WESTWOOD BOARD OF APPEALS
APPLICATION FOR HEARING

1. **Name of Applicant:** Stephen Werth
2. **Applicant** is (check one): Owner ✘ Tenant ____ Abutter ____ Purchaser ____ Other_____
3. **Mailing address of Applicant:** 10 Cardinal Drive, Westwood, MA 02090
4. **Telephone** - Home: 781-407-0036 Business: 617-773-7431
5. **E-Mail Address of Applicant:** werthrs8@gmail.com
6. **Address of Property subject to Hearing:** 10 Cardinal Drive, Westwood, MA 02090
7. **Owner of Property:** Stephen Werth
8. **Mailing Address of Property Owner:** 10 Cardinal Drive, Westwood, MA 02090
9. **Telephone** - Home: 781-407-0036 Business: 617-773-7431
10. **Deed** recorded in: Norfolk County Registry of Deeds: Book # 33528 Page # 538

    or Land Court Registry: Certificate # _____ Book # _____ Page # _____
11. **Property** MAP # 11 LOT # 016 DISTRICT SRE
12. Has an appeal/application ever been filed with the ZBA on this property? (Y/N) ___ If yes, when:_____
13. **NATURE of Application** (check one):
    _____ Appeal in accordance with MA G.L.Ch. 40A, Sec. 8 as amended
    _____ Special Permit in accordance with MA G.L.Ch.40A, Sec. 9 as amended
    ✘ Variance in accordance with MA G.L. Ch. 40A, Sec. 10 as amended

When applying for a Special Permit under Section 9.3 of the Westwood Zoning Bylaw, please make sure that you and/or your attorney refer to the specific bylaw regarding this section.

STATE the EXACT NATURE of this application including the applicable section number(s) of the Westwood Zoning Bylaw:

The proposed rear shed dormer requires a variance from section 5.4.1. The proposed dormer exceeds the maximum allowed average roof height.

Plan on a minimum of three months to complete the process.

I hereby request a hearing before the Westwood Board of Appeals with reference to the subject property.

I am aware that the cost of legal advertising will be billed to me directly as the Applicant, by the newspaper at a later date. I am also aware of the provisions in the Zoning Bylaw with regard to Reimbursement for Consultants, and I agree to reimburse the Board of Appeals and the Town of Westwood for all costs incurred by the Town or its' Boards for all fees, expenses and costs in connection with the review and evaluation of the Application for Special Permit and/or Variance.

I have reviewed the Zoning Board of Appeals Instructions and Information and understand the time requirements.

Signed: _____ Date: 3/27/17
APPLICANT'S SIGNATURE (or Agent)

Signed: _____ Date: _____
PROPERTY OWNER (if different from applicant)

SCHEDULE OF FILING FEES FOR THE BOARD OF APPEALS

Residential Properties - $165.00

Business Properties - $330.00

Comprehensive Permits - $2530.00

CHECKLIST:

- ☐ 6 copies of the Application
- ☐ 6 copies of the OPTIONAL Appendices (if completed)
- ☐ 6 copies of a Certified Plot Plan – size 11" x 17"
- ☐ 6 copies of the Building Plans (interior and/or exterior as applicable) – size 11" x 17"
- ☐ 6 copies of the Building Commissioner's denial of a building permit or equivalent

File the six (6) packets in the Town Clerk's office located at 580 High Street making sure to include a check for the filing fee in the correct amount.

Deliver one (1) electronic copy of the Application with attachments to the Office of the Board of Appeals at 50 Carby Street.

3-9-16

Plan on a minimum of three months to complete the process.

OPTIONAL

APPENDIX A – Variance Worksheet

The Variance must be with respect to particular land or structures.

- Parcel of Land: 016
- Structures: Main Residential Structure

There must be circumstances relating to soil conditions, shape, and topography of such land or structures and especially affecting such land or structures, but not affecting generally the zoning district in which it is located.

- Circumstances would be: Finish the existing attic will have less impact than building an addition

Literal enforcement of the provisions of the bylaw would involve substantial hardship, financial or otherwise, to the petitioner or appellant.

- Hardship would be: There would be significant more cost to build an addition than to utilize the existing large attic.

Desirable relief may be granted without detriment to the public good and without nullifying or substantially derogating from the intent or purpose of such bylaw.

- Relief would be: Allow the construction of the shed dormer. The highest point of the proposed dormer is approximately 10ft below the height of the existing roof.

- Detriment would be:

  None known.

- Intent or purpose of Bylaw section?

  To avoid building in the residential district from appearing to be overwhelming sized structures.

- Would the Variance nullify intent or purpose above?

  No. Due to the siting and wetlands, the dormer is essentially not visible from a public way or adjacent homes. In addition, the dormer is small and visually diminutive compared to the existing roof.

- Is there any substantial derogating (lessening) of the intent or purpose and if so, what is it?

  None.

Plan on a minimum of three months to complete the process.

DENIED

DATE ISSUED: _____ FEE PAID: _____ NO.: _____

APPLICATION FOR PERMIT TO BUILD

To the Building Commissioner: Date: _____

The undersigned hereby applies for a permit to Build – Alter – Remodel, etc., according to information indicated in this application and plans and specifications submitted herewith.

PLEASE PRINT CLEARLY

IMPORTANT – Applicant to complete all items in sections I, II, III, IV, AND V

I. LOCATION OF BUILDING

STREET ADDRESS 10 (NO.) Cardinal Drive (STREET)

ZONING DISTRICT _____ LOT FRONTAGE _____

ASSESSORS MAP # _____ LOT# _____ LOT SIZE _____

R. SIDE YARD SETBACK _____

L. SIDE YARD SETBACK _____

REAR YARD SETBACK _____

FRONT YARD SETBACK _____

II. TYPE AND COST OF BUILDING – All applicants complete Parts A – D.

A. TYPE OF IMPROVEMENT

1 New Building
2 Addition
3 Alteration
4 Repair, replacement
5 Wrecking
6 Moving (relocation)
7 Foundation only
8 Pools, Fences, Towers Tennis Courts, etc.

B. OWNERSHIP

9 Private (Individual, Corporation, nonprofit Institution, ect.)
10 Public (Federal, State or Local Government)

D. PROPOSED USE – For "Wrecking" most recent use

RESIDENTIAL

13 One Family
14 Two or more family – Enter number of units
15 Transient hotel, motel, or dormitory – Enter number of units
16 Garage
17 Carport
18 Other – Specify

NONRESIDENTIAL

19 Amusement, recreational
20 Church, other religious
21 Industrial
22 Parking garage
23 Service station, repair garage
24 Hospital, Institutional
25 Office, bank, professional
26 Public Utility
27 School, library, other educational
28 Stores, mercantile
29 Tanks, towers
30 Other - Specify

RECEIVED
FEB 28 2017
TOWN OF WESTWOOD
COMMISSIONER OF BUILDING

C. COST

	(Omit cents)
11 Cost of Basic Contruction	$ 185,000
To be installed but not included in the above cost	
a. Electrical	$ 10,000
b. Plumbing	10,000
c. Heating, air conditioning	15,000
d. Other (elevator, etc.)	
12 TOTAL COST OF IMPROVEMENT	$ 220,000

E. TYPE OF OCCUPANCY OR USE; NEW HOME, ETC.

Briefly outline scope and nature of work to be done.

Add 2 bedrooms & bath to attic per plans

III. SELECTED CHARACTERISTICS OF BUILDING

For new buildings and additions, complete Parts E-L; for wrecking, complete only Part J, for all others skip to IV.

F. PRINCIPAL TYPE OF FRAME

31 Masonry
32 Wood frame
33 Structural steel
34 Reinforced concrete
35 Other - Specify

G. PRINCIPAL TYPE OF HEATING FUEL

36 Gas 38 Electricity 40 Other - Specify
37 Oil 39 Coal

H. TYPE OF SEWAGE DISPOSAL

41 Public Sewer
42 Private (septic tank, etc.)

I. TYPE OF WATER SUPPLY

43 Public or Private Company
44 Private (well)

J. TYPE OF MECHANICAL

Will there be air conditioning?
45 Yes 46 No
Will there be an elevator?
47 Yes 48 No

K. DIMENSIONS

49 Number of stories _____
50 Total sq.ft. of floor area, all floors, based on exterior dimensions _____
51 Total land area, sq.ft. _____

L. NUMBER OF OFF - STREET PARKING SPACES

52 Enclosed _____
53 Outdoors _____

M. RESIDENTIAL BUILDINGS ONLY

54 No. of bedrooms _____
55 No. of baths: Full Partial

IV. TO BE COMPLETED BY ALL APPLICANTS — USE N/A IF NOT APPLICABLE

1. Will building be erected on solid or filled land — If filled land how long ago filled —
2. Will foundation be laid on earth, rock, timber, piles —
3. Foundation material Concrete
4. Roof (flat, pitched) 12
5. Roof covering asphalt shingles
6. Will all construction to be performed conform to State and Local Building Codes Yes
7. Has the applicant complied with the Architectural Access Code Yes
8. Does this Building or Structure conform to the Zoning Bylaw Yes
9. Has the applicant complied with the Energy Code Yes
10. Is this property in the FLOOD PLAIN AREA no

THIS IS A TRUE STATEMENT SIGNED UNDER PENALTIES OF PERJURY

V. IDENTIFICATION - *To be completed by all applicants – Complete street and mailing addresses*

	NAME	COMPLETE ADDRESS	HOME & BUS. PHONE
Owner or Lessee	Steven Werth	10 Cardinal Dr	781 492 0813
Builder/ Contractor	Progress Contracting	5 Julie Dawn Dr Franklin MA	617 594 9392
Architect/ Engineer	Grenapp Design	20 Locust St Danvers MA	978 750 9062

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent.

Signature of Applicant	Address	Application Date
[signature]	5 Julie Dawn Dr	2/28/17

This permit is approved subject to the provisions of all Federal and State Laws, Rules & Regulations and Con. Com. approval.

Sewer Permit No.	
Sanitary Permit No. (Title V)	
Highway Dept. Permit	
Fire Dept. Permit	
Water District Permit	
CONTRACTOR LICENSING INFORMATION	
Construction Supervisor License No.	082703
Date of Expiration	9/17/18
Home Improvement Contractor No.	138181
Date of Expiration	3/3/19

COMMENTS – DEPARTMENT USE ONLY

REAR DORMER

BUILDING COMMISSIONER'S DENIAL

REQUIRES VARIANCE UNDER SECTION 5.4.4.1 EXCEEDS MAX DEPTH

I have reviewed the applicant's request for a Building Permit and determined that it be forwarded to the Zoning Board of Appeals

[signature]
BUILDING COMMISSIONER

A. I hereby certify under penalty of perjury that I carry Workers' Compensation Insurance Coverage.

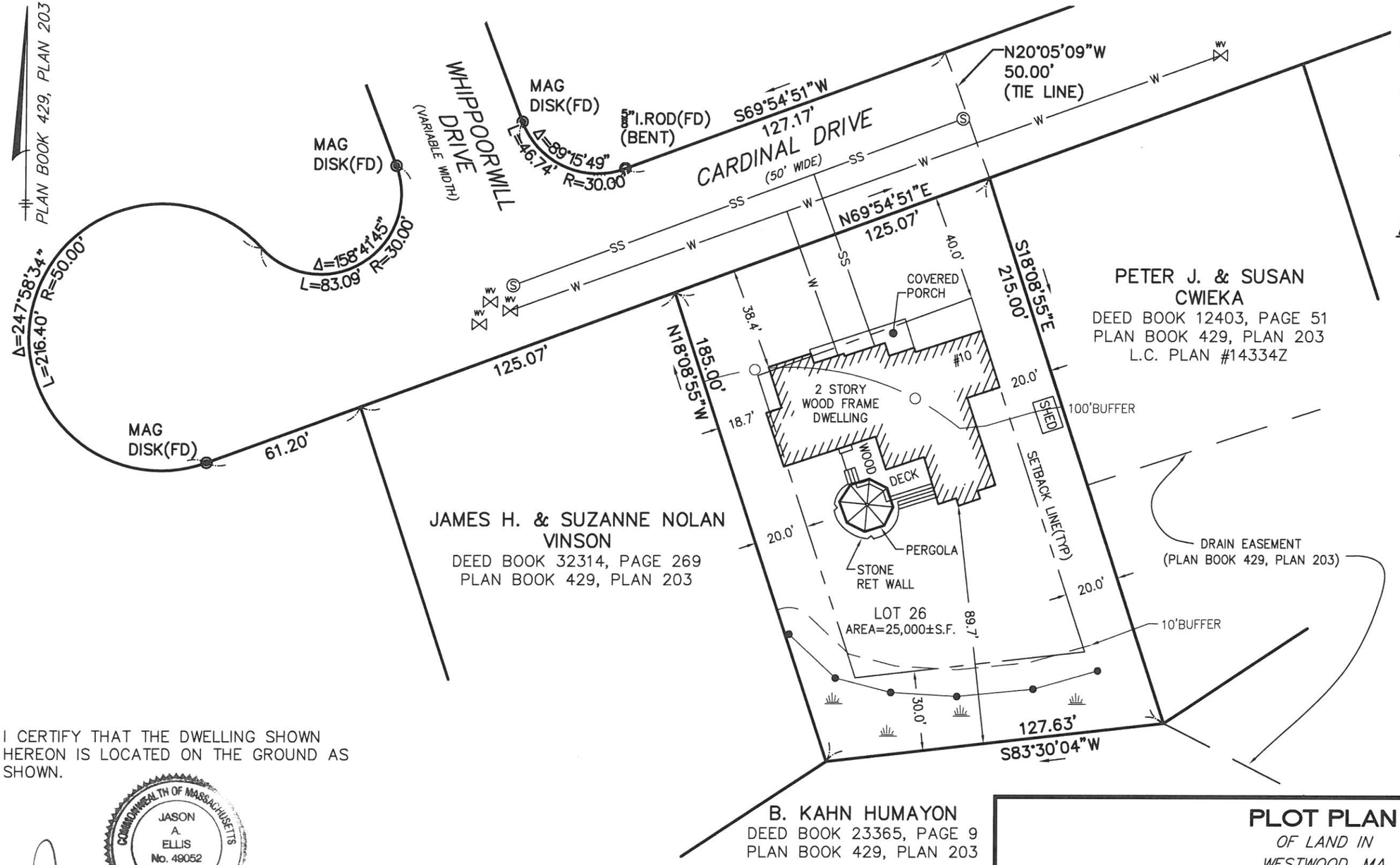
Signature: _____

Name of Insurance Company: _____

Policy Number: _____ **Expiration Date:** _____

B. I do not carry Workers' Compensation Coverage as I am an unincorporated sole proprietorship with no employees, using other self-employed sub-contractors for all work.

Signature _____



ASSESSORS:
MAP 11, LOT 16

ZONING:
SINGLE RESIDENCE E

REFERENCES:
DEED BOOK 33528, PAGE 538
PLAN BOOK 429, PLAN 203

NOTES:

1) THIS PLAN IS NOT TO BE CONSIDERED AN ALTA/NSPS LAND TITLE SURVEY.
2) BUILDING OFFSETS SHOWN HEREON ARE TO CORNER BOARD.
3) WATER AND SEWER SERVICE SHOWN HEREON WERE PROVIDED BY THE TOWN OF WESTWOOD AND THE DEDHAM–WESTWOOD WATER DISTRICT AND ARE APPROXIMATE ONLY.
4) WETLAND SHOWN HEREON WAS COMPILED FROM A PLAN PROVIDED BY THE TOWN OF WESTWOOD ENTITLED "CONSERVATION AS–BUILT PLAN 10 CARDINAL DRIVE WESTWOOD, MA" BY UNITED CONSULTANTS, INC. DATED JAN. 5, 2007.

I CERTIFY THAT THE DWELLING SHOWN HEREON IS LOCATED ON THE GROUND AS SHOWN.

COMMONWEALTH OF MASSACHUSETTS
JASON A. ELLIS No. 49052
PROFESSIONAL LAND SURVEYOR

3/28/17

PROFESSIONAL LAND SURVEYOR

PLOT PLAN

OF LAND IN
WESTWOOD, MA
PREPARED FOR: GIENAPP DESIGN ASSOCIATES, LLC

HANCOCK
Survey Associates, Inc.
185 CENTRE STREET, DANVERS, MA. 01923
VOICE (978) 777–3050, FAX (978) 774–7816

SCALE: 1" = 40'
0 20 40 80

F:\Civil 3D Projects\20468 – Gienapp – Westwood\DWG\ 20468cpp.dwg Mar 28, 2017 – 4:16 pm

CHK. BY: JMS
DATE: 3/28/17
JOB NO. 20468

Project Summary

This project is a renovation of an existing residence in Westwood, MA consisting of adding finish space on the Attic floor level into two bedrooms with closets, a sitting area, and a bathroom. This includes mechanical, plumbing, electrical, and structural work.

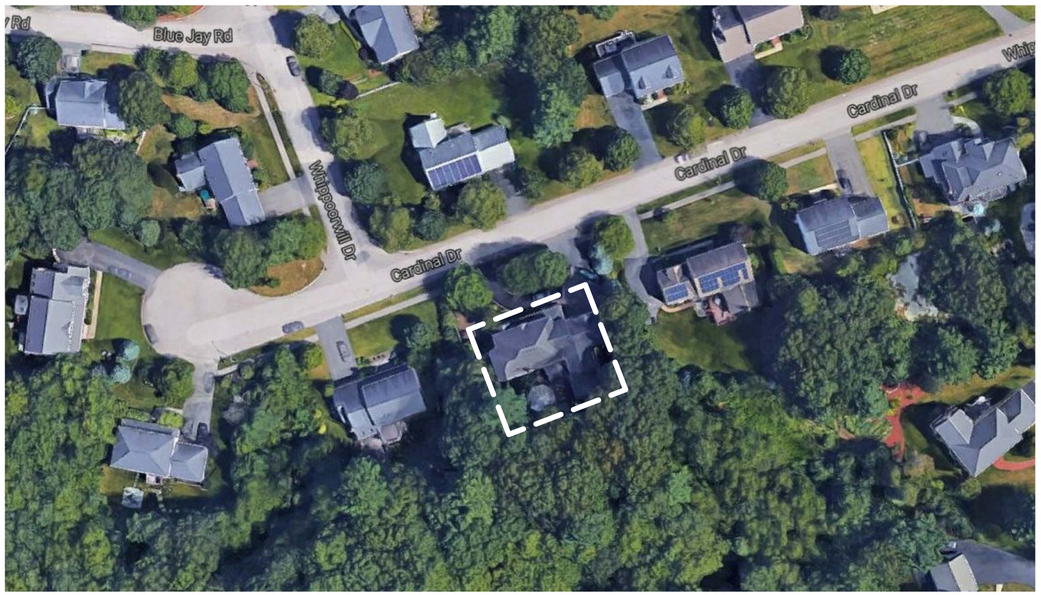
BIDDING INFORMATION

This is an invitation to provide a quote for the Renovation of the Attic for the Werth Residence located at 10 Cardinal Drive, Westwood, MA.

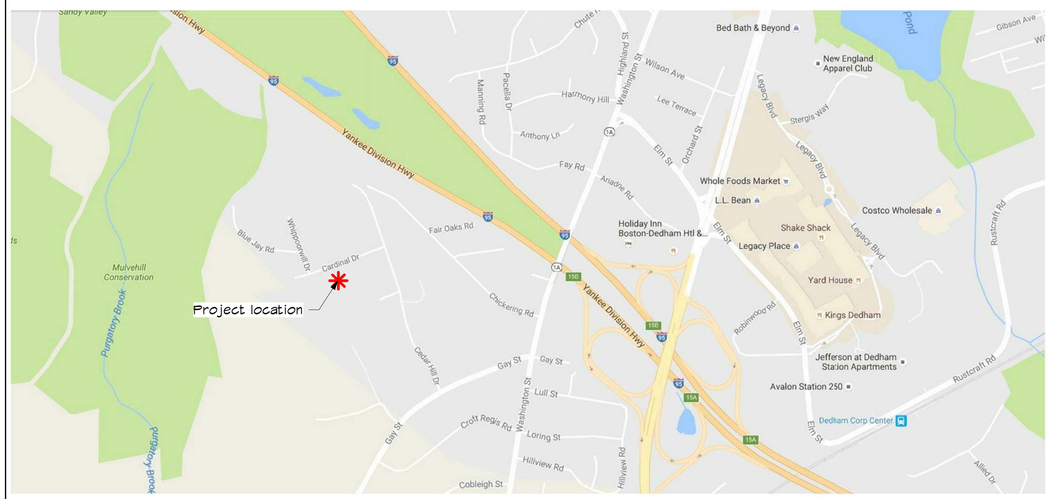
Proposals are due to Gienapp Design by **Tuesday, January 31, 2017 at 2:00pm**. Proposals may be submitted by fax to 978-750-9063 or by email to jbrauer@gienappdesign.com. (If additional time is needed, please contact Jackie Brauer at 978-750-9062 x.115 or at jbrauer@gienappdesign.com.) For technical questions, please contact Dale Gienapp at 978-750-9062 x.112 or at dgienapp@gienappdesign.com.

To schedule a visit the site, please contact Jackie Brauer to set up a meeting with the Owner. A pre-bid walkthrough is scheduled for 10am on Tuesday, January 17, 2017.

AERIAL PLAN



LOCUS PLAN



Werth Residence

10 Cardinal Drive, Westwood, MA

01/13/17 BID SET

DRAWING LIST

Project Information
- T-1 Title Sheet
- T-2 Specifications

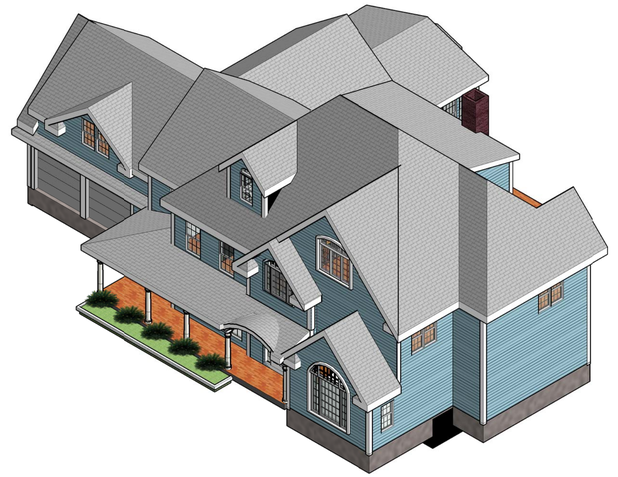
Demolition
- Ex-1 Existing Floor Plans
- Ex-2 Roof Demolition

Architecture
- A-1 Proposed Attic Floor Plan
- A-3 Attic Bedroom Detail Floor Plan
- A-4 Toilet Room Details
- A-5 Building Section
- A-6 Stair Sections
- A-7 Partition Schedule and Finish Plan
- A-8 Window and Door Schedules
- A-9 Proposed Mechanical Above Attic Space

Structural
- S-1.0 Structural Notes
- S-2.0 Second Floor Framing Plan
- S-3.0 Attic Framing Plan
- S-4.0 Roof Framing Plan
- S-5.0 Roof Framing Plan

Mechanical
- M1.1 2nd Floor & Attic Mechanical Demo Plans
- M1.2 Basement & 1st Floor New Work Mechanical Plans
- M1.3 2nd, 3rd & Attic New Work Mechanical Plans

Electrical
- E-1 Electrical Legend, Notes and Plans
- E-2 Electrical Parts Plan



OWNER/CLIENT

Stephen & Robbie Werth

10 Cardinal Drive,
Westwood, MA

ARCHITECT

GIENAPP DESIGN ARCHITECTURE
20 Conant Street
Danvers, MA 01923
978.750.9062
gienappdesign.com

STRUCTURAL

TLH Consulting

505 Middlesex Turnpike, Unit 14
Billerica, MA 01821
T: (978) 362-1804

MECHANICAL/PLUMBING

JRW Engineering

40 Town Farm Road
Brookfield MA 01506
T: (978) 857-0305

ELECTRICAL

Nangle Engineering Inc.

32 Prince Street
Danvers, MA 01923
T: (978) 777-7650

Renovation
Werth Residence

T-1

IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY

00 00 00 GENERAL CONDITIONS

A. Only the highest quality of workmanship shall be considered acceptable and shall be firmly secured and relative to elevations and dimensions as shown in the drawings; true to plumb, level, square, and line.
B. All work shall conform with all applicable codes and ordinances and with accepted local standards of the trades.
C. Individual prints or partial sets of prints shall be considered part of the whole set of these drawings and specifications for this project. The recipient of individual prints or partial sets shall be responsible for information and intent not represented on the individual sheets or partial sets but found elsewhere in these drawings and specifications.
D. The General Contractor shall be responsible for coordinating all aspects of the Work and shall inform the Owner of his work schedule and any anticipated changes that may occur in it. Place orders for all materials included in the Work by General Contractor or Subcontractors in time to prevent any delays in the Construction schedule or completion of the Work, unless otherwise noted.
E. The General Contractor shall not proceed with any work which he believes to be contrary to his knowledge of good construction standards and practices and shall not use any substandard materials.
F. The General Contractor shall be expected to inspect the site for conditions affecting work and for anticipating the effects of those conditions upon his work.
G. Minor details not usually shown or specified but necessary for the proper installation or conformance with codes or standards listed herein shall be included in the work.
H. All work and material or equipment shall be guaranteed for a minimum of one year from date of substantial completion. This includes work by Subcontractors.
I. Items noted "Not In Contract", "N.I.C.", "By [Separate] Vendor", "By [Separate] Contractor", or "By Owner" are to be neither furnished nor installed under this contract unless noted otherwise, but are shown for informational purposes only. It is the responsibility of the Contractor to coordinate with separate vendors and contractors to complete the work of this project.
J. The General Contractor will report any and all discrepancies or omissions found in the Drawings and Specifications to Architect/Designer. The Work affected shall not proceed until any clarification or revision has been completed or permission to continue.
K. The Contract Documents represent the finished structure and do not indicate the methods of construction. The General Contractor shall supervise and direct the Work and shall be solely responsible for construction means, methods, techniques, sequences, and procedures.
L. Each trade shall coordinate its work as is practical and will interfere as little as possible with the work of other trades and persons. It will be assumed that each trade has accepted the quality of the work of others upon which his work must be applied.
M. During progress of Work maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris. Each Subcontractor shall be responsible for cleaning up after their respective work, as well as maintaining a clean and orderly site.
N. Store and handle materials and equipment so as to prevent damage affecting appearances, performance of material, equipment or finished work. In the event of damage, promptly make repairs or replacements and be responsible for costs incurred and time required for repairs or replacements at no additional cost to the Owner.
O. All subcontractors shall remove and redo defective work as determined by the General Contractor or the Designer at no additional cost to the General Contractor or Owner.
P. There is no designated storage space on site. The Contractor may use the work area for storage.
Q. Sound isolation is a major concern of the space. Stagger electrical boxes in partitions. If possible locate electrical boxes in separate stud cavities. Provide firestopping at any floor or partition penetrations.
R. **For all items, provide shop drawings and product data for approval from Architect prior to ordering materials.**

00 10 00 INSURANCE REQUIREMENTS

A. The Contractor shall provide a complete insurance package including:

• Worker's Compensation	$1,000,000
• Commercial General Liability	$2,000,000
• Builder's Risk	$1,000,000
• Excess Umbrella Liability	$2,000,000

01 10 00 WORK RESTRICTIONS

A. On-site work may occur between 8am to 9pm Monday through Friday and on weekends.
B. Existing exterior windows may not be removed for demolition or transport of material.
C. When moving materials or equipment through common areas, the Contractor is responsible for protecting those areas from damage including providing carpet protection and wall protection.
D. For access to the house, the Contractor must coordinate with the Owner for keys or access while the Owner is at the property only.
E. It is the responsibility of the Contractor to coordinate with the Owner for dumpster locations.

01 10 00 DIMENSIONS, MEASUREMENTS, AND LAYOUT

A. Dimensions shall take precedence over graphic representations. Scaling of the drawings for dimensions or locations of materials or equipment is considered unacceptable.
B. Larger scale drawings take precedence over smaller scale drawings.
C. Notes and details on Drawings shall take precedence over these General Notes and Typical Details. Written Specifications take precedence over graphic representation of materials and items as well as their locations.
D. **All dimensions to finish materials unless noted otherwise.**
E. Dimensions to side or center of doors or windows are to finish openings unless noted otherwise.
F. The General Contractor shall be responsible for locating and laying out the Work (including elevations). The General Contractor will exercise proper precaution to verify figures shown on the Drawings while laying out the Work, and be responsible for all errors resulting from failure to exercise such precaution.

01 50 00 TEMPORARY FACILITIES AND CONTROLS

A. The following conditions are responsibilities of the Contractor:
   a. Temporary Electrical:
      - The existing power source in the building, may be utilized by the Contractor at no charge.
      - Provide adequate lighting to facilitate the work.
   b. Temporary Heating:
      - This project involves removing existing roofing during the winter months. The Contractor is responsible for keeping the project weather-tight and providing heating to maintain a temperature of no less than 68 degrees in these exposed areas of the house.
   c. Temporary Toilets
      - Contractor and workers are not allowed to use the residence is bathrooms. Contractor must provide a temporary toilet (ie Port-o-potty).

02 41 00 DEMOLITION

A. Remove all old and abandoned materials. Cap all unused pipes.
B. Do not allow demolished materials to accumulate on-site.
C. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
D. Transport demolished materials off Owner's property and legally dispose of them.
E. Removed and reinstalled items: protect items from damage during transport and storage. Comply with installation requirements for new materials and equipment . Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
F. Coordinate with Owner and utilities to arrange utility shut offs.
G. Provide temporary barricades and other protection required to prevent injury to people and limit damage to adjacent existing elements.

06 10 00 ROUGH CARPENTRY

A. Provide minimum 3/4" plywood blocking at all wall mounted fixtures and cabinets per industry standard, manufacturer's instruction, and as shown unless otherwise instructed for installation.
B. Provide plywood substrate on floor joists at flooring locations.

06 20 00 FINISH CARPENTRY

A. Install all finish carpentry per the highest standards of craftsmanship, ready for finishes as specified.
B. Interior Trim
   a. Grade: I, plain sliced Maple (Acer Saccharinim) for solid lumber and AA, rotary sliced Maple for veneer.
   b. Filler: No paste wood filler
   c. Finish: three (3) coats urethane and stain as required to match factory finish doors.

C. Exterior Trim
   - Material Basis of Design: Azek, primed for field paint unless pre-finished is available that matches existing trim.

06 41 00 WOOD CASEWORK - CABINETS/CLOSETS

A. The General Contractor is responsible for finishing and installing cabinets and built-in shelving/storage and all other cabinets not specifically identified as by a separate vendor or contractor.
   a. Owner to select bathroom base cabinet and medicine cabinets.
   b. Bathroom Sink Counter and Backsplash: Granite. Selected by Owner.

