

DAVID BRILEY  
MAYOR



**METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY**

Metropolitan Historic Zoning Commission  
Sunnyside in Sevier Park  
3000 Granny White Pike  
Nashville, Tennessee 37204  
Telephone: (615) 862-7970  
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**STAFF RECOMMENDATION**  
**154 Second Avenue North**  
**April 17, 2019**

**Application:** New Construction—Addition; Rehabilitation--Windows; Signage  
**District:** Second Avenue Historic Preservation Zoning Overlay  
**Council District:** 19  
**Base Zoning:** DTC  
**Map and Parcel Number:** 0930627100  
**Applicant:** Clay Cauble, Vastland Companies  
**Project Lead:** Paul Hoffman; [paul.hoffman@nashville.gov](mailto:paul.hoffman@nashville.gov)

**Description of Project:** The applicant has built a rooftop addition, rooftop deck area, removed windows, and installed signage without permits.

**Recommendation Summary:** Staff recommends approval of the rooftop addition and window alterations with the conditions that:

1. The rooftop deck, railing and screen wall between buildings are all stepped back at least eight feet (8') from the First Avenue façade;
2. The tall poles that are currently part of the rooftop railing are removed and not part of the rebuilt railing;
3. The standing-seam parapet added to the First Avenue roof is removed, recreating the building's original wall conditions;
4. String lighting not permitted in the rooftop area; and
5. Single- or double-hung windows are added, to match the existing windows on the building, to be approved by MHZC staff prior to purchase and installation.

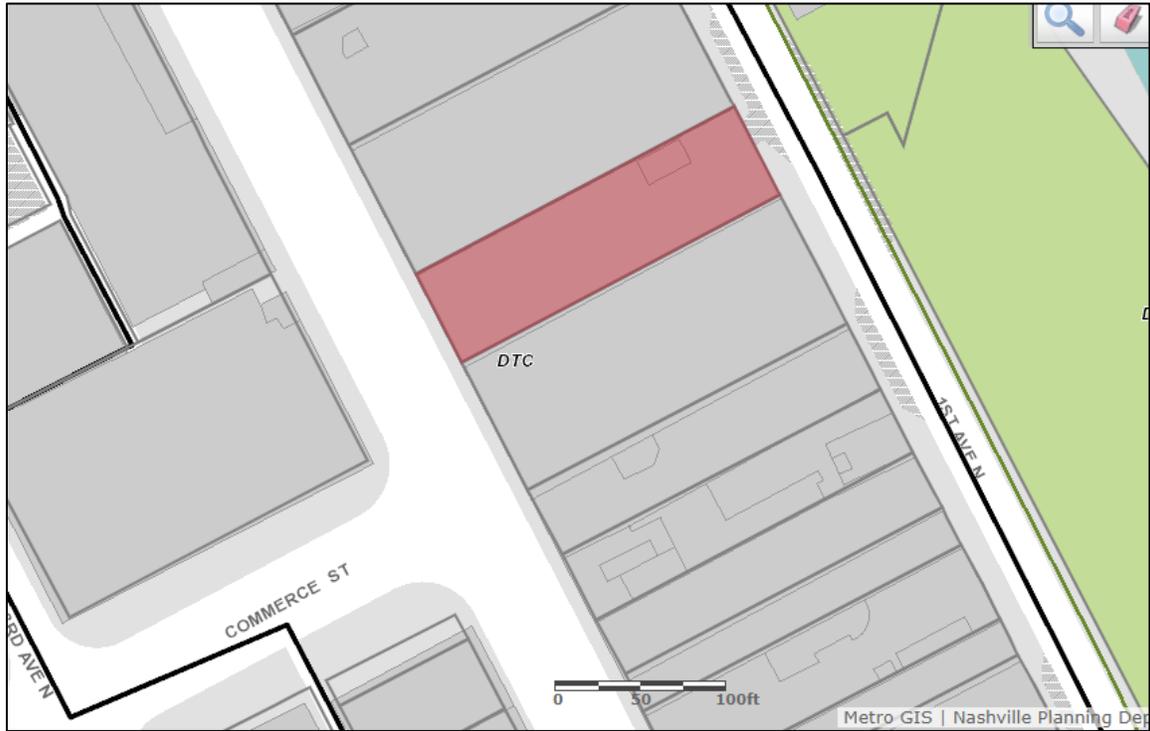
With these conditions, the application will meet section II.H (Rehabilitation—Windows) and section III.H (New Construction—Additions).

Staff further recommends disapproval of the sign with a requirement that it be removed within sixty days (60 days) of this meeting, finding that the signage does not meet section IV of the design guidelines for the Second Avenue Historic Preservation Zoning Overlay.

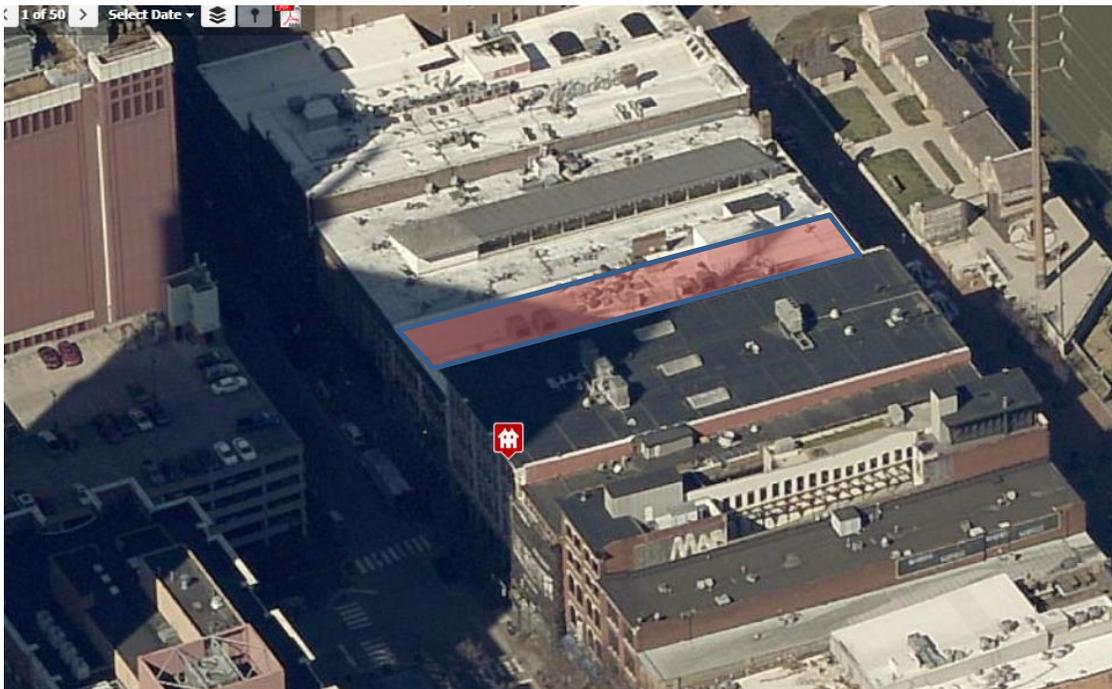
**Attachments**

- A:** Photographs
- B:** Site Plan
- C:** Floor Plans
- D:** Elevations

**Vicinity Map:**



**Aerial Map:**



## Applicable Design Guidelines:

### II. Rehabilitation

#### Upper Facades

##### General Principles

Original appearance and details of upper-story facades should be retained.

If repairs are needed, it should use historically appropriate materials and methods.

Replacements to facades should be in keeping with the style and period of the building.

The use of contemporary materials for the replacement elements of facades may be appropriate if they possess characteristics similar in scale, design finish, texture, durability, and detailing to historic materials and meet *The Secretary's Standards*.

Interior changes that affect the exterior appearance of upper facades including lowering ceiling heights or raising floor levels should be avoided.

##### H. Guidelines: Windows

1. Original windows and window openings, including dimensions, sash, (configuration, number and arrangement of panes), materials, and detailing (sills, lintels, and decorative hoods) should be retained.
2. Deteriorated or damaged window openings, windows, and window surrounds should be repaired using historically appropriate materials.
3. If replacement windows or window surrounds are necessary, replacements should replicate originals. If original windows do not exist, replacements should be appropriate for the building's style and period.
4. If the original windows are missing, replacement windows should use wood, anodized aluminum, or baked-on-enamel aluminum frames and should have single-light or multiple-light clear-glass panes to match the style and period of the building. Multi-pane windows should be true or simulated divided lights with a spacer bar between the glass. Snap-on or between the glass muntins are inappropriate.
5. Steel windows should be replaced with steel or aluminum designs that replicate the appearance of the original window.
6. Window grills, balcony rails, and shutters are not appropriate window treatments.
7. Window openings, surrounds, or other elements not original to a building should generally not be introduced to the public facades of the building.
8. Should storm windows be desired, their dimensions should match window dimensions in order to conceal their presence. Frames should be set within the window opening and attach to the exterior sash stop; if aluminum, they should have an anodized or baked-on enamel finish.
9. Self installed snap, clip or glue type muntins on windows are not permitted. Muntins set within the vacuum between glass panes on windows are not approved.

##### I. Guidelines: Walls

1. Original walls, including size and location of openings, recesses, detailing, and ornamentation should be retained. The plane of the exterior wall shall be retained.
2. Balconies should not be added to public facades.
3. Decorative elements such as cornices, brick corbelling, arches, brackets, terra cotta detailing and any other original wall detail shall not be altered.
4. New decorative elements should not be added where none existed.

##### L. Guidelines: Roofs and Chimneys

1. Original roof configuration, including coping, parapets, and materials should be retained.
2. Appurtenances related to outdoor use of roofs, including elevator shafts, railings, canopies, and any other elements visible from the street, should be compatible with the building should not obscure character-defining features. Guidelines for brick and mortar should be followed for chimney maintenance.

3. Appropriate roof coverings include standing seam metal, composite asphalt, rolled roofing, and rubber membrane roofing. Most rooflines in the Second Avenue district are flat or sloped. These roof forms should not be altered unless based on historical documentation.
4. Roof mounted mechanical units should be located so as to be inconspicuous from street level.
5. Roof additions if approved, should be located so that they are inconspicuous from the public right-of-way and do not damage or obscure character-defining features.

## **LIGHTING**

### **General Principle**

Light fixtures should be as simple and unobtrusive as possible.

### **T. Guidelines: Lighting**

1. If lighting is installed, it should be concealed or simple and unobtrusive in design, materials, and relationship to other façade or elevation elements.
2. Light should be directed toward the façade instead of outward. Building facades may be illuminated through uplights mounted above the storefront cornice.
3. Dark metals are appropriate materials for light fixtures.
4. Concealed, indirect, or spot lighting is appropriate for exterior signage. Visible fluorescent bulbs are not appropriate.

## **III. NEW CONSTRUCTION**

### **General Principles**

These guidelines shall apply only to the exteriors of buildings and to areas of lots visible from public rights-of-way.

The public facades – street related elevations – of proposals for new buildings shall be more carefully reviewed than other facades.

### **H: Guidelines: Additions to Existing Buildings**

1. New additions to existing buildings should be kept to a minimum and should be compatible in scale, materials, and texture; additions should not be visually jarring or contrasting.
2. Additions should not be made to the public facades of existing buildings.
3. Additions should not contribute to the loss of, or obscure, historic character-defining features or materials.
4. Additions to historic buildings should be minimal. Additions normally not recommended on historic structures may be appropriate for non-historic buildings, if the addition will result in a building that is more compatible with the district.
5. Rooftop additions should not exceed one story in height (or 15') and should be set back a minimum of 30 feet from the Second Avenue façade of the building, 10 feet from First Avenue, and 20' from a secondary street if it is a corner building

*Rooftop railings should set back from each street facing wall by 8'.*

*Railings should not be used to support additional elements such as speakers, lighting, plants or signage.*

*In locations where railings are visible from the street, the materials should minimize the impact of the railing. Materials such as butt-joint glass or horizontal steel cable, may be appropriate.*

## **IV. SIGNAGE**

### **INTRODUCTORY PROVISIONS**

#### **Intent**

The purpose of these regulations is to preserve the historic character of the overall district and individual historic buildings follow the basic principles and guidance of the “Downtown Codes Sign Standards” as

adopted 1/30/2013. The “Downtown Codes Sign Standards” breaks signage guidance up by “street types.” The Second Avenue Historic Preservation Zoning Overlay closely follows the guidance for “Pedestrian Street” type.

### **Applicability**

- These sign regulations apply to all properties within the Second Avenue Historic Preservation Zoning Overlay.
- (Not referencing code since our current design guidelines do not reference code and there are permissible signs within the code that would not meet our design guidelines.)
- Signage that is cut into the face of the building is prohibited.
- Signage located on the interior of a building or attached to the inside of glass windows is not reviewed.
- Sandwich board signs and 3-dimensional sidewalk signs that are brought into the building at the close of each business day shall not be reviewed by the MHZC but may require review by Public Works.
- Historic signage should be retained. Removal of historic signage may take place as a Modification.

### **Sign Permit Applications**

Applications for sign permits shall be made with and reviewed by the Metro Historic Zoning Commission (MHZC). All sign applications that do not involve Modifications shall only require MHZC administrative approval.

### **Common Sign Plan**

A common signage plan regulates signage for multiple businesses or tenants within one building or complex. A common sign plan is mandatory for all new developments and sign Modifications.

- A common signage plan shall provide for consistency among signs with regard to at least four of the following: materials; location of each sign on the building; sign proportions; color scheme; lighting; lettering or graphic style.
- The common signage plan shall establish an allowable area of signage for existing and future tenants with regard to all allowed sign types.
- The common signage plan shall indicate existing nonconforming signs as well as the amount and locations of on-premise signage to be allocated to each tenant under the new plan.

## **MODIFICATIONS**

### **Sign Permit Modifications**

Requests for modifications to sign standards are reviewed by the Metro Historic Zoning Commission. If the property is also within a MDHA redevelopment district, approval from the MHZC is all that is needed. Two additional types of Modifications for signage related permits may be requested and are outlined below.

### **Modifications for Exceptional Design**

Creative signage that does not fit the specific regulations of these guidelines may be considered by the MHZC, based on its merits, as they relate to all of the following design criteria:

- Architecture
- The configuration or location of the building or property
- Building scale
- Legibility
- Technical competence and quality in design, construction and durability

Applications for this type of Modification require submittal of a common sign plan for the property in question. Approval of any related structure (i.e. canopy) will require review by all applicable agencies.

Exceptional design modifications shall not permit electronic changeable copy where it is otherwise not permitted.

### **All Signs**

If the alteration or repair is caused by involuntary damage or casualty, the design may be altered or repaired to its pre-damaged condition.

### Repair and Maintenance

A sign may be removed or taken off-site for repair and maintenance. The sign must be returned to the original location within 90 days of removal.

### **Allocation of Sign Area**

The maximum sign area for each type of sign is established in the following tables. Specific requirements for each sign type are shown on the subsequent pages.

For each cell in the table, there is a maximum allowed sign area that may be utilized with any combination and any number of signs associated with that cell, unless otherwise noted.

The measurements for “linear feet” shall be at grade.

### Building Signs

Wall, Awning, Canopy and Projecting Signs—1.5 square feet of sign area per 1 linear foot of building façade or 36 square feet, whichever is greater. When a projecting sign is used on a building, an additional .50 square feet of sign area per 1 linear foot of building façade shall be permitted, for a total 2 square feet per 1 linear feet of building façade.

Shingle Sign: 9 square feet per sign

### Ground Signs

Monument Sign-24 square feet

### Skyline Signs

75;0110’—480 square feet

101’-200’—600 square feet

201’ and taller-720 square feet

## **GENERAL STANDARDS**

### **Materials**

All permanent, on-premises signs shall be constructed of a rigid, weatherable material such as hard plastic, wood, MDO plywood, aluminum, steel, PVC, glass, fiberglass and or Plexiglass. On-premises permanent signs shall not be constructed of nonrigid materials including, but not limited to, vinyl, fabric, canvas, or corrugated plastic. The provisions of this subsection shall not apply to approved, permitted canopies, awnings and porticoes.

### **Building Façade and Street Frontage Measurement**

In determination of number of stories of a building, rooftop additions shall not be considered within the number of stories.

### **KEEP IN MIND**

- There is no limit to the number of Building Signs per property, with the exception of neon signs.
- Sign entitlements are limited only by the total amount of square footage allowed on the property, the maximum sizes of signs and the required placement of signs, with the exception of neon signs.
- For example, if a building is allowed 100 sq. ft. of Building Signs, that can be use in one 100 sq. ft. sign or in five 20 sq. ft. signs. The only limit is the maximum dimensions of the sign type.
- Non-street facing facades are allowed signs.
- Contact the MHZC with questions.

### Building Sign: Projecting Sign

#### **Description**

A projecting sign is a type of building sign that projects outward from the façade, typically at a ninety degree angle. Projecting signs are typically, but not always, vertically oriented and generally mounted above the first floor.

#### **General Provisions**

- A projecting sign must be located at least 25 feet from any other projecting sign. When building width prohibits adherence to this standard, flexibility shall be permitted through Modification to be reviewed by staff.
- A projecting sign may be erected on a building corner when the building corner adjoins the intersection of two streets. Allocation of sign area from both streets may be used, however, in no case shall the sign exceed the maximum dimensional standards below.
- A projecting sign shall be located below the windows sills of the third story.
- The top of a projecting sign shall not extend above the building eave or top of parapet.
- A projecting sign can be externally or internally illuminated in accordance with the Illumination design guidelines.
- Projecting signs that are 3-dimensional may be permitted through a modification.
- A projecting sign cannot cover windows or architectural details.

**Design Standards**

- A** Overall area allocation (max)—see allocation of sign area
- B** Height (max)
  - 1 story buildings—10 feet
  - 2 and 3 story buildings—16 feet
  - 4 or more story buildings—20 feet
- C** Average spacing from façade (min)—1 foot
- D** Projection Width (max)—6 feet
- E** Depth of Cabinet (max)—2 inch or 18 inches for internally lighted or neon signs

**Building Sign: Shingle Sign**

**Description**

A single sign is a smaller building sign that projects outward, typically at a ninety degree angle, and hangs from a bracket or support that is located over or near a building entrance.

**General Provisions**

- Signs shall be located within 8 feet of an active pedestrian building entrance. This does not include service entries or entries that primarily remain locked.
- An active pedestrian entrance at the corner of a building is allowed signs on both streets.
- A shingle sign shall be located below the window sills of the second story.
- A shingle sign shall not be internally illuminated.
- A shingle sign cannot cover windows or architectural details.

**Design Standards**

- A** Area (max)—9 square feet
- B** Height (max)—3 feet
- C** Spacing from façade (min)—6 inches
- D** Width (max)—3 feet
- E** Depth (max)—6 inches

**Background:** 154 Second Avenue North was built circa 1869 and is a contributing building in the Second Avenue district.



Figure 1: 154 Second Avenue North

**Analysis and Findings:** The applicant built a rooftop deck, rooftop stairwell addition, removed windows from the First Avenue side, and installed a projecting sign without permits. Although building permits were issued for the project they did not include exterior work; therefore, MHZC was not included in the sign-off process. Commercial rehab permit 2017-058590 was issued on 9/8/2017 with the following project scope: *Permit to conduct interior renovations for...studio 154 luxury lofts...3<sup>rd</sup> floor...12,780 square feet...18 apartments..no change to exterior roof/building lines or footprint.*

No Preservation Permits were applied for prior to undertaking work.

The building has an existing addition built toward the First Avenue side to house a stairwell, possibly in the 1980s according to the applicant, but at least by 2007 (Figure 2). This addition is thirty-eight feet (38') from the First Avenue façade. Another stairwell addition was added recently (Figures 3-4), and a rooftop deck added overlooking First Avenue (Figures 4-6).

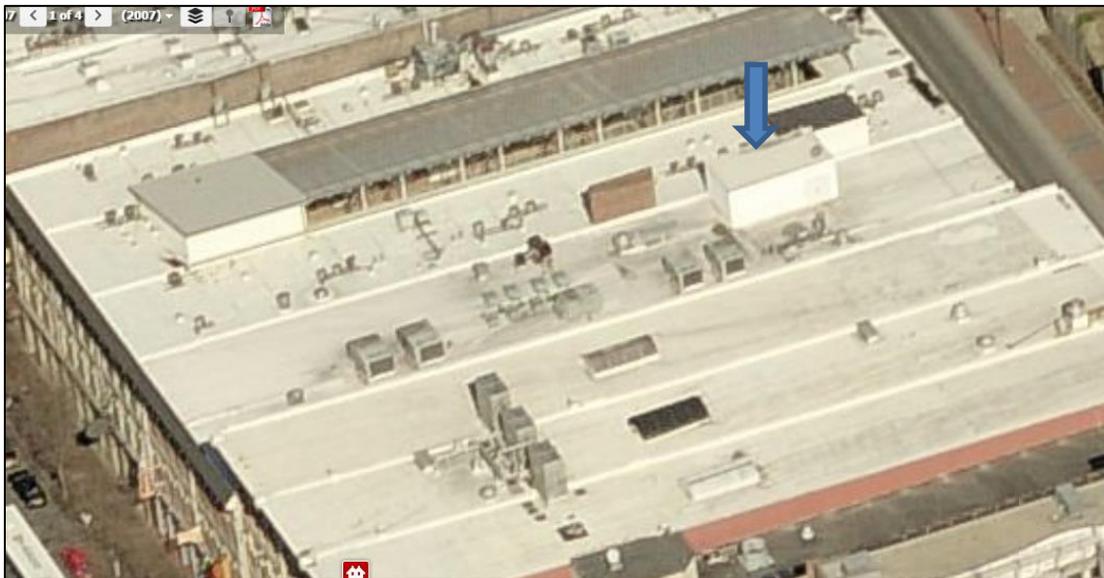


Figure 2: The rooftop stairwell addition nearest to First Avenue has been in place since at least 2007.



Figure 3: New stairwell addition built toward Second Avenue.

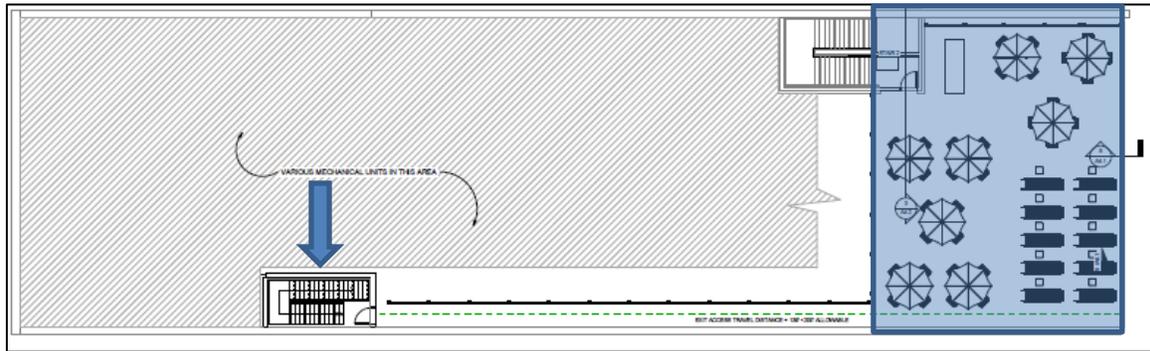


Figure 4: Building plans showing the new stairwell addition and rooftop deck space recently constructed.



Figure 3: Rooftop deck looking over First Avenue.



Figure 4: Rooftop area, looking back at the building from First Avenue.

**Height & Scale:** The new stairwell addition is eleven feet (11') tall, and measures twenty-two feet by six feet (22' x 6') for a footprint of one hundred and thirty-two square feet (132 sq. ft.). Section III.H for Additions states that additions should be no taller than one story, or fifteen feet (15') in height. This addition meets those criteria.

The mechanical screen wall, which runs from the First Avenue Avenue stepback back to the new stairwell, is six feet (6') in height. The screen wall between buildings, which runs from the First Avenue Ave side back to the existing stairwell, is five feet, six inches (5'

6”) and the glass First Avenue railing is four feet, one inch (4’ 1”) tall. The mechanical screen meets all required rooftop step backs; however the screen between buildings should step back in the same manner as the railing, which is a minimum of eight feet (8’). The First Avenue railing is an appropriate height for minimal visibility, if the railing is stepped back eight feet (8’) as required by the design guidelines. The railing includes taller poles, which have been used on other rooftop areas to hang lighting, signage, or speakers. The taller poles should not be included in the revised railing. With the condition that the deck, railing and screen wall between buildings are moved away from the First Avenue façade at least eight feet (8’), and that the taller poles are removed, Staff finds that these appurtenances will meet the requirements of section III.H for Additions.

The rooftop deck was built approximately two feet (2’) above the existing roof at its tallest point, on the First Avenue side, with a leveling deck system, and a ramp leading to the new stairwell. A standing-seam roof parapet was added to cover the additional deck height. Although the applicant states that their desire was to match the standing-seam metal at the front of the building, adding such to the First Avenue side is adding a conjectural feature. The result effectively increases the height of the First Avenue wall, which does not meet section II.I, which states that the original roof configuration, including coping, parapets, and materials should be retained. Staff recommends that the parapet is removed, and the First Avenue wall restored to its original configuration, to meet this section of the design guidelines.

Stepbacks: The stairwell was built forty-four feet (44’) from the Second Avenue façade and one hundred thirty-eight feet (138’) from the First Avenue façade, more than meeting the minimum stepback requirements of thirty feet (30’) from Second Avenue, and ten feet (10’) from First Avenue.

