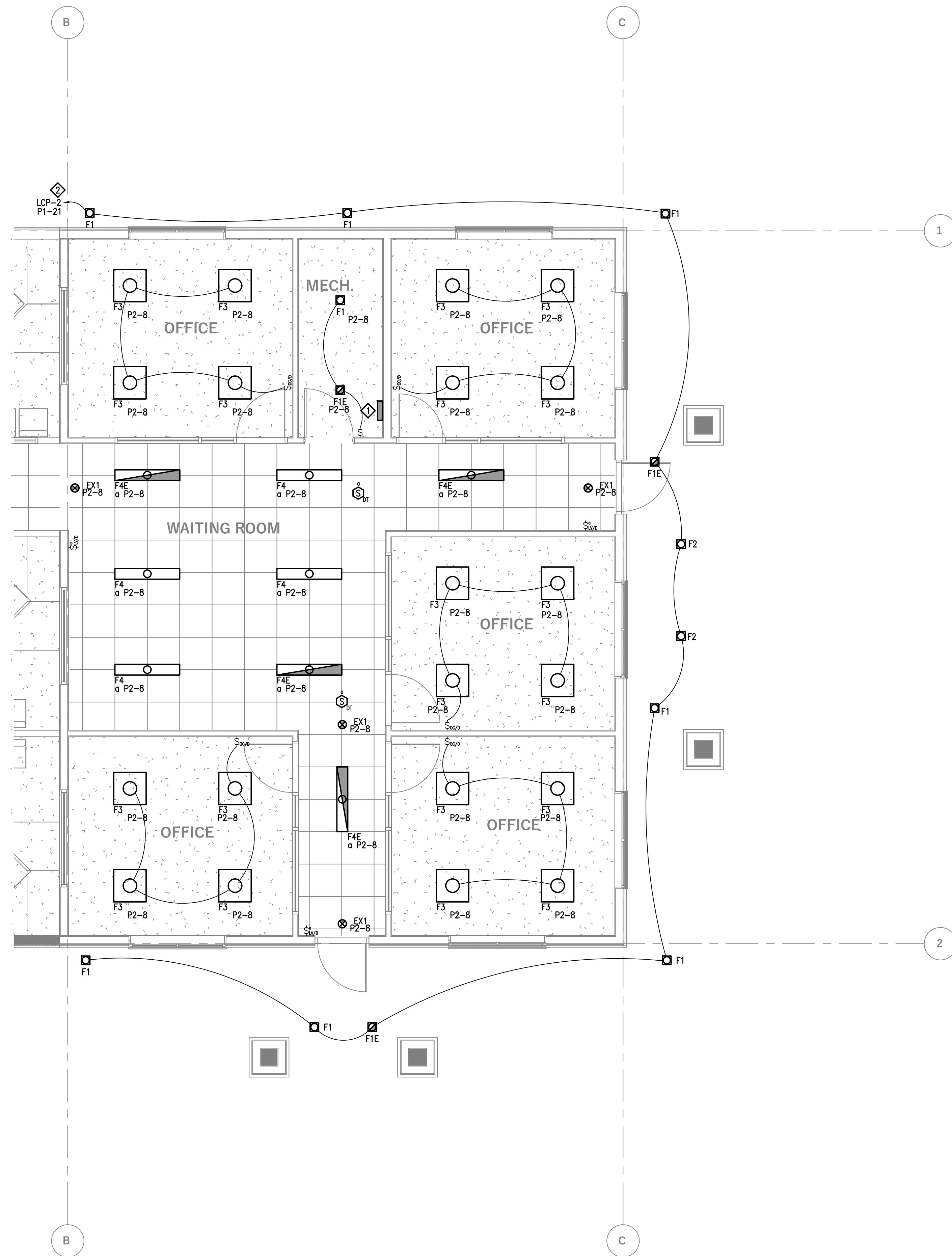
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HEBER CITY, UT 84032