07 21 00 THERMAL INSULATION

A. Requirements:
   a. The roof requires a minimum rating of R-49.
   b. The attic walls require a minimum of R-13.
   c. Roof insulation is to be closed cell spray foam insulation equal to an R-value of R49. Closed cell spray foam is typically R6.5 per inch. To get an R-value of R49, provide 7-1/2" or greater.
   d. Insulation at interior walls between bedrooms and around bathroom walls is to be noise canceling, unfaced, fiberglass batt insulation: QuietZone with PureFiber Technology by Ownes Corning.

07 30 00 ROOFING ASPHALT SHINGLES

A. The asphalt shingles are to match the existing shingles on the rest of the house.
   1. Basis-fo-Design: CertainTeed, XT Extra Tough 25 Traditional Shingles

07 46 46 FIBER-CEMENT SIDING

A. The clapboard siding is to match the existing on the rest of the house.
   1. Basis-fo-Design: HardiePlank Lap Siding, Cedarmill with ColorPlus Technology. Painting may be required to match the existing house siding.

07 61 00 METAL FLASHING

A. The flashing is to match the existing material used. It appears that the existing flashing is aluminum. V.I.F.

07 92 00 SEALANTS

A. Typical Interior Sealant:
   1. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
   2. Pecora Corporation; AC-20+ or Architect approved equal.

B. Acoustical Sealant
   1. Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E90.
   2. Pecora Corporation; AIS-919 or Architect approved equal.
   3. For sealing interior joints at countertops, vanities, tubs, plumbing fixtures, and other locations subject to moisture use Mildew-Resistant, Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.

08 00 00 GENERAL DOORS AND HARDWARE

A. Provide proper rough openings for all doors.
B. Provide and install all doors and hardware and their accessories as shown and according to the manufacturer's recommendations for complete and proper installation.

08 14 33 WOOD DOORS & WINDOWS

A. Windows: Basis-of-Design: Marvin Aluminum Clad Wood Window
B. Doors: Veneer faced stile and rail wood door with painted finish

   1. Performance Grade: Heavy duty
   2. Grade: Premium, with Grade AA faces
   3. Species: Maple
   4. Cut: Plain sliced
   5. Finish: Exterior: to match existing interior: prime for paint
   6. Core: solid-core doors: either glued wood stave or structural composite lumber

08 71 00 FINISH HARDWARE

A. Provide special wrenches and tools applicable to each different or special hardware component. Provide maintenance tools and accessories supplied by hardware component manufacturer.
B. Lever style to be selected by architect. It is the intent to match exisitng style and finish.
C. Equal products by other manufacturers are acceptable with prior approval by the Architect.
D. A hardware schedule is located on drawing A-8.

09 29 00 GYPSUM WALL BOARD ASSEMBLIES

A. Provide Gypsum Wall Board Assemblies: Interior partitions and ceilings for tape and joint compound finish.
B. Gypsum Wall Board: ASTM C 1396, tapered edges

   1. Typical Condition: 5/8" core
   2. At wet locations (i.e. Toilet Room): Moisture-Resistant Gypsum Board, 5/8" core, Type X
   3. At tile installation locations: cement board

C. Insulation within Gypsum Wall Board Assemblies: See 07 21 00.
D. Trim Accessories:

   1. Material: Metal or plastic
   2. Types: Cornerbead, edge trim, and control joints

E. Studs and Runners: Wood

   1. Minimum Base Thickness:
   2. Depth: As indicated on drawings.

F. Slip-Type Head Joints: Where indicated, provide the following:

   1. Single Long-Leg Runner System: Top runner with 2" deep flanges in thickness not less than indicated for studs.

09 30 13 TILE FLOORING

A. The tile flooring is indicated as **"T1" and "T2"** on the drawings.
B. Basis-of-design:

   1. (T1): Basis of Design: Dal-tile finish to be selected by Architect.
   2. (T2): Basis of Design: Dal-tile finish to be selected by Architect.

C. Grout Material: Non-sanded
D. Grout color: Architect will select color

09 50 00 CEILINGS

A. It is the intent to provide a gypboard ceiling with a smooth, white finish.
B. The ceiling types are as follows:

   Type A: Gypsum Wall Board Ceiling, see 09 29 00 Gypsum Wall Board Assemblies

09 64 00 WOOD FLOORING

A. Prior to new flooring installation, prep level sub-floor.

   1. Level depressed spots with a levelastic floor compound and allow to fully cure prior to flooring installation.
   2. If applicable, grind high spots.

09 68 00 CARPET

A. Carpet is indicated as "CP" on the drawings and is only used for a runner at the new stair. (continuous on thread and riser).
B. Basis-of-design: Shaw Floors: Luxury at Best
C. Color: 00101 Soft Fleece or Architect approved equal.
D. Type: Cut-Pile

09 90 00 PAINTING

A. Provide painting and surface preparation for all new and existing partitions in the work area unless noted otherwise.
   a. Walls on lower levels affected by this work shall be painted in entirety from room corner to room corner.
B. See 06 20 00 Finish Carpentry and 06 41 00 Wood Casework for millwork and wood trim finish.
C. Basis of design: Benjamin Moore
D. Colors: Assume up to 6 colors will be used identified as P1-P6 and one ceiling color, one trim color and exterior paint color for the siding if Hardie does not have a color to match existing house.
   a. Where existing walls are being repainted, match existing color.

10 28 00 TOILET ACCESSORIES

A. The General Contractor is responsible for furnishing and installing all toilet accessories.
B. Toilet Paper Dispenser (TP): Residential Essentials Bradford Polished Chrome Surface Mount Toilet Paper Holder (Polished Chrome)
C. Mirror (MR):
D. Coat Hook (CH): Selected by Owner (Provide blocking in wall cavity where indicated)
E. Towel Rod:

For MEP/FP information, see to MEP/FP drawings.
For Electrical information, see to Electrical drawings.

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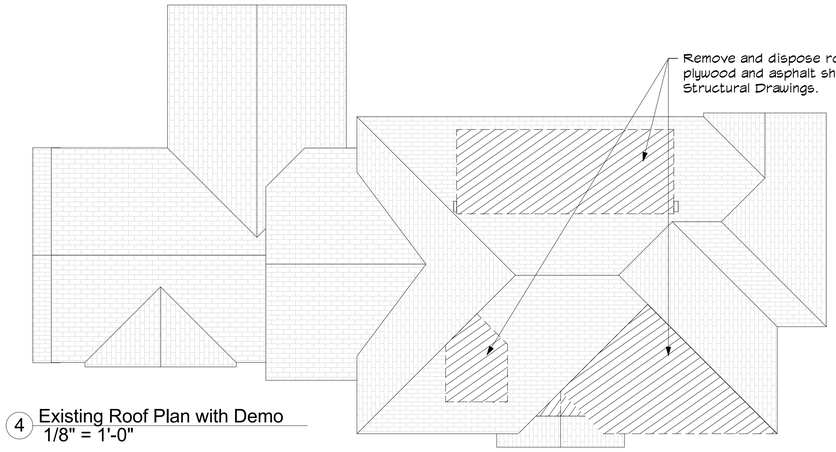
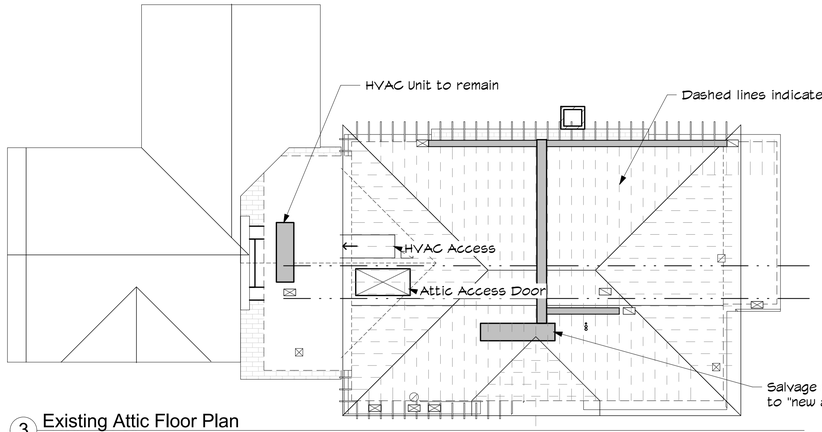
Date: 01/13/17
Scale:

Specifications

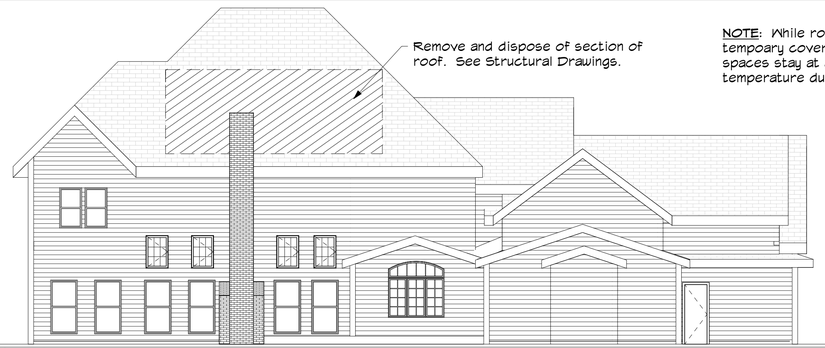


4 Existing Roof Plan with Demo
1/8" = 1'-0"



3 Existing Attic Floor Plan
1/8" = 1'-0"

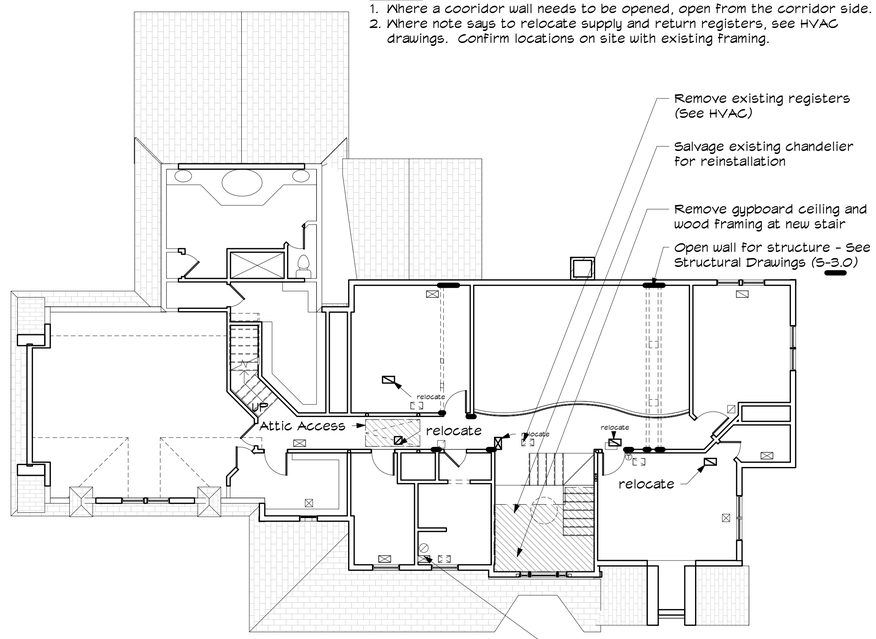
6 Front Elevation
1/8" = 1'-0"



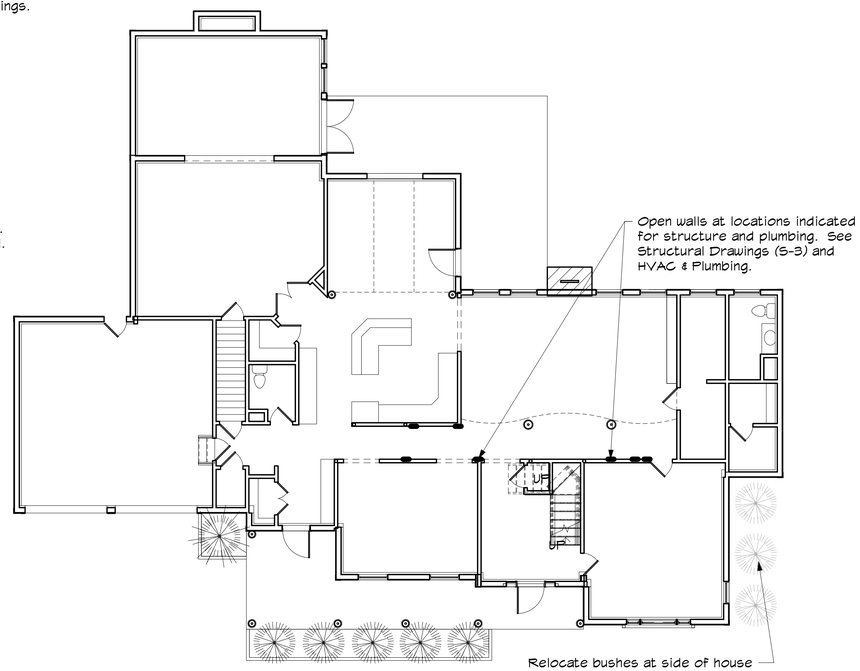
NOTE: While roof is being removed, provide tempoary cover and heating so that interior spaces stay at a consistant and accepatable temperature during the months of work.

5 Existing North Elevation
1/8" = 1'-0"

NOTES:
1. Where a cooridor wall needs to be opened, open from the corridor side.
2. Where note says to relocate supply and return registers, see HVAC drawings. Confirm locations on site with existing framing.



1 Existing Second Floor Plan with Demo
1/8" = 1'-0"



2 Existing First Floor Plan with Demo
1/8" = 1'-0"

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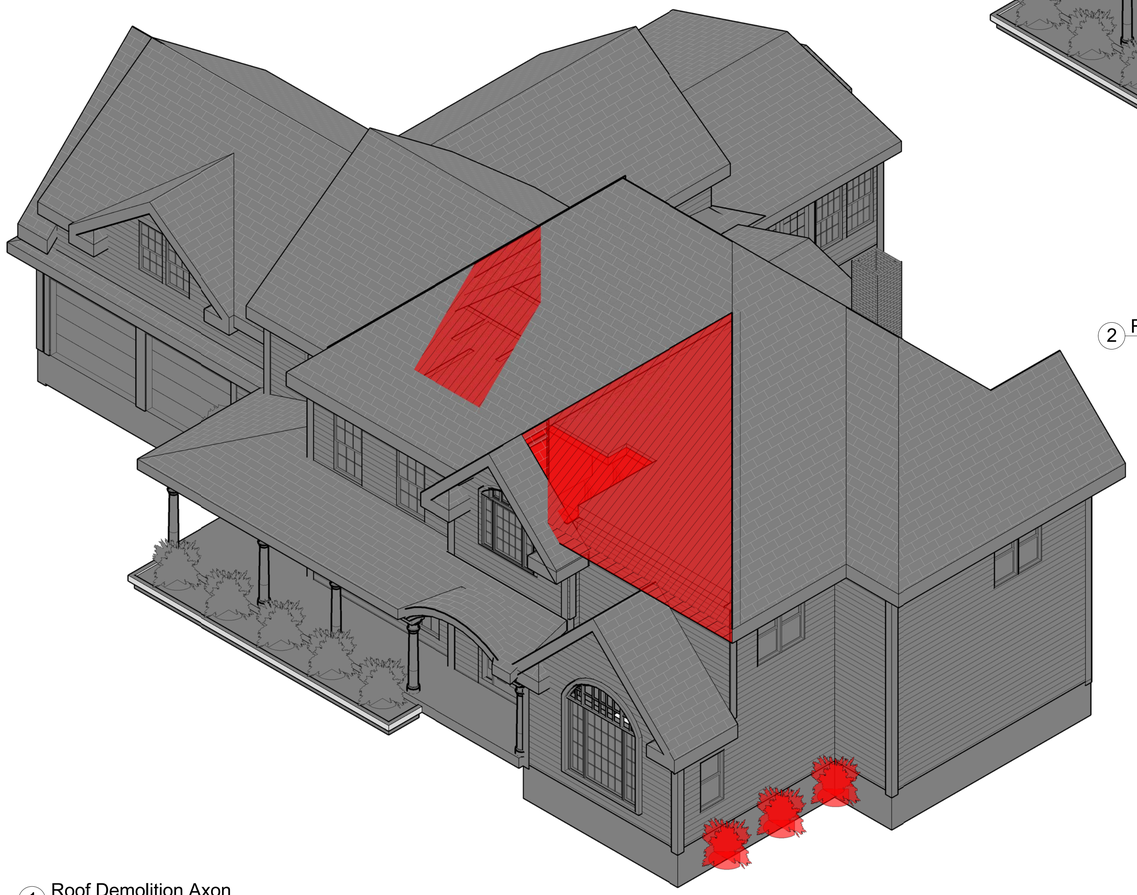
Existing Floor Plans

Ex-1

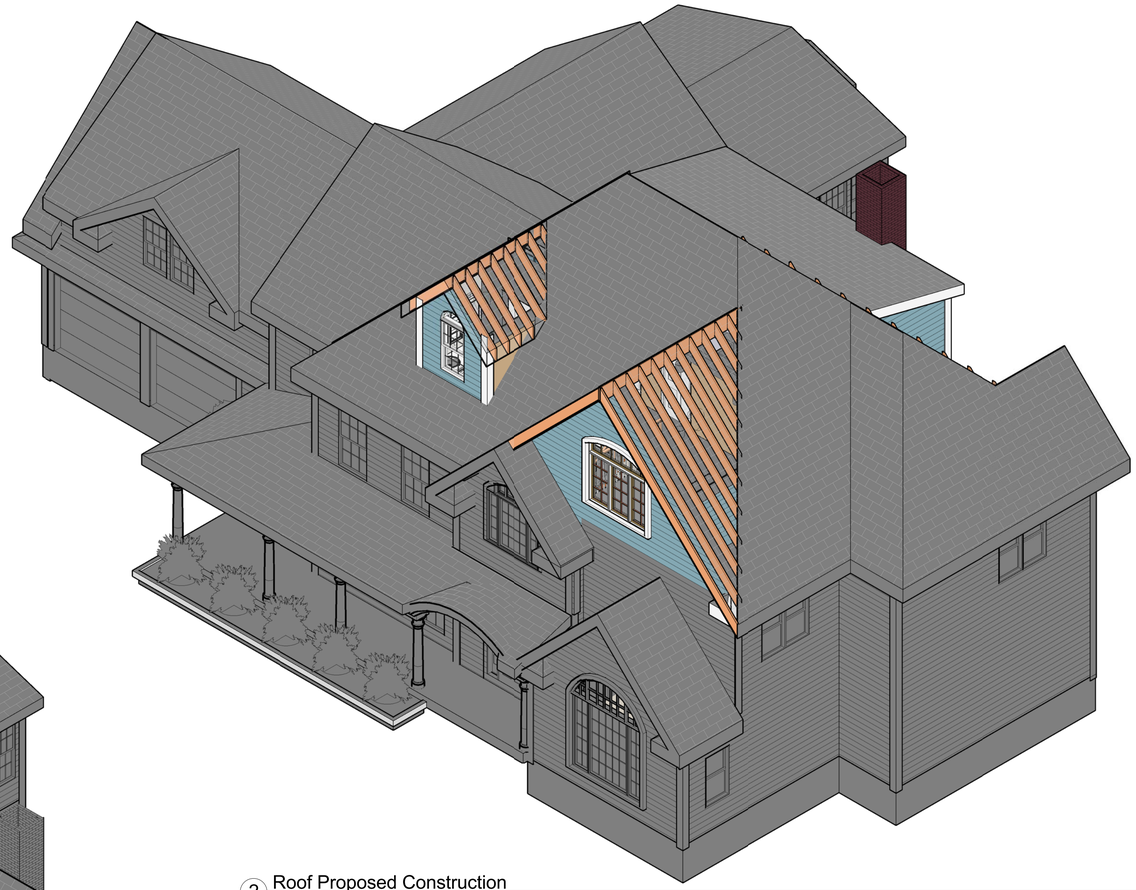
IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY

SCALE 0 3" 1'-0" 1
SCALE 0 1-1/2" 1'-0" 2
SCALE 0 1" 1'-0" 3
SCALE 0 1/2" 1'-0" 6'
SCALE 0 1' 3'
SCALE 0 1/4" 1'-0" 12
SCALE 0 1/8" 1'-0" 20

IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY



1 Roof Demolition Axon



2 Roof Proposed Construction

NOTE: These drawings are for reference and clarity. Refer to other sheets for information.

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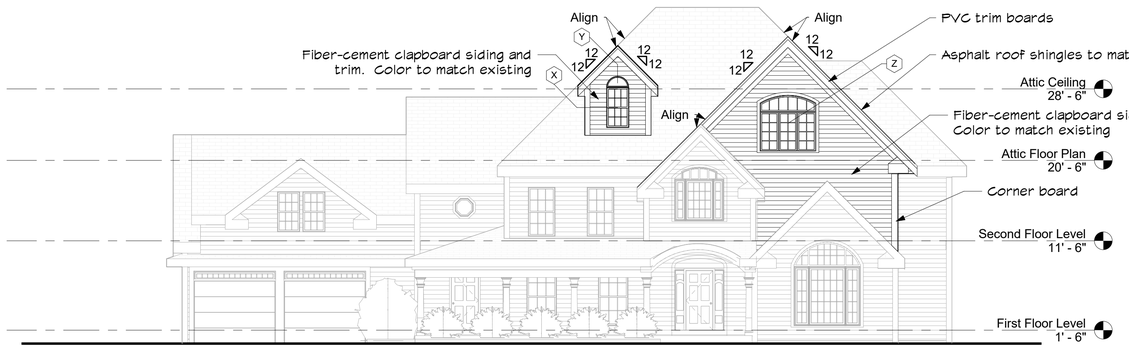
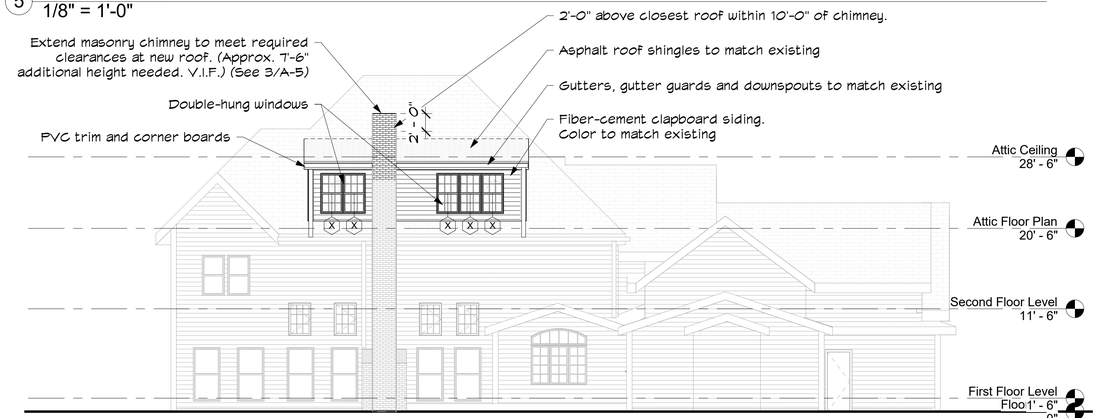
Scale:

Roof Demolition

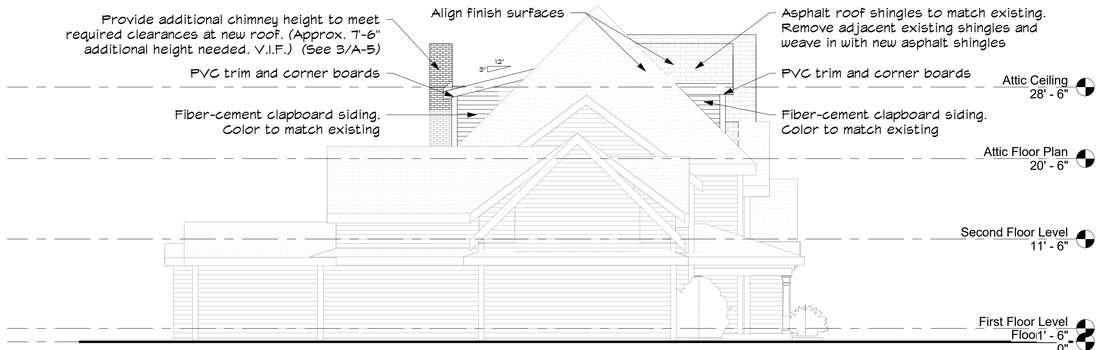
Ex-2



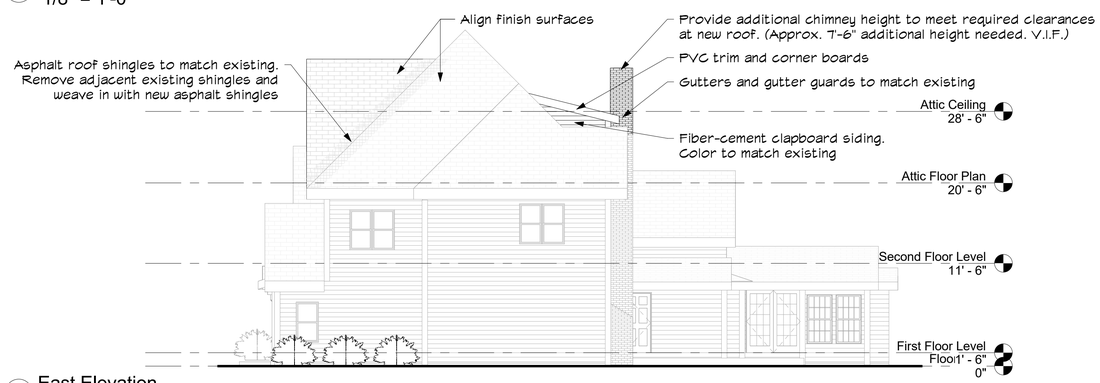
5 Front Elevation
1/8" = 1'-0"



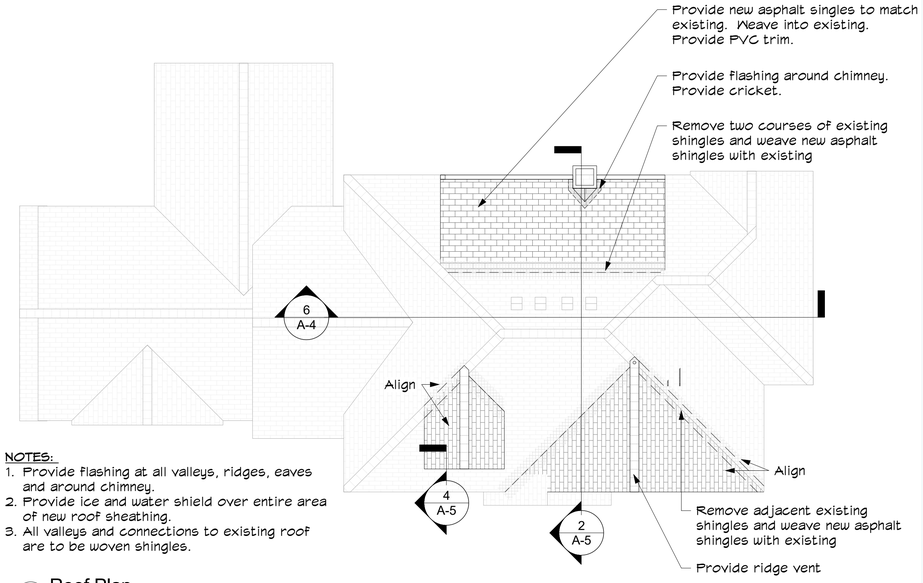
6 Rear Elevation
1/8" = 1'-0"



2 West Elevation
1/8" = 1'-0"

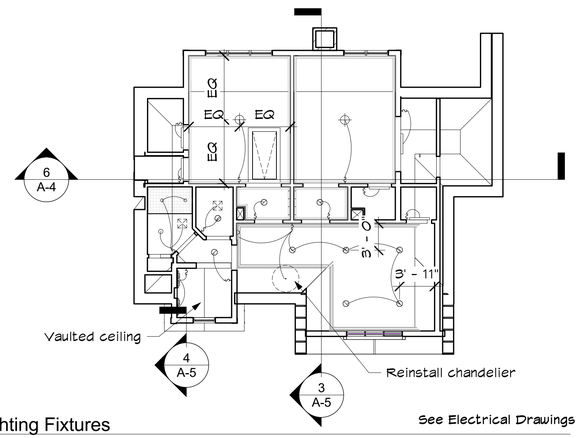


7 East Elevation
1/8" = 1'-0"



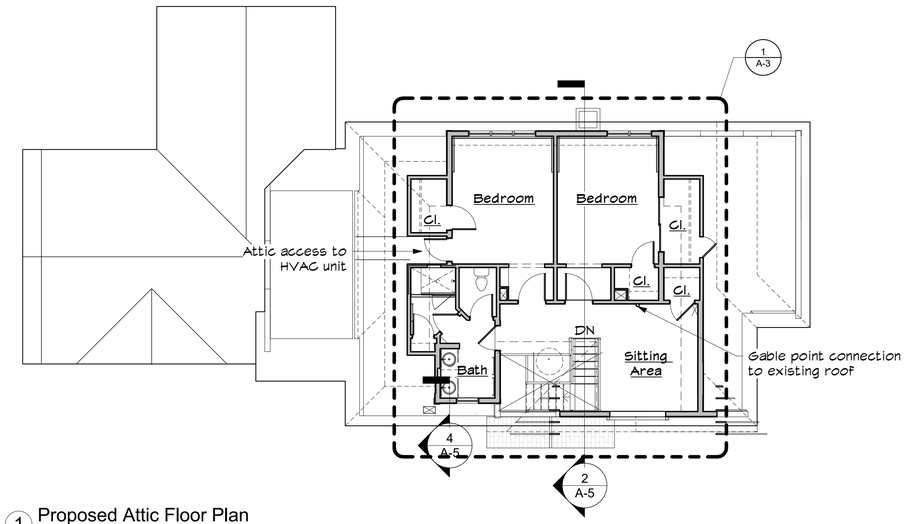
NOTES:
1. Provide flashing at all valleys, ridges, eaves and around chimney.
2. Provide ice and water shield over entire area of new roof sheathing.
3. All valleys and connections to existing roof are to be woven shingles.