A new parapet wall, decking, a steel and glass railing with taller poles and a screen between buildings were added on the First Avenue, side, up to the edge of the building. (See Figure 7 for the new parapet and railing.) In most cases, the Commission has required a railing and deck and associated features to step back from the edge of a building at least eight feet (8’). Staff recommends restoring the original look of the building from First Avenue (image 8) by removing the standing seam metal/parapet and pushing the glass, railing, deck and side screen back from the First Avenue façade to provide the required eight foot (8’) stepback.

Staff verified during inspection that all tables, chairs, awnings visible on the deck area are not affixed to the deck surface and are temporary. A bar fixture measuring ten feet by three and a half feet (10’x3.5’) is located thirty feet (30’) from the First Avenue façade, meeting stepback requirements of section III.H to be located at least ten feet (10’) from First Avenue.

The First Avenue railing currently includes several taller poles approximately twelve feet (12’) in height; these should be removed as rooftop railings are not an appropriate location for additional elements such as speakers, lighting, plants or signage. The overall height of the railing should not exceed the minimum required by Code in order to ensure

that the railing meets the design guideline III.H.1, which requires that new additions should be kept to a minimum and not be visually jarring or contrasting. Staff recommends removal of the poles to meet section III.H.1.

Materials: The addition is clad in fiber cement board-and-batten siding. The mechanical screen walls, the wall between buildings, and gate into the mechanical area are painted horizontal wood slats. The railing overlooking First Avenue has metal columns and glass panels. The decking, ramp and steps are wood. These materials have been approved previously and meet section III.H for Additions—Materials.

Lighting: Building lighting was added including sconces along the adjacent building wall, and the mechanical screen wall. Section II.T (Rehabilitation-Lighting) requires that lighting be simple and unobtrusive, directed toward the façade and that light fixtures have dark metals. Staff finds that the installed sconce lighting on the building wall and screen walls meet these criteria. The Electrical Roof Plan (sheet E202) notes power provided for “Future Festoon Lighting.” String lighting is not appropriate for the rooftop areas; therefore staff recommends that no string lighting is festooned over the rooftop area. With this condition, the rooftop lighting will meet section II.T for Lighting.

Windows: Figure 7 shows the current condition with the top floor windows having no windows in the original openings. The original windows on the top floor of the First Avenue façade were removed at an unknown time, and were enclosed with Plexiglas since at least 2006 (Figure 8). As part of the current interior rehabilitation, the Plexiglas windows were removed, leaving a void where there has historically been a window.



Figure 5: Current condition of window openings.

The project meets section H.1-3 as the previous windows were not historic and the current openings and masonry will remain as is. Replacement is appropriate.

The project does not meet section H.3-6 for leaving the window openings vacant and creating a new wall behind them. Vacant openings do not replicate original windows or a style that is appropriate to the historic building's style and period. Leaving the openings vacant does not meet section I for walls as it does not retain the original plane and creates a recess where one did not exist historically. Section I.1. requires that original walls, including plane and openings should be retained.

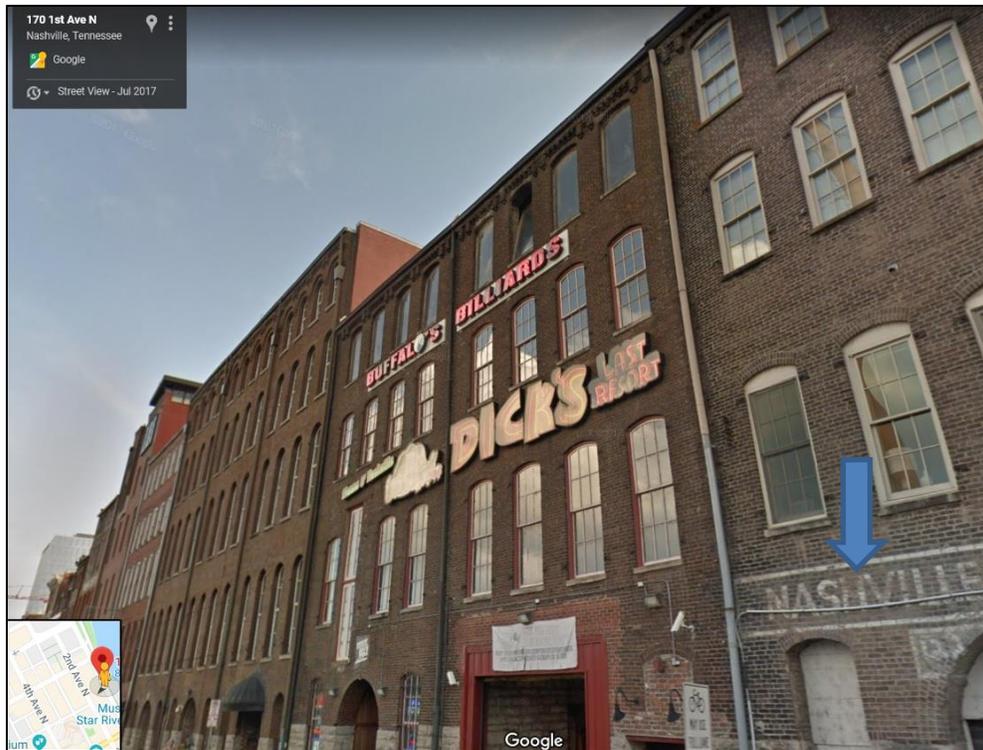


Figure 6: Image from 2017, showing non-original windows in place.

This recommendation, in regards to the windows, is consistent with past decisions. In 2016, the Commission disapproved a request for multiple rollup window/doors on 105 Broadway that would leave vacant openings when open. A similar request was disapproved for 128 Second Avenue North on February 20, 2019. 166 Second Avenue North has a similar stepped back wall that was in place prior to the creation of the overlay. It was likely constructed in 1994 or 1995 as there are multiple building permits from that period for major interior rehabilitation of the building for several businesses and apartments. Photographs of the building taken at the time of designation in 1997 appear to be window openings without windows.

Signage: An illuminated projecting sign, approximately four square feet (4 sq. ft.) was installed without permit on the Second Avenue façade. The location is appropriate for a shingle sign, but a shingle sign may not be illuminated. Projecting signage may be illuminated, but is generally mounted above the first floor, and must be located at least twenty-five feet (25') from another projecting sign. The current location is within twenty-five feet (25') from two existing projecting signs on the building.

Staff finds that the location is not appropriate for a projecting sign. Staff recommends

removal of the sign, and application for a new sign, in accordance with section IV of the design guidelines for Signage.



Figure 7: Projecting sign installed without permit.

**Recommendation Summary:** Staff recommends approval of the rooftop addition and window alterations with the conditions that:

1. The rooftop deck, railing and screen wall between buildings are all stepped back at least eight feet (8') from the First Avenue façade;
2. The tall poles that are currently part of the rooftop railing are removed and not part of the rebuilt railing;
3. The standing-seam parapet is removed, recreating the building's original wall conditions;
4. String lighting not permitted in the rooftop area; and
5. Single- or double-hung windows are added, to match the existing windows on the building, to be approved by MHZC staff prior to purchase and installation.

With these conditions, the application will meet section II.H (Rehabilitation—Windows) and section III.H (New Construction—Additions).

Staff further recommends disapproval of the sign with a requirement that it be removed within sixty days (60 days) of this meeting, finding that the signage does not meet section IV of the design guidelines for the Second Avenue Historic Preservation Zoning Overlay.

# STUDIO 154 LUXURY LOFTS

## BID, PERMIT & CONSTRUCTION SET

NASHVILLE, TN

### PROJECT DATA

**PROJECT NAME/ADDRESS:** STUDIO 154 LUXURY LOFTS  
154 2ND AVENUE  
NASHVILLE, TN 37201

**OWNER:** VASTLAND CO.  
1720 WEST END AVE #600  
NASHVILLE, TN 37203  
CONTACT: MACK MCCLUNG

**CODE REVIEW:**

**APPLICABLE CODES:**  
2012 INTERNATIONAL BUILDING CODE WITH LOCAL AMENDMENTS\*  
2012 INTERNATIONAL RESIDENTIAL CODE WITH LOCAL AMENDMENTS\*  
2012 INTERNATIONAL ENERGY CONSERVATION CODE  
2009 ICC/ANSI A-117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES  
2012 INTERNATIONAL PLUMBING CODE WITH LOCAL AMENDMENTS\*  
2012 INTERNATIONAL MECHANICAL CODE WITH LOCAL AMENDMENTS\*  
2012 INTERNATIONAL FUEL GAS CODE WITH LOCAL AMENDMENTS\*  
2011 NATIONAL ELECTRICAL CODE WITH LOCAL AMENDMENTS\*  
2012 INTERNATIONAL FIRE CODE WITH LOCAL AMENDMENTS\*\*  
2012 LIFE SAFETY CODE (NFPA 101) WITH LOCAL AMENDMENTS\*\*  
NFPA 101 is to be used in addition to the 2012 International Fire Code for new and existing State of Tennessee and Metropolitan Government of Nashville owned buildings, and for the following new and existing occupancies as defined in the NFPA 101 Life Safety Code 2012 edition:

Educational occupancies  
Day Care occupancies  
Residential board and care occupancies  
Health Care occupancies.

**EXISTING ZONING:** DTC- DOWNTOWN CODE

**EXISTING/PROPOSED USE:** EXISTING STORAGE / PROPOSED RESIDENTIAL R-1

**CONSTRUCTION TYPE:** III-A, SPRINKLERED

**BUILDING AREA:** RESIDENTIAL AREA (FLOOR 3): 12,780 SF

**OCCUPANCY CLASSIFICATION [302.1]:** RESIDENTIAL R-1  
OCCUPANCY LOAD: 12,780SF/200 GROSS = 64 OCCUPANTS  
EGRESS WIDTH [1005.1]: 64 OCCUPANTS X .3 = 19.2 IN  
PROVIDED EGRESS WIDTH: 72"  
COMMON PATH OF TRAVEL = 75FT  
EXIT ACCESS DISTANCE = 250 FT  
DEAD END CORRIDOR ALLOWABLE= 50FT

**FIRE RESISTANCE ANALYSIS:**  
2HR RATED EXTERIOR BEARING WALLS REQUIRED BASED ON CONSTRUCTION TYPE (TABLE 601)  
EXISTING 2 HR RATED EXTERIOR BEARING WALLS TO REMAIN

.5 HR RATED CORRIDORS REQUIRED (TABLE 1018.1)  
1 HR RATED CORRIDORS PROVIDED

1 HR RATED FLOOR ASSEMBLY REQUIRED- 1 HR RATED FLOOR ASSEMBLY EXISTING

### LIST OF DRAWINGS

ARCHITECTURAL		STRUCTURAL		MECHANICAL		ELECTRICAL	
A0.0	COVER SHEET	S101	LIFE SAFETY	M001	HVAC LEGEND AND SCHEDULES	E101	LIGHTING LEVEL 3 & MEZZANINE PLANS
A0.1	LIFE SAFETY	S201	LIFE SAFETY	M101	HVAC LEVEL 3 & MEZZANINE PLANS	E201	POWER LEVEL 3 & MEZZANINE PLANS
A0.2	FLOOR PLAN	S301	FLOOR PLAN	M201	HVAC DETAILS	E301	ELECTRICAL ROOF PLAN
A1.1	MEZZANINE PLAN					E401	MEZZANINE PLANS
A1.2	ROOF PLAN					E501	ELECTRICAL DETAILS
A1.3	UNIT 1					E601	PANELBOARDS
A1.4	UNIT 1						LEGENDS & SCHEDULES
A1.5	UNIT 2						
A1.6	UNIT 3						
A1.7	UNIT 4						
A1.8	UNIT 5						
A1.9	UNITS 7 & 8						
A1.10	UNITS 9 & 10						
A1.11	UNITS 11 & 12						
A1.12	UNITS 13 & 14						
A1.13	UNITS 15 & 16						
A1.14	UNITS 17 & 18						
A2.0	REFLECTED CEILING PLAN						
A2.1	MEZZANINE RCP						
A3.0	ELEVATIONS						
A4.0	SECTIONS						
A4.1	SECTIONS AND DETAILS						
A4.2	SECTIONS & DETAILS						
A5.0	DETAILS						
A6.0	SCHEDULES						
A6.1	DOOR & WINDOW DETAILS						
A7.0	SPECIFICATIONS						
A7.1	SPECIFICATIONS						
A7.2	SPECIFICATIONS						

### SCOPE OF WORK

1. RENNOVATION OF THIRD FLOOR OF BUILDING WITH NEW BUILD OUT.
2. ADDITION OF ROOFTOP TERRACE.

### ARCHITECT / ENGINEER CONTACTS

**ARCHITECT**

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EMAIL: cshriv@hmharchitects.com

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BRENTWOOD, TN 37027  
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MECHANICAL CONTACT: MITCH SIMPSON  
EMAIL: msimpson@entechtn.com  
PLUMBING CONTACT: JOHN BRILEY  
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**EMC STRUCTURAL ENGINEERS, P.C.**  
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NASHVILLE, TENNESSEE 37204  
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CONTACT: MARK BUCHANAN  
EMAIL: markb@emcnashville.com

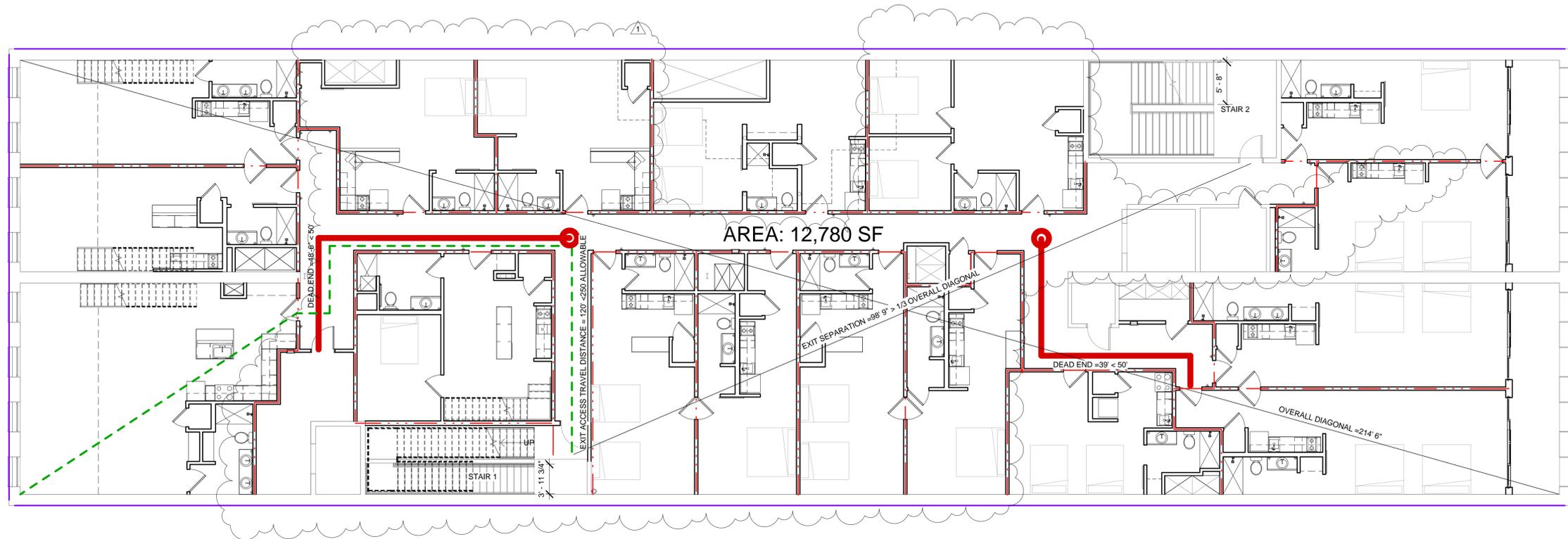
### VICINITY PLAN



H. Michael Hindman  
Architects, P.C.



1607 Westgate Circle - Suite 100  
Brentwood, Tennessee 37027  
615.370.3252  
www.hmharchitects.com



TOTAL AREA: 12,780 SF  
 OCCUPANCY TYPE: RESIDENTIAL, SPRINKLED  
 OCCUPANCY LOAD: 12,780SF/200 GROSS = 64 OCCUPANTS  
 EGRESS WIDTH: 64 OCCUPANTS X .3 = 19.2 IN  
 PROVIDED EGRESS WIDTH: 72"

COMMON PATH OF TRAVEL = 75FT  
 EXIT ACCESS DISTANCE = 250 FT  
 DEAD END CORRIDOR ALLOWABLE= 50FT

LIFE SAFETY LEGEND	
	ORIGIN OF PATH OF EGRESS
	EXIT AND DOOR WIDTH
	PATH OF EGRESS
	WALL PARTITION: SEE WALL TYPE
	FIRE PARTITION TO DECK -1HR RATING
	FIRE PARTITION TO DECK -2HR RATING
	FIRE EXTINGUISHER ON BRACKET
	FIRE EXTINGUISHER CABINET

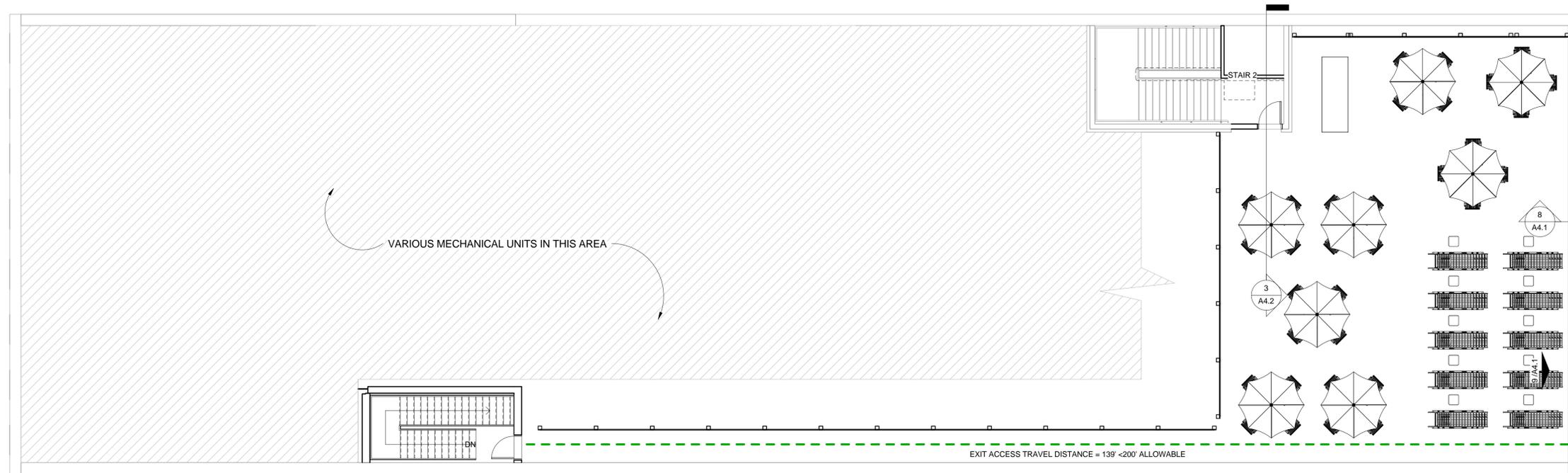
Revisions	
1	REVISION 01 04.14.17

HMH Job Number  
16050

Drawn By  
CS

Date  
02.14.17

Drawing  
LIFE SAFETY



ROOF TERRACE 1  
1/8" = 1'-0" A0.2

TOTAL AREA: 2,856 SF  
OCCUPANCY TYPE: ASSEMBLY  
OCCUPANCY LOAD: 2856 SF/200 GROSS = 191 OCCUPANTS  
EGRESS WIDTH: 191 OCCUPANTS X .3 = 57.3 IN  
PROVIDED EGRESS WIDTH: 72"

COMMON PATH OF TRAVEL = 75FT  
EXIT ACCESS DISTANCE = 200 FT  
DEAD END CORRIDOR ALLOWABLE= 50FT

LIFE SAFETY LEGEND	
	ORIGIN OF PATH OF EGRESS
	EXIT AND DOOR WIDTH
	PATH OF EGRESS
	WALL PARTITION: SEE WALL TYPE
	FIRE PARTITION TO DECK - 1HR RATING
	FIRE PARTITION TO DECK - 2HR RATING
	FIRE EXTINGUISHER ON BRACKET
	FIRE EXTINGUISHER CABINET

Revisions	
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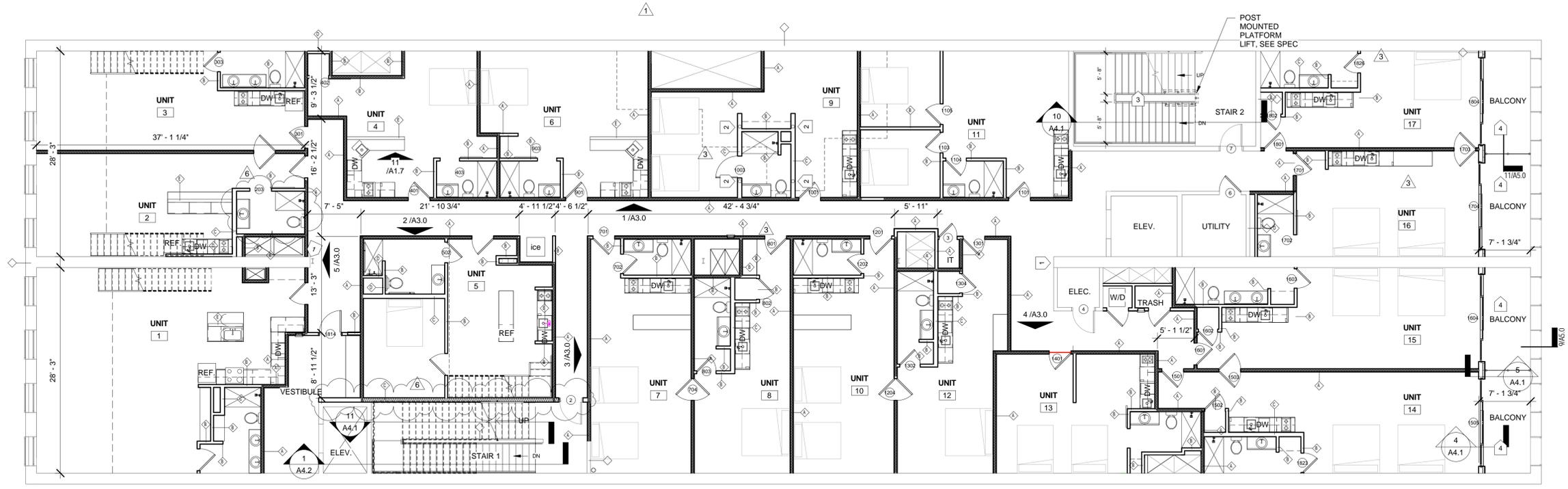
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16050

Drawn By  
CS

Date  
02.14.17

Drawing  
LIFE SAFETY

A0.2



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

2

PLAN LEGEND	
ROOM NAME	ROOM NAME & ROOM NUMBER
101	
SF-1	STOREFRONT TYPE
101	DOOR NUMBER
D.S.	= DOWNSPOUT

**GENERAL NOTES**

THE FOLLOWING NOTES SUPPLEMENT AND ADD TO THE DRAWINGS AND SPECIFICATIONS. IF THERE IS ANY CONFLICT, AMBIGUITY, ETC., CREATED BY ANY NOTE, THE CONTRACTOR SHALL COMPLY WITH THE MORE STRINGENT REQUIREMENT.

**A. DIMENSIONS:**

- THE GENERAL CONTRACTOR, SUBCONTRACTORS AND ALL EMPLOYEES ON THIS PROJECT ARE NOT ALLOWED TO SCALE DRAWINGS TO DETERMINE DISTANCES OR DIMENSIONS. IF FURTHER DIMENSIONING IS REQUIRED, THE CONTRACTOR SHALL REQUEST IN WRITING FOR WRITTEN CLARIFICATION BY THE ARCHITECT.
- EXTERIOR DIMENSIONS ARE GIVEN FACE OF EXTERIOR FINISH, UNLESS NOTED OTHERWISE. INTERIOR DIMENSIONS ARE GIVEN TO FACE OF CMU, FACE OF BRICK, OR FACE OF STUD UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADE PITCHES AND OTHER CONDITIONS BY TAKING MEASUREMENTS PRIOR TO ORDERING MATERIALS OR DOING WORK. REFER DISCREPANCIES TO THE ARCHITECT FOR ADDITIONAL INSTRUCTIONS. THE CONTRACTOR IS RESPONSIBLE FOR MEASUREMENTS. NO CONSIDERATION WILL BE GIVEN TO ANY CLAIM BASED ON DIFFERENCES BETWEEN DRAWINGS OR SPECIFICATIONS AND ACTUAL MEASUREMENTS.

**B. SIMILAR CONDITIONS:** MEMBERS OF STOREFRONT DOORS SUBJECT TO CHANGE PER TENANT REQUIREMENTS

- WHERE A DETAIL OR SECTION IS SHOWN FOR ONE CONDITION, IT APPLIES TO ALL LIKE OR SIMILAR CONDITIONS.

**C. COORDINATION:**

- CONTRACTOR SHALL PAY FOR ALL REQUIRED PERMITS AND FEES THAT MAY BE REQUIRED BY AUTHORITIES HAVING JURISDICTION
- COORDINATING ROUTING OF THE CONTRACTOR'S WORK WITH OTHER TRADES IS ESSENTIAL, AND ANY EXPENSE REQUIRED FOR REMOVAL OR RELOCATION SHALL BE BORNE BY THE CONTRACTOR.
- REFER TO CIVIL DRAWINGS FOR SITE UTILITIES AND SITE DRAINAGE.
- REFER TO CIVIL AND LANDSCAPE DRAWINGS FOR SIDEWALK, CURB, RETAINING WALLS, AND OTHER SITE IMPROVEMENTS.