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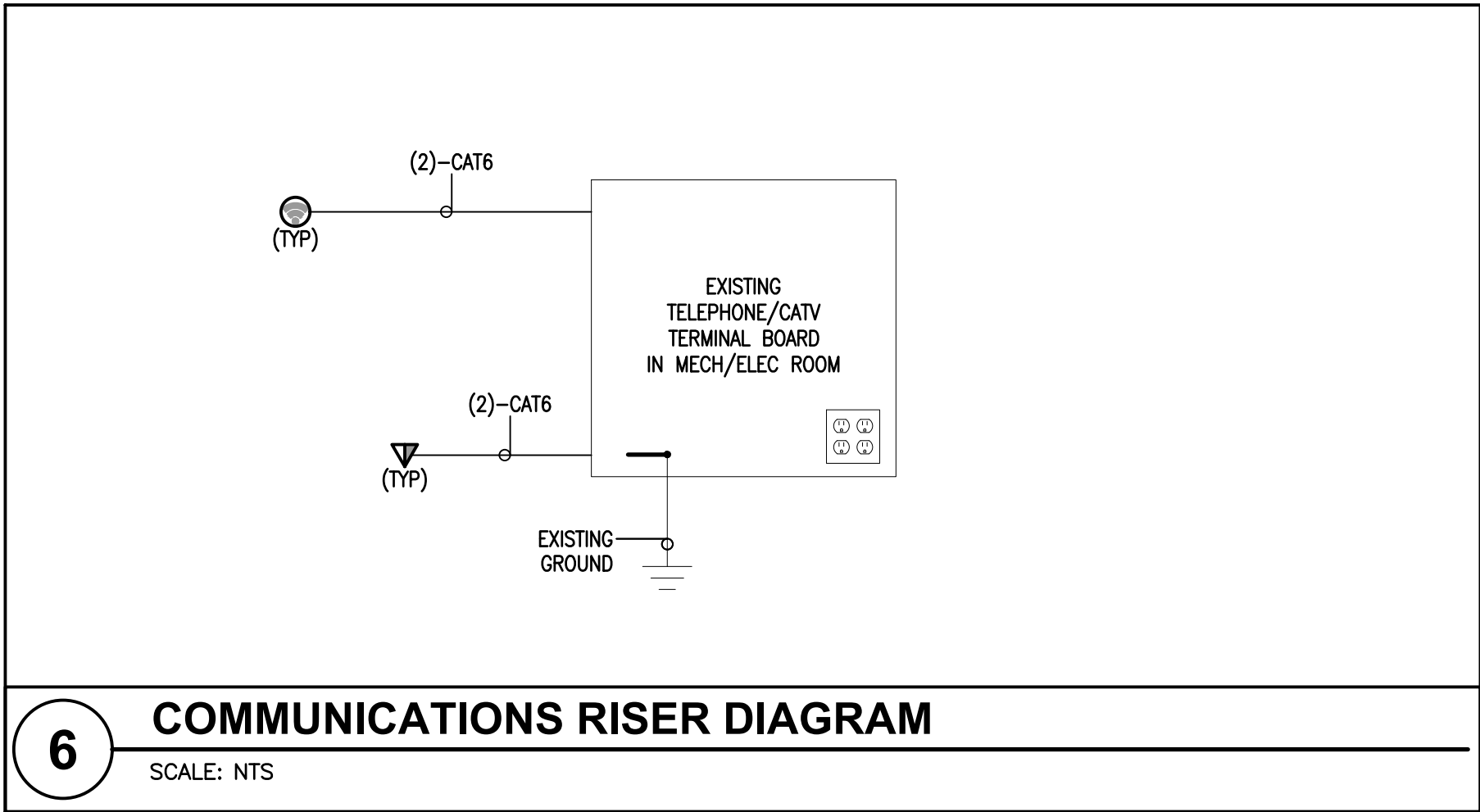
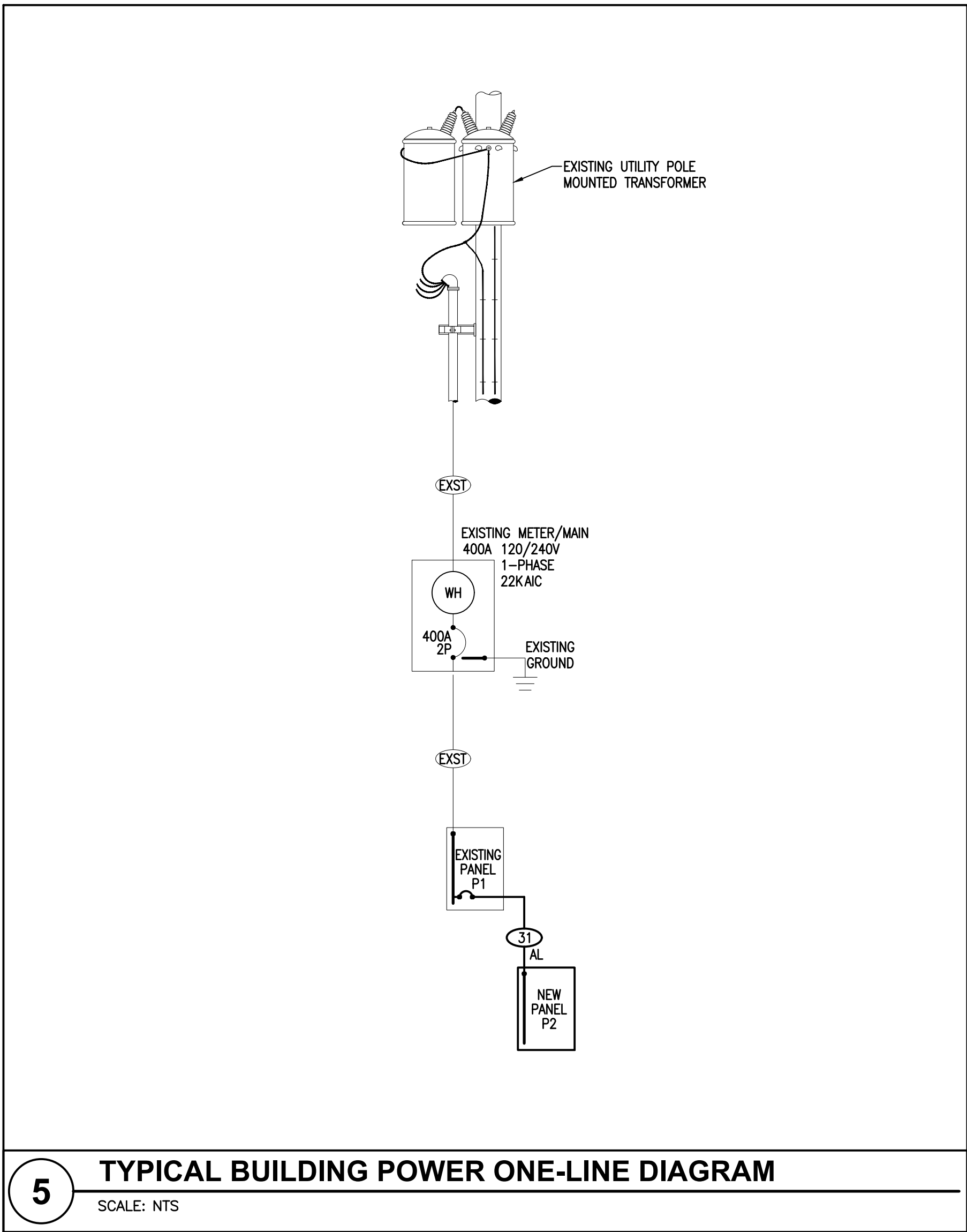
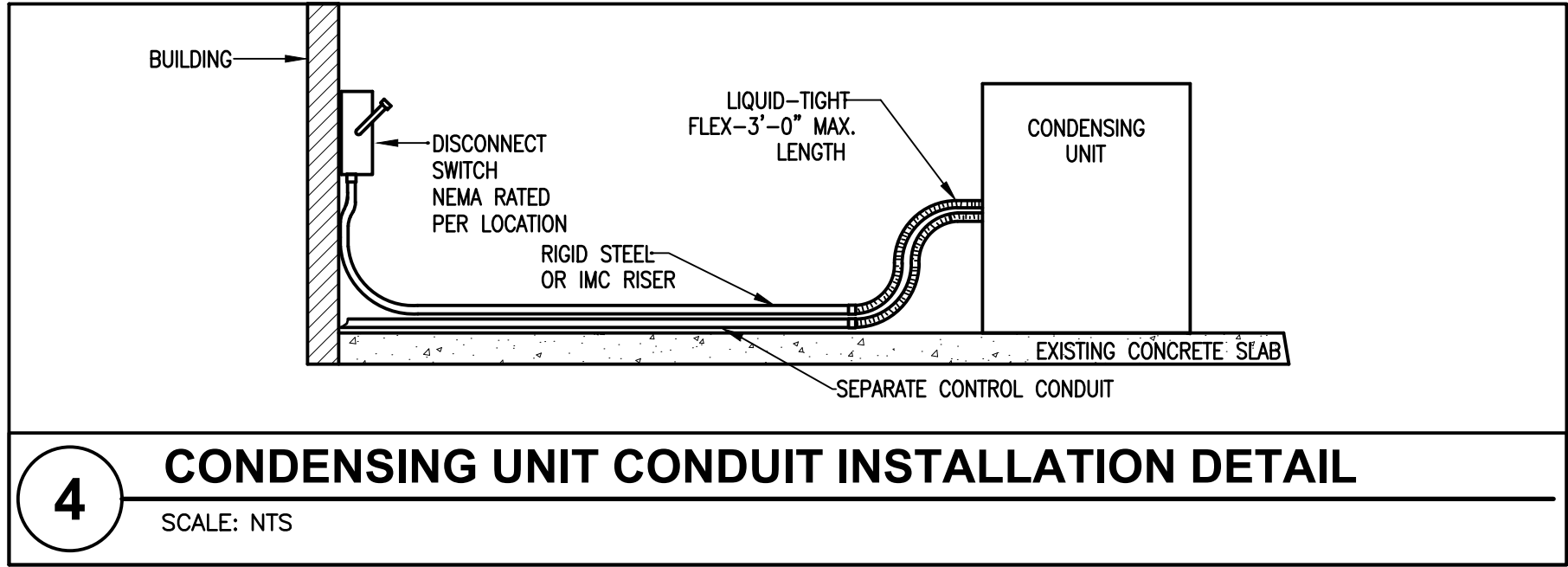
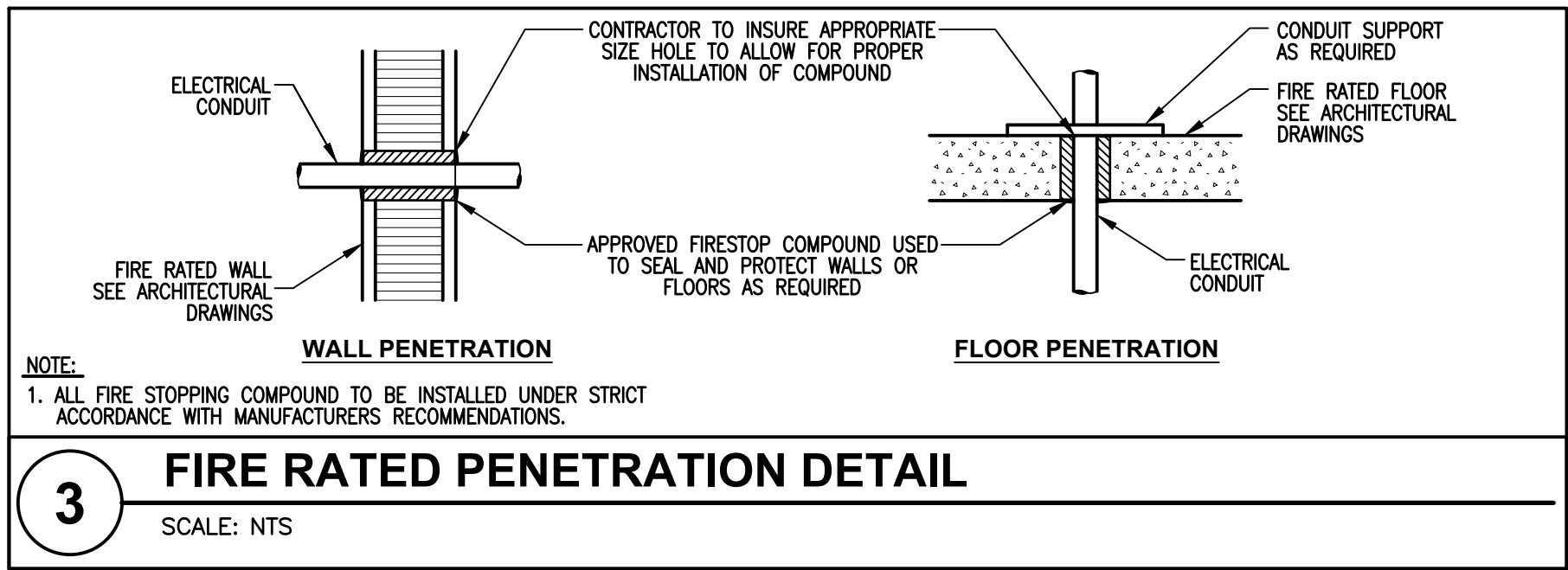
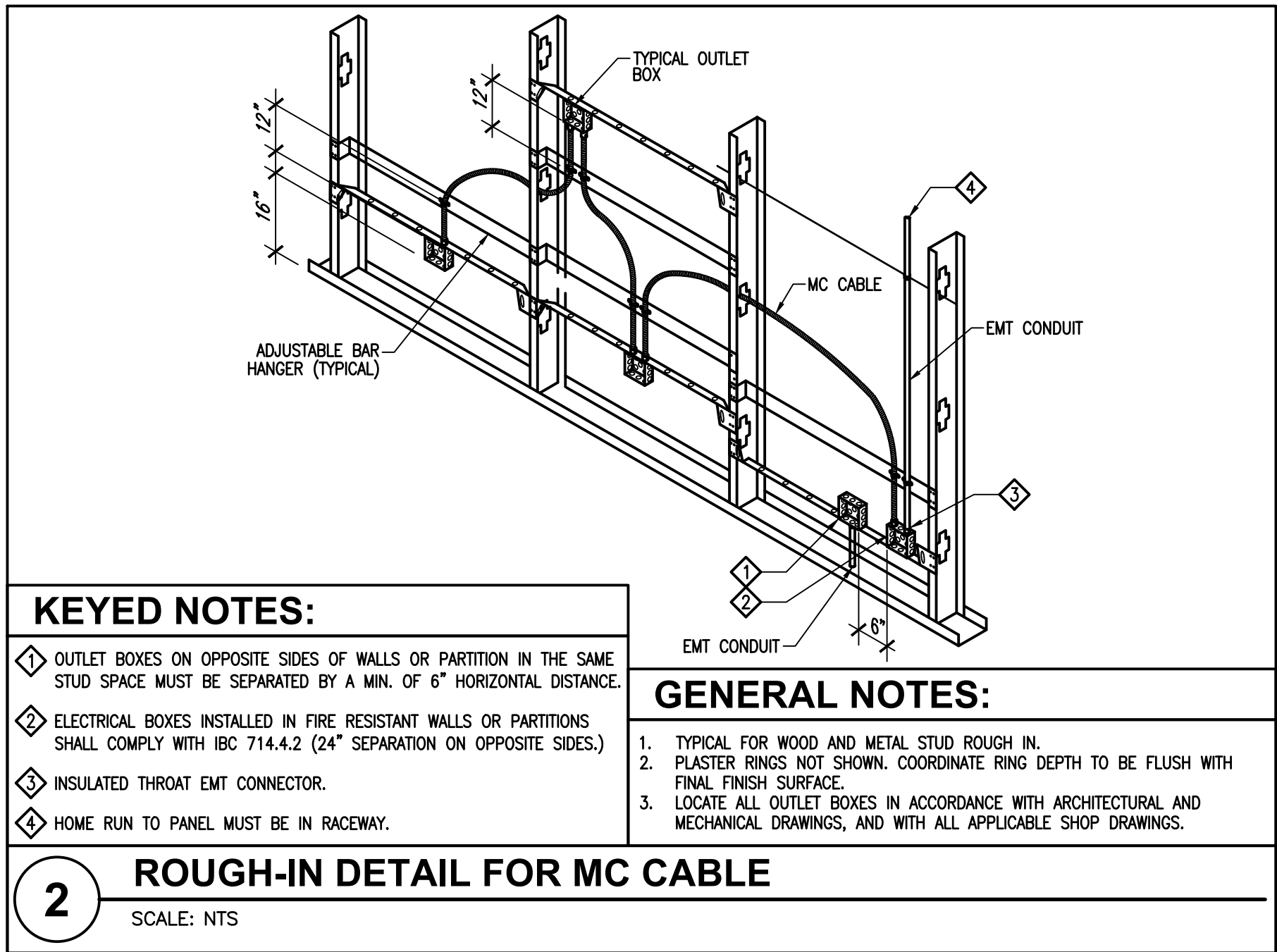
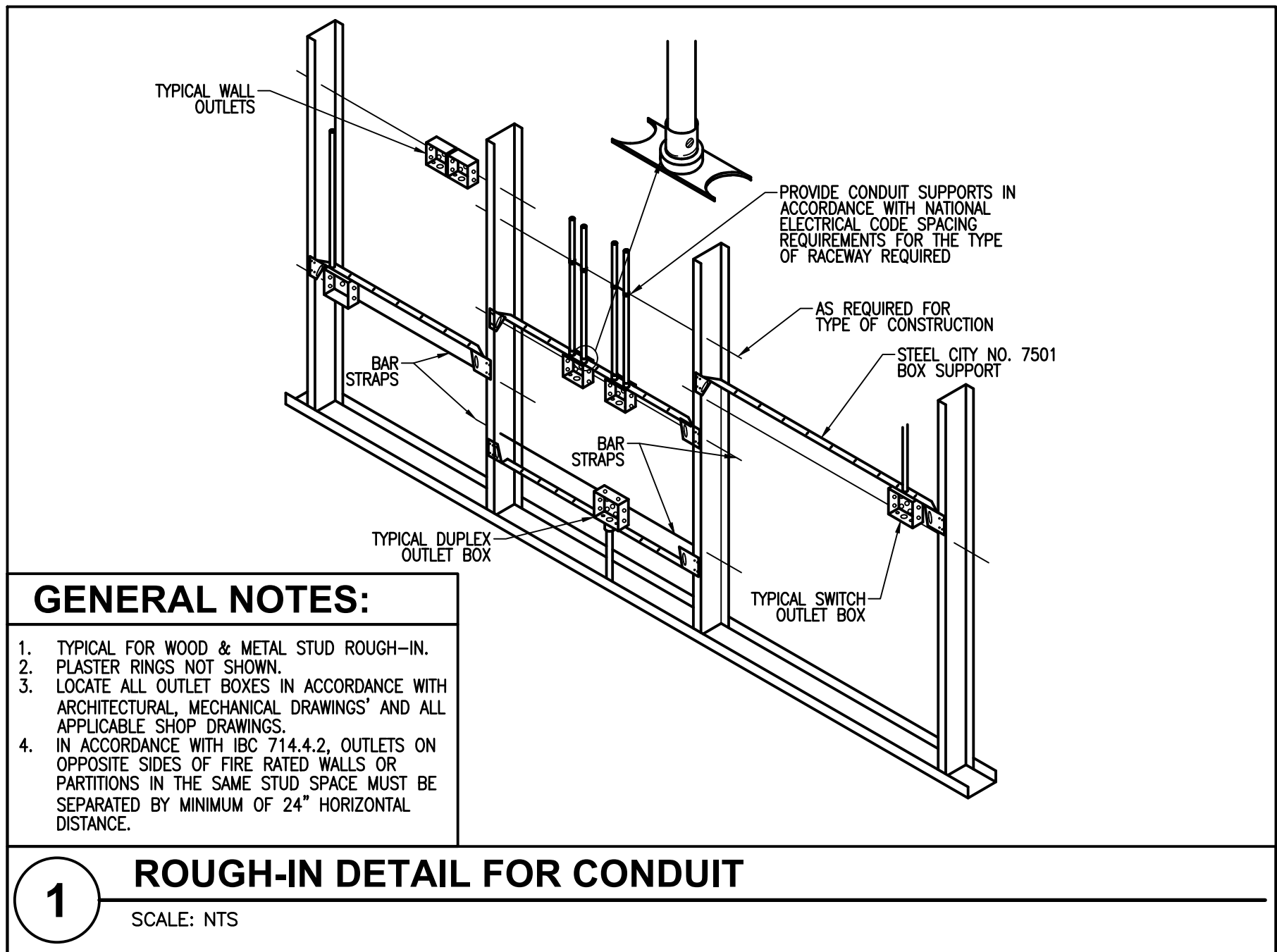
E1.2