3 Roof Plan
1/8" = 1'-0"



See Electrical Drawings

4 Attic Ceiling Plan with Lighting Fixtures
1/8" = 1'-0"



1 Proposed Attic Floor Plan
1/8" = 1'-0"

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Proposed Attic Floor Plan

A-1

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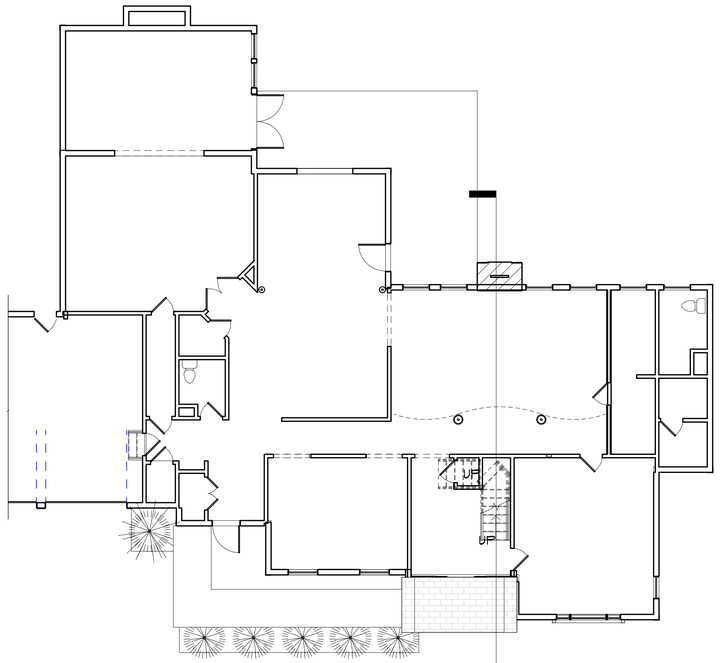
F:\601-650\622.1 Westwood Werth Residence Attic Reno\622.1 DRAWINGS AND SPECIFICATIONS\622.1 Working Set\622.1 Werth Residence_01317.vwf

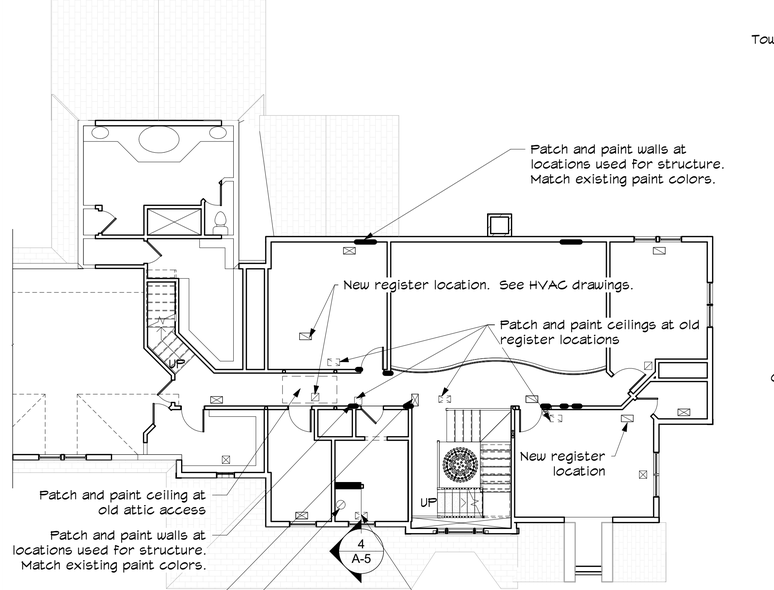
IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY

SCALE 0 1 3"=1'-0" | SCALE 0 1 1-1/2"=1'-0" | SCALE 0 1 2 1"=1'-0" | SCALE 0 1 3 1/2"=1'-0" | SCALE 0 1 2 3' 6" 1/4"=1'-0" | SCALE 0 2 4 8 12 1/8"=1'-0" | SCALE 0 5 10 20 1/16"=1'-0"



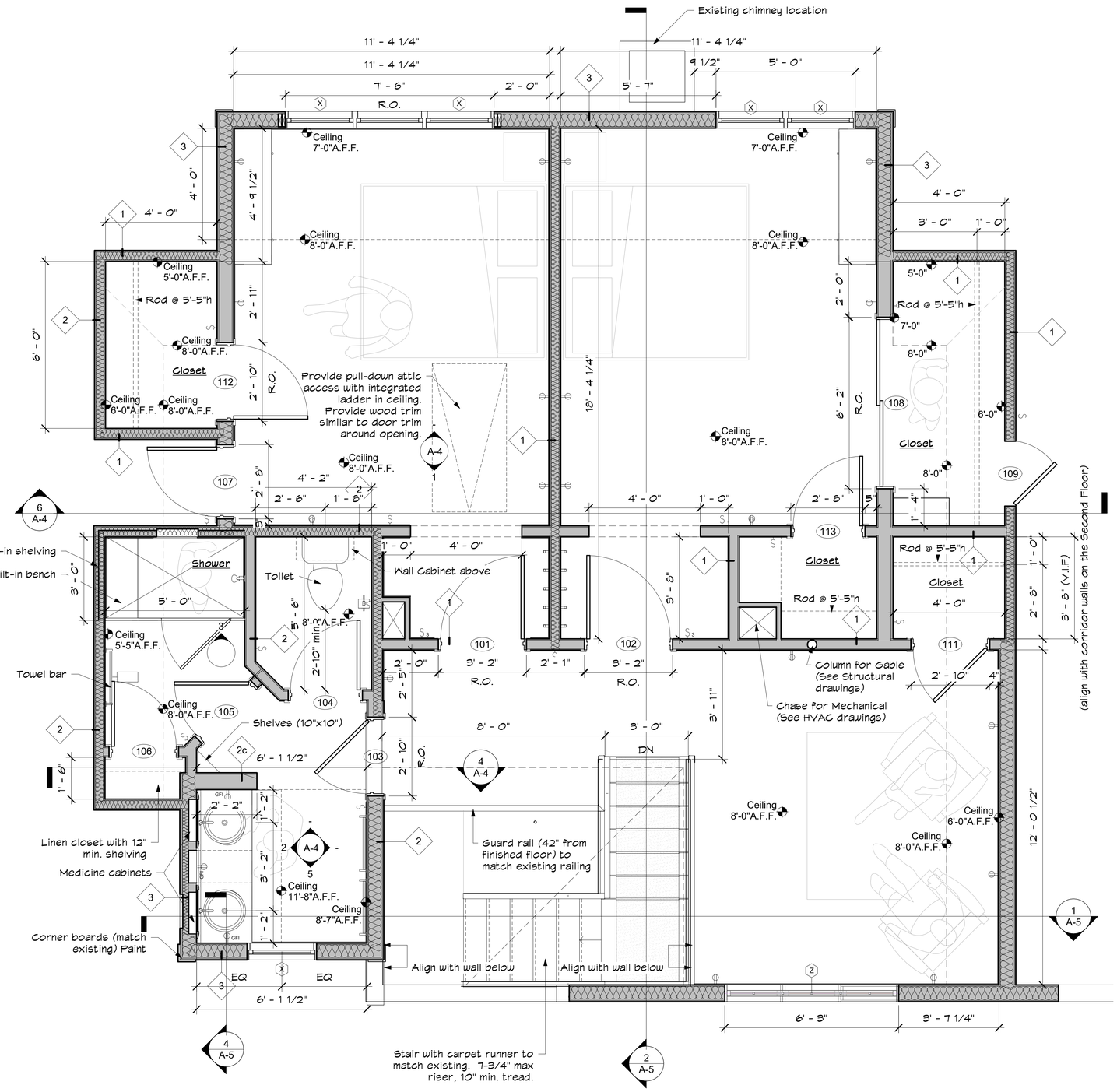
2 Proposed First Floor Plan
1/8" = 1'-0"

NOTE: See Structural and Mechanical drawings to verify locations of patching where access was required for new pipes, beams or ductwork.



NOTE: See Mechanical drawings to verify relocated registers. Exact locations may depend on joist locations.

3 Proposed Second Floor Plan
1/8" = 1'-0"



1 Proposed Attic Bedroom Detail Plan
1/2" = 1'-0"

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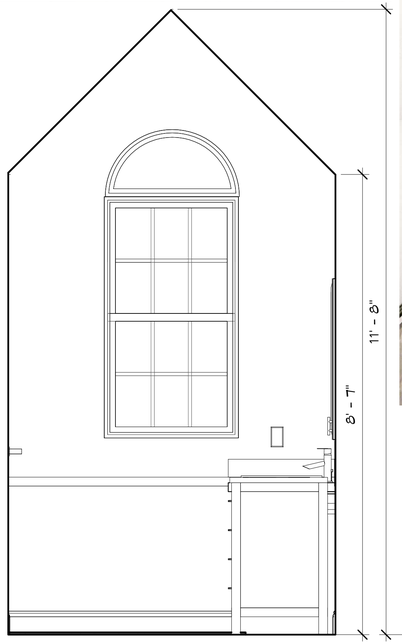
Scale:	As indicated

Attic Bedroom Detail Floor Plan

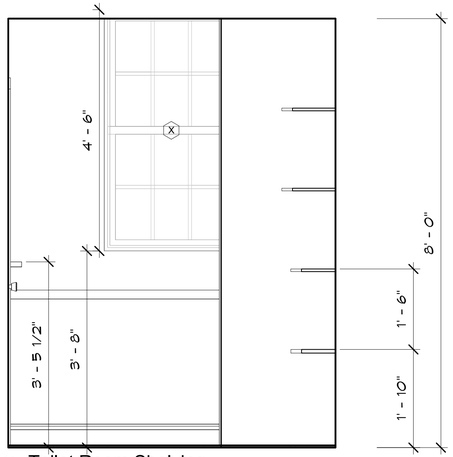
A-3

IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY

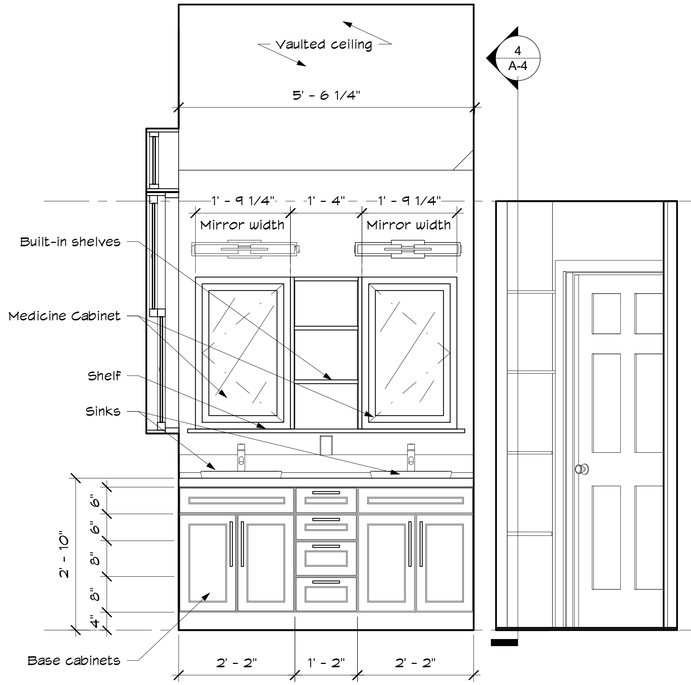
SCALE 3"=1'-0" | 1-1/2"=1'-0" | 1"=1'-0" | 1/2"=1'-0" | 1/4"=1'-0" | 1/8"=1'-0"



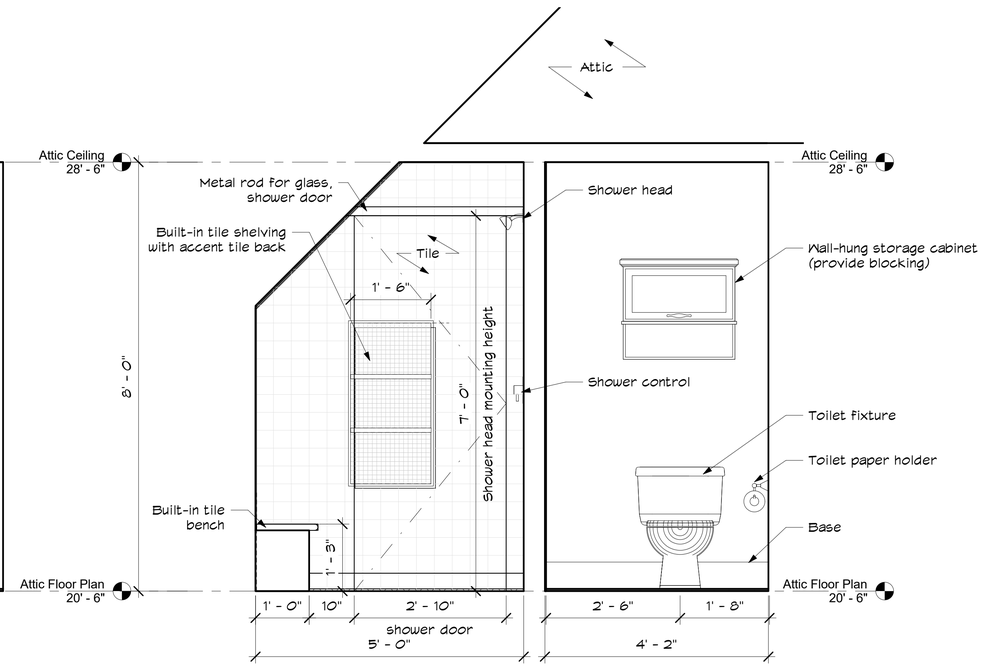
5 Bathroom Window Wall Elevation
3/4" = 1'-0"



4 Toilet Room Shelving
3/4" = 1'-0"

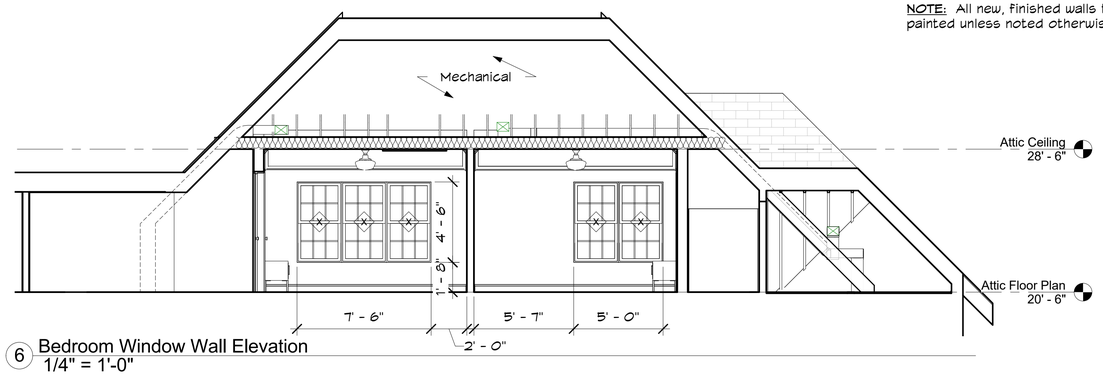


2 Bathroom Vanity Elevation
3/4" = 1'-0"



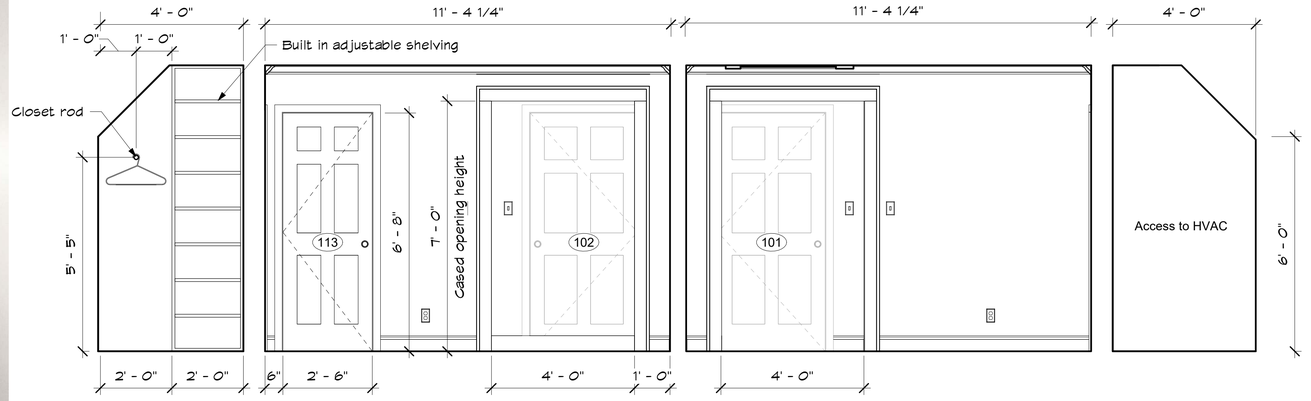
3 Toilet and Shower Room Elevation
3/4" = 1'-0"

NOTE: All new, finished walls to be painted unless noted otherwise.



6 Bedroom Window Wall Elevation
1/4" = 1'-0"

3



1 Bedroom Elevation
1/2" = 1'-0"

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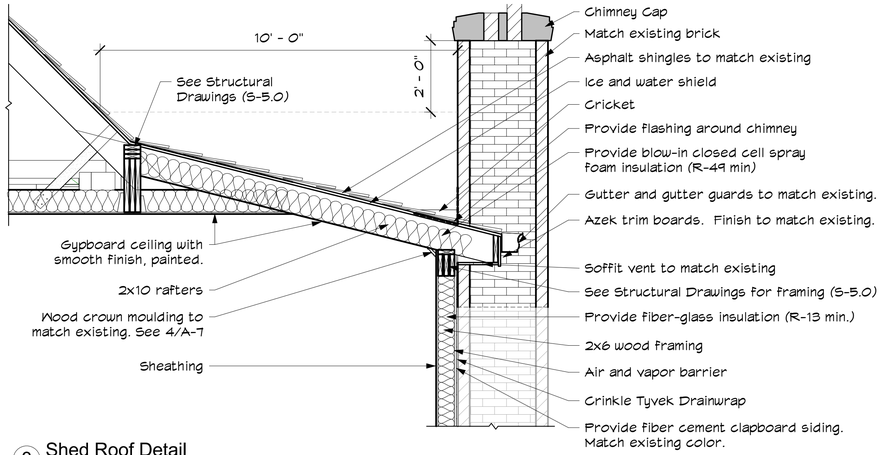
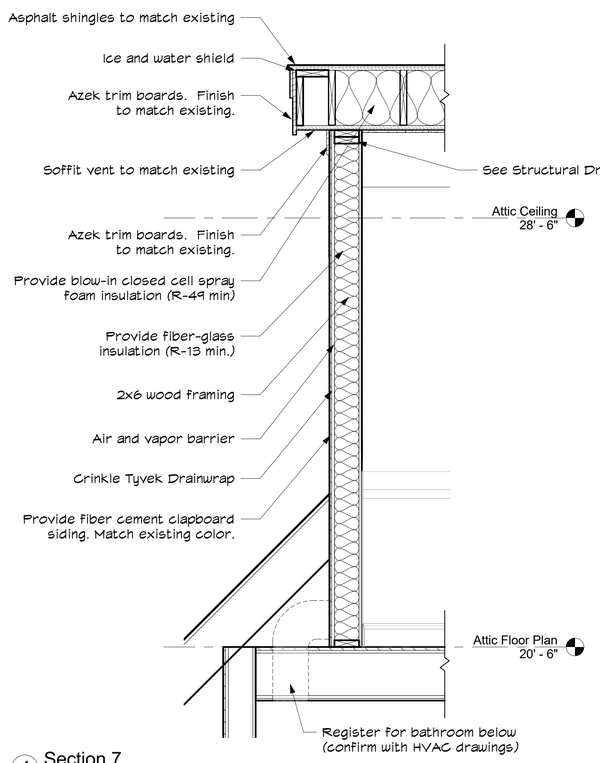
Toilet Room Details

A-4

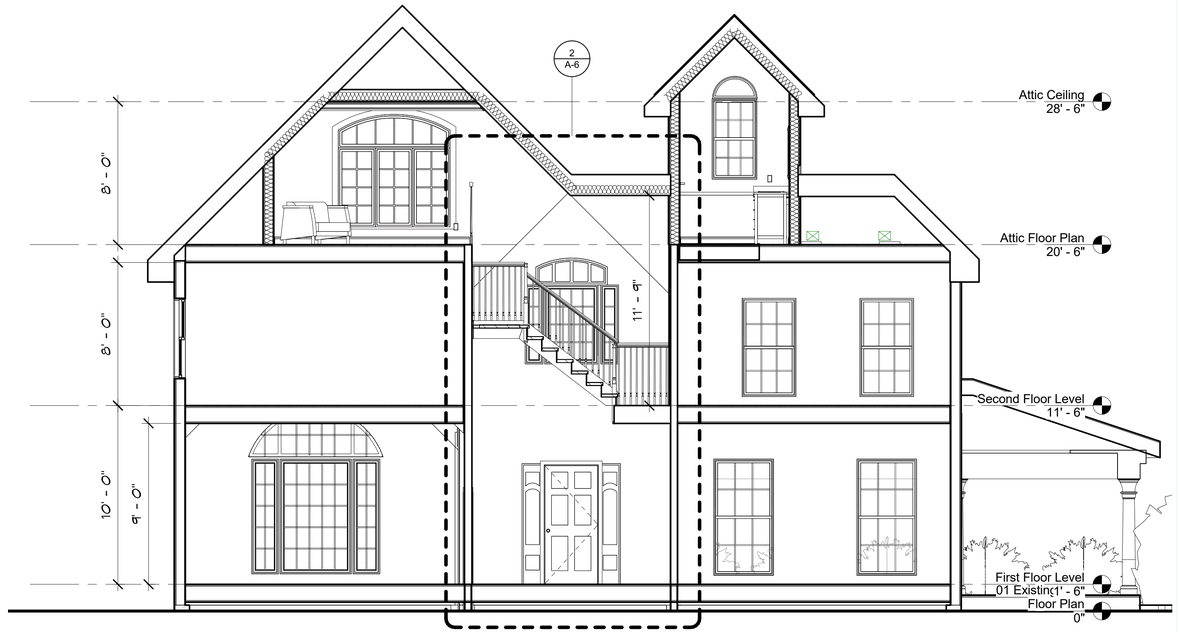
F:\601-650\622.1 Westwood Werth Residence Attic Reno\622.1 DRAWINGS AND SPECIFICATIONS\622.1 Working Set\622.1 Werth Residence_01131?.rvt



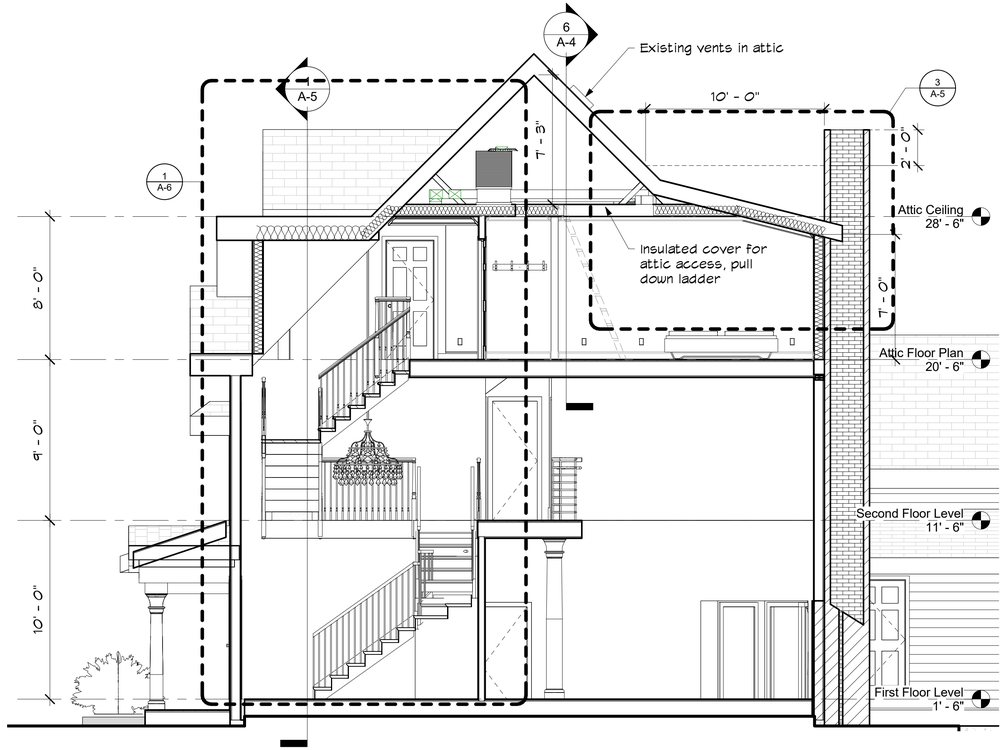
3 Shed Roof Detail
1/2" = 1'-0"



4 Section 7
3/4" = 1'-0"



1 Section Facing Front of Building
1/4" = 1'-0"



2 Section Through House
1/4" = 1'-0"

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SCALE: 3" = 1'-0" | 1-1/2" = 1'-0" | 1" = 1'-0" | 1/2" = 1'-0" | 1/4" = 1'-0" | 1/8" = 1'-0"

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Building Section

A-5

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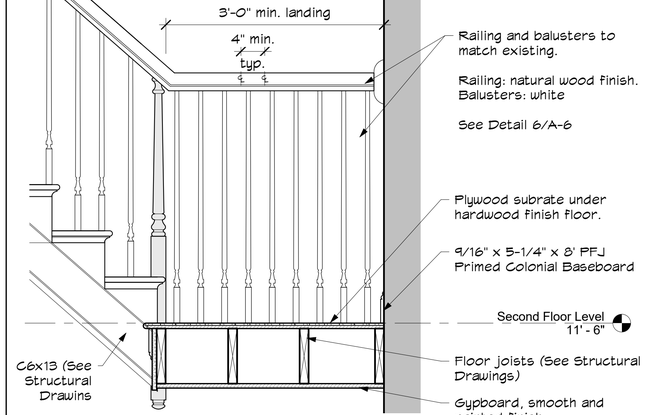
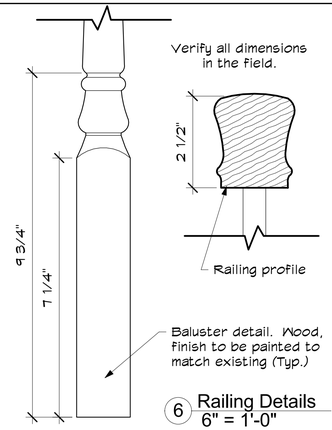
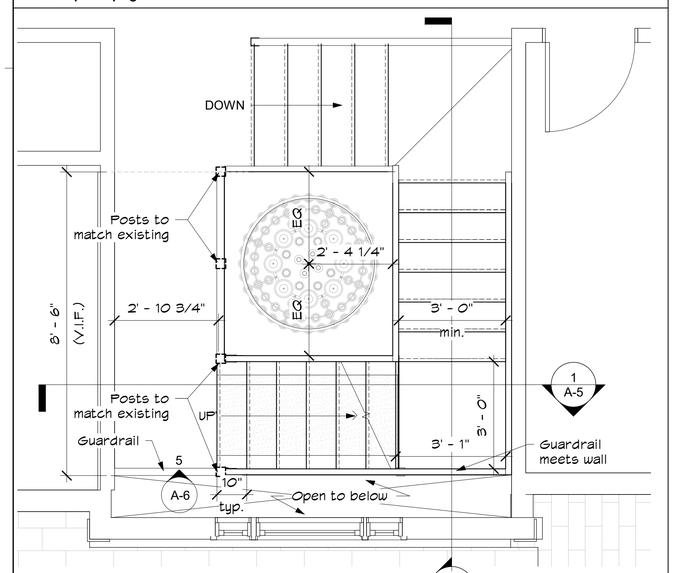


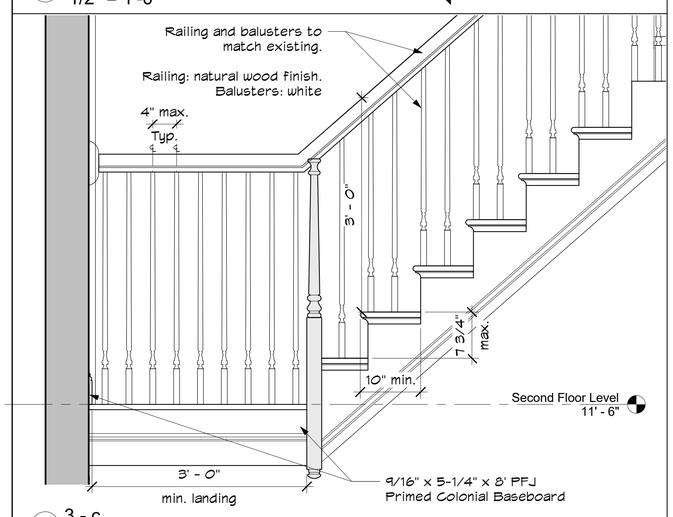
3 Stair Railing Detail
1" = 1'-0"



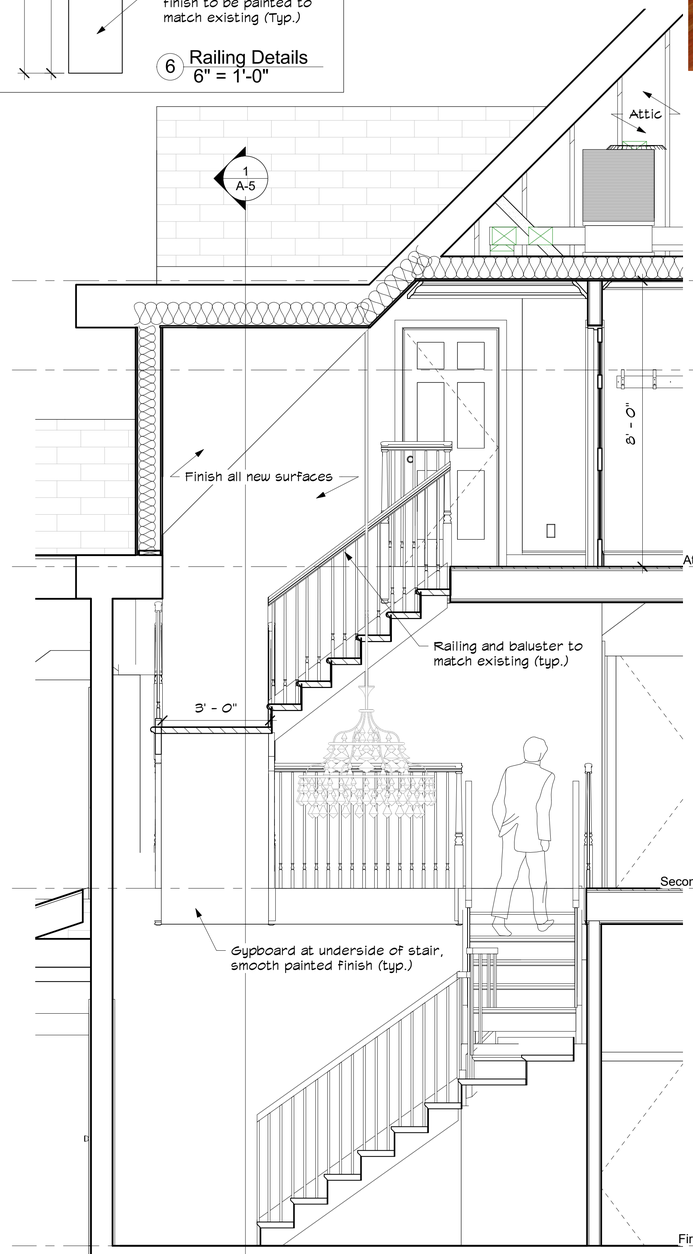
6 Railing Details
6" = 1'-0"