**D. SITE WORK:**

- PRIOR TO CLEARING AND GRUBBING, PROVIDE SURFACE SITE DEWATERING BY TEMPORARY DITCHING, SLUMPING, OR OTHER APPROVED METHODS. RETAIN AND MAINTAIN TEMPORARY METHODS UNTIL PERMANENT DRAINAGE SYSTEMS (STORM DRAINS, SWALES, ETC.) ARE INSTALLED.
- CONTRACTOR TO PROVIDE DUMPSTER FOR CONSTRUCTION DEBRIS.
- CONSTRUCTION SITE SHALL BE KEPT CLEAN AND HAZARD FREE.

**E. MATERIALS:**

- ALL EXTERIOR WOOD BLOCKING, SHEATHING OR BRACING SHALL BE TREATED WOOD PER SECTION 06014.
- ALL INTERIOR WOOD FRAMING, BLOCKING, SHEATHING OR BRACING SHALL BE FIRE-RETARDANT TREATED WOOD PER SECTION 06014.
- IT IS THE INTENT OF THE ARCHITECT AND OWNER THAT ALL BUILDING MATERIALS USED IN AND DURING CONSTRUCTION SHALL BE NON-HAZARDOUS. SHOULD NEW MATERIALS BE FOUND TO BE HAZARDOUS, THE CONTRACTOR SHALL NOTIFY THE LOCAL AUTHORITY HAVING JURISDICTION AND PROCEED PER THEIR DIRECTIVES.
- SEE BUILDING ELEVATIONS AND SPECIFICATIONS FOR LOCATION AND SPACING OF REQUIRED CONTROL JOINTS.

**FLOOR PLAN NOTES**

**A. TENANT SPACES**

- BEFORE ORDERING STOREFRONT IN OPEN SPACES, CONFIRM LOCATION AND/OR DESIRED DOOR CONFIGURATIONS.
- ALL FIRST FLOOR STOREFRONT SUBJECT TO CHANGE PER TENANT REQUIREMENTS.

**B. CONCRETE FLOORS:**

- CONTRACTOR IS TO TAKE NECESSARY PRECAUTIONS TO MINIMIZE/ELIMINATE SCRATCHES IN CONCRETE FLOORS. GOUGES WILL NOT BE ALLOWED.

**C. FIRE RATED GLASS:**

- CONTRACTOR SHALL ENSURE FIRE RATED GLASS AND FRAMES ARE PROVIDED WHEN LOCATED IN FIRE RATED WALL.

**FLOOR PLAN KEYNOTES**

- UPLIGHT IN THIS AREA TO HIGHLIGHT EXISTING BRICK WALL
- FILL IN EXISTING RECESS IN FLOOR WITH GYPCRETE, FEATHER GYPCRETE TO COVER C-CHANNEL FLANGES.
- ADD GUARDRAILS IN THIS STAIRCASE PER CODE. VERIFY DESIGN WITH ARCHITECT PRIOR TO INSTALLATION.
- INSTALL DURADEK MEMBRANE PER MANUF. INSTRUCTIONS ON BALCONY, SEE DETAIL 13/A5.0 FOR TYP. DETAIL, MEMBRANE COLOR TO BE SELECTED BY INTERIOR DESIGNER

**INSULATION NOTES:**  
INSULATE SHELL OF BUILDING PER 2012 ENERGY CODES

**TYPICAL INSULATION VALUES:**  
ROOFS: R-25ci  
WALLS (ABOVE GRADE) GROUP M: R-13  
+R-7.5ci  
WALLS (ABOVE GRADE) GROUP R: R-13  
+R-3.8ci

FIXED FENESTRATION: 0.50 MIN.  
U-FACTOR  
ENTRANCE DOORS: 0.85 MIN U-FACTOR  
SHGC: 0.40

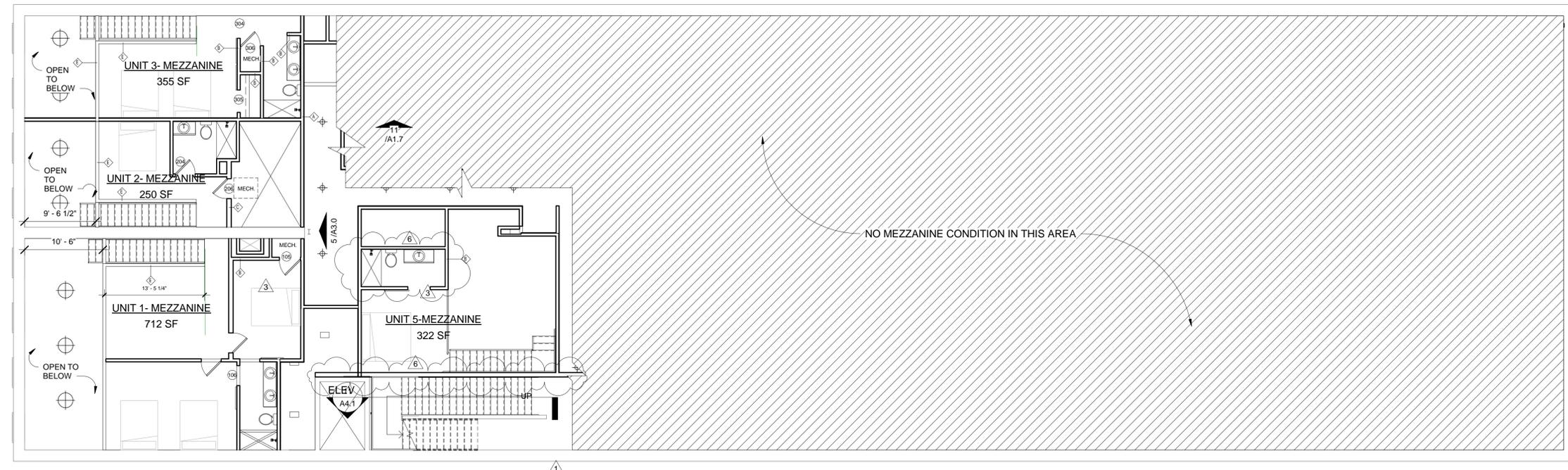
Revisions	
1	REVISION 01 04.14.17
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3	REVISION 03 09.26.17
6	REVISION 06 01.22.18

HMH Job Number  
16050

Drawn By  
CS

Date  
02.14.17

Drawing  
FLOOR PLAN



**MEZZANINE 2**  
SCALE: 1/8" = 1'-0"

PLAN LEGEND	
<b>ROOM NAME</b>	ROOM NAME & ROOM NUMBER
101	ROOM NUMBER
SF-1	STOREFRONT TYPE
101	DOOR NUMBER
D.S.	= DOWNSPOUT

**GENERAL NOTES**

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- SEE BUILDING ELEVATIONS AND SPECIFICATIONS FOR LOCATION AND SPACING OF REQUIRED CONTROL JOINTS.

FLOOR PLAN NOTES	
<b>A. TENANT SPACES</b>	1. BEFORE ORDERING STOREFRONT IN OPEN SPACES, CONFIRM LOCATION AND/OR DESIRED DOOR CONFIGURATIONS. 2. ALL FIRST FLOOR STOREFRONT SUBJECT TO CHANGE PER TENANT REQUIREMENTS.
<b>B. CONCRETE FLOORS:</b>	1. CONTRACTOR IS TO TAKE NECESSARY PRECAUTIONS TO MINIMIZE/ELIMINATE SCRATCHES IN CONCRETE FLOORS. GOUGES WILL NOT BE ALLOWED.
<b>C. FIRE RATED GLASS:</b>	1. CONTRACTOR SHALL ENSURE FIRE RATED GLASS AND FRAMES ARE PROVIDED WHEN LOCATED IN FIRE RATED WALL.
FLOOR PLAN KEYNOTES	
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<b>INSULATION NOTES:</b> INSULATE SHELL OF BUILDING PER 2012 ENERGY CODES  <b>TYPICAL INSULATION VALUES:</b> ROOFS: R-25c WALLS (ABOVE GRADE) GROUP M: R-13 +R-7.5c WALLS (ABOVE GRADE) GROUP R: R-13 +R-3.8c  FIXED FENESTRATION: 0.50 MIN. U-FACTOR ENTRANCE DOORS: 0.85 MIN U-FACTOR SHGC: 0.40	

Revisions		
1	REVISION 01	04.14.17
3	REVISION 03	09.26.17
6	REVISION 06	01.22.18

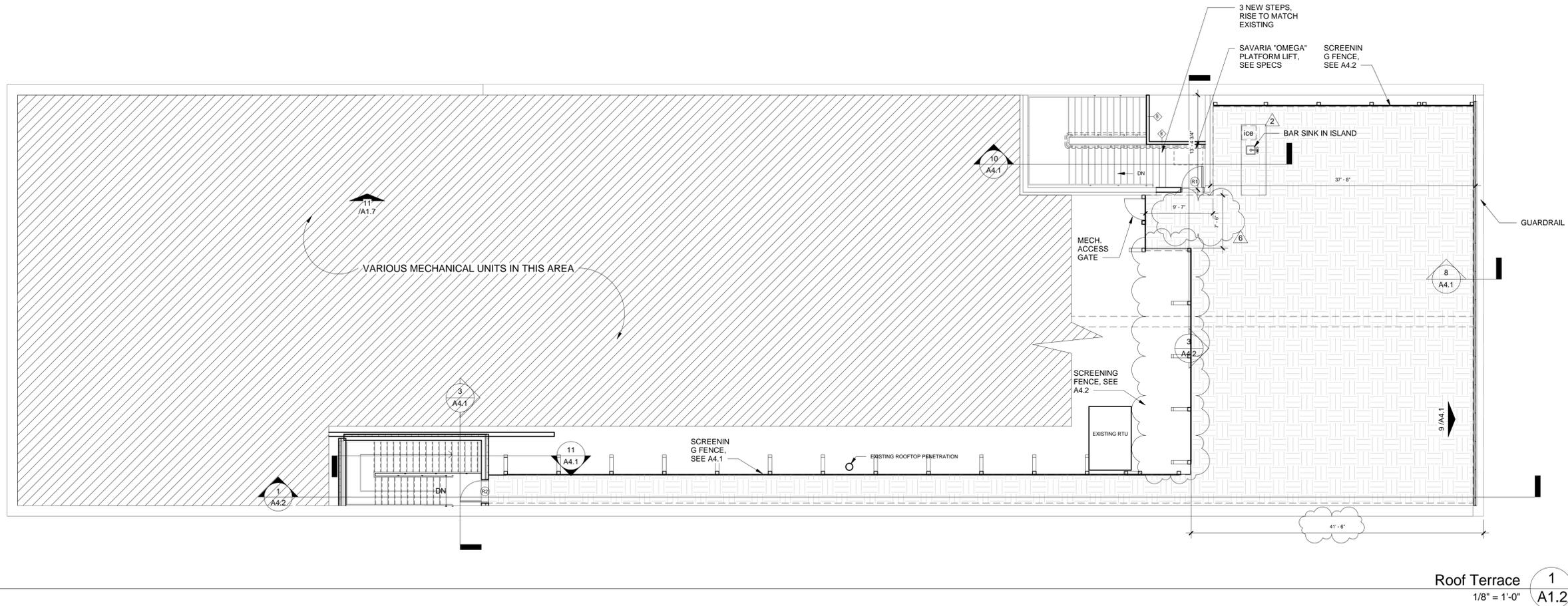
HM Job Number  
16050

Drawn By  
CS

Date  
02.14.17

Drawing  
MEZZANINE PLAN

**A1.1**



PLAN LEGEND	
ROOM NAME	ROOM NAME & ROOM NUMBER
101	
SF-1	STOREFRONT TYPE
101	DOOR NUMBER
D.S.	= DOWNSPOUT

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FLOOR PLAN NOTES	
<p><b>A. TENANT SPACES</b></p> <ol style="list-style-type: none"> <li>BEFORE ORDERING STOREFRONT IN OPEN SPACES, CONFIRM LOCATION AND/OR DESIRED DOOR CONFIGURATIONS.</li> <li>ALL FIRST FLOOR STOREFRONT SUBJECT TO CHANGE PER TENANT REQUIREMENTS.</li> </ol> <p><b>B. CONCRETE FLOORS:</b></p> <ol style="list-style-type: none"> <li>CONTRACTOR IS TO TAKE NECESSARY PRECAUTIONS TO MINIMIZE/ELIMINATE SCRATCHES IN CONCRETE FLOORS. GOUGES WILL NOT BE ALLOWED.</li> </ol> <p><b>C. FIRE RATED GLASS:</b></p> <ol style="list-style-type: none"> <li>CONTRACTOR SHALL ENSURE FIRE RATED GLASS AND FRAMES ARE PROVIDED WHEN LOCATED IN FIRE RATED WALL.</li> </ol>	
<p><b>FLOOR PLAN KEYNOTES</b></p> <ol style="list-style-type: none"> <li>UPLIGHT IN THIS AREA TO HIGHLIGHT EXISTING BRICK WALL</li> <li>FILL IN EXISTING RECESS IN FLOOR WITH GYPCRETE, FEATHER GYPCRETE TO COVER C-CHANNEL FLANGES.</li> <li>ADD GUARDRAILS IN THIS STAIRCASE PER CODE. VERIFY DESIGN WITH ARCHITECT PRIOR TO INSTALLATION.</li> <li>INSTALL DURADEK MEMBRANE PER MANUF. INSTRUCTIONS ON BALCONY, SEE DETAIL 13/A5.0 FOR TYP. DETAIL, MEMBRANE COLOR TO BE SELECTED BY INTERIOR DESIGNER</li> </ol>	
<p><b>INSULATION NOTES:</b> INSULATE SHELL OF BUILDING PER 2012 ENERGY CODES</p> <p><b>TYPICAL INSULATION VALUES:</b> ROOFS: R-25ci WALLS (ABOVE GRADE) GROUP M: R-13 +R-7.5ci WALLS (ABOVE GRADE) GROUP R: R-13 +R-3.8ci</p> <p>FIXED FENESTRATION: 0.50 MIN. U-FACTOR ENTRANCE DOORS: 0.85 MIN U-FACTOR SHGC: 0.40</p>	

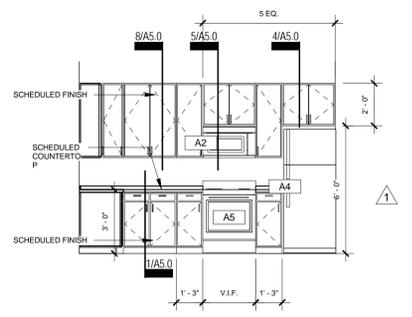
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1	REVISION 01 04.14.17
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HMH Job Number  
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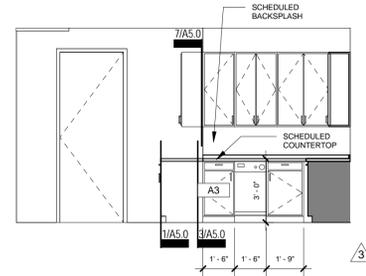
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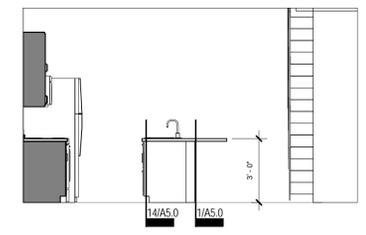
Drawing  
ROOF PLAN



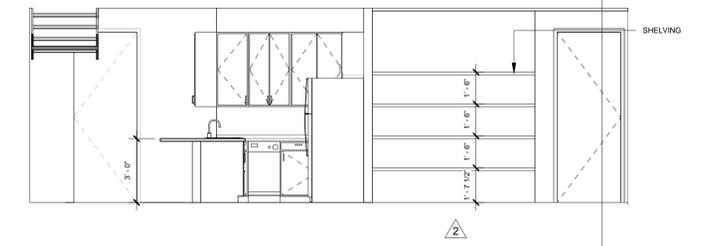
**ELEVATION 12**  
1/4" = 1'-0"  
A1.3



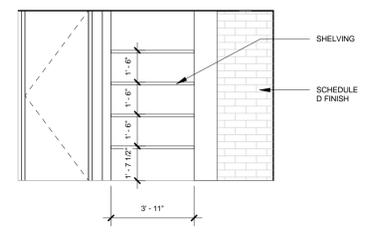
**ELEVATION 7**  
1/4" = 1'-0"  
A1.3



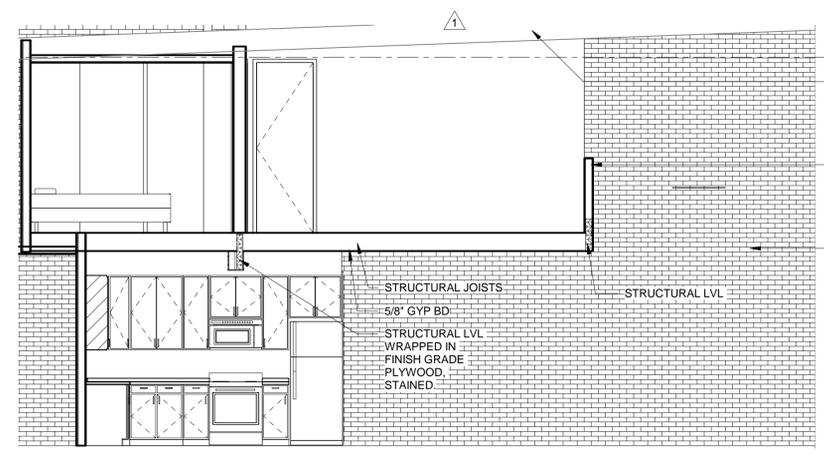
**ELEVATION 6**  
1/4" = 1'-0"  
A1.3



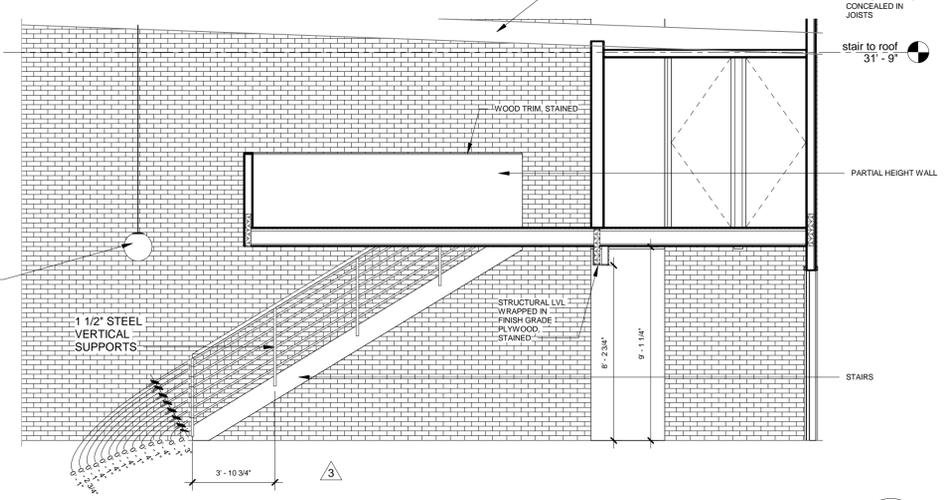
**ELEVATION 4**  
1/4" = 1'-0"  
A1.3



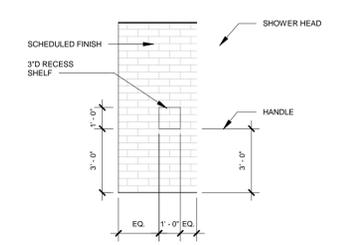
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1/4" = 1'-0"  
A1.3



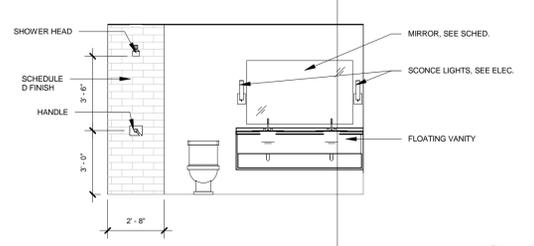
**ELEVATION 9**  
1/4" = 1'-0"  
A1.3



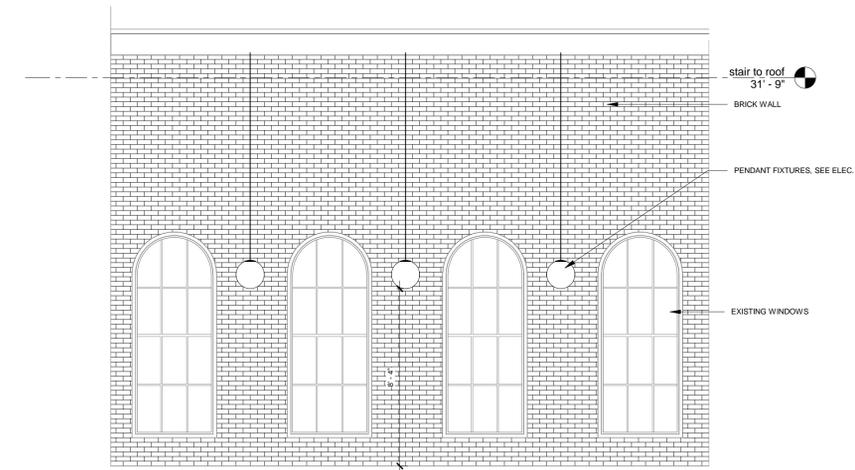
**ELEVATION 3**  
1/4" = 1'-0"  
A1.3



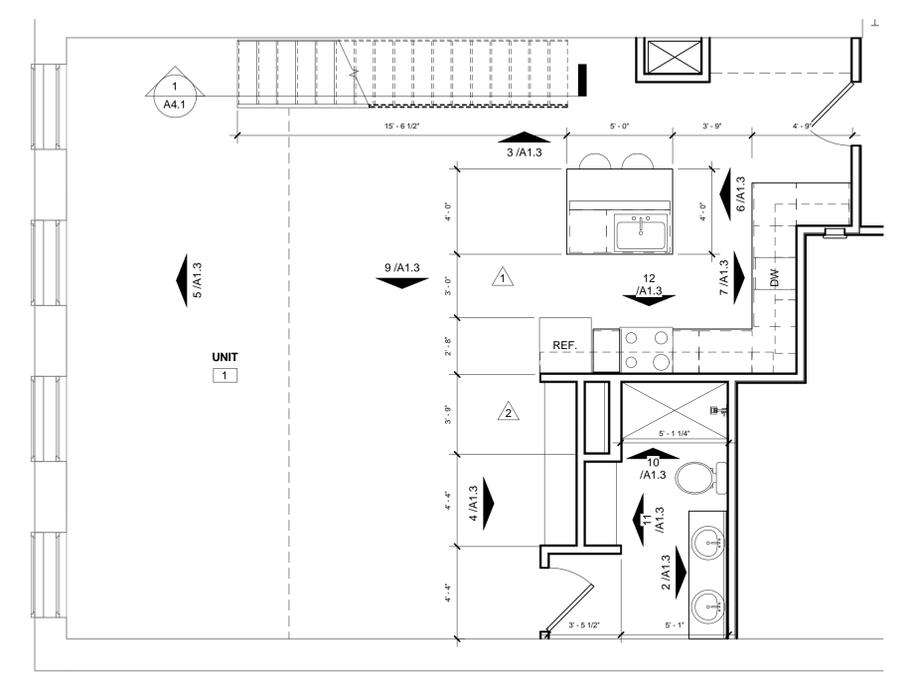
**ELEVATION 10**  
1/4" = 1'-0"  
A1.3



**ELEVATION 2**  
1/4" = 1'-0"  
A1.3



**ELEVATION 5**  
1/4" = 1'-0"  
A1.3



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

Revisions		
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17
3	REVISION 03	09.26.17
4	REVISION 04	10.24.17

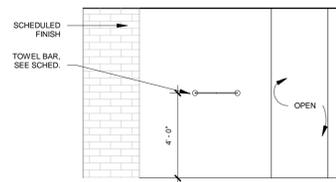
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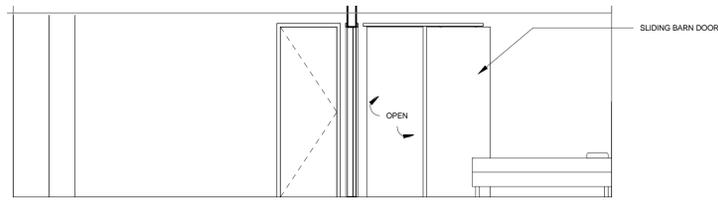
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02.14.17

Drawing  
UNIT 1

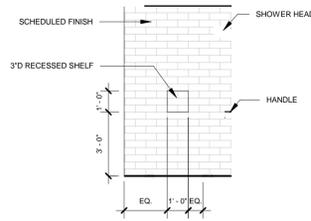
**A1.3**



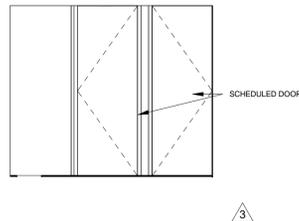
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1/4" = 1'-0" A1.4