JZW
ARCHITECTS

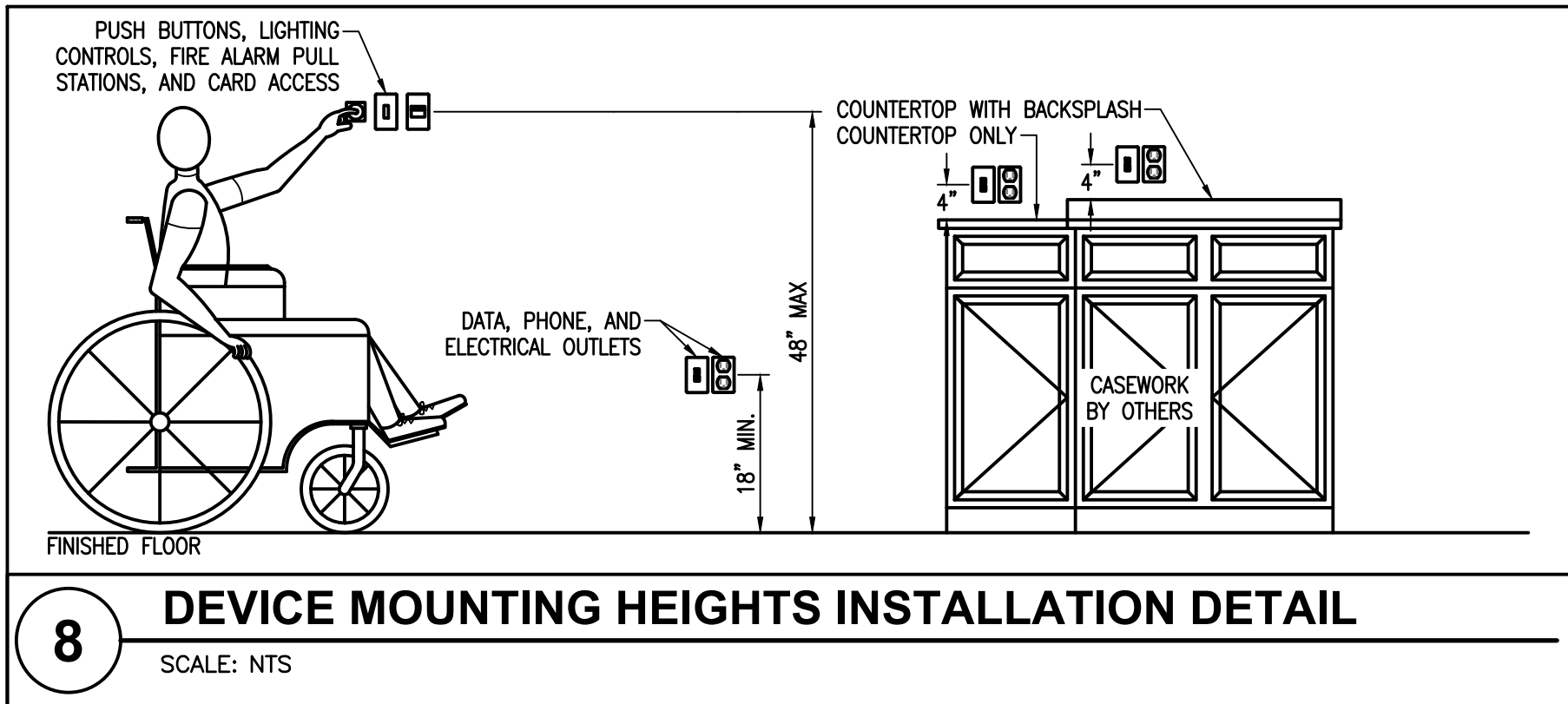
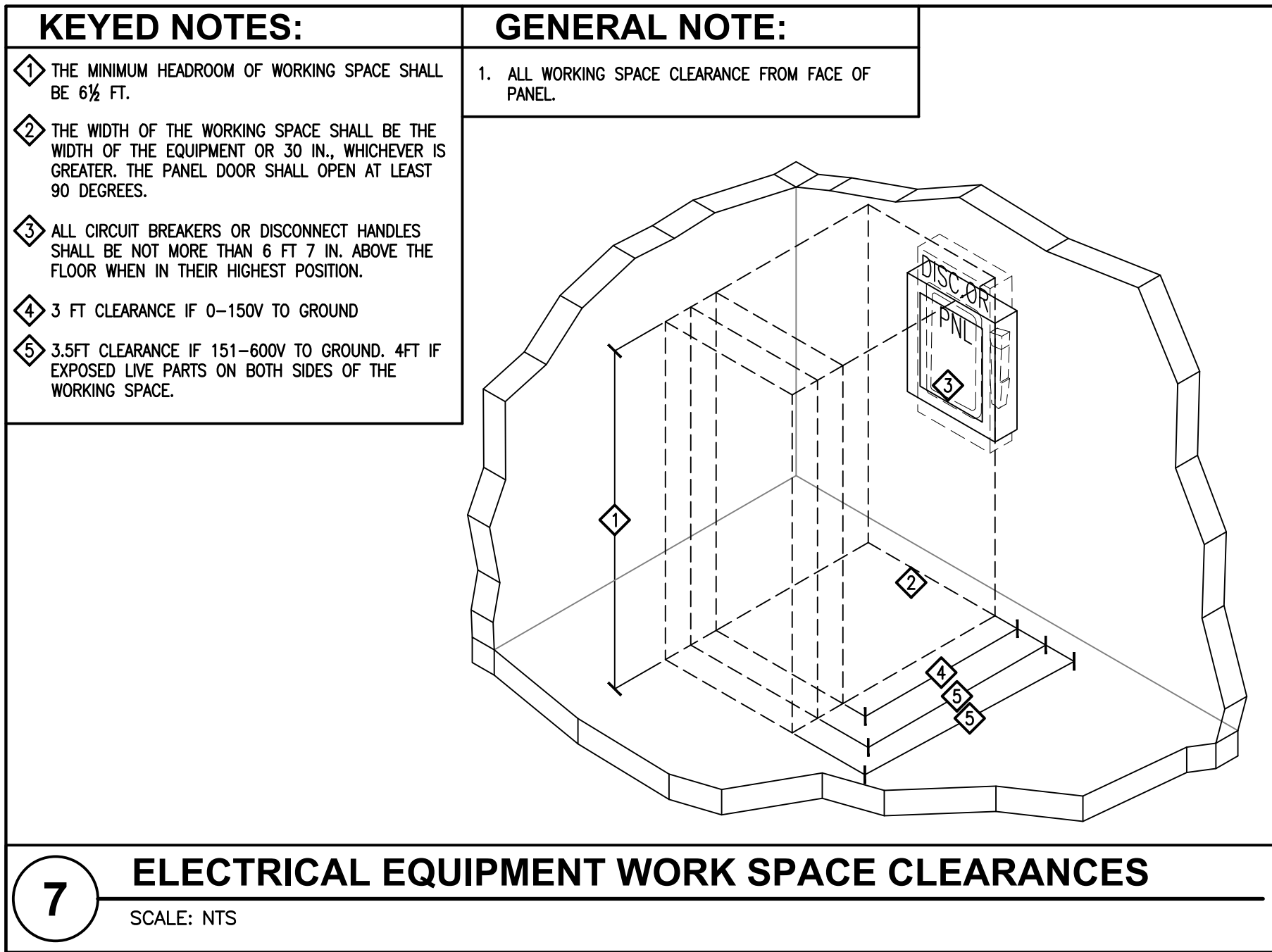