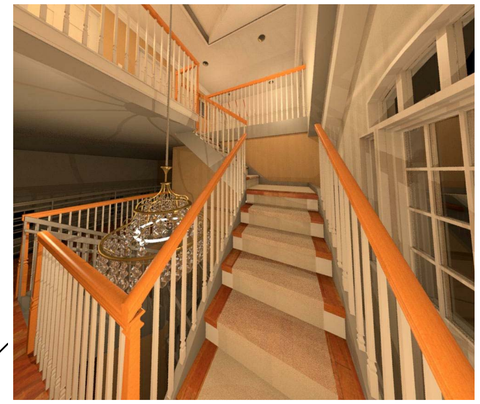
4 Proposed Second Floor Plan
1/2" = 1'-0"

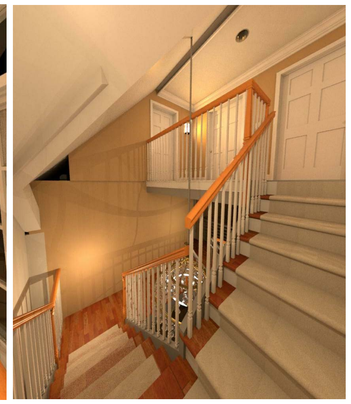


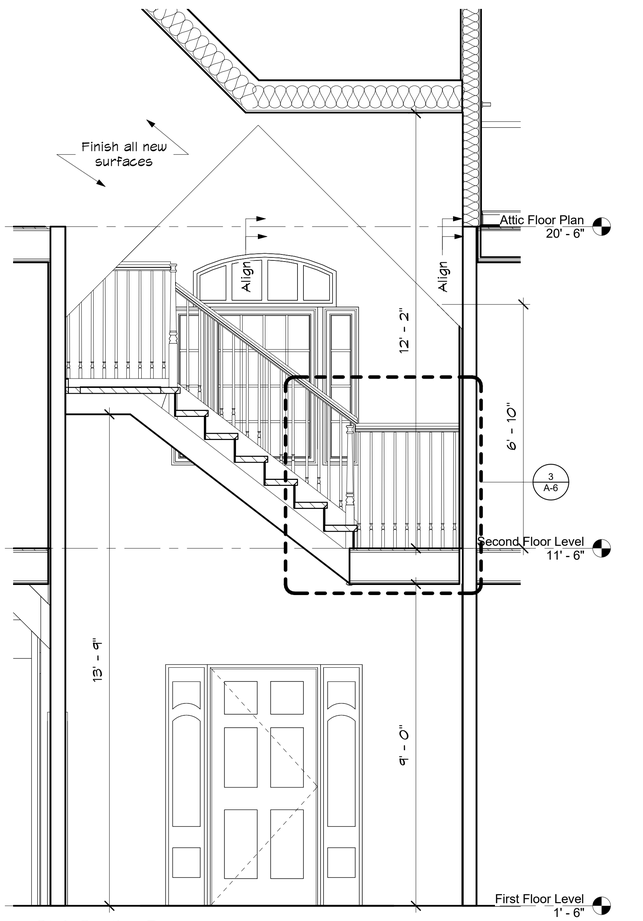
5 3 - c
1" = 1'-0"



1 Stair Section A
1/2" = 1'-0"







2 Stair Section B
1/2" = 1'-0"

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Scale:	As indicated

Stair Sections

A-6

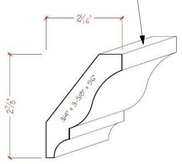
IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY

0 SCALE 3" = 1'-0" | 0 SCALE 1-1/2" = 1'-0" | 0 SCALE 1" = 1'-0" | 0 SCALE 1/2" = 1'-0" | 0 SCALE 1/4" = 1'-0" | 0 SCALE 1/8" = 1'-0"

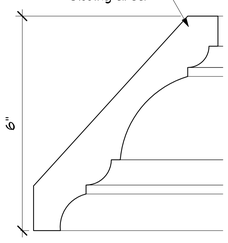
2 Shower Room Finish Elevation
3/4" = 1'-0"

Verify all dimensions in the field.

Crown moulding at bedrooms



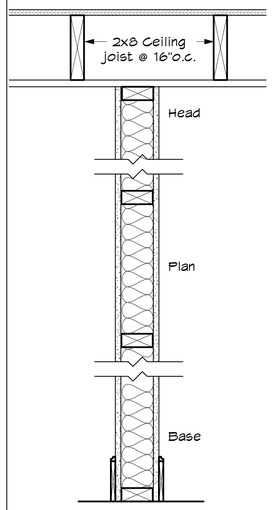
Crown moulding at sitting area



4 Crown Mouldings
6" = 1'-0"

PARTITION SCHEDULE

1i

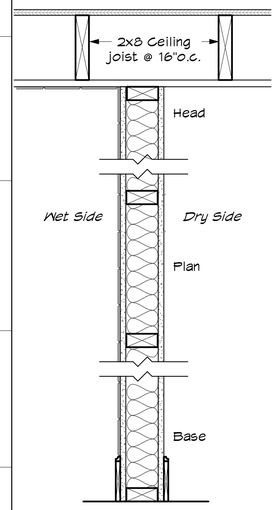


Standard Non-Bearing Partition

Description
- 2x4" wood stud @ 16" o.c.
- 1/2" GWB each side
- SAFB

1 — Height: at finish ceiling

1a — 5/8" MR GWB each side; SAFB; Height: to underside of structure



Standard Non-Bearing Partition Wet Locations

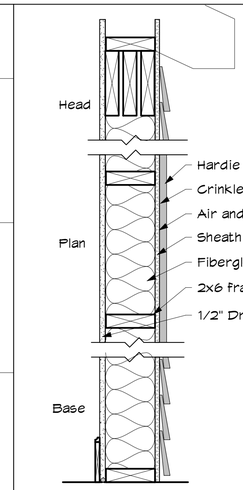
Description
- 2x4" wood stud @ 16" o.c.
- 1/2" Cement Board
- Tile Finish

2 — Height: at finish ceiling; 1/2" Cement Board both sides; Tile both sides

2a — 5/8" GWB one side, cement board on tile side; SAFB; Height: to underside of structure

2b — 5/8" MR GWB one side, cement board on tile side; SAFB; Height: to underside of structure

2c — 5/8" MR GWB one side, cement board on tile side; SAFB; Height: to underside of structure; 6" wall for pipes



Standard Exterior Wall with Siding

Description
- 2x6" wood stud @ 16" o.c.
- 1/2" GWB each side
-
- SAFB

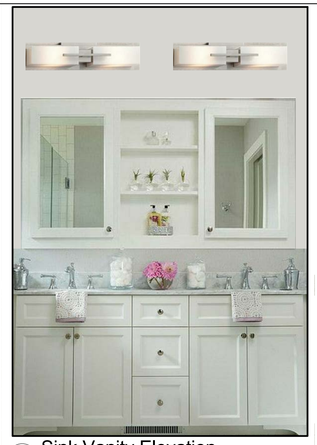
3 — Height: To bottom of structure

3a — 5/8" MR GWB on interior wall side; SAFB; Height: to underside of structure

General Partition Notes::
- Where partition appears to extend an existing partition, align the face of GWB with the existing GWB for a smooth surface unless noted otherwise.
- All new partitions are to have acoustical sealant as shown on detail
- For better sound isolation, stagger electrical boxes in the partition to avoid being back to back. Where possible, place electrical boxes in different stud cavities.

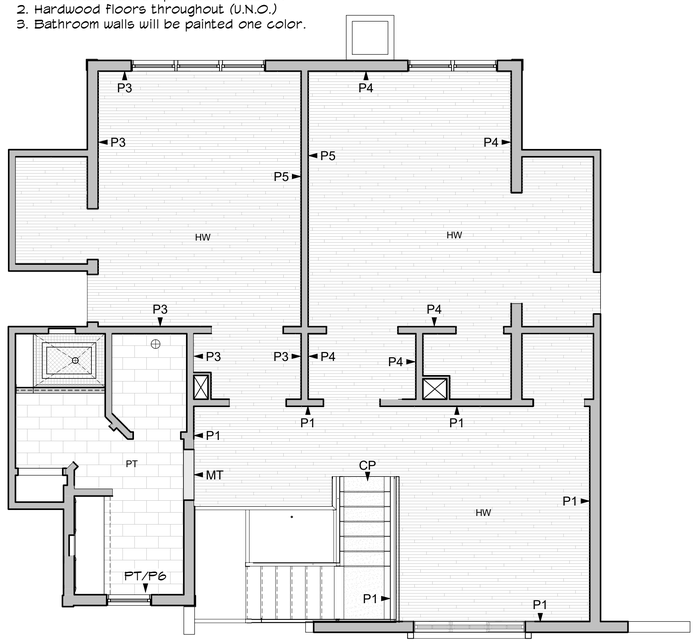
General Partition Notes::
- Where partition appears to extend an existing partition, align the face of GWB with the existing GWB for a smooth surface unless noted otherwise.
- All new partitions are to have acoustical sealant as shown on detail
- For better sound isolation, stagger electrical boxes in the partition to avoid being back to back. Where possible, place electrical boxes in different stud cavities.

Partition Wall Schedule
1 1/2" = 1'-0"



3 Sink Vanity Elevation
3/4" = 1'-0"

NOTES:
1. Closet walls will be painted one color.
2. Hardwood floors throughout (U.N.O.)
3. Bathroom walls will be painted one color.



1 Attic Finish Floor Plan
1/4" = 1'-0"

Paint in upper stairway and sitting area to match first /second floor stair and foyer.

Carpet runner at stairs

Oak hardwood to match existing

FINISH ABBREVIATION LEGEND

Flooring	
CP	Carpet
PT	Porcelain Tile
HW	Hardwood
WB	Wood Base
MT	Marble Threshhold
Walls	
P#	Paint
WT#	Wall Tile

SYMBOL LEGEND

Floor Finish Labels
- Base Material / Floor Material
- Carpet
- Hardwood
- Tile Floor

Wall Finish Labels
- x — Finish on entire wall

Finish Legend
1/8" = 1'-0"

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Werth Residence
Renovation
10 Cardinal Drive, Westwood, MA

Plot Date:1/16/2017 10:05:30 AM

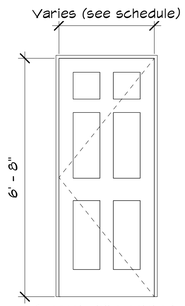
Revisions	Date

Project: 622.1
Drawn by: JB
Check by: IB
Date: 01/13/17
Scale: As indicated

Partition Schedule and Finish Plan

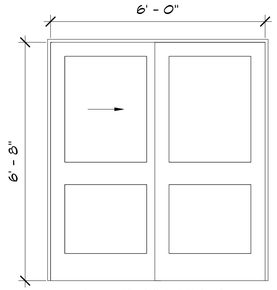
A-7

DOOR TYPES



6-panel white painted, wood door

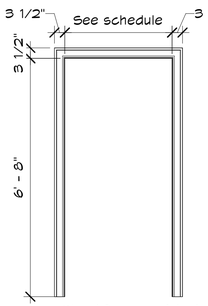
A



6-panel white painted, wood door

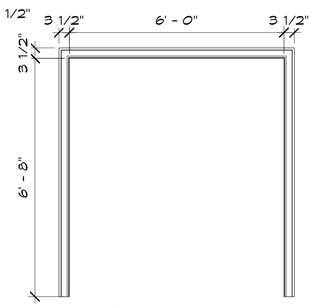
B

DOOR FRAME TYPES



Wood frame, painted

1



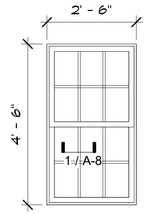
Wood frame, painted

2

Door Legend
1/2" = 1'-0"

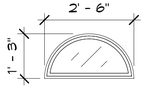
Door Schedule												
		Door Size		Door		Frame		Details				
No.	Door Type	Height	Width	Mat.	Finish	Mat.	Finish	Head	Jamb	Thresh	Hardware Set Function	Notes
New Construction												
101	A	6' - 8"	3' - 0"	WD	PTD	WD	PTD				Bedroom Lockset Privacy	
102	A	6' - 8"	3' - 0"	WD	PTD	WD	PTD				Bedroom Lockset Privacy	
103	A	6' - 8"	2' - 8"	WD	PTD	WD	PTD				Bathroom Lockset	
104	A	6' - 8"	2' - 6"	WD	PTD	WD	PTD				Bathroom Lockset	
105	A	6' - 8"	2' - 8"	WD	PTD	WD	PTD				Bathroom Lockset	
106	A	6' - 8"	2' - 4"	WD	PTD	WD	PTD				Closet/No lock	
107	A	6' - 8"	2' - 6"	WD	PTD	WD	PTD				Attic Access	Provide weather stripping
108	B	6' - 8"	6' - 0"	WD	PTD	WD	PTD				Closet/Sliding Door	
109	Y	6' - 0"	2' - 4"	WD	PTD	WD	PTD				Attic Access	
111	A	6' - 8"	2' - 8"	WD	PTD	WD	PTD				Closet/No lock	
112	A	6' - 8"	2' - 8"	WD	PTD	WD	PTD				Closet/No lock	
113	A	6' - 8"	2' - 6"	WD	PTD	WD	PTD				Closet/No lock	Provide weather stripping

WINDOW TYPES



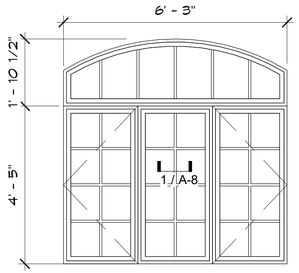
Double-hung window

X



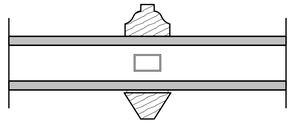
Transom above window

Y



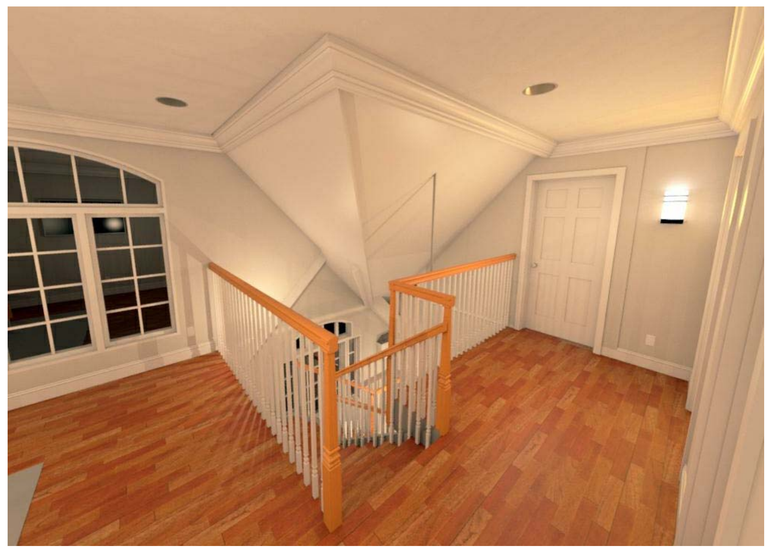
Casement with fixed middle window and transom

Z



1 Divided Lites
12" = 1'-0"

Door Frame
6" = 1'-0"



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Werth Residence
Renovation
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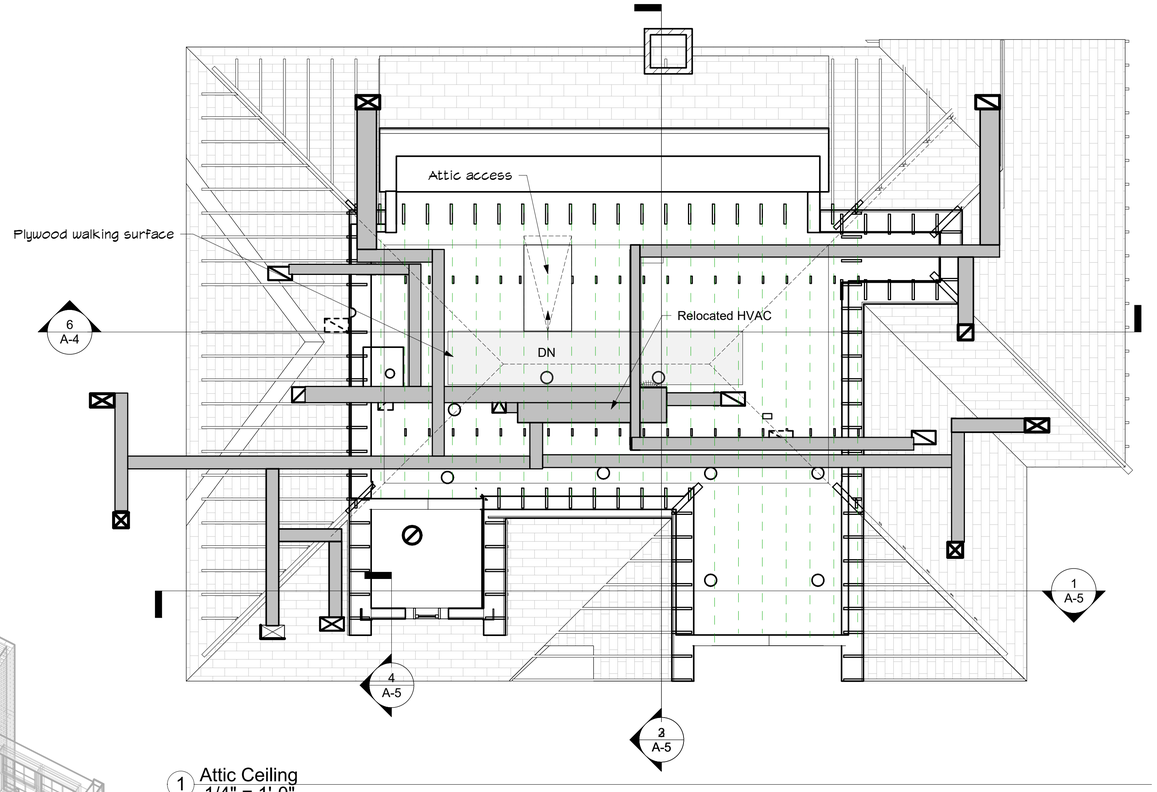
Plot Date:1/16/2017 10:05:30 AM

Revisions	Date

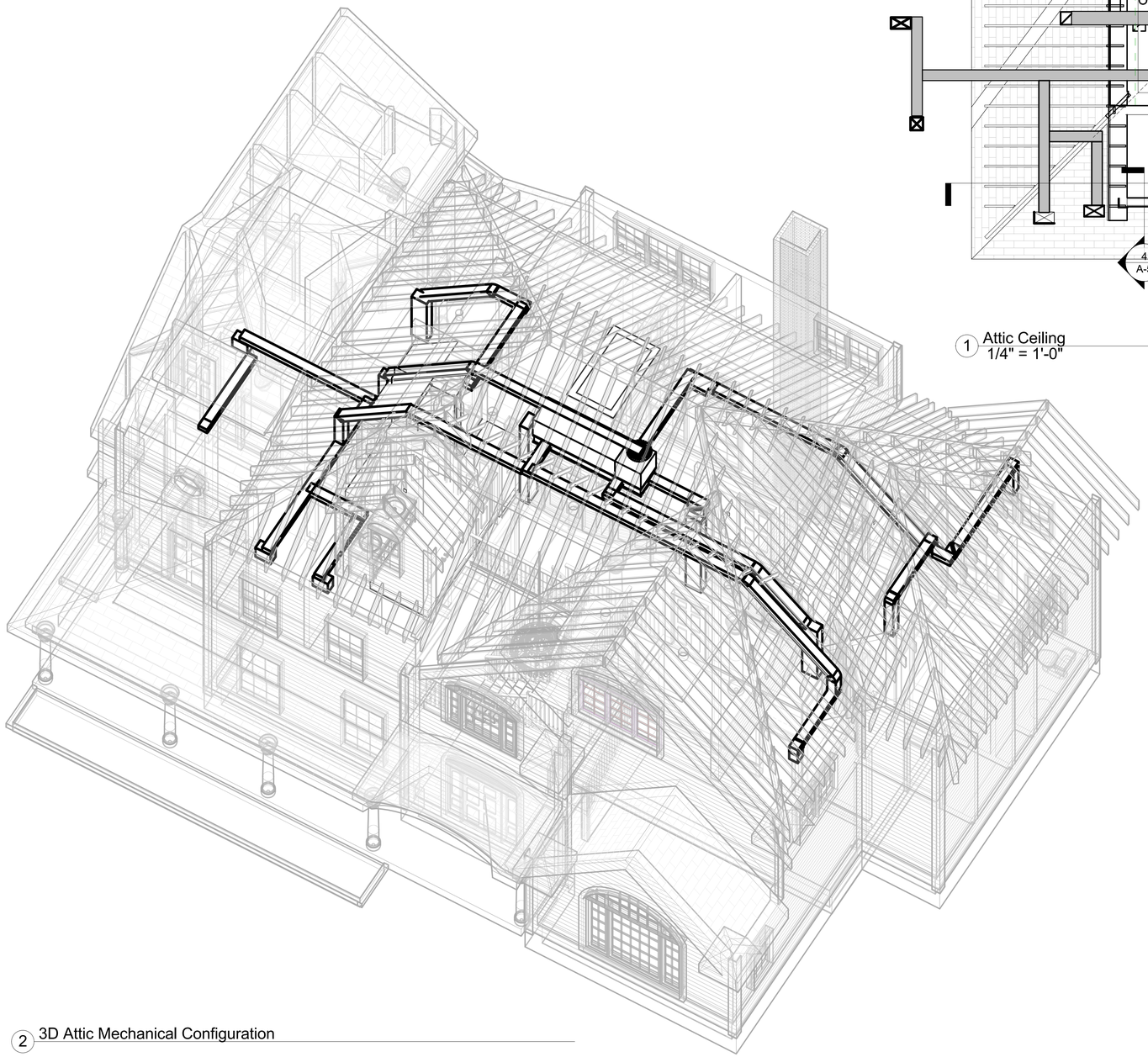
Project:	622.1
Drawn by:	JB
Check by:	IB
Date:	01/13/17
Scale:	As indicated

Window and Door Schedules

A-8



1 Attic Ceiling
1/4" = 1'-0"



2 3D Attic Mechanical Configuration

See HVAC Drawings for more information

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Werth Residence

Renovation

10 Cardinal Drive, Westwood, MA

Plot Date:1/16/2017 10:05:39 AM

Revisions	Date

Project:	622.1
Drawn by:	JB
Check by:	IB/DG
Date:	01/13/17
Scale:	1/4" = 1'-0"

Proposed Mechanical Above Attic Space

A-9

IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY

STRUCTURAL DESIGN CRITERIA

1. THE STRUCTURAL DESIGN IS BASED ON THE 2009 INTERNATIONAL RESIDENTIAL CODE AND THE NEW HAMPSHIRE AMENDMENTS.

2. LIVE LOADS:

RESIDENTIAL SLEEPING ROOMS	30 PSF
RESIDENTIAL OTHER THAN SLEEPING ROOMS	40 PSF
STAIRS	40 PSF

3. DEAD LOADS:

WEIGHT OF MATERIALS	
M/E/P PLUS MISC	3 PSF

4. SNOW LOADS:

BASIC GROUND SNOW, Pg	40 PSF
FLAT ROOF SNOW, Pf	30.8 PSF
Ce	1
Ct	1.1
I	1
DRIFT AS APPLICABLE PER CODE	

5. WIND LOAD:

BASIC WIND SPEED	100 MPH
Iw	1.0
BUILDING CATEGORY	II
EXPOSURE	B

WOOD:

1. WOOD MEMBERS SHALL BE AS PER THE DRAWINGS. MEMBERS OF EQUIVALENT STRENGTH AND STIFFNESS MAY BE SUBSTITUTED IF PERMITTED BY THE ARCHITECT/ENGINEER. USE SPRUCE PINE FIR No. 2 AS A MINIMUM, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
2. WALLS (UNLESS NOTED OTHERWISE):

INTERIOR BEARING WALL	2x6 @ 16" O.C. SPF. NO.2
EXTERIOR WALL	2x6 @ 16" O.C. SPF. NO.2
INTERIOR PARTITION WALL	2x4 @ 16" O.C. SPF. NO.2
INTERIOR POST IN WALL	4x4 OR 6x6 SPF. NO.2, UNLESS NOTED OTHERWISE

3. PLYWOOD AND OTHER SIMILAR SHEATHING MATERIALS SHALL BE AS PER THE DRAWINGS. APA RATED MATERIALS SHALL BE USED. THE STRONG AXIS OF SHEATHING MATERIALS SHALL RUN PERPENDICULAR TO THE JOIST AND WALL MEMBERS.
4. EXTERIOR PLYWOOD SHEATHING SHALL BE A MINIMUM IF 1/2 APA RATED, EXPOSURE 1 SHEATHING NAILED TO THE WALL FRAMING W/ 8d NAILS AT 6 INCH CENTERS AT PANEL EDGES AND 12 INCH CENTERS AT INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE. SEE SECTION R602.10.8 FOR PANEL JOINTS AT BRACED WALL PANELS.
5. FLOOR PLYWOOD SHEATHING SHALL BE A MINIMUM OF 3/4" PLYWOOD NAILED TO THE FLOOR FRAMING W/ 8d NAILS AT 6 INCH CENTERS AT PANEL EDGES AND 12 INCH CENTERS AT INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE.
6. USE 5/8" APA RATED EXPOSURE 1 ROOF SHEATHING. SHEATHING TO BE FASTENED TO FRAMING WITH 8d NAILS SPACED AT 6" O.C. AT SHEATHING PANELS EDGES AND 12" O.C. AT INTERMEDIATE SHEATHING FRAMING SUPPORTS. FASTEN SHEATHING TO LEDGERS AND SHEAR WALLS FRAMING WITH 8d NAILS AT 4" O.C.
7. HANGERS, CLIPS, ETC SHALL BE AS PER THE DRAWINGS. CONTRACTOR TO BRING ANY UNIDENTIFIED HANGERS, ETC TO THE ATTENTION OF THE ARCHITECT FOR RESOLUTION.
8. ALL ENGINEERED LUMBER SHALL BE AS PER THE DRAWINGS. ALL LSL MEMBERS SHALL HAVE A MINIMUM YOUNG'S MODULUS (E) OF 1,550,000 PSI; ALL LVL'S SHALL HAVE A MINIMUM MODULUS (E) OF 2,000,000 PSI; ALL PSL'S SHALL HAVE A MINIMUM YOUNG'S MODULUS (E) OF 2,000,000 PSI. ENGINEERED LUMBER MUST HAVE THE IDENTIFICATION MARKINGS LEFT ON FOR FIELD VERIFICATION PURPOSES.
9. ALL ENGINEERED LUMBER SHOWN ON THE DRAWINGS ARE STANDARD SIZE DEPTH AND THICKNESS. IF SIZES SHOWN ON THE DRAWINGS APPEAR TO REQUIRE MODIFICATION TO ACQUIRE THE DEPTH AND/OR THICKNESS SHOWN ON THE DRAWINGS CONTACT THE ENGINEER FOR CLARIFICATION.
10. USE ENGINEERED LUMBER MANUFACTURERS GUIDELINES FOR MEMBER WEB OR FLANGE PENETRATIONS, MAXIMUM ALLOWED NOTCHES, BRIDGING REQUIREMENTS, INTERIOR AND EXTERIOR BEARING REQUIREMENTS, ETC.
11. CONTACT THE ENGINEER REGARDING ALL DIMENSIONAL LUMBER PENETRATIONS, NOTCHES, ETC.
12. ALL TIMBER POST TO BEAM CONNECTIONS TO RECEIVE SIMPSON TP311 PLATES ON EACH SIDE U.N.O.
13. HEADERS SHALL HAVE A MINIMUM OF (2) JACK STUDS UNLESS OTHERWISE NOTED.
14. BUILT-UP LVL BEAMS SHALL BE FASTENED TOGETHER AS FOLLOWS:
14.1. (2)-PLY LVL - (2) ROWS OF 10d NAILS SPACED AT12 " O.C. OR (2) ROWS OF TRUSSLOKS SPACED AT 24" O.C.
14.2. (3)-PLY LVL - (3) ROWS OF 10d NAILS SPACED AT 12" O.C. EACH SIDE OF BEAM OR (2) ROWS OF 5" LONG TRUSSLOKS SPACED AT 24" O.C.
14.3. (4)-PLY LVL - (2) ROWS OF 6-3/4" LONG TRUSSLOKS SPACED AT 24" O.C.
15. CONTRACTOR IS RESPONSIBLE FOR ORDERING SKEWABLE HANGERS AS REQUIRED.

CONTRACTORS RESPONSIBILITIES:

1. G.C. TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN FIELD. IF THERE ARE ANY QUESTIONS, CONSULT WITH THE ENGINEER IMMEDIATELY.
2. THE G.C. IS RESPONSIBLE FOR VISITING THE SITE AND FAMILIARIZING HIMSELF WITH THE EXISTING CONDITIONS AND THESE DRAWINGS. ANY DISCREPANCIES OR INCONSISTENCIES MUST BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BEGINNING CONSTRUCTION.
3. PERMITS AND INSPECTIONS MUST BE ATTAINED AND SCHEDULED BY THE G.C. THE G.C. SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS OF ANY PUBLIC AUTHORITY BEARING ON THE PERFORMANCE OF THIS WORK.
4. PROPERTY INSURANCE AND LIABILITY INSURANCE MUST BE RETAINED BY THE GENERAL CONTRACTOR.
5. G.C. IS RESPONSIBLE FOR ALL TEMPORARY SHORING, BRIDGING, AND ANY OTHER ACTIVITY REQUIRED AS PART OF THE MEANS & METHODS OF CONSTRUCTION.
6. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE STANDARDS INDICATED IN THESE DRAWINGS, IN CONFORMANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, IN CONFORMANCE WITH THE REQUIREMENTS OF LOCAL BUILDING OFFICIALS, AND IN CONFORMANCE WITH GENERALLY ACCEPTED STANDARDS OF GOOD WORKMANSHIP AND GOOD BUILDING PRACTICE IN THIS REGION.
7. ALL CONSTRUCTION SHALL BE IN FULL COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES.

