

## **ROANE COUNTY PURCHASING DEPARTMENT INVITATION TO BID**

Roane County is inviting sealed bids for the service(s) listed below, subject to the terms and conditions of the Invitation to Bid, the accompanying specifications, and the Roane County Purchasing Manual.

At the appointed time bids will be publicly opened in the office of the Roane County Purchasing Agent at the above address. Bids arriving in the Purchasing Department past the appointed date and time will be considered late and will not be opened.

**Deliver Bids To:**

ROANE COUNTY PURCHASING DEPARTMENT  
200 EAST RACE STREET, SUITE #3  
KINGSTON, TENNESSEE 37763

**Bid Number: 2016-17/171  
ROANE COUNTY RECREATION  
RESTROOM FACILITY & PAVILION**

**Open Date & Time: March 24, 2016 at 2:00 p.m. (Eastern Time Zone)**

The Bid Envelope must show the Bid Number, Name & Opening Date.

### **PURCHASING CONTACT INFORMATION**

**Lynn Farnham, CPPO, CPPB  
Purchasing Agent  
Phone: 865-376-4317  
Fax: 865-376-4318  
Email: [lynn.farnham@roanecountytn.gov](mailto:lynn.farnham@roanecountytn.gov)**

### **GENERAL TERMS & CONDITIONS**

Attached are instructions and conditions for submitting a bid for Roane County Government. The objective of this bid is to select suppliers in such a manner as to provide for open and free competition and comparability.

## **BID PREPARATION & SUBMISSION**

1. Bidders are expected to examine specifications, terms and conditions, general or special conditions, schedules and all instructions for the purpose of this bid. Failure to do so will be at the bidder's risk.
2. All bids shall be in accordance with the instructions to bidders and specifications included in this ITB. Specifications are intended to be open and non-restrictive.
3. All pricing submitted in the bid document must be completed in ink or typewritten. The bottom line total must also be printed in ink or typewritten on the proposal form. No erasures shall be permitted. Errors may be crossed out and corrections printed in ink or typewritten and must be initialed in ink by the person signing the bid.
4. All bids must meet or exceed the enclosed specifications.
5. It shall be the sole responsibility of the bidder to make certain that all bids in proper form are submitted to the Purchasing Department as described below.
6. All original forms must be signed by a person with authority to bind the bid. The bid must be sealed in an envelope that is labeled according to the directions stated below.
7. On the outside of the envelope/package mark the bid as follows:
  - Vendor Name & Address
  - Bid Number
  - Bid Date & Time
8. The bid must then be in a sealed envelope/package mailed or delivered to the following address:

Roane County Purchasing Department  
200 East Race Street, Suite #3  
Kingston, Tennessee 37763

**Please note that Roane County does not receive a guaranteed delivery time for express mail and/or packages. Please mail accordingly.**

12. Sealed written bids will be received at the time and place specified on the Invitation to Bid. Postmark on the Bid by this date will not suffice. Bid must be received on or before the date and time stated. Faxed bid documents will not be accepted.

## **LATE RECEIPT OF THE BID**

1. The bid and modifications or withdrawals thereof received after the time set for opening will not be considered, unless they are received before the award is made and it is determined by Roane County that failure to arrive on time was due solely to a delay in delivery for which the bidder has no responsibility. Roane County does not receive a guaranteed delivery time for express mail and/or packages. Please mail accordingly.
2. Bids must be in the Purchasing Department prior to 2:00 p.m. on the appointed date. Time will be determined by the clock in the Roane County Purchasing Department and once Purchasing Agent/or their designee determines the time is 2:00 p.m., no other bids will be accepted.

## **RESTRICTIVE OR AMBIGUOUS SPECIFICATIONS**

- It is the responsibility of the bidder to review the entire Invitation to Bid document and to notify the Purchasing Agent if the Invitation to Bid is formulated in a manner that would unnecessarily restrict competition or if it is ambiguous in what is being requested.
- Pursuant to TCA §12-4-126, questions regarding the specifications or bid procedures must be received by the Purchasing Agent and/or designer no less than ninety-six (96) hours before the bid opening date. No addenda will be issued within less than forty-eight (48) hours of the bid opening day, excluding weekends and legal holidays designated in §15-1-101 unless the bid opening is extended for a reasonable time as determined by the purchasing agent, which shall not be less than forty-eight (48) hours excluding weekends and legal holidays designated in §15-1-101, to allow for any necessary changes to the Invitation to Bid documents and to allow responders to resubmit their responses accordingly.
- Any questions concerning this Invitation to Bid are to be faxed to the Purchasing Department. Questions will be answered via addenda. Information obtained from any office other than the Purchasing Office is not to be considered binding.

## **BID OPENING & AWARD**

1. Only the bottom line figure will be read at the bid opening. Bids will also be examined for compliance with specification and conditions outlined in the bid document.
2. Consideration will be given to all bids properly submitted. Bids will receive appropriate confidentiality before awarding. Upon award, bid documents and tabulations will be available for review. Errors discovered after public opening may not be corrected, and the bidder may be bound to honor bid as submitted. After investigation of the nature of the mistake, the Purchasing Agent may allow the bid to be withdrawn.
3. The contract will be awarded in writing to the most responsive bidder whose bid conforms best to the Invitation to Bid will be most advantageous to Roane County. It is the intent of Roane County to involve and utilize the best product/services at the best prices and provide small and minority firms, women's business enterprises and labor surplus area firms with increased opportunity to do business with the county. However, currently there are no set asides for small or minority firms.
4. Roane County reserves the right to accept or reject any or all bids and to waive informalities and minor irregularities in the bids received.
5. Roane County reserves the right to award the bid in its entirety or to divide the award in any way that will be more advantageous to the county.
6. Bid results will be posted on the County's website along with the bid tabulation.

## **PROTEST PROCEDURE**

1. If a prospective vendor does not agree with the bid award, they have the right to protest. Disputes arising from the award of this bid must be submitted in writing to the Roane County Purchasing Department no later than seven (7) days from date of bid award. The steps for dispute resolution may include:
  - A meeting with the Purchasing Agent, the requisitioning department's manager and representatives from the disputing party to discuss and resolve the complaint.
  - Information from the aforementioned meeting will be forwarded to the County Attorney for review.
  - A written decision letter stating the reasons for the decision will be prepared by the Purchasing Agent and submitted in writing to the protestor and all parties involved.
  - Purchases will not be allowed under this procurement until a final decision is rendered.
  - In the event that purchases must be made before a final decision is rendered, the emergency purchase procedures will be used.

## **APPROPRIATION**

1. In the event no funds are appropriated by Roane County for the goods or services in any fiscal year or insufficient funds exist to purchase the goods or services, then the contract shall expire upon the expenditure of previously appropriated funds or the end of the current fiscal year, whichever occurs first, with no further obligations owed to or by either party.

## **INSURANCE**

1. The contractor will maintain, at their expense adequate insurance coverage to protect them from claims arising under the Worker's Compensation Act, from claims for damages resulting from bodily injuries and damage to their property, for Bodily Injury and Property Damage Liability in the amount of no less than \$1,000,000, for Products and Completed Operations Liability of no less than \$1,000,000 and from claims for damage to any Roane County property. Additional insurance requirements may be listed any Special Terms & Conditions or in the Bid Specifications. This insurance company shall have a Best's rating of A or better. Any deviations from the above requirements must be disclosed in the bid submission.
2. The successful bidder shall furnish a Certificate of Insurance issued by their insurance company showing that Roane County as an additional insured. Carrier will assume full common liability of all shipments.

## **COMPLIANCE WITH ALL LAWS**

1. Contractor is assumed to be familiar with and agrees to observe and comply with all federal, state, and local laws, statutes, ordinances, and regulations in any manner affecting the provision of goods and/or services, and all instructions and prohibitive orders issued regarding this work and shall obtain all necessary permits.

## **GOVERNING LAW**

1. This contract shall be governed by the laws of the State of Tennessee, and all obligations of the parties are performable in Roane County, Tennessee. The Courts in Roane County shall have exclusive and concurrent jurisdiction of any disputes which arise hereunder.

## **BUSINESS LICENSES**

1. Bidders located in Tennessee are required to have a current business license issued by the State of Tennessee at the time the bids are submitted. Vendors located outside Tennessee are required to obtain a business license issued by the State of Tennessee.
2. A Roane County Business License is required if a contractor is doing more than \$50,000 in business in the county.
3. A Business Tax & License Affidavit is required to be submitted with the bid.

## **INDEMNIFICATION/HOLD HARMLESS**

1. Contractor shall indemnify, defend, save and hold harmless all departments of Roane County Government and/or the Roane County Board of Education, its officers, agents and employees from all suits, claims, actions or damages of any nature brought because of, arising out of, or due to breach of the agreement by Contractor, its subcontractors, supplier, agents or employees or due to any negligent act or occurrence or any omission or commission of the contractor, its subcontractors, suppliers, agents or employees until the contract terminates.

## **VENDOR PERFORMANCE**

1. If the contractor fails in full or part to perform or comply with any provision of this Contract or the terms or conditions of any documents referenced and made a part hereof, Roane County may terminate this contract, in whole or in part, and may consider such failure or noncompliance a Breach of Contract. Contractors with poor performance will be notified at the time of such performance and be given opportunity to correct the problems. Documentation will be kept on file. Any contractor with continued poor performance will be removed from the potential vendor list for one year.
2. Roane County expressly retains all its rights and remedies provided by law in case of such breach, and no action by Roane County shall constitute a waiver of any such rights or remedies. In the event of termination for default, Roane County reserves the right to purchase its requirements elsewhere, with or without competitive bid.
3. Failure to deliver within the time specified or within a reasonable amount of time, or failure to make replacements of a rejected item immediately will constitute authority to purchase on the open market so as to replace the item(s) rejected and/or not received. On all such purchases, the Vendor agrees to promptly reimburse the county for excess costs incurred by such a purchase.

## **BREACH OF CONTRACT**

1. A party shall be deemed to have breached the contract if any of the following occurs:
  - Failure to provide the services that conform to contract requirements.
  - Failure to maintain/submit any report required hereunder.
  - Failure to perform in full or in part any of the other conditions of the contract.

### **CONTRACT TERMINATION FOR CAUSE**

1. If the contractor fails to properly perform its obligations under this contract in a timely or proper manner, or if the contractor violates any terms of this contract, the county shall have the right to terminate the contract and withhold payments in excess of fair compensation for completed services.
2. In the event the contract is terminated for due cause by the county, the county shall have the option of awarding the contact to the next lowest bidder or bidding again.

### **CONTRACT TERMINATION FOR CONVENIENCE**

1. The county may, by written notice to the contractor, terminate this contract without cause for any reason. Said termination shall not be deemed a Breach of Contract by the county. The county must give notice of termination to the vendor at least thirty (30) days prior to the effective date of termination. The contractor shall be entitled to receive compensation for satisfactory, authorized service completed as of the termination date, but in no event shall the county be liable to the contractor for compensation for any service which has not been rendered. Upon such termination, the vendor shall have no right to any actual general, special, incidental, consequential, or any other damages whatsoever of any description or amount.

### **BOOKS AND RECORDS**

1. The contractor shall maintain all books, documents, accounting records and other evidence pertaining to the goods and services provided under this contract and make such materials available at its offices at all reasonable times during the contract period and for three (3) years from the date of the final payment under this agreement for inspection by county or by any other governmental entity or agency participating in the funding of this agreement, or any authorized agents thereof; copies of said records to be furnished if requested.

### **INVOICES AND PAYMENTS**

1. Payment will be made within 30 days after receipt of invoice and/or delivery of items included in this Invitation to Bid, whichever is later.
2. Roane County Government is not subject to taxation. A tax exemption certificate will be provided upon request.

## **NONDISCRIMINATION AND NON-CONFLICT STATEMENT**

1. Contractor agrees that no person on the grounds of handicap, age, race, color, religion, sex or national origin, shall be excluded from participation in, or be denied benefits of, or be otherwise subjected to discrimination in the performance of this agreement, or in the employment practices of vendor. Contractor shall upon request show proof of such nondiscrimination, and shall post in conspicuous places available to all employees and applicants notices of non-discrimination. Contractor covenants that it complies with the Fair Wage and Hour Laws, the National Labor Relations Act, and other federal and state employment laws as applicable. Contractor covenants that it does not engage in any illegal employment practices.
2. Contractor covenants that it has no public or private interest, and shall not acquire directly or indirectly any interest; that would conflict in any manner with the provision of its goods or performance of its services. The contractor warrants that no part of the total contract amount provided herein shall be paid directly or indirectly to any officer or employee of Roane County as wages, compensation, or gifts in exchange for acting as officer, agent, employee, subcontractor or consultant to contractor in connection with any goods provided or work contemplated or performed relative to the agreement.
3. No employee or member of the Roane County's governing bodies shall participate in the selection or award of a contract if a conflict of interest, real or apparent, would be involved.
4. Officers, employees or officials of the Roane County Government shall neither solicit nor accept gratuities, favors or anything of more than nominal monetary value from vendors or parties to subcontracts.

**2016-17/171 – RESTROOM & PAVILION  
VENDOR INFORMATION SHEET**

(Please fill out completely)

By completing and signing this form you certify that you are an authorized representative of the company for which you are submitting a bid/proposal and that you have the authority to legally bind your company. Further, by completing and signing this form you certify that you agree to all the terms and conditions of this bid/proposal.

1. Vendor Name \_\_\_\_\_

2. Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

3. Contact Person (Please Print) \_\_\_\_\_

4. Telephone Number \_\_\_\_\_ Fax Number \_\_\_\_\_

5. Vendor's e-mail address \_\_\_\_\_

6. Authorizing Signature \_\_\_\_\_

7. Title of Person Signing Bid \_\_\_\_\_

8. If addenda were issued, please acknowledge the receipt of: (please write "yes" if you received one)  
Addendum 1 \_\_\_\_\_ Addendum 2 \_\_\_\_\_ Addendum 3 \_\_\_\_\_ Addendum 4 \_\_\_\_\_

9. If applicable, please indicate below if discounts will be allowed for prompt payment or if there is not discount offered:  
\_\_\_\_\_ % Net 10 Days; \_\_\_\_\_ % Net 20 Days; \_\_\_\_\_ % Net 30 Days; \_\_\_\_\_ No Discount

**COOPERATIVE PURCHASING** - Vendors are to indicate if it is permissible for other governmental agencies in the State of Tennessee to purchase these items or services at the same price. Freight charges may be adjusted to reflect differences in delivery costs to other locations. Please indicate the approval of Cooperative Purchasing.

\_\_\_\_\_ Yes \_\_\_\_\_ No

**SCHOOL CONTRACTS ONLY**

**CRIMINAL HISTORY RECORDS CHECK** – Do you agree to comply with Public Chapter 587 of 2007 which requires all contractors to facilitate a criminal history check, including fingerprinting, conducted by the Tennessee Bureau of Investigation and the Federal Bureau of Investigation for each employee or subcontractor personnel before permitting the employee or subcontractor personnel to have contact with students or enter school grounds?

\_\_\_\_\_ Yes \_\_\_\_\_ No



**2016-17/171 – RESTROOM & PAVILION  
NON –COLLUSION, INDEPENDENT PRICE DETERMINATION,  
NON-DISCRIMINATION, NON-DEBARMENT & LOBBYING AFFIDAVIT**

I do hereby certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same materials, supplies, or equipment, and is in all respects fair and without collusion or fraud.

I understand that collusive pricing is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards and that no collusion with another firm was used in preparation of this bid.

I also certify that this firm does not discriminate against any employee or applicant for employment on the grounds of race, color, national origin or sex; and does not and will not maintain or provide for his employees any segregated facilities at any of its establishments, and further, that the firm does not and will not permit their employees to perform their services at any location under this contract where segregated facilities are maintained.

By submission of this bid, the bidder certifies that neither it or its principals is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal or State department or agency.

I further certify that during the Invitation to Bid solicitation and/or during the performance of this contract that neither it nor its principals will participate in lobbying activities in conjunction with this project.

I agree to abide by all terms and conditions of this Invitation to Bid and certify that I am authorized to sign this affidavit for the vendor.

Please indicate which of the following apply to your company. This information is requested for information purposes only. Roane County currently has no policy that allows for set asides or preferences for woman owned or minority owned businesses.

African American Owned  
 Caucasian Owned  
 Native American Owned  
 Other Owned

Asian Owned  
 Hispanic Owned  
 Woman Owned

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**2016-17/171 – RESTROOM & PAVILION  
DRUG-FREE WORKPLACE AFFIDAVIT**

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

The undersigned, principal officer of \_\_\_\_\_, an employer of five (5) or more employees contracting with Roane County Government to provide construction services, hereby states under oath as follows:

1. The undersigned is a principal officer of \_\_\_\_\_ (hereinafter referred to as the "Company"), and is duly authorized to execute this Affidavit on behalf of the Company.
2. The Company submits this Affidavit pursuant to T.C.A. § 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services to submit an affidavit stating that such employer has a drug-free workplace program that complies with Title 50, Chapter 9, of the *Tennessee Code Annotated*.
3. The Company is in compliance with T.C.A. § 50-9-113.

Further affiant saith not.

\_\_\_\_\_  
Principal Officer

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Before me personally appeared \_\_\_\_\_, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who acknowledged that such person executed the foregoing affidavit for the purposes therein contained.

Witness my hand and seal at office this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_.



**2016-17/171 – RESTROOM & PAVILION  
BUSINESS TAX & LICENSE AFFIDAVIT**

The undersigned, ("Affiant"), states that he/she has legal authority to swear this on behalf of \_\_\_\_\_ ("Contractor"); that Contractor is not in any manner in violation of *Tennessee Code Annotated, §5-14-108(l)* which provides that "no purchase shall be made or purchase order or contract of purchase issued for tangible personal property or services by county officials or employees, acting in their official capacity, from any firm or individual whose business tax or license is delinquent".

Affiant affirms and warrants that Contractor's licenses are currently valid and all business taxes have been paid and are current as of the date of this affidavit. Contractor is licensed and pays business taxes in \_\_\_\_\_ County, Tennessee.

**AFFIANT**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Witness: \_\_\_\_\_

Date: \_\_\_\_\_

**2016-17/171 – RESTROOM & PAVILION  
INVITATION TO BID  
SPECIFICATIONS**

Roane County is inviting bids for the Construction of a Restroom Facility & Pavilion for the Park & Recreation Department at the Swan Pond Sports Complex, as per the enclosed specifications.

Vendors are to provide one original and one copy of the bid being submitted. Any costs associated with the preparation or delivery of the bid is at the Vendor's cost with no cost to Roane County.

**REQUIRED DOCUMENTS**

Bidders must use the envelope cover sheet included herein.

The following documents must be returned in the bid envelope:

- Vendor Information Sheet
- Non-Collusion, Independent Price Determination, Non-Discrimination, Non-Debarment & Lobbying Affidavit
- Drug-Free Workplace Affidavit
- Statement of Compliance Certificate of Illegal Immigrants
- Business Tax & License Affidavit
- Certificate of Insurance issued by the Contractor's Insurance Company.

**CONTRACT**

A sample contract is enclosed. This contract, Roane County's Purchase Order, and the Terms & Conditions and Specifications of this Invitation to Bid will serve as the contractor's contract.

**CONTRACT AWARD**

It is the County's intent to award the project as soon as a successful bidder is identified.

**BONDING & INSURANCE**

- A 5% Bid Bond is required to be submitted with the bid.
- Performance & Payment Bonds are required in the full amount of the project.
- A Notice to Proceed will be issued upon execution of the contract and submission of bonds and proof of insurance.

**BUILDING PERMIT**

A Building Permit is required to for this project. The fee for the Building Permit will be waived due to this is a County facility. Building Permits are issued by the County's Codes Enforcement Department.

## **SCOPE OF WORK**

The successful bidder will be required to furnish all labor, equipment, supplies, & materials to complete a turnkey job as described in the specifications contained herein.

All bidders are urged to visit the site prior to submitting a bid.

Pursuant to TCA §12-4-126, questions regarding the specifications or bid procedures must be received by the Purchasing Agent and/or designer no less than ninety-six (96) hours before the bid opening date. No addenda will be issued within less than forty-eight (48) hours of the bid opening day, excluding weekends and legal holidays designated in §15-1-101 unless the bid opening is extended for a reasonable time as determined by the purchasing agent, which shall not be less than forty-eight (48) hours excluding weekends and legal holidays designated in §15-1-101, to allow for any necessary changes to the Invitation to Bid documents and to allow responders to resubmit their responses accordingly.

**Any questions concerning this Invitation to Bid are to be faxed or emailed to the Purchasing Department. Questions will be answered via addenda. Information obtained from any office other than the Purchasing Department is not to be considered binding.**

- Fax Number – 865-376-4318
- Email – [lynn.farnham@roanecountytn.gov](mailto:lynn.farnham@roanecountytn.gov)

RESTROOM FACILITY AND PICNIC PAVILION FOR:

# ROANE COUNTY RECREATION

HARRIMAN, TENNESSEE

ARCHITECTS:

## Lewis Group Architects

Knoxville, TN | Cleveland, TN

### INDEX OF DRAWINGS

C01	COVER SHEET
AS1.0	REFERENCE SITE PLAN
A1.0	FLOOR PLAN, REFLECTED CEILING PLAN, AND ROOF PLAN
A1.1	FLOOR PLAN, REFLECTED CEILING PLAN, AND ROOF PLAN
A2.0	EXTERIOR ELEVATIONS
A4.0	WALL SECTIONS
A4.1	BUILDING SECTIONS AND DETAILS
A7.0	INTERIOR ELEVATIONS
S1.0	STRUCTURAL PLANS
S1.1	STRUCTURAL PLANS
P1.0	FLOOR PLANS - PLUMBING
P1.1	SPECIFICATION AND FIXTURE SCHEDULE - PLUMBING
P1.2	DETAILS - PLUMBING
M1.0	FLOOR PLAN - HVAC
M1.1	SCHEDULES - HVAC
M1.2	SPECIFICATIONS AND DETAILS - HVAC
E1.1	FLOOR PLANS - LIGHTING

### MATERIALS LEGEND

	CONCRETE BLOCK (CMU) IN PLAN		METAL IN SECTION		EARTH IN SECTION
	GYPSON BOARD, PLASTER, OR CONCRETE IN PLAN AS NOTED		BRICK		RIGID INSULATION IN PLAN OR SECTION
	CRUSHED STONE		CONCRETE IN SECTION		STONE IN PLAN OR SECTION
	PLYWOOD		BATT INSULATION		
	FINISHED WOOD		CONCRETE BLOCK (CMU) IN SECTION		
	WOOD FRAMING				

NOTE: SEE FLOOR PLAN(S) FOR WALL LEGEND

### PROJECT DATA

PROJECT TITLE:	RESTROOM AND PICNIC PAVILION	INTERNATIONAL PLUMBING CODE, 2012 EDITION
PROJECT ADDRESS:		INTERNATIONAL FUEL & GAS CODE, 2012 EDITION
ADDRESS OF OWNER:		NFPA 101 LIFE SAFETY CODE, 2012 EDITION
BUILDING OCCUPANCY:	A-5 (RESTROOM)	2010 GUIDELINES FOR DESIGN & CONSTRUCTION OF HEALTH CARE FACILITIES
BUILDING CONSTRUCTION TYPE:	TYPE IIB	NATIONAL ELECTRIC CODE, 2011 EDITION
BUILDING ALLOWABLE AREA:	UL	U.S. PUBLIC HEALTH FOOD CODE, 2005 EDITION
BUILDING AREA:	RESTROOM - 987 SF PAVILION - 936 SF (OPEN STRUCTURE)	AMERICANS WITH DISABILITIES ACT, 2010 EDITION
BUILDING ALLOWABLE HEIGHT:	UL	1999 NORTH CAROLINA HANDICAP ACCESSIBILITY CODE WITH 2004 AMENDMENTS
BUILDING HEIGHT:	16'-0"	
NUMBER OF STORIES:	ONE	
ARCHITECT:	LEWIS GROUP ARCHITECTS 6512 DEANIE HILL DRIVE KNOXVILLE, TENNESSEE 37919	
UL ASSEMBLIES USED:	N/A	
CODE REFERENCES:	INTERNATIONAL BUILDING CODE, 2012 EDITION INTERNATIONAL MECHANICAL CODE, 2012 EDITION	

### ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR	F.T.	FOOT	R.M.	ROOM
ALT.	ALTERNATE	FTG.	FOOTING	R.O.	ROUGH OPENING
ALUM.	ALUMINUM	GALV.	GALVANIZE	R.I.	ROUGH-IN
ARCH.	ARCHITECTURE	G.I.	GALVANIZED IRON	SCHED.	SCHEDULE
ASPH.	ASPHALT	GA.	GAUGE	SECT.	SECTION
ATTN.	ATTENTION	GYP.	GYPSON	SHT.	SHEET
BASMT.	BASMENT	H.B.	HOSE BIB	SM.	SIMILAR
BLDG.	BUILDING	HWARE.	HARDWARE	SPECS.	SPECIFICATIONS
BLK.	BLOCK	H.V.A.C.	HEATING, VENTILATION, & AIR CONDITIONING	SQ. FT.	SQUARE FEET
BRG.	BEARING	HGT.	HEIGHT	STD.	STANDARD
C.B.	CATCH BASIN	H.M.	HOLLOW METAL	STL.	STEEL
CLG.	CEILING	I.D.	INSIDE DIAMETER	STOR.	STORAGE
CLOS. or CL.	CLOSET	IN.	INCH	S.D.	STORM DRAIN
CLR.	CLEAR	INV.	INVERT	SUSP.	SUSPENDED
COL.	COLUMN	JAN.	JANITOR	SQ.	SQUARE
COMP.	COMPOSITION	JAV.	JANITORY	S.S.	STAINLESS STEEL
CONC.	CONCRETE	LB.	POUND	STRUCT.	STRUCTURAL
C.M.U.	CONCRETE MASONRY UNIT	M.H.	MANHOLE	T.L.T.	TOILET
CONST.	CONSTRUCTION	M.M.F. or MFR.	MANUFACTURER	TYP.	TYPICAL
C.J.	CONTROL JOINT	M.O.	MASONRY OPENING	U.L.	UNDERWRITER'S LABORATORY
C.T.	CERAMIC TILE	M.T.L.	METAL	U.N.O.	UNLESS NOTED OTHERWISE
DTL.	DETAIL	M.T.	MECHANICAL	V.C.T.	VINYL COMPOSITION TILE
DIA. or Ø	DIAMETER	MAX.	MAXIMUM	VERT.	VERTICAL
DN.	DOWN	MIN.	MINIMUM	W.C.	WATER CLOSET
DWG.	DRAWING	MISC.	MISCELLANEOUS	W.H.	WATER HEATER
D.F.	DRAINING FOUNTAIN	NOT IN CONTRACT		W.F.	WIDE FLANGE
D.S.	DOWNSPOUT	N.T.S.	NOT TO SCALE	WD.	WOOD
EA.	EACH	NO.	NUMBER	W/	WITH
E.I.F.S.	EXTERIOR INSULATION AND FINISH SYSTEM	O.C.	ON CENTER	W.W.F.	WELDED WIRE FABRIC
ELEC.	ELECTRIC	O.D.	OUTSIDE DIAMETER	W.W.M.	WELDED WIRE MESH
E.W.C.	ELECTRIC WATER COOLER	OPP.	OPPOSITE		
ELEV.	ELEVATION	PL.	PLATE		
EQ.	EQUAL	PLAS.	PLASTIC		
EXIST.	EXISTING	PLAS. LAM.	PLASTIC LAMINATE		
EXT.	EXTERIOR	PLUMB.	PLUMBING		
E.J.	EXPANSION JOINT	PLYWD.	PLYWOOD		
F.E.	FIRE EXTINGUISHER	P.T.	PRESSURE TREATED		
F.E.C.	FIRE EXTINGUISHER CABINET	R. or RAD.	RADIUS		
F.L.R.	FLOOR	R.D.	ROOF DRAIN		
F.D.	FLOOR DRAIN	REINF.	REINFORCING		
		REQ'D.	REQUIRED		

### GRAPHIC SYMBOLS

	DETAIL NUMBER		DEMOLITION NOTE
	SHEET NUMBER		WINDOW SYMBOL
	ELEVATION NUMBER		KEY NOTE
	SHEET NUMBER		SHEET NUMBER
	ROOM NAME		DETAIL NUMBER
	ROOM NUMBER		
	ENLARGED PLAN NUMBER		
	SECTION NUMBER		
	SECTION NUMBER		
	WALL TAG		
	COLUMN SYMBOL		
	DOOR NUMBER CORRESPONDS TO ROOM NUMBER		
	REFERS TO NUMBER OF DOORS IN ROOM		

CONSULTANTS:

Bender and Associates  
STRUCTURAL ENGINEER

Engineering Services Group  
MECHANICAL ENGINEER

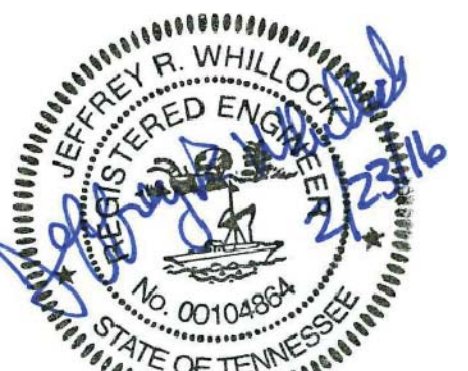
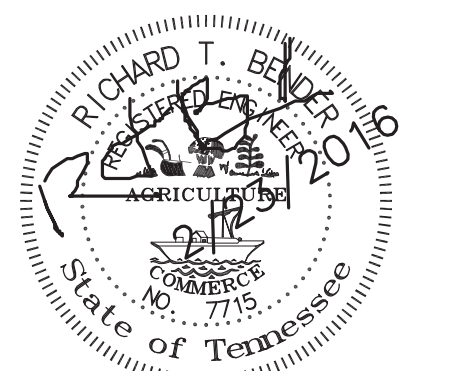
Lawson Consulting Engineers  
ELECTRICAL ENGINEER



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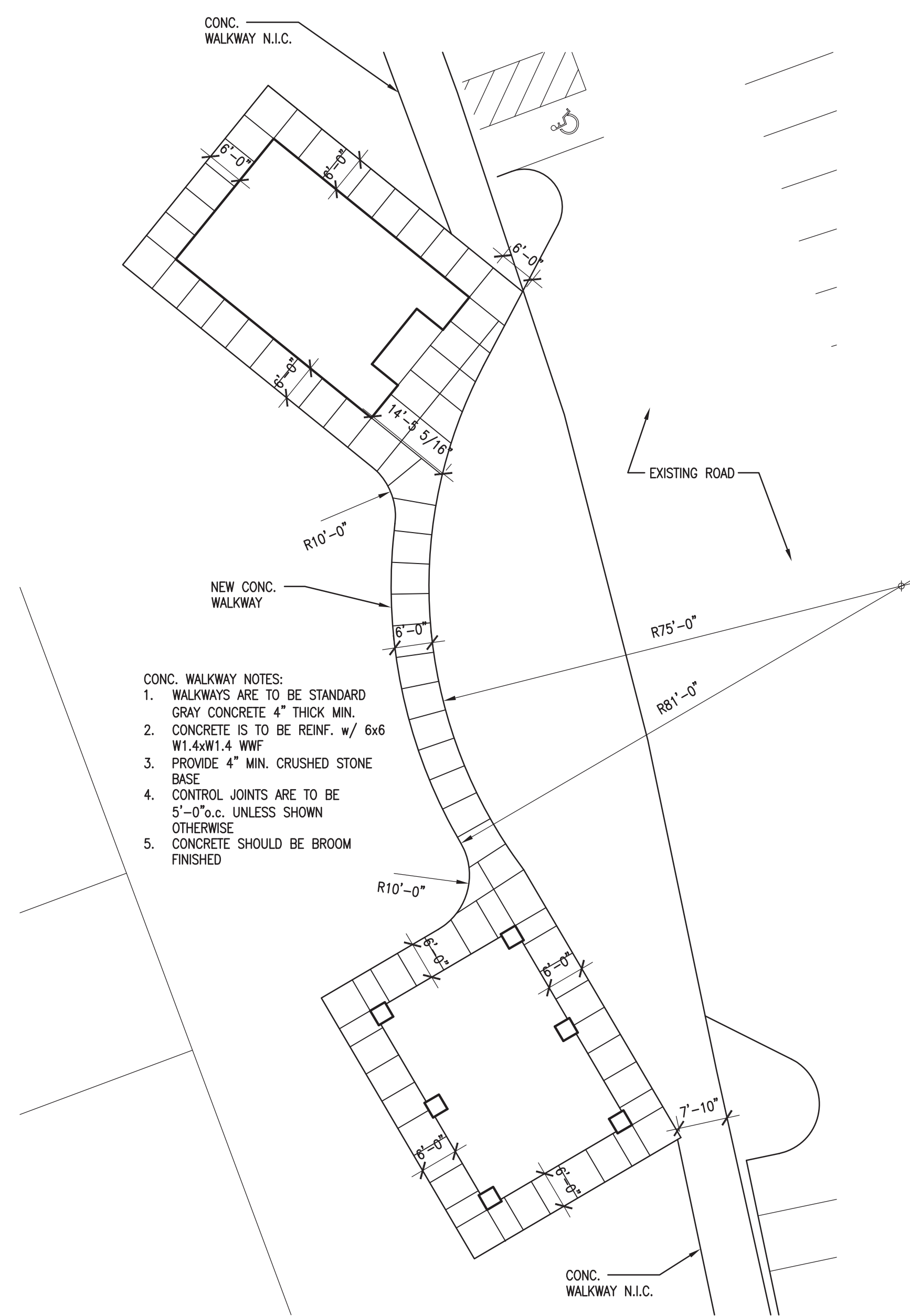
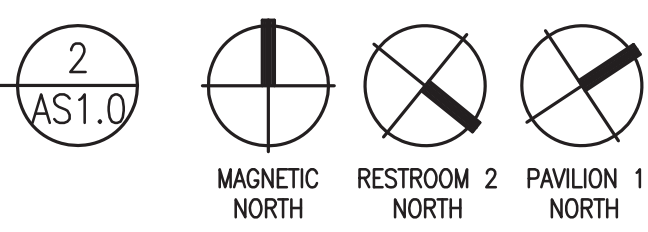


PROJECT NO.:  
15057/15058  
PROJECT DATE:  
2/23/2016

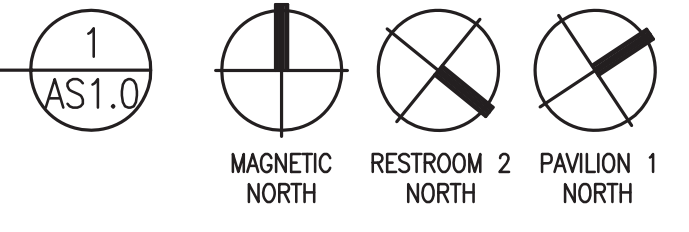
SET NO.