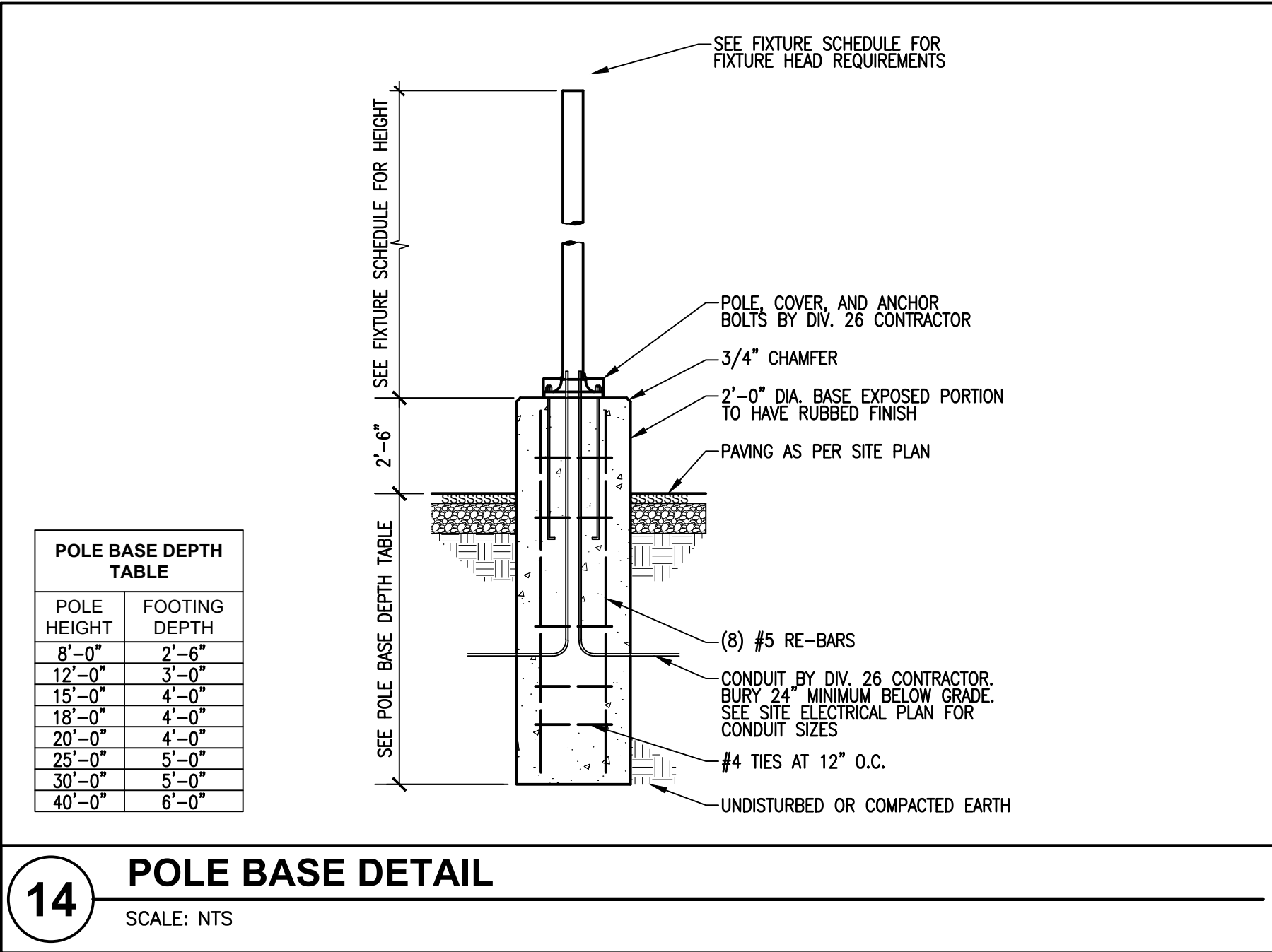
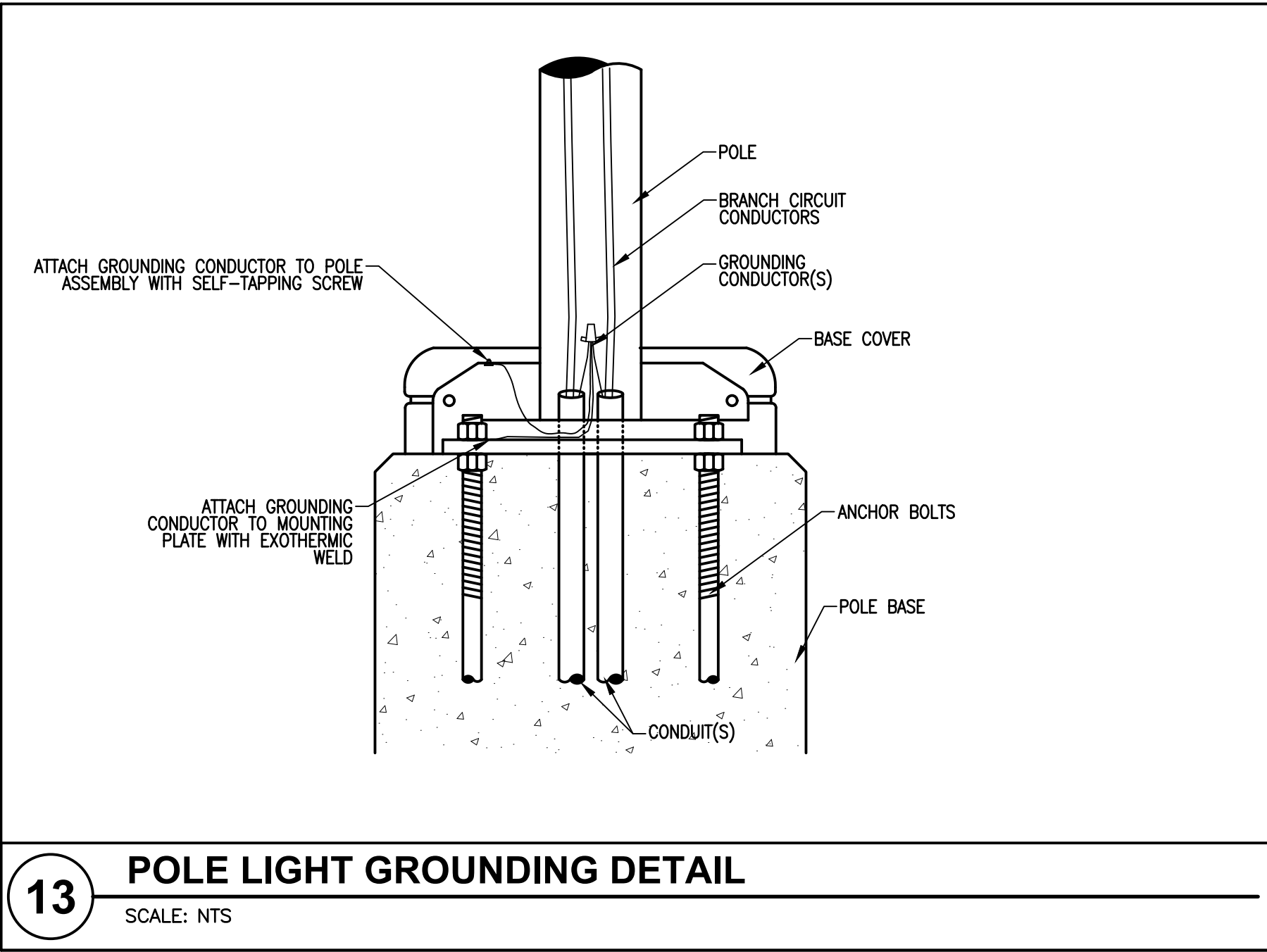
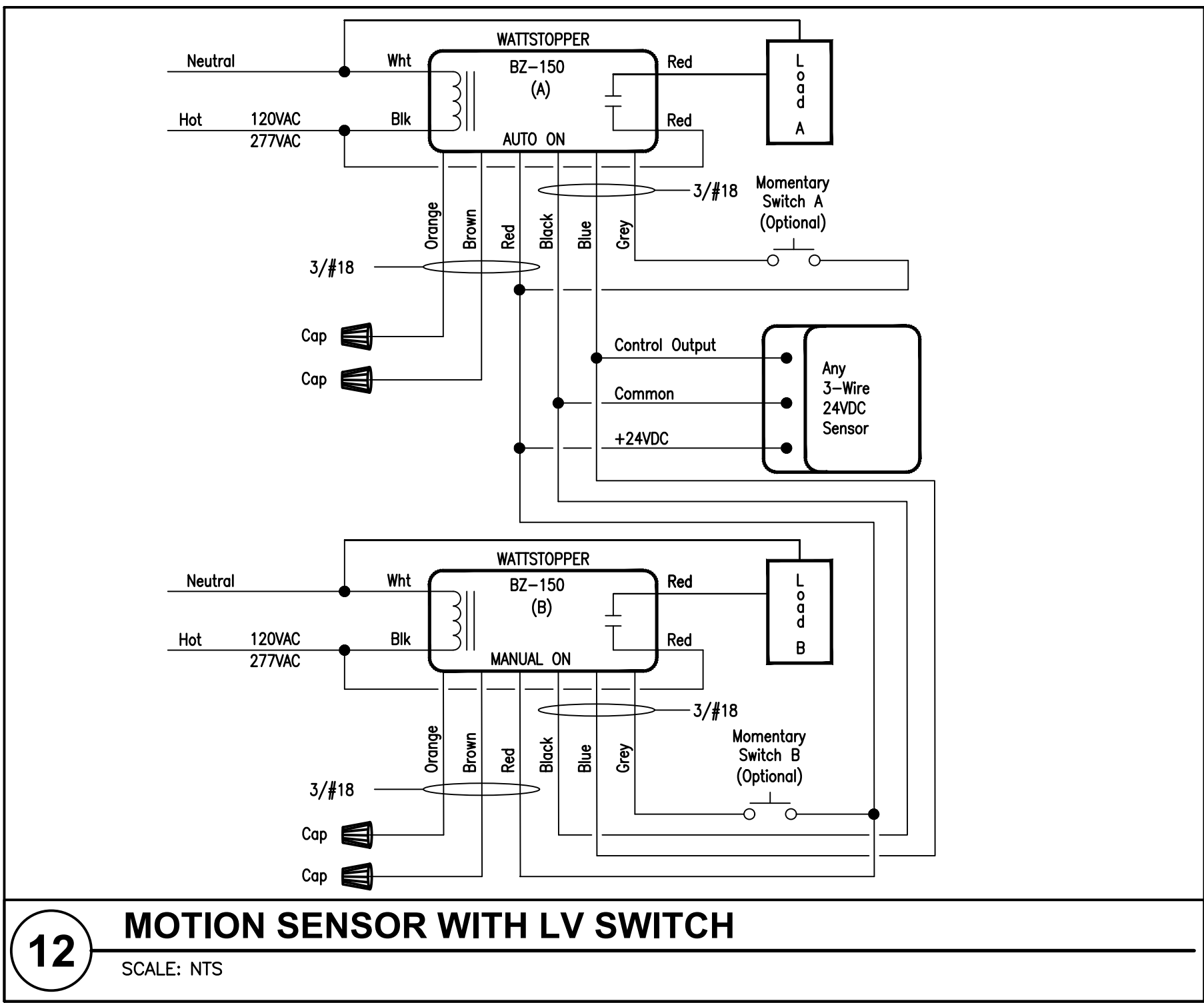
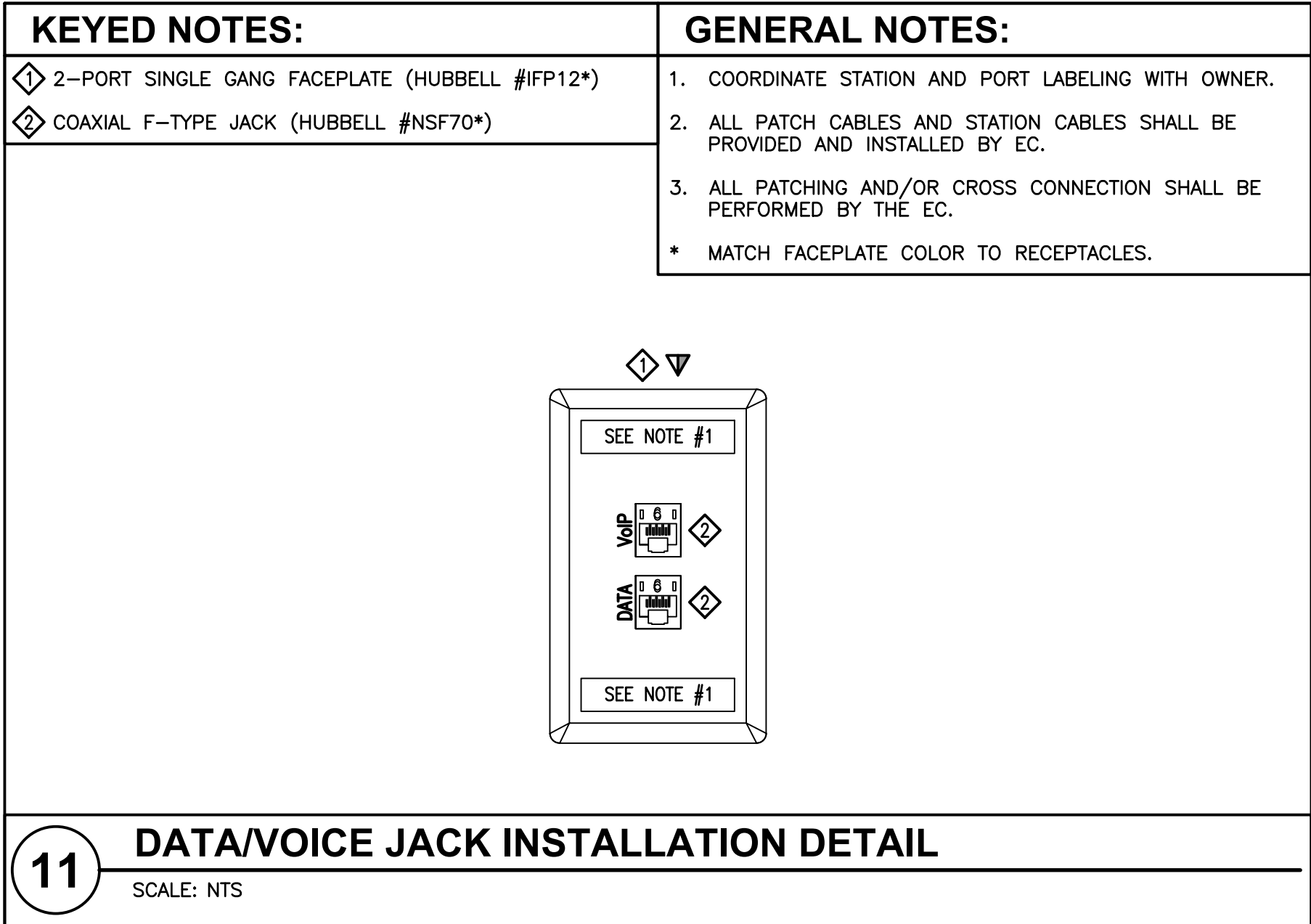
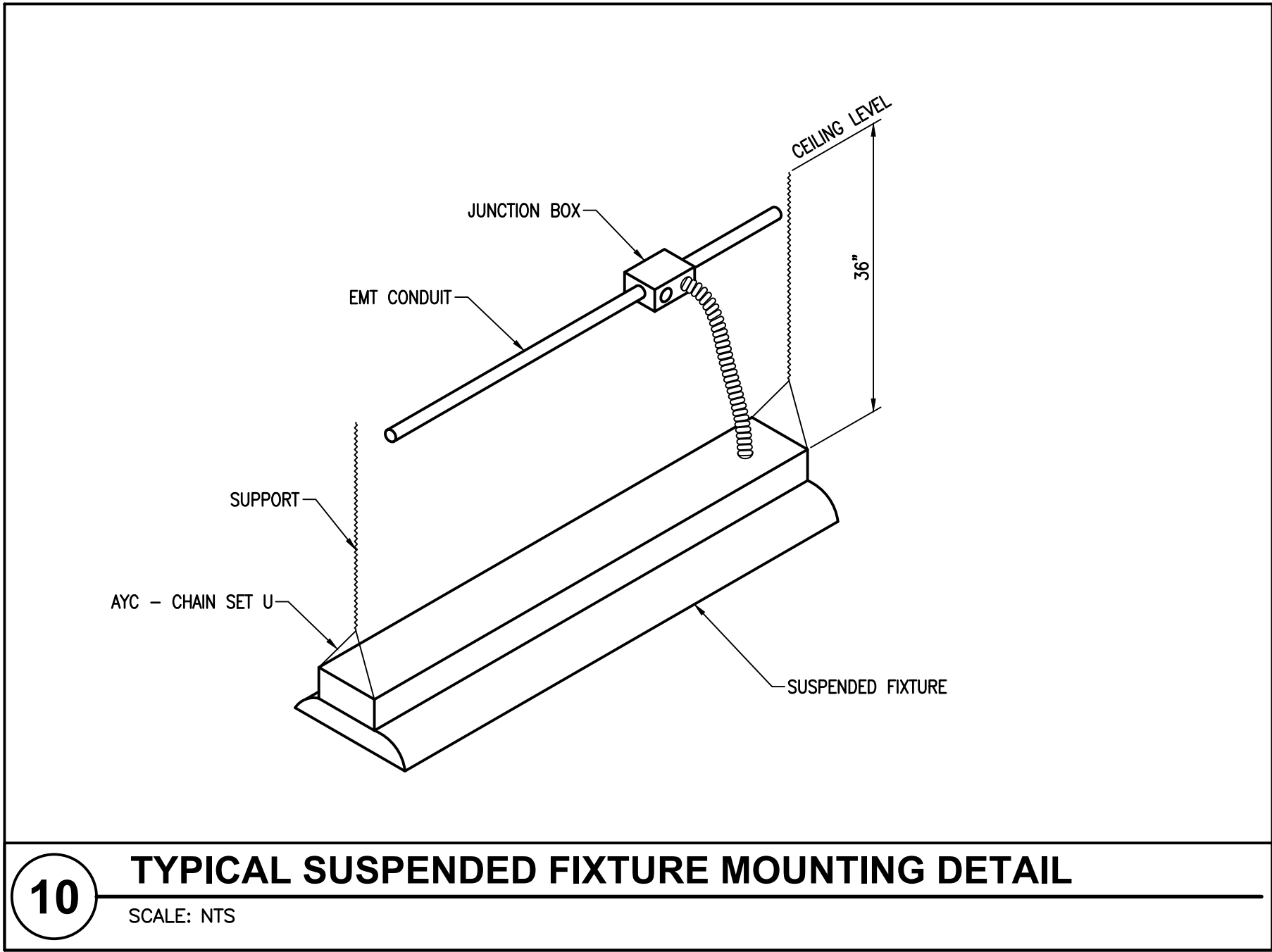
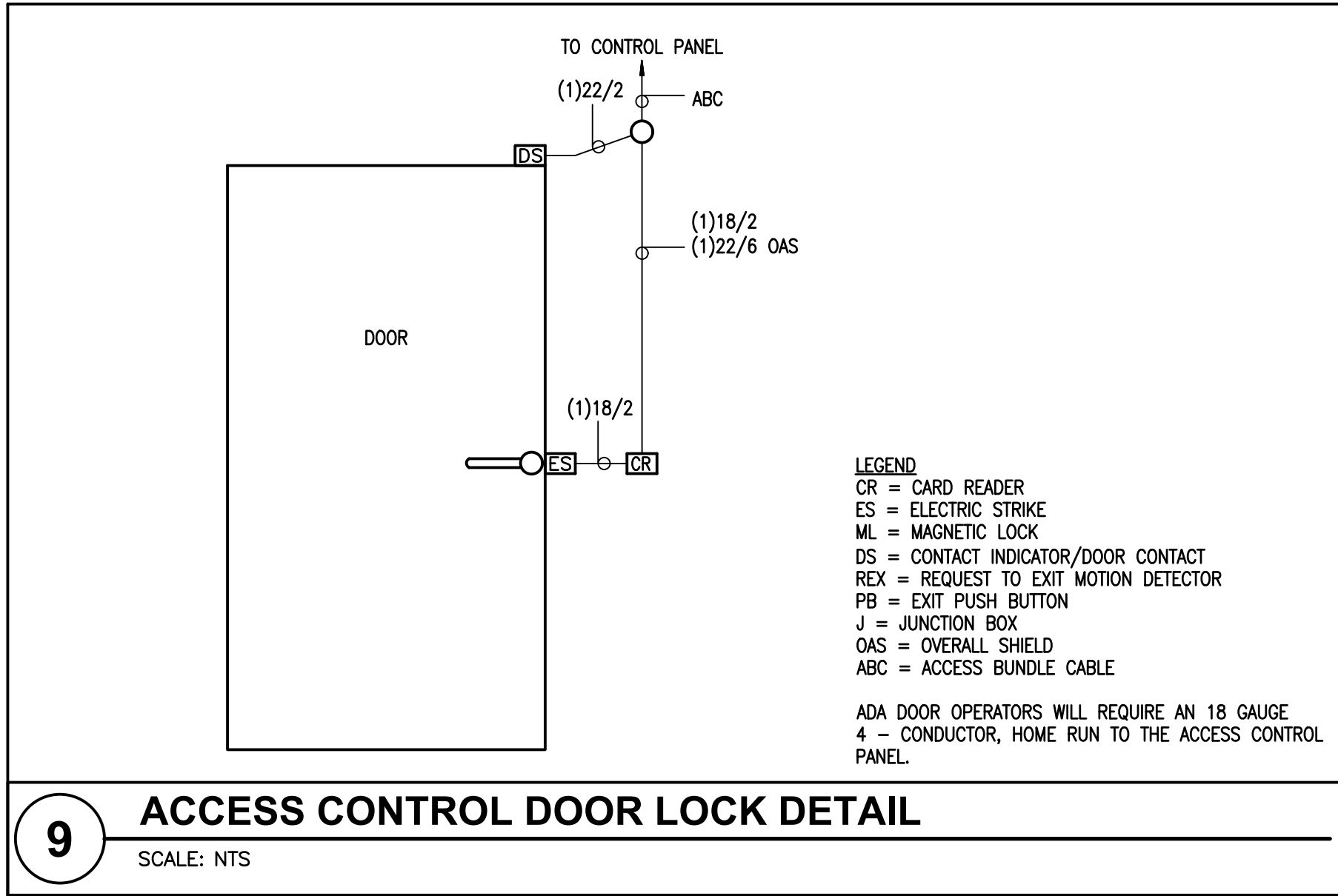
LIGHTING PLAN

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

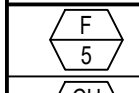
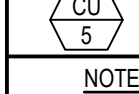