TABLE R602.3(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING OF FASTENERS
Roof			
1	Blocking between joists or rafters to top plate, toe nail	3-8d ($2\frac{1}{2}$" × 0.113")	—
2	Ceiling joists to plate, toe nail	3-8d ($2\frac{1}{2}$"× 0.113")	—
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	—
4	Collar tie rafter, face nail or $1\frac{1}{4}$" × 20 gage ridge strap	3-10d (3" × 0.128")	—
5	Rafter to plate, toe nail	2-16d ($3\frac{1}{2}$" × 0.135")	—
6	Roof rafters to ridge, valley or hip rafters:		—
	toe nail	4-16d ($3\frac{1}{2}$" × 0.135")	—
	face nail	3-16d ($3\frac{1}{2}$" × 0.135")	—
Wall			
7	Built-up corner studs	10d (3" × 0.128")	24" o.c
8	Built-up header, two pieces with $\frac{1}{2}$" spacer	16d ($3\frac{1}{2}$" × 0.135")	16" o.c. along each edge
9	Continued header, two pieces	16d ($3\frac{1}{2}$" × 0.135")	16" o.c. along each edge
10	Continuous header to stud, toe nail	4-8d ($2\frac{1}{2}$" × 0.113")	—
11	Double studs, face nail	10d (3" × 0.128")	24" o.c
12	Double top plates, face nail	10d (3" × 0.128")	24" o.c
13	Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d ($3\frac{1}{2}$"× 0.135")	—
14	Sole plate to joist or blocking, face nail	16d ($3\frac{1}{2}$" × 0.135")	16" o.c
15	Sole plate to joist or blocking at braced wall panels	3-16d ($3\frac{1}{2}$" × 0.135")	16" o.c
16	Stud to sole plate, toe nail	3-8d ($2\frac{1}{2}$" × 0.113") or 2-16d $3\frac{1}{2}$" × 0.135")	— —
17	Top or sole plate to stud, end nail	2-16d ($3\frac{1}{2}$" × 0.135")	—
18	Top plates, laps at corners and intersections, face nail	2-10d (3" × 0.128")	—
19	1" brace to each stud and plate, face nail	2-8d ($2\frac{1}{2}$" ×0.113") 2 staples $1\frac{3}{4}$"	— —
20	1" × 6" sheathing to each bearing, face nail	2-8d ($2\frac{1}{2}$" × 0.113") 2 staples $1\frac{3}{4}$"	— —
21	1" × 8" sheathing to each bearing, face nail	2-8d ($2\frac{1}{2}$" × 0.113") 3 staples $1\frac{3}{4}$"	— —
22	Wider than 1" × 8" sheathing to each bearing, face nail	3-8d ($2\frac{1}{2}$" × 0.113") 4 staples $1\frac{3}{4}$"	— —
Floor			
23	Joist to sill or girder, toe nail	3-8d ($2\frac{1}{2}$" × 0.113")	—
24	1" × 6" subfloor or less to each joist, face nail	2-8d ($2\frac{1}{2}$" × 0.113") 2 staples $1\frac{3}{4}$"	— —
25	2" subfloor to joist or girder, blind and face nail	2-16d ($3\frac{1}{2}$" × 0.135")	—
26	Rim joist to top plate, toe nail (roof applications also)	8d ($2\frac{1}{2}$" × 0.113")	6" o.c.
27	2" planks (plank & beam - floor & roof)	2-16d ($3\frac{1}{2}$" × 0.135")	at each bearing
28	Built-up girders and beams, 2-inch lumber layers	10d (3" × 0.128")	Nail each layer as follows: 32" o.c. at top and bottom and staggered. Two nails at ends and at each splice.
29	Ledger strip supporting joists or rafters	3-16d ($3\frac{1}{2}$" × 0.135")	At each joist or rafter

TEM	DESCRIPTION OF BUILDING	DESCRIPTION OF FASTENER[b,c,e]	SPACING OF FASTENERS Edges (inches)[i]	SPACING OF FASTENERS Intermediate supports[c, e] (inches)
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing				
30	$\frac{3}{8}$" - $\frac{1}{2}$"	6d common (2"×0.113") nail (subfloor wall) 8d common ($2\frac{1}{2}$"×0.131") nail (roof)[f]	6	12[g]
31	$\frac{19}{32}$" - 1"	8d common nail ($2\frac{1}{2}$"×0.131")	6	12[g]
32	$1\frac{1}{8}$" - $1\frac{1}{4}$"	10d common (3"×0.148") nail or 8d ($2\frac{1}{2}$"×0.131") deformed nail	6	12
Other wall sheathing[h]				
33	$\frac{1}{2}$" structural cellulosic fiberboard sheathing	$1\frac{1}{2}$" galvanized roofing nail, $\frac{7}{16}$" crown or 1" crown staple 16 ga., $1\frac{1}{4}$" long	3	6
34	$\frac{25}{32}$" structural cellulosic fiberboard sheathing	$1\frac{3}{4}$" galvanized roofing nail, $\frac{7}{16}$" crown or 1" crown staple 16 ga., $1\frac{1}{2}$" long	3	6
35	$\frac{1}{2}$" gypsum sheathing[d]	$1\frac{1}{2}$" galvanized roofing nail; staple galvanized, $1\frac{1}{2}$" long; $1\frac{1}{4}$ screws, Type W or S	7	7
36	$\frac{5}{8}$" gypsum sheathing[d]	$1\frac{3}{4}$" glavanized roofing nail; staple galvanized, $1\frac{5}{8}$" long; $1\frac{5}{8}$" screws, Type W or S	7	7
Wood structural panels, combination subfloor underlayment to framing				
37	$\frac{3}{4}$" and less	6d deformed (2" × 0.120") nail or 8d common ($2\frac{1}{2}$" × 0.131") nail	6	12

FOR SI: 1 INCH = 25.4 MM, 1 FOOT = 304.8 MM, 1 MILE PER HOUR = 0.447 M/S; 1KSI = 6.895 MPA.

A. ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 KSI FOR SHANK DIAMETER OF 0.192 INCH (20D COMMON NAIL), 90 KSI FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.177 INCH, AND 100 KSI FOR SHANK DIAMETERS OF 0.142 INCH OR LESS.
B. STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM 7/16-INCH ON DIAMETER CROWN WIDTH.
C. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR GREATER.
D. FOUR-FOOT-BY-8-FOOT OR 4-FOOT-BY-9-FOOT PANELS SHALL BE APPLIED VERTICALLY.
E. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(2).
F. FOR REGIONS HAVING BASIC WIND SPEED OF 110 MPH OR GREATER, 8D DEFORMED (21/2"×0.120) NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITHIN MINIMUM 48-INCH DISTANCE FROM GABLE END WALLS, IF MEAN ROOF HEIGHT IS MORE THAN 25 FEET, UP TO 35 FEET MAXIMUM.
G. FOR REGIONS HAVING BASIC WIND SPEED OF 100 MPH OR LESS, NAILS FOR ATTACHING WOOD STRUCTURAL PANEL ROOF SHEATHING TO GABLE END WALL FRAMING SHALL BE SPACED 6 INCHES ON CENTER. WHEN BASIC WIND SPEED IS GREATER THAN 100 MPH, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48-INCH DISTANCE FROM RIDGES, EAVES AND GABLE END WALLS; AND 4 INCHES ON CENTER TO GABLE END WALL FRAMING.
H. GYPSUM SHEATHING SHALL CONFORM TO ASTM C 1396 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA 253. FIBERBOARD SHEATHING SHALL CONFORM TO ASTM C 208.
I. SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS NEED NOT BE PROVIDED EXCEPT AS REQUIRED BY OTHER PROVISIONS OF THIS CODE. FLOOR PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.

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Werth Residence
Renovation
10 Cardinal Drive, Westwood, MA

Revisions	Date

Project:	622.1
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Structural Noted

S-0.0

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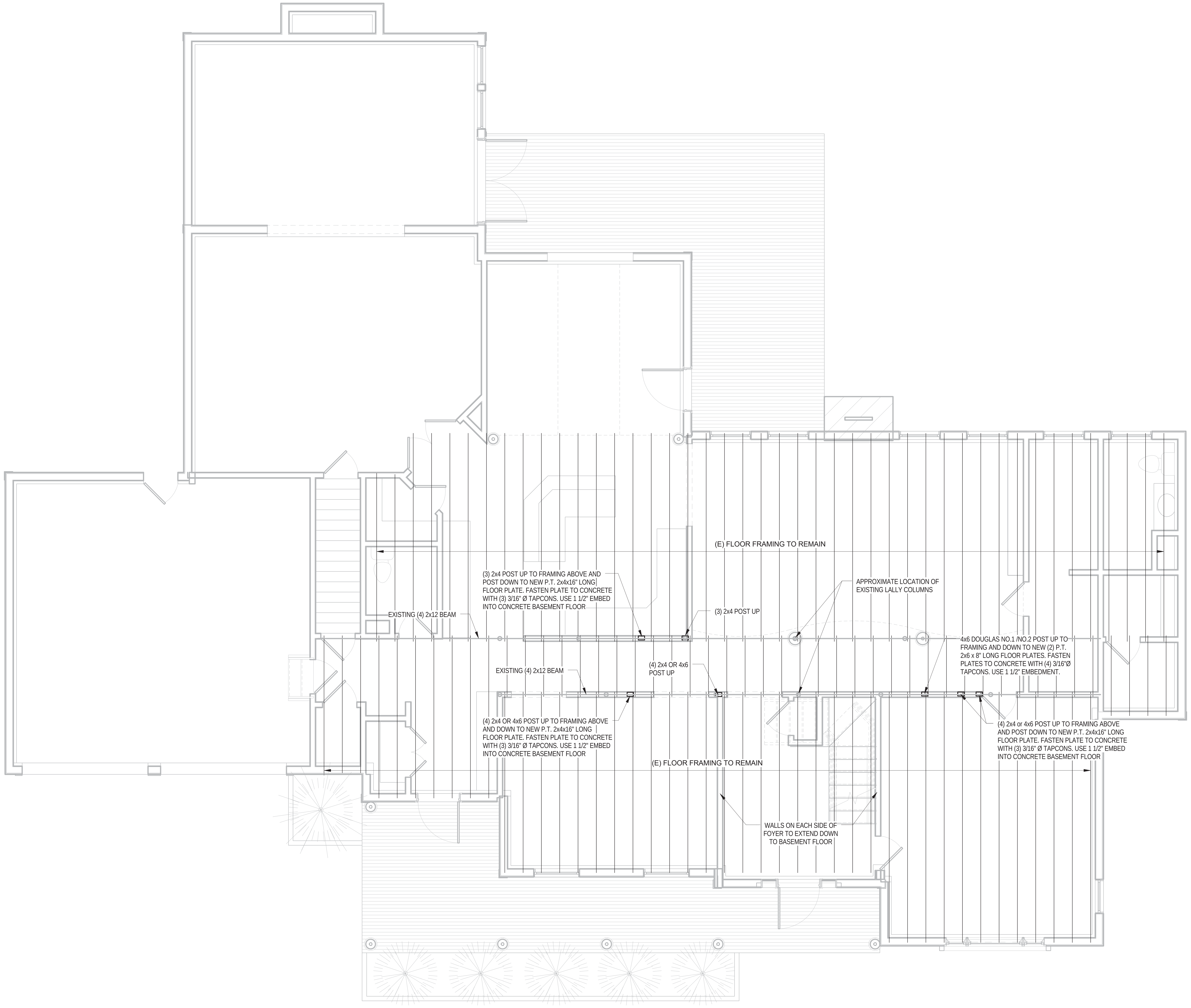

1 1ST FLOOR PARTIAL FRAMING PLAN
1/4" = 1'-0"

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First Floor Framing Plan

S-1.0

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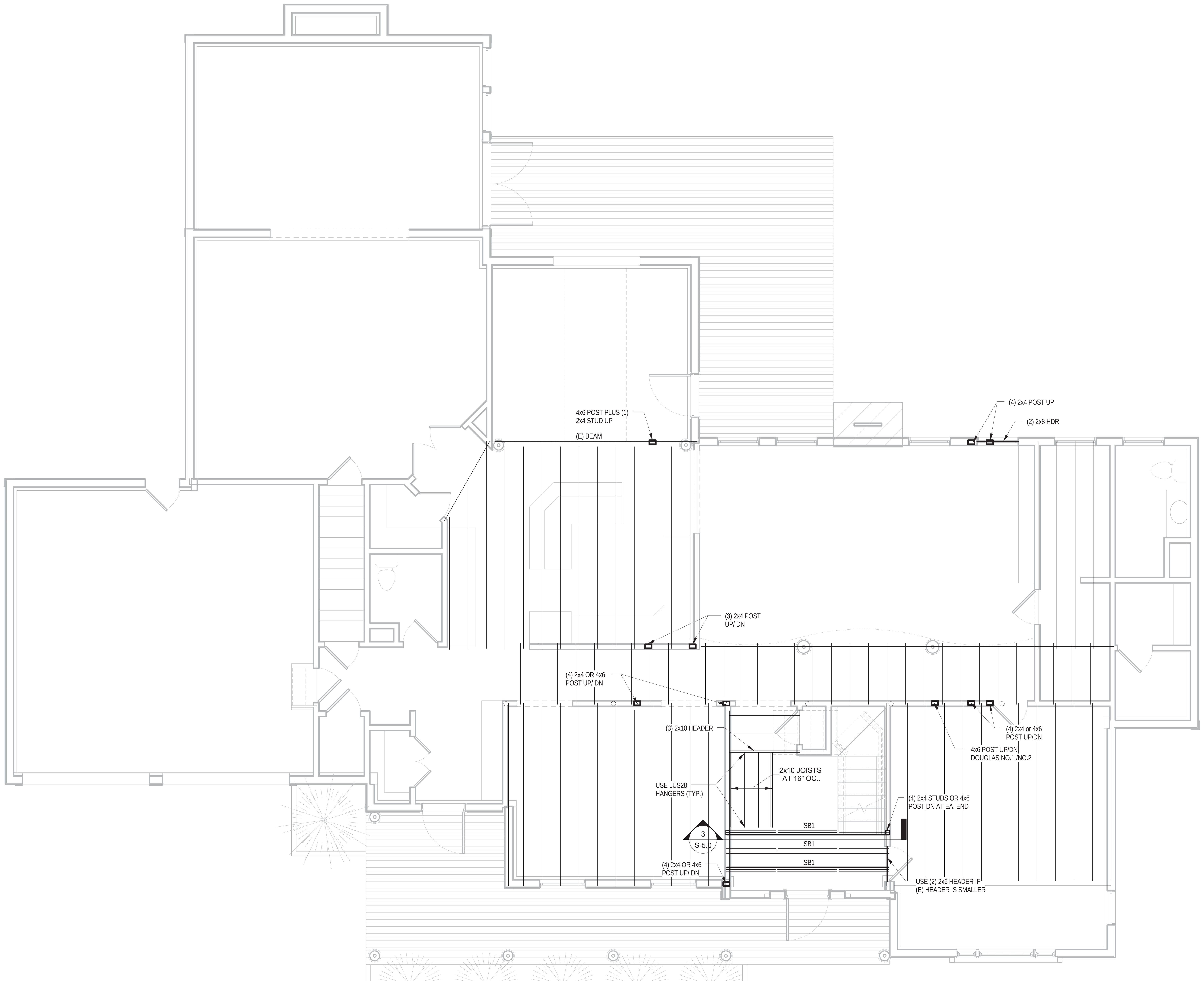
SCALE 3" = 1'-0"
SCALE 1-1/2" = 1'-0"
SCALE 1" = 1'-0"
SCALE 1/2" = 1'-0"
SCALE 1/4" = 1'-0"
SCALE 1/8" = 1'-0"



PLAN NOTES:

1. SB1 = INDICATES STEEL BEAM AT STRINGERS

1 2ND FLOOR PARTIAL FRAMING PLAN
1/4" = 1'-0"

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COMMONWEALTH OF MASSACHUSETTS
STRUCTURAL
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REGISTERED
PROFESSIONAL ENGINEER

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10 Cardinal Drive, Westwood, MA

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Second Floor Framing Plan

S-2.0

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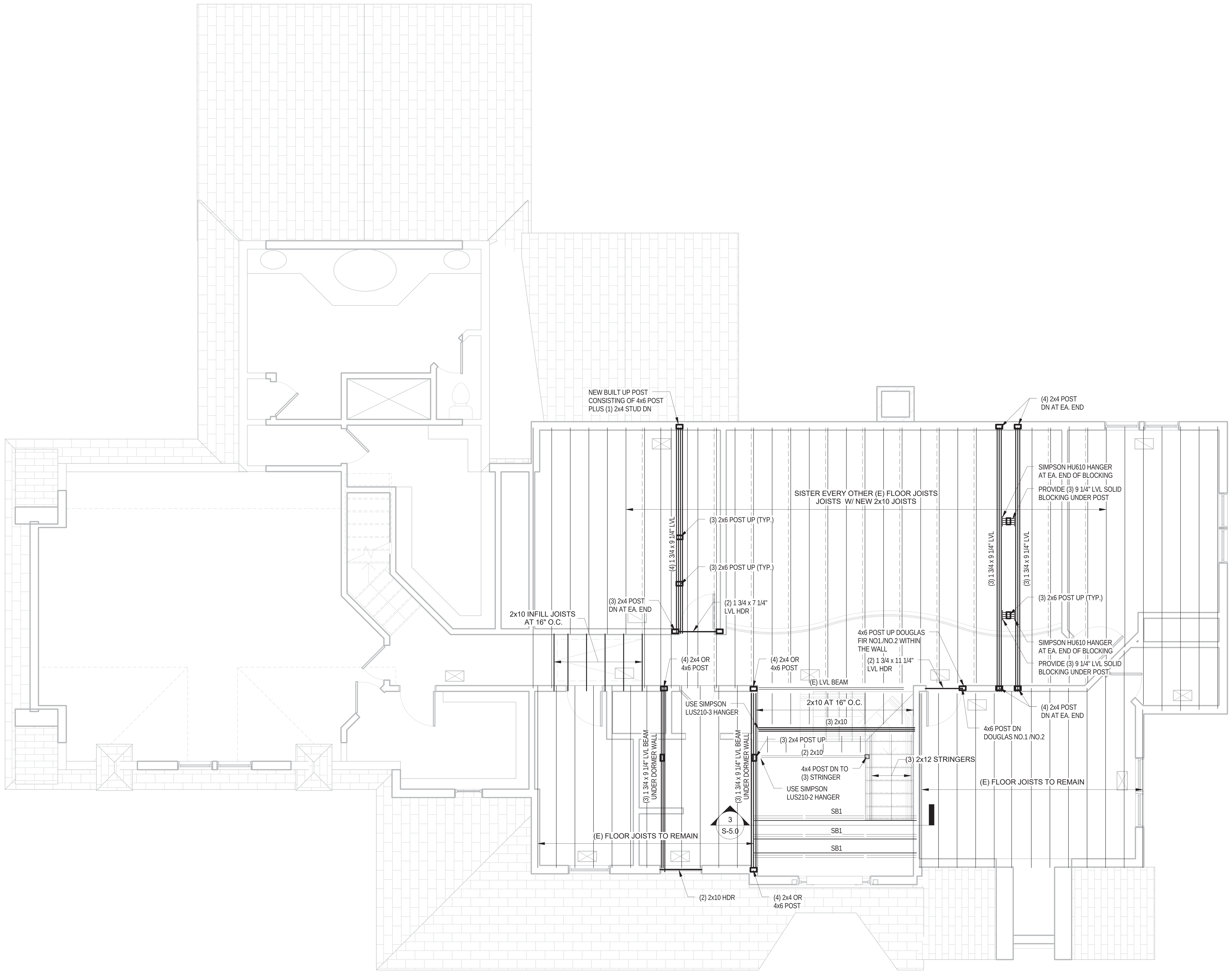

PLAN NOTES:

1. SB1 = INDICATES STEEL BEAM AT STRINGERS

1 NEW ATTIC FRAMING PLAN
1/4" = 1'-0"

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Attic Framing Plan

S-3.0

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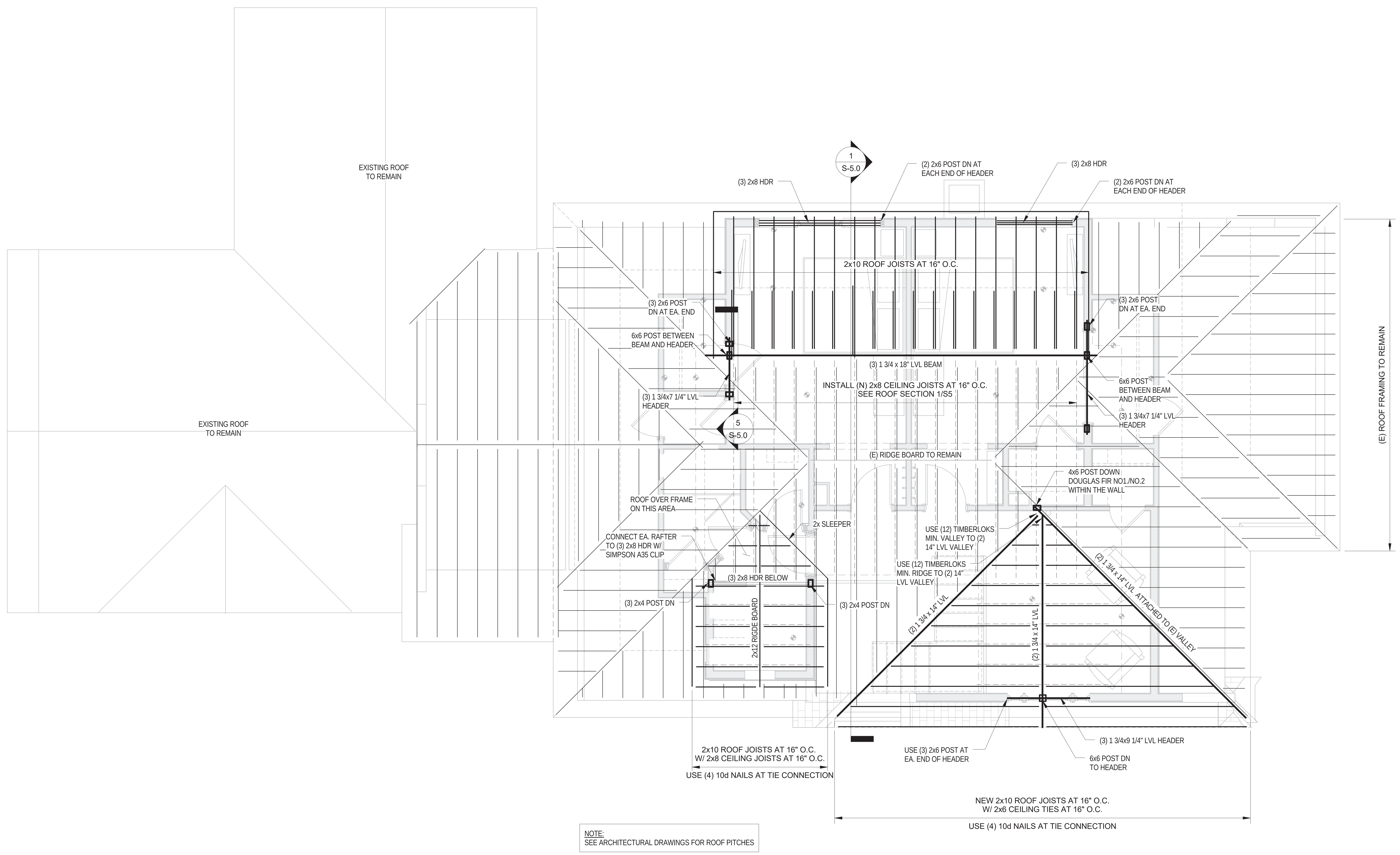

1 NEW PARTIAL ROOF FRAMING PLAN
1/4" = 1'-0"

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Roof Framing Plan

S-4.0

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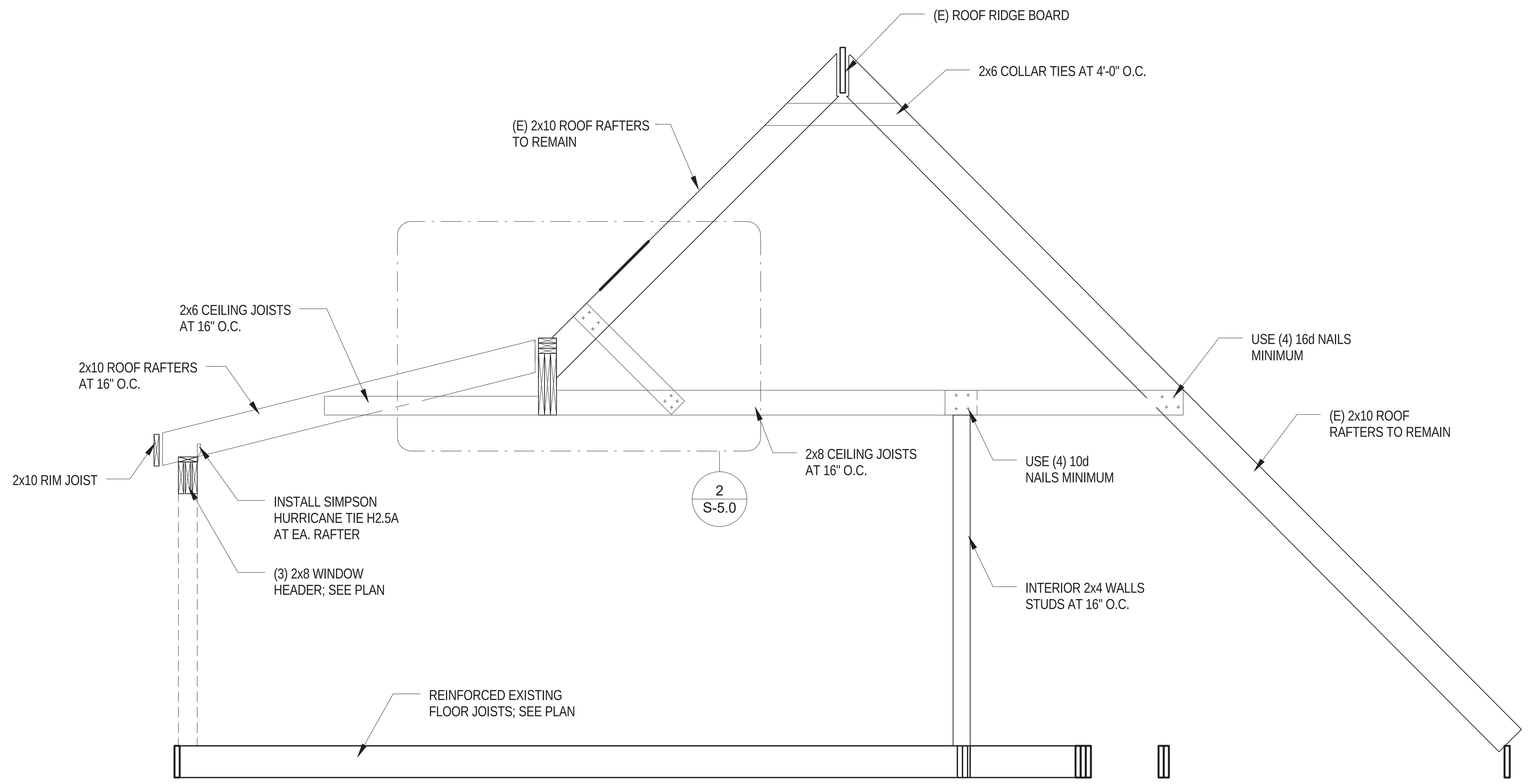
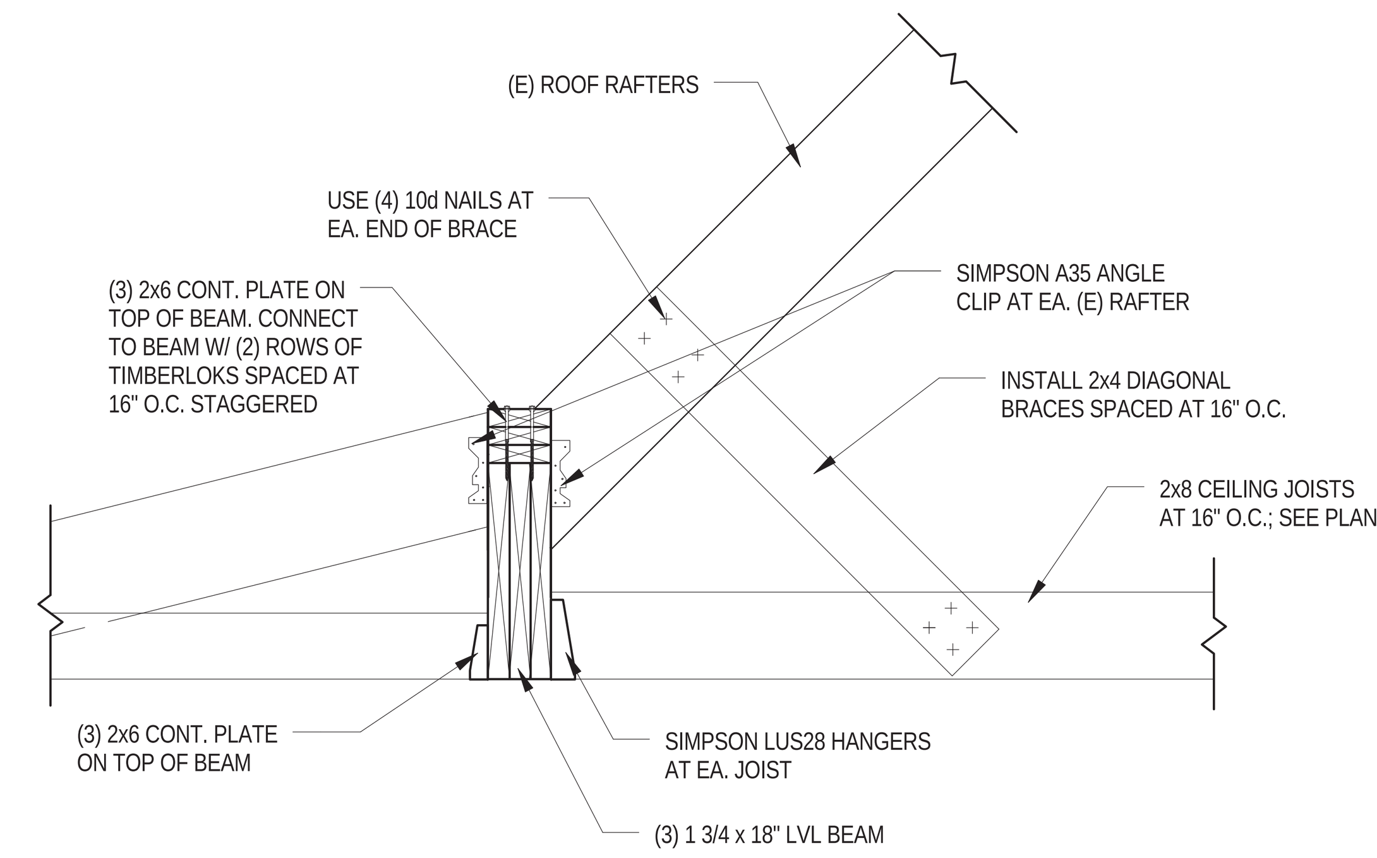
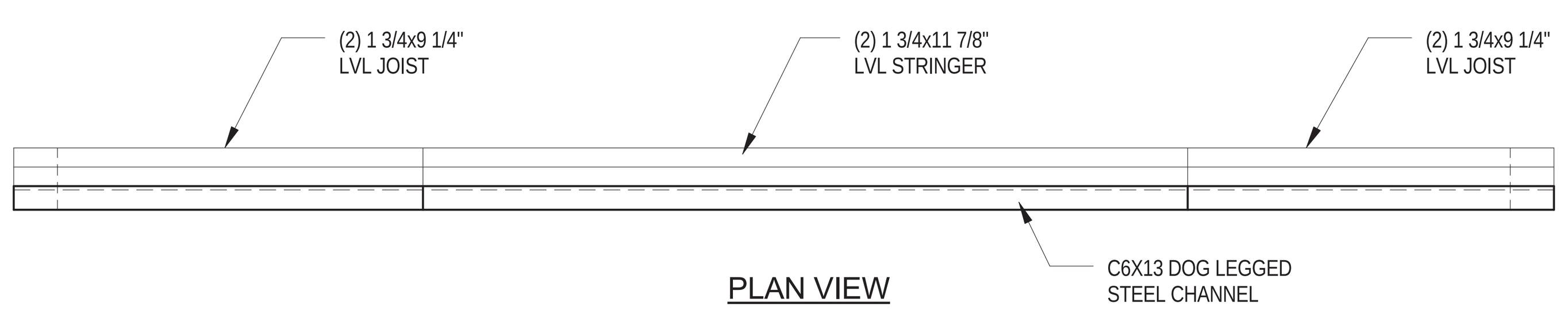