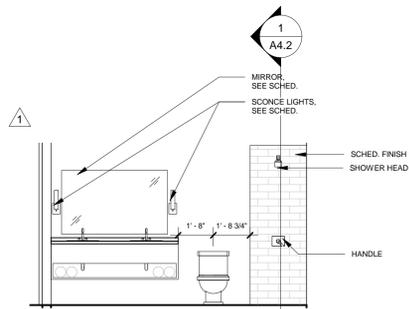
ELEVATION 2  
1/4" = 1'-0" A1.4



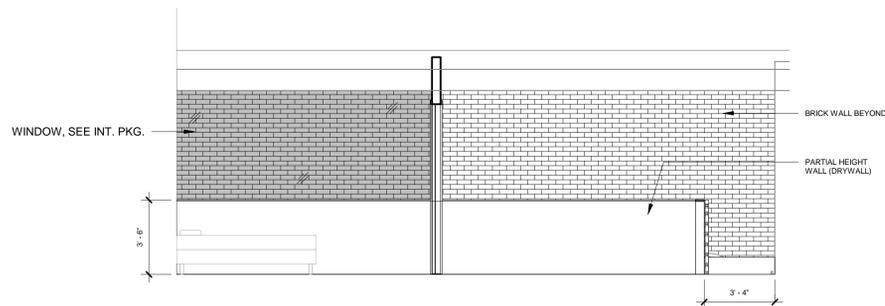
ELEVATION 6  
1/4" = 1'-0" A1.4



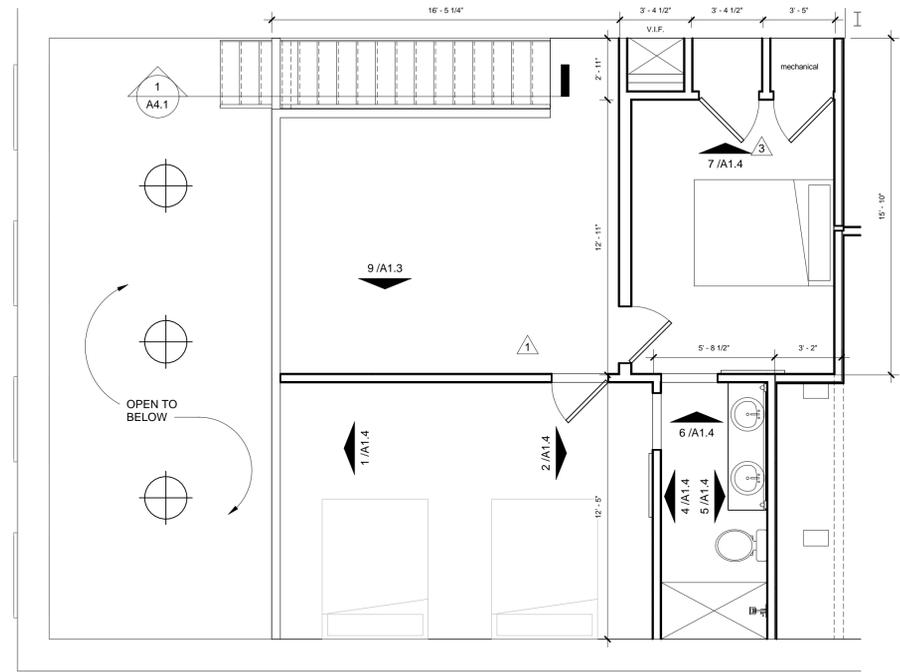
ELEVATION 7  
1/4" = 1'-0" A1.4



ELEVATION 5  
1/4" = 1'-0" A1.4



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



**UNIT 1 MEZZANINE**  
SCALE: 1/4" = 1'-0"

Revisions		
1	REVISION 01	04.14.17
3	REVISION 03	09.26.17
4	REVISION 04	10.24.17

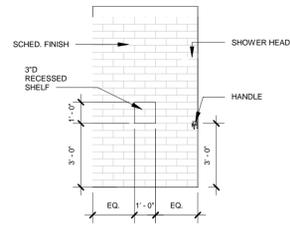
HMH Job Number  
16050

Drawn By  
CS

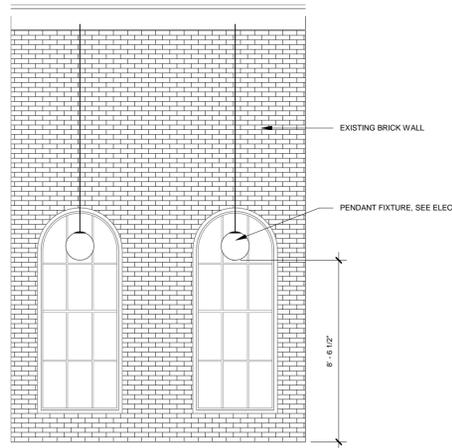
Date  
02.14.17

Drawing  
UNIT 1

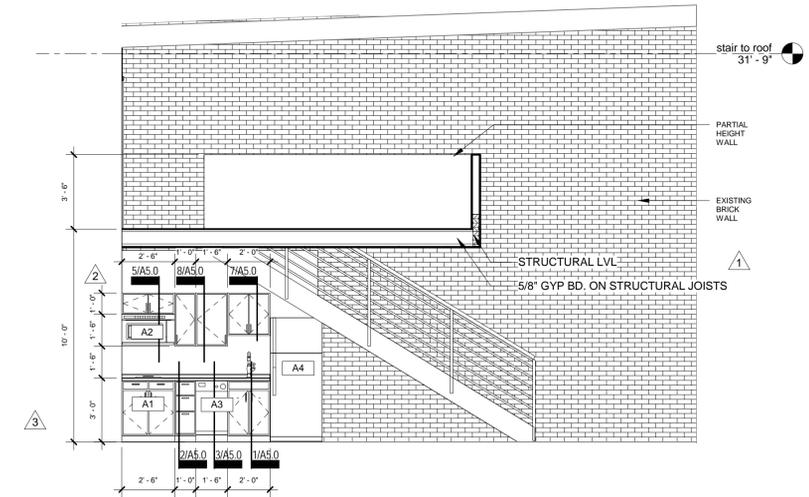
**A1.4**



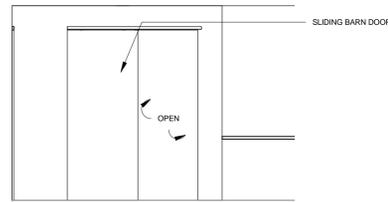
ELEVATION 10  
1/4" = 1'-0" A1.5



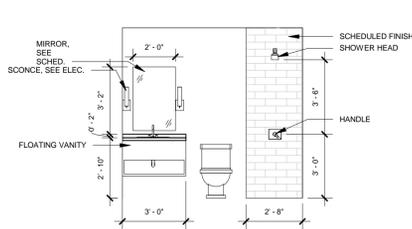
ELEVATION 6  
1/4" = 1'-0" A1.5



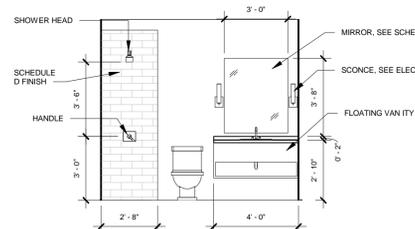
ELEVATION 3  
1/4" = 1'-0" A1.5



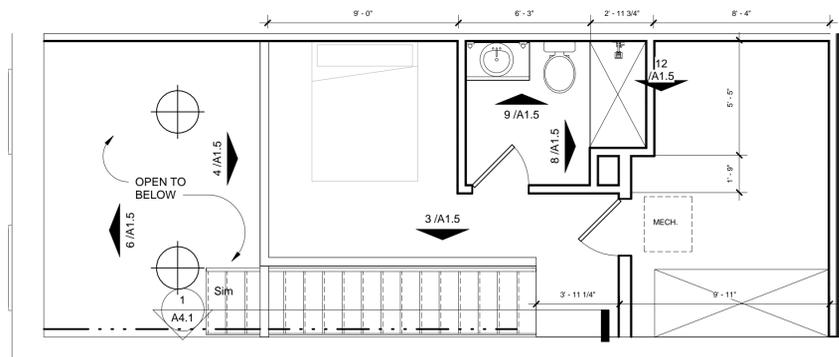
ELEVATION 12  
1/4" = 1'-0" A1.5



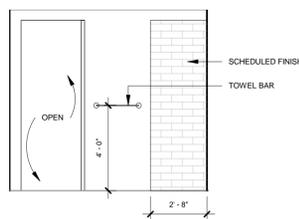
ELEVATION 9  
1/4" = 1'-0" A1.5



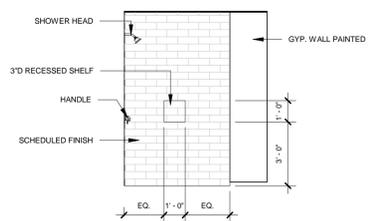
ELEVATION 5  
1/4" = 1'-0" A1.5



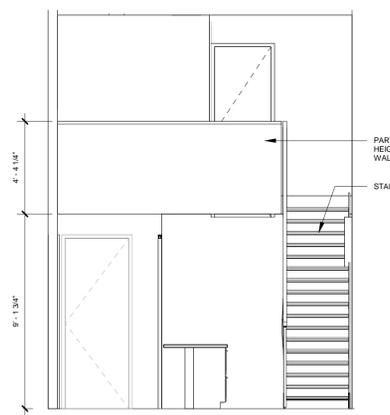
UNIT 2 MEZZANINE



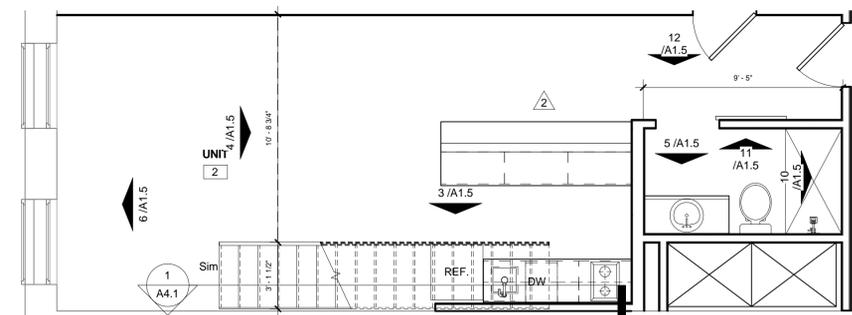
ELEVATION 11  
1/4" = 1'-0" A1.5



ELEVATION 8  
1/4" = 1'-0" A1.5



ELEVATION 4  
1/4" = 1'-0" A1.5



UNIT 2

Revisions

1	REVISION 01	04.14.17
2	REVISION 02	05.09.17
3	REVISION 03	09.26.17
4	REVISION 04	10.24.17

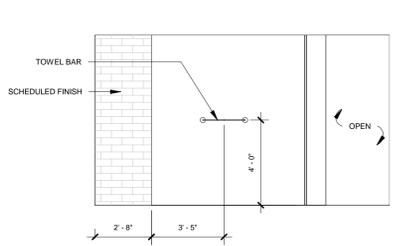
HMH Job Number  
16050

Drawn By  
Author

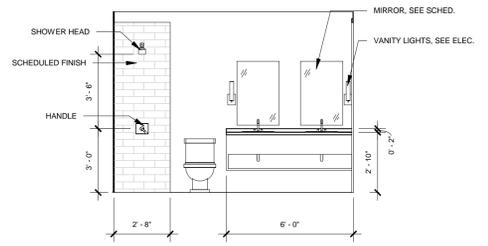
Date  
02.14.17

Drawing  
UNIT 2

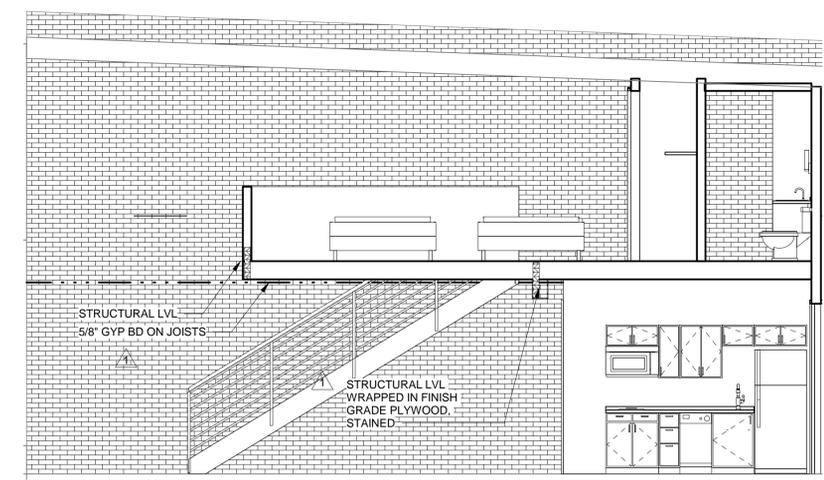
**A1.5**



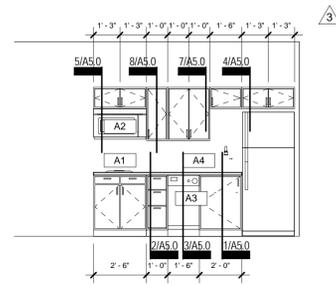
ELEVATION 10  
1/4" = 1'-0" A1.6



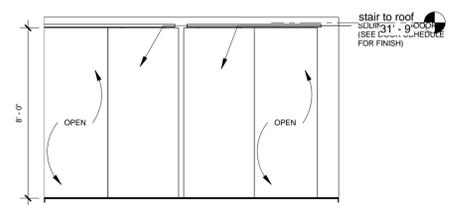
ELEVATION 6  
1/4" = 1'-0" A1.6



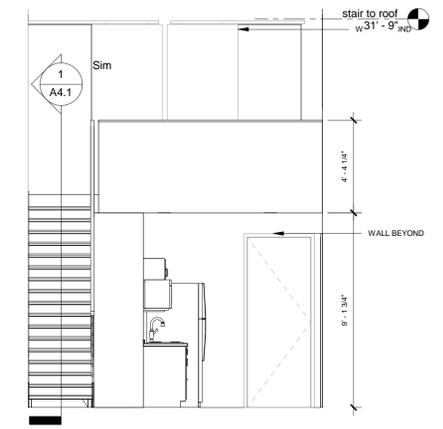
ELEVATION 3  
1/4" = 1'-0" A1.6



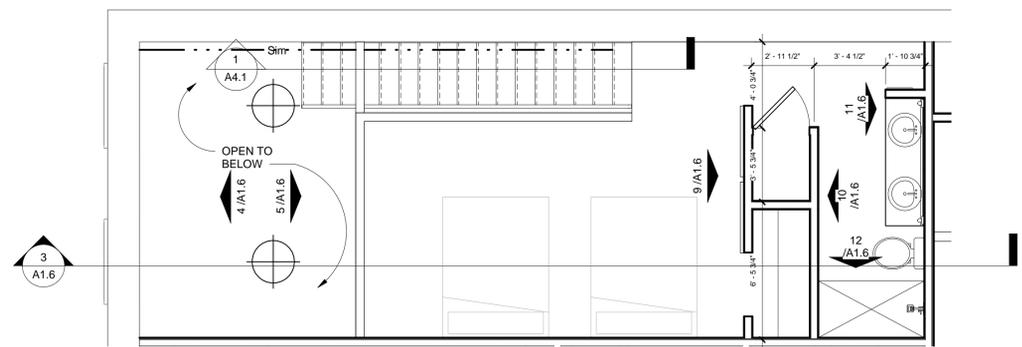
ELEVATION 13  
1/4" = 1'-0" A1.6



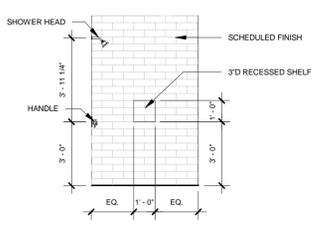
ELEVATION 9  
1/4" = 1'-0" A1.6



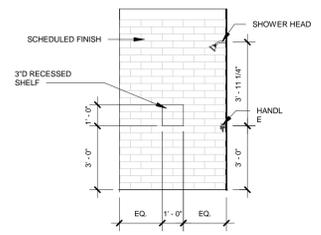
ELEVATION 5  
1/4" = 1'-0" A1.6



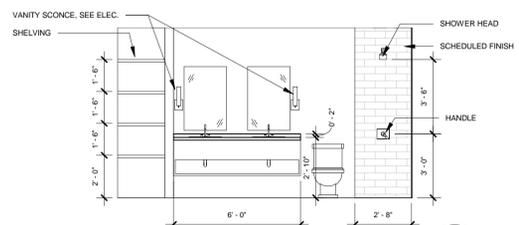
**UNIT 3 MEZZANINE**  
SCALE: 1/4" = 1'-0"



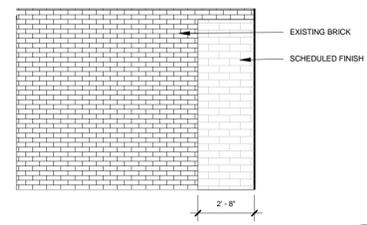
ELEVATION 12  
1/4" = 1'-0" A1.6



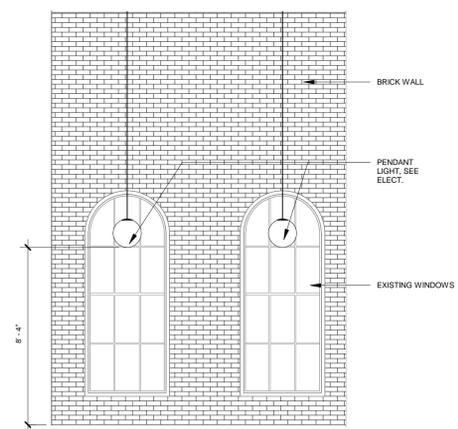
ELEVATION 8  
1/4" = 1'-0" A1.6



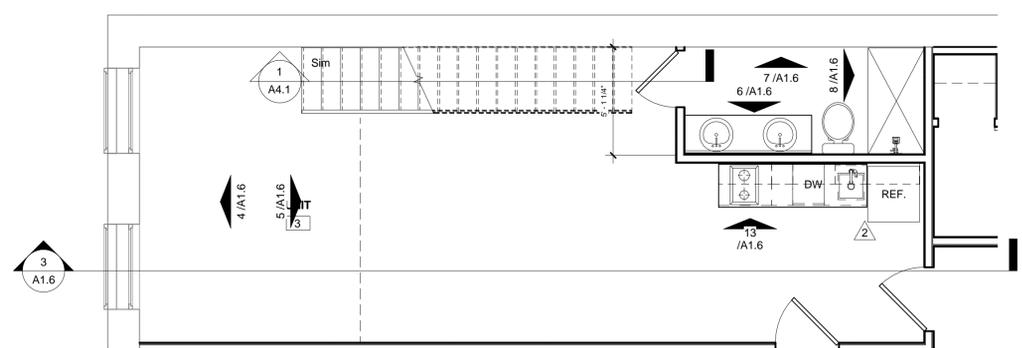
ELEVATION 11  
1/4" = 1'-0" A1.6



unit 3-5  
1/4" = 1'-0" A1.6



ELEVATION 4  
1/4" = 1'-0" A1.6



**UNIT 3**  
SCALE: 1/4" = 1'-0"

Revisions	
1	REVISION 01 04.14.17
2	REVISION 02 05.09.17
3	REVISION 03 09.26.17
4	REVISION 04 10.24.17

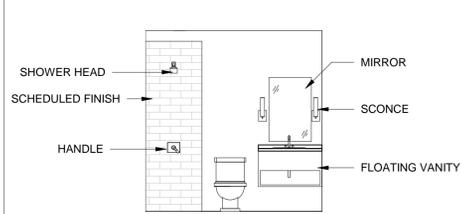
HMH Job Number  
16050

Drawn By  
CS

Date  
02.14.17

Drawing  
UNIT 3

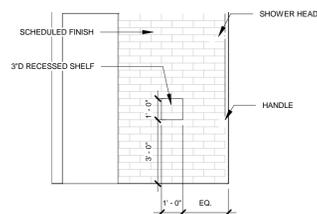
**A1.6**



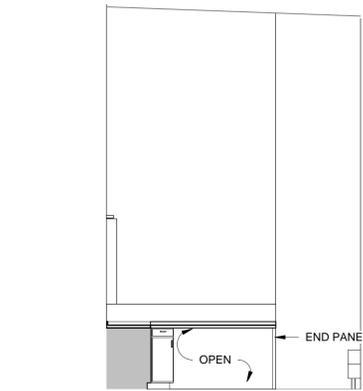
ELEVATION 10  
1/4" = 1'-0" A1.7



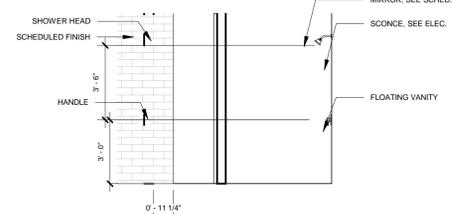
ELEVATION 8  
1/4" = 1'-0" A1.7



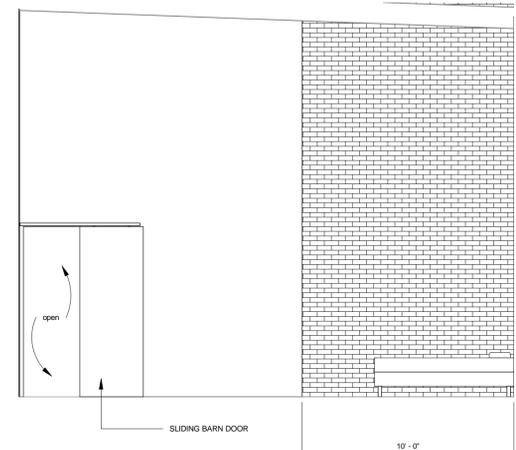
ELEVATION 6  
1/4" = 1'-0" A1.7



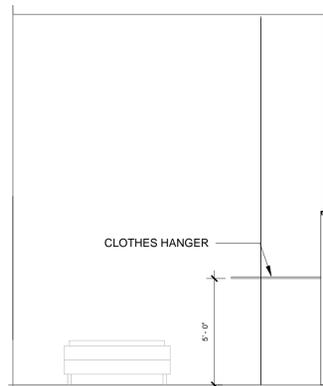
ELEVATION 11  
1/4" = 1'-0" A1.7



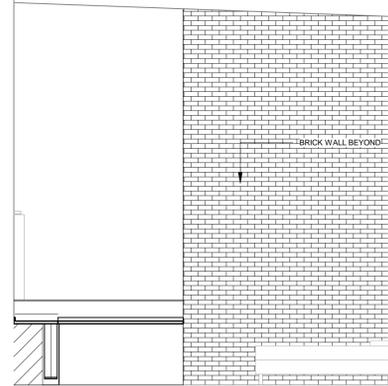
ELEVATION 4  
1/4" = 1'-0" A1.7



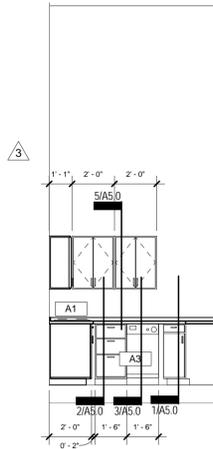
ELEVATION 2  
1/4" = 1'-0" A1.7



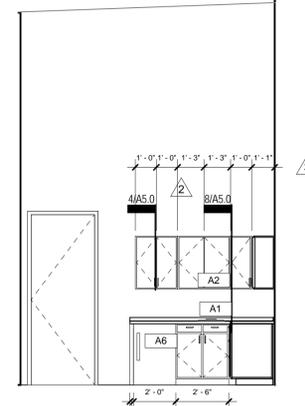
ELEVATION 9  
1/4" = 1'-0" A1.7



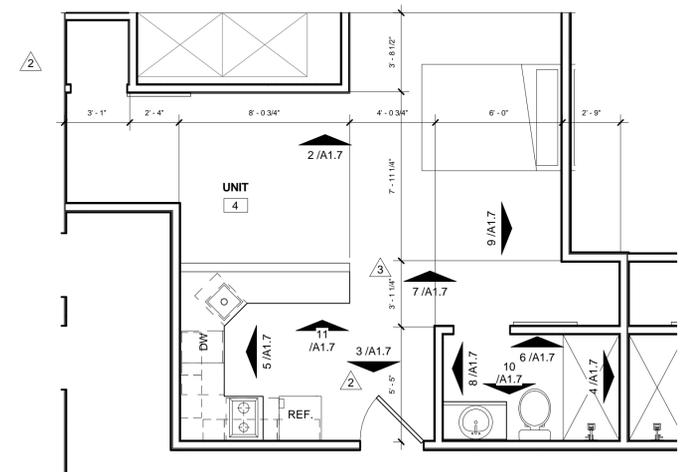
ELEVATION 7  
1/4" = 1'-0" A1.7



ELEVATION 5  
1/4" = 1'-0" A1.7



ELEVATION 3  
1/4" = 1'-0" A1.7



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

Revisions	
1	REVISION 01 04.14.17
2	REVISION 02 05.09.17
3	REVISION 03 09.26.17
4	REVISION 04 10.24.17

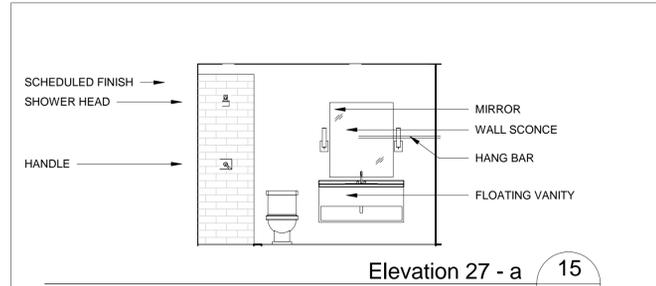
HMH Job Number  
16050

Drawn By  
Author

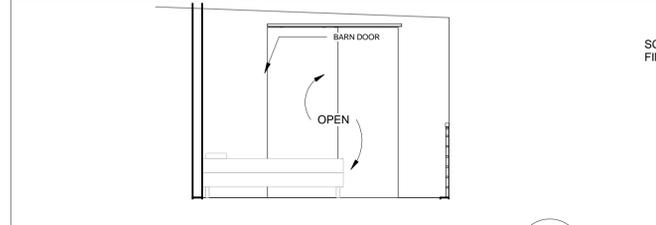
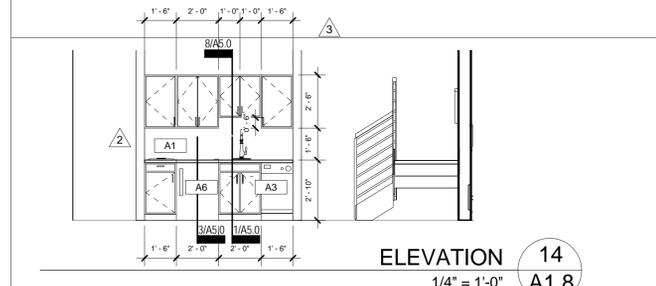
Date  
02.14.17