ALUMINUM FEEDER SCHEDULE																	
TYPE	CONDUIT SIZE		CONDUCTORS		75°C AMP RATING	TYPE	CONDUIT SIZE		CONDUCTORS		75°C AMP RATING	TYPE	CONDUIT SIZE		CONDUCTORS		75°C AMP RATING
	PVC	EMT	QUAN.	SIZE			PVC	EMT	QUAN.	SIZE			PVC	EMT	QUAN.	SIZE	
312 _{AL}	3/4"	3/4"	3	#12	20	31X _{AL}	1-1/2"	1-1/2"	3	1/0	120	350 _{AL}	3"	3"	3	500 KCML	310
30 _{AL}	3/4"	3/4"	3	#10	30	32X _{AL}	1-1/2"	1-1/2"	3	2/0	135	360 _{AL}	3-1/2"	3-1/2"	3	600 KCML	340
38 _{AL}	3/4"	3/4"	3	#8	40	33X _{AL}	2"	2"	3	3/0	155	375 _{AL}	3-1/2"	3-1/2"	3	750 KCML	385
36 _{AL}	3/4"	3/4"	3	#6	50	34X _{AL}	2"	2"	3	4/0	180	EQUIPMENT GROUNDING CONDUCTORS SCHEDULE					
34 _{AL}	1"	1"	3	#4	65	325 _{AL}	2"	2"	3	250 KCML	205						
33 _{AL}	1"	1"	3	#3	75	330 _{AL}	2-1/2"	2-1/2"	3	300 KCML	230						
32 _{AL}	1-1/4"	1-1/4"	3	#2	90	335 _{AL}	2-1/2"	2-1/2"	3	350 KCML	250						
31 _{AL}	1-1/4"	1-1/4"	3	#1	100	340 _{AL}	2-1/2"	2-1/2"	3	400 KCML	270						
NOTE:																	
1. SEE EQUIPMENT GROUND CONDUCTOR SCHEDULES OR SERVICE GROUNDING DETAIL FOR GROUND CONDUCTORS RATING.																	
2. ALL INSULATION SHALL BE THHN (ABOVE GRADE) OR THWN (BELOW GRADE) UNLESS NOTED OTHERWISE.																	
3. PVC CONDUIT SIZE IS BASED ON SCHEDULE 40 PVC. PVC & THWN ARE APPROVED FOR UNDERGROUND FEEDERS ONLY.																	
4. THE MAXIMUM OVERCURRENT PROTECTION DEVICE FOR #12 AL CONDUCTORS SHALL BE 15 AMPS PER NEC 240.4(D).																	
5. THE MAXIMUM OVERCURRENT PROTECTION DEVICE FOR #10 AL CONDUCTORS SHALL BE 25 AMPS PER NEC 240.4(D).																	
												OVERCURRENT DEVICE		GROUND			
												15				#12	
												20				#10	
												30				#8	
												40				#8	
												60				#8	
												100				#6	
												200				#4	
												300				#2	
												400				#1	
												500				1/0	
												600				2/0	
												800				3/0	





LIGHT FIXTURE SCHEDULE									
FIXTURE NUMBER	FIXTURE MANUFACTURER	FIXTURE CATALOG #	FIXTURE				DESCRIPTION	REMARKS	
			TYPE	VOLTS	WATTS	MOUNTING			
F1	LITHONIA	LDN6 40/10 L06AR LSS MVOLT EZ1	LED 4000 KELVIN 1000 LUMENS 80 CRI	120	21	RECESSED	LED DOWNLIGHT WITH ALZAK TRIM DAMP OR WET LOCATION LISTED		
F1E	LITHONIA	LDN6 40/10 L06AR LSS MVOLT EZ1	LED 4000 KELVIN 1000 LUMENS 80 CRI	120	21	RECESSED	LED DOWNLIGHT WITH ALZAK TRIM WITH EMERGENCY BATTERY BACKUP PACK DAMP OR WET LOCATION LISTED		
F2	LITHONIA	LDN6 40/10 L06AR LSS MVOLT EZ1 SCA6-XX	LED 4000 KELVIN 1000 LUMENS 80 CRI	120	11	RECESSED	LED DOWNLIGHT W/ALZAK TRIM WITH SLOPED CEILING ADAPTER **VERIFY CORRECT 'DEGREE OF SLOPE' PRIOR TO ORDERING SLOPE ADAPTOR TRIM.		
F3	LITHONIA	2BLT-20L-ADP-MVOLT-EZ1-L840-DGA22	LED 4000 KELVIN 2300 LUMENS 80 CRI	120	22.6	LAY-IN GRID	2X2 LED LAY-IN VOLUMETRIC WITH DRYWALL GRID ADAPTER		
F3E	LITHONIA	2BLT-20L-ADP-MVOLT-EZ1-L840-DGA22	LED 4000 KELVIN 2300 LUMENS 80 CRI	120	22.6	LAY-IN GRID	2X2 LED LAY-IN VOLUMETRIC WITH DRYWALL GRID ADAPTER WITH EMERGENCY BATTERY BACKUP PACK		
F4	PEERLESS	BRM9L4FT-80CRI40K-ID1000LMF-20/80-MIN1-ZT-120V-SCT	LED 4000 KELVIN 1000 LUMENS 80 CRI	120	31.6	SUSPENDED	4' LED LINEAR 20UP/80DOWN		
F4E	PEERLESS	BRM9L4FT-80CRI40K-ID1000LMF-20/80-MIN1-ZT-120V-SCT	LED 4000 KELVIN 1000 LUMENS 80 CRI	120	31.6	SUSPENDED	4' LED LINEAR 20UP/80DOWN WITH EMERGENCY BATTERY BACKUP PACK		
EX1	LITHONIA	LQM-S-W-3-G-EL-N	INCLUDED	120	1.5	UNIVERSAL	UNIVERSAL MOUNT WITH EXTRA FACE PLATE FOR FIELD CONVERSION 1-2 FACE	NICKEL/CADIUM BATTERY SINGLE FACE EXIT	

EQUIPMENT SCHEDULE										
SYMBOL	DESCRIPTION	SERVICE		DISCONNECT		STARTER	LOAD			REMARKS
		VOLTS	PHASE	SIZE	FUSE		HP/TON	VA	AMPS	
	FURNACE FAN	120 V	1Ø	MANUAL STARTER	-	INTEGRAL	5 TON	1,512	12.6A	20A
	AIR COOLED CONDENSING UNIT	240 V	1Ø	60A NEMA 3R	-	INTEGRAL	5 TON	6,720	28.0A	40A
NOTES: 1. VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS (i.e. VOLTAGE, PHASE, FLA, ETC.) WITH MECHANICAL DRAWINGS/SUBMITTALS BEFORE FOR ACTUAL EQUIPMENT INSTALLED. 2. ALL FUSES SHALL BE DUAL ELEMENT TIME DELAY. FINAL BREAKER/FUSE & DISCONNECT SIZE SHALL BE DETERMINED BY MANUFACTURER'S RECOMMENDATION FOR ACTUAL EQUIPMENT INSTALLED. 3. MAXIMUM VALUES INDICATED. 4. DISCONNECTING MEANS NOT REQUIRED FOR EQUIPMENT WITHIN SIGHT (AS DEFINED IN NEC) OF BRANCH PANEL SERVING EQUIPMENT. SEE NEC 422.31 (B). 5. DISCONNECTING MEANS NOT REQUIRED FOR APPLIANCES NOT OVER 300 VA. SEE NEC 422.31 (A).										

EXISTING LIGHTING CONTROL PANEL SCHEDULE						AUTOMATION SCHEDULE					
MOUNTING: SURFACE LOCATION: EXISTING MECH/ELEC ROOM											
BRANCH CIRCUIT FOR CONTROL P1-27											
SPACE NUMBER	RELAY AMPS	POLE	SUPPLY	VA	AREA SERVED	LV SWITCH*	Schedule ON / OFF	Manual ON / Auto OFF	Dusk - Dawn	Dusk - Auto OFF	0-10V Dimming
1	20	1	P1-21	300	EXTERIOR LTG		X		X		
2	20	1	P1-41	284	EXTERIOR BLDG LTG		X		X		
3	20	1	P1-23	587	OPEN OFFICE/LOBBY	X					
4	20	1		0	SPARE						
* SEE PLAN FOR LOCATION OF LOW VOLTAGE SWITCH											

LOAD CALCULATIONS			
BUILDING VOLTAGE:	240	VOLTS	
PHASE	1	PHASE	
OCCUPANCY TYPE:	BUSINESS		
GENERAL LOADS:			
LIGHTING W/ 125% DEMAND:	939	VA	
RECEPTACLE LOAD:			
FIRST 10,000 VA @ 100%	3,600	VA	
REMAINDER @50%	-	VA	
ADJUSTED RECEPTACLE TOTAL LOAD:	3,600	VA	
TOTAL:	4,539	VA	
HVAC LOADS:			
COOLING/HEATING	8,232	VA	
TOTAL:	8,232	VA	
NET COMPUTED LOAD:	12,771	VA	
NET COMPUTED AMPS:	53	AMPS	

EXISTING PANEL SCHEDULE "P1"																							
VOLTAGE: 240 / 120 VOLTS						BUS RATING (AMPS): 400						REMARKS: EXISTING GE PANEL TO REMAIN.											
MOUNTING: SURFACE						MAIN LUGS ONLY																	
ENCLOSURE: NEMA 1						WIRE: 3						SHORT CIRCUIT RATING: 10,000 AMPS (RMS-SYM)											
CIRCUIT BREAKER						CIRCUIT NAME						FEEDER						CIRCUIT NAME					
No.	AMPS	POLE	ENERGY USE 1	MOD.		C	WIRE	GRD	DEMAND FACTOR	WATTS	LOAD	LOAD/PHASE (VA)	ØA	ØB	WATTS	DEMAND FACTOR	GRD	WIRE	C	MOD.	ENERGY USE 1	POLE	AMPS
1	20	1	-	EXST		WATER HEATER	EXST	EXST	EXST	1.00	200	300			100	1.00	EXST	EXST	EXST	EXST	-	1	20
3	20	1	-	EXST		REC - SERVER	EXST	EXST	EXST	1.00	500	600			100	1.00	EXST	EXST	EXST	EXST	-	1	20
5	20	1	-	EXST		REC - GENERAL NORTH	EXST	EXST	EXST	1.00	1,900	1,900			1,000	1.00	EXST	EXST	EXST	EXST	-	2	20
7	100	2	-	NEW		P2	SEE ONE-LINE FOR REQDMENTS			1.00	9,372	10,372			5,000	1.00	-	EXST	-	-	-	-	8
9	-	-	-	-		SPARE	-	-	-	1.00	6,631	7,131			500	1.00	EXST	EXST	EXST	EXST	-	1	20
11	20	1	-	NEW			-	-	-	1.00		1,200			1,200	1.00	EXST	EXST	EXST	EXST	-	1	20
13	20	1	-	EXST		REC - LG CONFERENCE RM	EXST	EXST	EXST	1.00	1,080	2,760			1,500	1.00	EXST	EXST	EXST	EXST	-	1	20
15	20	1	-	EXST		REC - SM CONFERENCE RM	EXST	EXST	EXST	1.00	1,080	2,412			1,332	1.00	EXST	EXST	EXST	EXST	-	1	20
17	15	2	-	EXST		F1 DUCT HEAT	EXST	EXST	EXST	1.00	1,200	1,330			130	1.00	EXST	EXST	EXST	EXST	-	1	20
19	-	-	-	-		-	-	EXST	-	1.00	1,200	1,300			100	1.00	EXST	EXST	EXST	EXST	-	1	20
21	20	1	-	EXST		LTG - EXTERIOR BUILDING	EXST	EXST	EXST	1.00	300	1,800			1,500	1.00	EXST	EXST	EXST	EXST	-	1	20
23	20	1	-	EXST		LTG - OPEN OFFICE / LOBBY	EXST	EXST	EXST	1.00	587	1,787			1,200	1.00	EXST	EXST	EXST	EXST	-	1	20
25	20	1	-	EXST		LTG - CONF. OFFICE, RR, KITCH, STR	EXST	EXST	EXST	1.00	995	5,995			5,000	1.00	EXST	EXST	EXST	EXST	-	2	60
27	20	1	-	EXST		LCP	EXST	EXST	EXST	1.00	500	5,500			5,000	1.00	-	EXST	-	-	-	-	28
29	20	1	-	EXST		MOTORIZED GATE	EXST	EXST	EXST	1.00	1,500	3,300			1,800	1.00	EXST	EXST	EXST	EXST	-	2	20
31	20	1	-	EXST		SPRINKLER CONTROL	EXST	EXST	EXST	1.00	500	2,300			1,800	1.00	-	EXST	-	-	-	-	32
33	20	2	-	EXST		HP-2	EXST	EXST	EXST	1.00	1,800	5,628			3,828	1.00	EXST	EXST	EXST	EXST	-	2	40
35	-	-	-	-		-	-	EXST	-	1.00	1,800	5,628			3,828	1.00	-	EXST	-	-	-	-	36
37	20	1	-	EXST		F-1	EXST	EXST	EXST	1.00	1,200	5,028			3,828	1.00	EXST	EXST	EXST	EXST	-	2	40
39	20	1	-	EXST		F-2	EXST	EXST	EXST	1.00	1,200	5,028			3,828	1.00	-	EXST	-	-	-	-	40
41	20	1	-	EXST		LTG SITE	EXST	EXST	EXST	1.00	284	784			500	1.00	EXST	EXST	EXST	EXST	-	1	20
NOTES: 1. ALL INSULATION ON CONDUCTORS TO BE THHN UNLESS NOTED OTHERWISE. INSULATION ON ALL UNDERGROUND EXTERIOR CONDUCTORS SHALL BE THHW. 2. LOAD DEMANDS CALCULATED AS PER SECTIONS 210 & 220 OF THE NATIONAL ELECTRICAL CODE. 3. PANEL COVER SHALL BE FIELD MARKED FOR FLASH PROTECTION WITH A PERMANENT LABEL AS REQUIRED BY THE NATIONAL ELECTRICAL CODE SECTION 110. LABEL SHALL READ: "DANGER: POTENTIAL ARC FLASH HAZARD" 4. PANELBOARD SHALL BE FIELD MARKED WITH THE AVAILABLE FAULT CURRENT PER NEC 408.6. 5. FIRE ALARM SYSTEMS SHALL HAVE BRANCH CIRCUITS IDENTIFIED BY RED LABELS STATING "FIRE ALARM CIRCUIT" AS REQUIRED BY THE NATIONAL ELECTRICAL CODE ARTICLE 760.41B 6. END-USE METERING CATEGORIES - TOTAL (HVAC) SYSTEM, (INTLG) INTERIOR LIGHTING, (EXTLG) EXTERIOR LIGHTING, (PLUG) LOADS, (PROCESS) LOAD, BUILDING OPERATIONS AND OTHER (MISC)ELANEIOUS LOADS.												ØA ØB TOTALS			CONNECTED LOAD (VA) CONNECTED LOAD (A) DEMAND FACTOR ADJUSTMENTS (VA) TOTAL LOAD (VA) TOTAL LOAD (A) PHASE BALANCE								
												45,328 42,758 88,087											
												0 0 0											
												45,328 42,758 88,087											
												378 356 378											
												51% 49%											