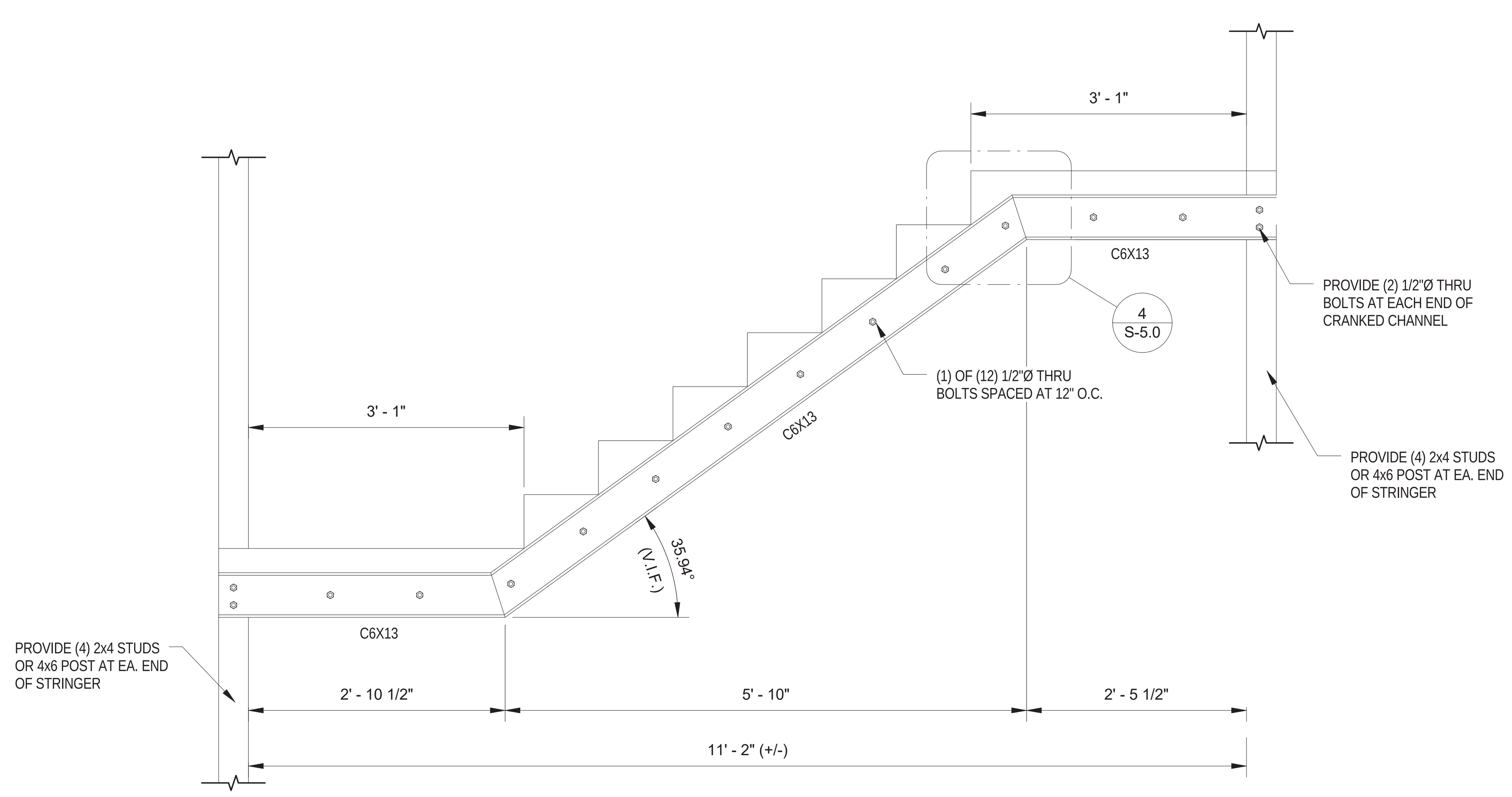
1 ROOF SECTION
3/8" = 1'-0"



2 SECTION DETAIL AT (N) BEAM
3/4" = 1'-0"

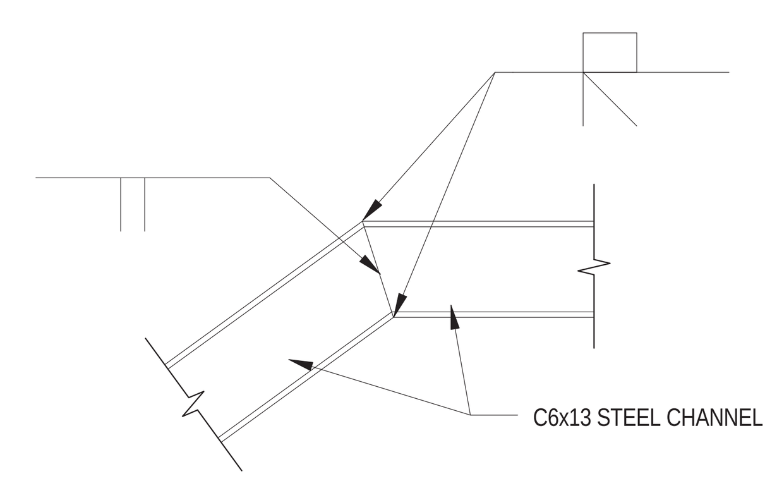


PLAN VIEW

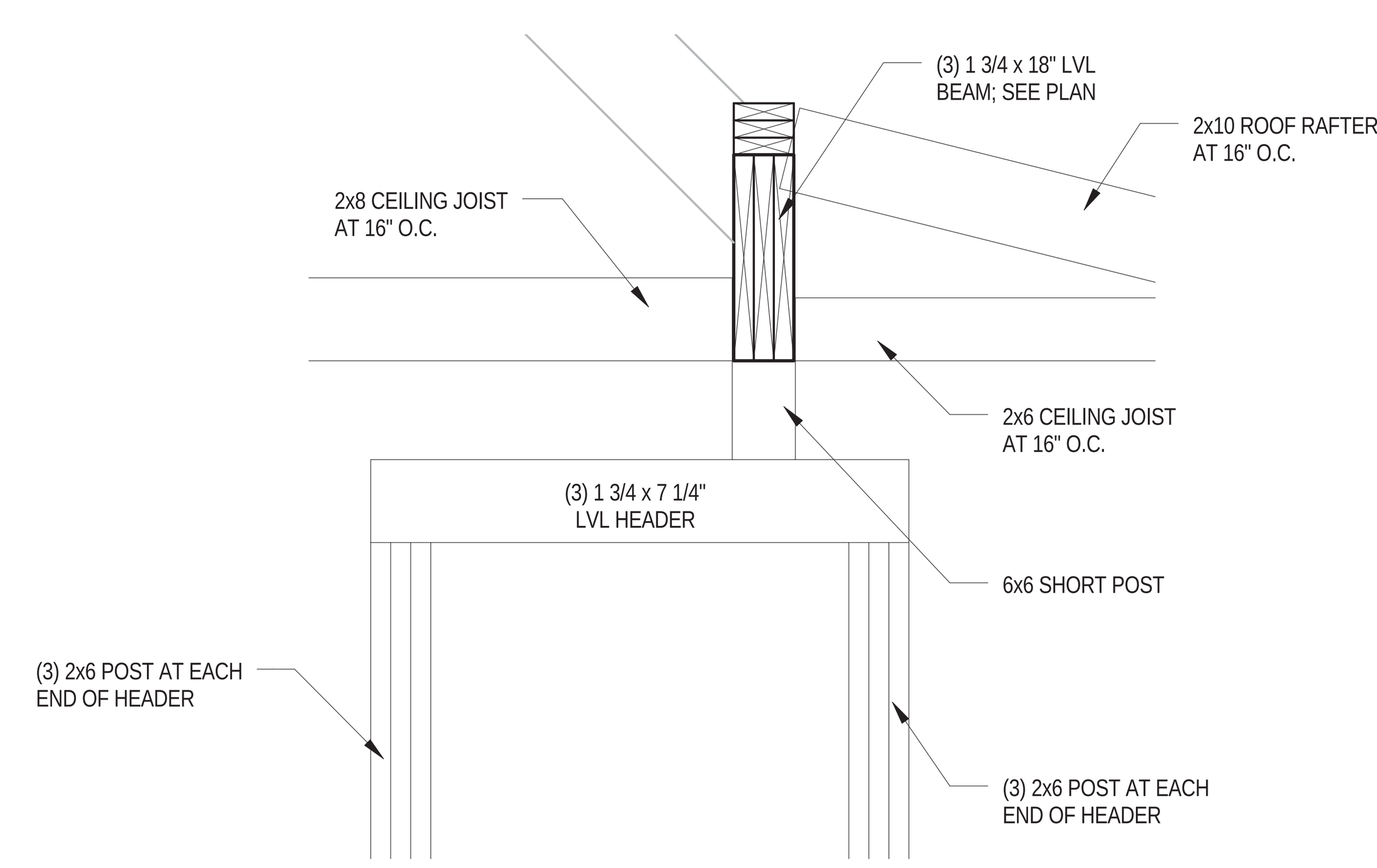


NOTES:
1. VERIFY ALL DIMENSIONS IN FIELD BEFORE STEEL FABRICATION.
2. SB1 = INDICATES STEEL DOG LEGGED CHANNEL WITH (2) LVL STRINGER AND JOIST CONNECTED.

3 STAIR STRINGER ELEVATION
3/4" = 1'-0"



4 DETAIL
1" = 1'-0"



5 ELEVATION AT BEAM SUPPORT
3/4" = 1'-0"

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Section and Details

S-5.0

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LEGEND

- GATE VALVE
- OUTSIDE SCREW & YOKE (OS&Y) VALVE
- BALL VALVE
- BALL VALVE WITH MEMORY STOP (BALANCING VALVE)
- BALL VALVE WITH HOSE BIBB, CAP & CHAIN (DRAIN VALVES)
- PRESSURE REDUCING VALVE
- CHECK VALVE
- STRAINER W/BALL VALVE, HOSE BIBB & CAP
- TEMPERATURE & PRESSURE RELIEF VALVE
- UNION OR FLANGE (AS INDICATED BY PIPE SIZE - SEE SPEC.)
- BLIND FLANGE
- END CAP
- DIAL THERMOMETER
- RISE (SINGLE LINE - PLAN VIEW)
- DROP (SINGLE LINE - PLAN VIEW)
- VALVE IN VERTICAL
- BOTTOM TAKEOFF
- TOP TAKEOFF
- PIPE BREAK (SINGLE LINE)
- CO — CLEAN-OUT
- FCO — FLOOR CLEAN-OUT
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- COLD WATER (CW)
- HOT WATER SUPPLY (HW)
- HOT WATER RETURN (HWC)
- SANITARY WASTE BELOW GRADE
- SANITARY WASTE ABOVE GRADE
- VENT
- EXISTING TO BE REMOVED
- HEATING HOT WATER SUPPLY (HHWS)
- HEATING HOT WATER RETURN (HHWR)
- REFRIGERANT SUCTION LINE (RS)
- REFRIGERANT GAS LINE (RG)
- REFRIGERANT LIQUID LINE (RL)
- T — THERMOSTAT
- CIRCULATING PUMP IN HORIZONTAL
- CIRCULATING PUMP IN VERTICAL
- CONNECT NEW TO EXISTING
- P / 1 — EQUIPMENT TYPE / TAG NUMBER
- 1 — REVISION NUMBER

MINI SPLIT HEAT PUMP SYSTEM SCHEDULE

TAG No.	MANUFACTURER	MODEL No.	TOTAL CFM	SPEED	TOTAL MBH CLG	TOTAL MBH HTG	COMBINED RATINGS SEER	V/PH/HZ	MCA	MOCP	COMMENTS
HP-1	MITSUBISHI	MXZ-3C24NHZ	NA	NA	22	25	20	230/208/1/60	29.9	40	
FC-1	MITSUBISHI	MSZ-GE06NA	170	MED	6	7.2	–	230/208/1/60	1	–	PROVIDE WITH ON-BOARD MINI CONDENSATE PUMP
FC-2	MITSUBISHI	MSZ-GE06NA	170	MED	6	7.2	–	230/208/1/60	1	–	PROVIDE WITH ON-BOARD MINI CONDENSATE PUMP
FC-3	MITSUBISHI	MSZ-GE06NA	170	MED	6	7.2	–	230/208/1/60	1	–	PROVIDE WITH ON-BOARD MINI CONDENSATE PUMP

COORDINATE INDOOR UNIT CONTROLS WITH ARCHITECT & OWNER PRIOR TO AQUISITION.

EXHAUST FAN SCHEDULE

TAG No.	SERVES	MANUFACTURER & MODEL No.	TYPE	FAN DATA CFM	RPM	SP(IN)	ELECTRICAL DATA VOLTS	PHASE	WATTS	SOUND DATA (SONES)	REMARKS
EF-1	BATHROOM	FANTECH SERENITY DUET	DIRECT DRIVE IN-LINE	100	2491	0.4	120	1	74.2	–	
EF-2	BATHROOM	PANASONIC FV-08VKSE3	DIRECT DRIVE CEILING W/ LIGHT	80	878	0.1	120	1	7.5	.3	OPERATE ON LIGHT SWITCH

DOMESTIC HOT WATER HEATER SCHEDULE

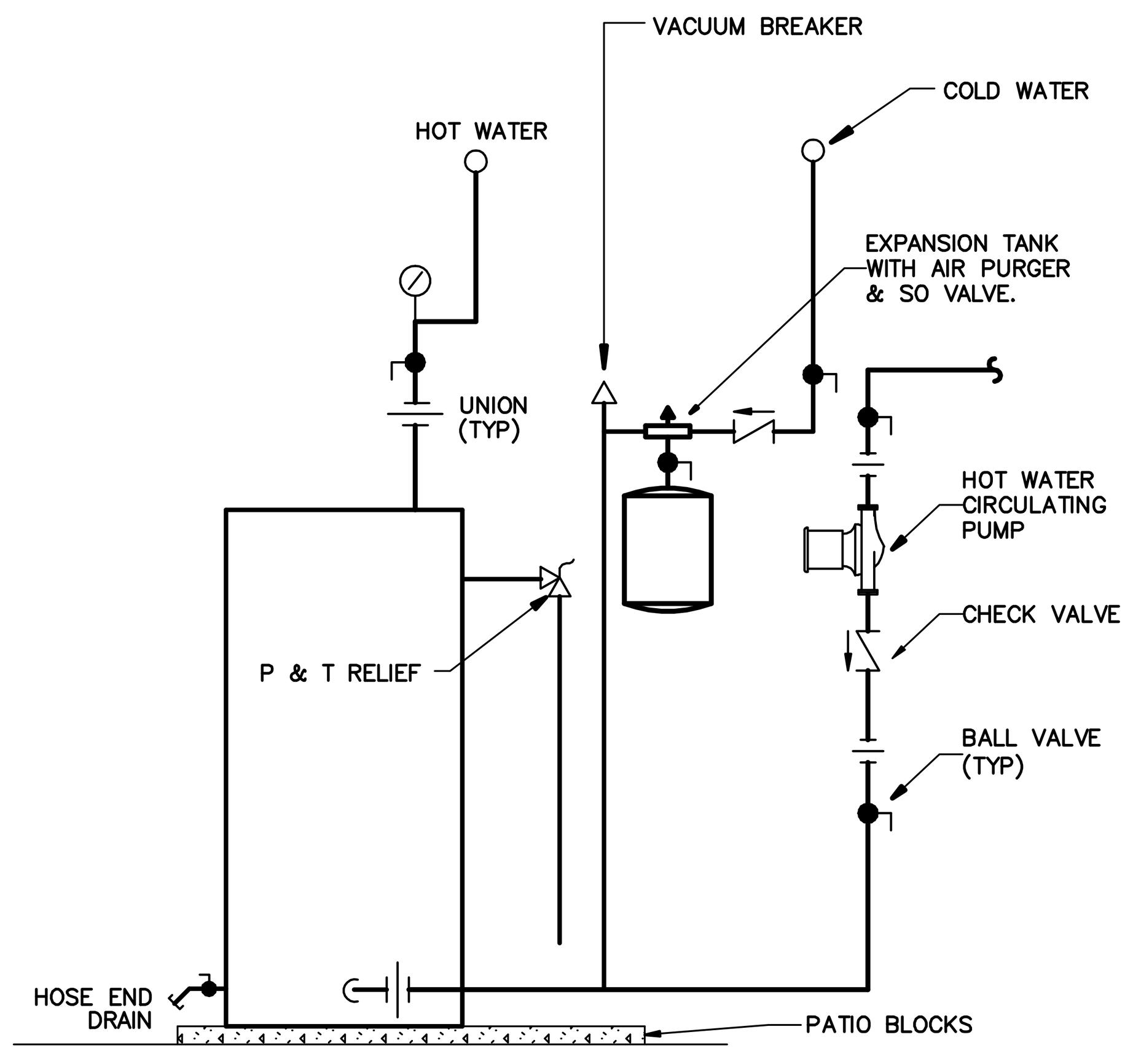
TAG No.	MANUFACTURER	MODEL No.	TYPE	INPUT	RECOVERY (GPH)	STORAGE (GAL)	ENERGY FACTOR	VOLTS	PHASE	A	REMARKS
WH-1	AO SMITH	PNT-30	ELECTRIC TANK	6 KW	27 @ 90°	30	.95	240	1	16.7	

EXPANSION TANK SCHEDULE

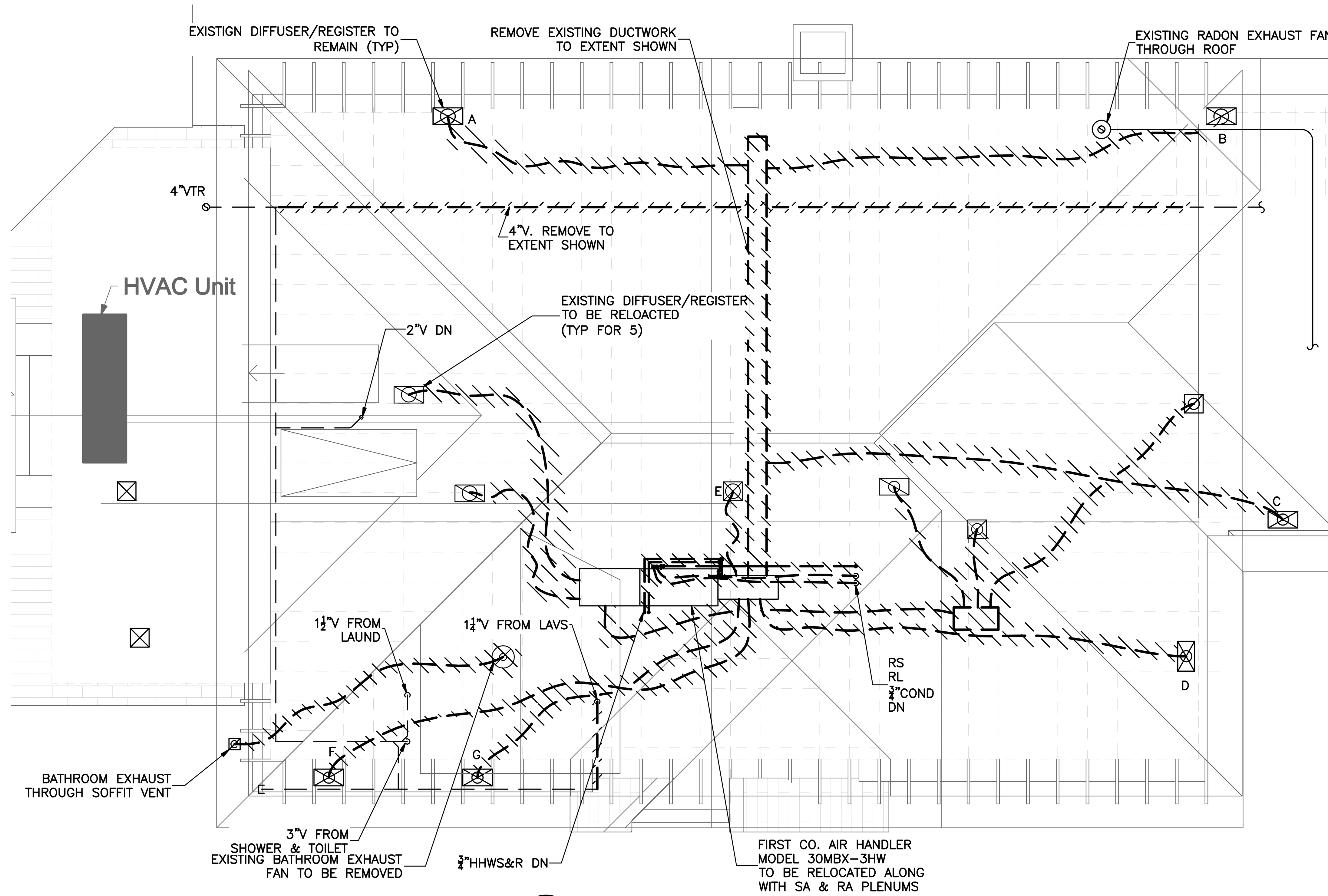
TAG NO.	LOCATION	MANUFACTURER (AS STANDARD)	MODEL NO. (AS STANDARD)	TYPE	TANK VOLUME (GAL)	MAX. ACCEPT. (GAL)	REMARKS
DET-1	BOILER ROOM	AMTROL	ST-12	BLADDER TYPE EXPANSION TANK	4.4	4.4	RATED FOR DOMESTIC SERVICE PRE-CHARGE TO MATCH INCOMING WATER PRESSURE

PUMP SCHEDULE

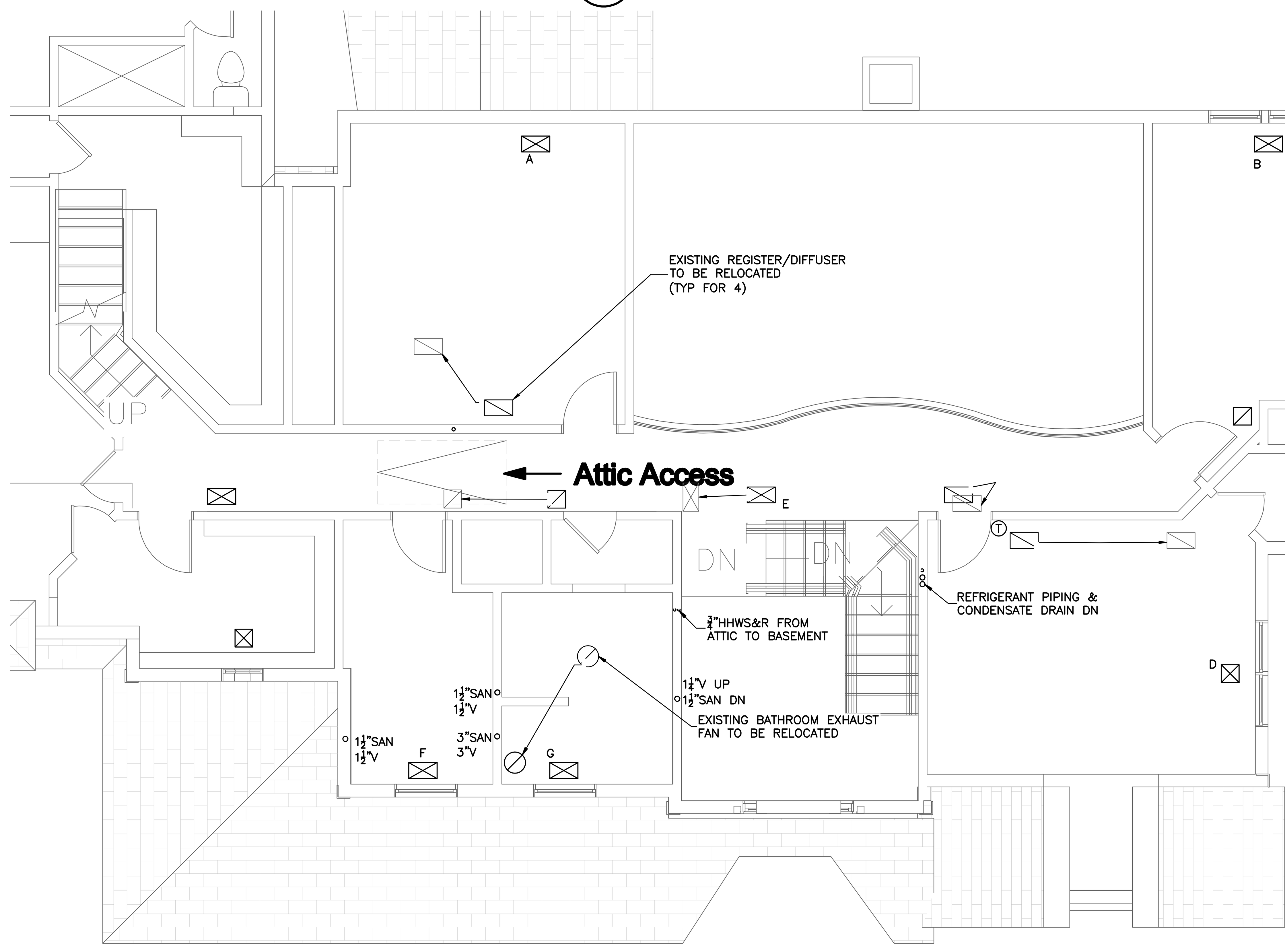
PUMP DATA TAG No.	MANUFACTURER	MODEL No.	TYPE	SERVICE	LOCATION	GPM	RPM	HEAD(FT)	ELECTRICAL DATA VOLTS	PHASE	HP	REMARKS
ZP-1	TACO	008	IN-LINE CIRCULATOR	HEATING ZONE 2ND FLR AHU	BOILER ROOM	4	3250	14	115	1	1/25	CONNECT TO EXISTING CONTROLS
CP-1	TACO	006-SF5	SS IN-LINE CIRCULATOR	HOT WATER RECIRC	BOILER ROOM	1	3250	8	115	1	1/40	STAINLESS STEEL CASING OPERATE ON AQUASTAT



P 01 WATER HEATER DETAIL
N.T.S.