REFERENCE SITE PLAN  
SCALE: 1" = 100'-0"



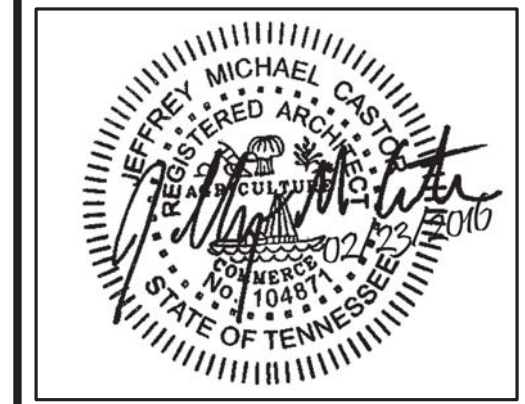
SITE PLAN  
SCALE: 1/16" = 1'-0"



# Restroom Facility and Picnic Pavilion Roane County Parks & Recreation

Harriman, Tennessee

REFERENCE SITE PLAN



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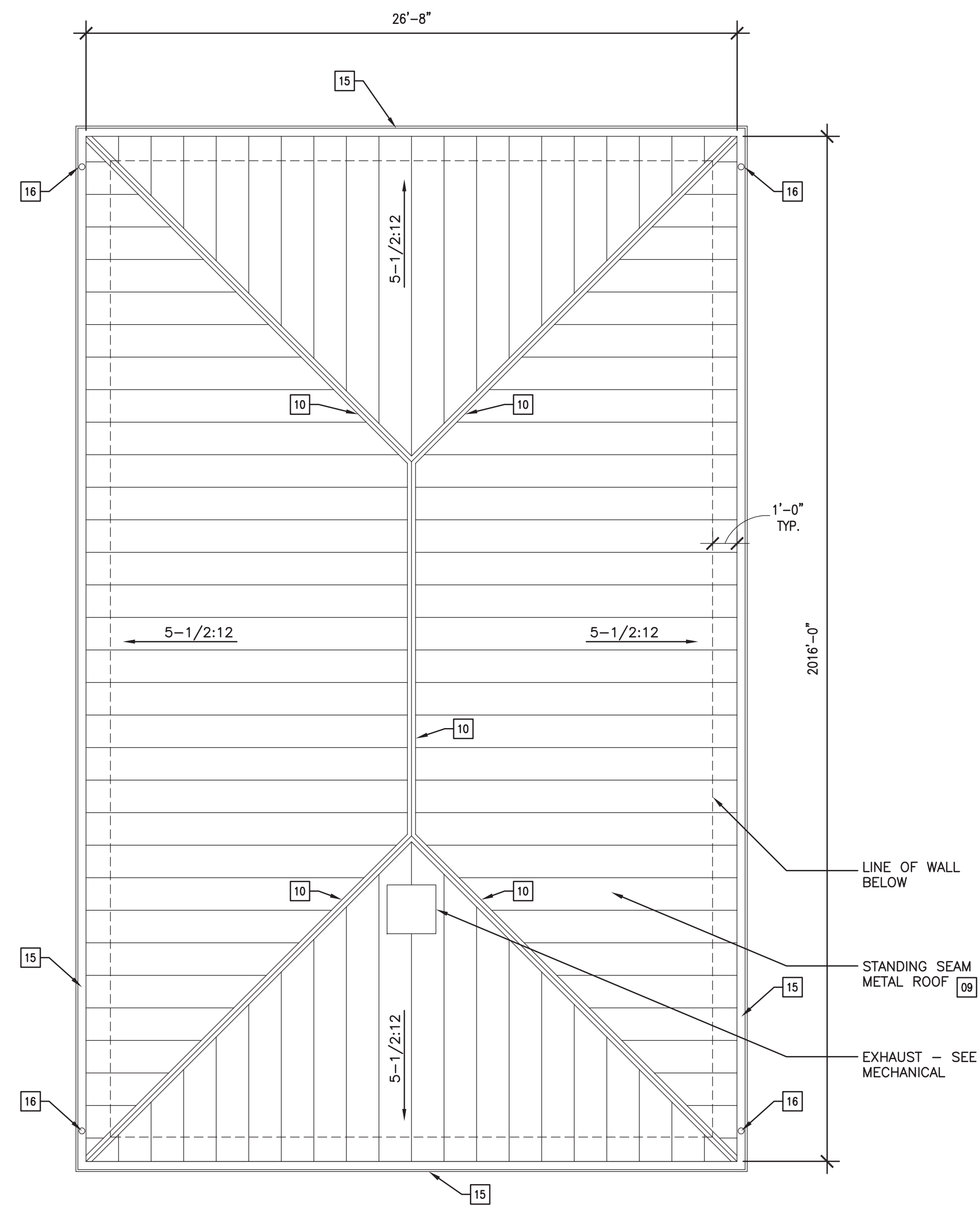
PROJECT REVISIONS

DATE	DESCRIPTION

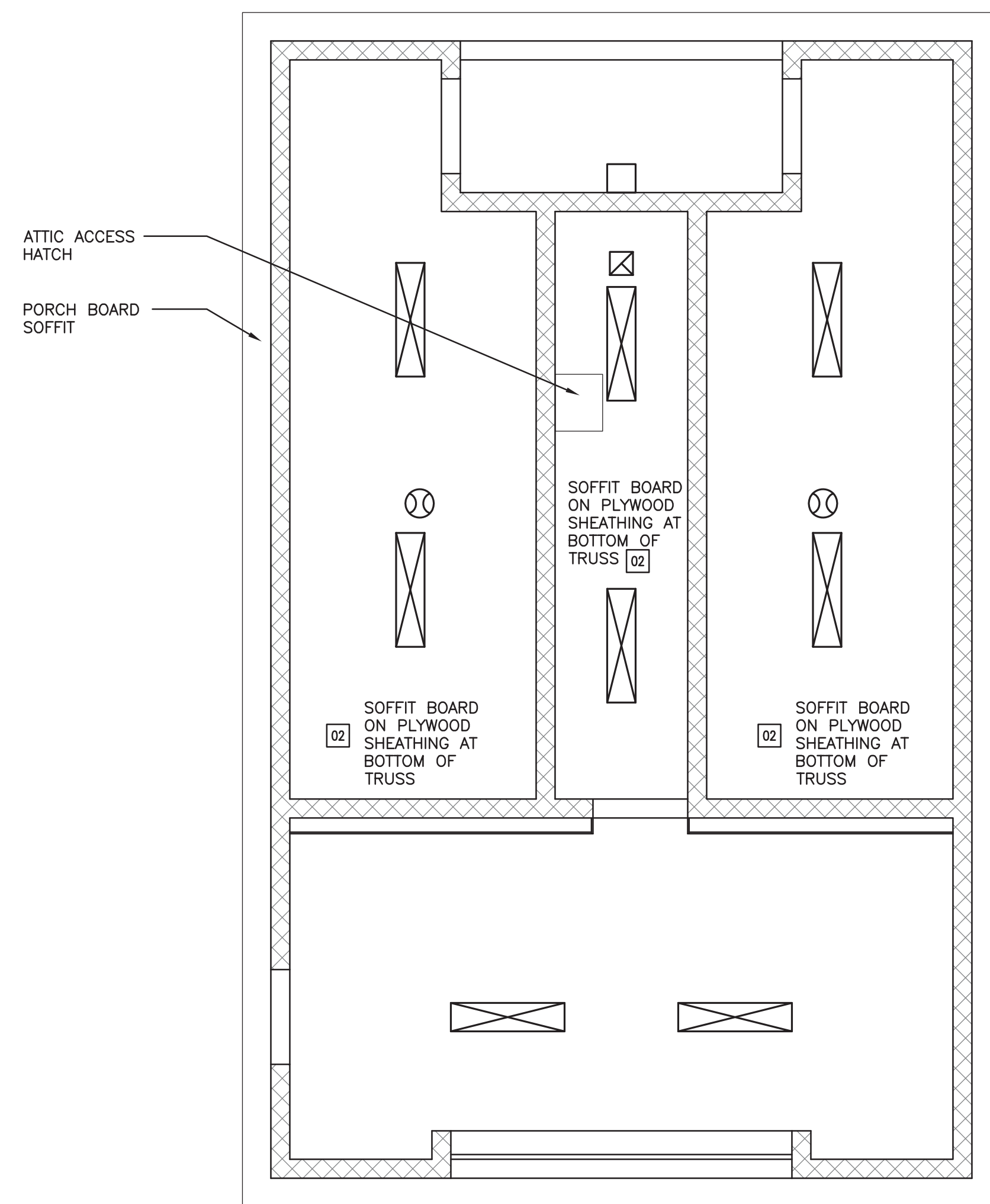
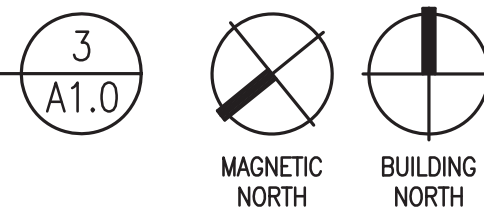
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**15057/15058**  
2/23/2016  
**AS1.0**

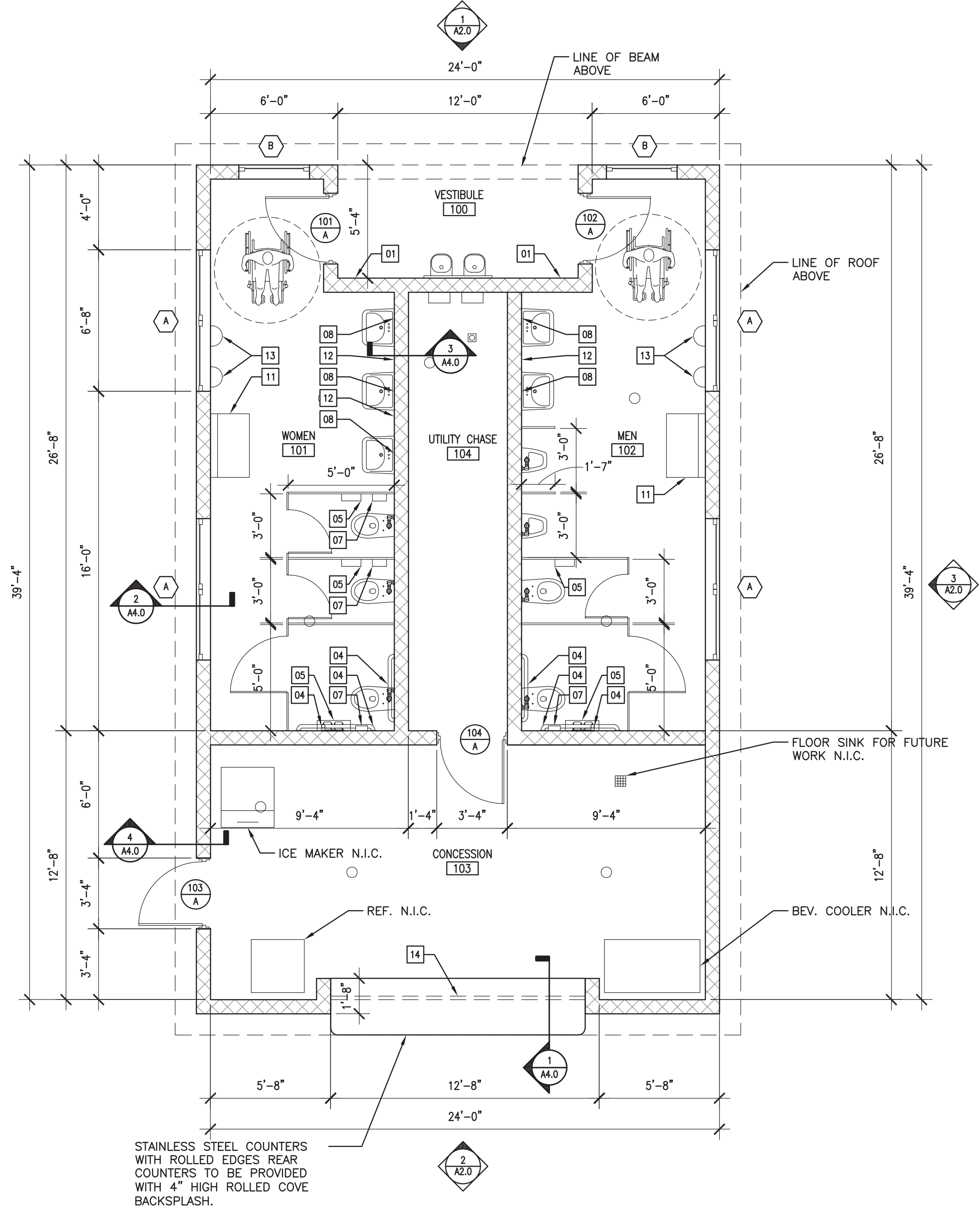
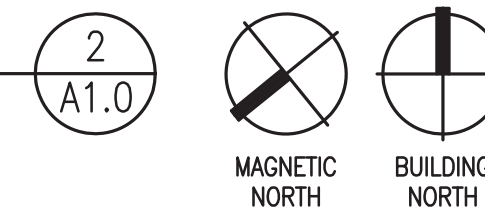




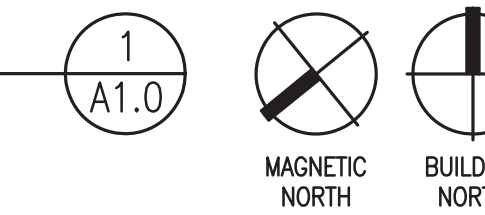
ROOF PLAN  
SCALE: 1/4" = 1'-0"



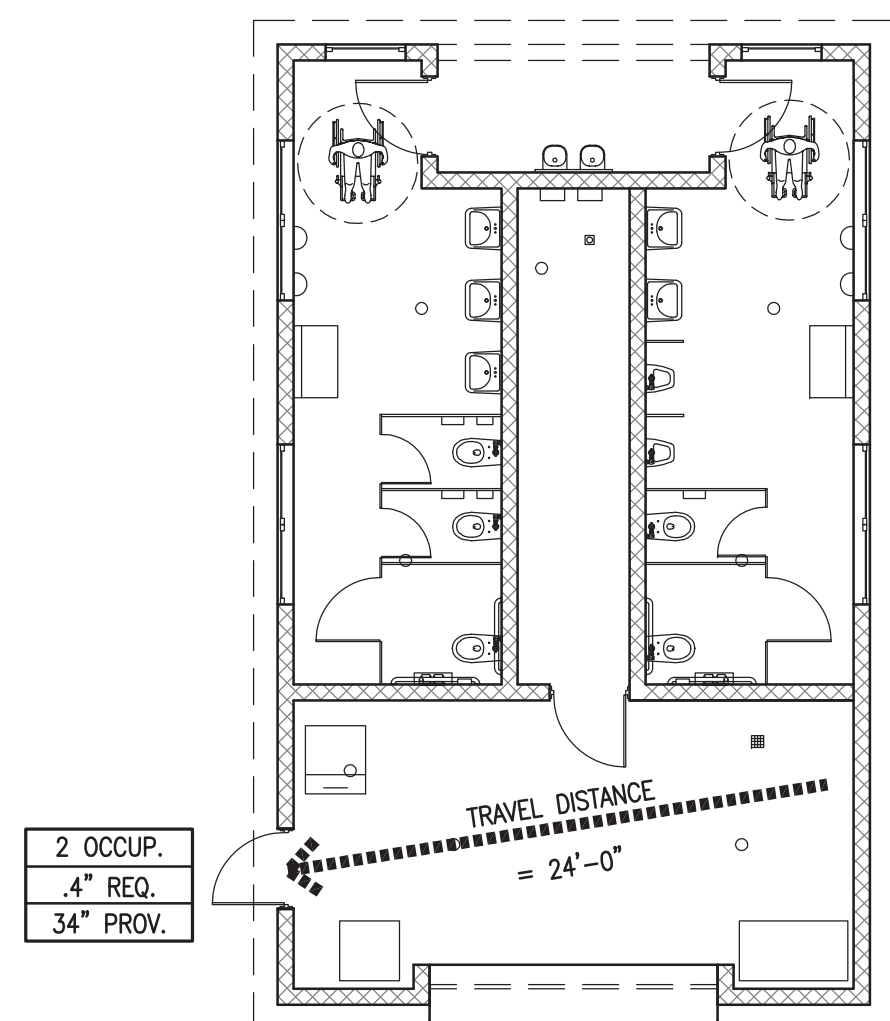
REFLECTED CEILING PLAN  
SCALE: 1/4" = 1'-0"



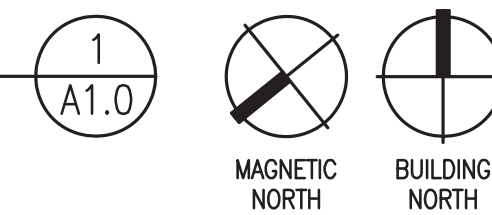
FLOOR PLAN  
SCALE: 1/4" = 1'-0"



ALTERNATES:  
#1 LIGHTING ALTERNATE - SEE E1.1  
#2 LIGHTING CONTROLS ALTERNATE - SEE E1.1



LIFE SAFETY PLAN  
SCALE: 1/8" = 1'-0"

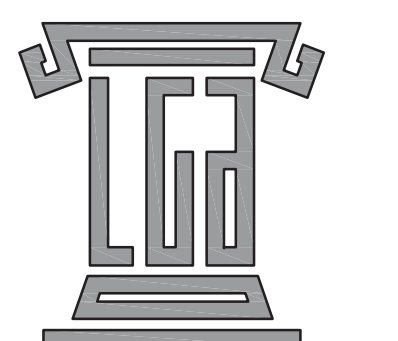
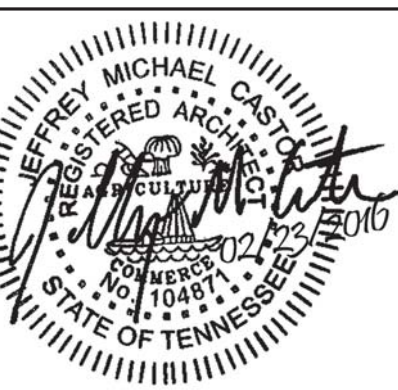


KEYNOTES	GENERAL NOTES AND SPECIFICATIONS
<p>01 RESTROOM SIGNS SHALL BE ADA COMPLIANT, TACTILE WITH BRAILLE ACCESSIBLE RESTROOM, WHITE ON BLUE, FAMILY FRIENDLY DESIGN.</p> <p>02 SOFFIT SHALL BE CONTINUOUS BEADED PORCH PANEL WITH EXTERIOR COLOR TO BE STERLING GRAY BY CERTANTEED (OR EQUAL). INTERIOR TO MATCH COLOR SELECTED FOR WALLS. EXTERIOR SHALL BE VENTED.</p> <p>03 NOT USED</p> <p>04 TOILET COMPARTMENT GRAB BARS SHALL BE STAINLESS STEEL 1 1/2" OUTSIDE DIAMETER, PEENED SURFACE, BY BOBRICK NO. B-6806.99x36, NO. B-6806.99x42, AND NO. B-6806.99x18 (OR EQUAL). FOR VERTICAL AND HORIZONTAL PLACEMENT SEE DRAWINGS.</p> <p>05 TOILET PAPER DISPENSER SHALL BE BOBRICK B2888, STAINLESS STEEL CONSTRUCTION, MULTI ROLL TISSUE DISPENSER (OR EQUAL).</p> <p>06 NOT USED</p> <p>07 SANITARY NAPKIN DISPOSAL UNIT SHALL BE SURFACE MOUNTED, STAINLESS STEEL, BOBRICK MODEL NO. B-270 (OR EQUAL).</p> <p>08 MIRROR SHALL BE SURFACE MOUNTED, STAINLESS STEEL, BRADLEY MODEL NO. 780-1836 (OR EQUAL).</p> <p>09 ROOFING SHALL BE WEATHERED GALVALUME KYNAR 500/HTAR 5000 TEE-PANEL/STANDING SEAM ROOF BY METAL ROOFING SYSTEMS, INC (MRS) SYSTEM T OR EQUAL. ROOF SHEATHING SHALL BE 3/4" CDX PLYWOOD WITH GALVANIZED STEEL H-CLIPS, BY SIMPSON STRONG-TIE (OR EQUAL). COVER PLYWOOD SURFACE WITH 30 POUND ROOF FELT.</p> <p>10 METAL RIDGE CAP TO BE INCORPORATED FOR THE ENTIRE LENGTH OF THE ROOF PEAKS. COLOR TO MATCH WEATHERED GALVALUME STANDING SEAM ROOF PANEL.</p> <p>11 DIAPER CHANGING STATION SHALL BE MODEL KB-200 BY KOLA KARE (OR EQUAL)</p> <p>12 SOAP DISPENSER SHALL BE BOBRICK MODEL NO. B-2111, SURFACE MOUNTED, STAINLESS STEEL (OR EQUAL)</p> <p>13 HAND DRYER - EXCEL DRYER XLERATOR, STAINLESS COVER, BRUSHED, SURFACE MOUNTED, AUTOMATIC SENSOR</p> <p>14 COOLING COUNTER DOOR SHALL BE MODEL 651 BY OVERHEAD DOOR (OR EQUAL) (12'-0"x5'-0" OPENING)</p> <p>15 METAL GUTTER TO MATCH ROOF</p> <p>16 METAL 3" CIRCULAR DOWNSPOUT TO MATCH ROOF</p>	<p>DOOR AND DOOR HARDWARE AS FOLLOWS:</p> <ul style="list-style-type: none"> <li>DOORS SHALL BE 3'-0"x7'-0"x1 3/4" 16 GAUGE, GRADE III, FLUSH STEEL DOORS BY CECO DOOR PRODUCTS (OR EQUAL). FRAMES SHALL BE CECO 5" x 7 1/2" WITH 2" JAMBS, 4" HEAD OR EQUAL. DOORS ARE TO BE PRIMED AND PAINTED WITH GUN-METAL GRAY ENAMEL PAINT.</li> <li>DOOR HINGES SHALL BE FULL MORITSE, 5 KNUCKLE, STAINLESS STEEL, 4 1/2"x4 1/2", BY HAGER NO. BB1191 NRP (OR EQUAL).</li> <li>DOOR PUSH PLATES SHALL BE STAINLESS STEEL, 4"x16", BY HAGER NO. 305, US320 (OR EQUAL)</li> <li>DOOR PULL SHALL BE STAINLESS STEEL, 4"x16", BY HAGER NO. 33E, US 320 (OR EQUAL)</li> <li>KICK PLATE SHALL BE STAINLESS STEEL, 8"x34", BY HAGER NO. 190S, US 320 (OR EQUAL)</li> <li>LOUVER SHALL BE A 12x24 STEEL LOUVER SIZED TO PROVIDE FREE AREA OF 1 SQUARE FOOT. PRIME AND PAINT - COLOR TO MATCH DOOR COLOR.</li> <li>THRESHOLD SHALL BE NATIONAL GUARD PRODUCTS NO. 425-36" ALUMINUM (OR EQUAL).</li> <li>DEAD BOLT LOCK SHALL BE CORBIN-RUSSWIN ML2013 US 260 x 1" THROW (OR EQUAL).</li> <li>CLOSER SHALL BE RUSSWIN NO. DC6210 SBL (OR EQUAL).</li> <li>DOOR STOP SHALL BE IVES NO. 436-260 (OR EQUAL).</li> <li>WEATHERSTRIPPING SHALL BE NATIONAL GUARD PRODUCTS NO. 160SA (OR EQUAL), 3"x7" OPENINGS.</li> <li>SWEEP SHALL BE NATIONAL GUARD PRODUCTS 200 NA-36 (OR EQUAL).</li> </ul> <p>WINDOW, ALUMINUM CLAD, OPERABLE AWNING WINDOW BY TRACO (OR APPROVED EQUAL)</p> <p>A - 6'-8"x1'-4" B - 3'-4"x1'-4"</p> <p>TOILET COMPARTMENT DOORS AND PARTITIONS AS FOLLOWS:</p> <ul style="list-style-type: none"> <li>TOILET COMPARTMENT DOORS AND PANELS SHALL BE BRADLEY SERIES 700, STAINLESS STEEL COMPONENTS WITH PILESTERS FLOOR AND CEILING BRACKET EXCEPT BY WINDOW (SEE DRAWING)</li> <li>PARTITIONS SHALL BE FASTENED TO WALLS USING A CONTINUOUS STAINLESS STEEL BRACKET, MODEL HDWT-S0040 BY SUSTAINABLE SUPPLY (OR EQUAL).</li> <li>DOORS FOR THE ACCESSIBLE STALL SHALL BE 32"x58" AND DOORS FOR STANDARD STALLS SHALL BE 24"x58"</li> <li>URINAL SCREEN SHALL BE STAINLESS STEEL, BRADLEY MODEL #5 WITH CONTINUOUS BRACKET</li> <li>ALL HEAVY DUTY STAINLESS STEEL HARDWARE AND FITTINGS SHALL BE INCLUDED.</li> </ul> <p>ALL EXTERIOR WOOD AT RESTROOM SHALL BE WRAPPED WITH METAL TO MATCH ROOF COLOR</p> <p>EXTERIOR BLOCK SHALL BE SPLIT-FACE CMU. INTERIOR BLOCK SHALL BE STANDARD 8" x 8" x 16" CMU.</p> <p>FOAM INSULATION SHALL BE A DRY FOAM INSULATION PRODUCT, MODEL R-501, BY POLYMASTER INSULATING FOAMS (OR EQUAL)</p>

Restroom Facility and Picnic Pavilion  
Roane County Parks & Recreation

Harriman, Tennessee

FLOOR PLAN, REFLECTED CEILING PLAN, AND ROOF PLAN



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PROJECT REVISIONS

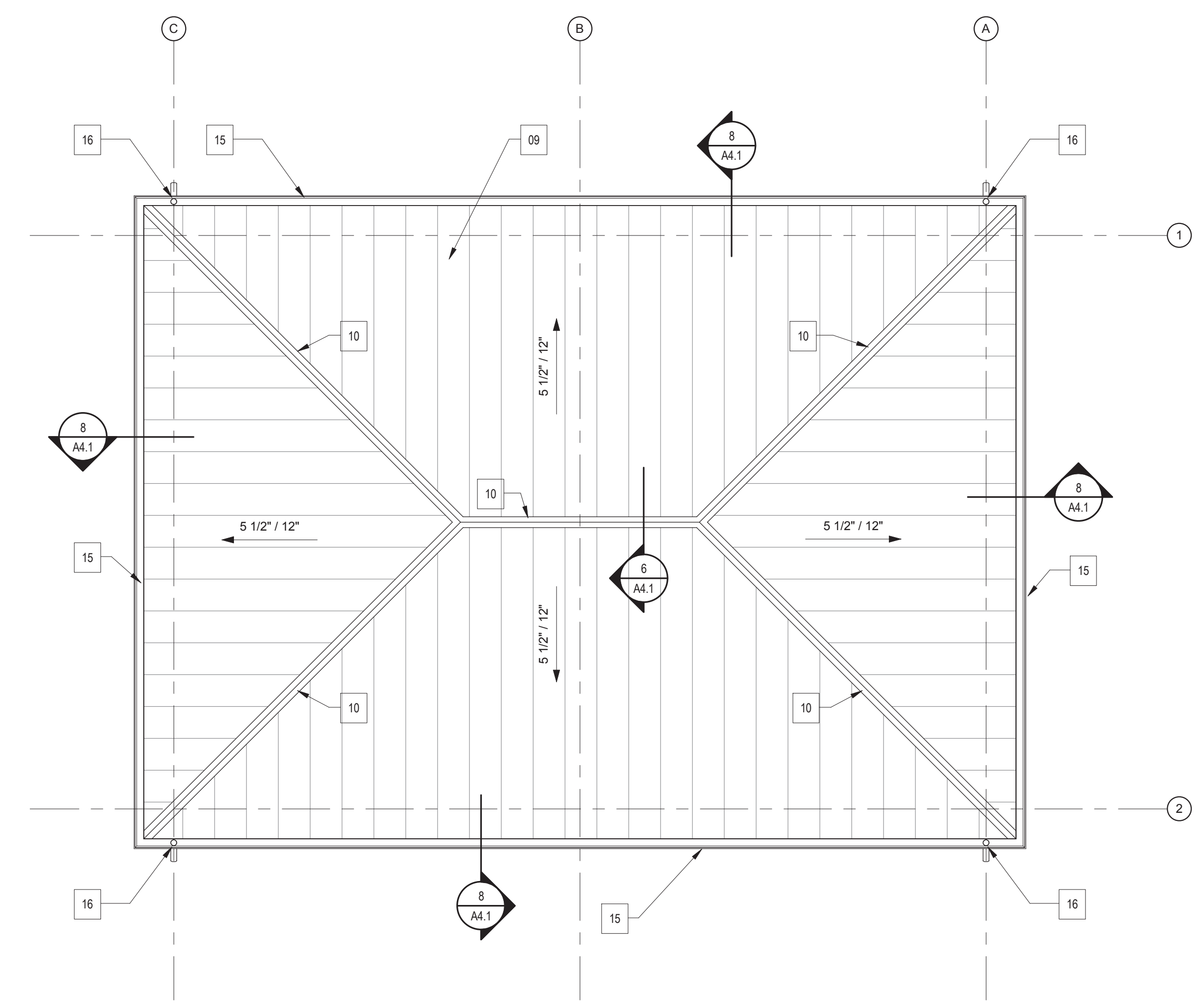
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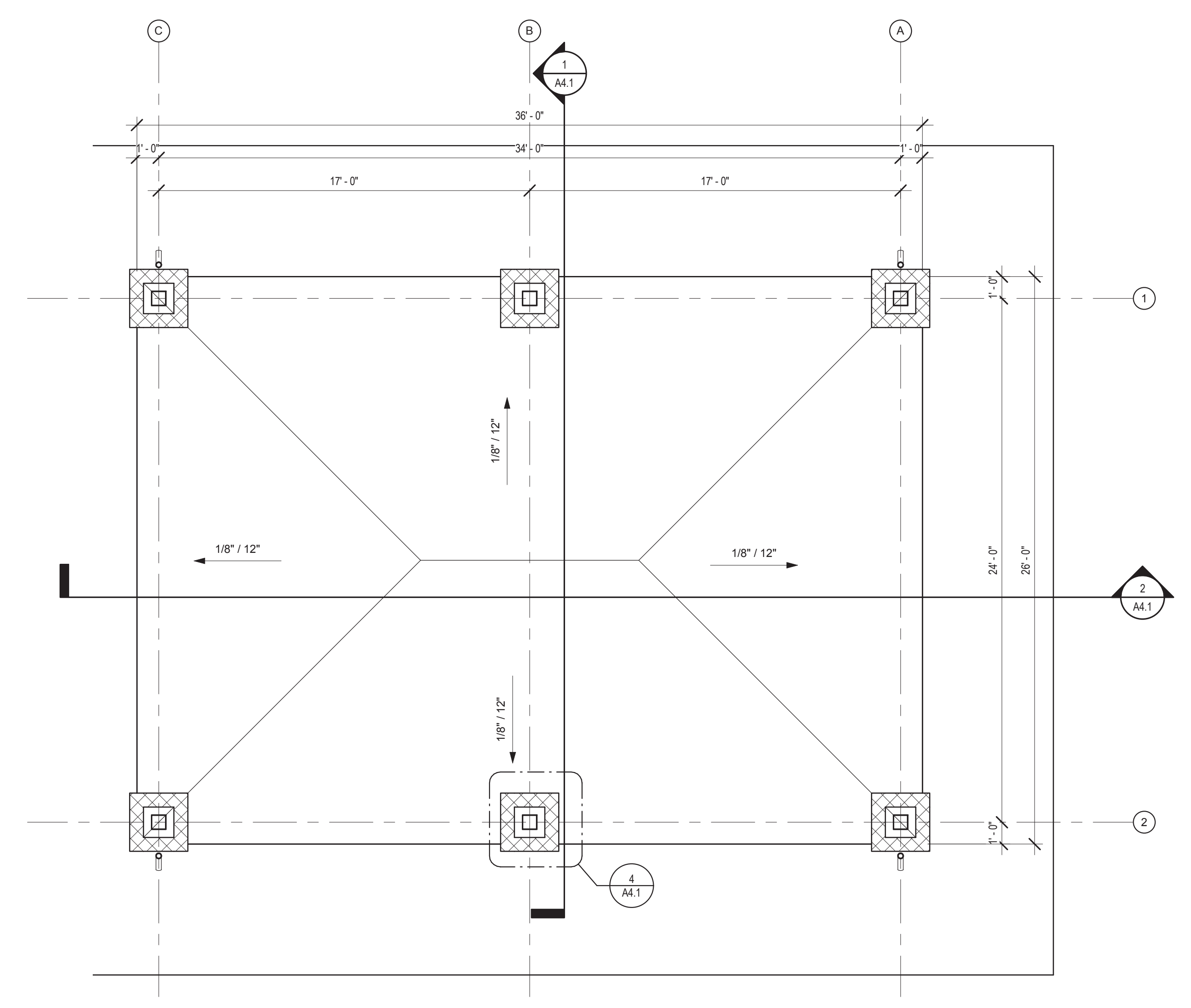
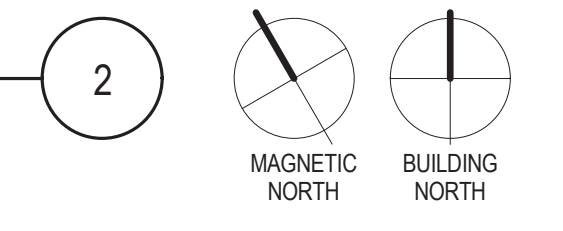
Project Number  
15057/15058  
2/23/2016  
A1.0

**Restroom Facility and Picnic Pavilion**  
**Roane County Parks & Recreation**  
 Harman, Tennessee

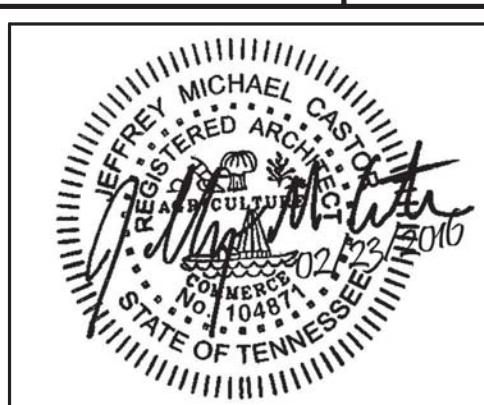
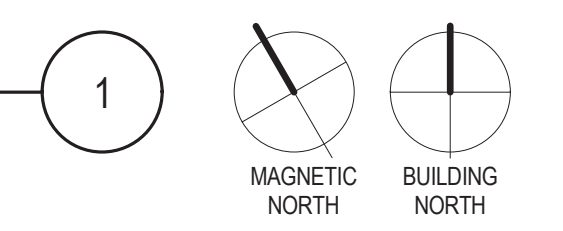
FLOOR PLAN AND ROOF PLAN