Drawing  
UNIT 4

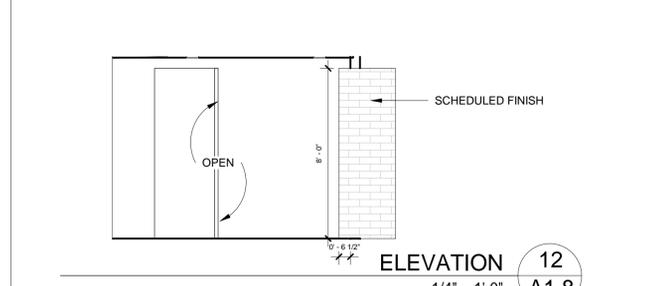
A1.7



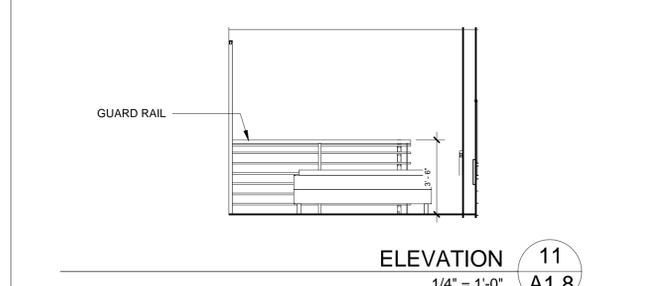
Elevation 27 - a  
1/4" = 1'-0" A1.8



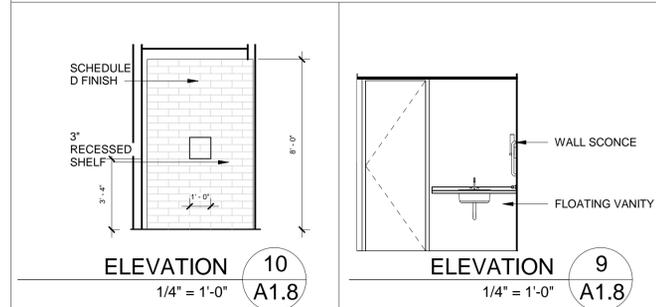
ELEVATION  
1/4" = 1'-0" A1.8



ELEVATION  
1/4" = 1'-0" A1.8

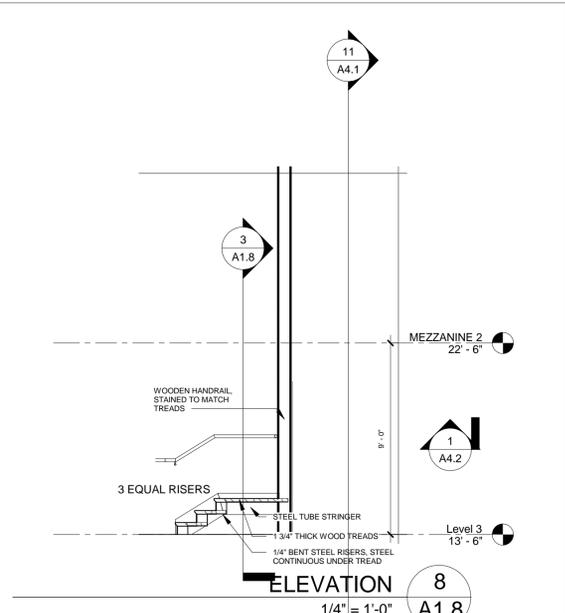


ELEVATION  
1/4" = 1'-0" A1.8

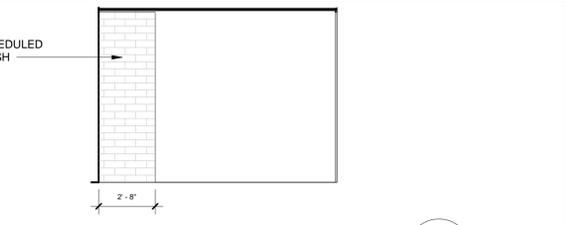


ELEVATION  
1/4" = 1'-0" A1.8

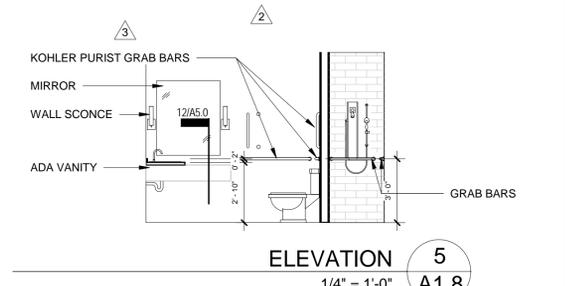
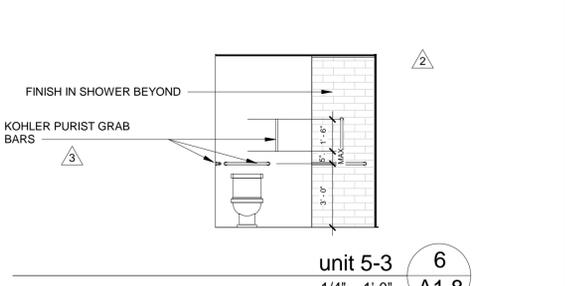
ELEVATION  
1/4" = 1'-0" A1.8



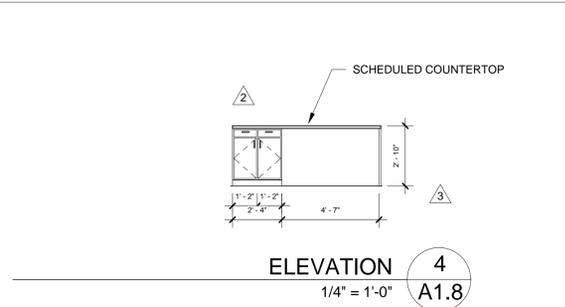
ELEVATION  
1/4" = 1'-0" A1.8



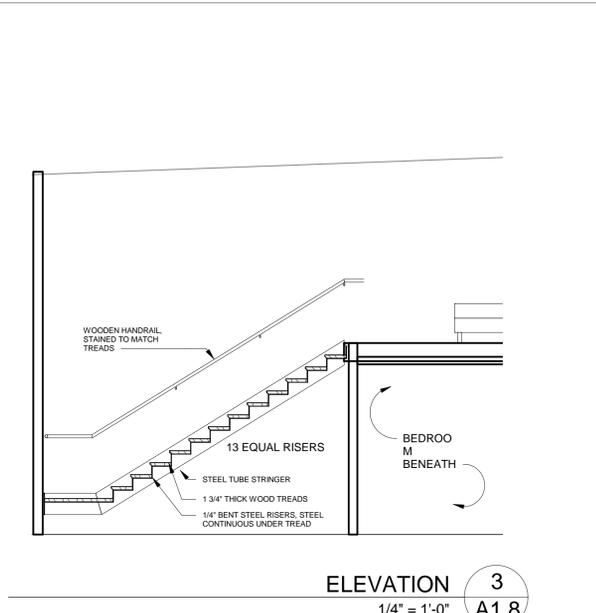
ELEVATION  
1/4" = 1'-0" A1.8



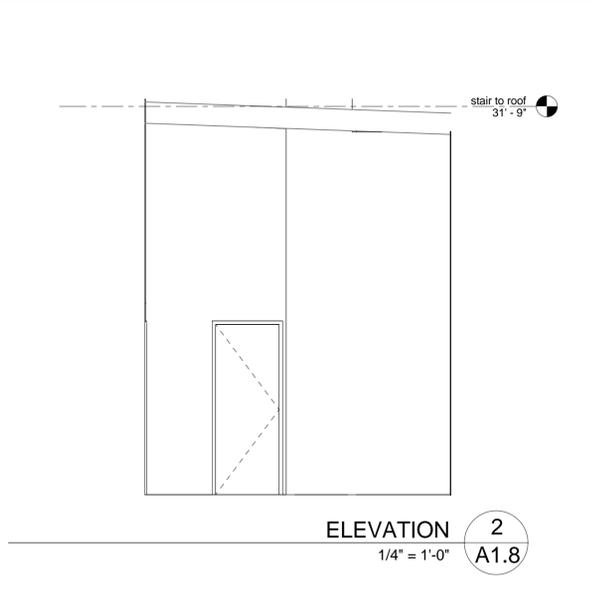
ELEVATION  
1/4" = 1'-0" A1.8



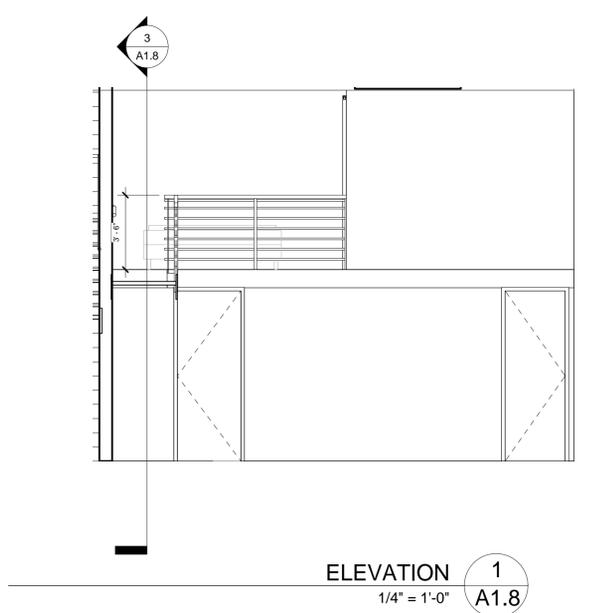
ELEVATION  
1/4" = 1'-0" A1.8



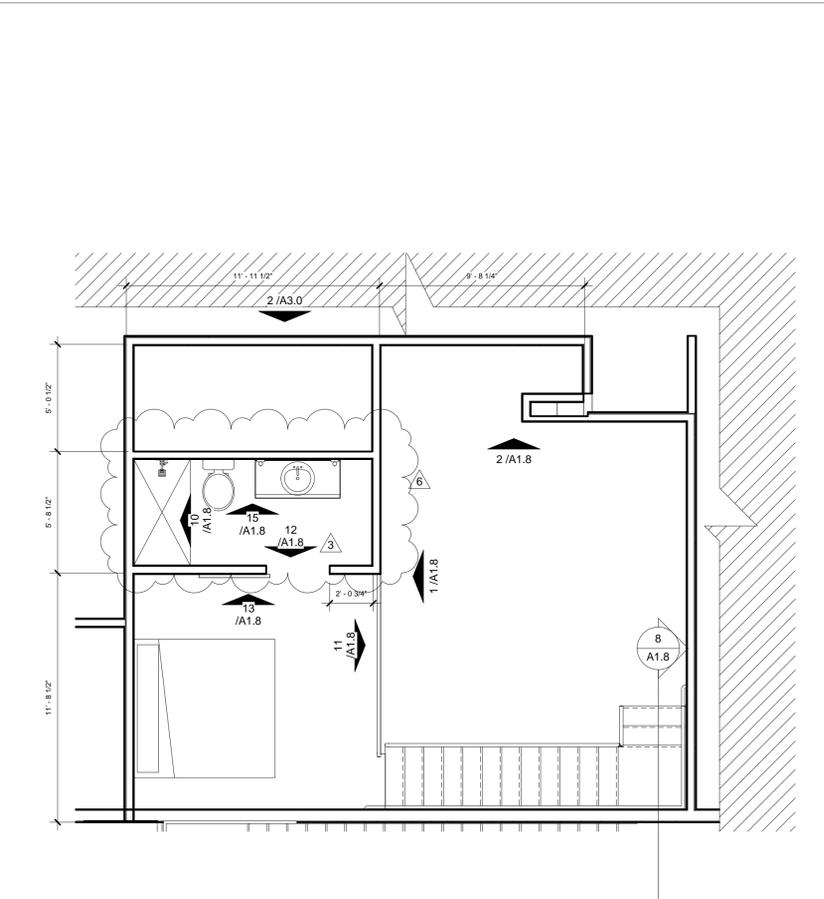
ELEVATION  
1/4" = 1'-0" A1.8



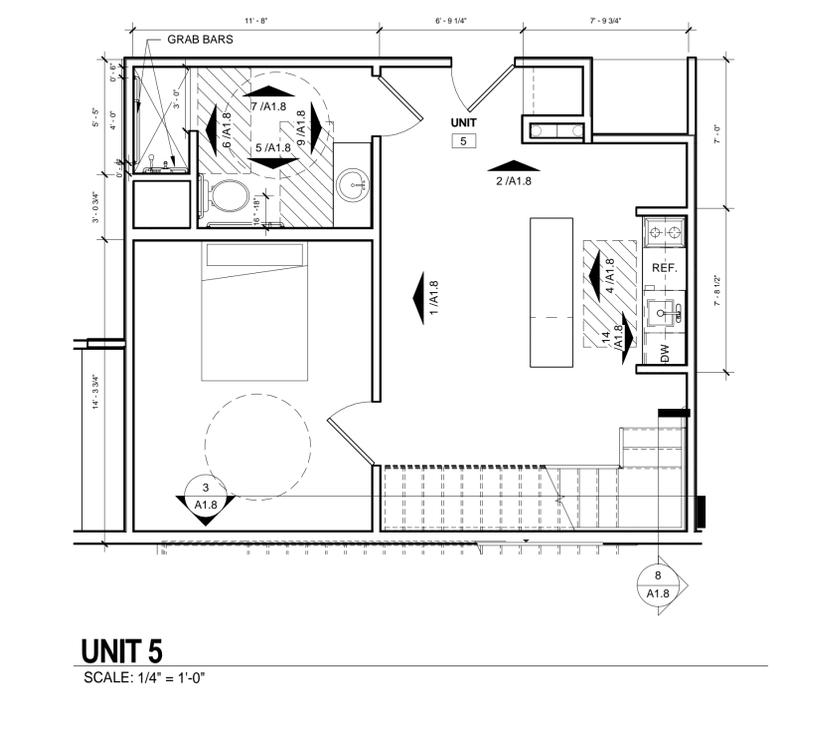
ELEVATION  
1/4" = 1'-0" A1.8



ELEVATION  
1/4" = 1'-0" A1.8



UNIT 5 MEZZANINE  
SCALE: 1/4" = 1'-0"



UNIT 5  
SCALE: 1/4" = 1'-0"

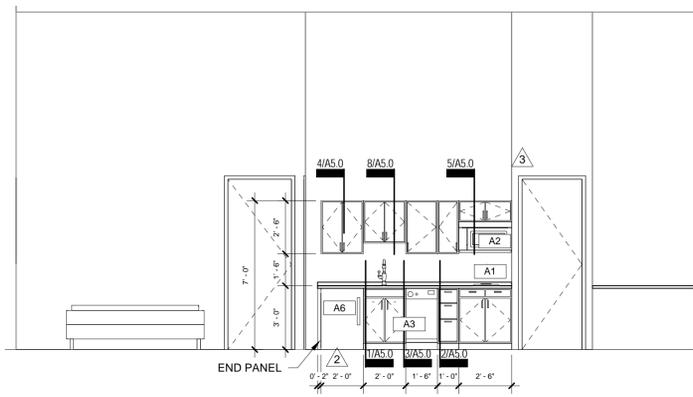
Revisions		
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17
3	REVISION 03	09.26.17
4	REVISION 04	10.24.17
6	REVISION 06	01.22.18

HM Job Number  
16050

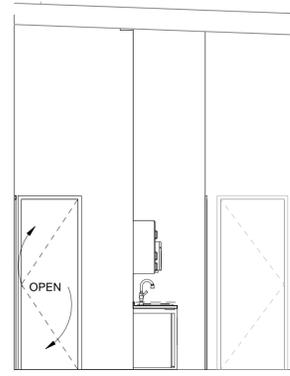
Drawn By  
CS

Date  
02.14.17

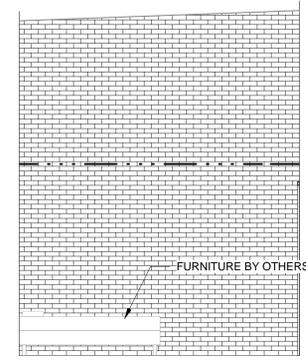
Drawing  
UNIT 5



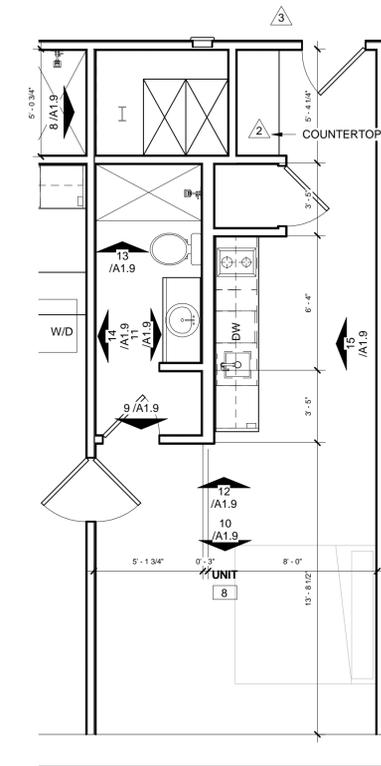
ELEVATION 15  
1/4" = 1'-0" A1.9



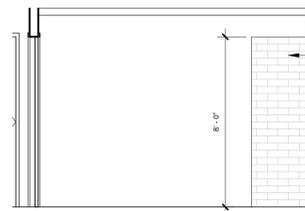
ELEVATION 12  
1/4" = 1'-0" A1.9



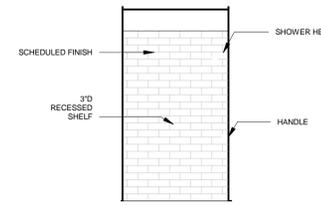
ELEVATION 10  
1/4" = 1'-0" A1.9



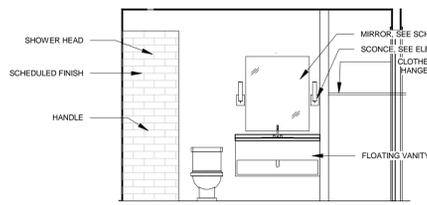
UNIT 8



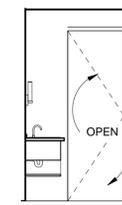
ELEVATION 14  
1/4" = 1'-0" A1.9



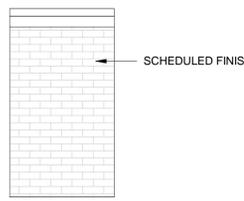
ELEVATION 13  
1/4" = 1'-0" A1.9



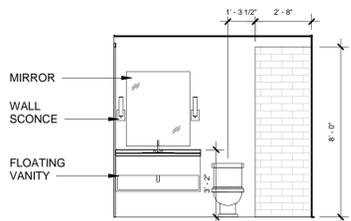
ELEVATION 11  
1/4" = 1'-0" A1.9



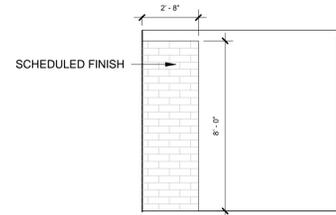
ELEVATION 9  
1/4" = 1'-0" A1.9



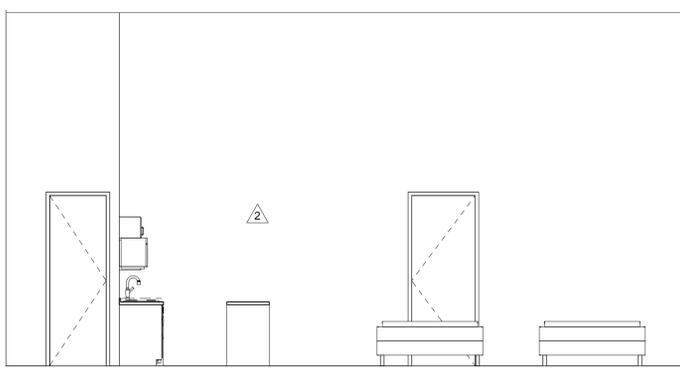
ELEVATION 8  
1/4" = 1'-0" A1.9



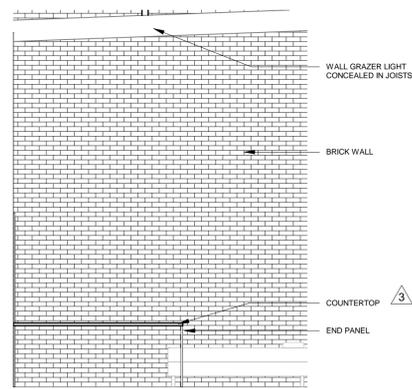
ELEVATION 6  
1/4" = 1'-0" A1.9



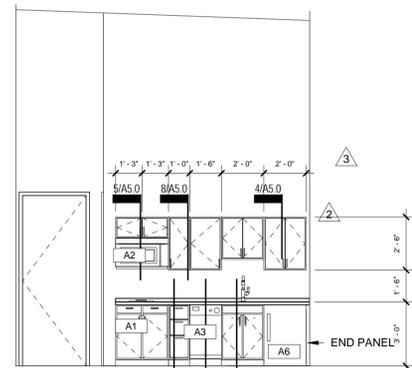
ELEVATION 4  
1/4" = 1'-0" A1.9



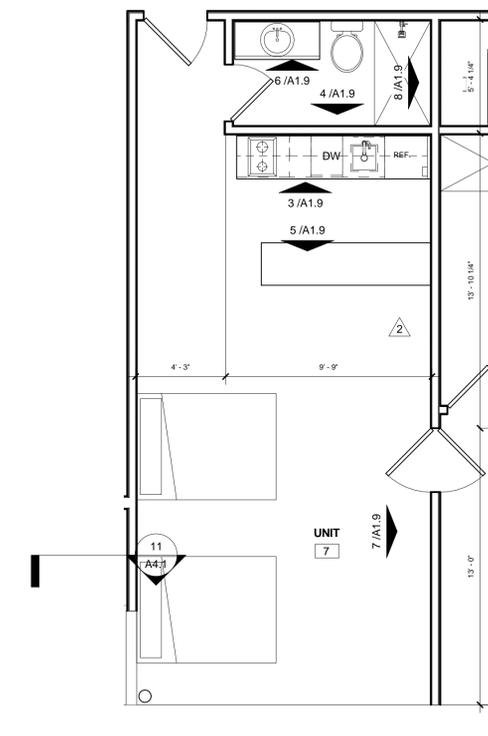
ELEVATION 7  
1/4" = 1'-0" A1.9



ELEVATION 5  
1/4" = 1'-0" A1.9



ELEVATION 3  
1/4" = 1'-0" A1.9



UNIT 7  
SCALE: 1/4" = 1'-0"

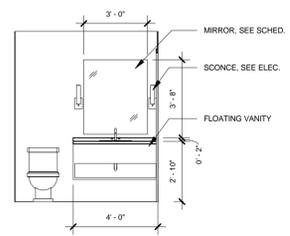
Revisions		
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17
3	REVISION 03	09.26.17
4	REVISION 04	10.24.17

HMH Job Number  
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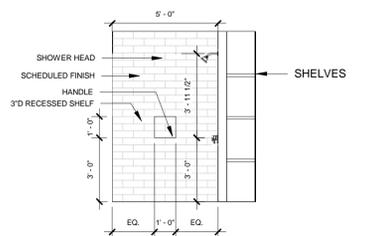
Drawn By  
CS