P 01 EXISTING ATTIC (3RD FLOOR)
1/4"=1'-0"



P 01 EXISTING 2ND FLOOR
1/4"=1'-0"

Werth Residence

Renovation
10 Cardinal Drive, Westwood, MA

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2nd Flr & Attic Mechanical Demo Plans

M1.1

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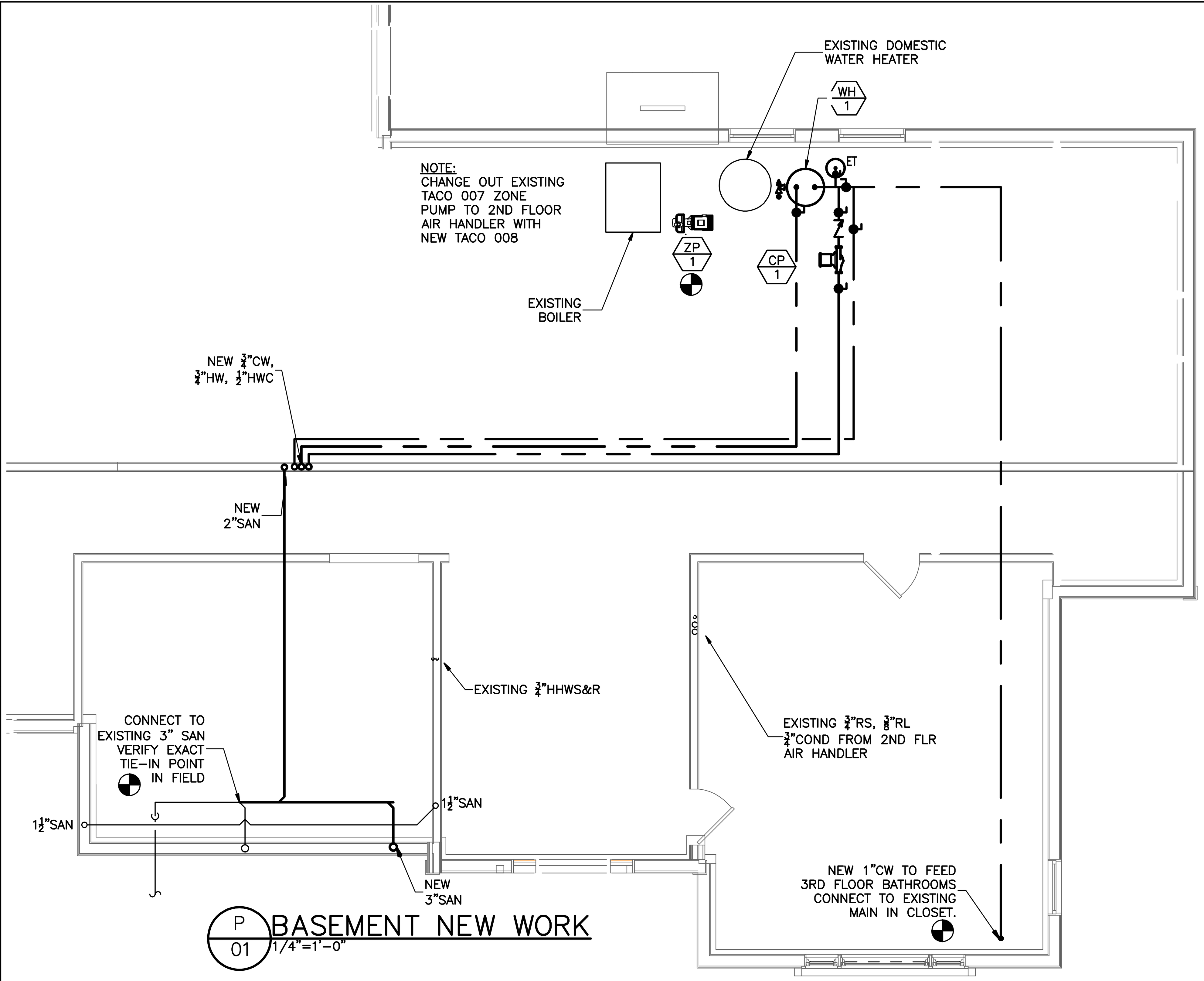


P 01 BASEMENT NEW WORK
1/4"=1'-0"

HVAC SPECIFICATIONS

PIPE & FITTINGS

1. REFRIGERANT PIPING SHALL BE TYPE "ACR" COPPER PIPING, WASHED AND CAPPED AT THE FACTORY. PROVIDE WITH COPPER BRAZED JOINTS & FITTINGS.

2. CONDENSATE DRAIN PIPING SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELD DRAINAGE FITTINGS.

3. HEATING HOT WATER PIPING SHALL BE TYPE L COPPER WITH WROUGHT COPPER FITTINGS AND 95/5 LEAD FREE SOLDER. ABOVE GRADE PIPING MAY BE PEX TUBING WITH OXYGEN BARRIER MEETING ASTM F876, F877 WITH PEX REINFORCING RING COLD EXPANSION FITTINGS MEETING ASTM F1960-99. RUNS TO EQUIPMENT SHALL BE INSTALLED AS ONE LENGTH WITHOUT CONCEALED FITTINGS OR COUPLINGS.

DUCTWORK

1. SHEET METAL DUCTWORK SHALL BE GALVANIZED STEEL, SMOOTH INSIDE AND TRUE TO SIZE. DUCT CONSTRUCTION, GAUGES, SPECIFICATIONS AND SUPPORTS SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE 1995 EDITION OF SMACNA DUCT CONSTRUCTION STANDARDS. NO STANDARDS FOR DUCTWORK OTHER THAN SMACNA SHALL BE ACCEPTED. ALL DUCTWORK SHALL BE 1" WATER GAUGE PRESSURE CLASS.

2. ALL JOINTS AND ALL SEAMS OF ALL DUCTWORK SHALL BE SEALED WITH UL LABELED SEALER AS MANUFACTURED BY 3M COMPANY OR UNITED STEEL METAL EQUAL TO 3M EC-900.

3. SHEET METAL ELBOWS SHALL HAVE A RADIUS OF 1½ TIMES THE DUCT WIDTH MEASURED BY DUCT CENTERLINES. WHERE CONDITIONS WILL NOT PERMIT OR WHERE INDICATED ON DRAWINGS USE MITER TURNS WITH DOUBLE WALL TURNING VANES. PROVIDE AIR SPLITTER DAMPERS WHERE INDICATED ON THE DRAWINGS AND WHERE REQUIRED FOR ADJUSTMENT OF AIR DISTRIBUTION TO RESPECTIVE DUCT BRANCHES. SPLITTER DAMPERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE SMACNA STANDARDS.

4. PROVIDE FACTORY FABRICATED VOLUME DAMPERS IN ALL SUPPLY, RETURN BRANCH DUCTS, AT EACH SUPPLY AIR REGISTER AND WHERE INDICATED ON DRAWINGS. VOLUME DAMPERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE SMACNA STANDARDS.

5. AFTER AND DURING ASSEMBLY OF DUCTS, CLEAN ALL DIRT, GREASE, DUST, RUBBISH, ETC. FROM BOTH THE INTERIOR AND EXTERIOR OF DUCTWORK.

6. WHERE DUCTS ARE INSULATED, PROVISION SHALL BE MADE FOR A NEAT INSTALLATION FINISH AROUND DAMPER OPERATOR QUADRANT. TEST OPENINGS, ACCESS DOORS AND SIMILAR OPERATION DEVICES. A METAL COLLAR EQUIVALENT IN DEPTH TO THE INSULATION MAY BE FINISHED SHALL BE MOUNTED ON DUCT. ALL DUCT WORK AND EQUIPMENT SHALL BE SUPPORTED FROM THE TOP CORD OF JOISTS OR TRUSSES.

7. PROVIDE FLEXIBLE CONNECTIONS AT CONNECTIONS TO AIR HANDLERS AND EXHAUST FANS.

INSULATION

1. INSULATION MATERIALS, COATINGS AND OTHER ACCESSORIES SHALL INDIVIDUALLY HAVE A FIRE-HAZARD RATING NOT TO EXCEED 25 FOR FLAME SPREAD AND 50 FOR FUEL CONTRIBUTED AND SMOKE DEVELOPED. RATINGS SHALL BE DETERMINED ACCORDING TO U.L. "TEST METHOD FOR FIRE HAZARD CLASSIFICATION OF BUILDING MATERIALS," NO. 823 OR NFPA NO. 225 OR ASTM E84.

2. ALL CONDENSATE DRAIN PIPING AND REFRIGERANT SUCTION PIPING SHALL BE INSULATED WITH ¾" WALL CLOSED CELL FOAM PIPE INSULATION. PIPING OUTSIDE OF THE BUILDING SHALL HAVE ITS INSULATION COATED WITH BRUSH APPLIED PROTECTIVE COATING.

3. ALL SUPPLY & RETURN AIR DUCTWORK, OUTDOOR AIR INTAKE DUCTWORK SHALL BE INSULATED WITH 1½" THICK FOIL FACED FIBERGLASS DUCT WRAP, 1-1/2 LB. DENSITY. INSULATION SHALL BE KNAUF DUCT WRAP OR APPROVED EQUAL, TAPE ALL JOINTS WITH FOIL DUCT TAPE.

CONTROLS

1. HEAT PUMP CONTROLS SHALL BE BY THE MANUFACTURER. OBTAIN APPROVAL FOR WALL MOUNT CONTROLLER FROM THE ARCHITECT & OWNER PRIOR TO ORDERING.

PLUMBING SPECIFICATIONS

PIPE & FITTINGS

1. ABOVE GRADE HOT AND COLD WATER PIPING WITHIN 36" OF A WATER HEATER SHALL BE TYPE L COPPER WITH WROUGHT COPPER FITTINGS AND 95/5 LEAD FREE SOLDER.

2. ABOVE GRADE BRANCH PIPING MAY BE PEX TUBING MEETING ASTM F876 & F877, WITH PEX REINFORCING RING COLD EXPANSION FITTINGS MEETING ASTM F1960-99. RUNS TO FIXTURES SHALL BE INSTALLED AS ONE LENGTH WITHOUT CONCEALED FITTINGS OR COUPLINGS. WHERE PEX IS USED ON THE DOMESTIC HOT WATER SYSTEM WITH HOME-RUNS TO THE BASEMENT, THE RECIRC SYSTEM SHALL ALSO BE PROVIDED WITH A HOME-RUN FROM EACH BRANCH. PROVIDE A CHCK AND BALANCING FALVE FOR EACH RECIRC LEG.

3. SANITARY WASTE & VENT PIPING SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELD DRAINAGE PATTERN FITTINGS

6. CONDENSATE DRAIN PIPING SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELD DRAINAGE FITTINGS.

VALVES

1. DRAIN VALVES SHALL CONSIST OF HOSE END VALVE DESIGNED FOR 200 PSI WITH THREADED CAP AND CHAIN. PROVIDE AT ALL LOW POINTS IN WATER PIPING SYSTEM AND AT THE BASE OF ALL RISERS SO THAT ENTIRE SYSTEM MAY BE DRAINED. APOLLO 78 SERIES WITH ¾" HOSE CONNECTION, CAP AND CHAIN.

3. CHECK VALVES SHALL BE HORIZONTAL REGRINDING SWING 200#, MILWAUKEE 1509.

4. BALL VALVES SHALL BE WITH STAINLESS STEEL STEM AND BALL, STANDARD PORT, BRONZE, SOLDER END, DESIGNED FOR 150 PSI, MILWAUKEE BA150S.

INSULATION

1. INSULATION SHALL BE CONTINUOUS THROUGH SLEEVES, PENETRATIONS AND HANGERS. PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE FIREPROOFED WITH SPEC SEAL TYPE SSS OR EQUIVALENT.

2. HOT AND COLD WATER PIPING SHALL BE INSULATED WITH 1" THICK FIBERGLASS INSULATION. INSULATION SHALL BE PROVIDED WITH A FACTORY APPLIED ALL SERVICE JACKET, K FACTOR OF 0.23 AT 75'F AND AN ASTM FIRE HAZARD RATING OF 25 FLAME, 50 SMOKE DEVELOPED.

INSTALLATION

1. PIPES SHALL BE PLUMB AND PARALLEL TO BUILDING WALLS, BEAMS AND COLUMNS. ALL HORIZONTAL LINES SHALL BE EVENLY PITCHED AND PROPERLY SECURED WITH IRON OR STEEL HANGERS. A PITCH OF 1/4" PER LINEAL FOOT SHALL BE MAINTAINED ON ALL SOIL AND WASTE LINES, WHEREVER POSSIBLE. WHERE LONG RUNS OF PIPING REQUIRE LESS PITCH, DUE TO SPACE RESTRICTIONS, A LESSER PITCH SHALL BE ALLOWED ON MAIN LINES 4" AND OVER IN SIZE, BUT, IN NO EVENT, SHOULD ANY PIPELINE HAVE A SLOPE LESS THAN 1/8" PER LINEAR FOOT.

2. INSTALL ALL EQUIPMENT AND FIXTURES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

TESTING

1. ALL PIPING SYSTEMS SHALL BE SUBJECT TO TESTING AS NOTED AND SHALL HOLD TIGHT AT THE PRESSURE HEAD STATED FOR THE TIME INTERVAL REQUIRED WITHOUT ADDING AIR OR WATER. WHILE ANY SYSTEM IS BEING TESTED, REQUIRED HEAD OR PRESSURE SHALL BE MAINTAINED UNTIL ALL JOINTS ARE INSPECTED.

2. ALL EQUIPMENT, MATERIAL AND LABOR REQUIRED FOR TESTING ANY OF THE VARIOUS SYSTEMS OR ANY PART THEREOF SHALL BE PROVIDED BY THE PLUMBING SUBCONTRACTOR.

DISINFECTION OF WATER SYSTEMS

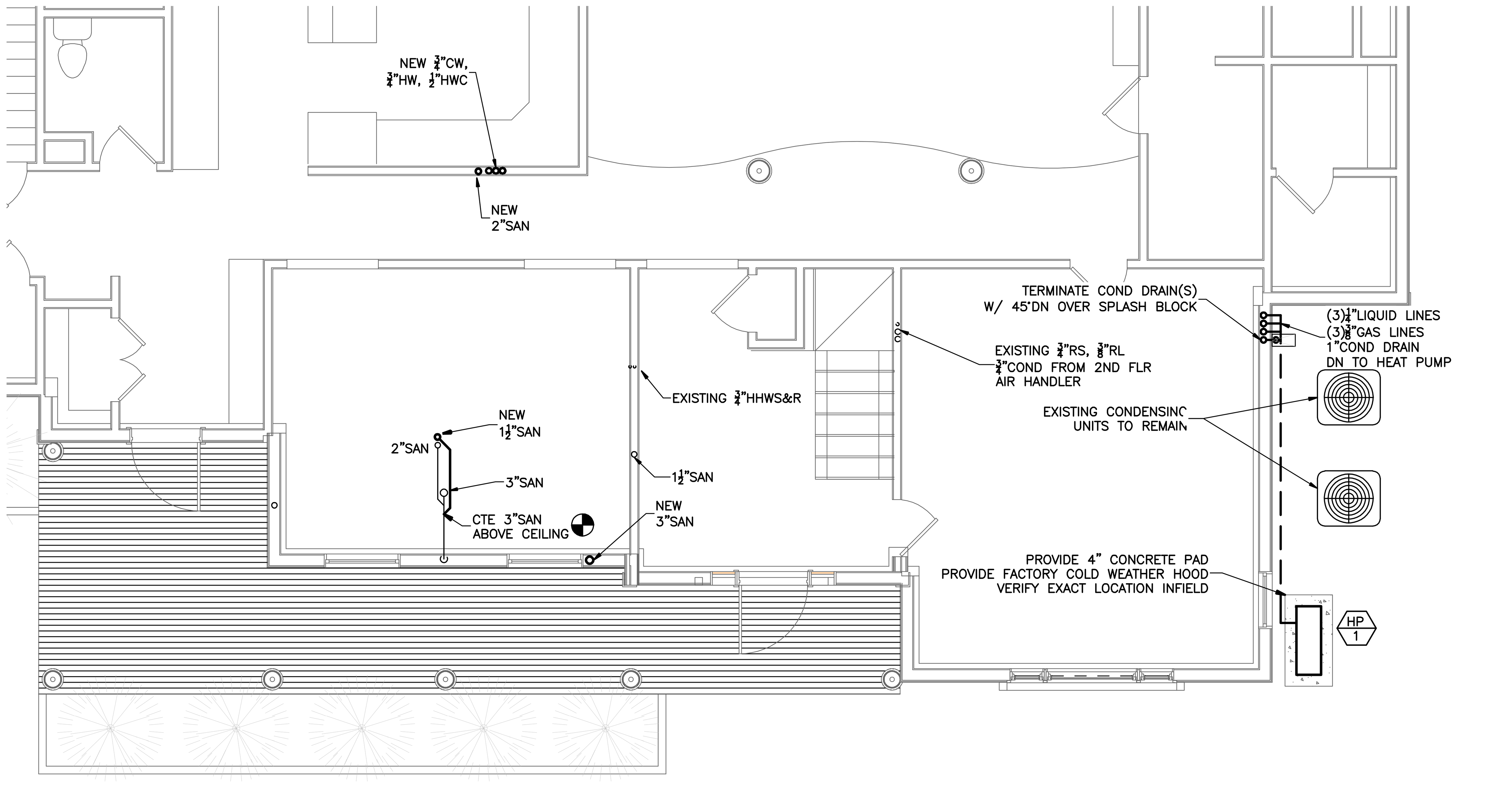
1. THE ENTIRE NEW WATER PIPING SYSTEM SHALL BE THOROUGHLY DISINFECTED WITH A SOLUTION CONTAINING NOT LESS THAN 50 PARTS PER MILLION OF AVAILABLE CHLORINE. THE CHLORINATING MATERIAL SHALL BE EITHER LIQUID CHLORINE OR SODIUM HYPOCHLORITE SOLUTION, SHALL BE INTRODUCED INTO THE NEW SYSTEM AND DRAWN TO ALL POINTS IN THE NEW SYSTEM.

2. THE DISINFECTION SOLUTION SHALL BE ALLOWED TO REMAIN IN THE SYSTEM FOR A PERIOD OF 8 HOURS, DURING WHICH PERIOD ALL VALVES AND FAUCETS SHALL BE OPENED AND CLOSED SEVERAL TIMES. AFTER DISINFECTION, THE SOLUTION SHALL BE FLUSHED FROM THE SYSTEM WITH CLEAR WATER UNTIL THE RESIDUAL CHLORINE CONTENT IS NOT GREATER THAN 0.2 PARTS PER MILLION.

3. THIS WORK SHALL BE SUPERVISED OR DONE BY AN APPROVED CHEMICAL TESTING LABORATORY AND RESULTS SENT TO THE ENGINEER OR HIS REPRESENTATIVE FOR VERIFICATION.

HANGERS, INSERTS AND SUPPORTS

1. ALL PIPING SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING STRUCTURES BY MEANS OF APPROVED HANGERS AND SUPPORTS. PIPING SHALL BE SUPPORTED TO MAINTAIN REQUIRED GRADING AND PITCHING OF LINE, TO PREVENT VIBRATION AND TO SECURE PIPING IN PLACE, AND SHALL BE ARRANGED SO AS TO PROVIDE FOR EXPANSION AND CONTRACTION. IN NO CASE SHALL RISERS OR MAINS CONTACT BUILDING STRUCTURES.



P 01 1ST FLOOR NEW WORK
1/4"=1'-0"

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Basement & 1st Flr. New Work Mechanical Plans & Specs

M1.2

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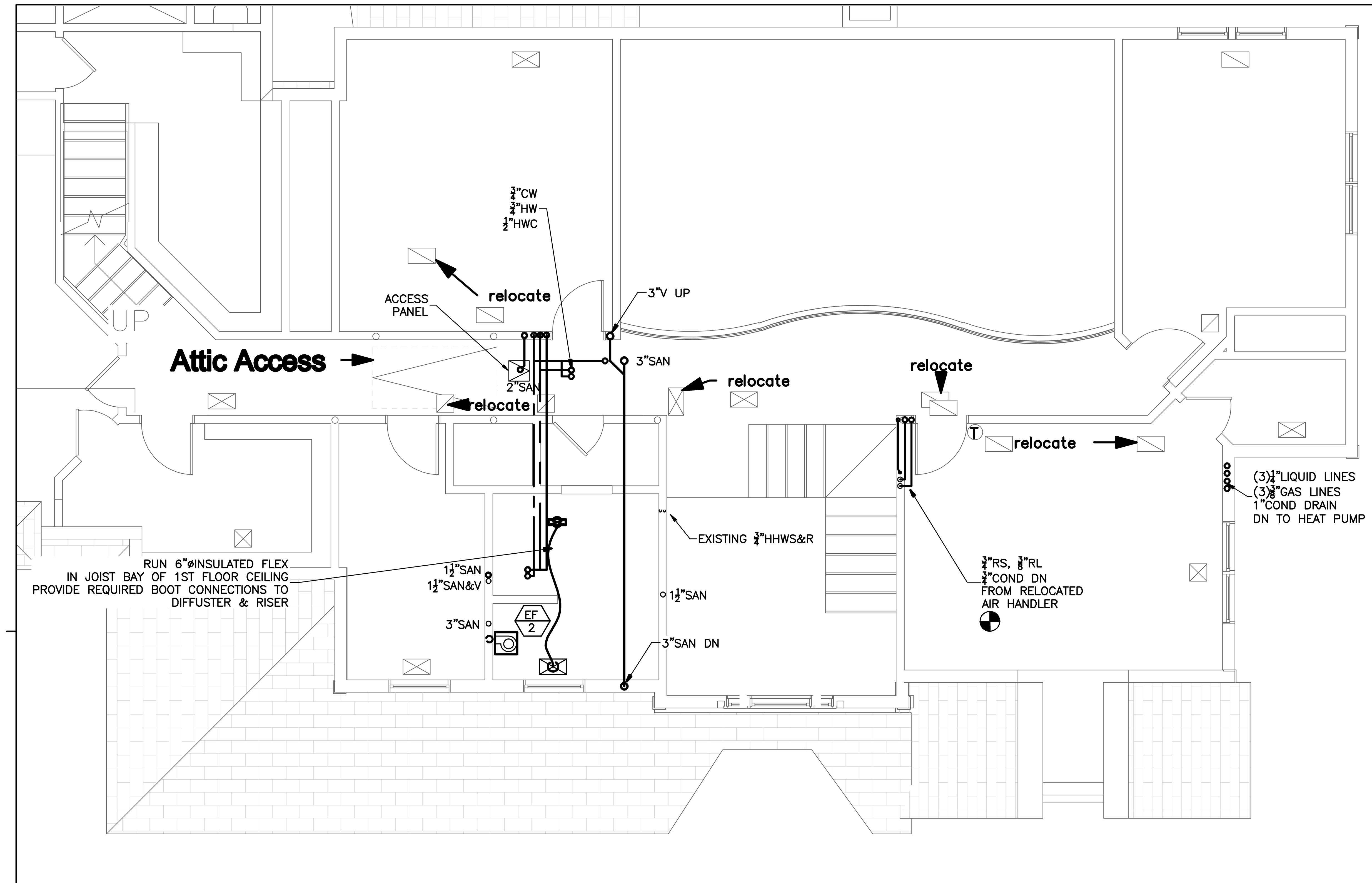
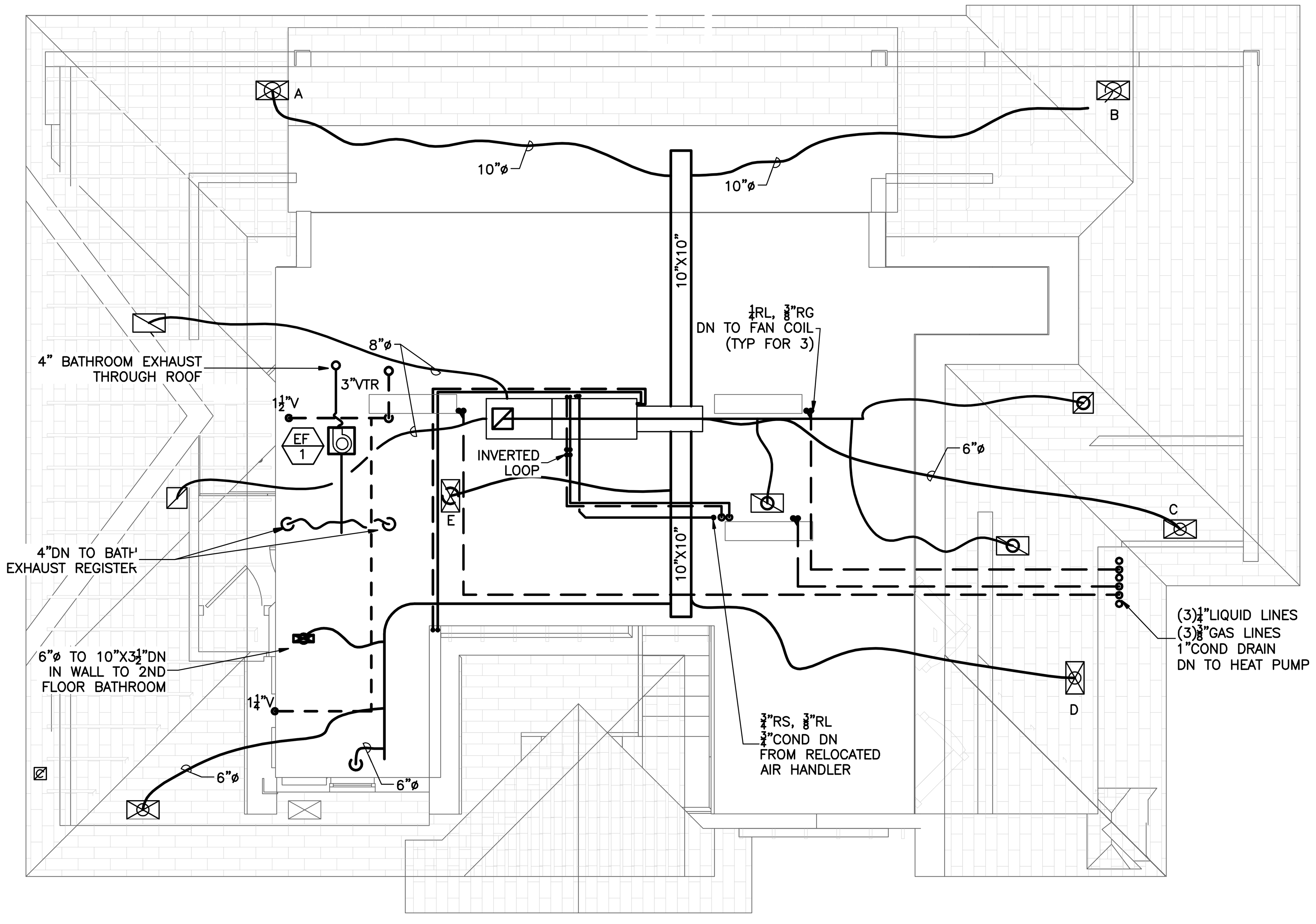


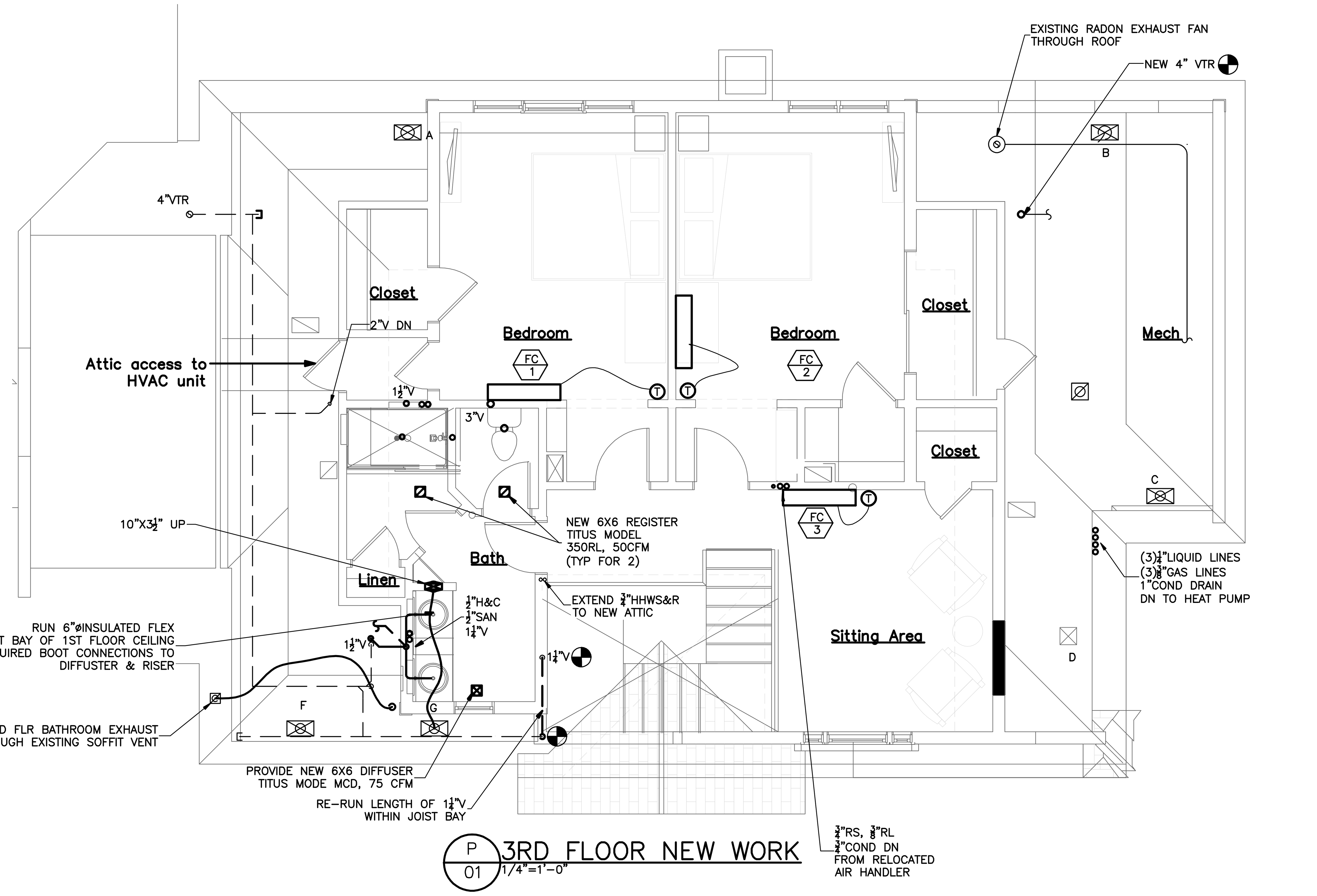
P 01 2ND FLOOR NEW WORK 1/4"=1'-0"



P 01 ATTIC NEW WORK PLAN 1/4"=1'-0"

NOTES:

1. CHANGE OUT EXISTING TACO 007 ZONE PUMP IN BASEMENT WITH NEW TACO 008
2. LOCATE ALL PLUMBING & HVAC ROOF PENETRATIONS BEHIND THE RIDGE.
3. CONTRACTOR'S TO VERIFY AND DETERMINE FINAL ROUTING OF PIPING & DUCTWORK



P 01 3RD FLOOR NEW WORK 1/4"=1'-0"

Werth Residence

Renovation

10 Cardinal Drive, Westwood, MA

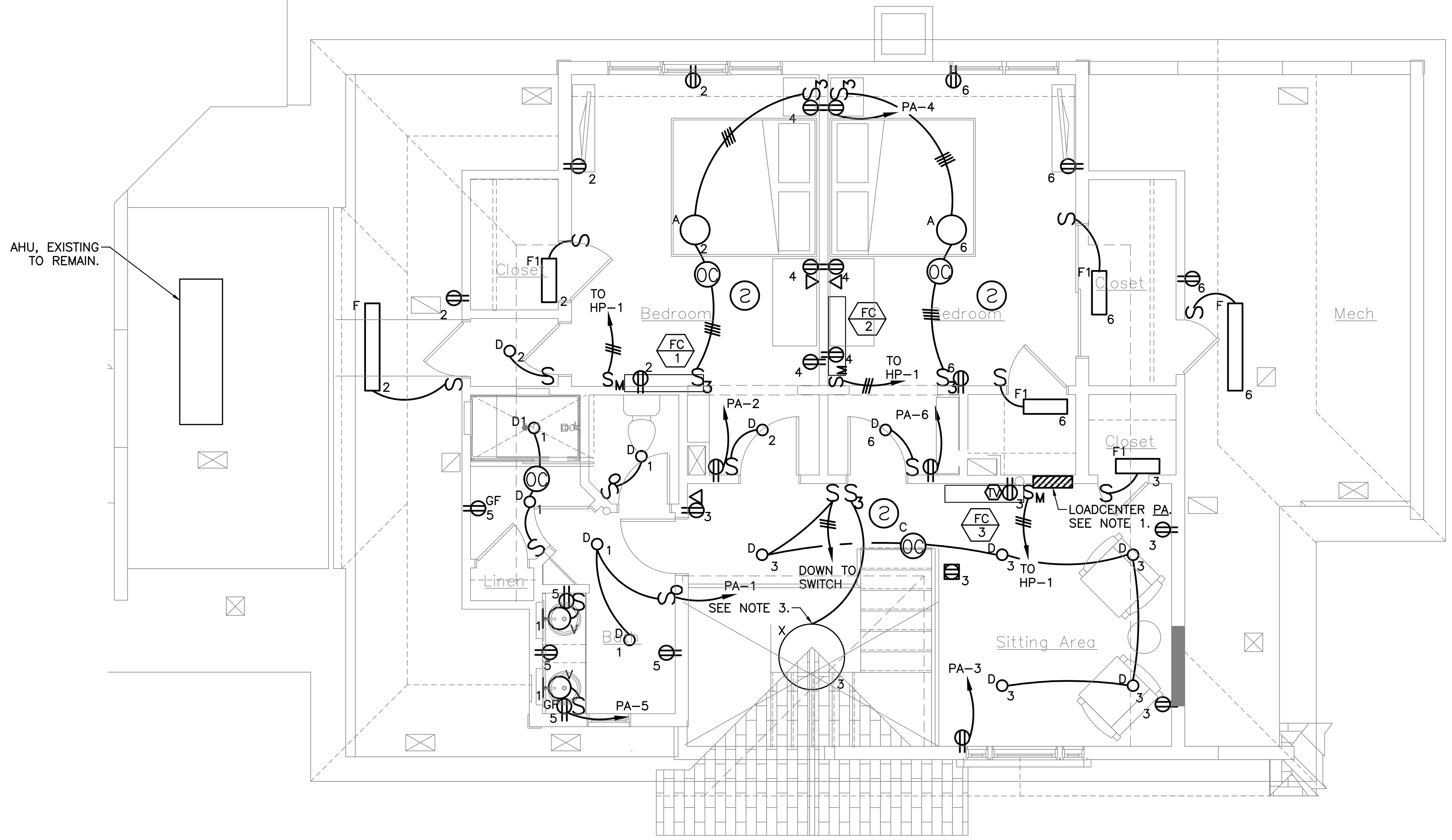
Plot Date: 10/23/2015 4:09:15 PM

No.	Date	Description

Project:	662.1
Drawn by:	JRW
Check by:	
Date:	1/13/17
Scale:	As indicated

2nd, 3rd, & Attic New Work Mechanical Plans

M1.3



PROPOSED THIRD FLOOR PLAN

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

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMP TYPE	NO. OF LAMPS	INPUT VOLTS	INPUT WATTS	REMARKS
A	SBA	.	LED	–	120	.	LED CEILING MOUNTED LIGHT, SBA.
B	SBA	.	LED	–	120	.	LED BATHROOM CEILING MOUNTED LIGHT, SBA.
D	LITON	LHFRLD609C35/ LRLDH642C	LED	–	120	9	LED 6" 700 LUMEN DOWN LIGHT.
D1	LITON	LHFRLD609C35/ LRLDH642C–WL	LED	–	120	9	LED 6" 700 LUMEN DOWN LIGHT, SUITABLE FOR WET LOCATIONS.
F	COLUMBIA	LCL4–35ML–EU	LED	–	120	48	4' 5000 LUMEN LED LENSED STRIP LIGHT.
F1	COLUMBIA	LBIL2–35MW–EU	LED	–	120	21	2' 2000 LUMEN LED LENSED STRIP LIGHT WITH INTEGRAL OCCUPANCY SENSOR, WALL MOUNTED ABOVE DOOR.
X	EXISTING	.	.	–	120	.	EXISTING CHANDELIER
V	SBA	.	LED	–	120	.	LED VANITY LIGHT, SBA, WALL MOUNTED ABOVE VANITY MIRROR.