**ROOF PLAN AND NOTES**  
 SCALE: 1/4" = 1'-0"



**FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"



**THE LEWIS GROUP**  
 ARCHITECTS

PROJECT REVISIONS

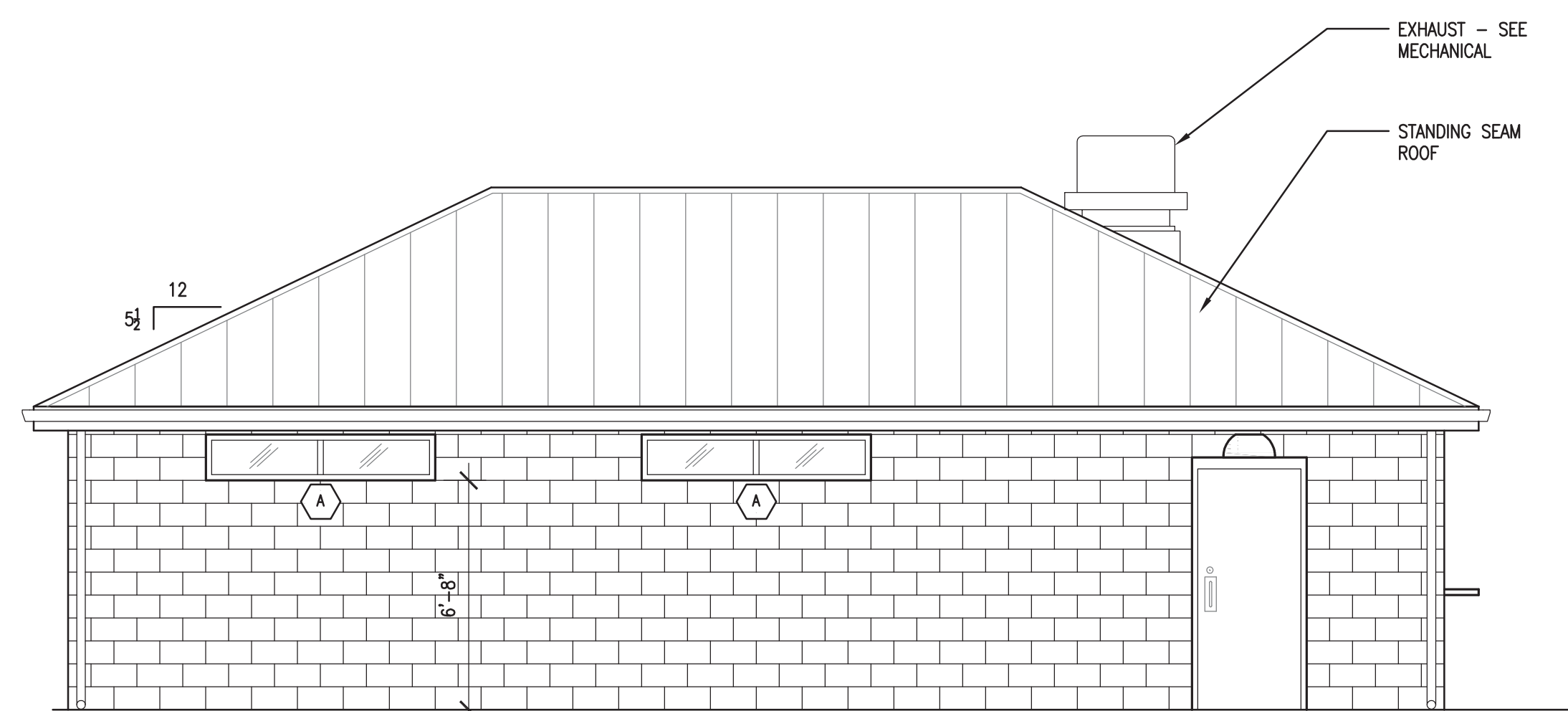
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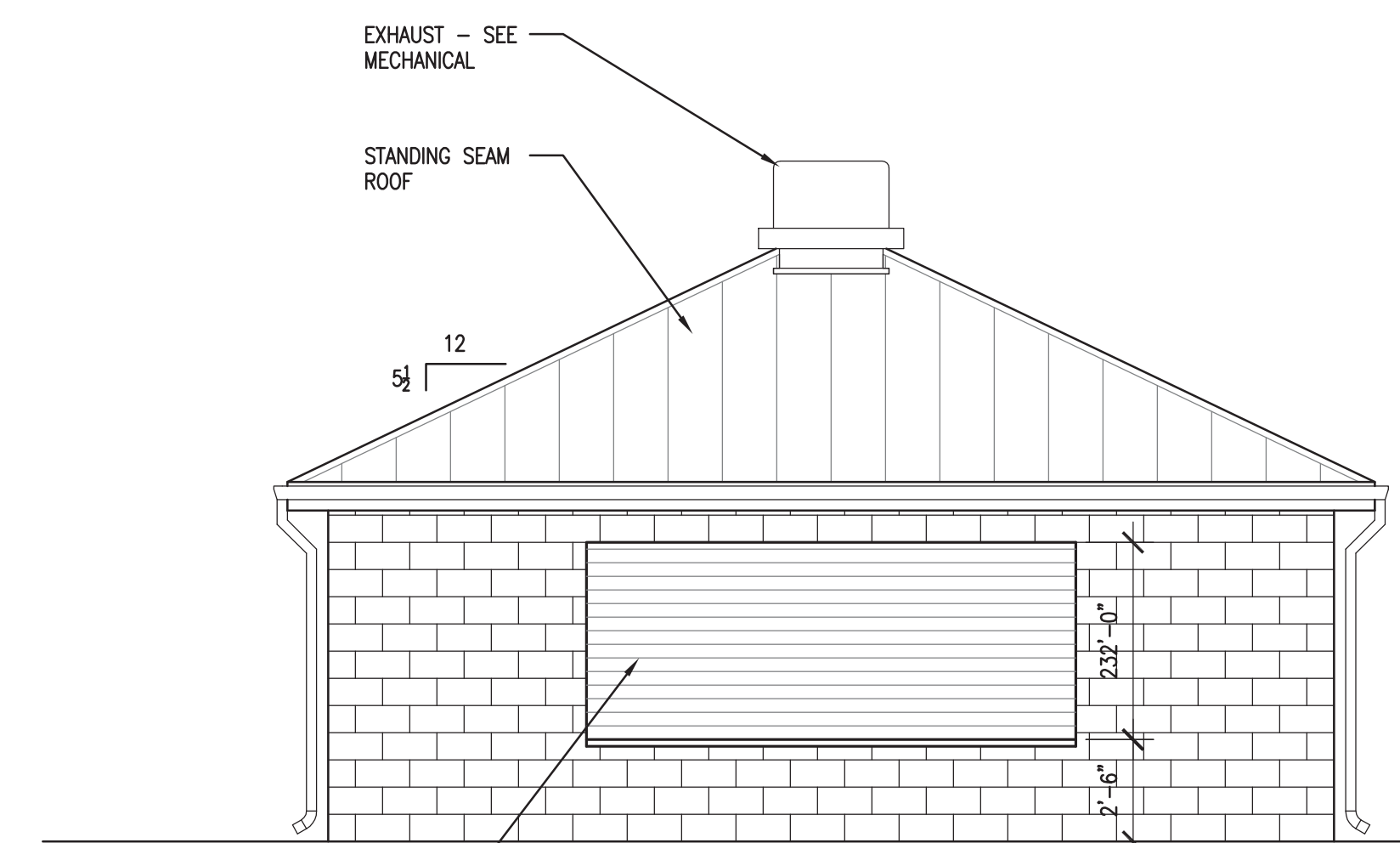
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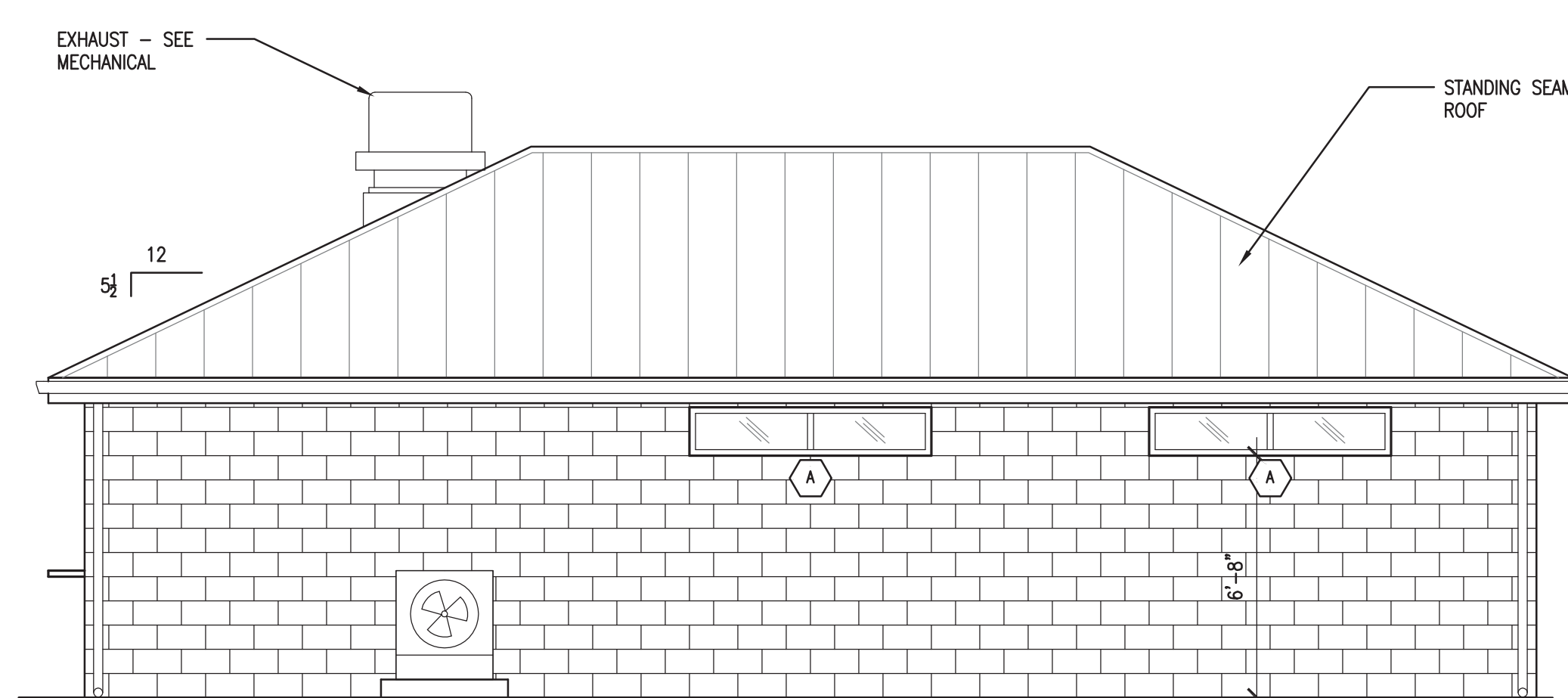
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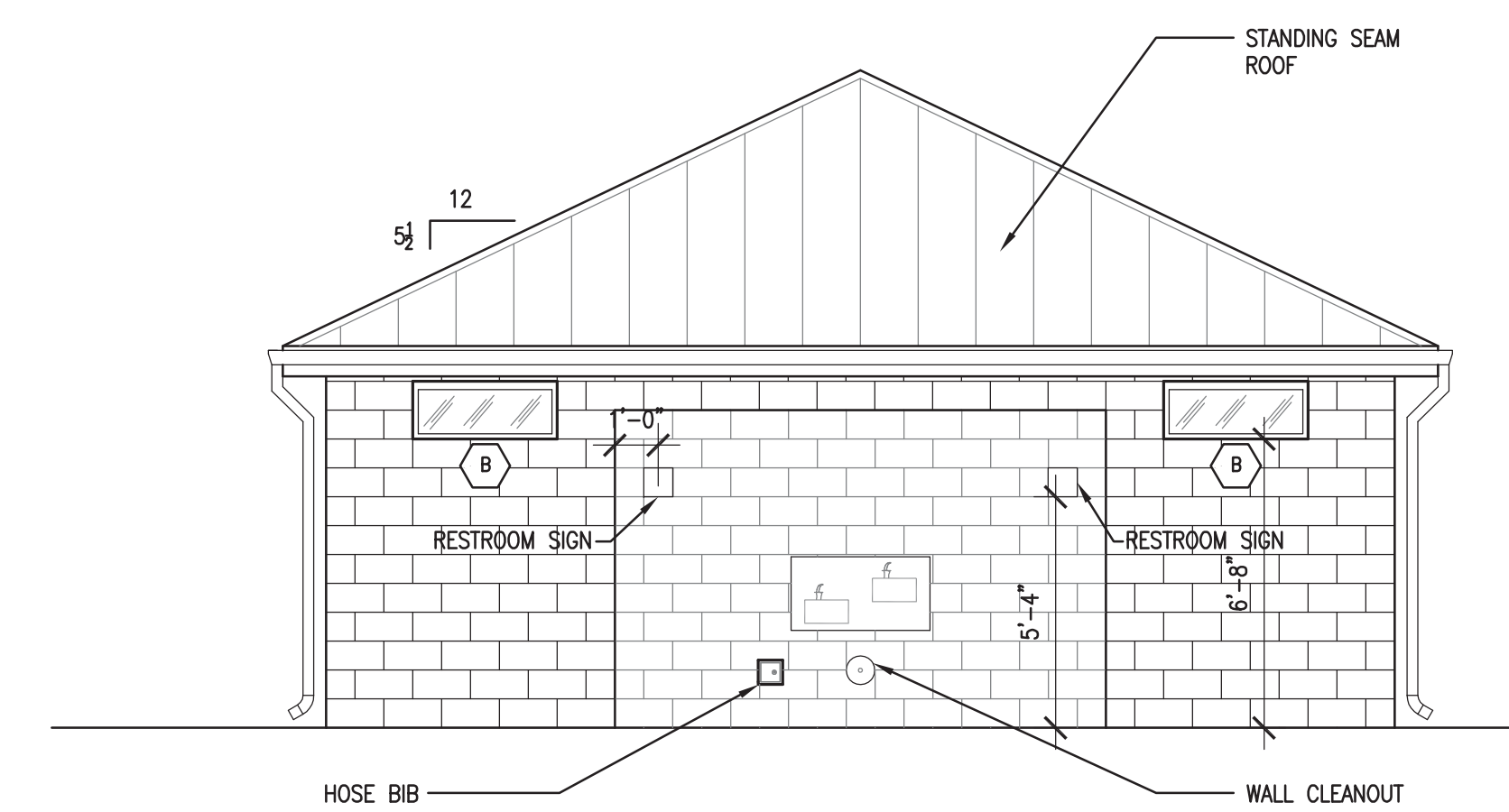
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SCALE: 1/4" = 1'-0"



EXTERIOR ELEVATION - SOUTH 2  
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EXTERIOR ELEVATION - EAST 3  
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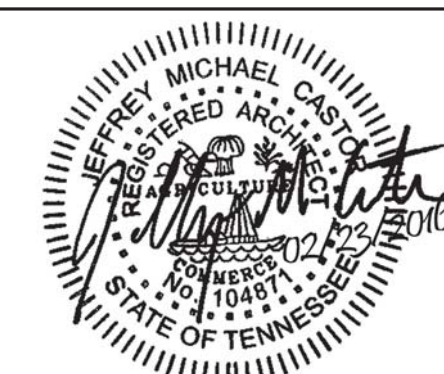


EXTERIOR ELEVATION - NORTH 1  
SCALE: 1/4" = 1'-0"

**Restroom Facility and Picnic Pavilion**  
**Roane County Parks & Recreation**

Harriman, Tennessee

EXTERIOR ELEVATIONS



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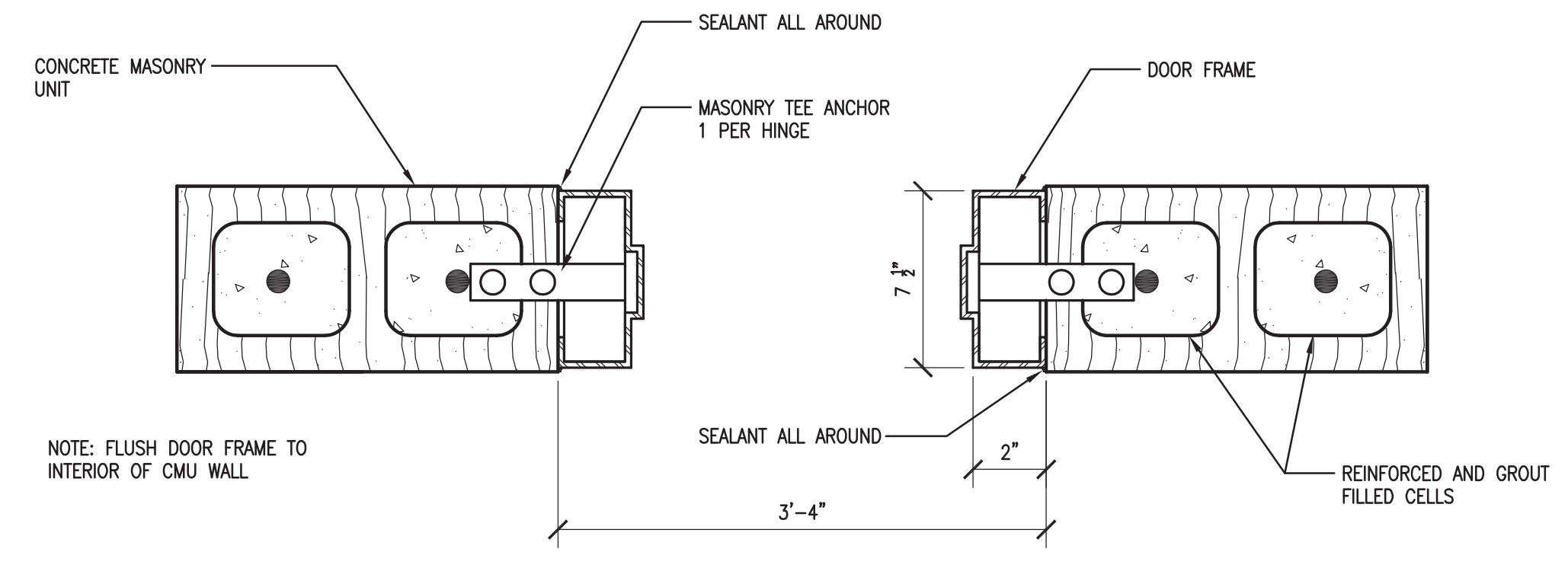
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Date	2/23/2016
Version	A2.0

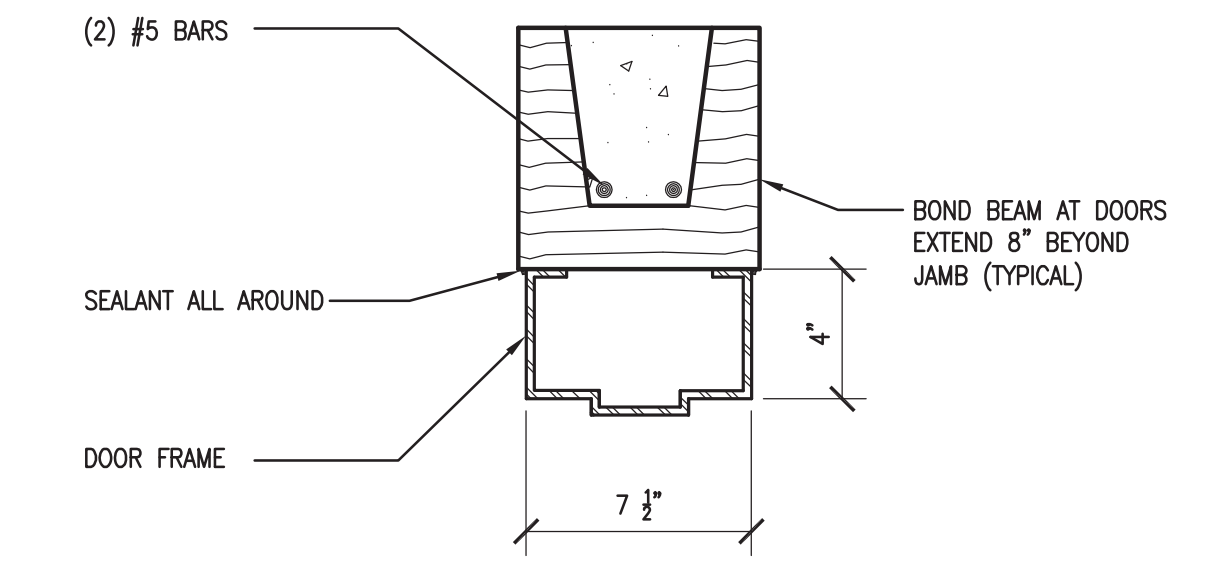
Restroom Facility and Picnic Pavilion  
Roane County Parks & Recreation

Harriman, Tennessee

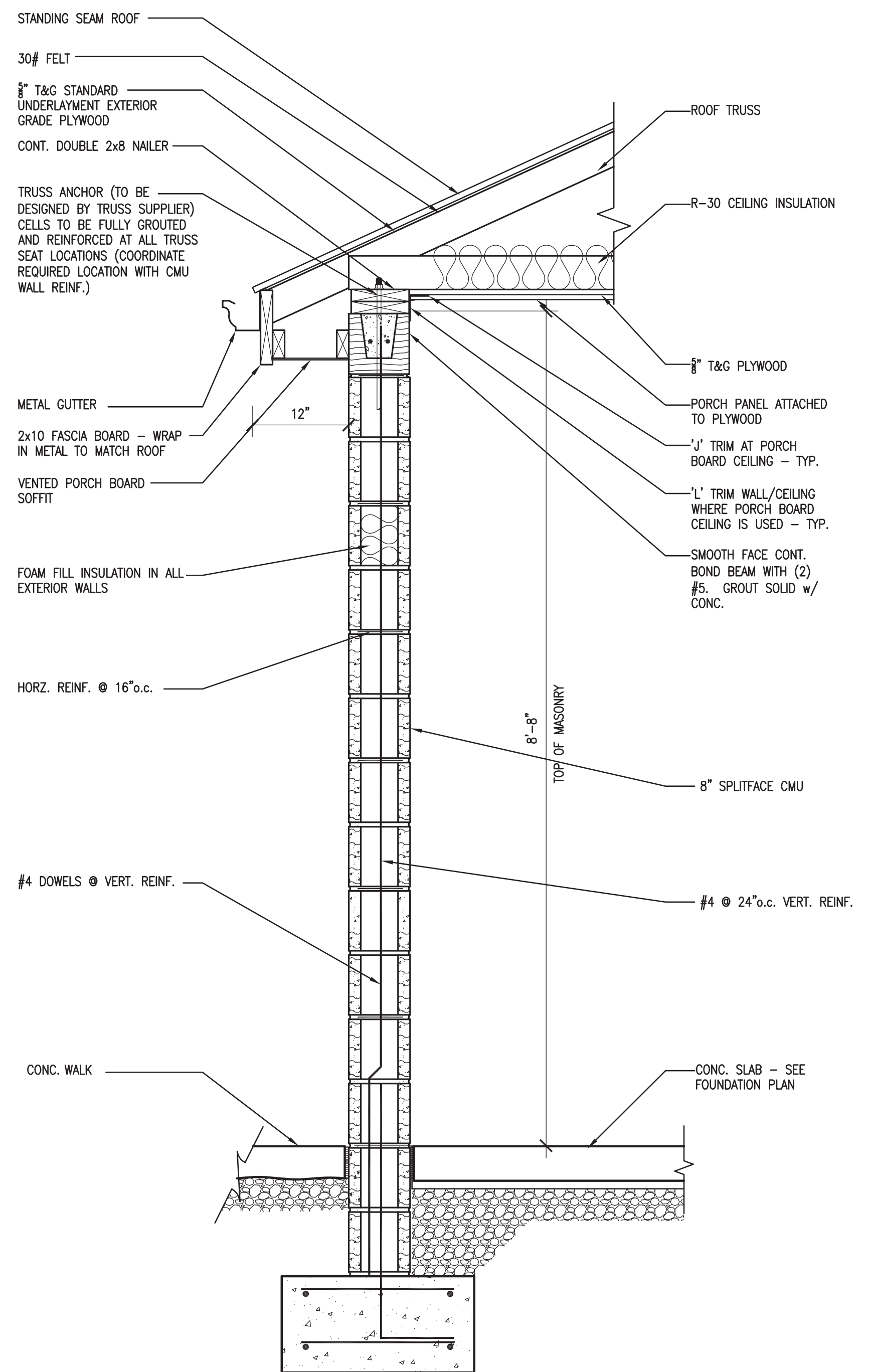
WALL SECTIONS



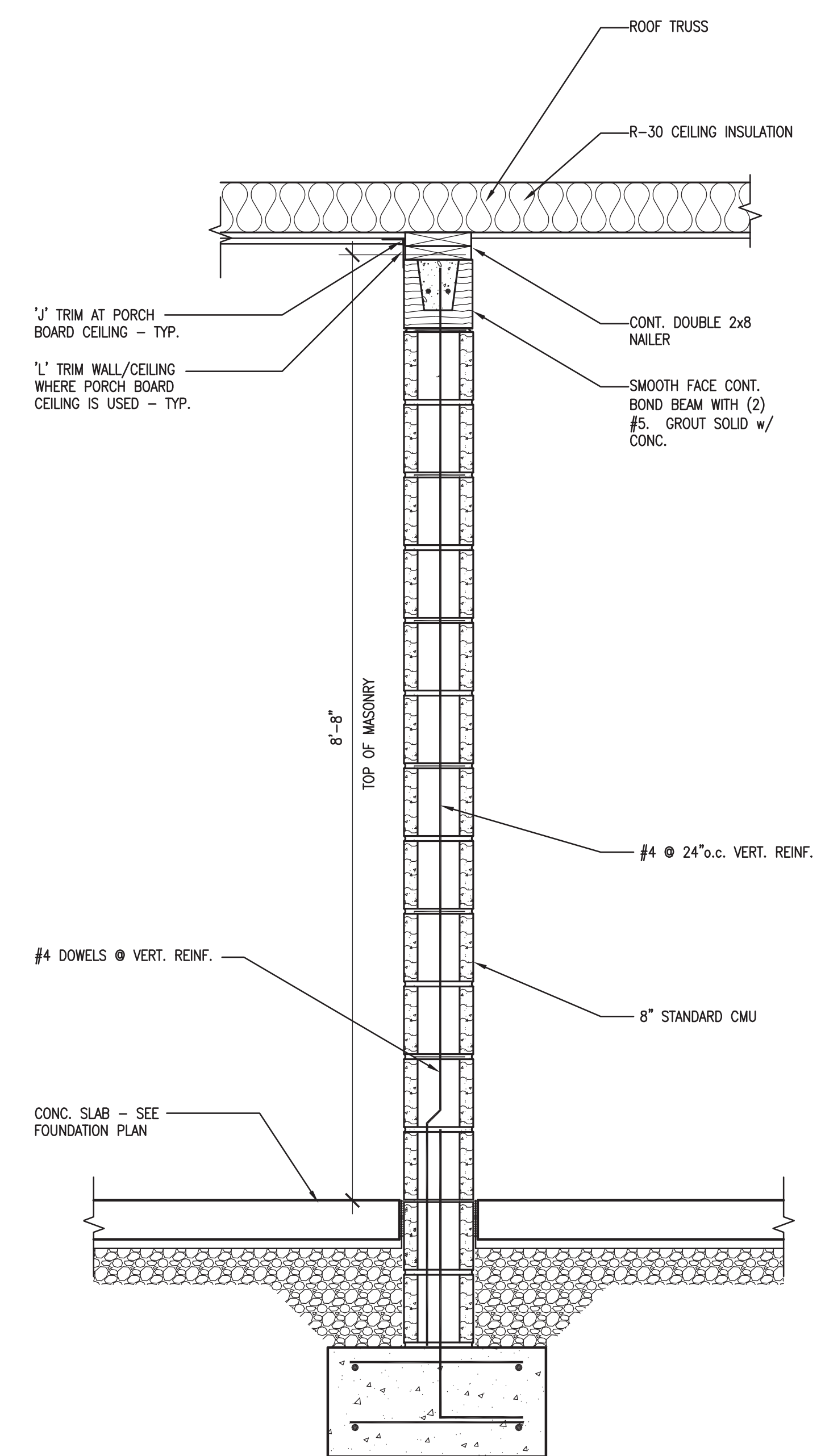
DOOR JAMB  
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A4.0



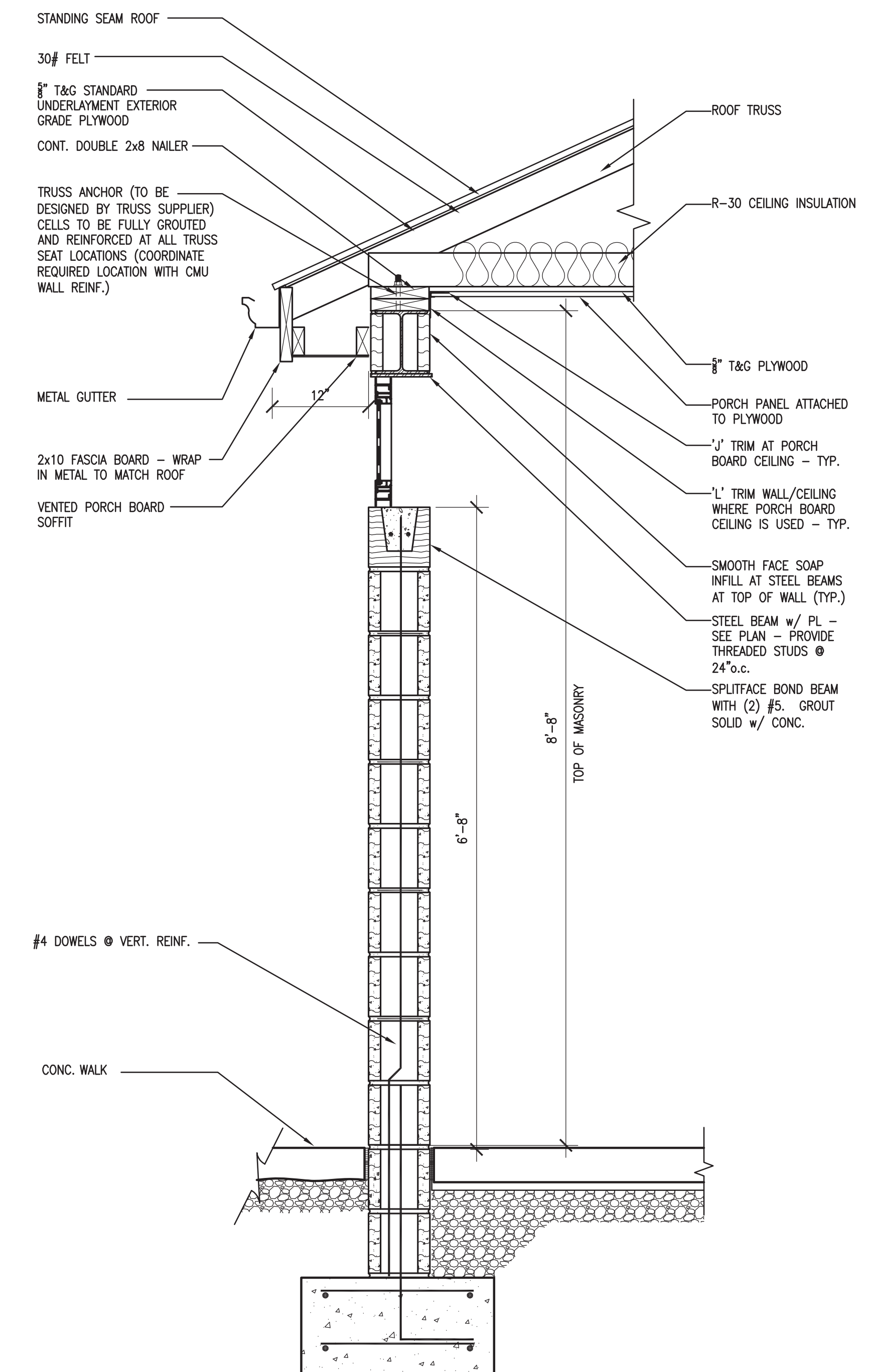
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A4.0



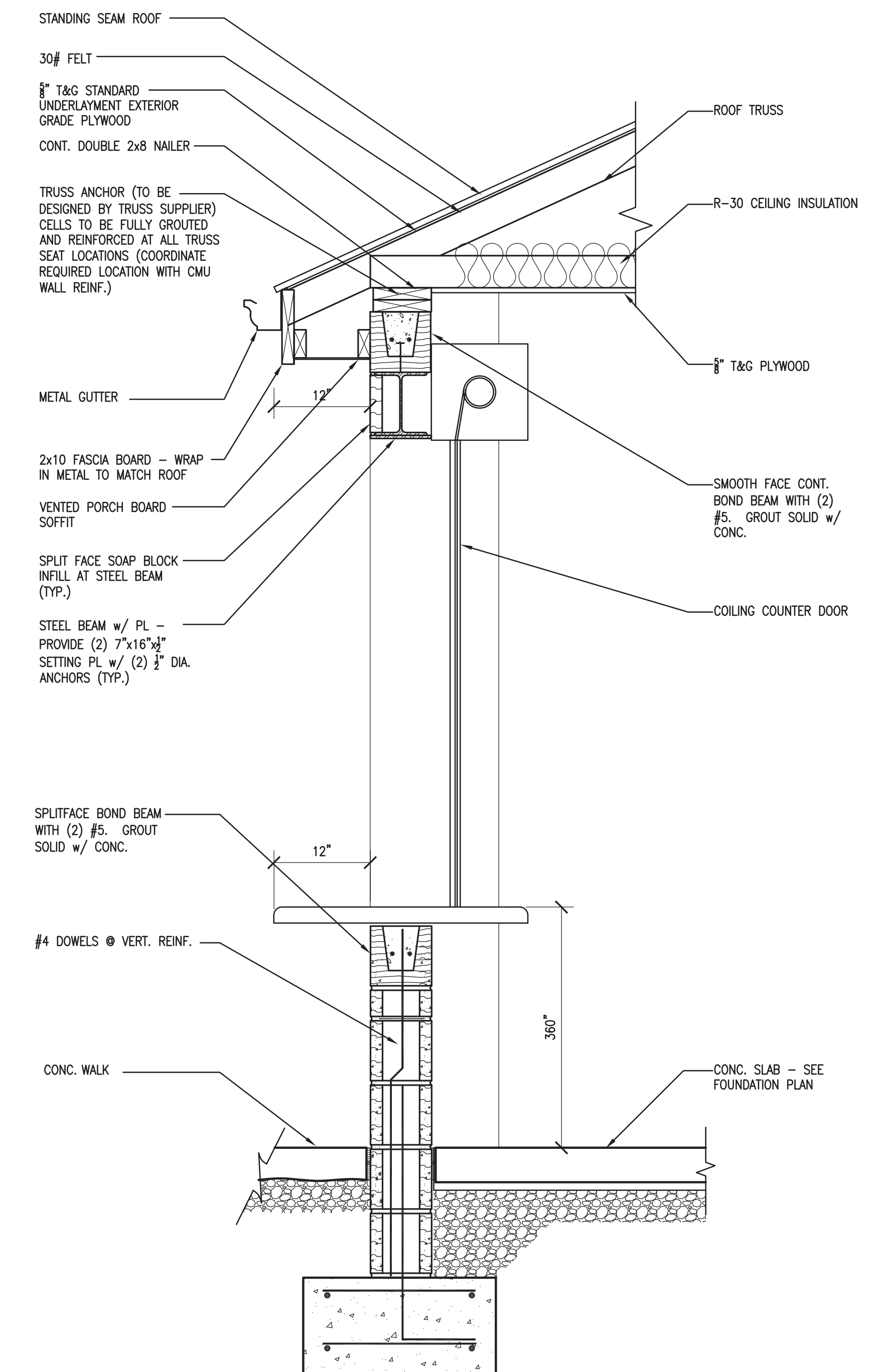
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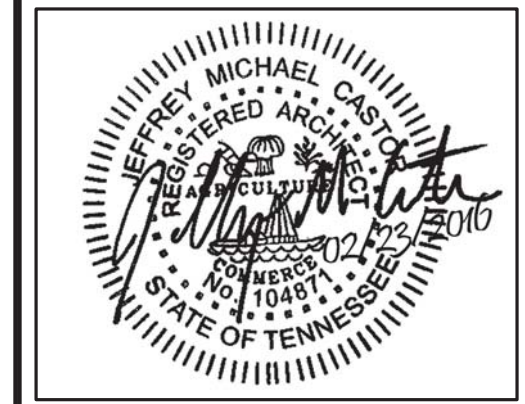
WALL SECTION  
SCALE: 1" = 1'-0"  
3  
A4.0