LOAD CENTER SCHEDULE "P2"																										
VOLTAGE: 240 / 120 VOLTS						BUS RATING (AMPS): 100						REMARKS: RELOCATE CIRCUITS P1-7,9,11 TO THIS PANEL TO PROVIDE SPACE FOR SUBFEED IN PANEL P1.														
MOUNTING: SURFACE						MAIN LUGS ONLY																				
ENCLOSURE: NEMA 1						WIRE: 3						SEE FAULT CURRENT TABLE														
CIRCUIT BREAKER					CIRCUIT NAME	FEEDER					CKT. LOAD		LOAD/PHASE (VA)		CKT. LOAD		FEEDER					CIRCUIT BREAKER				
No.	AMPS	POLE	ENERGY USE ¹	MOD.		C	WIRE	GRD	DEMAND FACTOR	WATTS	ØA	ØB	WATTS	DEMAND FACTOR	GRD	WIRE	C	CIRCUIT NAME	MOD.	ENERGY USE ¹	POLE	AMPS	No.			
1	20	1	-	-	F-5	¾"	#12	#12	1.00	1,512	2,772		1,260	1.00	#12	#12	¾"	OFFICE RECP	-	-	1	20	2			
3	40	2	-	-	CU-5	¾"	#8	#10	1.00	3,360		4,800	1,440	1.00	#12	#12	¾"	OFFICE RECP	-	-	1	20	4			
5	-	-	-	-		-	#8		1.00	3,360	4,260		900	1.00	#12	#12	¾"	OFFICE RECP	-	-	1	20	6			
7	20	1	-	-	SPARE				1.00			751	254	1.00	#12	#12	¾"	ADDITION LIGHTING	-	-			8			
9	-	-	-	-	SPACE				1.00		1,260		1,260	1.00	#12	#12	¾"	REC - GENERAL SOUTH (P1-7)	-	-	1	20	10			
11	-	-	-	-	SPACE				1.00		1,080	1,080	1,080	1.00	#12	#12	¾"	REC - SOUTH OFFICE (P1-9)	-	-	1	20	12			
13	-	-	-	-	SPACE				1.00		1,080		1,080	1.00	#12	#12	¾"	REC - EAST OFFICE (P1-11)	-	-	1	20	14			
15	-	-	-	-	SPACE				1.00		0	0		1.00				SPACE	-	-			16			
17	-	-	-	-	SPACE				1.00		0	0		1.00				SPACE	-	-			18			
19	-	-	-	-	SPACE				1.00			0		1.00				SPACE	-	-			20			
NOTES:																										
1. ALL INSULATION ON CONDUCTORS TO BE THIN UNLESS NOTED OTHERWISE. INSULATION ON ALL UNDERGROUND EXTERIOR CONDUCTORS SHALL BE THW.																										
2. LOAD DEMANDS CALCULATED AS PER SECTIONS 210 & 220 OF THE NATIONAL ELECTRICAL CODE.																										
3. PANEL COVER SHALL BE FIELD MARKED FOR FLASH PROTECTION WITH A PERMANENT LABEL AS REQUIRED BY THE NATIONAL ELECTRICAL CODE SECTION 110. LABEL SHALL READ: "DANGER: POTENTIAL ARC FLASH HAZARD"																										
4. PANELBOARD SHALL BE FIELD MARKED WITH THE AVAILABLE FAULT CURRENT PER NEC 408.6.																										
5. FIRE ALARM SYSTEMS SHALL HAVE BRANCH CIRCUITS IDENTIFIED BY RED LABELS STATING "FIRE ALARM CIRCUIT" AS REQUIRED BY THE NATIONAL ELECTRICAL CODE ARTICLE 760.418.																										
6. END-USE METERING CATEGORIES - TOTAL (PHVC) SYSTEM, (INTGT) INTERIOR LIGHTING, (EXTGT) EXTERIOR LIGHTING, (PLUGL) LOADS, (PROCESS) LOAD, BUILDING OPERATIONS AND OTHER (MISC,ELLANEQ) LOADS.																										
												ØA		ØB		TOTALS										
												9,372		6,631		16,003		CONNECTED LOAD (VA)								
																67		CONNECTED LOAD (A)								
												0		188		188		DEMAND FACTOR ADJUSTMENTS (VA)								
												9,372		6,619		16,191		TOTAL LOAD (VA)								
												78		57		78		TOTAL LOAD (A)								
												58%		42%		PHASE BALANCE										

ELECTRICAL SPECIFICATIONS

GENERAL PROVISION

A. REFERENCE

1. THE GENERAL CONDITIONS AND OTHER CONTRACT DRAWINGS AS SET FORTH IN THE FOREGOING PAGES ARE HEREBY INCORPORATED INTO AND BECOME A PART OF THE SPECIFICATIONS FOR WORK UNDER THIS TITLE, INsofar AS THEY APPLY HERETO.
2. ALL SPECIFICATIONS UNDER THIS DIVISION TITLE ARE DIRECTED TO AND ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, UNLESS OTHER TRADES OR PERSONS ARE SPECIFICALLY MENTIONED. "ELECTRICAL CONTRACTOR" IS INFERRED AND INTENDED.
- B. CONTRACT DRAWINGS
 1. THE DRAWINGS ACCOMPANYING THESE SPECIFICATIONS ARE COMPLEMENTARY EACH TO THE OTHER AND WHAT IS CALLED FOR BY ONE SHALL BE AS IF CALLED FOR BY BOTH.
 2. CONSULT ALL CONTRACT DRAWINGS WHICH MAY AFFECT THE LOCATION OF EQUIPMENT, CONDUIT AND WIRING AND MAKE MINOR ADJUSTMENTS IN LOCATION TO SECURE COORDINATION.
 3. WIRING LAYOUT, SCHEMATIC AND EXHAUST LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS.
 4. OTHER THAN MINOR ADJUSTMENTS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH THE WORK.

C. JOB-SITE COPY OF DOCUMENTS

1. MAINTAIN AT THE SITE, ONE COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA APPROVED SHOP DRAWINGS, CHANGE ORDERS AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION. THESE SHALL BE AVAILABLE TO THE OWNER'S REPRESENTATIVE. THE DRAWINGS MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE FOR THE OWNER UPON COMPLETION OF THE WORK. AN ADDITIONAL SET OF DRAWINGS WILL BE FURNISHED BY THE OWNER'S REPRESENTATIVE FOR THIS PURPOSE UPON REQUEST.
- D. MANUFACTURER'S DRAWINGS
 1. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR REVIEW, THE ENGINEER WILL REVIEW CONTRACTOR'S SHOP DRAWINGS AND RELATED SUBMITTALS (AS INDICATED BELOW) WITH RESPECT TO THE ABILITY OF THE DETAILED WORK, WHEN COMPLETE, TO BE A PROPERLY FUNCTIONING INTEGRAL ELEMENT OF THE OVERALL SYSTEM DESIGNED BY THE ENGINEER. BEFORE SUBMITTING A SHOP DRAWING OR ANY RELATED MATERIAL TO THE ENGINEER, CONTRACTOR SHALL: REVIEW EACH SUCH SUBMISSION FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF CONTRACTOR; APPROVE EACH SUCH SUBMISSION BEFORE SUBMITTING IT; AND SO STAMP EACH SUCH SUBMISSION BEFORE SUBMITTING IT. THE ENGINEER SHALL ASSUME THAT NO SHOP DRAWING OR RELATED SUBMITTAL COMPRISES A VARIATION UNLESS CONTRACTOR ADVISES ENGINEER OTHERWISE VIA A WRITTEN INSTRUMENT WHICH IS ACKNOWLEDGED BY ENGINEER IN WRITING. THE ITEMS, TYPES OF SUBMITTALS AND RELATED MATERIAL (IF ANY) CALLED FOR ARE INDICATED BELOW:

ITEMS	TYPE SUBMITTALS REQUESTED
LIGHTING AND POWER PANELS	SHOP DRAWINGS
LIGHTING FIXTURES	CATALOG CUTS
ENCLOSED SWITCHES	CATALOG CUTS

E. GUARANTEES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF SUBSTANTIAL COMPLETION AS DETERMINED BY THE OWNER'S REPRESENTATIVE. PRODUCT GUARANTEES GREATER THAN ONE (1) YEAR SHALL BE PASSED ALONG TO THE OWNER FOR FULL BENEFIT OF THE MANUFACTURER'S WARRANTY.

DEMOLITION

A. DESCRIPTION OF WORK

1. ALL RELOCATIONS, RECONNECTIONS AND REMOVALS ARE NOT NECESSARILY INDICATED ON DRAWINGS. ALL SUCH REQUIRED WORK SHALL BE INCLUDED WITHOUT ADDITIONAL COST TO OWNER. OTHER DEMOLITION WORK SHALL BE PERFORMED AS REQUIRED TO MAINTAIN SYSTEM OPERATION.
2. THE INTENT OF THE DRAWINGS IS NOT TO SHOW EVERY DEVICE, OUTLET, FIXTURE, CONDUIT, ETC. AFFECTED BY DEMOLITION WORK.
3. THE DRAWINGS DO NOT NECESSARILY REFLECT AS-BUILT CONDITIONS. THE CONTRACTOR SHALL VISIT THE JOBSITE PRIOR TO BIDDING TO DETERMINE THE OVERALL SCOPE OF DEMOLITION WORK.
4. REFER TO SECTIONS OF OTHER DIVISIONS FOR APPLICABLE REQUIREMENTS AFFECTING DEMOLITION WORK.

B. GENERAL

1. DEMOLITION WORK SHALL BE LAID OUT IN ADVANCE TO ELIMINATE UNNECESSARY CUTTING, DRILLING, CHANNELING, ETC. WHERE SUCH CUTTING, DRILLING, OR CHANNELING BECOMES NECESSARY, PERFORM WITH CARE, USE SKILLED MECHANICS OF THE TRADES INVOLVED. REPAIR DAMAGE TO BUILDING AND EQUIPMENT. CUTTING WORK OF OTHER CONTRACTORS SHALL BE DONE ONLY WITH THE CONSENT OF THAT CONTRACTOR. CUTTING OF STRUCTURAL MEMBERS SHALL NOT BE PERMITTED.

C. PATCHING AND REPAIR

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION, PATCHING AND REPAIR OF ALL FINISHED INTERIOR SURFACES PERTAINING TO THE INSTALLATION OF THIS PARTICULAR PHASE OF WORK. ALL SURFACES SHALL BE FINISHED (PAINTED, ETC.) TO MATCH THE ADJACENT MATERIALS, FINISHES AND COLORS.
2. HARD SURFACES WHERE DEMOLITION OR EXCAVATION IS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL SYSTEM, IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO MAKE REPAIRS AND/OR REPLACEMENTS OF HARD FINISH SURFACES SUCH AS CONCRETE, ASPHALT, ETC.
3. THE METHOD OF PATCHING AND REPAIR SHALL FOLLOW GOOD CONSTRUCTION PRACTICES AND ALL FINISHED SURFACES SHALL MATCH MATERIALS AND FINISH WHEREIN THE DEMOLITION OCCURRED.

D. EXISTING EQUIPMENT:

1. THE NEW ELECTRICAL EQUIPMENT AND APPARATUS SHALL BE COORDINATED AND CONNECTED INTO THE EXISTING SYSTEM AS REQUIRED. AUXILIARY SYSTEMS SHALL COMPLY, UNLESS OTHERWISE SPECIFIED.
2. THE EXISTING ELECTRICAL DEVICES, CONDUIT AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION SHALL BE RELOCATED. PROVIDE CONDUIT, WIRING, JUNCTION BOXES, ETC. AS REQUIRED TO EXTEND EXISTING CIRCUITS AND SYSTEMS TO RELOCATED DEVICES OR EQUIPMENT.
3. THE NEW FIXTURES INDICATED FOR EXISTING OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH THE FIXTURE SPECIFICATIONS.
4. WHEN INSTALLING EQUIPMENT IN THE EXISTING BUILDING, IT SHALL BE CONCEALED.
5. EXISTING RACEWAYS SHALL BE USED WHERE POSSIBLE, EXCEPT AS NOTED. ALL CIRCUITS, CONDUIT AND WIRE THAT ARE NOT USED IN THE REMODELED AREA SHALL BE CAREFULLY REMOVED, AND TURNED OVER TO THE OWNER. THOSE FIXTURES INDICATED FOR RE-USE SHALL BE THOROUGHLY CLEANED, REPAIRED AS REQUIRED, RELAMPED AND INSTALLED AS INDICATED.
6. OBTAIN PERMISSION FROM THE ARCHITECT AND OWNER'S REPRESENTATIVE BEFORE PENETRATING ANY CEILING, FLOOR, AND WALL SURFACES.

WORK INCLUDED

A. INSTALLATION, MATERIALS, AND WORKMANSHIP

1. FURNISH AND INSTALL ALL NECESSARY ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS AND OTHER SIMILAR APPURTENANCES NOT INDICATED ON THE DRAWINGS BUT WHICH ARE REQUIRED FOR A COMPLETE AND PROPERLY INSTALLED SYSTEM CONSISTENT WITH THE ARCHITECTURAL TREATMENT OF THE BUILDING.
2. THE ELECTRICAL CONTRACTOR, INsofar AS THE WORK IS CONCERNED, SHALL AT ALL TIMES KEEP THE PREMISES IN A NEAT AND ORDERLY CONDITION, AND AT THE COMPLETION OF THE WORK, SHALL PROPERLY CLEAN UP AND CART AWAY DEBRIS AND EXCESS MATERIALS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF DUMPSTER & REFUSED DISPOSAL AS REQUIRED FOR ELECTRICAL WORK.
3. ALL MATERIALS SHALL BE NEW AND UNDETERIORATED AND OF A QUALITY NOT LESS THAN THE MINIMUM SPECIFIED.