SPECIFICATIONS

1. WIRING DEVICES SHALL BE SPECIFICATION GRADE, 20A, WITH SMOOTH PLASTIC DEVICE PLATES AS MANUFACTURED BY LEGRAND. COLOR AS SBA.
2. ALL RECEPTACLES SHALL BE TAMPER RESISTANT. OUTDOOR SHALL BE WR. WP RECEPTACLES SHALL HAVE METALLIC COVERS RATED WEATHERPROOF WHILE IN USE.
3. RECEPTACLES IN BATHS SHALL BE DECORA STYLE TO MATCH GF RECEPTACLES.
4. CONDUCTORS AND CABLE SHALL BE MINIMUM #12 AWG, 600V., COPPER WITH TYPE THWN–THHN INSULATION. PROVIDE SEPARATE GREEN GROUND IN ALL FEEDERS. WIRE SHALL BE STRANDED. COLOR CODE CONDUCTORS BLACK, RED, BLUE, WITH WHITE NEUTRAL AND GREEN GROUND EXCEPT AS NOTED FOR 120 VOLT.
   - 4.1. NEC TYPE MC: UL 1569, WITH FULL SIZE GROUNDING CONDUCTOR, AND STEEL OR ALUMINUM INTERLOCKED ARMOR SHEATH. MC CABLE SHALL BE USED IN CONCEALED LOCATIONS ONLY.
   - 4.2. NEC TYPE NM–B: UL 719, WITH GROUNDING CONDUCTOR. USE FOR GENERAL PURPOSE BRANCH CIRCUIT WIRING THROUGHOUT, EXCEPT WHERE OTHER WIRING METHODS ARE REQUIRED ELSEWHERE IN THIS SPECIFICATION OR BY CODE.
5. BOXES – UL LISTED NEMA OS1, WITH MARKED VOLUME. SIZE BOXES IN ACCORDANCE WITH VOLUME REQUIREMENTS OF MEC.
6. OUTLET BOXES SHALL BE SPECIFICALLY DESIGNED FOR THE CONSTRUCTION ENCOUNTERED, WITH SUITABLE SUPPORTS AND ATTACHMENTS.
   - 6.1. OUTLET BOXES SHALL BE NON–METALLIC, IN GANGS AND CONFIGURATIONS TO SUIT THE APPLICATION, WITH SUITABLE WIRE/CABLE CLAMPS AS REQUIRED. OUTLET BOXES SHALL BE FLUSH MOUNTED IN ALL FINISHED AREAS. CEILING OUTLET BOXES SHALL BE LISTED AND RATED FOR SUPPORT OF LIGHT FIXTURES UP TO 50 POUNDS. OUTLET BOXES SHALL BE REINFORCED FIBERGLASS AS MANUFACTURED BY ALLIED MOULDED, RIGID THERMOPLASTIC AS MANUFACTURED BY CARLON ("SUPERBLUE"), OR REINFORCED PHENOLIC AS MANUFACTURED BY UNION, STEEL CITY.
   - 6.2. SURFACE MOUNTED OUTLET BOXES SHALL BE SPECIFICALLY DESIGNED FOR THE CONSTRUCTION ENCOUNTERED, WITH SUITABLE SUPPORTS AND ATTACHMENTS. OUTLET BOXES SHALL BE METALLIC, IN GANGS AND CONFIGURATIONS TO SUIT THE APPLICATION. OUTLET BOXES MAY BE SURFACE MOUNTED IN UNFINISHED AREAS.
   - 6.3. FLOOR BOXES: UL LISTED, CAST IRON, WATER TIGHT CONSTRUCTION FOR ANY GRADE APPLICATION, WITH SCREW ANCHORAGE FLANGES AT EACH CORNER.
   - 6.4. FLOOR BOX COVER PLATE: FLIP LID, PIN HINGED, ¼ INCH (6 MM) THICK, FABRICATED FOR SEAMLESS ATTACHMENT TO FLOOR BOX WITH SCREWS OF SAME MATERIAL AS COVER PLATE. MATERIAL: BRASS
7. LOADCENTERS SHALL BE PLUG–ON CIRCUIT BREAKER TYPE WITH COPPER LOAD, NEUTRAL AND GROUND BUS. MINIMUM INTERRUPTING CAPACITY SHALL BE 10,000 AMPS SYMMETRICAL AT 240 VOLTS. PROVIDED WITH NEMA 1 ENCLOSURE WITH LOCKING DOOR. LOADCENTER AND BREAKERS SHALL BE SQUARE D QO TYPE. PROVIDE TYPED IDENTIFICATION DIRECTORY IN LOADCENTERS INDICATING CIRCUIT FUNCTION OR EQUIPMENT SERVED.
8. MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
   - 8.1. LOADCENTERS – 6'–6" FROM FLOOR TO TOP.
   - 8.2. LIGHT SWITCHES & LIGHTING CONTROLS – 4'–0" FROM FLOOR TO CENTERLINE.
   - 8.3. LIGHTING FIXTURES – SEE LTG. FIXTURE SCHEDULE.
   - 8.4. CONVENIENCE RECEPTACLE – 1'–6" FROM FLOOR TO CENTERLINE, UNO.
   - 8.5. TELEPHONE & CABLE TV OUTLETS – 1'–6" FROM FLOOR TO CENTERLINE, UNO BY ARCHITECT.
9. PROVIDE ALL GROUNDING AND BONDING AS REQUIRED BY THE MEC. GREEN EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL RACEWAYS.

LOADCENTER SCHEDULE

PANEL NO. PA

120/240 VOLTS 1 PH W 3 G# . MAIN CB MLO BUS 100A MIN. AIC 10K SYMM.

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD (KVA)	PER PHASE A	PER PHASE B	LOAD (KVA)	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20/1	BATHROOM LIGHTING & FAN	.	.	.	.	BEDROOM LIGHTING AND RECEPT	20/1	2
3	20/1	SITTING AREA LIGHTING AND RECEPT	.	.	.	.	BEDROOM RECEPT	20/1	4
5	20/1	BATHROOM RECEPTACLE	.	.	.	.	BEDROOM LIGHTING AND RECEPT	20/1	6
7	20/1	SPARE	.	.	.	.	SPARE	20/1	8
9	20/1	SPARE	.	.	.	.	SPARE	20/1	10
11	20/1	SPARE	.	.	.	.	SPARE	20/1	12
11	20/1	SPARE	.	.	.	.	SPARE	20/1	12
		TOTAL VA BY PHASE				TOTAL LOAD . KVA . AMPS			

NOTE: ALL 20A/1P CIRCUIT BREAKERS SHALL BY AFCI TYPE.

BRANCH CIRCUIT AND FEEDER SCHEDULE

X (upper) – INDICATES NOMINAL AMPACITY
X (lower) – INDICATES QUANTITY OF PHASE AND/OR NEUTRAL CONDUCTORS

NOM. AMPACITY	QTY. OF COND.	PHASE AND/OR NEUTRAL CONDUCTORS AND GROUND	RACEWAY SIZE EMT	RACEWAY SIZE RGS
20	2	(2)#12 & 1#12 GND.	3/4"	3/4"
	3	(3)#12 & 1#12 GND.	3/4"	3/4"
	4	(4)#12 & 1#12 GND.	3/4"	3/4"
30	2	(2)#10 & 1#10 GND.	3/4"	3/4"
	3	(3)#10 & 1#10 GND.	3/4"	3/4"
	4	(4)#10 & 1#10 GND.	3/4"	3/4"
40	2	(2)#8 & 1#10 GND.	3/4"	3/4"
	3	(3)#8 & 1#10 GND.	3/4"	3/4"
	4	(4)#8 & 1#10 GND.	3/4"	3/4"
50	2	(2)#8 & 1#10 GND.	3/4"	3/4"
	3	(3)#8 & 1#10 GND.	3/4"	3/4"
	4	(4)#8 & 1#10 GND.	3/4"	3/4"
60	2	(2)#6 & 1#10 GND.	3/4"	3/4"
	3	(3)#6 & 1#10 GND.	3/4"	3/4"
	4	(4)#6 & 1#10 GND.	1"	1"
70	2	(2)#4 & 1#8 GND.	1"	1"
	3	(3)#4 & 1#8 GND.	1"	1"
	4	(4)#4 & 1#8 GND.	1 1/4"	1 1/4"
100	2	(2)#3 & 1#8 GND.	1"	1"
	3	(3)#3 & 1#8 GND.	1"	1"
	4	(4)#3 & 1#8 GND.	1 1/4"	1 1/4"

NOTES –
1. RACEWAY SIZE BASED ON EMT/RGS TYPE THWN COPPER CONDUCTORS. ADJUST AS REQUIRED FOR OTHER RACEWAY OR CONDUCTOR TYPES.
2. BASED ON 75°C TERMINATIONS. ADJUST FOR OTHER TERMINATION TEMPERATURE LIMITATIONS AS REQUIRED.

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LEGEND

LIGHT FIXTURES ARE INDICATED BY VARIOUS SYMBOLS ON THE PLANS, WITH A CAPITAL "TYPE" LETTER AT EACH REFER TO FLOOR PLANS AND LIGHT FIXTURE SCHEDULE.

- BATHROOM FAN, BY MC.
- S – 20 AMPERE, 120/277 VOLT, SINGLE POLE SWITCH
- S_3 – 20 AMPERE, 120/277 VOLT, THREE WAY SWITCH
- S_O – 120 VOLT, OCCUPANCY SENSOR WALL SWITCH WITH USER ADJUSTABLE 1–20 MINUTES TIMEOUT
- OC – 120 VOLT DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR WITH 360° FIELD OF VIEW AND MINIMUM 1200SF COVERAGE
- NEMA 5–20R DUPLEX RECEPTACLE, TR
- FLOOR MOUNTED NEMA 5–20R DUPLEX RECEPTACLE
- VOICE OUTLET JACK, (1) RJ45 WITH CAT 5 CABLE TO NIC IN BASEMENT
- TV – CABLE TV OUTLET, (1) TYPE F CONNECTOR WITH RG6/U CABLE TO NIC IN BASEMENT
- F – MOTOR, NUMERAL INDICATES HP, F INDICATES FRACTIONAL HP
- S_M – MANUAL MOTOR STARTER, W/OL PROTECTION 20 AMP, 3 POLE, UNO
- FUSED DISCONNECT, 60 AMP FRAME, 40 AMP TRIP, 2 POLE, UNO
- LOADCENTER, AS SCHEDULED.
- P–1,3 – HOMERUN TO PANEL 'P', CIRCUITS 1 AND 3. CIRCUIT WIRING AS BELOW.
- CIRCUIT WIRING. NO HASHES INDICATES (2)#12AWG, (1)#12AWG GND, (1)3/4"C. QTY. OF HASHES INDICATES QTY. OF WIRES IF MORE THAN 2 PLUS GND.
- SMOKE DETECTOR, PHOTO TYPE UNO 'C' DENOTES COMBINATION SMOKE/CARBON MONOXIDE DETECTOR
- X/X – EQUIPMENT TAG
- LINEWEIGHT DENOTES EXISTING
- LINEWEIGHT DENOTES PROPOSED

ABBREVIATIONS

A	AMPERE(S)
AFCI	ARC–FAULT CIRCUIT INTERRUPTING
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CP	CIRCULATOR PUMP
CU	COPPER
EF	EXHAUST FAN
FBO	FURNISHED BY OWNER
FC	FAN COIL UNIT
G,GND	GROUND
GC	GENERAL CONTRACTOR
GF	GROUND FAULT CIRCUIT INTERRUPTING
HP	HORSE POWER, HEAT PUMP
KVA	KILOVOLT AMPERE
LED	LIGHT EMITTING DIODE
MC	METAL CLAD, MECHANICAL CONTRACTOR
MEC	MASSACHUSETTS ELECTRIC CODE
MIN	MINIMUM
MTD	MOUNTED
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NETWORK INTERFACE
P	POLE(S)
PH	PHASE(S)
QTY	QUANTITY
SBA	SELECTED BY ARCHITECT
SBO	SELECTED BY OWNER
TR	TAMPER RESISTANT
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
V	VOLT(S)
VA	VOLT AMPERE
W	WIRE
WH	WATER HEATER
WP	WEATHERPROOF
WR	WEATHER RESISTANT
ZP	ZONE PUMP

GENERAL NOTES

1. ALL WORK SHALL COMPLY COMPLETELY WITH THE MASSACHUSETTS ELECTRICAL CODE, AND ALL LOCAL ORDINANCES AND REQUIREMENTS.
2. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC. PROVIDE ALL MATERIAL, LABOR AND EQUIPMENT FOR COMPLETE AND OPERATIONAL SYSTEMS.
3. APPLY FOR, OBTAIN AND PAY FOR ALL REQUIRED PERMITS. REQUEST, SCHEDULE, AND ATTEND ALL REQUIRED INSPECTIONS BY THE LOCAL AUTHORITY HAVING JURISDICTION.
4. REFER TO DRAWINGS OF OTHER TRADES AND CONFIRM EQUIPMENT LOCATIONS PRIOR TO ROUGH–IN. ADJUST ELECTRICAL WORK AS REQUIRED BASED ON EQUIPMENT PURCHASED/INSTALLED.
5. PROVIDE A ONE YEAR MATERIAL AND LABOR GUARANTEE AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP.
6. ALL MATERIAL INCORPORATED IN THE WORK SHALL BE LISTED FOR THE INTENDED USE.
7. VISIT THE SITE PRIOR TO SUBMITTING BID TO REVIEW SCOPE OF DEMOLITION, AND CONDITIONS UNDER WHICH NEW WORK MUST BE INSTALLED.

NOTES:

1. PROVIDE #8/3 TYPE MC CABLE FROM NEW 40A/2P CIRCUIT BREAKER AT PANEL P1/P2 TO SERVE NEW ATTIC LOADCENTER PA.
2. CONNECT NEW SMOKE DETECTORS AND COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO EXISTING SECURITY/ALARM SYSTEM. NEW DEVICES SHALL BE LISTED COMPATIBLE WITH ADT SAFEWATCH PRO 3000EN SECURITY/ALARM SYSTEM. PROVIDE ALL REQUIRED WIRING AND APPURTENANCES REQUIRED FOR A COMPLETE, OPERATIONAL SYSTEM.
3. DISCONNECT, REMOVE AND SAFELY STORE EXISTING CHANDELIER TO ALLOW NEW CONSTRUCTION. RE–LAMP AND RE–INSTALL CHANDELIER AS INDICATED.

0 2 4 8

SCALE: 1/4"=1'–0"

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Werth Residence

Renovation
10 Cardinal Drive, Westwood, MA

Plot Date: 11/23/2016 10:09:47 AM

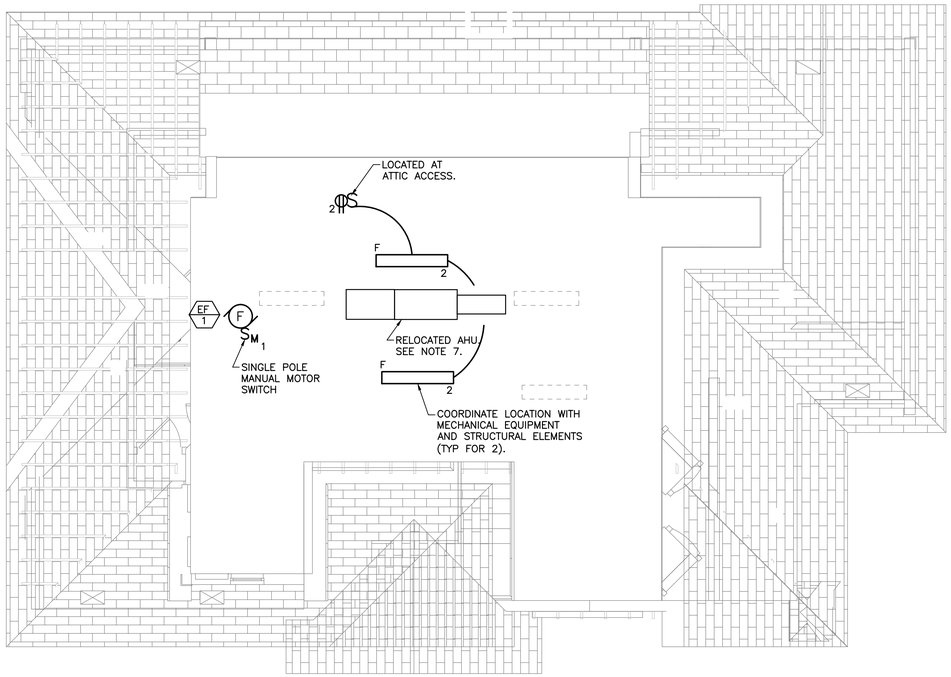
Revisions	Date

Project: 622.1
Drawn by: CWN
Check by: GPN
Date: 1/17/17
Scale: 1/4" = 1'-0"

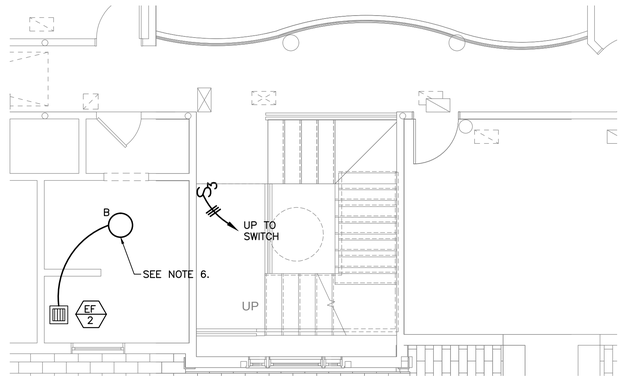
ELECTRICAL LEGEND, NOTES AND PLANS

E-1

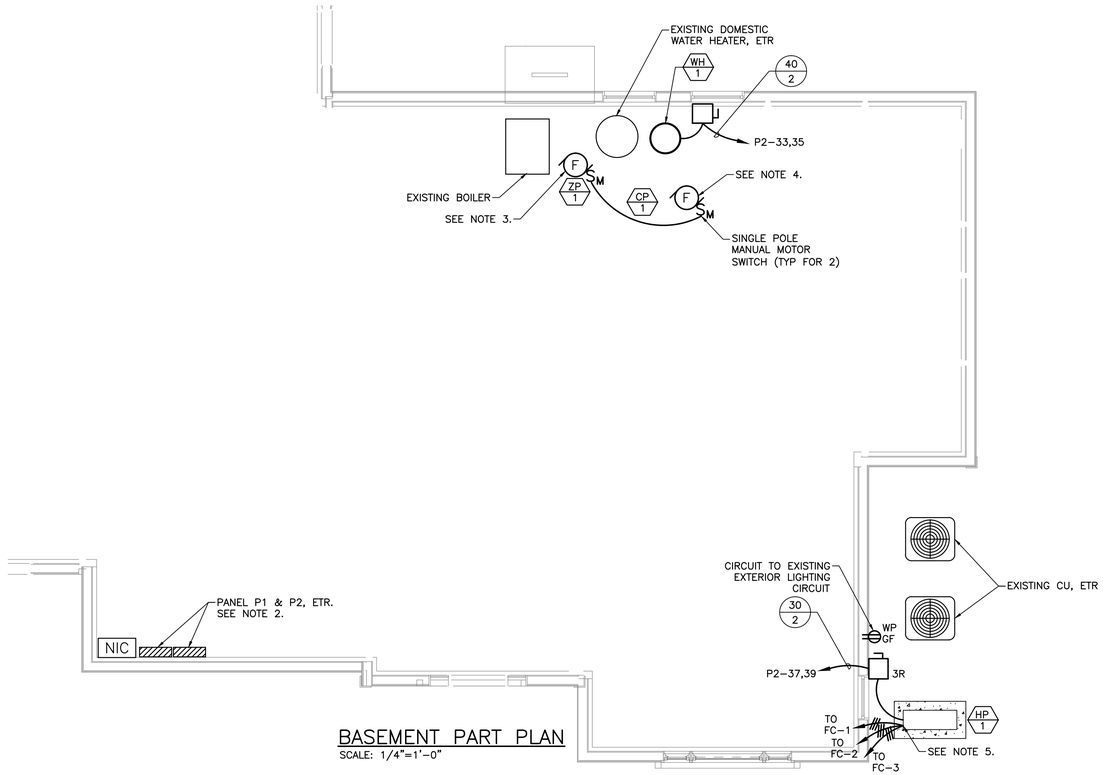
IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY



PROPOSED ATTIC PLAN
SCALE: 1/4"=1'-0"



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



BASEMENT PART PLAN
SCALE: 1/4"=1'-0"

NOTES:

1. REFER TO DRAWING E-1 FOR LEGEND AND GENERAL NOTES.
2. REARRANGE CIRCUIT BREAKERS TO PROVIDE 2 ADJACENT SPACES. PROVIDE (3)40A/2P CIRCUIT BREAKER IN SPACES IN LOADCENTER P1 & P2 TO SERVE NEW ATTIC LOADCENTER PA, WH-1 AND HP-1. NEW CIRCUIT BREAKERS SHALL BE LISTED COMPATIBLE WITH EXISTING SIEMENS LOADCENTERS.
3. DISCONNECT AND MAKE SAFE EXISTING SECOND FLOOR ZONE PUMP TO BE REPLACED BY MC. CONNECT NEW ZONE PUMP ZP-1 TO EXISTING CIRCUIT.
4. EXTEND EXISTING ZONE PUMP BRANCH CIRCUIT TO POWER NEW HOT WATER CIRCULATOR PUMP CP-1.
5. WIRING FROM HP-1 TO FC-1, FC-2 & FC-3 SHALL BE MC CABLE FOLLOWING THE ROUTE OF THE PIPING BY MC. COORDINATE WORK WITH MC.
6. DISCONNECT AND MAKE SAFE EXISTING BATH FAN TO BE REMOVED BY MC. RETAIN BRANCH CIRCUIT WIRING FOR REUSE. PROVIDE NEW JUNCTION BOX AND LIGHT AT LOCATION OF FORMER FAN. EXTEND EXISTING FAN WIRING TO NEW FAN. FAN AND LIGHT TO BE CONTROLLED BY EXISTING SWITCHING/CONTROLS.
7. DISCONNECT AND MAKE SAFE EXISTING AHU IN ATTIC TO ALLOW RELOCATION BY MC. EXTEND BRANCH CIRCUIT WIRE AND CONDUIT TO NEW LOCATION AND RECONNECT UNIT VIA EXISTING SWITCH.

0 2 4 8
SCALE: 1/4"=1'-0"

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Revisions	Date

Project:	622.1
Drawn by:	CWN
Check by:	GPN
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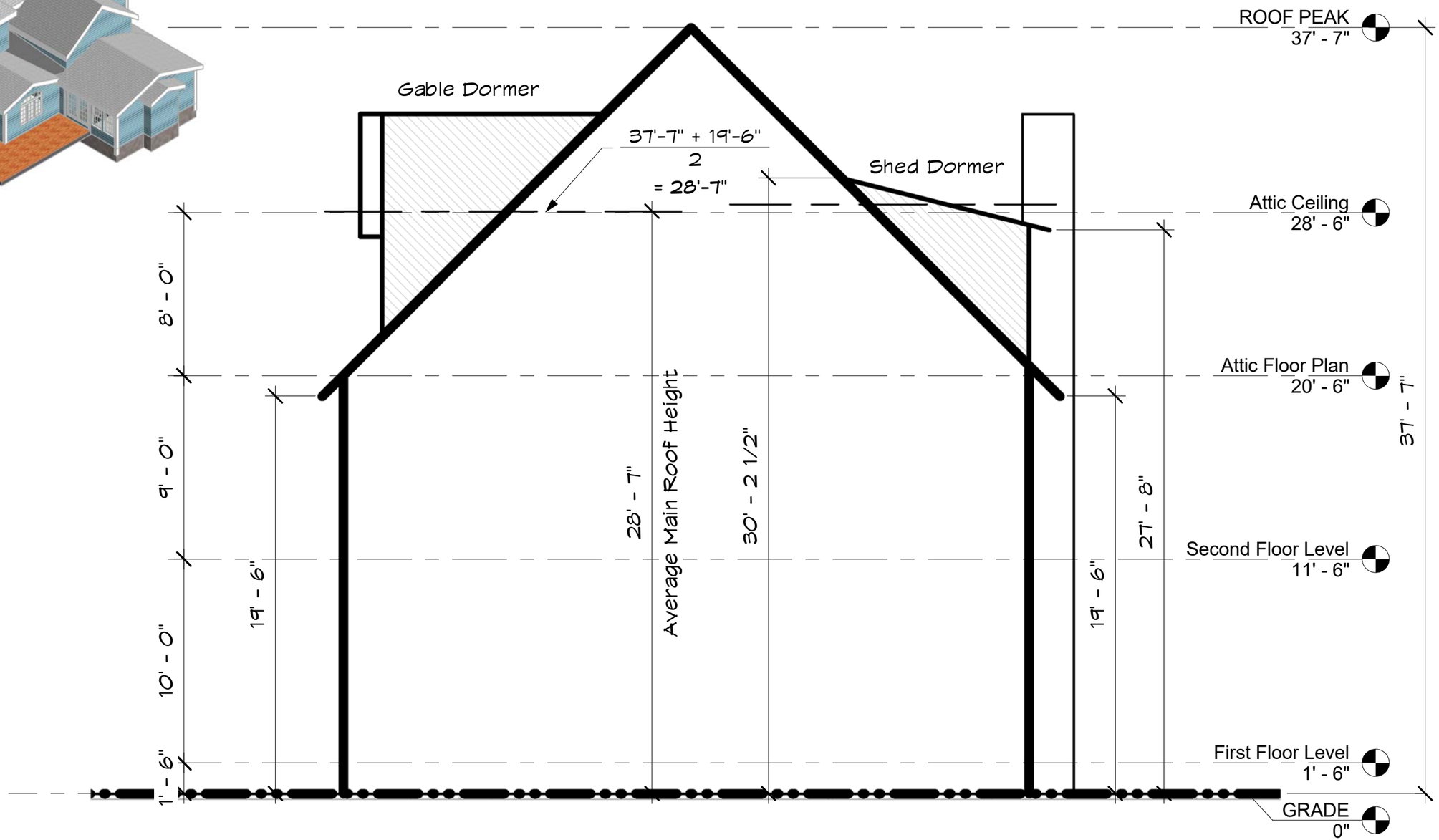
ELECTRICAL PART PLANS

E-2



House Section

2 Section Through House
3/16" = 1'-0"

10 Cardinal Drive, Westwood, MA

Werth Residence
622.1

March 22, 2017

Gienapp Design Associates, LLC
Architects