WALL SECTION  
SCALE: 1" = 1'-0"  
2  
A4.0



WALL SECTION  
SCALE: 1" = 1'-0"  
1  
A4.0



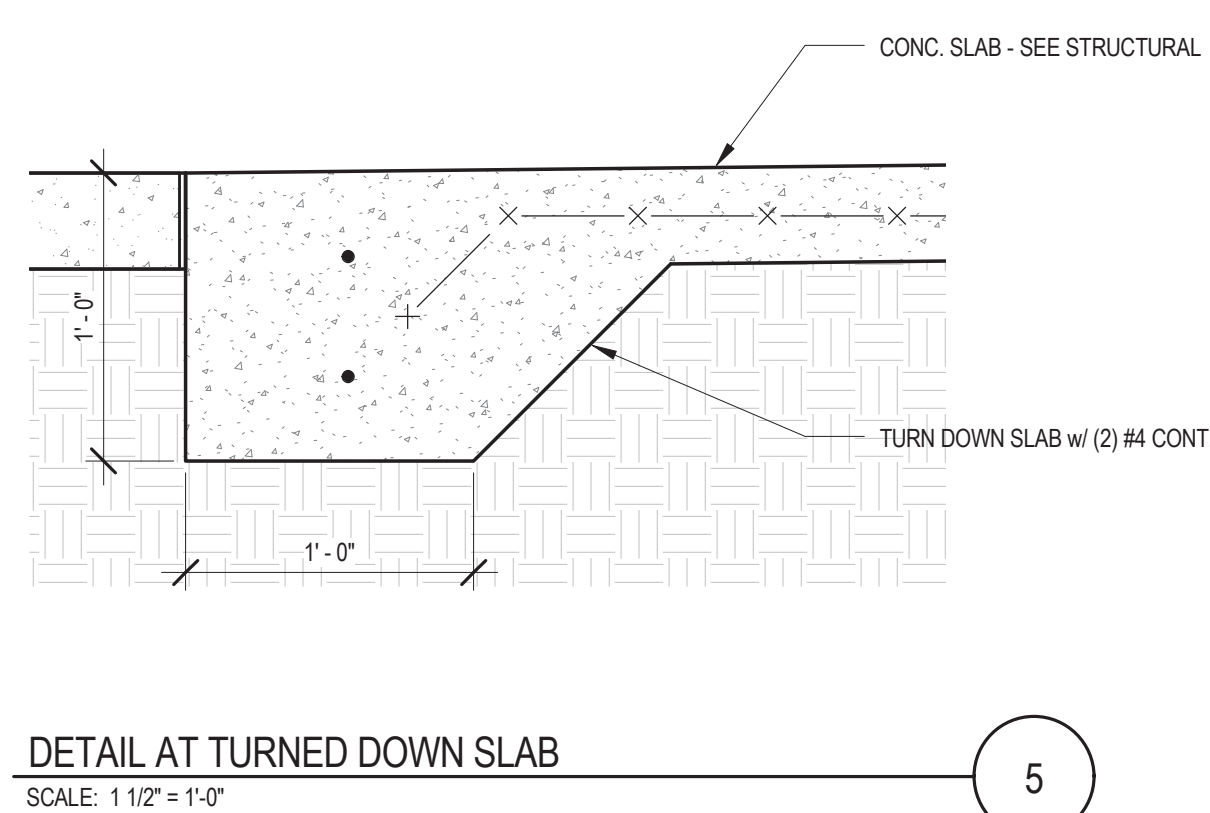
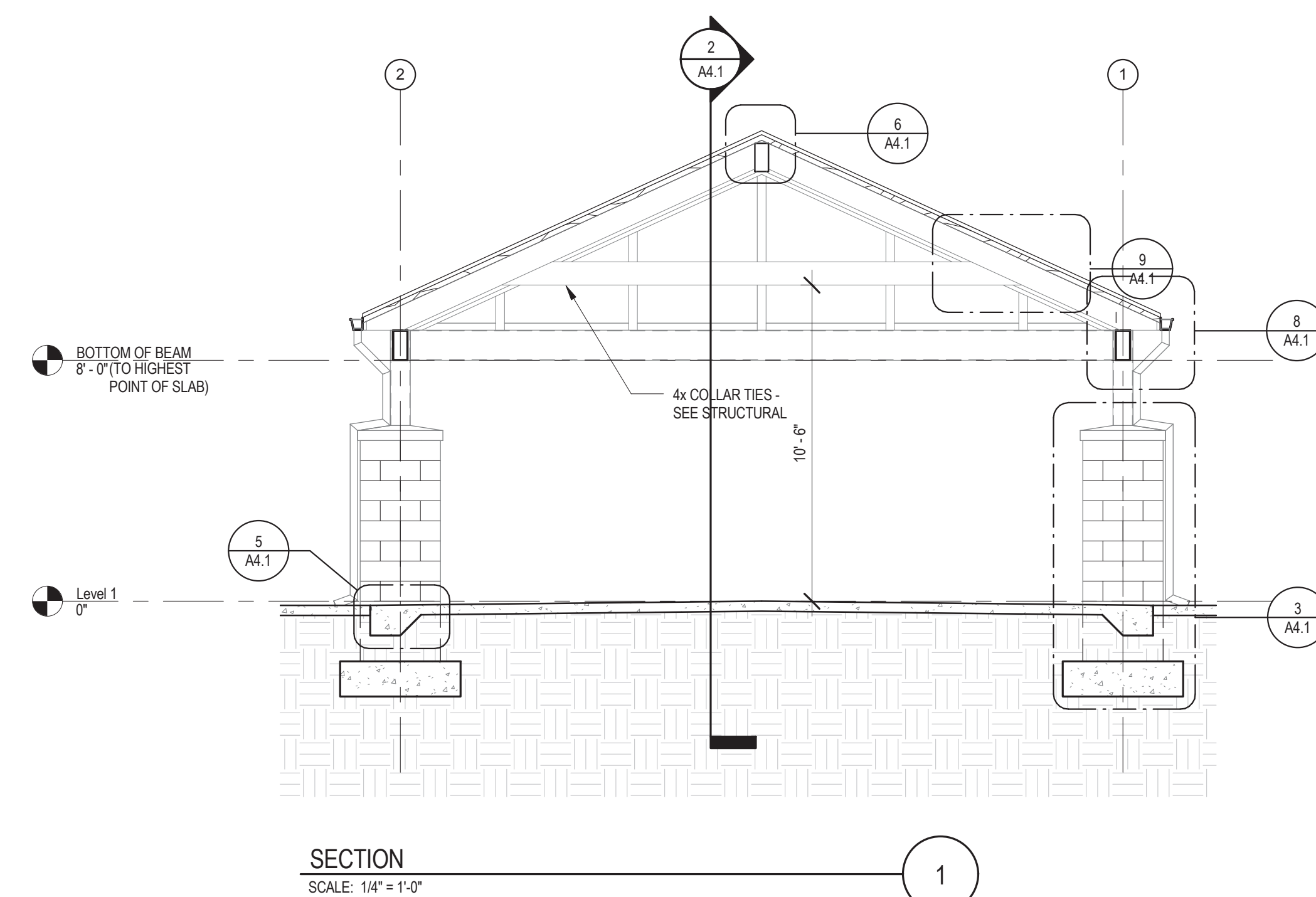
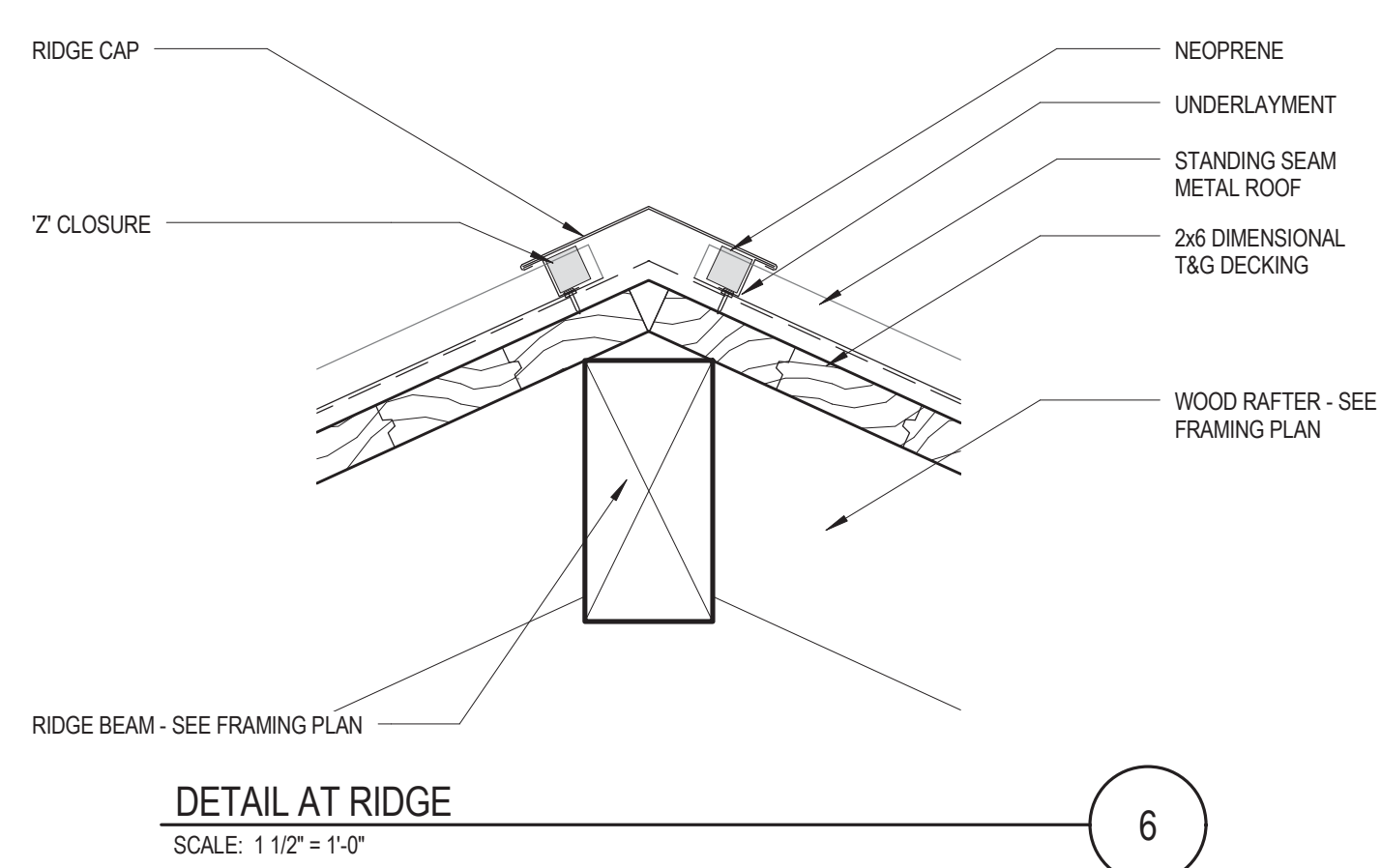
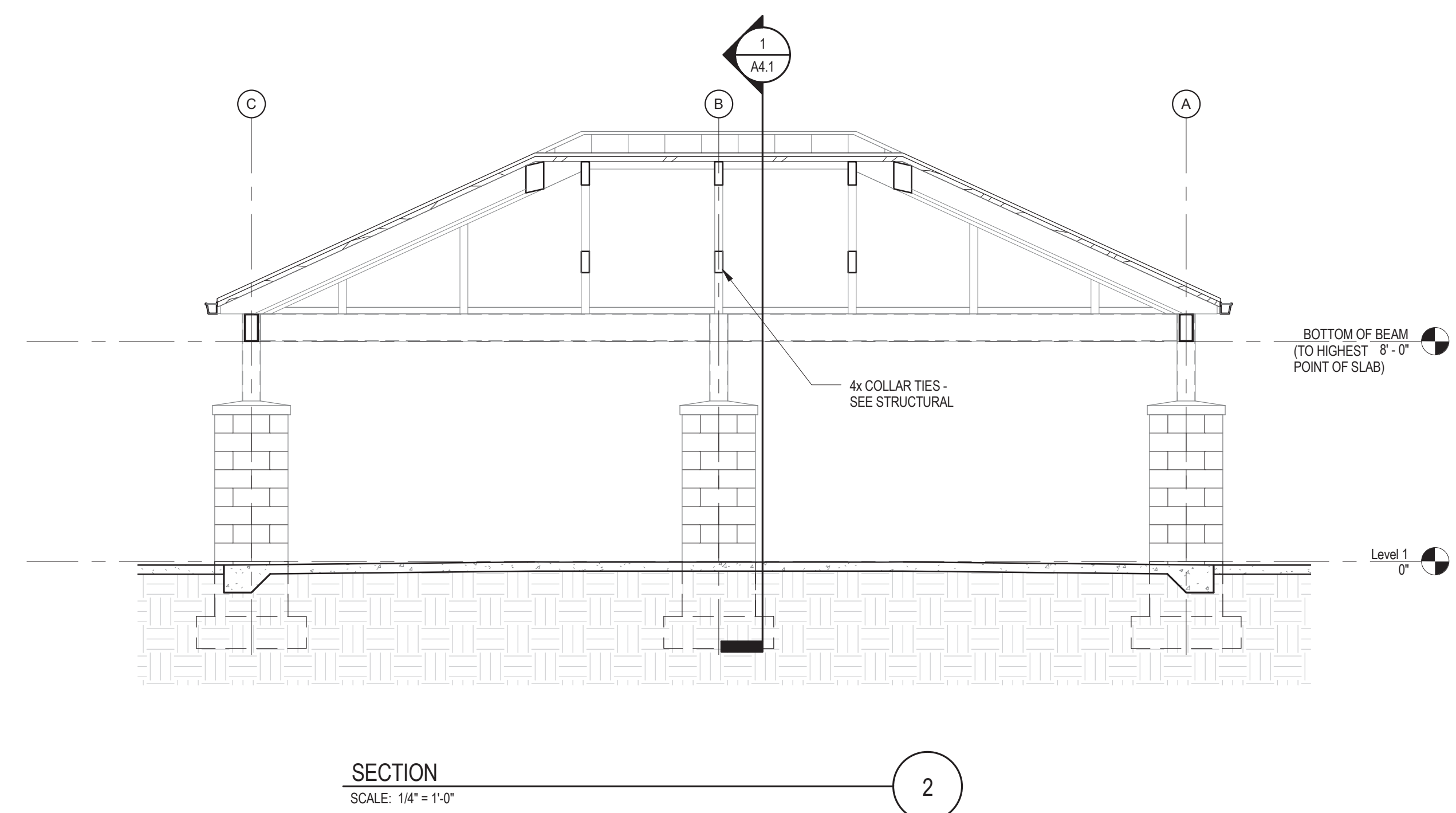
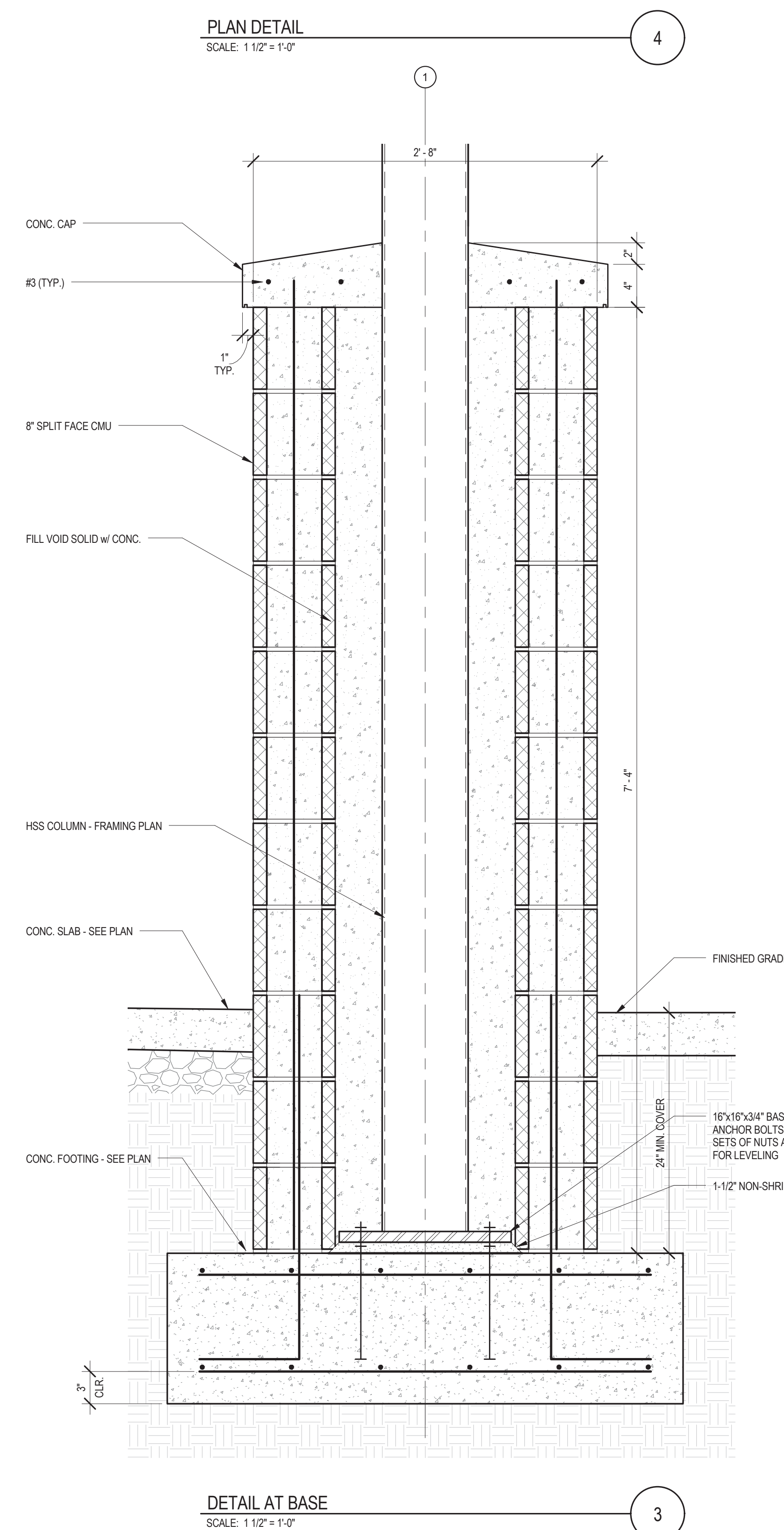
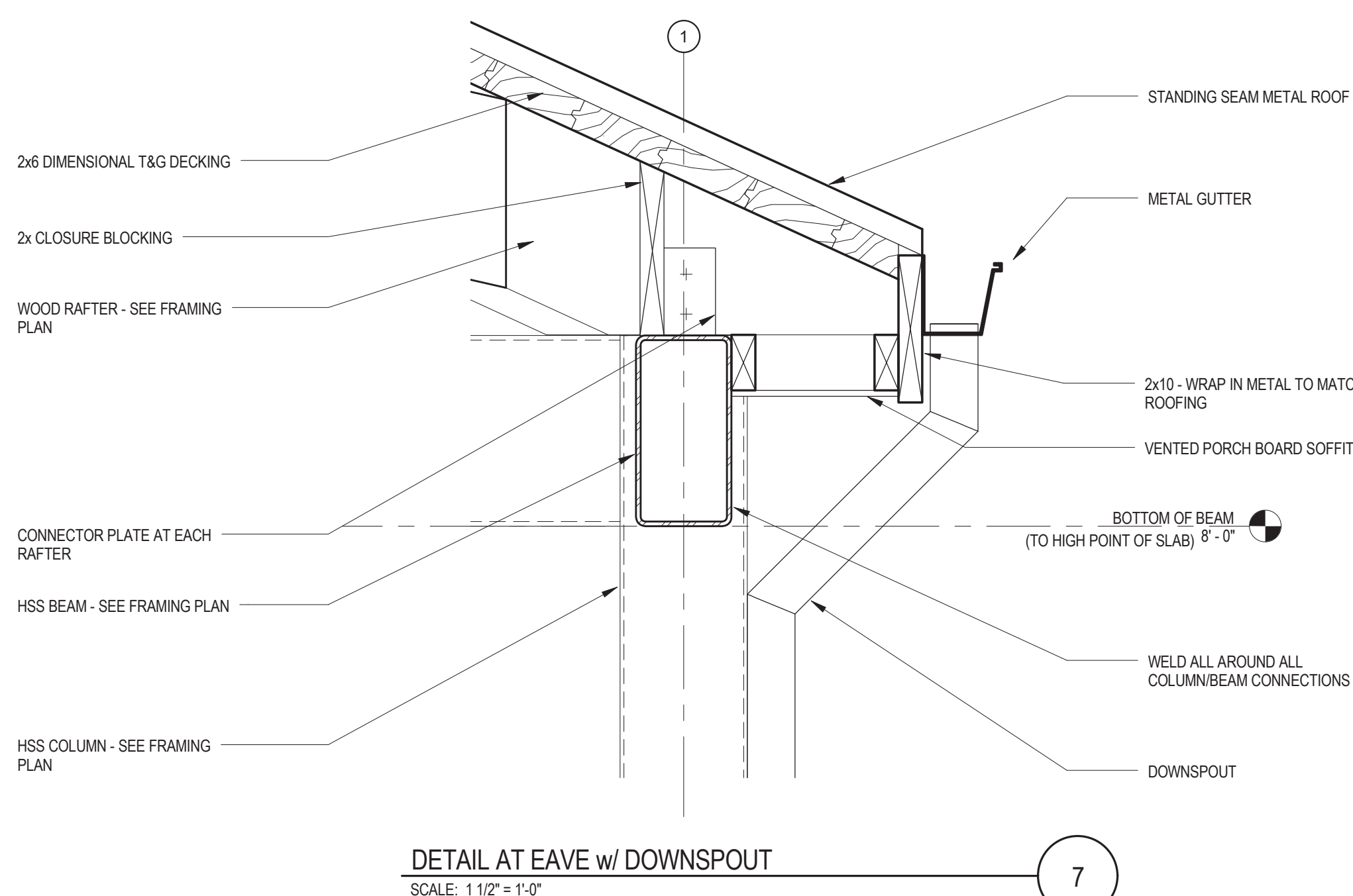
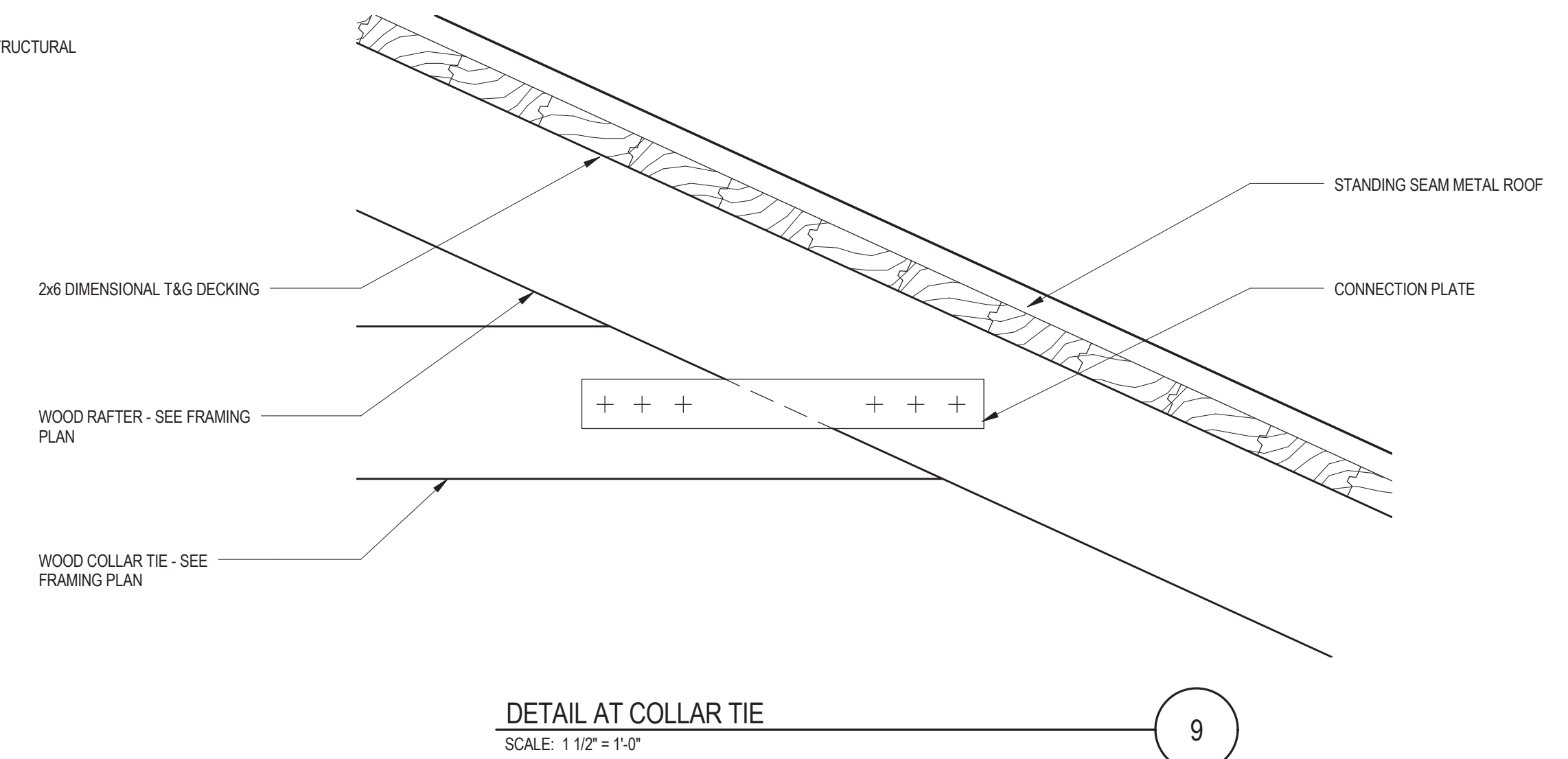
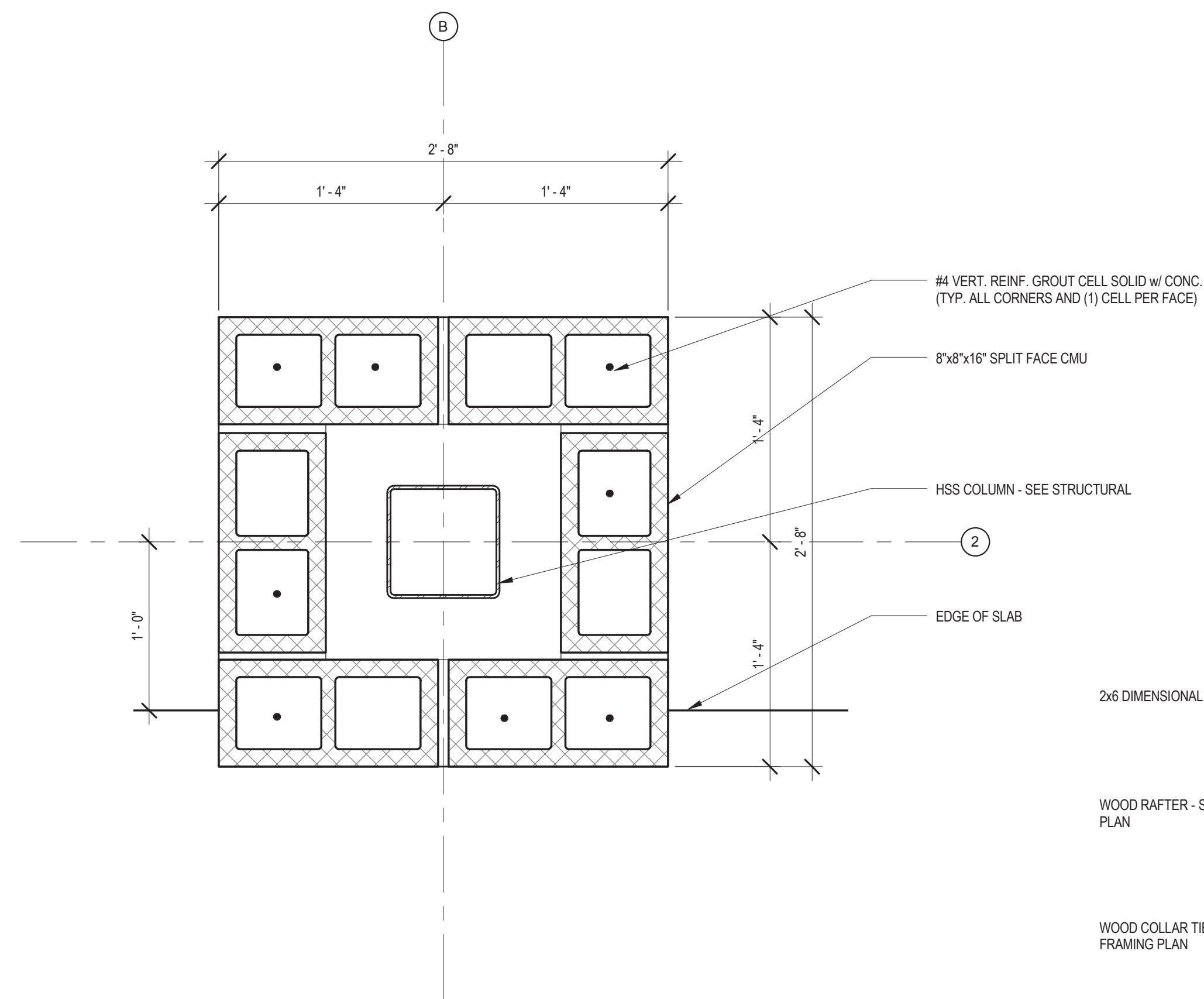
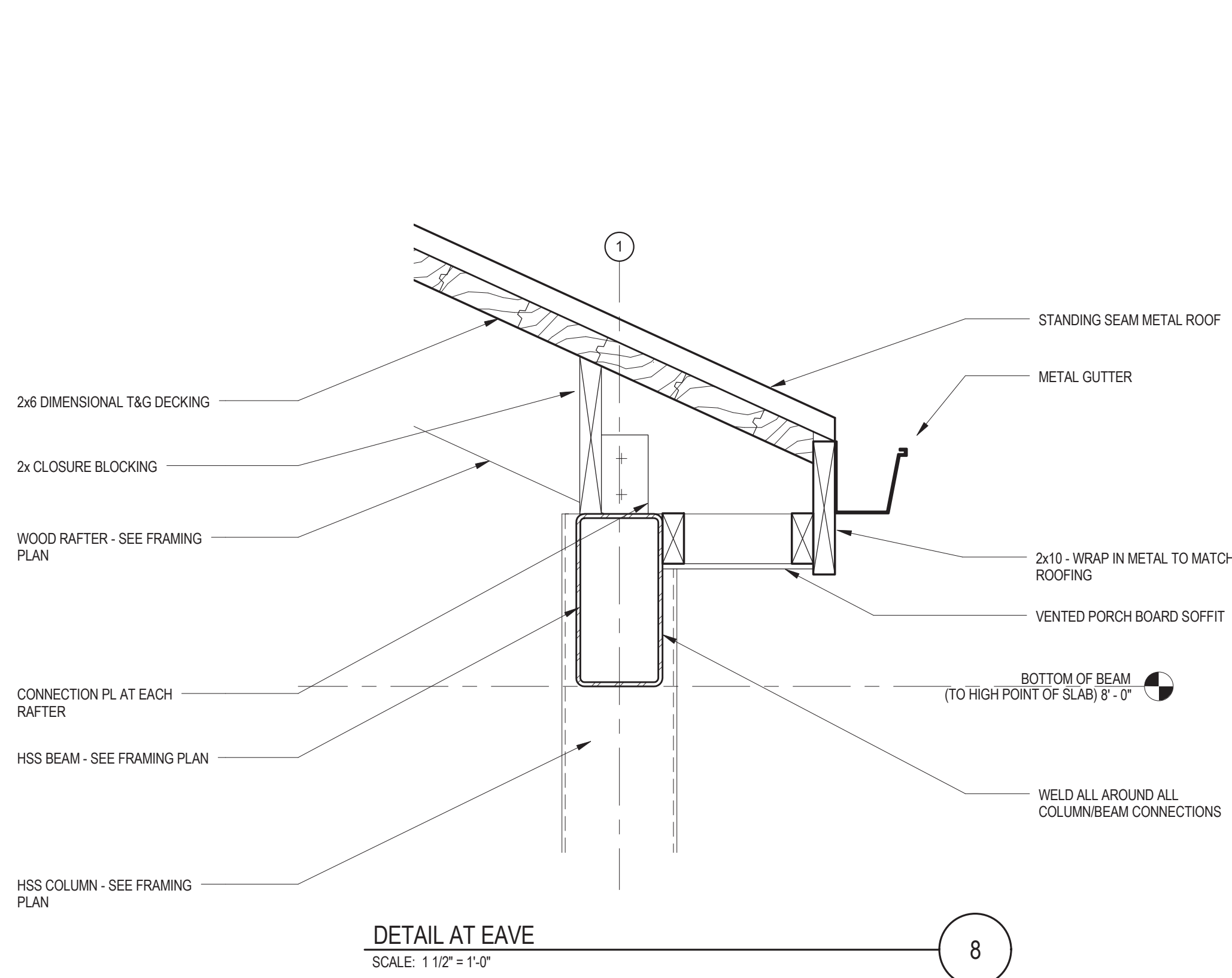
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PROJECT REVISIONS

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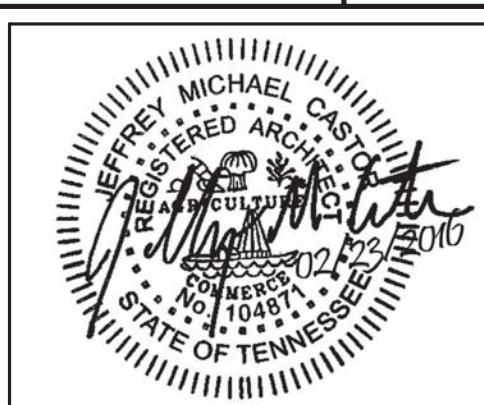
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Project Number  
**15057/15058**  
2/23/2016  
**A4.0**