Date  
02.14.17

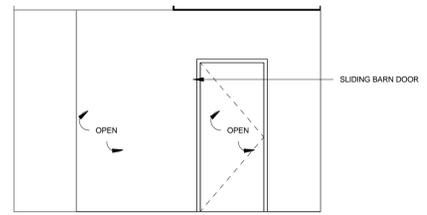
Drawing  
UNITS 7 & 8



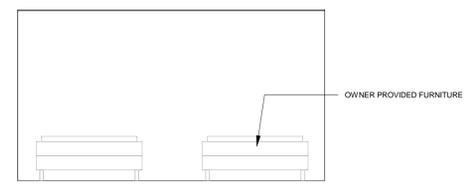
ELEVATION 18  
1/4" = 1'-0" A1.10



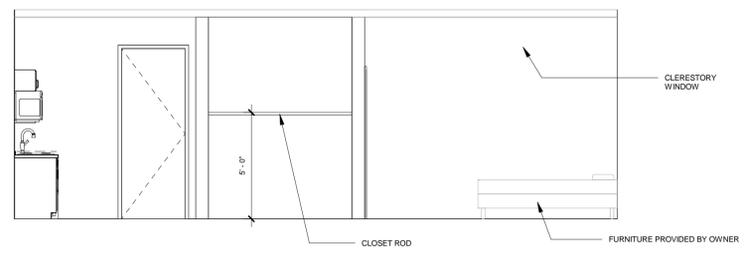
ELEVATION 17  
1/4" = 1'-0" A1.10



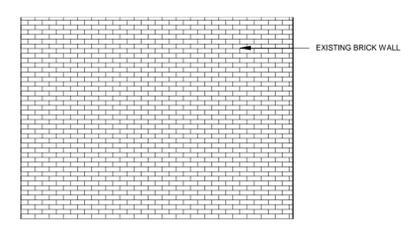
ELEVATION 15  
1/4" = 1'-0" A1.10



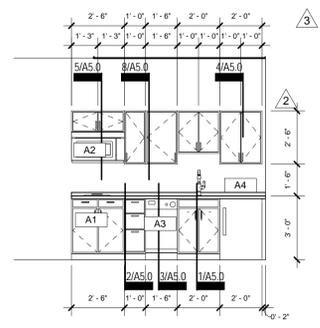
ELEVATION 13  
1/4" = 1'-0" A1.10



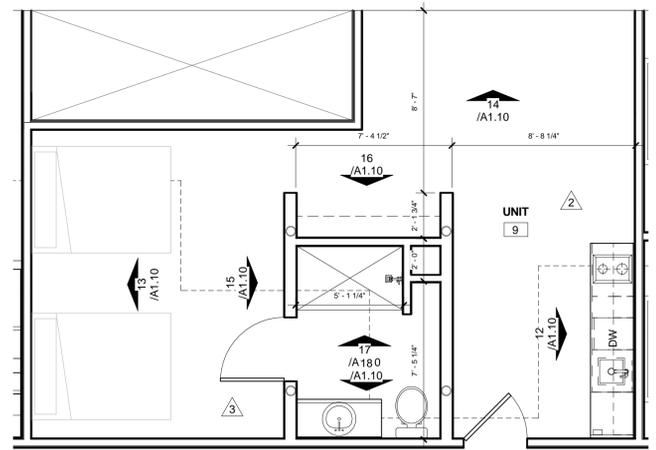
ELEVATION 16  
1/4" = 1'-0" A1.10



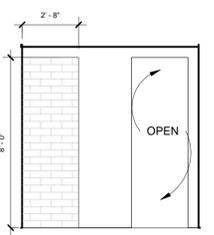
ELEVATION 14  
1/4" = 1'-0" A1.10



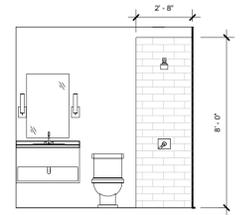
ELEVATION 12  
1/4" = 1'-0" A1.10



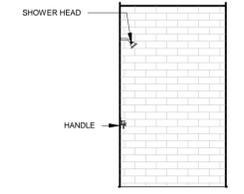
UNIT 9  
SCALE: 1/4" = 1'-0"



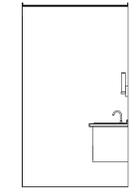
ELEVATION 11  
1/4" = 1'-0" A1.10



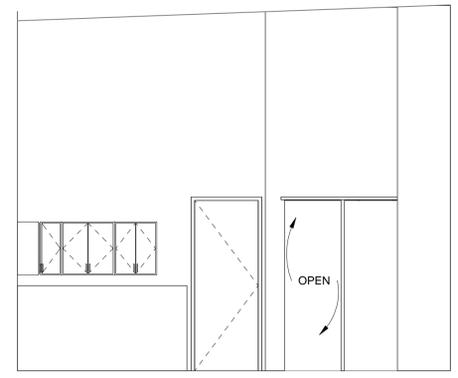
ELEVATION 9  
1/4" = 1'-0" A1.10



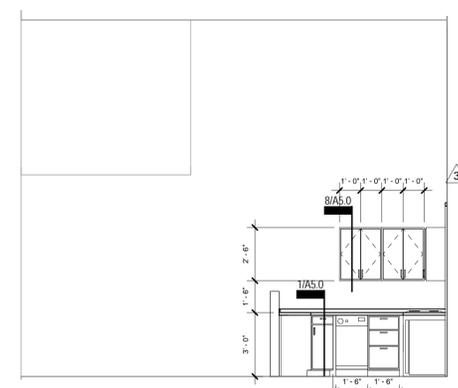
ELEVATION 7  
1/4" = 1'-0" A1.10



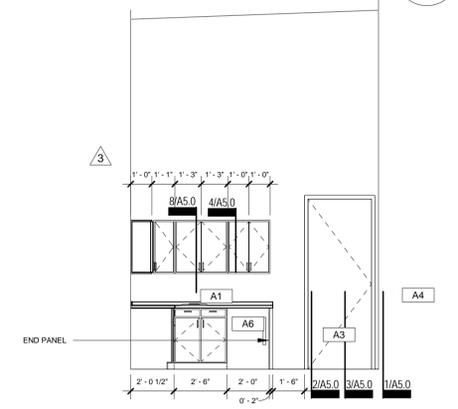
ELEVATION 6  
1/4" = 1'-0" A1.10



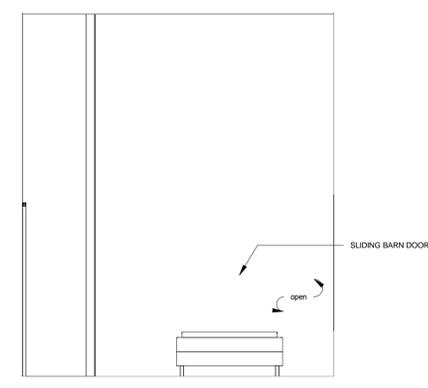
ELEVATION 4  
1/4" = 1'-0" A1.10



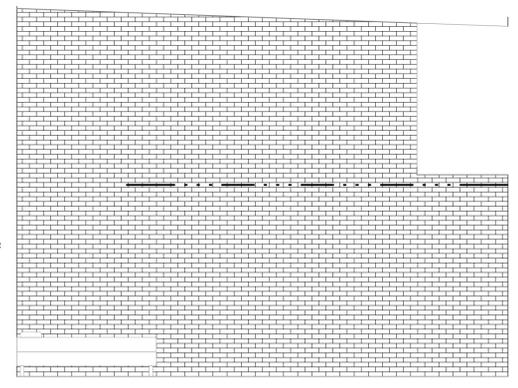
ELEVATION 5  
1/4" = 1'-0" A1.10



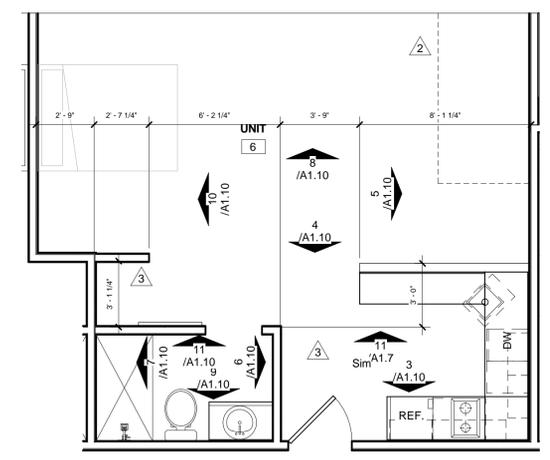
ELEVATION 3  
1/4" = 1'-0" A1.10



ELEVATION 10  
1/4" = 1'-0" A1.10



ELEVATION 8  
1/4" = 1'-0" A1.10



UNIT 6  
SCALE: 1/4" = 1'-0"

Revisions

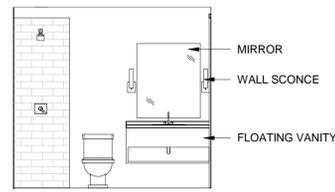
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17
3	REVISION 03	09.26.17
4	REVISION 04	10.24.17

HMH Job Number  
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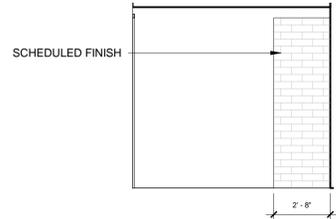
Drawn By  
CS

Date  
02.14.17

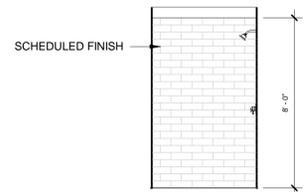
Drawing  
UNITS 6 & 9



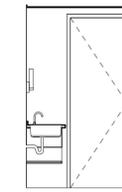
ELEVATION 16  
1/4" = 1'-0" A1.11



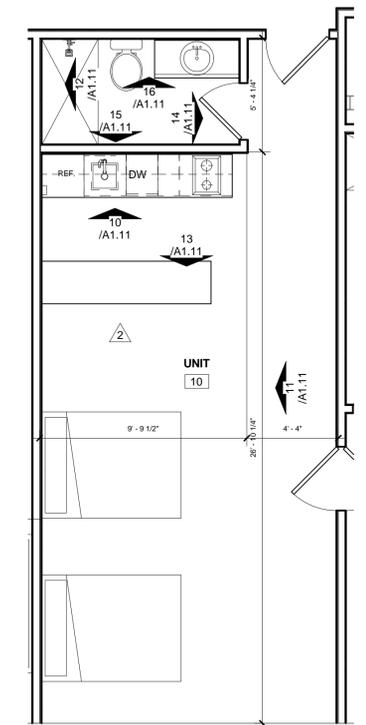
ELEVATION 15  
1/4" = 1'-0" A1.11



ELEVATION 12  
1/4" = 1'-0" A1.11



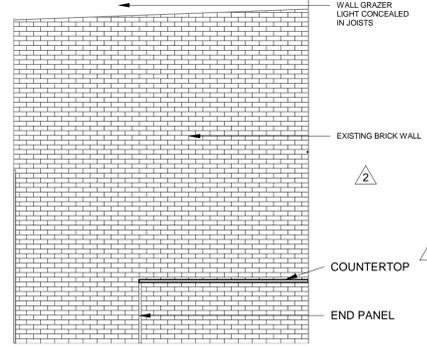
ELEVATION 14  
1/4" = 1'-0" A1.11



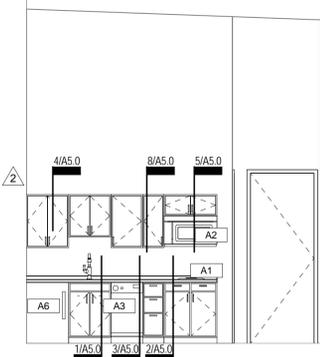
UNIT 12  
SCALE: 1/4" = 1'-0"



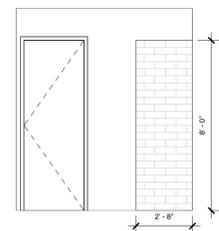
ELEVATION 11  
1/4" = 1'-0" A1.11



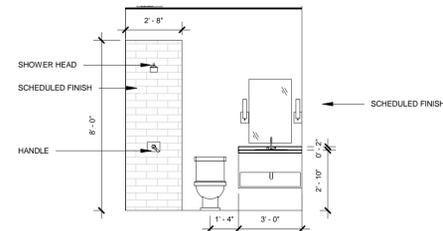
ELEVATION 13  
1/4" = 1'-0" A1.11



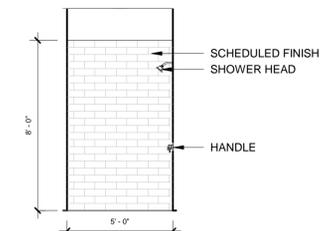
ELEVATION 10  
1/4" = 1'-0" A1.11



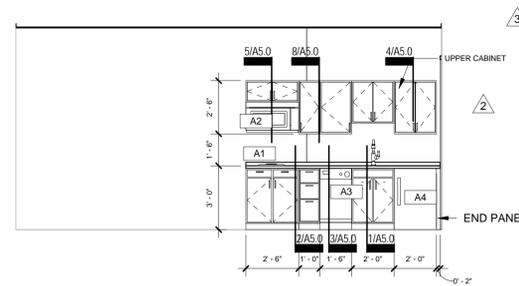
ELEVATION 4  
1/4" = 1'-0" A1.11



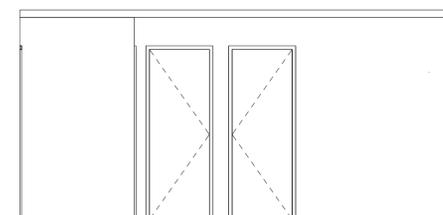
ELEVATION 6  
1/4" = 1'-0" A1.11



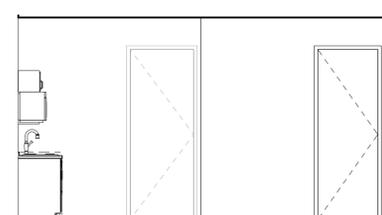
ELEVATION 5  
1/4" = 1'-0" A1.11



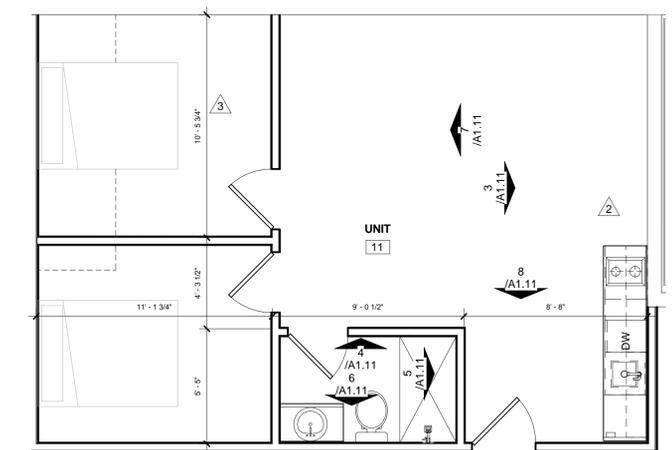
ELEVATION 3  
1/4" = 1'-0" A1.11



ELEVATION 7  
1/4" = 1'-0" A1.11



ELEVATION 8  
1/4" = 1'-0" A1.11



UNIT 11  
SCALE: 1/4" = 1'-0"

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1	REVISION 01	04.14.17
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4	REVISION 04	10.24.17

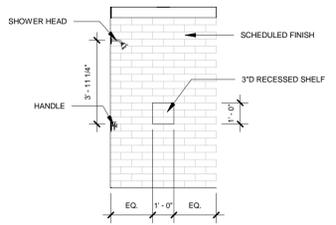
HMH Job Number  
16050

Drawn By  
CS

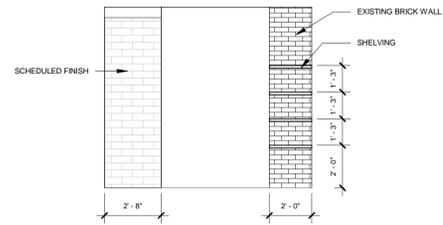
ENTIRE SHEET REVISED  
Date  
02.14.17

Drawing  
UNITS 10 & 11

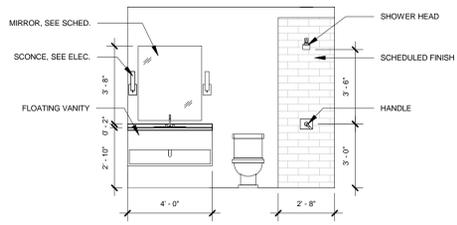
**A1.11**



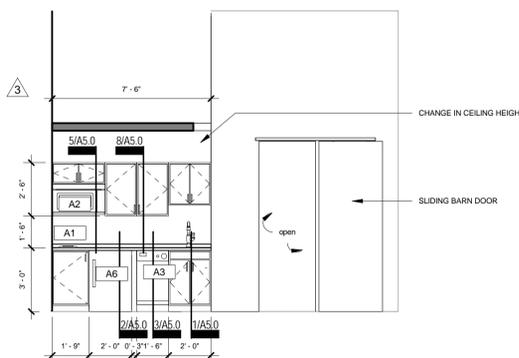
ELEVATION 15  
1/4" = 1'-0" A1.12



ELEVATION 13  
1/4" = 1'-0" A1.12



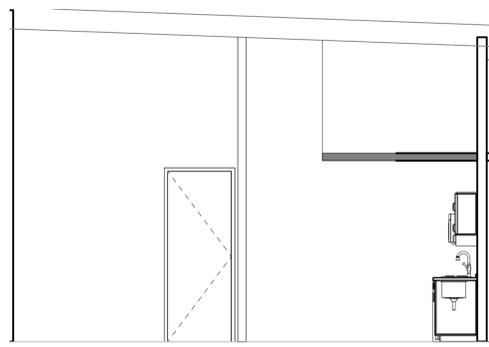
ELEVATION 11  
1/4" = 1'-0" A1.12



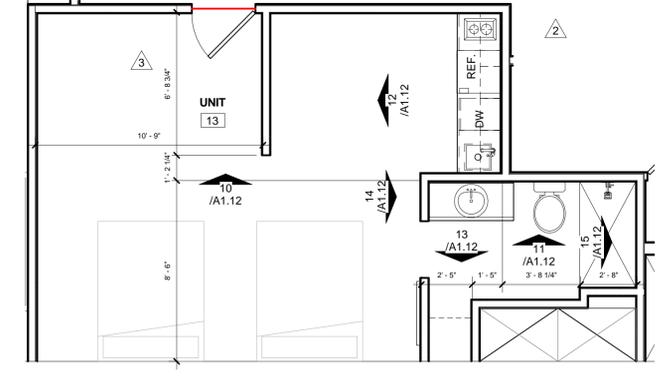
ELEVATION 14  
1/4" = 1'-0" A1.12



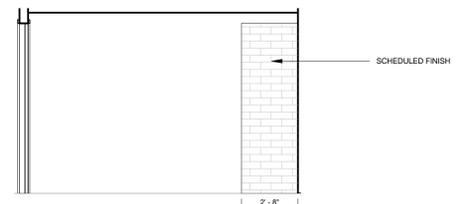
ELEVATION 12  
1/4" = 1'-0" A1.12



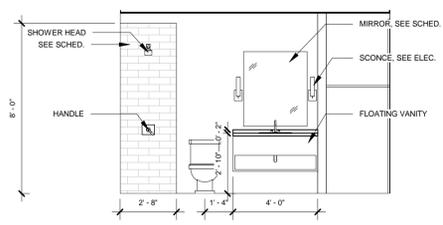
ELEVATION 10  
1/4" = 1'-0" A1.12



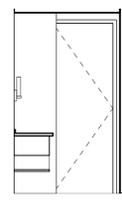
UNIT 14  
SCALE: 1/4" = 1'-0"



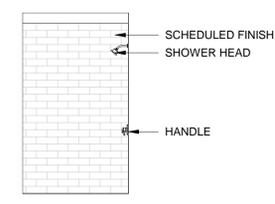
ELEVATION 9  
1/4" = 1'-0" A1.12



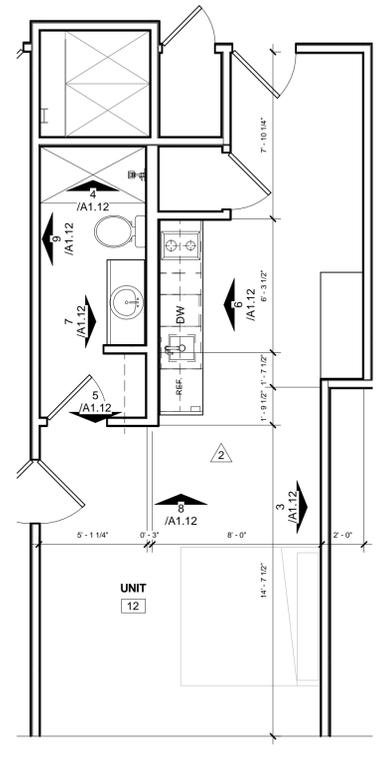
ELEVATION 7  
1/4" = 1'-0" A1.12



ELEVATION 5  
1/4" = 1'-0" A1.12

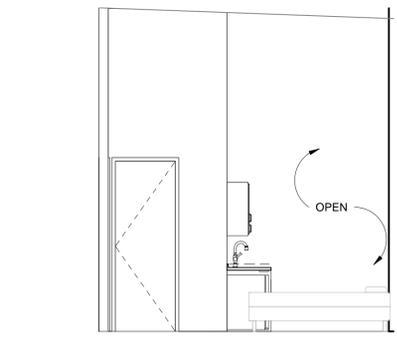


ELEVATION 4  
1/4" = 1'-0" A1.12

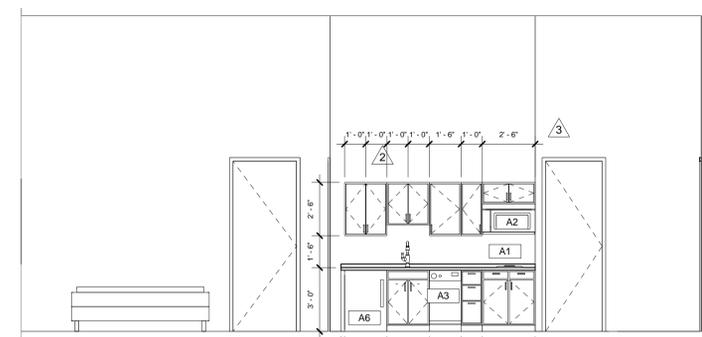


ELEVATION 3  
1/4" = 1'-0" A1.12

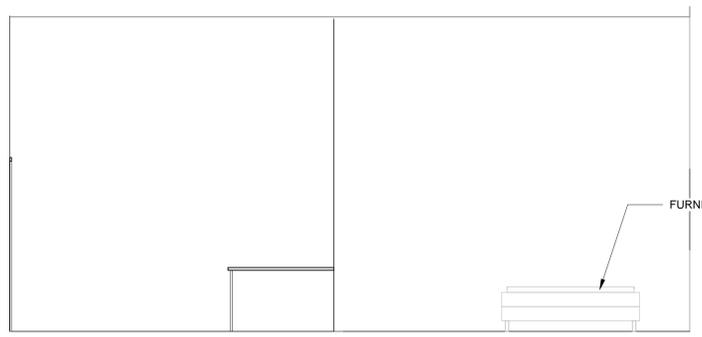
UNIT 13  
SCALE: 1/4" = 1'-0"



ELEVATION 8  
1/4" = 1'-0" A1.12



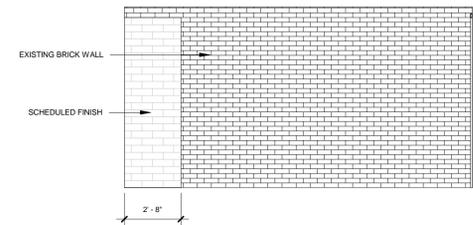
ELEVATION 6  
1/4" = 1'-0" A1.12



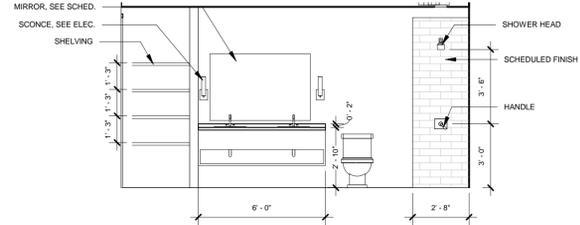
ELEVATION 3  
1/4" = 1'-0" A1.12

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1	REVISION 01 04.14.17
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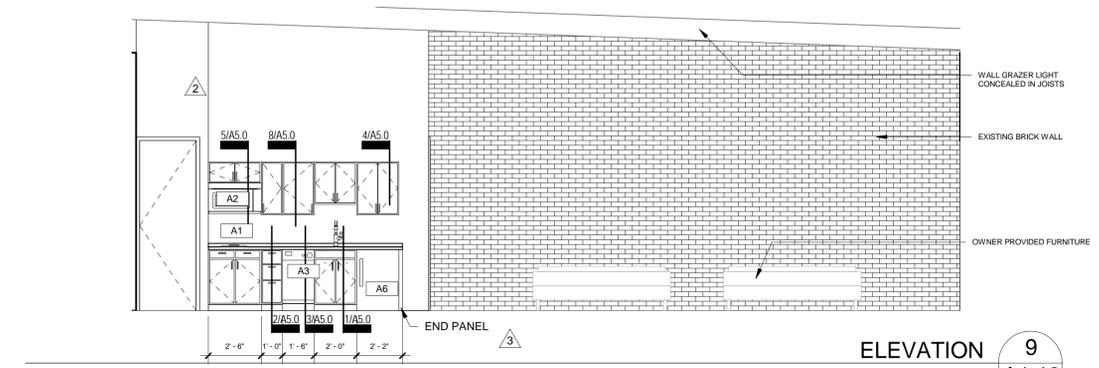
HMH Job Number 16050  
Drawn By CS  
Date 02.14.17  
Drawing UNITS 12 & 13



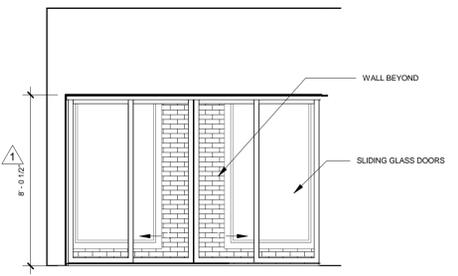
**ELEVATION 13**  
1/4" = 1'-0" **A1.13**



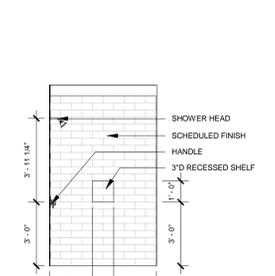
**ELEVATION 11**  
1/4" = 1'-0" **A1.13**



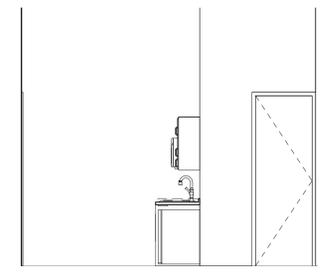
**ELEVATION 9**  
1/4" = 1'-0" **A1.13**