B. COORDINATION OF PLANS AND SPECIFICATIONS

1. CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY IF THERE IS ANY QUESTIONS REGARDING THE MEANING OR INTENT OF EITHER PLANS OR SPECIFICATIONS, OR UPON NOTICING ANY DISCREPANCIES OR OMISSIONS IN EITHER PLANS OR SPECIFICATIONS.

C. CUTTING AND PATCHING

1. ALL ELECTRICAL EQUIPMENT SHALL BE KEPT DRY AND CLEAN DURING THE CONSTRUCTION PERIOD. INTERIOR OF ALL ENCLOSURES SHALL BE CLEANED OF DIRT AND DEBRIS BEFORE INSTALLING TRIM OR COVERS.
2. ALL FINISHED SURFACES OF EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE THOROUGHLY CLEANED OF DIRT AND ALL SCRATCHED OR DAMAGED SURFACES SHALL BE TOUCHED UP WITH MATCHING MATERIALS BEFORE FINAL ACCEPTANCE OF THE WORK.
3. WHEN ALL WORK IS COMPLETED AND ALL WORK HAS BEEN SATISFACTORILY TESTED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE, ALL CONDUIT AND OTHER EXPOSED SURFACES SHALL BE THOROUGHLY CLEANED.

CODES AND FEES

A. CODES:

1. ALL WORK PERFORMED UNDER THIS SPECIFICATION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AS PREPARED AND PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION AND ANY APPLICABLE STATE OR LOCAL CODES.

B. FEES:

1. OBTAIN AND PAY FOR ANY AND ALL PERMITS REQUIRED BY ALL LAWS AND REGULATIONS AND PUBLIC AUTHORITY HAVING SUCH JURISDICTION.

TESTS AND INSPECTIONS

- A. HAVING JURISDICTION AND OBTAIN CERTIFICATES OF SUCH INSPECTIONS AND SUBMIT SAME TO THE OWNER'S REPRESENTATIVE. PAY ALL FEES, CHARGES AND OTHER EXPENSES IN CONNECTION THEREIN. OBTAIN OCCUPANCY PERMIT AS REQUIRED BY OWNER. FINAL PAYMENT SHALL NOT BE MADE UNTIL OCCUPANCY PERMIT IS OBTAINED.
- B. WORK SHALL BE UNACCEPTABLE WHEN FOUND TO BE DEFECTIVE OR CONTRARY TO THE PLANS SPECIFICATIONS, CODES SPECIFIED OR ACCEPTED STANDARDS OF GOOD WORKMANSHIP.
- C. THE CONTRACTOR SHALL PROMPTLY CORRECT ALL WORK FOUND UNACCEPTABLE BY THE OWNERS' REPRESENTATIVE WHETHER OBSERVED BEFORE OR AFTER SUBSTANTIAL COMPLETION AND WHETHER OR NOT FABRICATED, INSTALLED OR COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS OF CORRECTING SUCH UNACCEPTABLE WORK, INCLUDING COMPENSATION FOR THE OWNERS REPRESENTATIVE ADDITIONAL SERVICES MADE NECESSARY THEREBY.

CONDUIT

- A. FURNISH AND INSTALL ALL CONDUITS, BOXES, FITTINGS, ETC., FOR A COMPLETE RACEWAY SYSTEM.
- B. ALL WIRING SHALL BE RUN IN EMT CONDUIT OR MC CABLE WITH GROUND CONDUCTOR UNLESS OTHERWISE NOTED.
- C. ALL CONDUIT SIZES STATED HEREIN OR MARKED ON THE DRAWINGS ARE MINIMUM SIZE AND SHALL BE NO LESS THAN 1/2" UNLESS OTHERWISE NOTED.
- D. ALL CONDUIT SHALL BE SUBSTANTIALLY SUPPORTED BY PIPE STRAPS OR SUITABLE CLAMPS OR HANGERS

ATTACHED TO THE ELEMENTS OF THE BUILDING STRUCTURE TO PROVIDE RIGID INSTALLATION; IN NO CASE SHALL CONDUIT BE ATTACHED OR SUPPORTED FROM ADJOINING PIPE OR INSTALLED IN SUCH A MANNER AS TO PREVENT THE READY REMOVAL OF OTHER PIPE FOR REPAIRS.

WIRE AND CABLE

- A. ALL CONDUCTORS SHALL BE COPPER AND OF THE AWG SIZE AND TYPE SHOWN ON THE DRAWINGS. WHERE NO SIZE OR TYPE IS SHOWN, CONDUCTORS SHALL NOT BE LESS THAN #12 TYPE XHHW, THHN, OR THWN. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED COPPER AND HAVE 600 VOLT INSULATION; BE UL LABELED AND OF AMERICAN MANUFACTURER.
- B. ALL BRANCH CIRCUITS SHALL BE TYPE MC CABLE.
- C. ALL CONNECTIONS ARE TO BE MADE USING PRESSURE TYPE TERMINALS.
- D. THE FOLLOWING COLOR CODE SHALL BE USED:

	120/240 VOLT	120/208 VOLT	277/480 VOLT
PHASE A	BLACK	BLACK	BROWN
PHASE B	RED	RED	ORANGE
PHASE C	BLUE	BLUE	YELLOW
NEUTRAL	WHITE	WHITE	WHITE
GROUND	GREEN	GREEN	GREEN
- E. CONDUCTORS NO. 10 AWG OR SMALLER SHALL HAVE INSULATION COLORED AS NOTED ABOVE.
- F. CONDUCTORS NO. 8 AWG OR LARGER SHALL HAVE INSULATION COLORED AS NOTED ABOVE OR COLORED TAPE, MINIMUM SIZE 1/2", WRAPPED TWICE AROUND AT THE FOLLOWING POSITIONS:
 1. AT EACH TERMINAL
 2. AT EACH CONDUIT ENTRANCE
 3. AT INTERVALS NOT MORE THAN 12 INCHES APART IN ALL BOXES, PANEL TUBS, SWITCHBOARDS, ETC.
- G. ALL BRANCH CIRCUITS SHALL BE MARKED IN THE PANEL BOARD GUTTERS. MARKERS SHALL INDICATE CORRESPONDING BRANCH-CIRCUIT NUMBERS.
- H. EACH BRANCH CIRCUIT REQUIRING A NEUTRAL SHALL BE FURNISHED WITH A SEPARATE INDIVIDUAL NEUTRAL CONDUCTOR.

BOXES AND PLATES

- A. FURNISH AND INSTALL ALL OUTLET, JUNCTION, AND PULL BOXES AS INDICATED ON THE DRAWINGS AND AS NECESSARY TO INSTALL THE REQUIRED CONDUIT AND WIRING IN A NEAT AND PROFESSIONAL AND SKILLFUL MANNER MANNER.
- B. PULL BOXES AND JUNCTION BOXES SHALL BE GALVANIZED AND OF THE CORRECT SIZE AND GAUGE, SIZED IN ACCORDANCE WITH CODE REQUIREMENTS AND SHALL BE U.L. LABELED.
- C. BOXES AT EXTERIOR AREAS TO BE WATERTIGHT AND DUST-TIGHT WITH GASKETED COVERS.
- D. ALL BOXES FOR EXPOSED WORK IN FINISHED SPACES SHALL BE "FS" TYPE WITH THREADED HUBS WITH RIGID CONDUIT RISER (DEEP WIRE MOLD BOXES).
- E. ALL BOXES SHALL BE RIGIDLY SUPPORTED INDEPENDENT OF THE CONDUIT SYSTEM. BOXES CAST INTO MASONRY OR CONCRETE ARE CONSIDERED TO BE RIGIDLY SUPPORTED.

WIRING DEVICES

- A. WIRING DEVICES SHALL BE SIMILAR TO THOSE LISTED BELOW AND OF SPECIFIED AMPERAGE. OTHER SPECIAL PURPOSE DEVICES SHALL BE AS SPECIFIED ON THE DRAWINGS.
- B. DUPLEX GROUNDING TYPE RECEPTACLE - 20 AMP, 125 VOLT
 1. HUBBELL 5352
 2. LEVITON TW20-X TAMPER RESISTANT
 3. ARROW HART 5352
- C. SINGLE POLE SWITCHES - 20 AMP, 120 VOLT
- D. WEATHERPROOF RECEPTACLES - 20 AMP, 125 VOLT - NEMA 5-20R
 1. HUBBELL 5352 WITH 520S COVER INTERMATIC GUARDIAN
 2. I SERIES, NEMA 3R COVER
 3. ARROW HART 5352 WITH 4500 COVER
- E. G.F.C.I. RECEPTACLE - 20 AMP, 125 VOLT - NEMA 5-20 R
 1. HUBBELL GF 5262 WITH MATCHING NYLON COVER PLATE OR WO-26 W.P. COVER
- F. GROUND ALL RECEPTACLES IN ACCORDANCE WITH ARTICLE 250.146 OF NEC AND AS INDICATED IN THE GROUNDING SECTION OF THIS SPECIFICATION.

IDENTIFICATION

- A. EACH PIECE OF SERVICE EQUIPMENT AND INDIVIDUAL SWITCHES, ALL DISCONNECTS, STARTERS, ALL EXHAUST FAN MANUAL STARTING SWITCHES.
- B. IDENTIFICATION SHALL BE IN THE FORM OF LAMINATED PLASTIC NAMEPLATES, BLACK RACE, WITH THE LETTERS ENGRAVED INTO THE WHITE BACKGROUND, MINIMUM 1/2" HIGH. PLATES SHALL BE DRILLED ON EACH END FOR SHEET METAL SCREW ATTACHMENT. NO "IDM" OR SIMILAR TYPE LABELS WILL BE ALLOWED.
- C. PANEL BOARD DIRECTORY: A TYPED CIRCUIT DIRECTORY SHALL BE PROVIDED INDICATING LOCAL AREA SERVED AND LOCATION FOR EACH BRANCH CIRCUIT.

GROUNDING

- A. ALL FEEDERS AND BRANCH CIRCUITS OVER 100 VOLTS SHALL INCLUDE A GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE 250-122. EXCEPT NOT BE SMALLER THAN #12 FOR POWER AND LIGHTING CIRCUITS AND #14 FOR CONTROL CIRCUITS. ALL GROUND CONDUCTORS SHALL BE GREEN, OR AS SPECIFIED UNDER THE WIRE AND CABLE SECTION OF THIS SPECIFICATION.
- B. ALL GROUND CLAMPS SHALL BE PENN-UNION "GPL" TYPE OR SIMILAR BY O.Z. OR BURNDY.
- C. CONDUIT FOR SOLITARY GROUND CONDUCTORS SHALL BE RIGID SCHEDULE 40 PVC NON- METALLIC ELECTRICAL CONDUIT WITH U.L. LABEL SOLITARY GROUND CONDUCTORS SHALL NOT BE PLACED THROUGH METALLIC SLEEVES OR CONDUITS AND SHALL NOT BE COMPLETELY ENCLOSED BY METALLIC HANGERS OR SUPPORTS.
- D. THE GROUND CONDUCTOR SHALL BE CONNECTED TO THE NEUTRAL IN ONLY TWO LOCATIONS- ON THE SUPPLY SIDE OF THE SERVICE DISCONNECT MEANS PER NEC-250-24 AND ON SEPARATELY DERIVED SYSTEMS PER NEC 250-30.
- E. AT EACH RECEPTACLE BOX, THE GROUND CONDUCTOR SHALL ENTER AND CONNECT, WITH NORMAL WIRING CONNECTOR, TO: 1) THE GROUND PIGTAIL TO RECEPTACLE; 2) THE GROUND PIGTAIL TO THE BOX GROUND SCREW; AND 3) THE OUTGOING GROUND CONDUCTOR TO NEXT DEVICE, IF NOT AT END OF RUN. METAL TO METAL CONTACT BETWEEN THE DEVICE YOKE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE. MOUNTED BOXES OR FLUSH TYPE BOXES.
- F. CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS SHALL CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS. WHERE REDUCING WASHERS ARE USED AND WHERE CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE NOT COMPLETELY REMOVED BONDING BUSHINGS SHALL BE REQUIRED.

INTERRUPTION OF SERVICE AND OWNER'S OPERATION

- A. THE ELECTRICAL CONTRACTOR SHALL ORGANIZE HIS WORK SO THAT THESE ALTERATIONS AND ADDITIONS SHALL CAUSE A MINIMUM OF INTERFERENCE AND DISTURBANCE TO THE OWNER. ARRANGEMENTS SHALL BE MADE WITH THE OWNER AND ENGINEER BEFORE INTERRUPTING SERVICE. A WRITTEN DETAILED METHOD OF INTERRUPTION PROCEDURE INDICATING ELAPSED TIME REQUIRED AND TIME OF INTERRUPTION SHALL BE PREPARED BY THE ELECTRICAL CONTRACTOR AND SUBMITTED TO THE OWNER FOR APPROVAL.
- B. ALL INTERRUPTIONS OF SERVICE SHALL BE MADE WHEN THE LOAD IS AT A MINIMUM AND SHALL BE SCHEDULED AT THE OWNER'S CONVENIENCE. (SERVICE INTERRUPTIONS WILL BE SCHEDULED FOR OTHER THAN NORMAL DAYTIME WORKING HOURS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE NECESSARY COST FOR OVERTIME LABOR IN ALL BIDS.)
- C. AT NO TIME SHALL THE ELECTRICAL CONTRACTOR OR HIS EMPLOYEES NORMALLY WORKING ON THE PROJECT LEAVE THE FACILITY DURING A TIME WHEN ANY NORMALLY LIVE CIRCUITS OR FEEDERS ARE DISCONNECTED, WITHOUT PERMISSION OF THE ENGINEER.
- D. ALL MATERIALS, CONNECTIONS AND EQUIPMENT FOR TEMPORARY CONTROL OR POWER WIRING TO MAINTAIN CONTINUITY OF SERVICE DURING CONSTRUCTION SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

POWER AND LIGHTING PANELS

- A. FURNISH AND INSTALL, AS SCHEDULED AND SHOWN ON THE DRAWINGS, POWER PANELS FOR OPERATION ON VOLTAGES INDICATED.
- B. ALL TERMINATIONS SHALL BE MARKED "75°C ONLY", "60/75° C" OR LISTED FOR USE OF 75° C INSULATED CONDUCTORS AT FULL 75° C AMPACITY.
- C. ALL BUS BARS SHALL BE SILVER, TIN PLATED COPPER OR TIN PLATED ALUMINUM.
- D. CABINET SHALL BE OF COMMERCIAL GALVANIZED SHEET STEEL, CODE GAUGE AND SIZE, SURFACE OR RECESSED MOUNTED AS CALLED FOR IN THE DRAWINGS.
- E. NEUTRAL ASSEMBLY SHALL HAVE INDIVIDUAL ANTI-TURN SOLDERLESS TERMINALS, SIMILAR TO SQUARE D TYPE PK. FOR CONNECTION OF ULTIMATE NUMBER OF NEUTRAL WIRES. SHEET METAL TERMINAL STRIPS AND CONNECTIONS WILL BE REJECTED.
- F. PANEL SHALL HAVE A COPPER GROUND BAR SIMILAR TO NEUTRAL BAR IN NUMBER, SIZE, AND TYPE OF ANTI-TURN SOLDERLESS LUGS. THIS GROUND BAR SHALL BE FACTORY BONDED TO THE PANEL TUB IN THE GUTTER SPACE OPPOSITE THE MAINS AND THE NEUTRAL ASSEMBLY AND SHALL HAVE THE SCREWDRIWER SLOTS FACING THE FRONT OF THE PANEL.
- G. QUALITY STANDARD: SQUARE D TYPE QO AND NQ.