**Restroom Facility and Picnic Pavilion**  
Roane County Parks & Recreation  
Hamman, Tennessee

BUILDING SECTIONS AND DETAILS

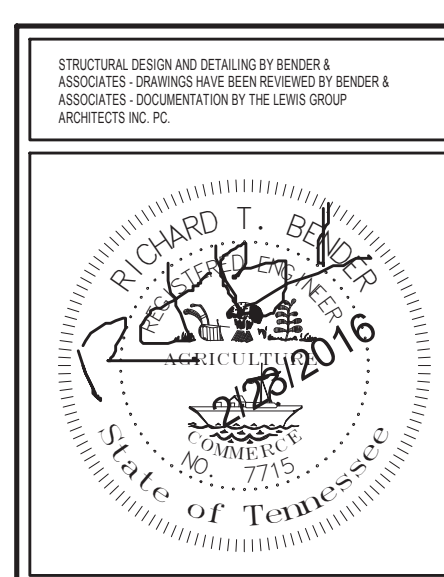


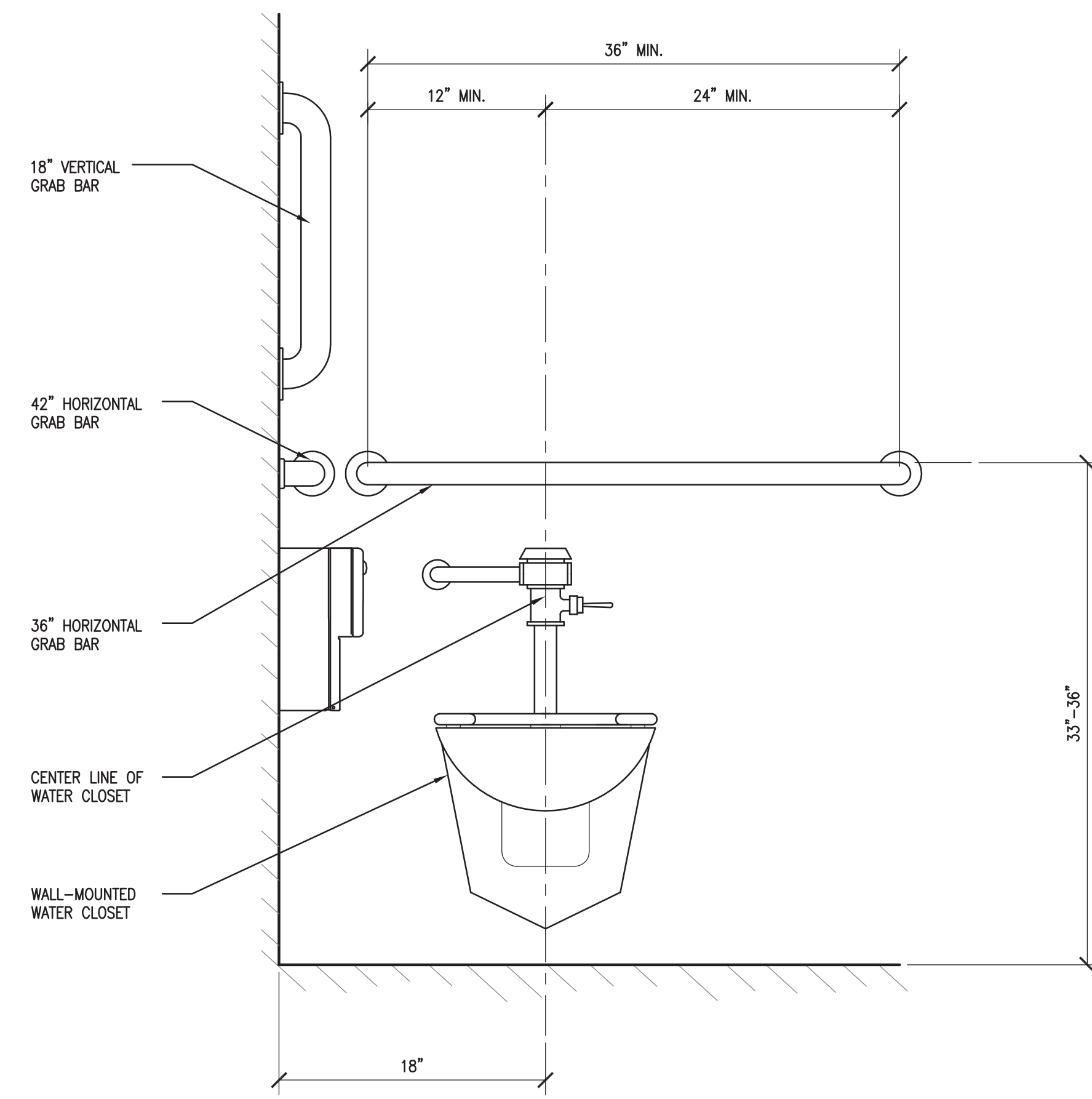
**THE LEWIS GROUP ARCHITECTS**  
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DATE	DESCRIPTION

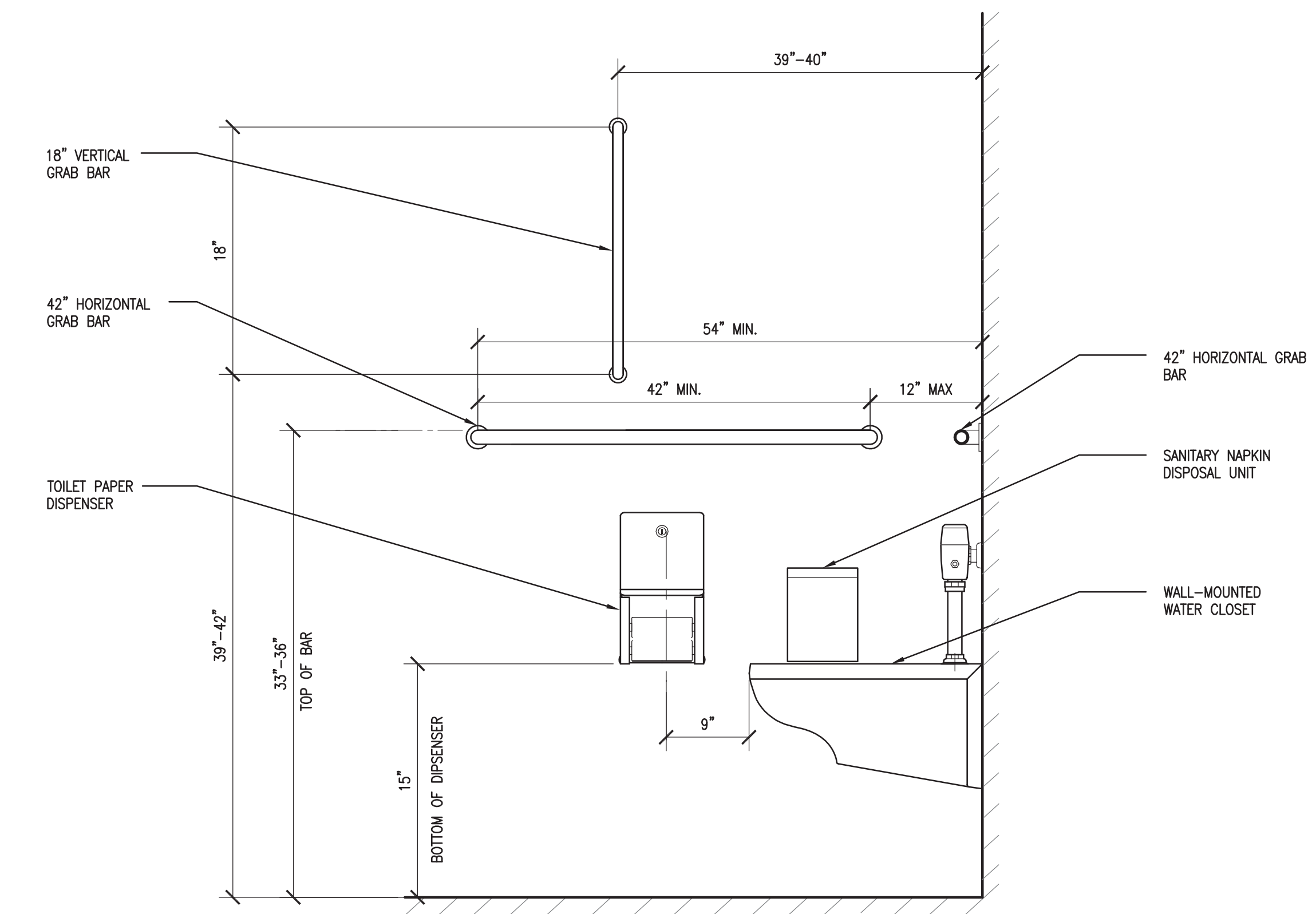
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2/23/2016	A4.1

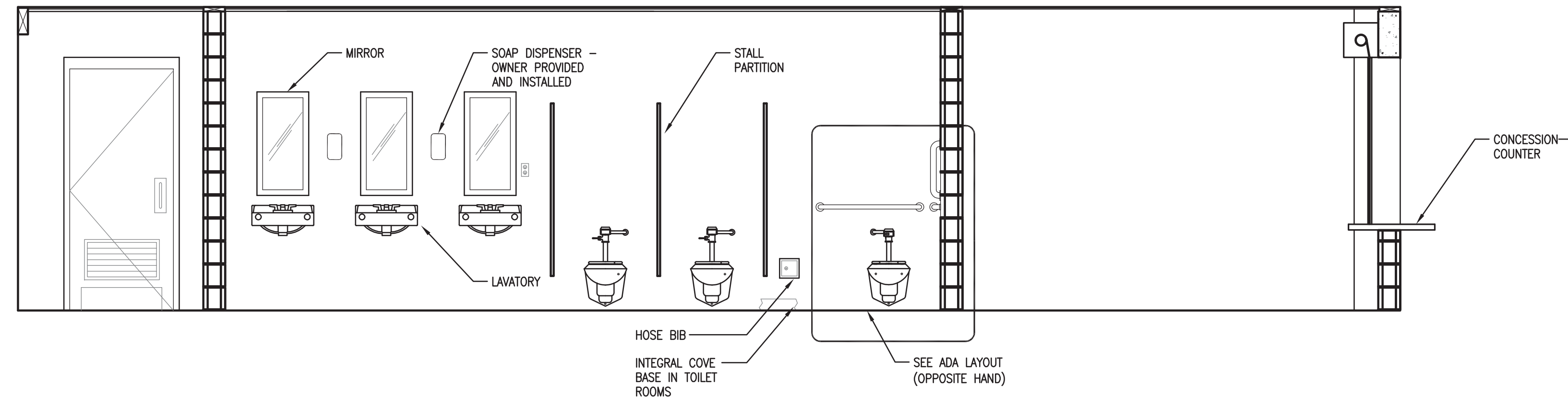




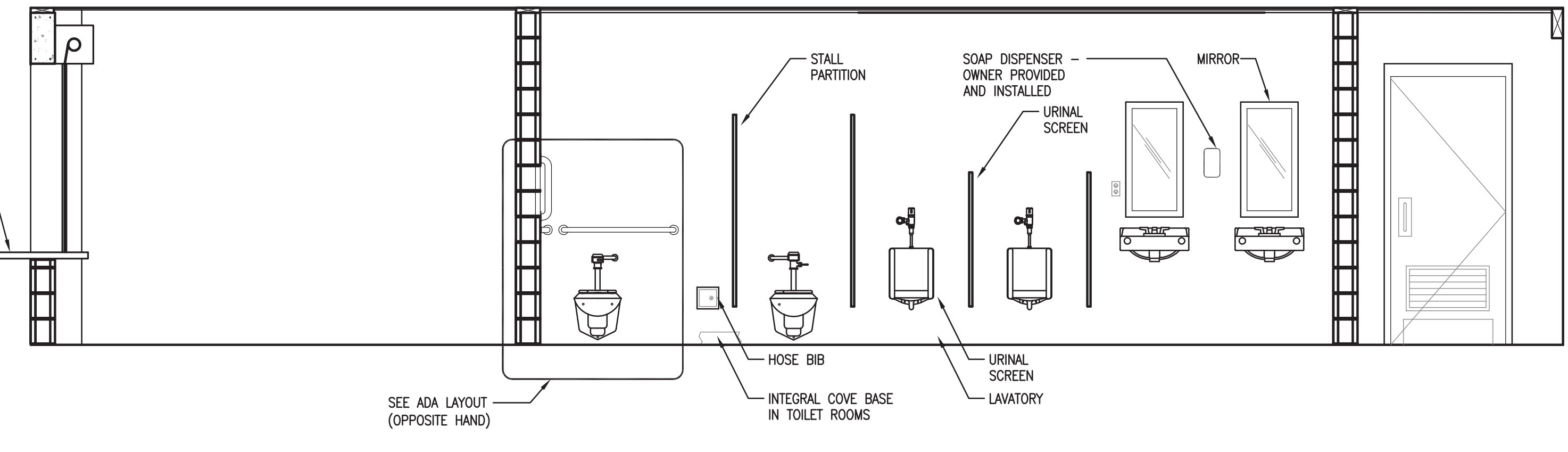
ADA STALL ELEVATION B  
SCALE: 1" = 1'-0" 6



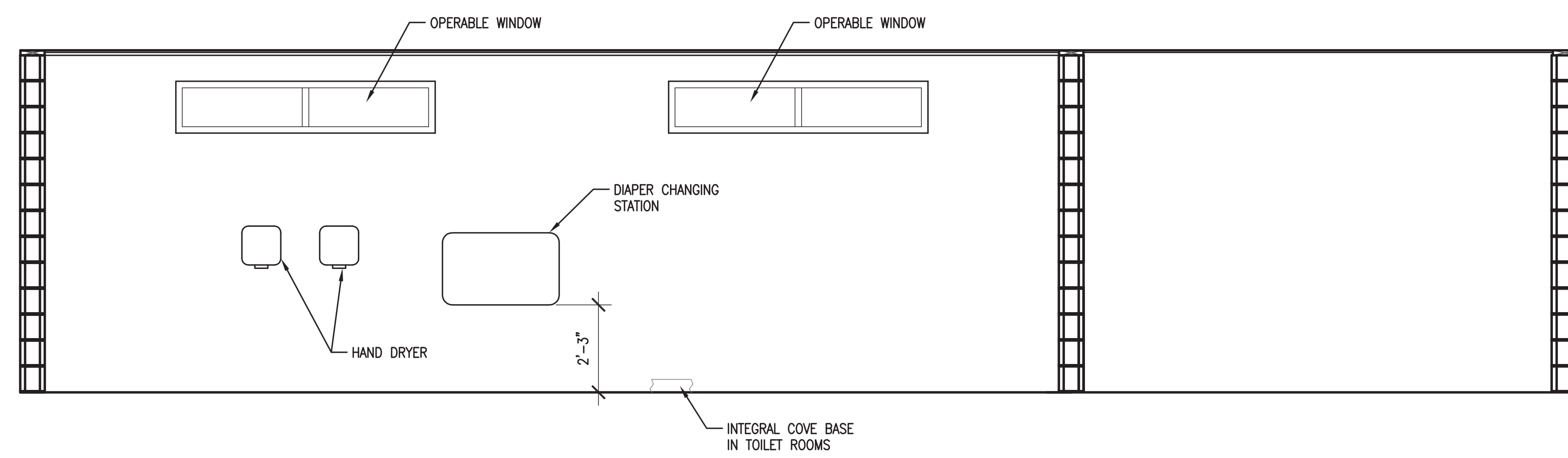
ADA STALL ELEVATION A  
SCALE: 1" = 1'-0" 5



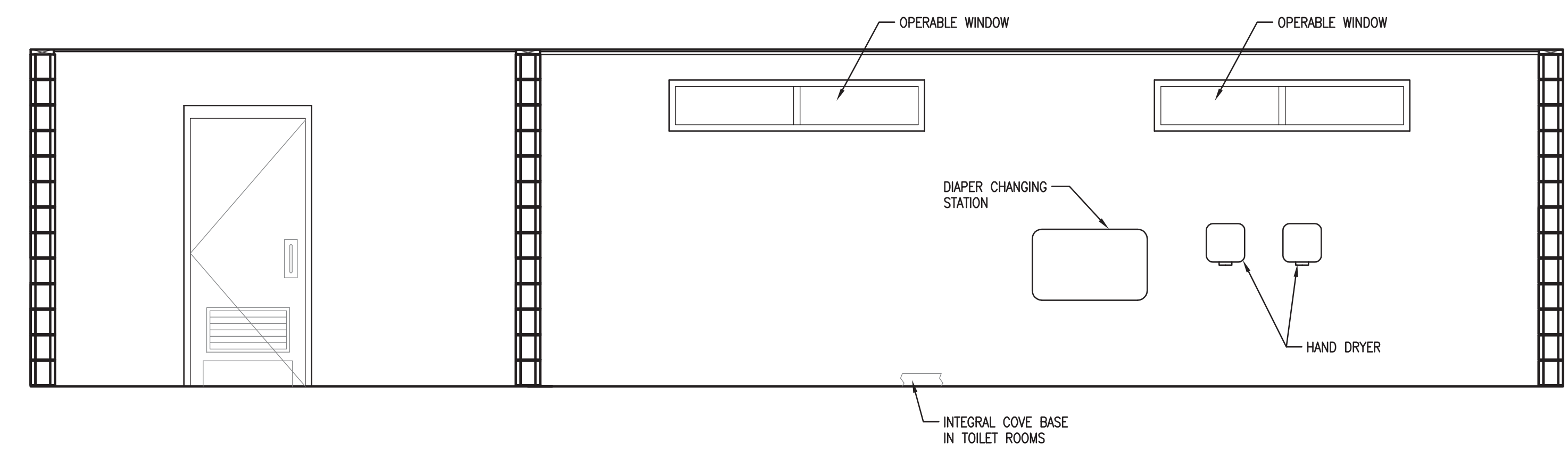
INTERIOR ELEVATION - WOMEN'S B  
SCALE: 1/8" = 1'-0" 4



INTERIOR ELEVATION - MEN'S B  
SCALE: 1/8" = 1'-0" 2



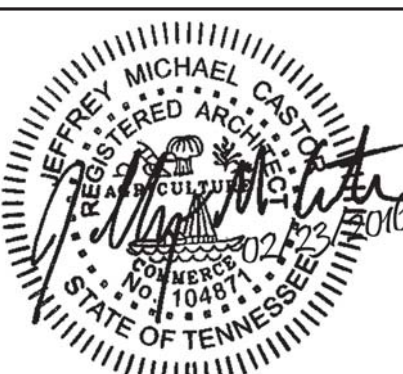
INTERIOR ELEVATION - MEN'S A  
SCALE: 1/8" = 1'-0" 3



INTERIOR ELEVATION - WOMEN'S A  
SCALE: 1/4" = 1'-0" 1

Restroom Facility and Picnic Pavilion  
Roane County Parks & Recreation

Harriman, Tennessee  
INTERIOR ELEVATIONS



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PROJECT REVISIONS

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**15057/15058**  
2/23/2016  
**A7.0**

MINIMUM SEISMIC REINFORCING

AT MASONRY WALLS

- ALL C.M.U. WALLS TO BE REINFORCED AS FOLLOWS: (UNLESS NOTED OTHERWISE)

8" C.M.U. WALLS:

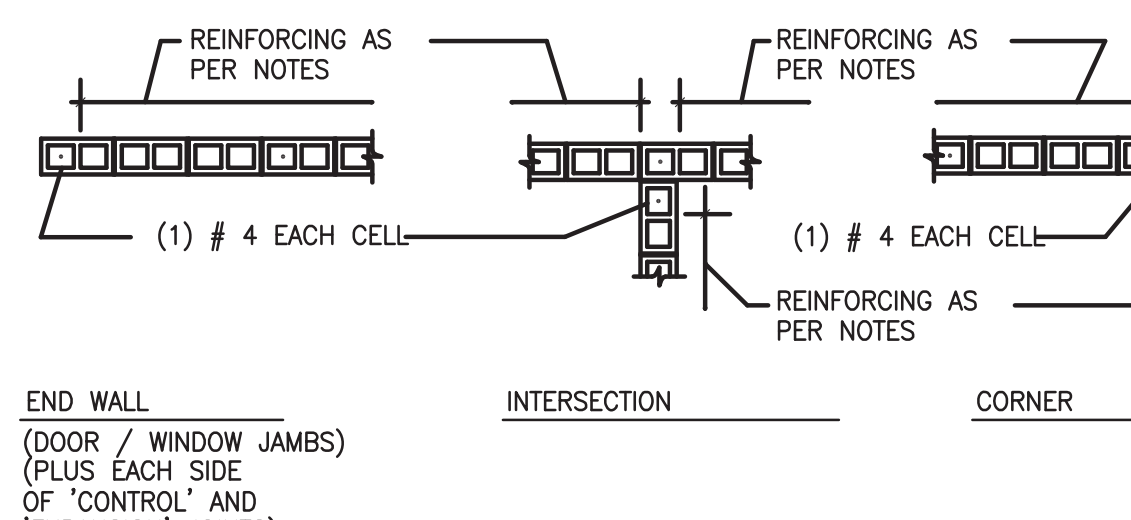
- # 4 VERTICAL BAR AT 48" oc GROUT CELL SOLID WITH CONCRETE AT EACH BAR.
- STANDARD "DUR-O-WAL" HORIZONTAL JOINT REINFORCEMENT AT 16" oc.
- 8" BOND BEAM w/ (2) # 4 CONTINUOUS - GROUT SOLID W/ CONCRETE. (SEE CONCRETE NOTES)

12" C.M.U. WALLS:

- # 4 VERTICAL BAR AT 48" oc GROUT CELLS SOLID W/ CONCRETE AT EACH BAR.
- STANDARD "DUR-O-WAL" HORIZONTAL JOINT REINF. AT 16" oc.
- 8" BOND BEAM w/ (2) # 4 CONTINUOUS - GROUT SOLID W/ CONCRETE. (SEE CONCRETE NOTES)

SEISMIC REINFORCED WALL NOTES

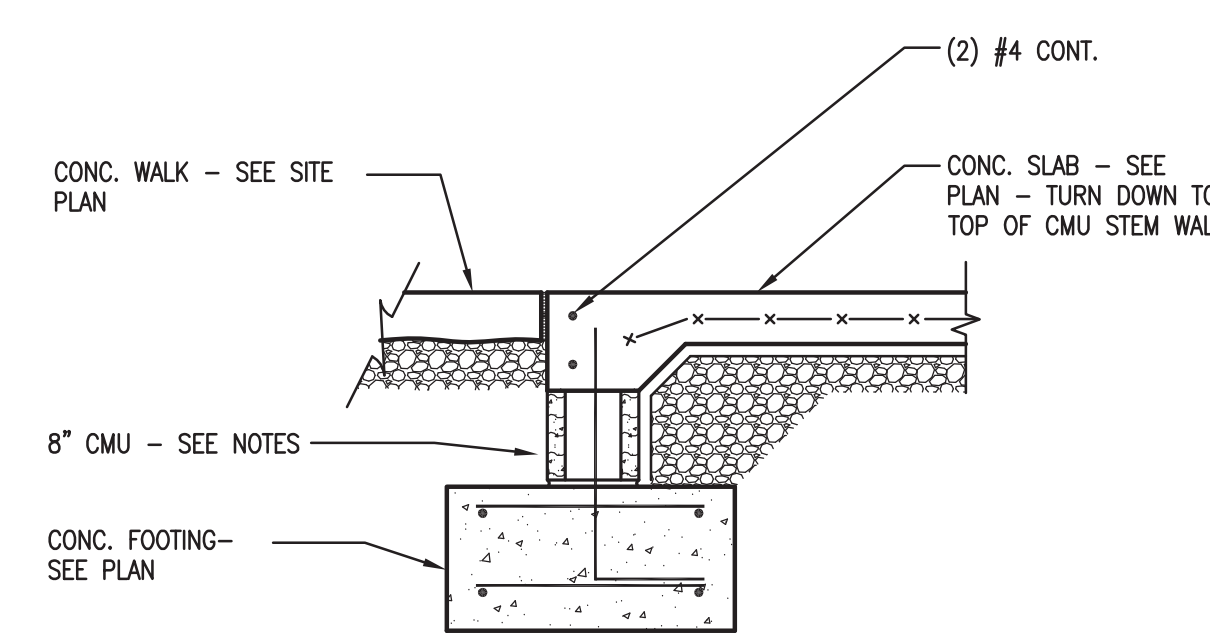
- SEE DETAILS BELOW FOR ADDITIONAL REINFORCEMENT REQUIRED IN ALL REINFORCED WALLS.
- PROVIDE DOWEL - (1) PER VERTICAL BAR - IN ALL REINFORCED C.M.U. WALLS. (SEE CONCRETE NOTES)
- ALL MASONRY WALLS TO BE CONSTRUCTED WITH "FULL MORTAR BEDDING" AT ALL JOINTS.
- ALL REINFORCED WALLS TO BE CONSTRUCTED w/ "TYPE M" MORTAR BELOW GRADE AND "TYPE M" OR "TYPE S" MORTAR ABOVE GRADE AS PER ASTM, C270.



TYPICAL PLAN DETAILS - SEISMIC

SCALE: N.T.S.

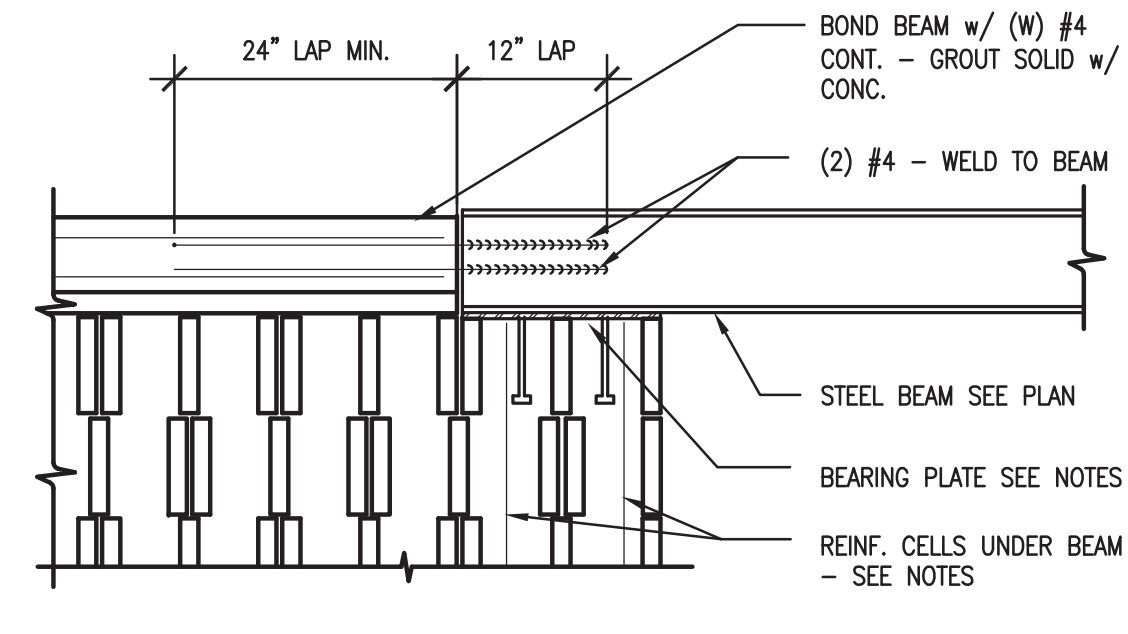
5 S1.0



DETAIL AT TURN DOWN SLAB ON FTG.

SCALE: N.T.S.

4 S1.0



DETAIL AT BEAM AT TOP OF WALL

SCALE: N.T.S.

3 S1.0

PRE-ENGINEERED WOOD TRUSS SYSTEM NOTES

- Wood truss system to be manufactured by a truss system supplier who is a member of the Truss Plate Institute or who uses metal connection plates from a manufacturer who is a member of the Truss Plate Institute.
- Design requirements
  - Truss system is to be designed by a registered engineer in the state where the system is to be used. All bracing required for truss members shall be designed and noted by truss designer. If roof sheathing and/or purlins are used as bracing for top and bottom chords, truss designer to verify that the necessary resistance is provided for the truss member bracing. Any additional bracing or nailing/screwing of the sheathing/purlins shall be noted by the truss designer. The following criteria shall be included in the truss engineer's design.
  - a. Design loads
    - Roof truss system
      - Live load top chord: . . . 20 psf
      - Dead load top chord: . . . 13 psf
      - Dead load bottom chord: . . . 12 psf
      - Wind load: . . . . . 115 mph
      - Seismic loads: see "Seismic Design Data"
      - Snow loads and drift loads per ASCE - 7
    - b. All lumber to be minimum size of 2 x 4 and to be Southern Pine #2 KD, unless noted otherwise.
    - c. Maximum spacing of trusses shall be 16' o.c.
    - d. Review all contract documents including mechanical, electrical, plumbing, architectural, structural, etc. to ascertain loads from equipment, openings for ducts, etc. and provide modifications to trusses if required to support same.
    - e. Provide specially designed trusses for hips, valleys, concentrated loads from partitions, headers, etc.
    - f. At areas where trusses require headers to adjacent trusses, provide headers as determined by acceptable engineering design.
    - g. All connections of trusses to girder trusses, trusses to beams, trusses to headers, bracing connections, etc. are to be designed by truss system designing engineer.
    - h. Truss connections to continuous nailers to be made with "Simpson Strong-Tie" (or equal) framing anchors. All anchors to be installed as per manufacturer's specifications.
    - i. Trusses to be designed such that they apply no horizontal loads to support members under dead and live loads.
    - j. All recommendations as to bracing, quality control, and design shall be as specified in Truss Plate Institute specifications and related articles or as determined by truss engineer (see above). Minimum size bracing to be 2x4. Connect to truss with two (2) 16d nails unless design indicates larger members and stronger connections. Trusses to be designed by truss system designing engineer.
    - k. The above design criteria are intended as absolute minimum standards. Truss system designing engineer is to coordinate and apply these and all other requirements for truss system to meet proper engineering and building code standards for this specific project.
    - l. Trusses shall bear on the walls as noted on drawings. If trusses designed as multi-span members, maximum shipping length shall be 50'. Intent is that a truss be simple span or simple span with cantilevered ends.
    - m. If supplier provides cap trusses to be placed on base trusses, purlins (minimum size 2 x 4) shall be at 24" maximum, unless closer spacing is required by truss designer. Connect cap and base truss at each panel point of base truss or closer if required by designer. Connections to be designed by supplier with metal connectors.
- Shop drawings
  - Provide shop drawings of wood truss system including all information required to complete truss system portion of project including the following:
    - a. Provide layout plan of truss system showing spacing, bracing and marks relating to truss diagrams. Original contract documents are not to be reproduced mechanically for use as shop drawings. Shop drawings will not be reviewed without a layout plan. The intent of the layout plan is that it be coordinated and provided as a part of the truss system. If truss supplier does not provide a drawing by the truss engineer, a written statement shall be provided to the architect that the individual trusses are coordinated with the layout plan. (Note: layout as shown on contract documents is schematic only and may be modified with consent of architect/engineer.)
    - b. Provide stress diagrams and/or calculations for truss system components with seal of designing engineer.
    - c. Indicate details of all connections in the shop drawing submittal.
    - d. Please note that shop drawings will not be reviewed without a layout plan, connection details and designing engineer's seal.
- Although web layout of trusses may be shown on plans, it is the responsibility of the truss designer to accept, approve or modify layout as required for design purposes.
- Contractor and supplier to provide all labor and materials to complete truss system portion of project.
- No qualifying statements or exceptions to plans or notes will be allowed.
- Top chords of all trusses to be such that sheathing bears flat across chords.
- Provide beveled top chord or nailing strips as required.
- Truss component close out
  - a. General contractor to be to have testing/inspection firm to review truss installation along with bracing installation during construction and upon completion.
  - b. The following areas shall be addressed:
    - Individual truss location to be verified with layout plan
    - Bracing required by truss designer and/or engineer or record
    - Connections of truss to truss and truss to structure
    - Plumbing of trusses
    - Review of connector plates
    - Special lifting techniques if required
    - Truss lengths and proper bearing conditions
    - Hanger connections and fasteners
  - c. Report from inspector/testing agency
    - Report form inspector/testing agency should be furnished periodically during installation.
    - Final report to be furnished upon completion of truss work.

CONCRETE, MASONRY, & RELATED NOTES

- Concrete strength to be as follows:
  - a. Concrete walls, beam and structural slabs - f'c=4,000 psi @ 28 days
  - b. Footings - f'c=4,000 psi @ 28 days
  - c. Slabs on grade & concrete toppings - f'c=4,000 psi @ 28 days
  - d. Masonry block core fill (size of aggregate to be pea gravel) - f'c=3,000 psi @ 28 days
- Refer to note #3 for testing of concrete and specifications for submittal of mix design.
- Concrete exposed to weather to be air-entrained (5% max. - 3% min.).
- Concrete and reinforcing steel to be as per ACI 318 and ADO 301. (Contractor to have copies of these documents at job site during construction.) Sampling and testing of concrete to be in accordance with ADO 301 by independent testing agency at contractor's expense. Contractor to take special precautions for hot and cold weather concreting as indicated in ADO 301.
- Reinforcing steel to be A 615-60.
- Provide shop drawings of reinforcing steel prior to fabrication of same. Refer to specifications for submittal process. Submittal to include elevations of all reinforced walls. Drawings to be original documents, not a reproduction of contract drawings. Reinforcing steel shop drawings will be reviewed for general conformance to the contract documents. Contractor is to verify quantities and dimensions of all materials ordered from suppliers. Any overage or shortage of material is the responsibility of the contractor. Shop drawings are intended to be used as a supplement to and in conjunction with the contract/design drawings. Review of shop drawings does not relieve the contractor of responsibility for correctness of details and quantities and dimensions.
- Footings are designed for a minimum soil bearing capacity of psf. Architect to be contacted if poor soil conditions are encountered.
- The following concrete cover shall be provided for reinforcement:
  - a. Concrete cast against and permanently exposed to earth: . . . . . 3"
  - b. Concrete exposed to earth or weather:
    - #6 through #10 bars: . . . . . 2"
    - #5 bar and smaller: . . . . . 1-1/2"
  - c. Concrete not exposed to weather or in contact with ground:
    - Slabs, walls, joists: . . . . . 3/4"
    - #11 bars and smaller: . . . . . 3/4"
- The following reinforcement to be provided unless noted or detailed otherwise:
  - a. Provide 2'-6" x 2'-6" corner bars in corners of all footings, reinforced walls, bond beams, etc. Provide some bar size and number or spacing as continuous horizontal reinforcement.
  - b. Provide 7" bars in all footing steps. Refer to concrete note #9.
  - c. Unless detailed otherwise, all concrete walls to be reinforced with #5 @ 8" o.c. each way, each face. If not indicated, walls to be 12" thick.
  - d. All reinforced masonry walls which retain fill to be 12" retaining wall block reinforced with #5 bar each cell (vert.) unless noted otherwise.
  - e. Provide clean out openings at base of all vertically reinforced cells.
  - f. Provide rebar positioners at 1/3 points of wall height for placement as indicated in details. Tie all vertical reinforcement to dowels out of footing prior to placing concrete.
- Step footings as required by soft soil, plumbing, finished grades, pits, exterior to interior footing intersections, etc. Contractor to field coordinate.
- All footings at grade to receive plumbing to be a minimum of 16" below finished floor. Coordinate with plumbing drawings.
- Unless noted otherwise on plans, provide a 2'-0" x 12" continuous concrete footing under all walls which extend to grade. Provide a type 'X' footing under all columns which extend to grade.
- All concrete slabs on grade to be 4" thick with 6 x 6 w1.4 - w1.4 w.f. on 4" crushed stone, unless noted otherwise. See architectural drawings for any depressed areas, vapor barrier, sloped areas, etc.
- Provide minimum 2'-6" crushed stone backfill behind all walls which retain fill unless otherwise noted. Excavate slope and provide crushed stone backfill as directed by geotechnical engineer.
- Verify with architectural, mechanical, and electrical drawings for walls, pads, trenches, etc. which require footings and/or reinforcing. All pads to be 12" thick with #5 at 12" o.c. each way top and bottom and extend pad 2'-0" past each side of mechanical equipment (refer to note #8).
- Unless noted or detailed otherwise, all reinforcing steel to be lapped a minimum of a class B tension splice.
- All masonry walls which have steel beams bearing on them to have two (2) cells grouted with concrete and #5 bar each cell from bearing plate to footing. Provide clean outs and rebar positioners as indicated in note 8.
- Provide minimum 8" continuous bond beam reinforced with two (2) #5 bars continuous at top of all masonry walls and at joint bearing. When wall height exceeds 16'-0" above finished floor, provide 8" minimum bond beam with two (2) #5 bars continuous at 10'-0" o.c. (max.) horizontally above finished floor unless noted otherwise.
- Provide a connection joint in all concrete slabs on grade at 150 sq./ft., unless noted otherwise.
- Provide 1/2" expansion joint material at areas where slab on grade is adjacent to walls.
- Provide vertical control joints in block/brick at 20'-0" o.c. (max.) unless noted otherwise. Coordinate locations with Architect if drawings show other spacing. Contractor to provide layout to architect for approval prior to construction. Do not extend through bond beam (i.e., bond beams to be continuous).
- All masonry walls to have #4 dowel out of footing and vertical reinforcement at 48" o.c. unless noted otherwise. Dowels to have 12" hook and 24" projection (Extend dowel to floor level). Grout calls solid at reinforcing.
- Provide vertical dovetail slots in all concrete walls, beams, columns, etc. adjacent to masonry (max. spacing to be 16" o.c.). Provide dovetail anchors into masonry at 16" o.c. max.
- At the top of all concrete columns, provide 3'-0" x 3'-0" corner bars into slab or beam supported by same. Corner bars to be same size and count as vertical column reinforcing, unless noted otherwise.
- Unless noted otherwise, provide #3 hairpin anchor rod with 12" embedment at all embedded plates for handrails, horizontal connection plates, etc.
- Unless noted otherwise, provide dowel from new wall into existing wall at each wall intersection. One (1) dowel for each horizontal bar. Grout existing wall at each dowel location.
- Unless noted otherwise, extend continuous footing reinforcing through mat footing.