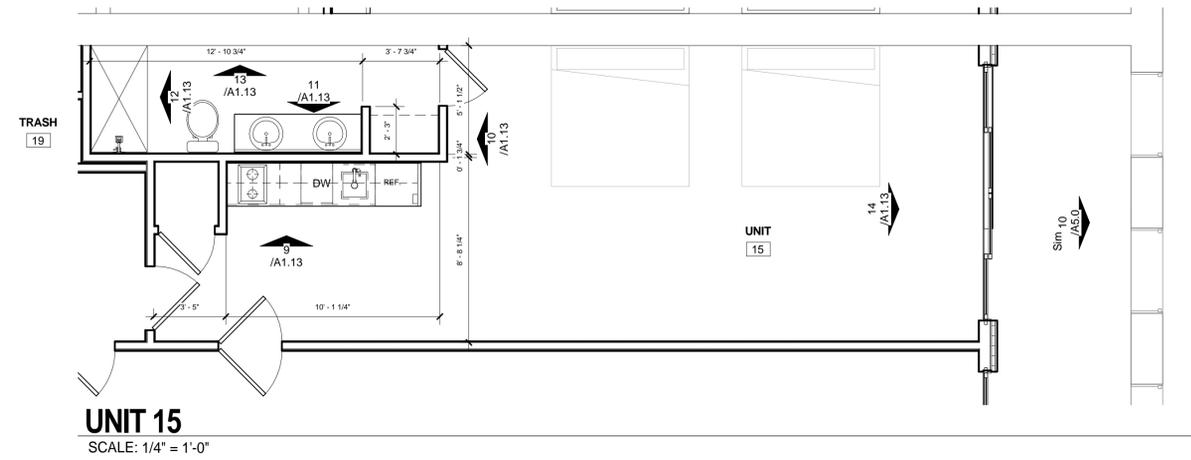
**ELEVATION 14**  
1/4" = 1'-0" **A1.13**



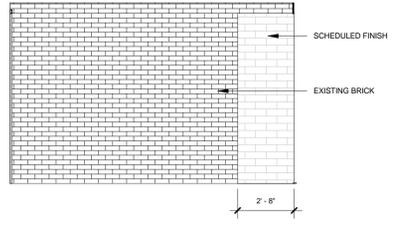
**ELEVATION 12**  
1/4" = 1'-0" **A1.13**



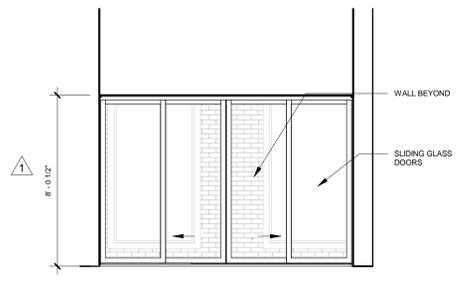
**ELEVATION 10**  
1/4" = 1'-0" **A1.13**



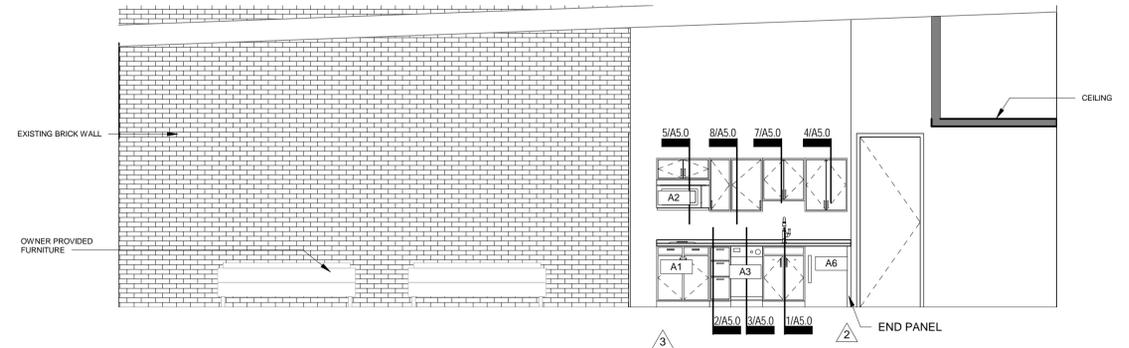
**UNIT 15**  
SCALE: 1/4" = 1'-0"



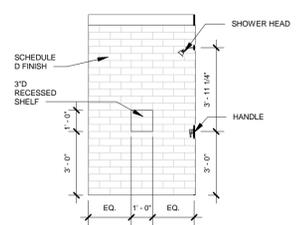
**ELEVATION 8**  
1/4" = 1'-0" **A1.13**



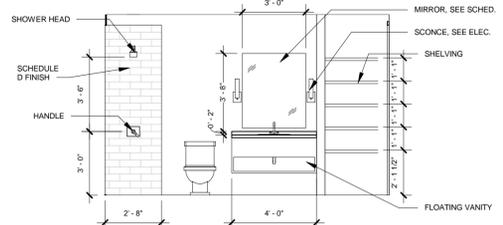
**ELEVATION 5**  
1/4" = 1'-0" **A1.13**



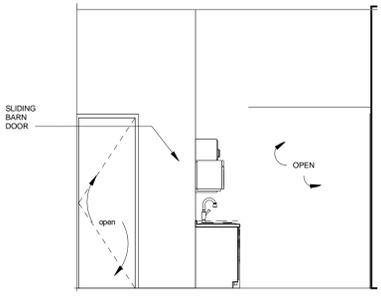
**unit 15-1 3**  
1/4" = 1'-0" **A1.13**



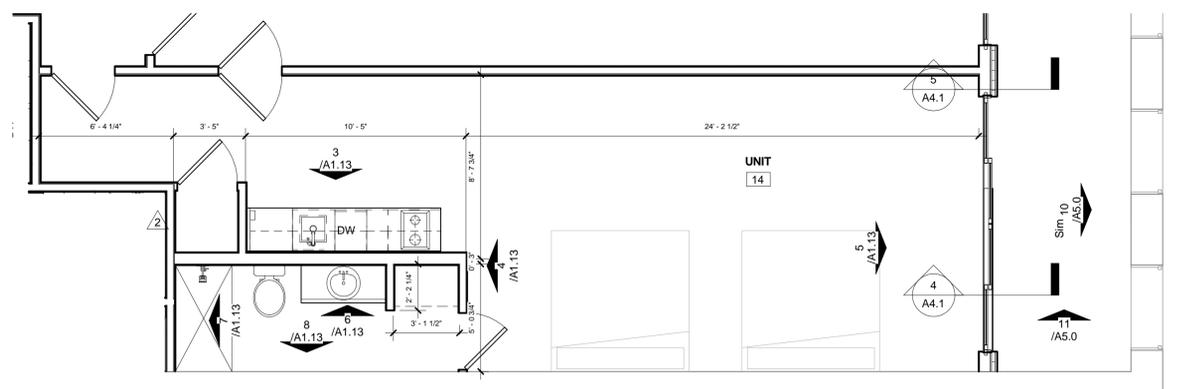
**ELEVATION 7**  
1/4" = 1'-0" **A1.13**



**ELEVATION 6**  
1/4" = 1'-0" **A1.13**



**ELEVATION 4**  
1/4" = 1'-0" **A1.13**



**UNIT 14**  
SCALE: 1/4" = 1'-0"

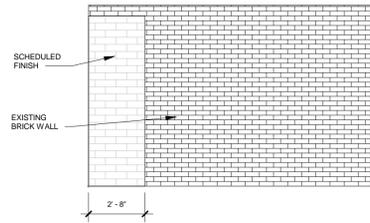
Revisions		
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17
3	REVISION 03	09.26.17

HMH Job Number  
16050

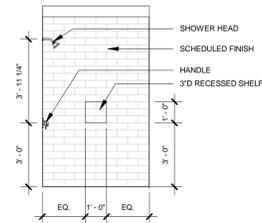
Drawn By  
CS

Date  
02.14.17

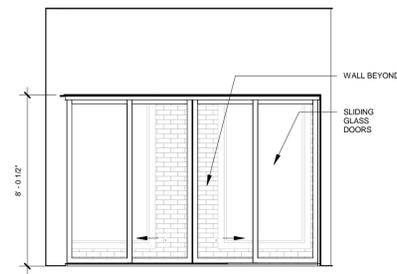
Drawing  
UNITS 14 & 15



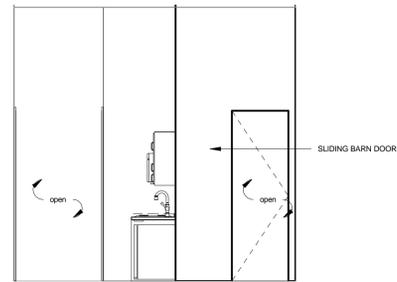
ELEVATION 16 1/4" = 1'-0" A1.14



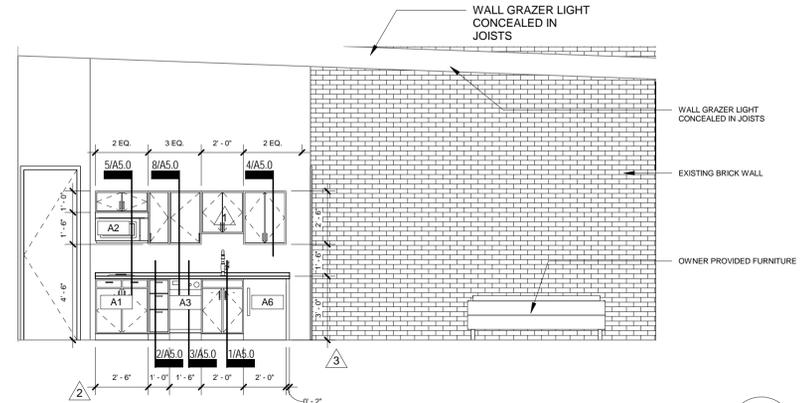
ELEVATION 15 1/4" = 1'-0" A1.14



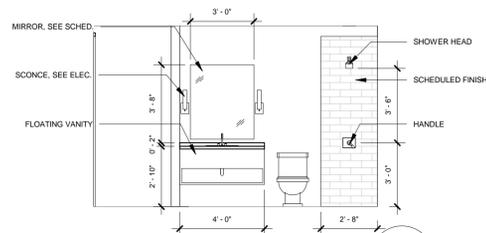
ELEVATION 13 1/4" = 1'-0" A1.14



ELEVATION 12 1/4" = 1'-0" A1.14



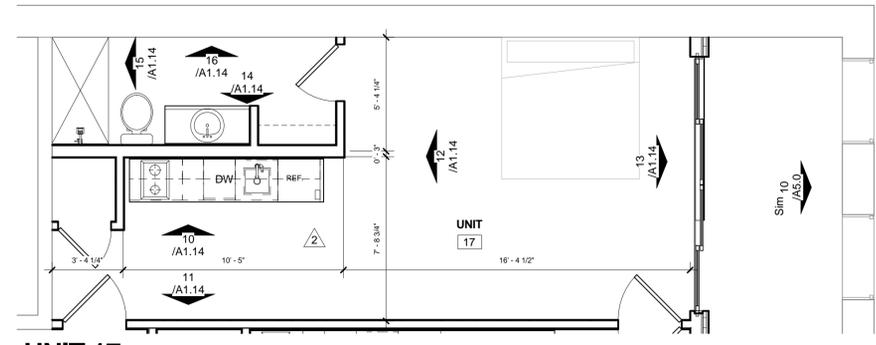
ELEVATION 10 1/4" = 1'-0" A1.14



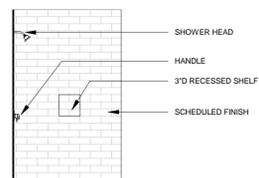
ELEVATION 14 1/4" = 1'-0" A1.14



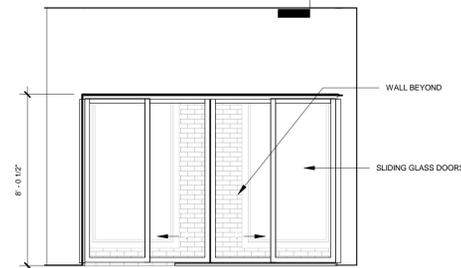
ELEVATION 11 1/4" = 1'-0" A1.14



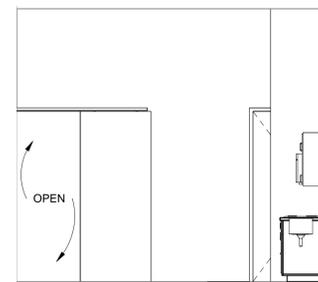
UNIT 17 SCALE: 1/4" = 1'-0"



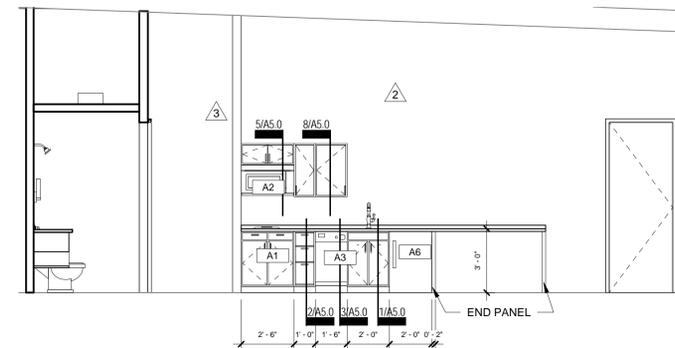
ELEVATION 9 1/4" = 1'-0" A1.14



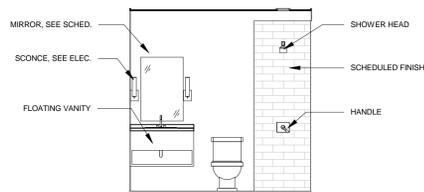
ELEVATION 6 1/4" = 1'-0" A1.14



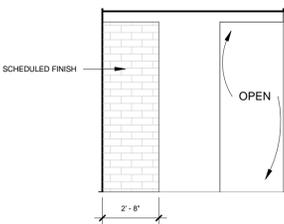
ELEVATION 5 1/4" = 1'-0" A1.14



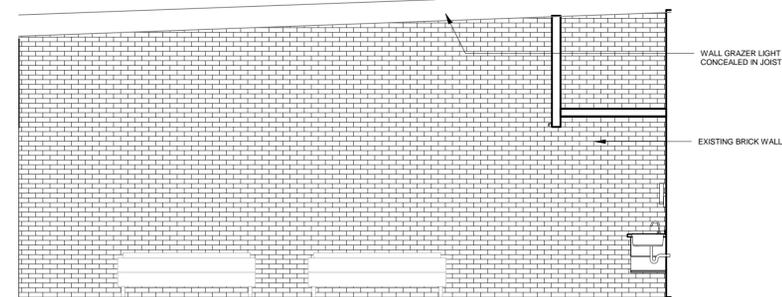
ELEVATION 3 1/4" = 1'-0" A1.14



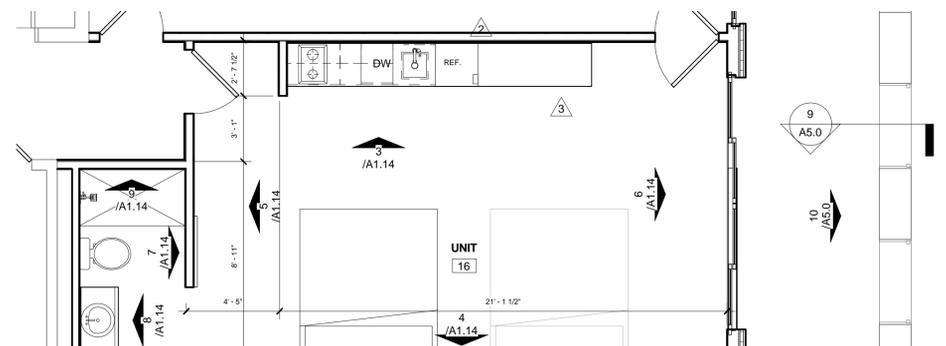
ELEVATION 8 1/4" = 1'-0" A1.14



ELEVATION 7 1/4" = 1'-0" A1.14



ELEVATION 4 1/4" = 1'-0" A1.14



UNIT 16 SCALE: 1/4" = 1'-0"

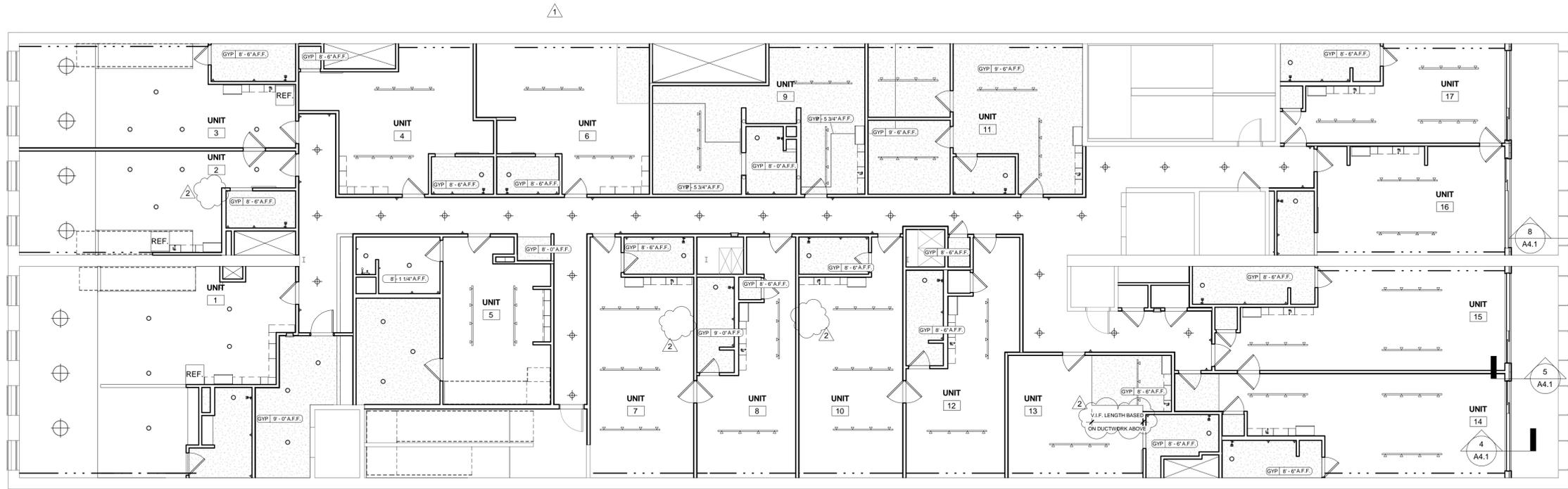
Revisions		
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17
3	REVISION 03	09.26.17

HMH Job Number 16050

Drawn By CS

Date 02.14.17

Drawing UNITS 16 & 17



RCP 1  
1/8" = 1'-0" A2.0

- RCP GENERAL NOTES:**
- Ceiling elements (lighting fixtures, mechanical diffusers, sprinkler heads, etc.) are shown for layout and design intent only. Refer to engineering drawings for additional information.
  - All ceiling elements shall be centered in tile, unless noted otherwise.
  - All above-ceiling systems shall be designed to accommodate heights documented and ceiling fixtures specified. Ceiling drops will not be considered to accommodate rerouting of systems.
  - Verify that access panels of type specified are installed in walls non-accessible type ceilings where service or adjustment to mechanical, plumbing, or electrical items may be required. Access panels shall be the fire rated type equal to the rating of the wall or ceiling in which they occur. coordinate the locations and sizes with the architect before installation.
  - All linear diffusers on first floor to be centered on reveal grid both ways.
  - Typical ceiling height: 9'-0" A.F.F. All ceiling heights to be typical ceiling height, unless otherwise noted.
  - Moisture resistant gyp. board to be used in all bathrooms.

**RCP SYMBOL LEGEND:**

(11   1'-0" A.F.F.)	CEILING TAG
⬢	EXIT SIGNAGE / LIGHTING
○	<b>RECESSED CAN LIGHT</b> MFG. MODEL: TRIM COLOR: White SIZE: 6" dia.
⊕	<b>PENDANT CAN LIGHT</b> MFG. MODEL: TRIM COLOR: White SIZE: 6" dia.
⊗	<b>GLOBE PENDANT</b> MFG. MODEL: COLOR: White SIZE: 6" dia. INSTALLATION:
△	<b>VANITY SCONCE</b> MFG. MODEL: COLOR: White SIZE: 6" dia. INSTALLATION:
---	<b>WALL GRAZING DOWNLIGHT</b> MFG. MODEL: COLOR: White SIZE: 6" dia. INSTALLATION:

**KEYNOTE LEGEND**

1	CEILING IS EXPOSED IN THIS AREA. NO FINISHING REQUIRED.
2	EXISTING DUCTWORK IN THIS AREA TO BE ADJUSTED TO BE TIGHT TO DECK. COORD. W/ ARCHITECT REGARDING ANY CONFLICTS WITH PLAN.
3	FIXTURE TO BE CENTERED IN ROOM IN THIS AREA
4	FIXTURE TO BE CENTERED ABOVE SHOWER / BATHTUB

Revisions

1	REVISION 01	04.14.17
2	REVISION 02	05.09.17

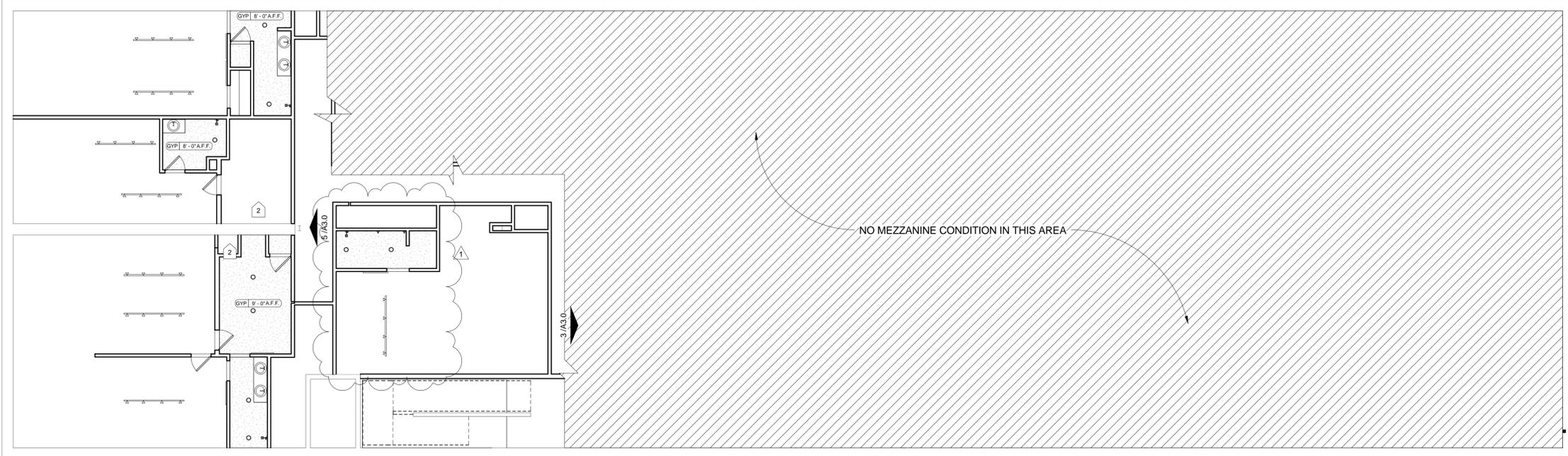
HMH Job Number  
16050

Drawn By  
CS

Date  
02.14.17

Drawing  
REFLECTED CEILING  
PLAN

**A2.0**



MEZZANINE RCP 1  
1/8" = 1'-0" A2.1

RCP GENERAL NOTES:		RCP SYMBOL LEGEND:	
1.	Ceiling elements (lighting fixtures, mechanical diffusers, sprinkler heads, etc.) are shown for layout and design intent only. Refer to engineering drawings for additional information.		CEILING TAG
2.	All ceiling elements shall be centered in tile, unless noted otherwise.		EXIT SIGNAGE / LIGHTING
3.	All above-ceiling systems shall be designed to accommodate heights documented and ceiling fixtures specified. Ceiling drops will not be considered to accommodate rerouting of systems.		<b>RECESSED CAN LIGHT</b> MFG: MODEL: COLOR: White SIZE: 6" dia.
4.	Verify that access panels of type specified are installed in walls non-accessible type ceilings where service or adjustment to mechanical, plumbing, or electrical items may be required. panels shall be the fire rated type equal to the rating of the wall ceiling in which they occur, coordinate the locations and sizes the architect before installation.		<b>PENDANT CAN LIGHT</b> MFG: MODEL: COLOR: White SIZE: 6" dia.
5.	All linear diffusers on first floor to be centered on reveal grid both ways.		<b>GLOBE PENDANT</b> MFG: MODEL: COLOR: SIZE: INSTALLATION:
6.	Typical ceiling height: 9'-0" A.F.F. All ceiling heights to be typical ceiling height, unless otherwise noted.		<b>VANITY SCONCE</b> MFG: MODEL: COLOR: SIZE: INSTALLATION:
7.	Moisture resistant gyp. board to be used in all bathrooms.		<b>WALL GRAZING DOWNLIGHT</b> MFG: MODEL: COLOR: SIZE: INSTALLATION:
<b>KEYNOTE LEGEND</b>			
	CEILING IS EXPOSED IN THIS AREA. NO FINISHING REQUIRED.		
	EXISTING DUCTWORK IN THIS AREA TO BE ADJUSTED TO BE TIGHT TO DECK. COORD. W/ ARCHITECT REGARDING ANY CONFLICTS WITH PLAN.		
	FIXTURE TO BE CENTERED IN ROOM IN THIS AREA		
	FIXTURE TO BE CENTERED ABOVE SHOWER / BATHTUB		