ENCLOSED SWITCHES

A. GENERAL

1. SECTION INCLUDES
 - a. ENCLOSED SAFETY SWITCHES.
- B. PRODUCTS
 1. MANUFACTURERS
 - a. SOURCE LIMITATIONS: PROVIDE ENCLOSED SWITCHES AND ASSOCIATED COMPONENTS PRODUCED BY SAME MANUFACTURER AS OTHER ELECTRICAL DISTRIBUTION EQUIPMENT USED FOR PROJECT AND OBTAINED FROM SINGLE SUPPLIER.
 2. ENCLOSED SAFETY SWITCHES
 - a. DESCRIPTION: QUICK-MAKE, QUICK-BREAK ENCLOSED SAFETY SWITCHES LISTED AND LABELED AS COMPLYING WITH UL 98; GENERAL DUTY; RATINGS, CONFIGURATIONS, AND FEATURES AS INDICATED. PROVIDE PRODUCTS LISTED, CLASSIFIED, AND LABELED AS SUITABLE FOR THE PURPOSE INTENDED.
 - b. UNLESS OTHERWISE INDICATED, PROVIDE PRODUCTS SUITABLE FOR CONTINUOUS OPERATION UNDER THE FOLLOWING SERVICE CONDITIONS:
 - 1) ALTITUDE: LESS THAN 6,600 FEET.
 - 2) AMBIENT TEMPERATURE: BETWEEN -22 DEGREES F AND 104 DEGREES F.
 - c. HORSEPOWER RATING: SUITABLE FOR CONNECTED LOAD.
 - d. VOLTAGE RATING: SUITABLE FOR CIRCUIT VOLTAGE.
 - e. SHORT CIRCUIT CURRENT RATING:
 - 1) PROVIDE ENCLOSED SAFETY SWITCHES, WHEN PROTECTED BY THE FUSES OR SUPPLY SIDE OVERCURRENT PROTECTIVE DEVICES TO BE INSTALLED, WITH LISTED SHORT CIRCUIT CURRENT RATING NOT LESS THAN THE AVAILABLE FAULT CURRENT AT THE INSTALLED LOCATION AS

- INDICATED ON THE DRAWINGS.
- ENCLOSED SAFETY SWITCHES USED FOR SERVICE ENTRANCE: LISTED AND LABELED AS SUITABLE FOR USE AS SERVICE EQUIPMENT ACCORDING TO UL 869A.
- PROVIDE WITH SWITCH BLADE CONTACT POSITION THAT IS VISIBLE WHEN THE COVER IS OPEN.
- CONDUCTOR TERMINATIONS: SUITABLE FOR USE WITH THE CONDUCTORS TO BE INSTALLED.
- PROVIDE SOLIDLY BONDED EQUIPMENT GROUND BUS IN EACH ENCLOSED SAFETY SWITCH, WITH A SUITABLE LUG FOR TERMINATING EACH EQUIPMENT GROUNDING CONDUCTOR.
- ENCLOSURES: COMPLY WITH NEMA 250, AND LIST AND LABEL AS COMPLYING WITH UL 50 AND UL 50E.
 - 1) ENVIRONMENT TYPE PER NEMA 250; UNLESS OTHERWISE INDICATED, AS SPECIFIED FOR THE FOLLOWING INSTALLATION LOCATIONS:
 - a) INDOOR CLEAN, DRY LOCATIONS: TYPE 1.
 - b) OUTDOOR LOCATIONS: TYPE 3R.
 - c) CORROSIVE OR HARSH ENVIRONMENT: TYPE 4X.
 - 2) FINISH FOR PAINTED STEEL ENCLOSURES: MANUFACTURER'S STANDARD, FACTORY APPLIED GREY UNLESS OTHERWISE INDICATED.
- PROVIDE SAFETY INTERLOCK TO PREVENT OPENING THE COVER WITH THE SWITCH IN THE ON POSITION WITH CAPABILITY OF OVERRIDING INTERLOCK FOR TESTING PURPOSES.
- EXECUTION
 1. EXAMINATION
 - a. VERIFY THAT FIELD MEASUREMENTS ARE AS INDICATED.
 - b. VERIFY THAT THE RATINGS OF THE ENCLOSED SWITCHES ARE CONSISTENT WITH THE INDICATED REQUIREMENTS.
 - c. VERIFY THAT MOUNTING SURFACES ARE READY TO RECEIVE ENCLOSED SAFETY SWITCHES.
 - d. VERIFY THAT CONDITIONS ARE SATISFACTORY FOR INSTALLATION PRIOR TO STARTING WORK.
 2. INSTALLATION
 - a. INSTALL PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - b. PERFORM WORK IN ACCORDANCE WITH NECA 1 (GENERAL WORKMANSHIP).
 - c. ARRANGE EQUIPMENT TO PROVIDE MINIMUM CLEARANCES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND NFPA 70.
 - d. PROVIDE REQUIRED SUPPORT AND ATTACHMENTS.
 - e. INSTALL ENCLOSED SWITCHES PLUMB.
 - f. EXCEPT WHERE INDICATED TO BE MOUNTED ADJACENT TO THE EQUIPMENT THEY SUPPLY, MOUNT ENCLOSED SWITCHES SUCH THAT THE HIGHEST POSITION OF THE OPERATING HANDLE DOES NOT EXCEED 78 INCHES ABOVE THE FLOOR OR WORKING PLATFORM.
 3. FIELD QUALITY CONTROL
 - a. INSPECT AND TEST IN ACCORDANCE WITH NETA ATS, EXCEPT SECTION 4.
 - b. CORRECT DEFICIENCIES AND REPLACE DAMAGED OR DEFECTIVE ENCLOSED SAFETY SWITCHES OR ASSOCIATED COMPONENTS.
 4. ADJUSTING
 - a. ADJUST TIGHTNESS OF MECHANICAL AND ELECTRICAL CONNECTIONS TO MANUFACTURER'S RECOMMENDED TORQUE SETTINGS.
 5. CLEANING
 - a. CLEAN DIRT AND DEBRIS FROM SWITCH ENCLOSURES AND COMPONENTS ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
 - b. REPAIR SCRATCHED OR MARRED EXTERIOR SURFACES TO MATCH ORIGINAL FACTORY FINISH.

LIGHTING FIXTURES

- A. CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING FIXTURES AS INDICATED IN FIXTURE SCHEDULE SHOWN ON DRAWINGS, AND SPECIFIED HEREIN.
- B. NEUTRAL ASSEMBLY SHALL HAVE INDIVIDUAL ANTI-TURN SOLDERLESS TERMINALS, SIMILAR TO SQUARE D TYPE PK. FOR CONNECTION OF ULTIMATE NUMBER OF NEUTRAL WIRES. SHEET METAL TERMINAL STRIPS AND CONNECTIONS WILL BE REJECTED.
- C. ALL LIGHTING FIXTURES INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE FURNISHED COMPLETE WITH AS INDICATED ON THE FIXTURE SCHEDULE.
- D. ANY LIGHTING FIXTURES SCRATCHED, BENT, CRACKED OR IN ANY WAY DAMAGED BEFORE ACCEPTANCE BY OWNER SHALL BE REPLACED AT THIS CONTRACTOR'S EXPENSE.
- E. ALL LIGHTING FIXTURES SHALL BE IN WORKING ORDER AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER.
- F. ALL LIGHTING FIXTURES ARE TO BE GROUNDED ON THE INTERIOR OF THE FIXTURE HOUSING, ON CLEAN BARE METAL (FREE OF PAINT), BY USE OF PIGTAIL AND FASTENED BY A SCREW USED FOR NO OTHER PURPOSE.

TELEPHONE/DATA SYSTEMS

A. SUMMARY

1. INCLUDES BUT NOT LIMITED TO
 - a. MODIFICATIONS TO THE EXISTING BUILDING TELEPHONE AND COMPUTER NETWORK RACEWAY AND CABLE SYSTEM AS DESCRIBED IN CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, RACEWAY, OUTLETS, MODULAR JACKS, DEVICE PLATES, CABLES, AND OTHER MISCELLANEOUS ITEMS REQUIRED FOR A COMPLETE SYSTEM.
- B. COMPONENTS
 1. TELEPHONE OUTLET BOX SHALL BE SINGLE DEVICE BOX.
 2. BUILDING TELEPHONE AND COMPUTER NETWORK SYSTEM CABLE
 - a. 23 GAUGE, SOLID TINNED COPPER, FOUR TWISTED PAIRS, CATEGORY 6
 - b. USE PLENUM-RATED CABLE IN CEILINGS AND AREAS USED FOR PLENUM AIR RETURN
 3. TELEPHONE TERMINATION BLOCKS
 - a. UL VERIFIED CATEGORY 6
 - b. 110 TERMINATION WITH TIN LEAD PLATED IDC
 4. CABLE MANAGEMENT
 - a. EQUIP EACH RACK OR CABINET WITH VERTICAL CABLE SECTION.
 - b. EQUIP EACH RACK OR CABINET WITH HORIZONTAL CABLE MANAGERS ABOVE AND BELOW EACH PATCH SECTION.
 - 1) 7 RINGS
 - 2) 6 PASS-THROUGH HOLES
 - 3) HINGED FRONT COVER
 - c. USE VELCRO CABLE WRAPS ON ALL CABLE - TIE WRAPS ARE NOT ACCEPTABLE.
 - C. INSTALLATION
 1. RUN 1" CONDUIT TO ACCESSIBLE CEILING SPACE FROM EACH OUTLET. INSTALL CABLE FROM TERMINAL BOARD TO EACH TELEPHONE/NETWORK OUTLET.
 2. TERMINATE CABLES AT EACH OUTLET WITH SPECIFIED MODULAR JACK ASSEMBLY.
 3. TERMINATE CABLES ON PUNCH DOWN BLOCKS OR PATCH PANELS AT TERMINAL BOARD.
 4. PROVIDE TYPED LABELS AT ALL JACKS CORRESPONDING TO TYPED NUMBERING SYSTEM AT PATCH PANEL OR TERMINAL STRIP.
 - D. QUALITY ASSURANCE
 1. COMPLY WITH APPLICABLE PORTIONS OF NEC ANSI/EIA/TIA 568 AS TO TYPE PRODUCTS USED AND INSTALLATION OF COMPONENTS. PROVIDE PRODUCTS AND MATERIALS WHICH HAVE BEEN UL-LISTED AND LABELED.
 2. COMPLY WITH INSPECTION AND TESTING REQUIREMENTS OF SPECIFIED INSTALLATION STANDARDS.
 3. VISUAL INSPECTION:
 - a. INSPECT CABLE JACKETS FOR CERTIFICATION MARKINGS.
 - b. INSPECT CABLE TERMINATIONS FOR COLOR CODED LABELS OF PROPER TYPE.
 - c. INSPECT OUTLET PLATES AND PATCH PANELS FOR COMPLETE LABELS.
 4. TESTING - COPPER CABLING AND ASSOCIATED EQUIPMENT:
 - a. TEST OPERATION OF SHORTING BARS IN CONNECTION BLOCKS.
 - b. CATEGORY 5E AND ABOVE BACKBONE: PERFORM NEAR END CROSS TALK (NEXT) AND ATTENUATION TESTS.
 - c. CATEGORY 5E AND ABOVE LINKS: PERFORM THE FOLLOWING TESTS:
 - 1) WIRE MAP
 - 2) LENGTH
 - 3) ATTENUATION
 - 4) NEXT
 - 5) PROPAGATION DELAY
 5. FINAL TESTING: AFTER ALL WORK IS COMPLETE, INCLUDING INSTALLATION OF TELECOMMUNICATIONS OUTLETS, AND TELEPHONE DIAL TONE SERVICE IS ACTIVE, TEST EACH VOICE JACK FOR DIAL TONE.

CONSULTANT



JORDENELLE SPECIAL SERVICE DISTRICT

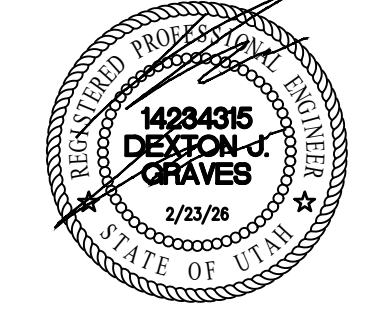
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NO.	DATE	DESCRIPTION
1	2-23-2026	EST #1

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PROJECT NUMBER:

25152

ELECTRICAL
SPECIFICATIONS

E7.1