WOOD NOTES

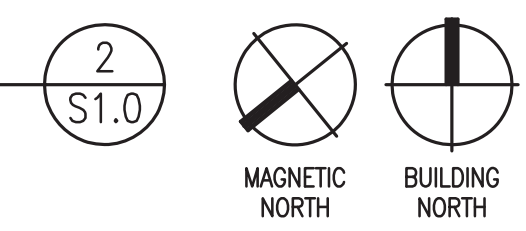
- All framing lumber to be #2 Southern Pine KD, as per SPIB grading rules unless noted otherwise.
- Contractor shall use "Simpson Strong-Tie" (or equivalent) wood framing anchors, connectors, hangers, etc. for all wood to wood connections. All anchors, etc. to be installed in accordance with manufacturer's specifications.
- Roof sheathing to be 5/8" exterior grade plywood. All roof framing diaphragms to be blocked along all panel edges. Minimum nailing pattern to be 6" o.c. at all edges and interior members.
- Cutting, notching, bored holes in stud walls, rafters, etc. shall be done in accordance with International Building Code.
- Ridge boards, where indicated on framing plans shall not be less than 1" in thickness, and not less in depth than cut end of rafters. Rafters shall be placed directly opposite each other and nailed to ridge board.
- All wood built-up girders, beams, studs to sole plate, etc., to be connected as per International Building Code Fastening Schedule.

STRUCTURAL STEEL NOTES

- Structural steel to be as follows:
  - a. wide flange: A992 Fy=50 ksi
  - b. tube steel: A500B Fy=46 ksi
  - c. channels, plates, angles, misc. steel: A36 Fy=36 ksi
- Structural steel to be designed, fabricated, erected, etc. as per AISC Manual of Steel Construction, Allowable Stress Design, 13th edition. Contractor to employ a qualified fabricator who participates in the AISC quality certification program and is designated an AISC certified fabricator category STD.
- Details shown are typical, similar details apply to similar conditions, unless noted otherwise.
- Connections not indicated on the drawings are to be designed by the fabricator. All connections for non-composite beams to be standard shear connections unless detailed otherwise.
- All connections to be bearing type, with A325, 3/4" diameter bolts, unless detailed otherwise.
- Shop drawings:
  - A. Structural steel
    - Submit shop drawings of structural steel prior to fabrication of same. Refer to specifications for submittal process.
    - Drawings to be original documents, not a reproduction of contract drawings.
    - Steel shop drawings are to be submitted as a complete set. Partial submittals will not be accepted unless previously approved by architect/engineer.
    - Coordinate bar joist, structural steel, and steel deck drawings prior to submittal/fabrication. See note C3.
  - B. Coordination
    - Prior to fabrication, contractor is to coordinate with steel supplier, elevator supplier, mechanical engineer and all other disciplines to verify all dimensions, openings, weights, etc. that affect steel configuration. Contractor is to coordinate special spacing, miscellaneous members and locations of equipment. Engineer cannot be responsible for exact location and layout of any equipment supplier's product. Review of shop drawings by engineer does not relieve contractor of responsibility for this coordination.
    - Coordinate exact location of column center lines and dimensions with architectural drawings. Notify architect/engineer of any discrepancies prior to construction.
    - Verify with architect, mechanical, and electrical drawings for angles.
    - Contractor to coordinate actual size, weight and location for mechanical unit with supplier prior to fabrication of unit base and special joists.
    - All anchor bolts to be installed utilizing a base plate template with concrete being cast around anchor bolts. Anchor bolts shall be installed prior to concrete placement.
    - All welded construction shall comply with AWS code for procedures, appearance, quality of welds, and methods used in welding work. All field welds are to be inspected by testing agency for compliance with AWS standards.
    - Any splices proposed by the contractor for ease of fabrication or delivery are to be coordinated with engineer. All field welds are to be tested as per note above.
    - Where wood nailers are indicated on top of steel beams, provide 1/2" diameter threaded studs at 32" o.c. welded to top flange.

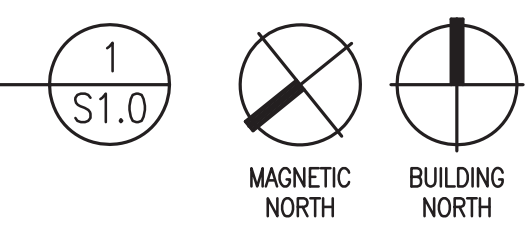
ROOF FRAMING PLAN

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



FOUNDATION PLAN

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

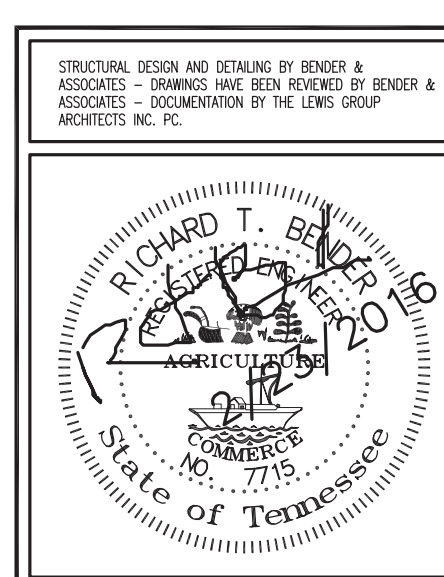


GENERAL NOTES

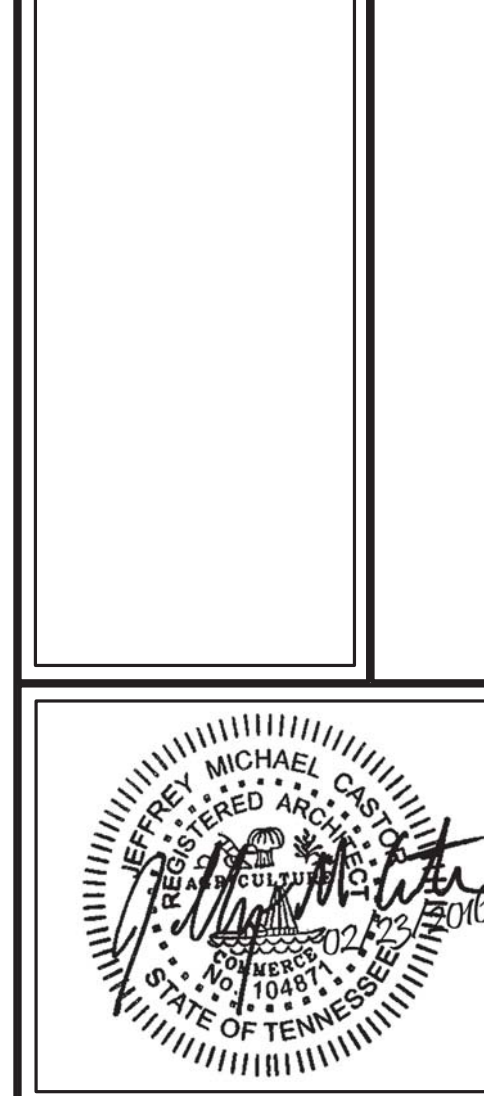
- The general contractor shall verify all dimensions and site conditions before starting work. The Architect shall be notified of any discrepancy.
- The intent of these drawings is that all material and workmanship shall conform to the 2012 International Building Code, ACI, AISC, AWS, and all other applicable codes governing work indicated on drawings latest adopted edition.
- The design adequacy and safety of erection bracing, shoring, etc., is the sole responsibility of the Contractor. Walls which support joists, rafters, etc., and are laterally supported by same shall be braced until all construction is completed.
- The Contractor shall coordinate the architectural, mechanical, and electrical drawings with the structural drawings.
- Contractor to coordinate top of footing elevation with plumbing, mechanical, electrical, site conditions, etc.
- The general contractor/contractor manager shall review all shop drawings/submittals and note all items which deviate from the requirement of the construction documents. No substitutions or deviations will be allowed unless noted and reviewed by design team.
- Design loads are as follows:
  - Dead load = . . . . . weight of materials as shown.
  - Roof live load = . . . . . 20 psf
  - Floor live load = . . . . . 100 psf
  - Wind load = . . . . . 115 mph

NOTE OF COORDINATION

The intent of the structural drawings is to show the framing and foundation systems schematically. These drawings must be coordinated with the pre-engineered building, architectural, mechanical, electrical, plumbing, and site drawings, along with actual site and soil conditions encountered to determine actual relationships. The drawings are not intended to be shop drawings or to be used for determining layout, wall sizes, dimensions, equipment sizes, or other items which are dependent upon other disciplines.



Restroom Facility and Picnic Pavilion  
Roane County Parks & Recreation  
Harriman, Tennessee



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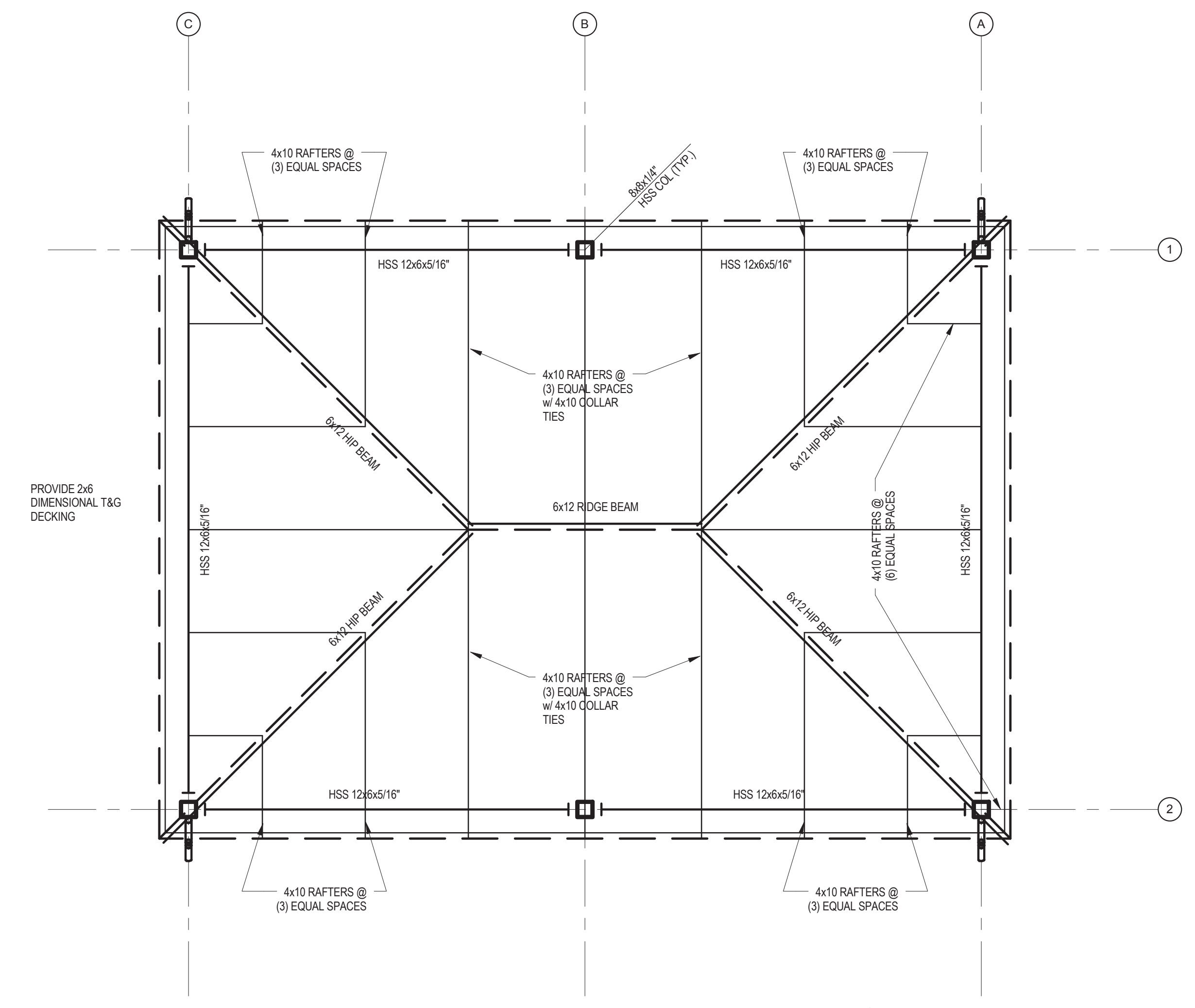
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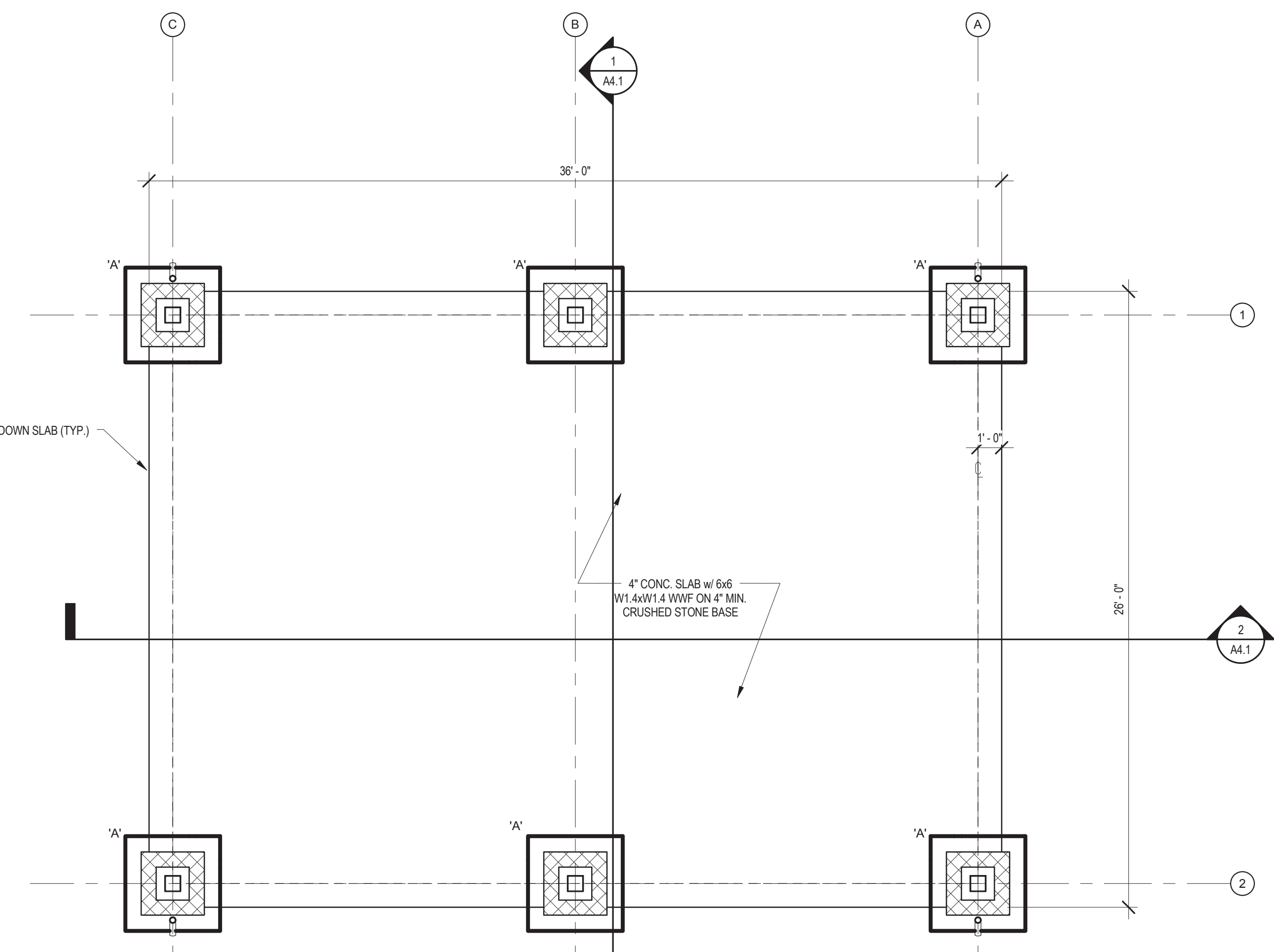
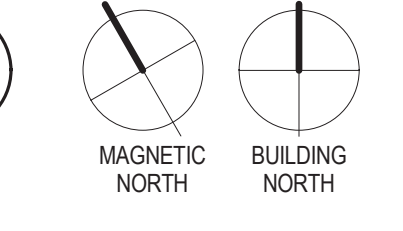
STRUCTURAL PLANS AND DETAILS

**Restroom Facility and Picnic Pavilion**  
**Roane County Parks & Recreation**  
 Harman, Tennessee

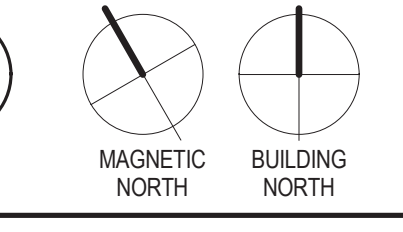
STRUCTURAL PLANS



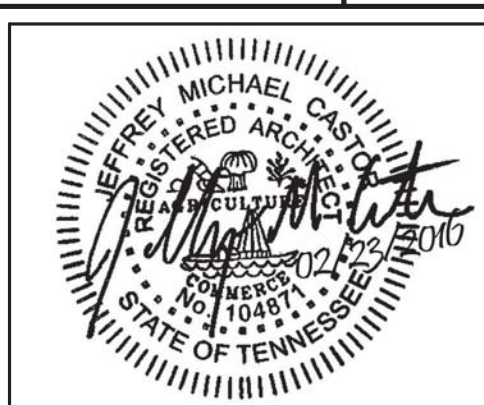
**ROOF FRAMING PLAN**  
 SCALE: 1/4" = 1'-0"



**FOUNDATION PLAN**  
 SCALE: 1/4" = 1'-0"



FOUNDATION SCHEDULE				
MARK	L	W	D	REINFORCING
'A'	4'-0"	4'-0"	14"	(6) #4 EACH WAY, TOP AND BOTTOM



**THE LEWIS GROUP**  
 ARCHITECTS

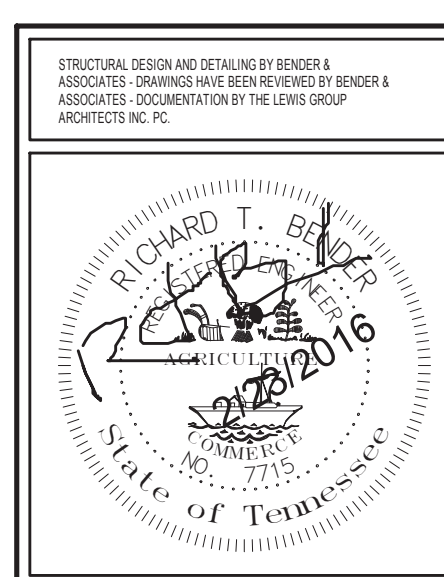
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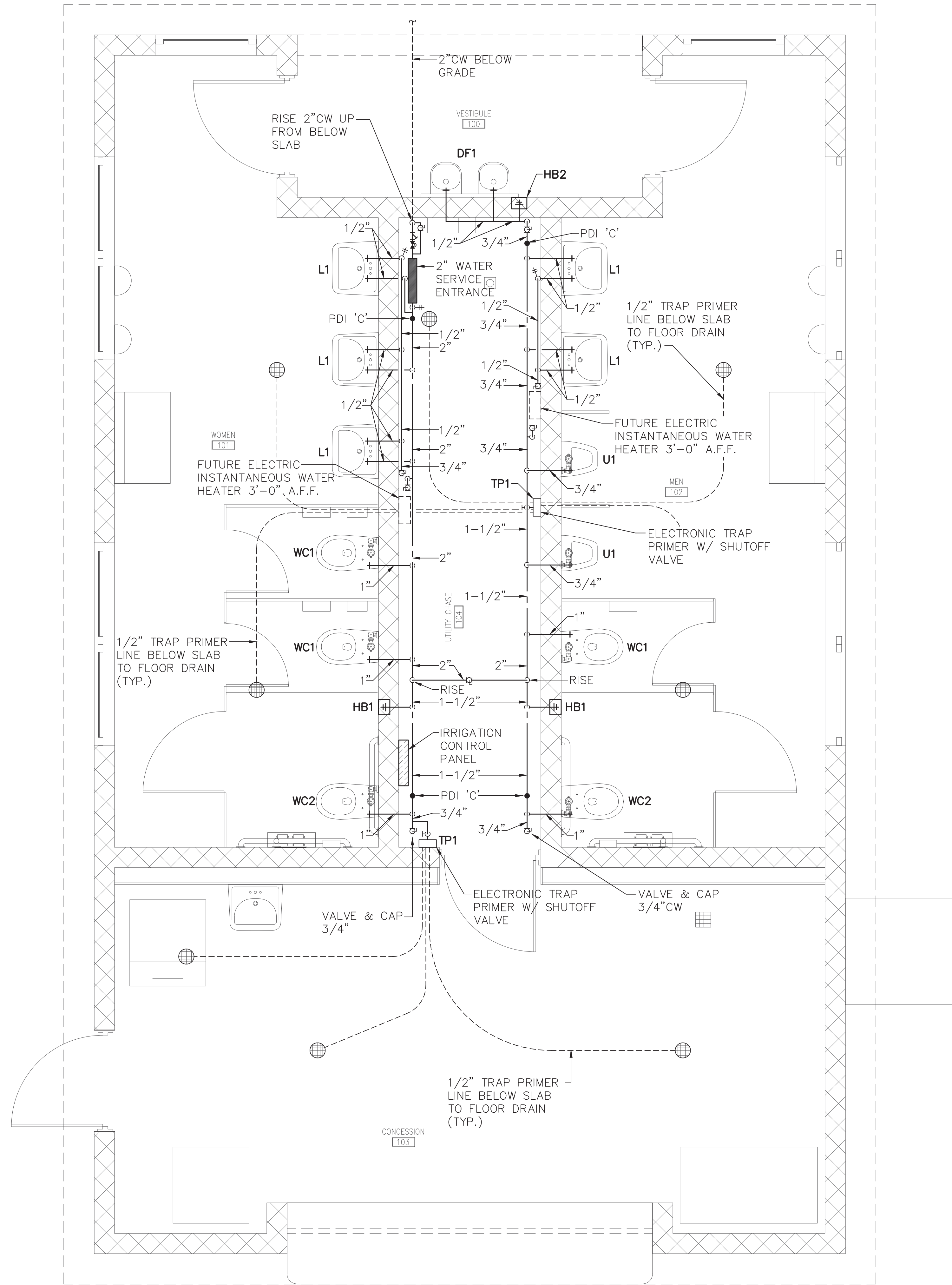
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2/23/2016  
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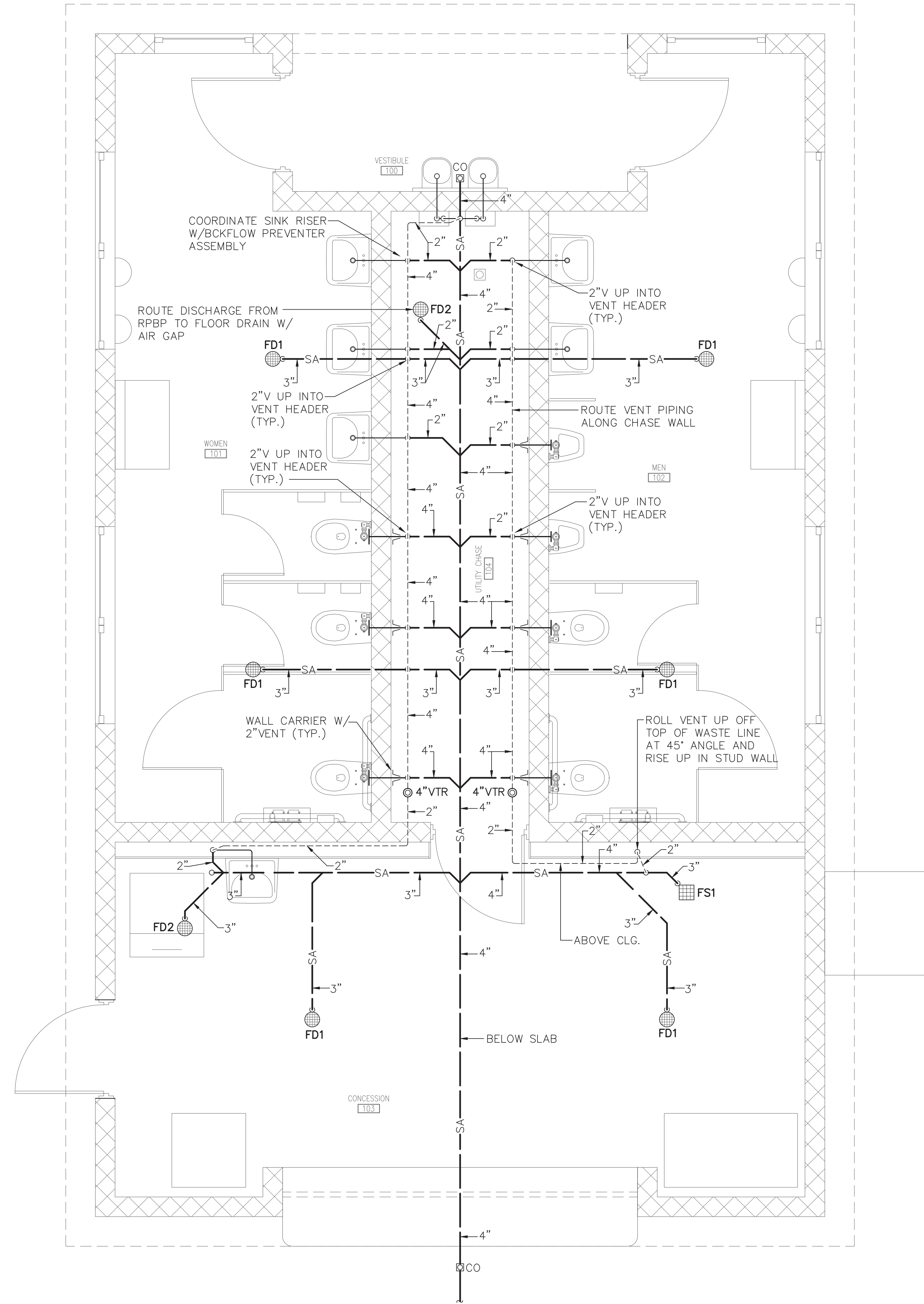


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FLOOR PLAN - SERVICES  
SCALE: 1/2"=1'-0"

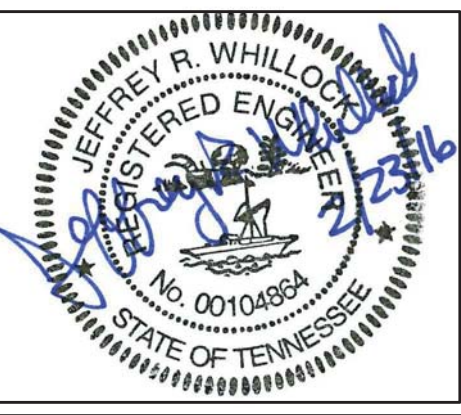


FLOOR PLAN - WASTE & VENT  
SCALE: 1/2"=1'-0"

**Restroom Facility and Picnic Pavilion**  
**Roane County Parks & Recreation**  
*Harriman, Tennessee*

FLOOR PLANS - PLUMBING

A New Facility For:



**THE LEWIS GROUP**  
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PROJECT REVISIONS	
DATE	DESCRIPTION

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Project Number  
**15057/15058**

2/23/2016  
**P1.0**



PLUMBING SPECIFICATIONS

- A. GENERAL:
- PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SUPERVISION REQUIRED TO INSTALL COMPLETE AND OPERATIONAL PLUMBING SYSTEMS.
  - CONFORM TO ALL NATIONAL, STATE, AND LOCAL CODES AND ORDINANCES.
  - OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE INSTALLATION OF PLUMBING WORK.
  - PROVIDE THE OWNER WITH OPERATIONAL AND MAINTENANCE MANUALS DESCRIBING OPERATING AND MAINTENANCE PROCEDURES, FREQUENCY OF MAINTENANCE, TYPES OF LUBRICANTS, FILTERS, ETC. AND A WRITTEN DESCRIPTION OF THE OPERATION OF EACH SYSTEM FURNISHED BY THE CONTRACTOR.
  - THIS CONTRACTOR SHALL GUARANTEE WORKMANSHIP AND THE MATERIALS FURNISHED FOR THE PERIOD OF 1 YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.
  - PLUMBING DRAWINGS IN PART ARE DIAGRAMMATIC AND ALL DIMENSIONS SHALL BE VERIFIED AT THE SITE. CONTRACTOR SHALL REFER TO ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS WHICH MAY AFFECT THE INSTALLATION OF PLUMBING WORK.
  - ALL APPROVED CHANGES MADE DURING THE PROGRESS OF THE WORK SHALL BE RECORDED BY THE PLUMBING CONTRACTOR ON A SET OF PRINTS WHICH ARE SPECIFICALLY DESIGNATED FOR THAT PURPOSE. THESE MARKED UP PRINTS ARE TO BE MAINTAINED AT THE JOB SITE AND SHALL BE GIVEN TO THE ARCHITECT AFTER WORK IS COMPLETE IN ORDER THAT AS-BUILT CONDITIONS ARE RECORDED.
- B. PIPING:
- BUILDING SOIL, WASTE, AND VENT SYSTEM:
    - PIPE AND VENTS SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED FITTINGS. FABRICATION SHALL BE AS RECOMMENDED BY THE MANUFACTURER AND INSTALLATION AND TESTING SHALL BE AS REQUIRED BY THE 2012 INTERNATIONAL PLUMBING CODE.
    - CLEANOUTS SHALL BE INSTALLED AT ALL LOCATIONS SHOWN ON THE DRAWINGS AND AS REQUIRED BY 2012 INTERNATIONAL PLUMBING CODE.
    - HORIZONTAL SOIL AND WASTE LINES SHALL BE RUN AT 1/4" PER FOOT SLOPE WHERE POSSIBLE, BUT IN NO CASE LESS THAN 1/8" PER FOOT.
    - TESTING OF SEWER DRAIN AND VENT SYSTEM SHALL BE IN ACCORDANCE WITH 2012 INTERNATIONAL PLUMBING CODE, SECTION 312.
  - WATER SYSTEM:
    - PIPE SHALL BE TYPE L HARD DRAWN COPPER ABOVE GROUND. FITTINGS SHALL BE WROUGHT COPPER SOLDERING PATTERN.
    - PIPE SHALL BE TYPE K HARD DRAWN COPPER BELOW GRADE. FITTINGS SHALL BE WROUGHT COPPER SOLDERING PATTERN.
    - ALL WATER PIPING SHALL BE FLUSHED, STERILIZED, AND TESTED AT 100 PSI FOR A PERIOD OF 8 HOURS. DISINFECTION OF POTABLE WATER SYSTEM SHALL BE IN ACCORDANCE WITH 2012 INTERNATIONAL PLUMBING CODE, SECTION 610.
    - WHEN JOINING DISSIMILAR METALS PROVIDE DIELECTRIC COUPLING.
- C. CLEANOUTS:
- CLEANOUTS SHALL BE PROVIDED AT EACH CHANGE OF DIRECTION OF OVER 45 DEGREES, AT THE END OF EACH SOIL AND WASTE BRANCH, AT THE BASE OF EACH STACK, AND AT LEAST EVERY 50 FEET IN ALL WASTE AND SOIL LINES OR WHERE INDICATED ON DRAWINGS. INSTALL WALL CLEANOUTS FOR HORIZONTAL VENT LINES BELOW SLAB AT POINT OF RISING IN WALL.
- D. INSULATION:
- WATER PIPING TO BE INSULATED WITH OWENS-CORNING SSL-2 FIBERGLASS INSULATION. COLD WATER (CW) SHALL BE 1/2" THICK AND HOT WATER (HW) SHALL BE 1" THICK.

WINTER MODE OF OPERATION

PRIOR TO FREEZING WEATHER, DRAIN ALL DOMESTIC COLD AND HOT WATER. A VENT LINE HAS BEEN PROVIDED IN EACH MAIN TO BE OPENED TO AID IN DRAINING.

- SHUT OFF WATER TO BUILDING.
- RELIEVE PRESSURE FROM WATER LINES BY OPENING EACH FIXTURE.
- OPEN VENT LINES IN EACH DOMESTIC HOT AND COLD WATER LINE.
- DRAIN COLD WATER LINE BY OPENING DRAIN VALVE LOCATED AT DISCHARGE OF THE BACKFLOW PREVENTER. ROUTE DRAIN TO NEAREST FLOOR DRAIN.
- DRAIN HOT WATER LINE BY OPENING DRAIN VALVE ON TANK WATER HEATER. ROUTE DRAIN TO NEAREST FLOOR DRAIN. TRIP BREAKERS TO POWER OFF WATER HEATERS AND TRAP PRIMERS.
- POUR PROPYLENE GLYCOL INTO EACH FIXTURE AND FLOOR DRAIN TO FILL TRAPS AND PREVENT FREEZING.
- LOCK DOORS INTO EACH TOILET ROOM.
- WHEN FREEZING WEATHER HAS PASSED, REFILL DOMESTIC HOT AND COLD WATER LINES AND AUTOMATIC TRAP PRIMER. CHECK OPERATION OF EACH FIXTURE'S SENSOR VALVES, EF-1, TRAP PRIMER, AND ENERGIZE WATER HEATER AT ELECTRICAL PANEL.

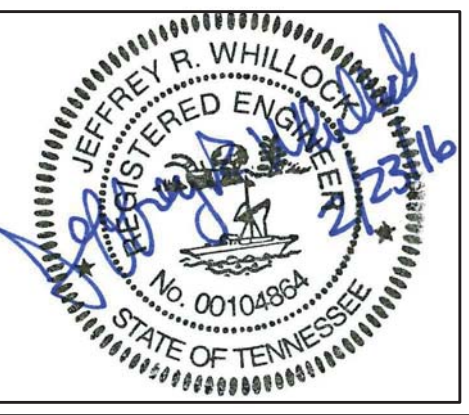
IMPORTANT: ENSURE THAT UNIT HEATER EUH-1 REMAINS ENERGIZED THROUGHOUT WINTER FOR FREEZE PROTECTION OF WATER ENTRANCE.

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	SPECIFICATION	CW CONNECTION	HW CONNECTION	WASTE CONNECTION	VENT CONNECTION	TRAP SIZE	REMARKS
WC1	WATER CLOSET	ZURN Z5615.272, ECOVANTAGE 1.28 GPF, HIGH EFFICIENCY, WALL HUNG, 3/4" TOPSPUD, SENSOR FLUSH VALVE; ZEM56000AV-HET, IS HARDWIRED, 1.28 GPF DIAPHRAGM FLUSH VALVE, TOILET SEAT: Z5955SS-AM-ST, ELONGATED, STANDARD WHITE, OPEN FRONT TOILET SEAT, LESS COVER, WITH STAINLESS STEEL CHECK HINGE AND ANTI-MICROBIAL PROTECTION, WITH HORIZONTAL CARRIER	1"		4"	2"		CARRIER Z1203-N HORIZONTAL, ADJUSTABLE. PROVIDE 7.6VDC P6000-HW6 HARDWIRED POWER CONVERTER. MOUNTED AT HEIGHT SHOWN ON 16W280-2 IN UTILITY ROOM.
WC2	WATER CLOSET (HC)	ZURN Z5615.272-ADA, ECOVANTAGE 1.28 GPF, HIGH EFFICIENCY, WALL HUNG, 3/4" TOPSPUD, SENSOR FLUSH VALVE; ZEM56000AV-HET, IS HARDWIRED, 1.28 GPF DIAPHRAGM FLUSH VALVE, TOILET SEAT: Z5955SS-AM-ST, ELONGATED, STANDARD WHITE, OPEN FRONT TOILET SEAT, LESS COVER, WITH STAINLESS STEEL CHECK HINGE AND ANTI-MICROBIAL PROTECTION, WITH HORIZONTAL CARRIER.	1"		4"	2"		CARRIER Z1203-N HORIZONTAL, ADJUSTABLE. PROVIDE 7.6VDC P6000-HW6 HARDWIRED POWER CONVERTER. MOUNTED AT HEIGHT SHOWN ON 16W280-2 IN UTILITY ROOM.
U1	URINAL (HC)	ZURN Z5798.234-ADA, ECOVANTAGE 0.125 GPF, HIGH EFFICIENCY URINAL, SENSOR FLUSH VALVE; ZEM56003AV-ULF-IS, EXPOSED DIAPHRAGM, HARDWIRED 0.125 GPF FLUSH VALVE, WITH CARRIER		3/4"	2"	1 1/4"		CARRIER Z1222. PROVIDE 6VDC P6000-HW6 HARDWIRED POWER CONVERTER. MOUNTED AT HEIGHT SHOWN ON 16W280-2 IN UTILITY ROOM.
L1	LAVATORY (HC)	ZURN Z5344-ADA, 20"X 18" WALL HUNG CONCEALED CARRIER ARM LAVATORY - 4" FAUCET; Z6913-XL-CWB AQUASENSE HARDWIRED FAUCET, 0.5 GPM AERATOR, 4" CENTER SET COVER PLATE. DRAIN: Z8746-PC-ADA OFFSET WHEELCHAIR GRID DRAIN, P-TRAP: Z8946-3-NT (ADA), 1 1/4" CAST BRASS P-TRAP WITH CLEANOUT, SUPPLY LINE: Z8804LR-8860-12-PC, STANDARD STOP LAVATORY SUPPLY KIT WITH BRAIDED SS SUPPLIES, TRAP WRAP: Z8946-3NT-ADA COMBINATION OFFICE TRAP AND SUPPLY WRAP PROTECT KIT.	1/2"	1/2"	1 1/4"	1 1/4"	1 1/4"	PROVIDE CARRIER Z1231-SL P-6000-ACA PLUG-IN POWER CONVERTER. MOUNTED AT HEIGHT SHOWN ON 16W280-2 IN UTILITY ROOM.
IMB1	ICE MAKER BOX	IPS MODEL AB9700HA, 1/2 TURN VALVE - 1/2" SWEAT CONN. WITH WATER-HAMMER ARRESTOR	1/2"					
DF1	FREEZE-RESISTANT DRINKING FOUNTAIN	ELKAY EDFP217FFK, ADA, DRINKING FOUNTAIN, BI-LEVEL, VANDAL RESISTANT WITH CARRIER, WITH FREEZE RESISTANT INDOOR BOXES AND MOUNTING PLATE.	2 @ 3/8"		2 @ 1 1/4"	2 @ 1 1/4"	2 @ 1 1/4"	TRAP PROVIDED WITH FREEZE PROOF BOXES
FD1	FLOOR DRAIN	ZURN ZN415-P-5B FLOOR DRAIN WITH 5" NICKEL BRASS TOP WITH TRAP PRIMER CONNECTION	1/2"		3"	1 1/2"		WITH TRAP PRIMER
FS1	FLOOR SINK	ZURN ZN-1900-3 12"X12" FLOOR SINK WITH 3/4" NICKEL BRONZE GRATE AND INTERIOR DOME STRAINER, 6" SUMP DEPTH			4"			PROVIDE 4" DEEP SEAL P-TRAP
TP1	TRAP PRIMER DEVICE	ELECTRONIC TRAP PRIMER DEVICE, PRECISION PLUMBING PRODUCTS NO. P1S-6, AUTOMATIC BRASS TRAP PRIMER DEVICE, ADJUSTABLE TO LINE PRESSURE, LOCATE IN UTILITY CLOSET WITH 1/2" COPPER LINES TO FLOOR DRAINS. 120V/1ø		3/4" NPT				MOUNT ON WALL 48" AFF.
HB1	HOSE BIBB INTERIOR	ZURN Z-1320C-PB-WC ENCASED WALL HYDRANT (FREEZE PROOF), ADJUSTABLE WALL CLAMP, POLISHED BRONZE FINISH		3/4"				MOUNT AT 12" AFF.
HB2	HOSE BIBB EXTERIOR	ZURN Z-1320C-PB-WC ENCASED WALL HYDRANT (FREEZE PROOF), ADJUSTABLE WALL CLAMP, POLISHED BRONZE FINISH		3/4"				

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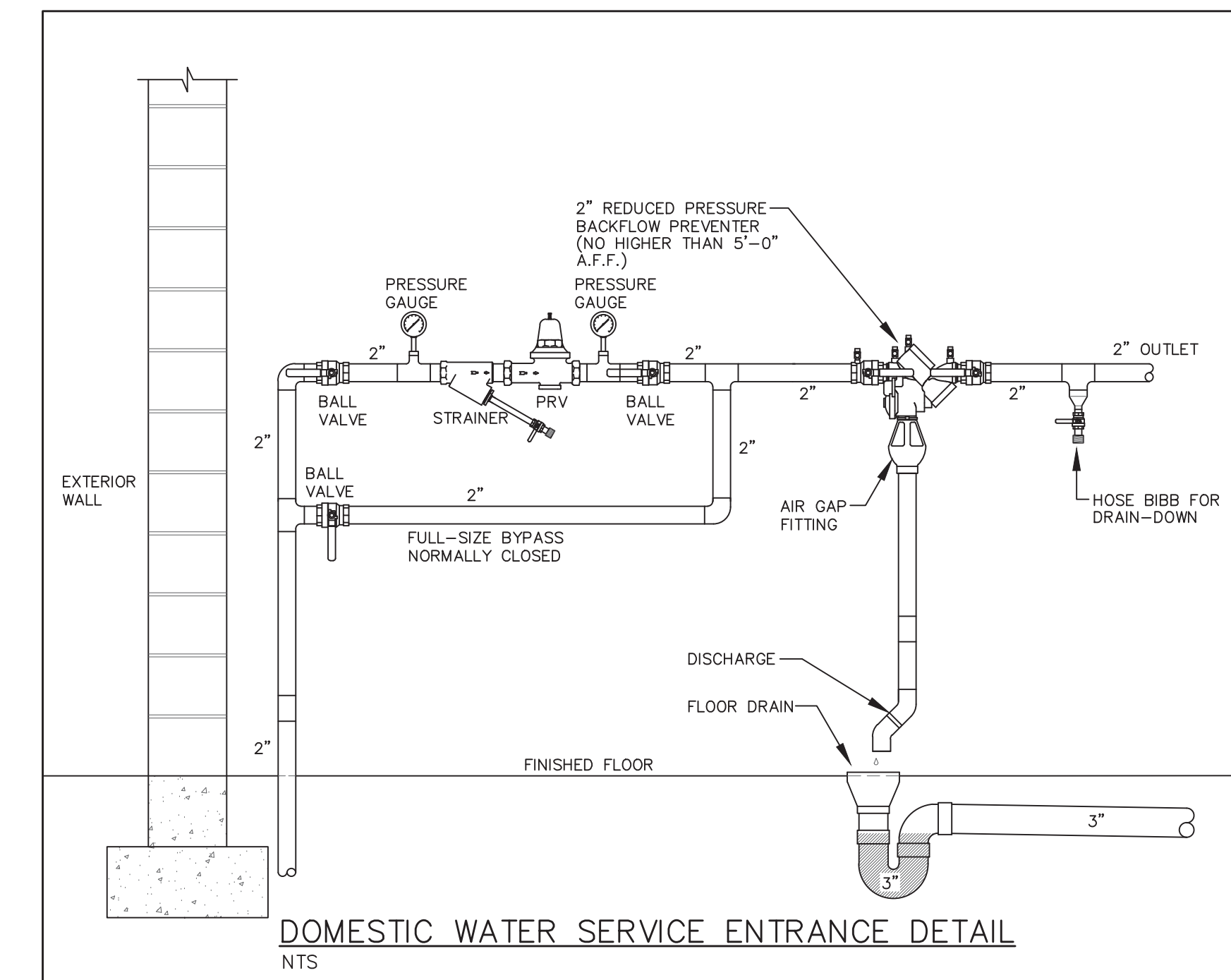
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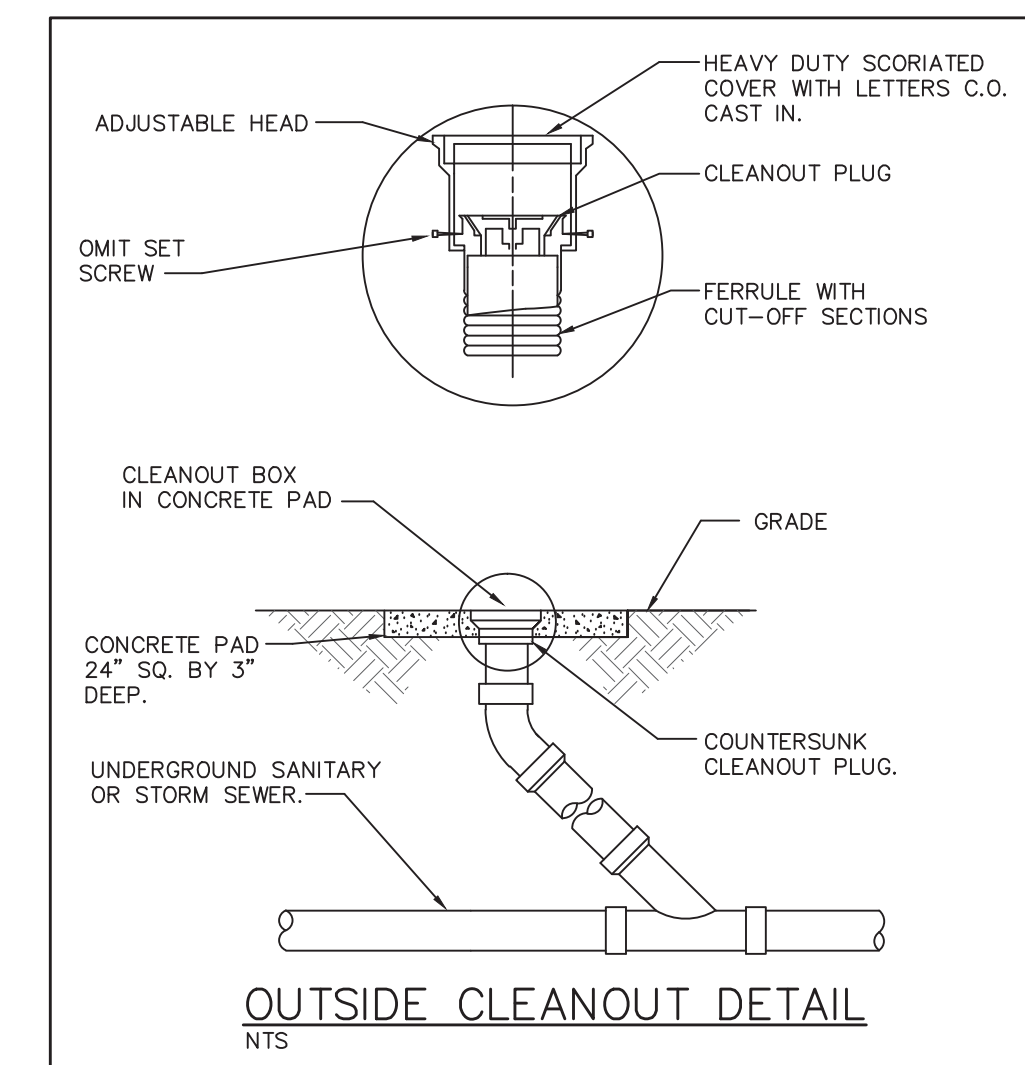


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PROJECT NO. 15058

PLUMBING



DOMESTIC WATER SERVICE ENTRANCE DETAIL  
NTS

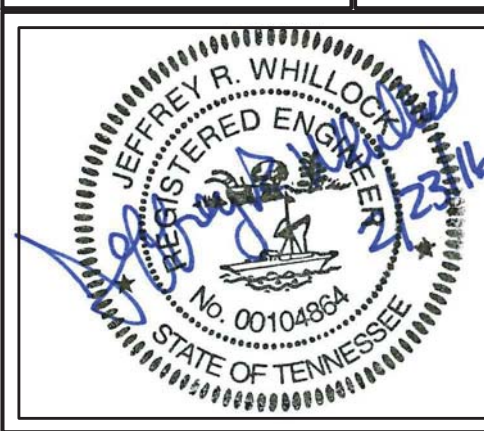


OUTSIDE CLEANOUT DETAIL  
NTS

**Restroom Facility and Picnic Pavilion**  
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DETAILS — PLUMBING

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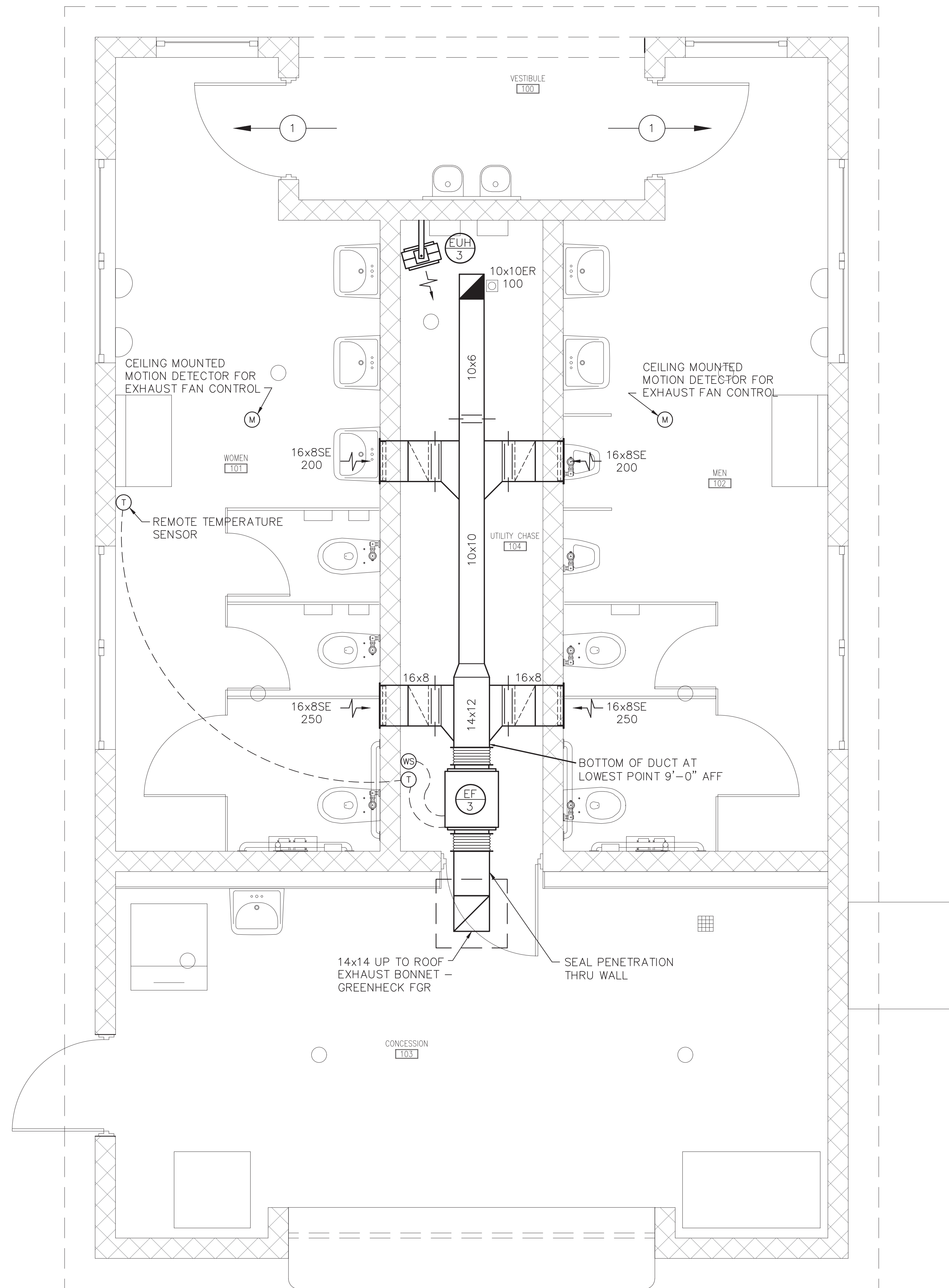
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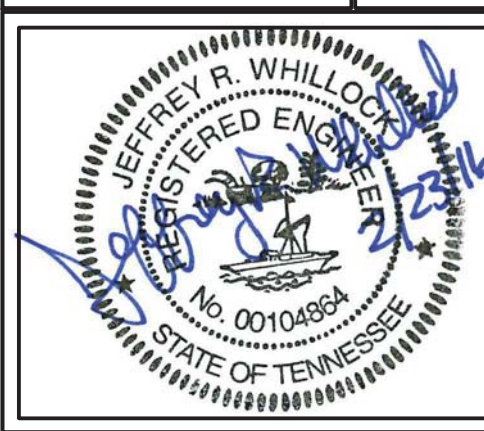


**FLOOR PLAN - HVAC**  
SCALE: 1/2"=1'-0"

**Restroom Facility and Picnic Pavilion**  
**Roane County Parks & Recreation**  
Harriman, Tennessee

FLOOR PLAN - HVAC

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### EXHAUST FAN SCHEDULE

MARK	CFM	E.S.P. IN WG	HP	RPM	TIP SPEED	SONES	WEIGHT (LBS)	TYPE	DRIVE TYPE	CONTROL	VOLTS/PHASE	MANUFACTURER AND MODEL NUMBER
EF-3	1000	0.5"	1/4	1140	--	--	--	INLINE CENTRIFUGAL	DIRECT	NOTE 4 & 5	120/1	COOK 100 ACEB

EXHAUST FAN SCHEDULE NOTES:

1. ALL UNITS SHALL BE U.L. LISTED AND AMCA CERTIFIED.
2. ALL FANS TO HAVE BACKDRAFT DAMPER, AND MOTOR STARTER.
3. PROVIDE INLINE FANS COMPLETE WITH BACKDRAFT DAMPER, SPEED CONTROL, AND VIBRATION ISOLATION MOUNTING HARDWARE.
4. ELECTRICALLY INTERLOCK W/ SWITCH AND MOTION DETECTORS (SEE ELECTRICAL)
5. PROVIDE COOLING ONLY, ADJUSTABLE THERMOSTAT WITH REMOTE TEMPERATURE SENSOR

### GRILLE, REGISTER, AND DIFFUSER SCHEDULE

MARK	SERVICE	DESCRIPTION	CONSTRUCTION / FINISH	ACCESSORIES AND FEATURES	MANUFACTURER AND MODEL NUMBER
ER	CEILING EXHAUST	1/2" x 1/2" x 1/2" EGGRATE FACE GRILLE	ALUMINUM / WHITE	SURFACE MOUNT OPPOSED BLADE DAMPER	TITUS MODEL 50F
SE	SIDEWALL EXHAUST REGISTER	HORIZONTAL BLADES, 35° DEFLECTION	ALUMINUM / WHITE	SURFACE MOUNT OPPOSED BLADE DAMPER	TITUS MODEL 350FL

GRILLE, REGISTER, AND DIFFUSER SCHEDULE NOTES:

1. VERIFY FRAME STYLE, FINISH, AND U.L. RATINGS OF ALL CEILINGS AND WALLS WITH ARCHITECT PRIOR TO ORDERING EQUIPMENT.
2. PROVIDE SQUARE TO ROUND TRANSITIONS AS REQUIRED.

### ELECTRIC HEAT SCHEDULE

MARK	TYPE	CAPACITY MBH	KW/STEPS	VOLTS/Ø	CONTROL	MANUFACTURER / MODEL NO.
EUH-3	UNIT HEATER	17.0	5.0/1	240/1Ø	UNIT MOUNTED THERMOSTAT	MARKEL HF1B5105N

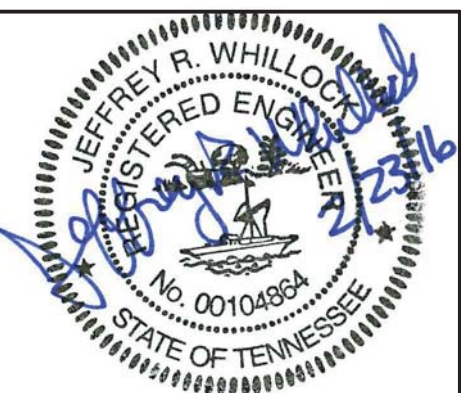
ELECTRIC HEATER SCHEDULE NOTES:

1. ALL UNITS TO BE U.L. LISTED.
2. FURNISH ALL HEATERS WITH AN INTEGRAL ELECTRICAL DISCONNECT.
3. PROVIDE ADJUSTABLE HORIZONTAL LOUVERS AND SWIVEL TYPE WALL MOUNTING BRACKETS FOR UNIT HEATER.

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SCHEDULES - HVAC

A New Facility For:



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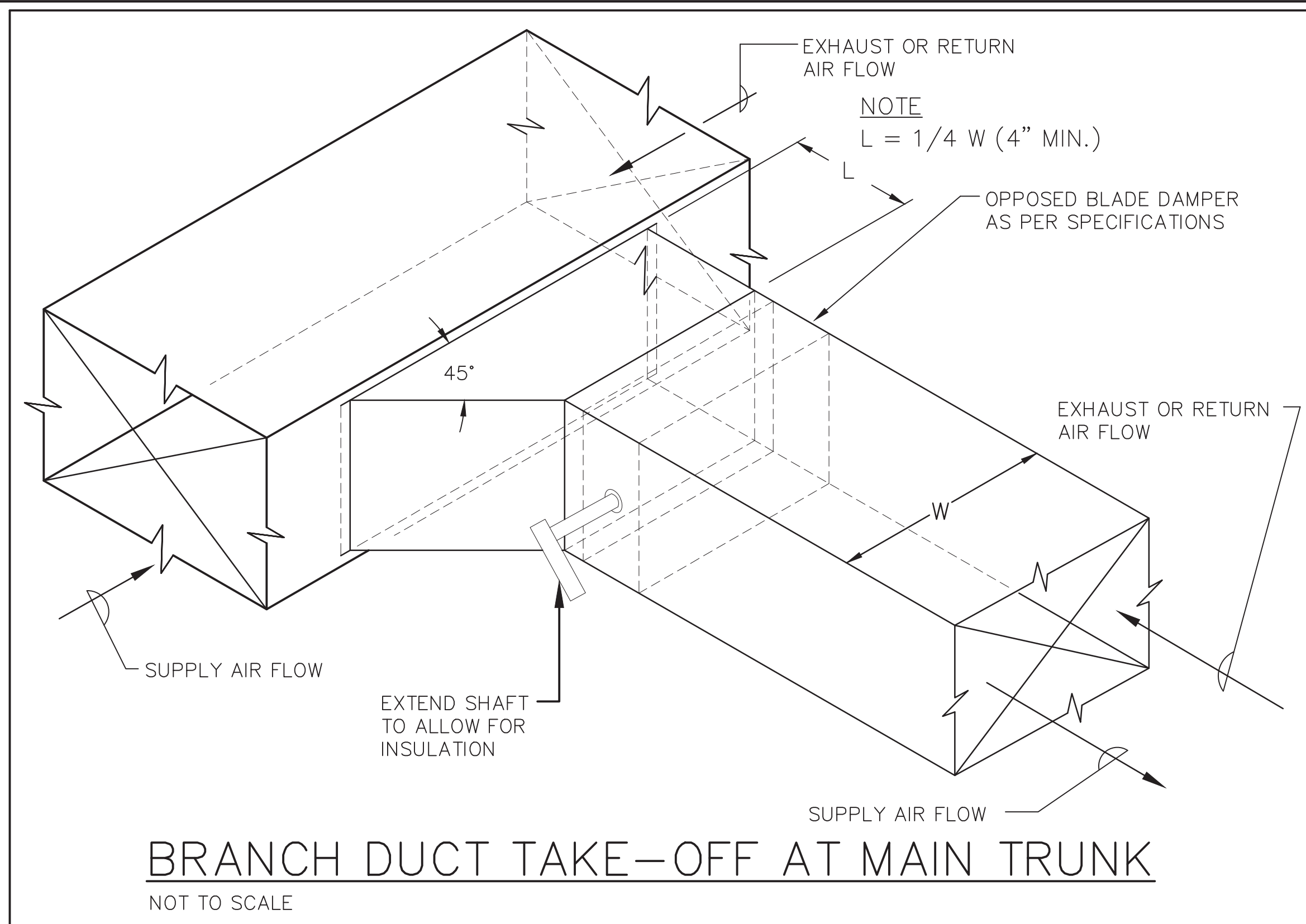


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PROJECT NO. 15058

**HVAC SPECIFICATIONS**

1. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SUPERVISION REQUIRED TO INSTALL COMPLETE AND OPERATIONAL HVAC SYSTEMS.
2. CONFORM TO ALL NATIONAL, STATE, AND LOCAL CODES AND ORDINANCES.
3. OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE INSTALLATION OF MECHANICAL WORK.
4. PROVIDE THE OWNER WITH OPERATIONAL AND MAINTENANCE MANUALS DESCRIBING OPERATING AND MAINTENANCE PROCEDURES, FREQUENCY OF MAINTENANCE, TYPES OF LUBRICANTS, FILTERS, ETC. AND A WRITTEN DESCRIPTION OF THE OPERATION OF EACH SYSTEM FURNISHED BY THE CONTRACTOR.
5. CONTRACTOR SHALL GUARANTEE HIS WORKMANSHIP AND THE MATERIALS HE FURNISHES FOR THE PERIOD OF 1 YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.
6. ALL APPROVED CHANGES MADE DURING THE PROGRESS OF THE WORK SHALL BE RECORDED BY THE CONTRACTOR ON A SET OF PRINTS WHICH ARE SPECIFICALLY DESIGNATED FOR THAT PURPOSE. THESE MARKED UP PRINTS ARE TO BE MAINTAINED AT THE JOB SITE AND SHALL BE GIVEN TO THE ARCHITECT AFTER WORK IS COMPLETE IN ORDER THAT AS-BUILT CONDITIONS ARE RECORDED.
7. CONTRACTOR SHALL FURNISH ALL ITEMS COMPLETE, INCLUDING MOTORS, DRIVES, BELT DRIVES, VIBRATION ISOLATORS, VALVES, TRAPS DRAINS, CONTROLS, ETC. AS REQUIRED FOR A COMPLETE OPERATING SYSTEM.
8. CONTRACTOR SHALL NOT CUT ANY STRUCTURAL MEMBER OF THE BUILDING WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
9. CONTRACTOR SHALL COORDINATE THE LOCATIONS OF OPENINGS REQUIRED FOR DUCTS, PIPES, LOUVERS, SLEEVES AND ETC WITH OTHER TRADES.
10. COOPERATION WITH UTILITIES, OWNER AND CONTRACTOR, IN ADDITION TO OTHER SUBCONTRACTORS, IS MANDATORY.
11. WHERE A DETAIL IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE, OR SIMILAR CONDITIONS, EVEN THOUGH NOT SPECIFICALLY MARKED ON THE PLANS.
12. PROVIDE FLEXIBLE CONNECTION BETWEEN DUCTWORK AND EXHAUST FAN.
13. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS (DO NOT SCALE FOR LOCATIONS.) THE CONTRACTOR SHALL CAREFULLY REVIEW ALL OF THE CONTRACT DOCUMENTS AND COORDINATE BETWEEN ALL TRADES PRIOR TO SUBMITTING SHOP DRAWINGS.
14. ALL DUCTWORK SHALL BE SHEET METAL AND SHALL COMPLY WITH SMACNA. DUCTWORK SHALL BE NO LIGHTER THAN 22 GA. FLEXIBLE DUCTWORK WILL NOT BE ALLOWED.
15. ALL ROOF CURBS SHALL BE PROVIDED BY ROOFING MANUFACTURER. (REFER TO ARCHITECTURAL DRAWINGS.)
16. REFER TO EACH DRAWING FOR NOTES SPECIFIC TO THAT DRAWING SHEET.
17. TESTING AND BALANCE AIR DISTRIBUTION SYSTEM
  - A. TEST AND BALANCE IN ACCORDANCE WITH AABC STANDARD FOR FIELD MEASUREMENT AND INSTRUMENTATION, FOR B1266, VOLUME ONE, THE ASSOCIATED AIR BALANCE COUNCIL.
  - B. THE BALANCING CONTRACTOR(S) SHALL BE INDEPENDENT OF THE MECHANICAL CONTRACTOR AND MUST BE APPROVED BY THE ENGINEER.

\*ALL ASSOCIATED COSTS SHALL BE INCLUDED IN THE GENERAL CONTRACTOR'S BASE BID.
18. CONTROLS
  - A. TOILET EXHAUST FANS SHALL OPERATE BY OCCUPANCY SENSOR AND REMOTE THERMOSTAT. UPON PERSON ENTERING THE RESTROOM, THE OCCUPANCY DETECTOR SHALL SENSE THEM AND ENERGIZE ITS RESPECTIVE EXHAUST FAN. THE EXHAUST FAN SHALL RUN FOR A PRESET PERIOD OF TIME (ADJUSTABLE). ADDITIONALLY, IF THE TEMPERATURE RISES, THE THERMOSTAT SHALL ENERGIZE THE EXHAUST FAN AND SHALL RUN IN ORDER TO MAINTAIN A MAXIMUM TEMPERATURE OF 90°F (ADJUSTABLE). REFER TO ELECTRICAL DRAWING (LATER) FOR WIRING SCHEMATICS FOR TOILET EXHAUST FAN CONTROLS.



**BRANCH DUCT TAKE-OFF AT MAIN TRUNK**  
NOT TO SCALE

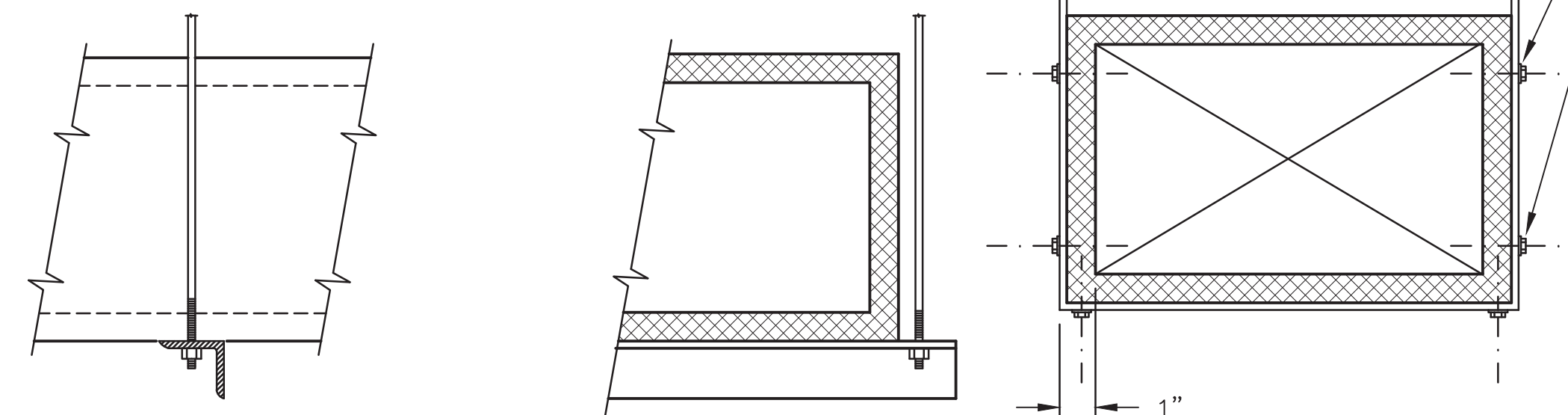
**HANGER SIZES FOR RECTANGULAR DUCT**

MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
30"	1"x1/8" GAGE STRAP	NONE REQUIRED	10'-0"
36"	1/4" ROUND ROD	1-1/2"x1-1/2"x1/8"	8'-0"
48"	1/4" ROUND ROD	2"x2"x1/8"	8'-0"
60"	5/16" ROUND ROD	2"x2"x1/8"	8'-0"
84"	3/8" ROUND ROD	2"x2"x1/8"	8'-0"

NOTE: ALL SUPPLY AIR DUCT SHALL BE WRAPPED EXTERNALLY AS PER SPECIFICATIONS.

NO POP RIVETS ALLOWED

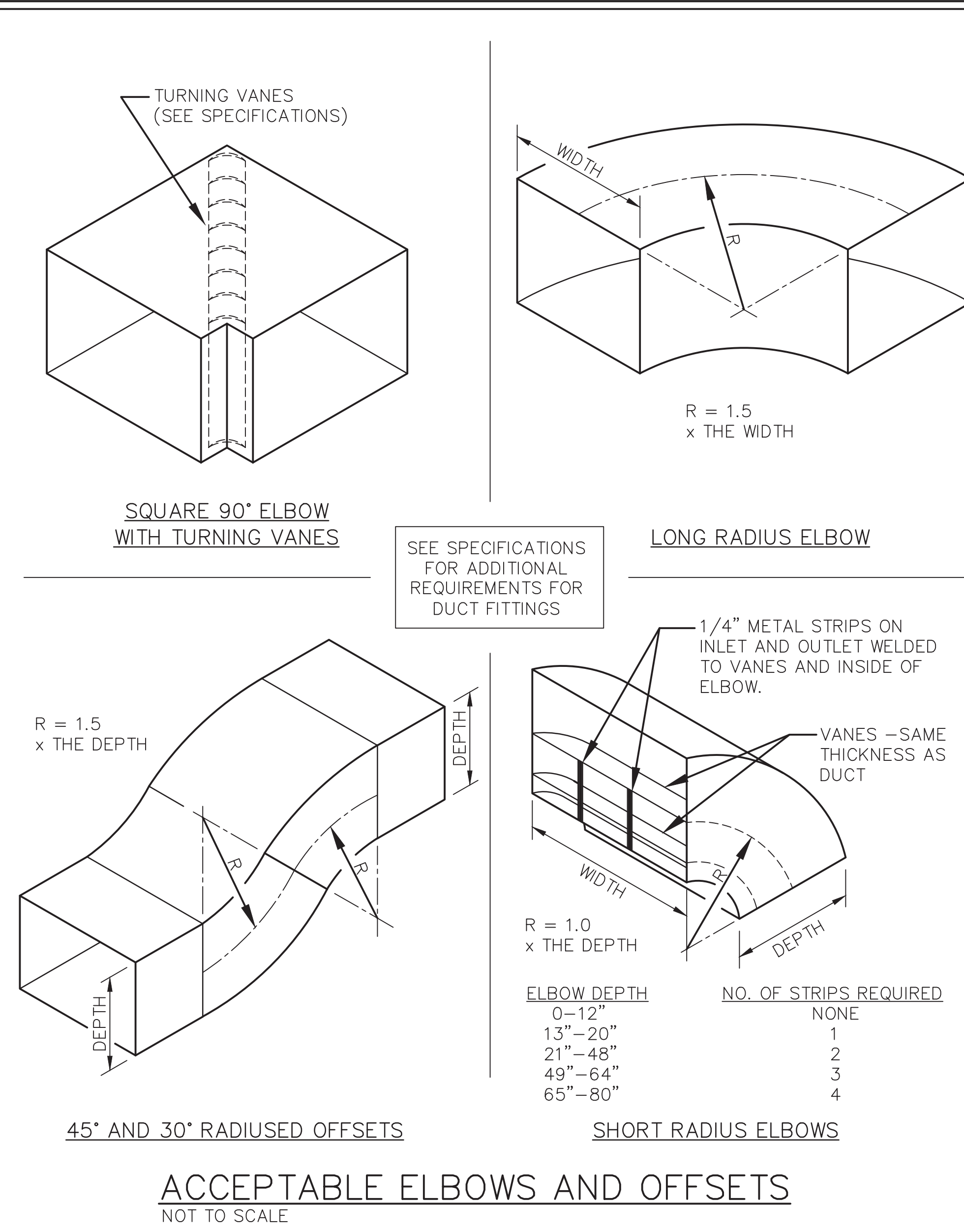
SELF-TAPPING CADMIUM PLATED HEX HEAD SHEET METAL SCREW STRAPS TO BE TIGHT AGAINST DUCT.



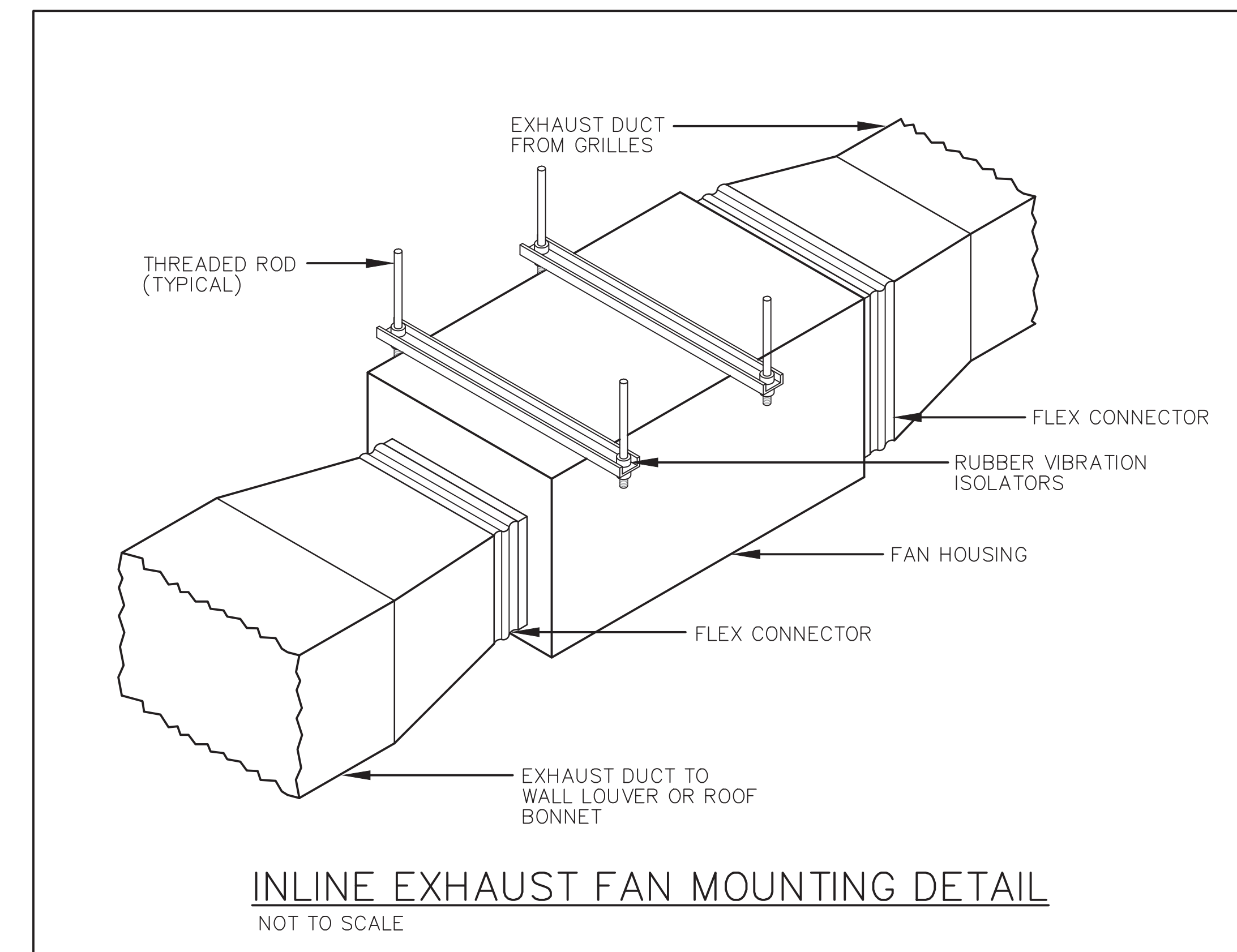
**DUCT STRAP HANGER DETAIL**  
NOT TO SCALE

**DUCT LEGEND & SYMBOLS**

- ① 1 FT. DOOR GRILLE
- Ⓣ WALL THERMOSTAT
- Ⓜ MOTION DETECTOR
- ⓌⓈ WALL SWITCH
- EXHAUST FAN, REGISTER, OR GRILLE
- ⋮ MANUAL OPPOSED BLADE DAMPER



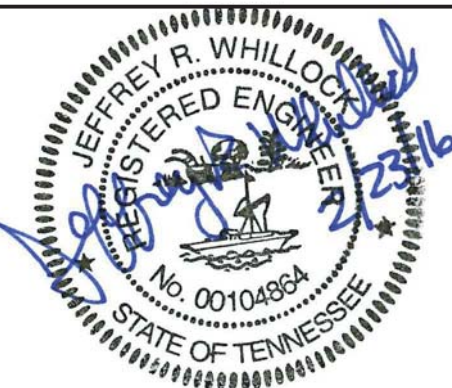
**ACCEPTABLE ELBOWS AND OFFSETS**  
NOT TO SCALE



**INLINE EXHAUST FAN MOUNTING DETAIL**  
NOT TO SCALE

**Restroom Facility and Picnic Pavilion**  
**Roane County Parks & Recreation**  
Harriman, Tennessee

A New Facility For:



**PROJECT REVISIONS**

DATE	DESCRIPTION

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Project Number  
**15057/15058**

2/23/2016  
**M1.2**



**ELECTRICAL GENERAL PROVISIONS:**

The Work of this Contract includes the furnishing and installation of Electrical Work as shown or specified. The listing herein of articles or material, operation or methods requires that the Contractor shall provide each item indicated in the Specifications or shown on the Drawings of quality of grade and quantity as specified. Perform each operation prescribed according to conditions stated, providing all necessary labor, equipment and services necessary for and reasonably incidental to the completion of all Electrical Work as required to make a thoroughly complete job whether every item is specifically mentioned or not.

Entire electrical installation shall be made in strict accordance with the requirements of all City, County, State or Federal Codes of Law having jurisdiction, the requirements and recommendations of Underwriters Laboratories, Inc. (UL) including all amendments and/or additions to the said Codes, Laws, requirements and recommendations of the Local Electric Utility. This shall include, but not be limited to, the latest edition of the National Electrical Code, National Electrical Safety Code, Americans with Disabilities Act and Chapter 13600-2 (State of Tennessee Electrical Code). Deviate all Work in strict conformity with the various Codes, etc., without additional cost to the Owner.

Contractor shall file with the proper authorities all necessary Drawings as required by the various Codes, Laws, Ordinances, etc.  
 Contractor shall obtain and pay for all permits and required inspection certificates.  
 Refer to Division I for Warranty/Guarantee information.

Coordination: The Contractor is cautioned that the Electrical Drawings which indicate the Work included in this Section are diagrammatic only. The locations, routing, etc., of the various fixtures, items of equipment, wiring, etc., are approximate only. The entire installation shall be subject to such deviations, modifications, re-routings, etc., as may be necessary to meet the requirements of the Architectural, Structural and other Drawings, and also as necessary to obtain a proper coordination of the Work with that of all other Trades. To this end, the Contractor shall carefully check and familiarize himself with the above-mentioned Drawings and shall frequently consult with all other Trades so that the Work may proceed as a harmonious whole.

The Electrical Contractor shall carefully examine all Architectural, Structural, Mechanical, Electrical and other Drawings and all other sections of the Specifications for items, equipment, etc., not a part of the Electrical Contract which may require electrical connection. Unless explicitly indicated to the contrary, this Division shall furnish and install all necessary electrical lines, boxes, etc., and shall make final connection to such items, equipment, etc.

Refer to Architectural Drawings for details such as finish dimensions, materials, etc. Refer to Drawings for door locations, door swings, partition locations, cabinet and counters, making proper allowances therefore.

Provide temporary wiring for construction in strict accordance with Article 305 of the National Electrical Code.

All low-voltage devices, conductors, connections, etc., of Plumbing, Mechanical and other equipment shall be provided by the Mechanical/Plumbing contractor. The Electrical Contractor shall provide and install all low-voltage devices, conductors, etc.

**BASIC MATERIALS AND METHODS:**

Every coil of wire to be used shall be in the original packaging and shall bear the UL label.  
 Provide wall switches, receptacles, special outlets, etc., as specified and shown on the Drawings. Special colors may be required by the Architect and requests for color variation must be made well in advance of product procurement. Devices shall be white unless noted otherwise.  
 Conduit:

- A) Provide all wiring in conduit. All conduit 2" or less in diameter shall be EMT, except conduit installed in concrete, conduit buried underground or exposed conduit less than 6" x 6" above finished floor.
- B) Conduit installed underground or within concrete shall be Schedule 40 PVC. All transitions from below grade to above grade shall be made with rigid steel pipe.
- C) All EMT and PVC conduit shall contain a green-insulated grounding conductor of a size as required by the National Electrical Code. Size conduit according to accommodate the conductor.
- D) Minimum size of all EMT conduit shall be 1/2". Minimum size of all other conduit shall be 3/4".
- E) Contractor may opt to use MC cable for concealed in-line-voltage wiring and empty flexible conduit for communications raceways.

**Conductors:**

- A) All conductors shall be 100% conductivity copper and thoroughly insulated. All insulation (EOT-100) shall be THHN or THWN.
- B) All conductors #8 AWG and larger shall be stranded. All conductors #10 AWG and smaller shall be solid.
- C) Minimum size of conductor for in-line-voltage wiring shall be #12 AWG.

**Boxes and Fittings:**

- A) All junction outlet, switch, receptacle and panelboard boxes shall be galvanized.
- B) Where two (2) or more devices are indicated grouped together, they shall be gang-mounted.
- C) Junction boxes shall be 4"x2-1/8"x1-1/2" with raised cover or 4" square x 1-1/2"x2-1/8"x1-1/2" where required by Code.

**Wiring Devices:**

- A) Receptacles shall be 20-amp, 3-wire, grounded.
- B) Ground-fault receptacles shall be 20-amp, 3-wire, grounded. Contractor may opt to use feed through outlets, as long as current leakage does not cause false tripping.
- C) Switches shall be 20-amp, (120/277-volt), single-pole, 3-way or 4-way.
- D) Plates shall be colored nylon (finish to match devices).

**Wiring:**

- A) All wiring shall be continuous from outlet box to outlet box, from outlet box to pull or junction box. Pressure connectors shall be used for conductors #10 AWG and larger. No joints or splices shall be pulled into conduit.
- B) All conduits shall be drawn-up tight, so as to effectively ground boxes to conduit.
- C) All bends in conduit shall be made with a conduit bender; bends which change the cross-sectional area of the conduit will be rejected.
- D) All surface-mounted conduit shall be installed parallel or perpendicular to the building structure.
- E) Install devices in accordance with manufacturer's recommendations. Ground devices in strict accordance with Article 250 of the National Electrical Code.

**ELECTRICAL SERVICE SYSTEM:**

- 1) The characteristics of the electric supply to the building shall be 120/240-volt/1-Ø/3-Wire.
- 2) Power to the building shall be supplied by the Local Electric Utility. Coordinate with the Local Electric Utility. Provide installation in accordance with the Local Electric Utility's requirements, including details, preferred routing, available voltage, etc.

**POWER EQUIPMENT:**

**Panelboards and Cabinets:**

- A) Fill out directories with typewriter. Install where indicated on the Drawings, 1-Ø/3-wire panels or switchboards, mounted in enclosing cabinets containing equipment specified in the "Panelboard Schedule".
- B) Lighting and power panels shall be hinged or surface mounted, "plug-in" circuit breaker type. Single panel covers shall be 20" x 36-3/4". Use compartments for multiple circuit breakers. Minimum starting rating capacity for branches shall be 10,000 AIC, with greater capacities where indicated on the Drawings or where required by the Local Electric Utility.
- C) All panels shall have a copper bus and ground bar.
- D) All circuit breakers used to serve package-type or conditioning equipment shall be UL listed "back" where applicable.

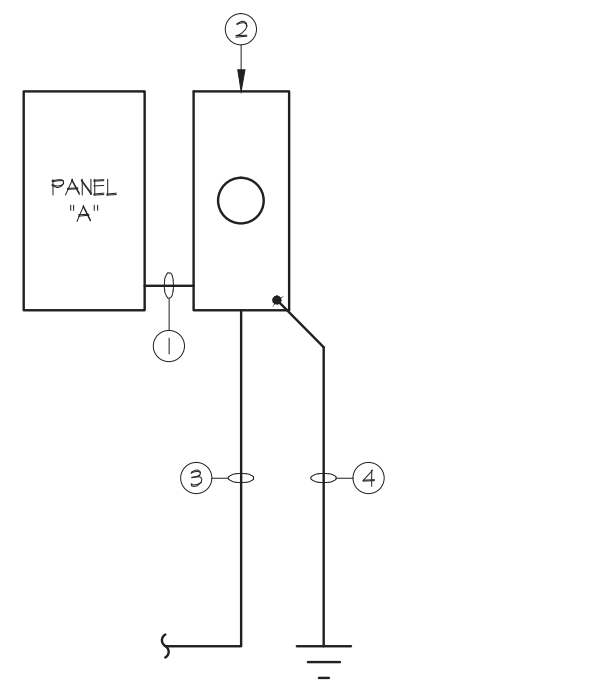
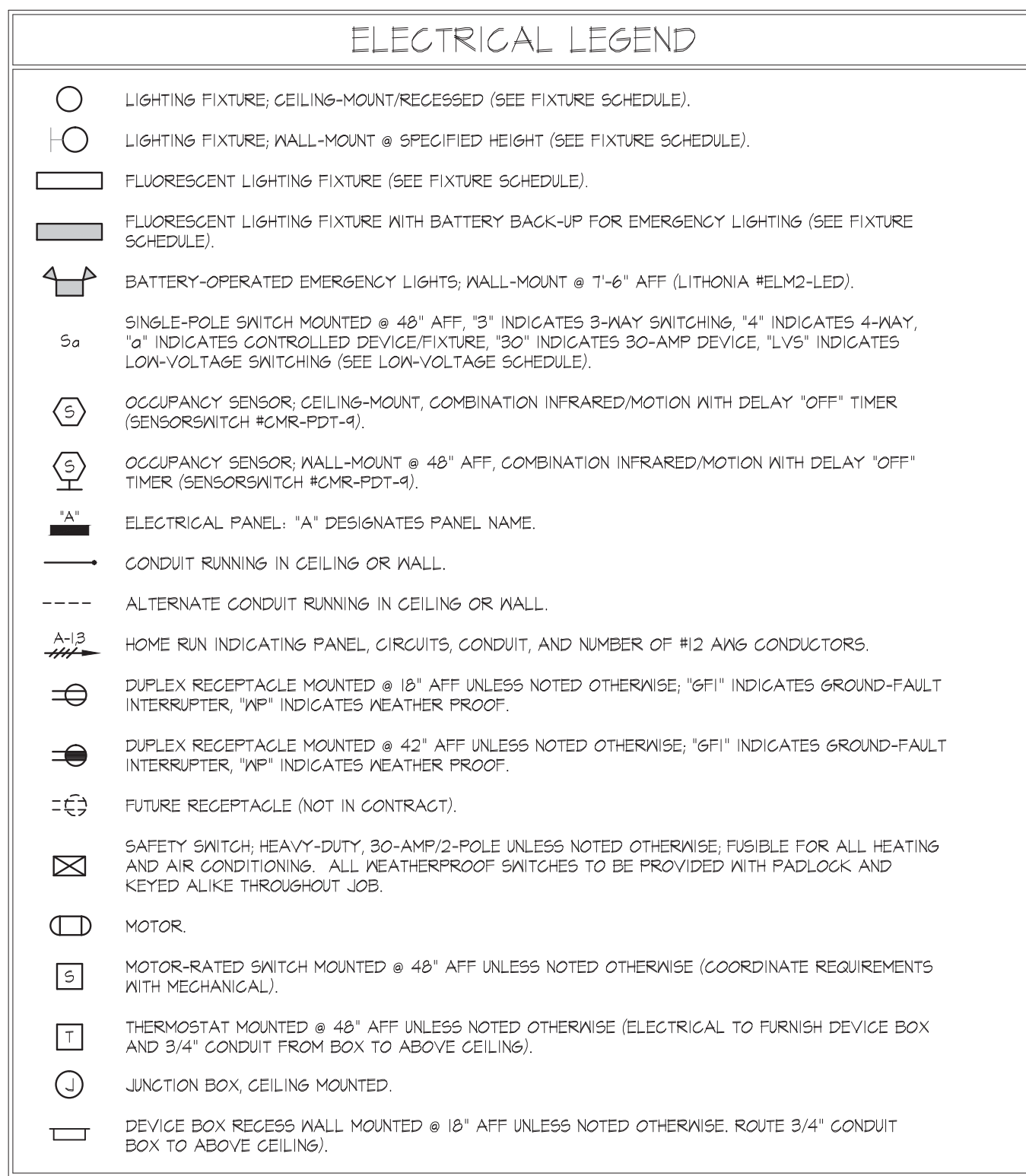
**LIGHTING:**

**General:**

- A) All fixtures shall be UL approved.
- B) All lighting fixtures shall be warranted.
- C) Conductors within fluorescent fixtures shall be a minimum of #18 AWG with type CF insulation.
- D) Each ballast shall bear the CBM seal of approval and shall be UL Class F. Fluorescent ballasts shall be electronic.
- E) Install fixtures in accordance with manufacturer's recommendations.

LIGHTING FIXTURE SCHEDULE									
TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		MOUNTING	VOLT	REMARKS	BID TYPE	
			QTY	TYPE					
A	NOT USED								
B	LITHONIA	C-11-32-120-SEB1015-MGN NST	1	F032/84/E00	SURFACE CEILING	120		BASE BID	
		MNL-MV-M6	1	24-WATT LED				ALTERNATE [1]	
C	KENALL	MLH48-48-F-MV-PP-2-32-15-1-120	2	F032/84/E00	SURFACE CEILING	120		BASE BID	
		MLH48-48-F-MV-PP-4-36-14K-1-120	1	50-WATT LED				ALTERNATE [1]	
D	ELITE LIGHTING	HV6-LED-800L-DIM-MQ-120-MD-40K-85--LED-613-3-2-WH	1	16-WATT LED	RECESSED CEILING	120		-	
E	ELITE LIGHTING	HV6-LED-100L-DIM-MQ-120-MD-40K-85--LED-613-3-2-WH	1	21-WATT LED	RECESSED CEILING	120		-	
F	LITHONIA	DFLR-6L-G-120-**	2	10-WATT LED	SURFACE UNDER-EAVE	120	(1)	-	
G	LITHONIA	QLG5-S-***	1	8-WATT LED	WALL @ 6'-8" AFF	120	(1)	-	

(1) FINISH TO BE SELECTED BY THE ARCHITECT.



**POWER RISER DIAGRAM**

N.T.S.

**POWER RISER DIAGRAM NOTES:**

- 1) 3/4" x 3/4" x 3/4" x 4' GR.
- 2) PROPOSED ELECTRIC METER (COORDINATE WITH THE LOCAL ELECTRIC UTILITY). METER BASE BY THIS CONTRACTOR, METER BY ELECTRIC UTILITY.
- 3) 3/4" x 3/4" x 3/4" x 4" UTILITY POLE-MOUNT TRANSFORMER. INSTALL CONDUIT ON UTILITY POLE AND TERMINATE WITH WEATHERHEAD (N-STALL PER LOCAL ELECTRIC UTILITY REQUIREMENTS). LEAVE SUFFICIENT CONDUIT LENGTH FOR CONNECTION TO THE TRANSFORMER BY THE LOCAL ELECTRIC UTILITY.
- 4) PROVIDE GROUNDING FOR SERVICE ENTRANCE EQUIPMENT PER NATIONAL ELECTRICAL CODE REQUIREMENTS.

TOTAL CONNECTED LOAD:	
LIGHTINGS:	0,640-W
RECEPTACLES:	1,780-W
KITCHEN EQUIPMENT:	6,000-W
MISCELLANEOUS EQUIPMENT:	10,240-W
MECHANICAL/PLUMBING:	40,750-W
<b>TOTAL:</b>	<b>58,410-W</b>

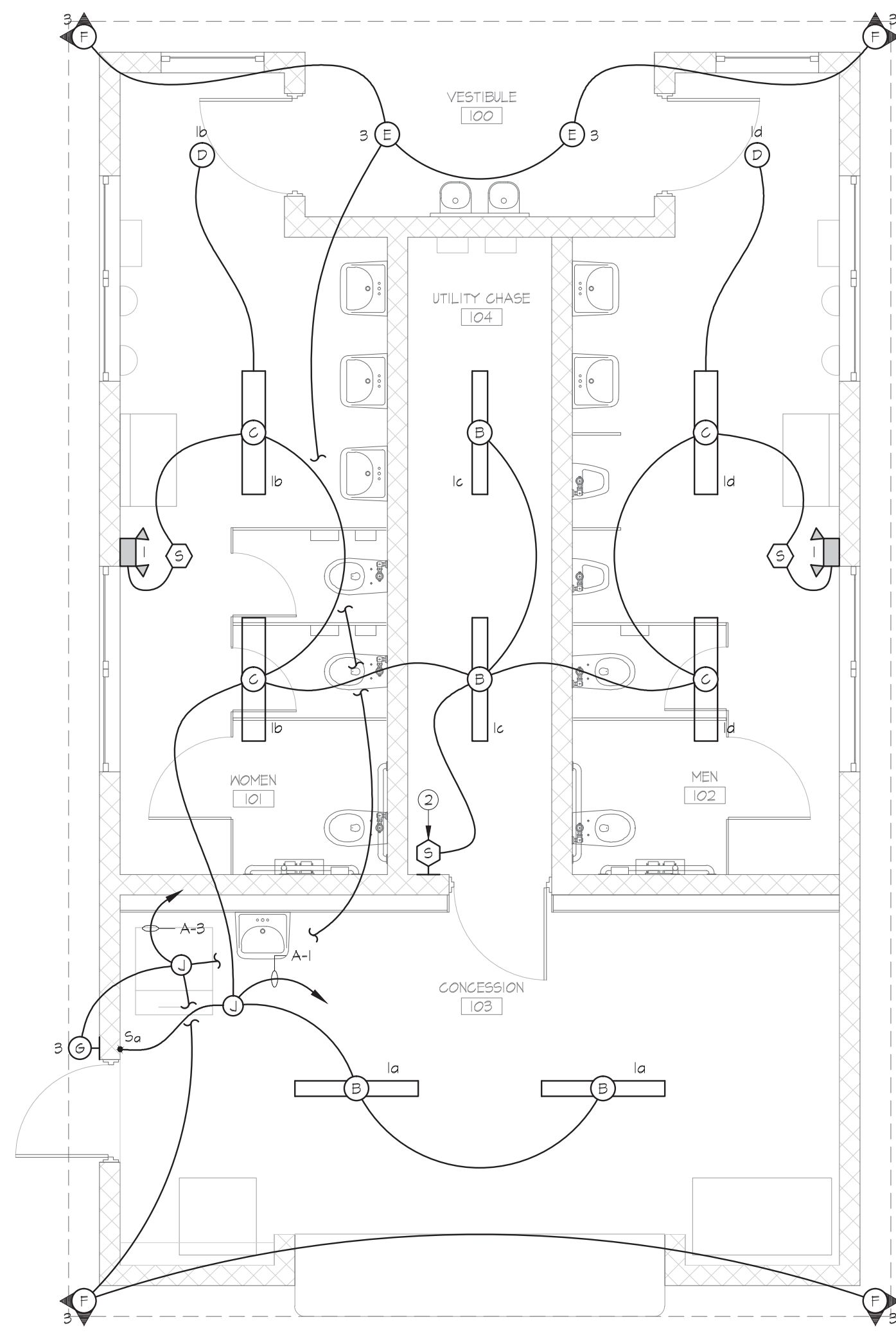
PANEL DESIGNATION: 'A'		TOTAL CONNECTED LOAD: 58,410-WATTS		REMARKS:				
VOLTAGE: 120/240/110/50/3Ø		TOTAL AMPS: 247.5-AMPS						
TYPE	MB	PANEL AMPS:	400-AMP	MOUNTING:	RECESSED			
DESIGNATION	WATTS	BK/AMP	COF NO	PHASES	QTY	BK/AMP	WATTS	DESIGNATION
LIGHTINGS	510	20	1	A-B	2	20	100	DRINKING FOUNTAIN
EXTERIOR LIGHTINGS	150	20	3	A-B	4	20	1000	RECEPTACLES
HAND DRYER	2320	30	5	A-B	6	30	2320	HAND DRYER
HAND DRYER	2320	30	7	A-B	8	30	2320	HAND DRYER
WOMEN'S RR PLUMBING CONTROL	480	20	4	A-B	10	20	1200	ICE MACHINE RECEPTACLE (2)
MEN'S RR PLUMBING CONTROL	480	20	11	A-B	12	20	800	CONGRESSION RECEPTACLE (2)
CONGRESSION RECEPTACLE	800	20	13	A-B	14	20	800	CONGRESSION RECEPTACLE (2)
CONGRESSION RECEPTACLE	800	20	15	A-B	16	20	800	CONGRESSION RECEPTACLE (2)
EF-3	100	20	17	A-B	18	20	800	CONGRESSION RECEPTACLE (2)
DS-1	2040	20	14	A-B	20	15	495	HP-1
	2040	21			22		495	
EH-3	2500	30	23	A-B	24	60	5,750	PH-2
	2500	28			26		5,750	
PH-2	5,750	60	21	A-B	28	35	5,000	PH-4
	5,750	24			30		5,000	
		31			32			
		33			34			
		35			36			
		37			38			
		39			40			
		41			42			
TOTAL LOAD THIS SIDE		24/20			30,240	TOTAL LOAD THIS SIDE		

- 1) ROUTE CONDUITS THROUGH PHOTOCELL.
- 2) PROVIDE IF ALTERNATE [3] IS ACCEPTED.

**MECHANICAL/PLUMBING WIRING LEGEND**

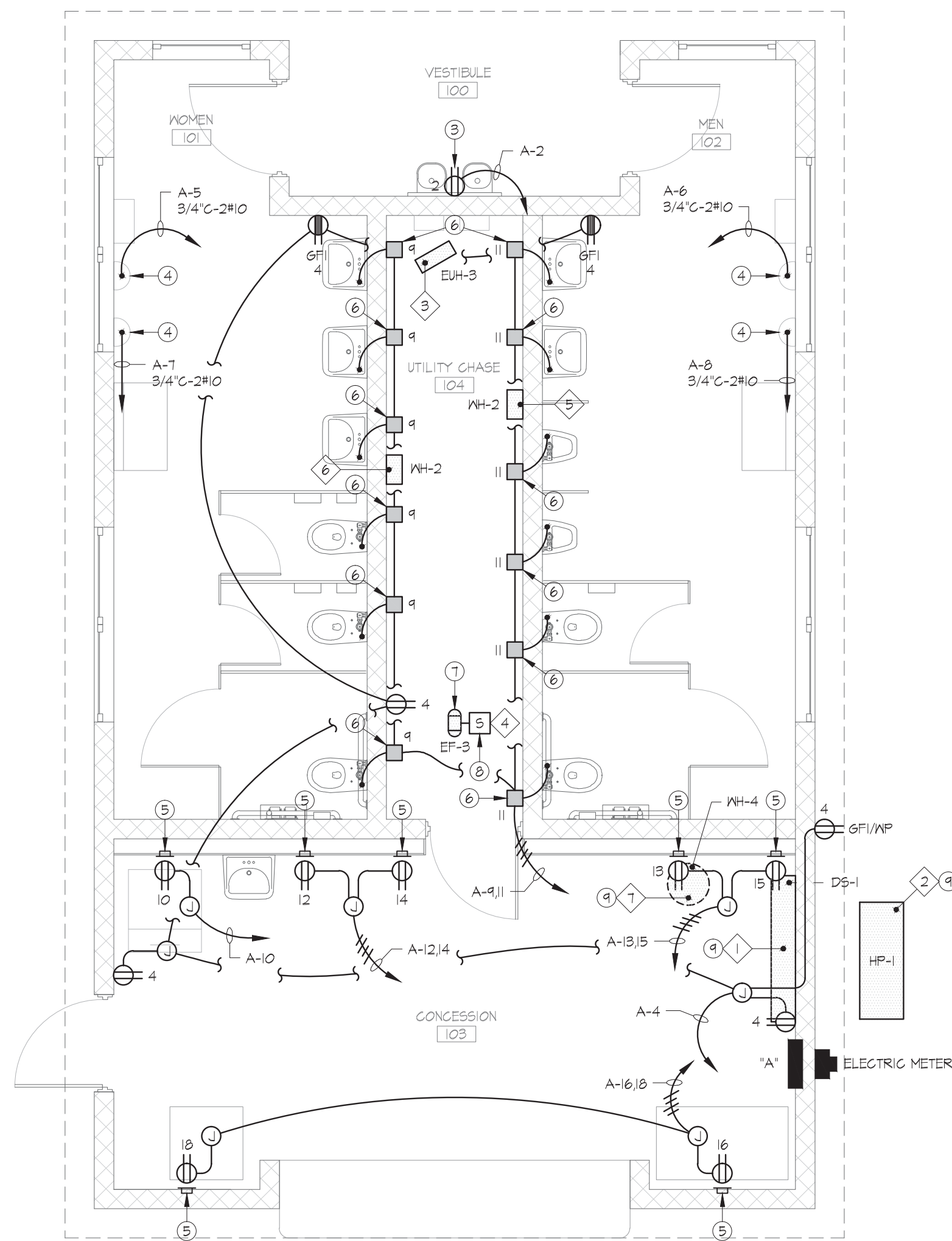
IN ORDER TO CONSERVE SPACE, PERTINENT DATA CONCERNING ELECTRICAL FOR MECHANICAL/PLUMBING ITEMS ARE LISTED IN TABLE FOR BELOW. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THESE ITEMS IN COMPLIANCE WITH ALL APPLICABLE CODES.

TAG NUMBER	EQUIPMENT DESIGNATION	CIRCUIT NUMBER	CONDUIT/CONDUCTOR	DISCONNECT
(1)	DS-1	A-14(2)	3/4" x 2#12 @ 6R	30/2
(2)	HP-1	A-20(22)	3/4" x 2#12 @ 6R	30/2/WP
(3)	EH-3	A-23(25)	3/4" x 3#10 @ 6R	30/2
(4)	EF-3	A-17	3/4" x 3#12 @ 6R	20/1/WP
(5)	PH-2	A-24(26)	1" x 2#6 @ 6R	60/2
(6)	PH-2	A-21(24)	1" x 2#6 @ 6R	60/2
(7)	PH-4	A-28(30)	3/4" x 2#10 @ 6R	60/2



**FLOOR PLAN - LIGHTING**

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



**FLOOR PLAN - POWER & COMMUNICATIONS**

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

**GENERAL NOTES:**

- A) REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING-MOUNT DEVICES/FIXTURES.
  - B) VERIFY CONNECTIONS TYPE (HAND-WIRED, PLUG & CORD) FOR ALL EQUIPMENT THAT IS TO BE PROVIDED BY OTHERS (DRINKING FOUNTAINS, HAND DRYERS, ETC.) PRIOR TO ROUGH-IN OF ELECTRICAL. PROVIDE CONNECTIONS DEVICES FOR SAID EQUIPMENT IN SPACE PROVIDED FOR SAME.
- DRAWING NOTES:**
- 1) PROVIDE SINGLE-POLE SWITCH FOR CONTROL OF LIGHTING IF ALTERNATE [2] IS ACCEPTED (DELETE OCCUPANCY SENSOR IF ALTERNATE IS ACCEPTED).
  - 2) PROVIDE SINGLE-POLE SWITCH INSTEAD OF OCCUPANCY SENSOR FOR CONTROL OF LIGHTING IF ALTERNATE [2] IS ACCEPTED.
  - 3) PROVIDED FOR DRINKING FOUNTAIN ELECTRICAL. VERIFY CONNECTION TYPE PRIOR TO ROUGH-IN OF ELECTRICAL.
  - 4) PROVIDED FOR HAND DRYER ELECTRICAL. VERIFY CONNECTION TYPE PRIOR TO ROUGH-IN OF ELECTRICAL.
  - 5) DEVICE BOX TO BE INSTALLED @ 42" AFF. PROVIDE IF ALTERNATE [3] IS ACCEPTED.
  - 6) PLUMBING FIXTURE HARDWIRED POWER CONVERTER PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR. CONNECTED BY ELECTRICAL CONTRACTOR. LOW-VOLTAGE CABLE BETWEEN CONVERTER AND FIXTURE TO BE #14-GA. CABLE INSTALLED IN 1/2" FLEXIBLE CONDUIT.
  - 7) EXHAUST FAN TO BE CONTROLLED BY MOTION SENSORS (SEE MECHANICAL DRAWINGS FOR LOCATIONS). COORDINATE CONTROL OF EXHAUST FAN WITH THE MECHANICAL CONTRACTOR.
  - 8) MOTOR-RATED SWITCH TO ACT AS MEANS OF DISCONNECT FOR EXHAUST FAN. LOCATE SWITCH ADJACENT TO EXHAUST FAN (PROVIDE WEATHERPROOF ENCLOSURE IF LOCATED ON ROOF). SIZE SWITCH PER EXHAUST FAN HP RATINGS.
  - 9) OMT ELECTRICAL FOR MECHANICAL/PLUMBING EQUIPMENT IF ALTERNATE [3] IS ACCEPTED.

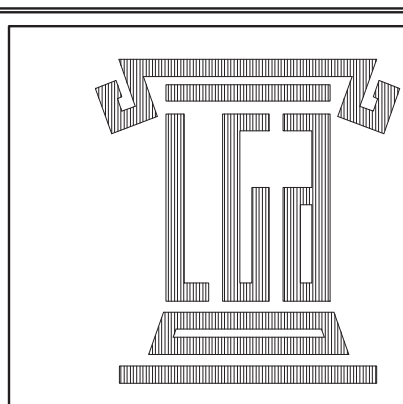
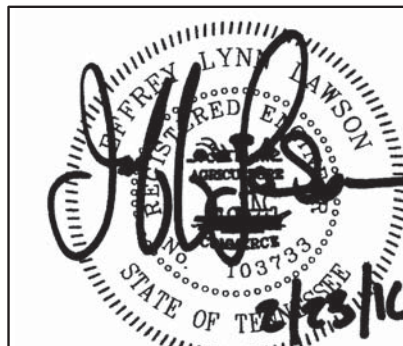
**ALTERNATE LIST:**

- 1) PROVIDE LED LIGHTING FIXTURES AS IDENTIFIED IN THE "LIGHTING FIXTURE SCHEDULE".
- 2) PROVIDE ALTERNATE LIGHTING CONTROLS AS INDICATED ON THE PLANS.
- 3) PROVIDE ROUGH-IN ONLY (DEVICE BOX WITH 3/4" CONDUIT STUBBED OUT ABOVE FUTURE CEILING HEIGHT) FOR RECEPTACLES CONNECTED TO CIRCUITS #A-10, #B-10, #B-11. PROVIDE TYPE "B" FIXTURES INDICATED (CONTROLLED BY SINGLE-POLE SWITCH).

**Restroom Facility and Picnic Pavilion  
Roane County Parks & Recreation**

Haun, Tennessee

A New Facility For:



**THE LEWIS GROUP ARCHITECTS**  
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 PH: 865.584.5000 | FX: 865.588.1272  
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**Project Number**  
15057/15058

**02/23/2016**

**E1.1**

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