Revisions  
1 REVISION 01 04.14.17

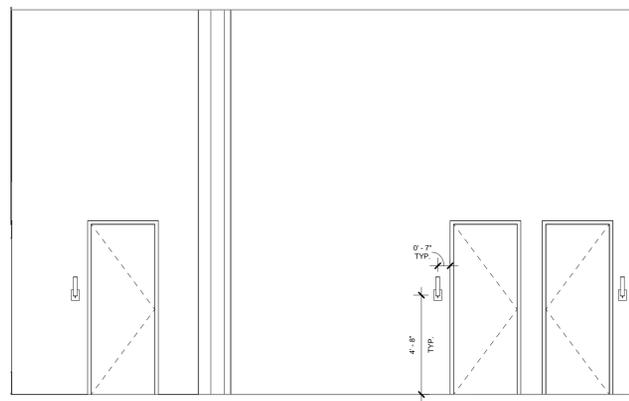
HMH Job Number  
16050

Drawn By  
CS

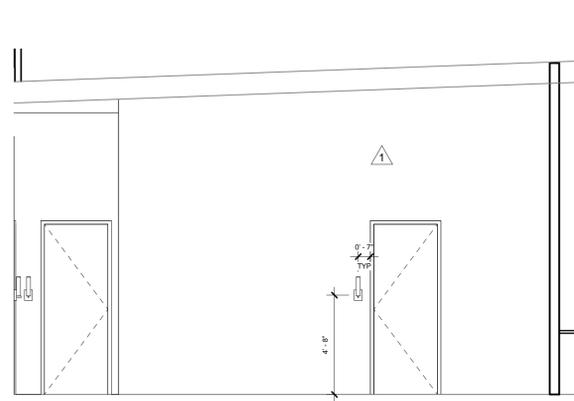
Date  
02.14.17

Drawing  
MEZZANINE RCP

**A2.1**



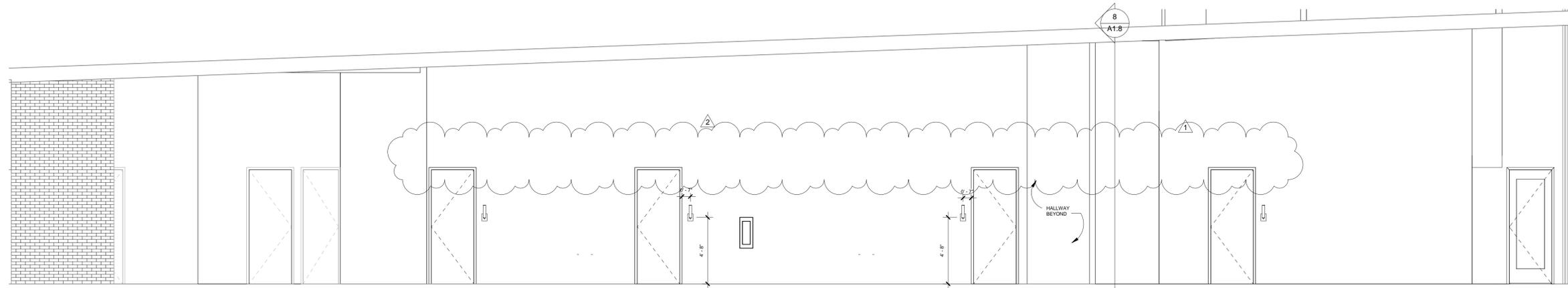
Elevation 6 - a 5  
1/4" = 1'-0" A3.0



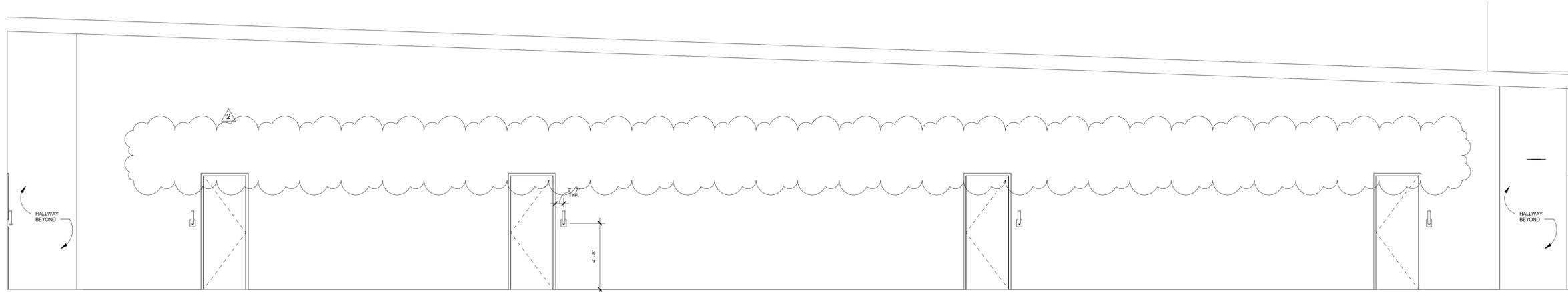
Elevation 4 - a 4  
1/4" = 1'-0" A3.0



Elevation 3 - a 3  
1/4" = 1'-0" A3.0



Elevation 2 - a 2  
1/4" = 1'-0" A3.0



Elevation 1 - a 1  
1/4" = 1'-0" A3.0

Revisions		
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17

HMH Job Number  
16050

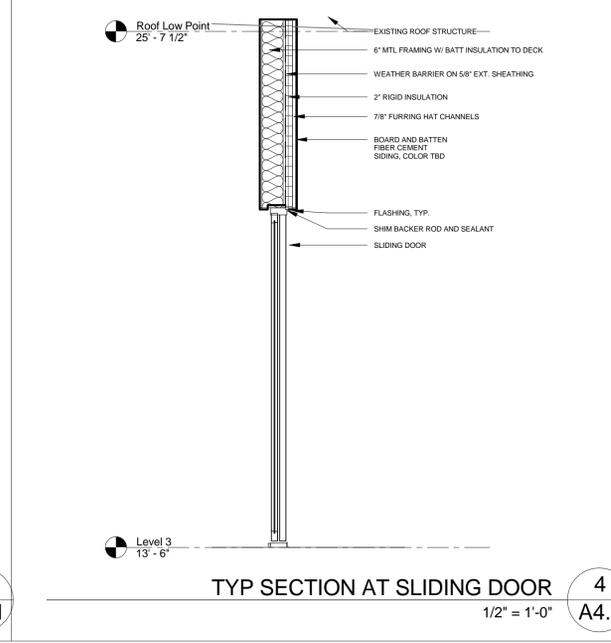
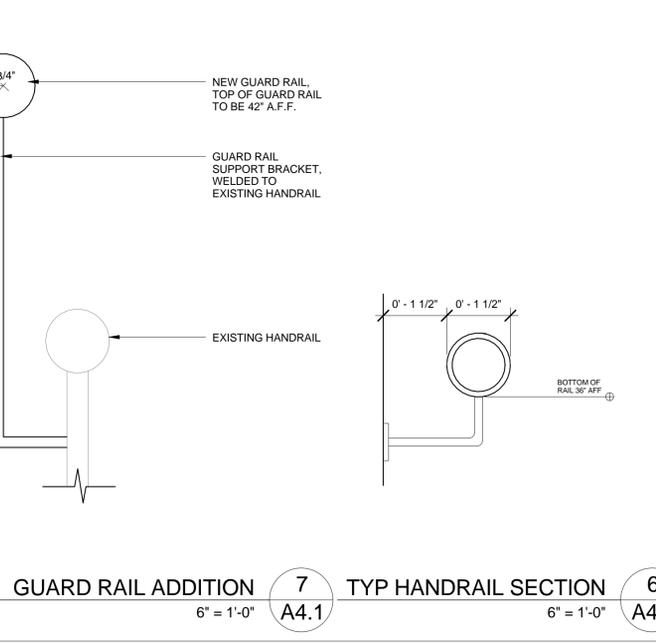
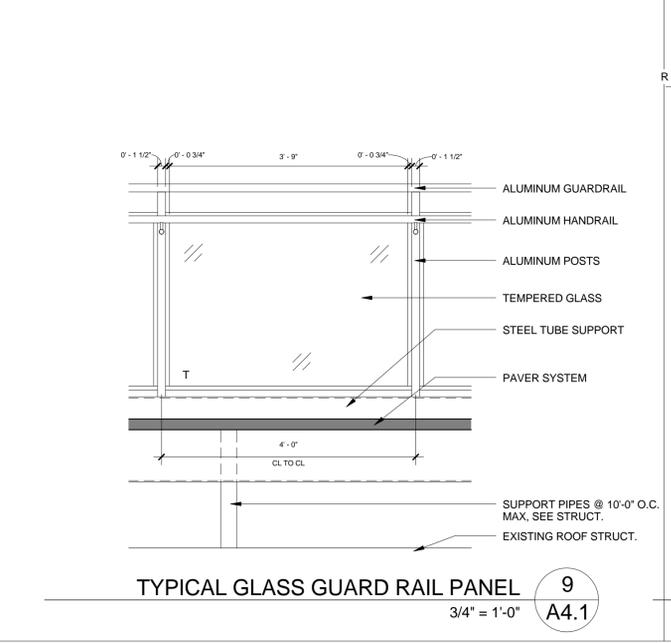
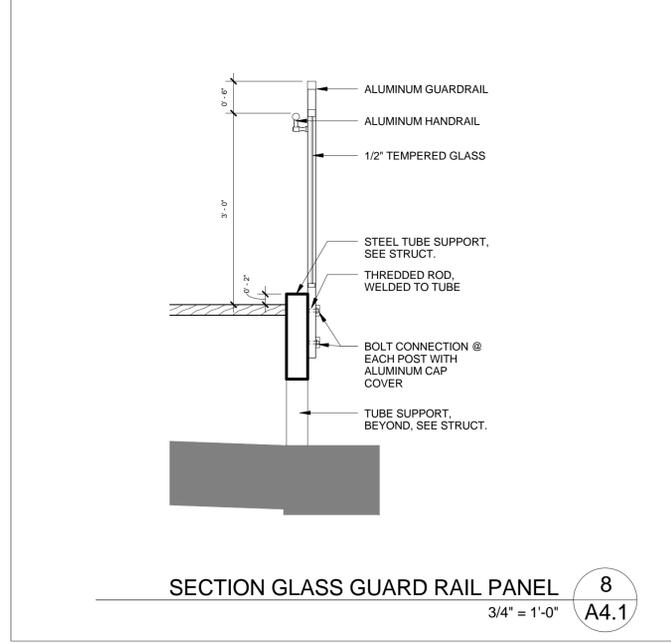
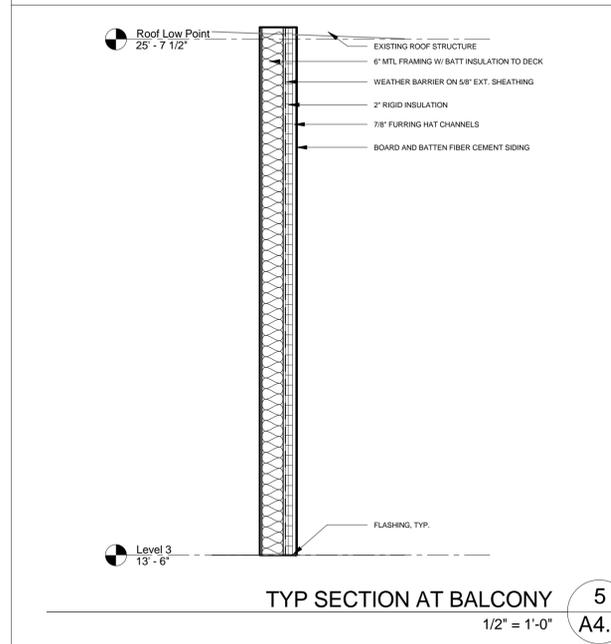
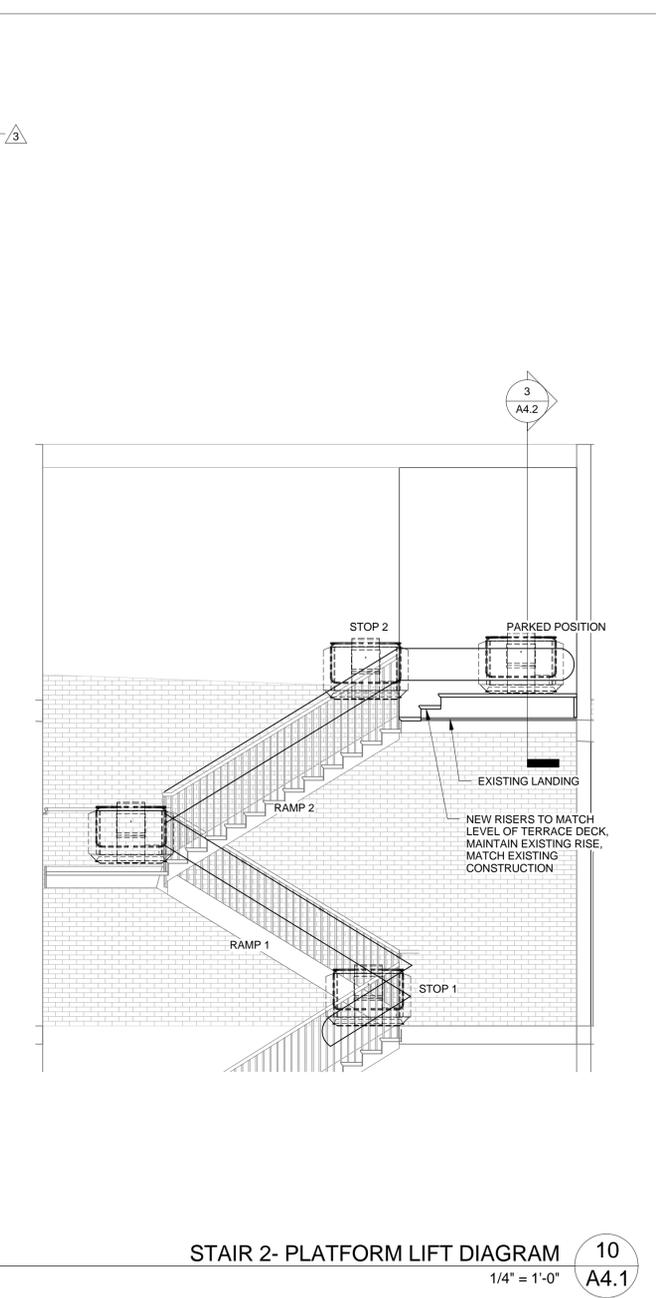
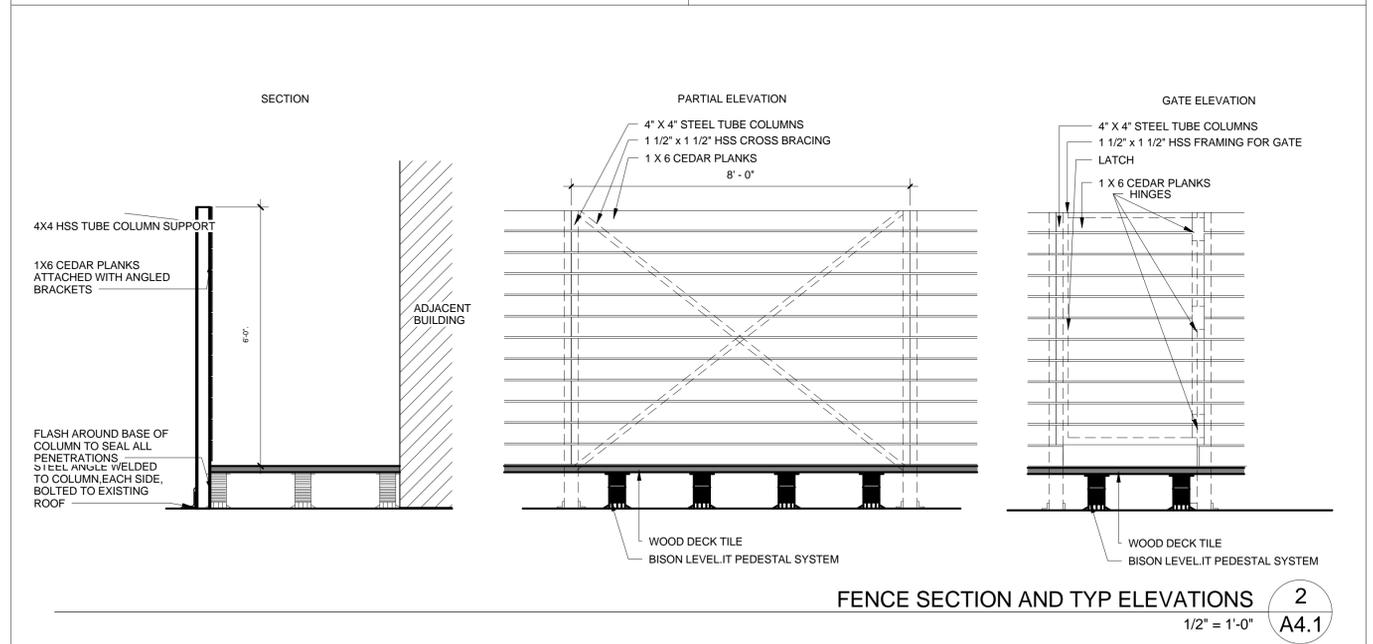
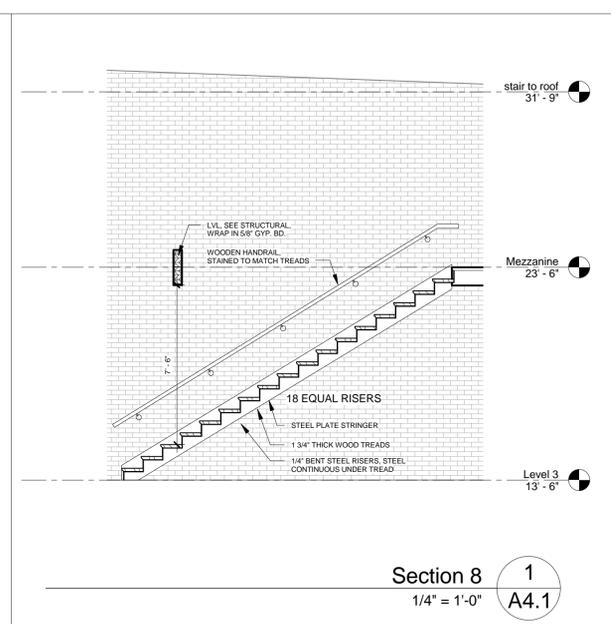
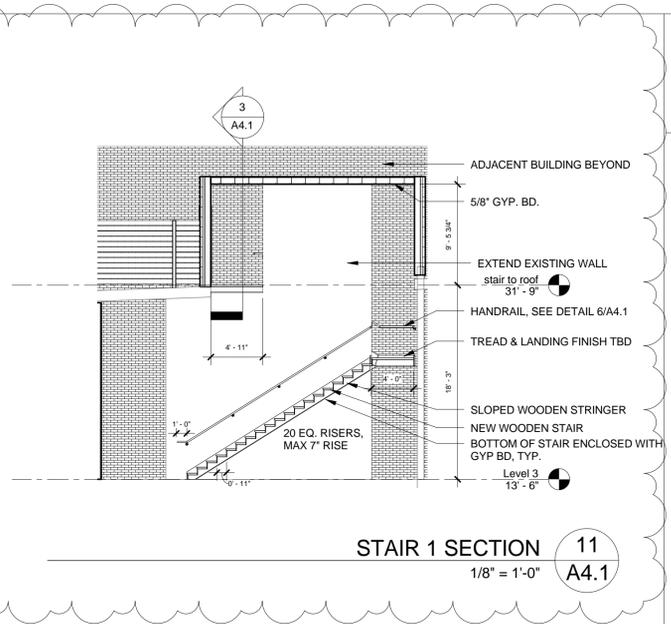
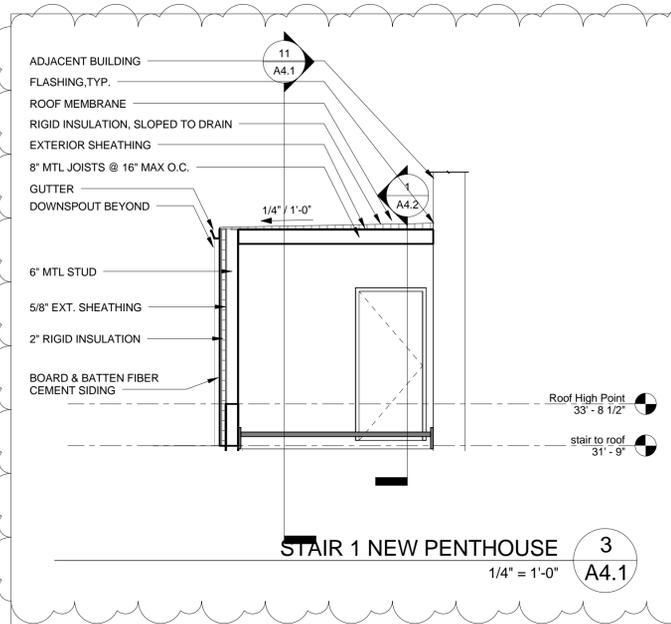
Drawn By  
Author

Date  
02.14.17

Drawing  
ELEVATIONS

**A3.0**





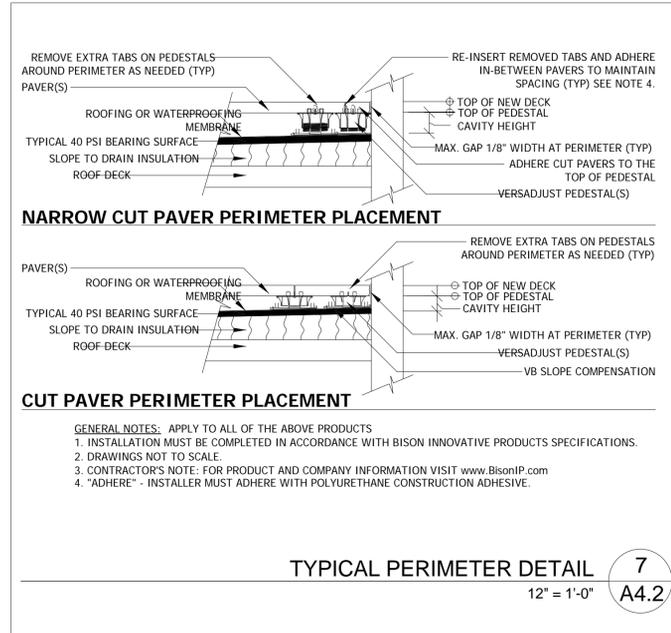
Revisions		
1	REVISION 01	04.14.17
3	REVISION 03	09.26.17

HMH Job Number  
16050

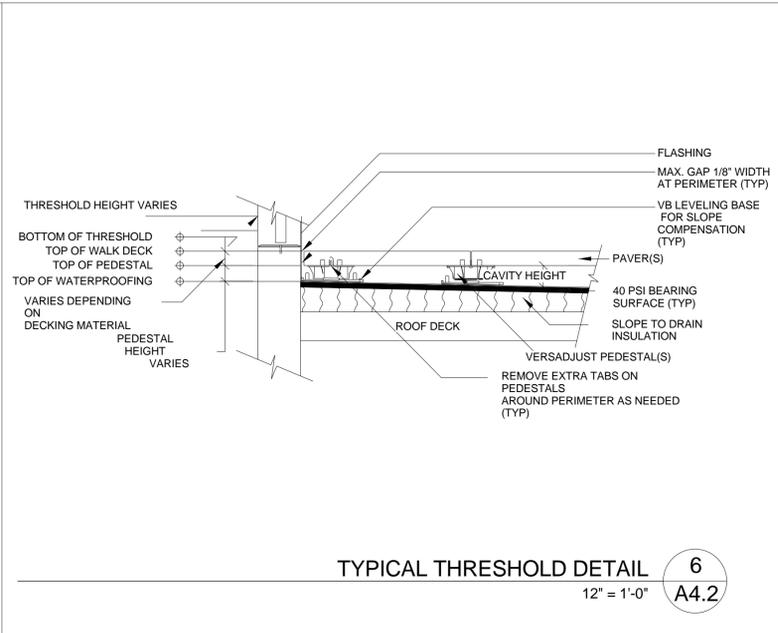
Drawn By  
CS

Date  
02.14.17

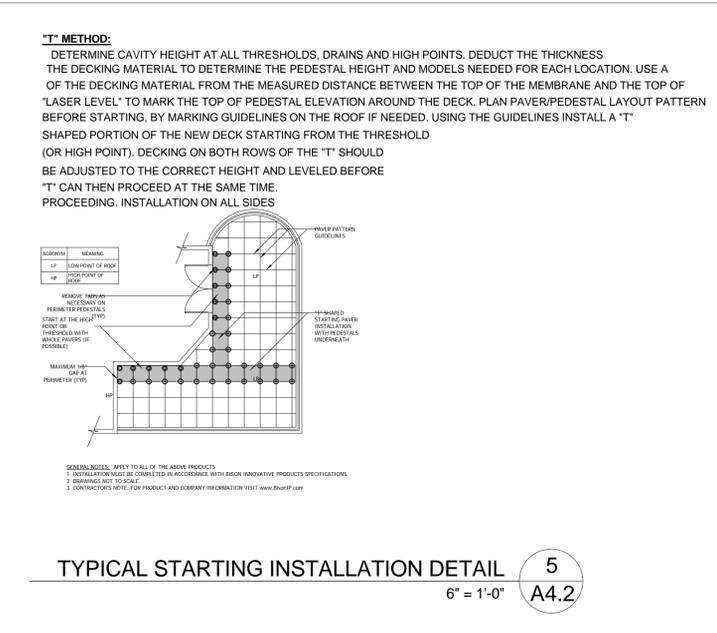
Drawing  
SECTIONS AND DETAILS



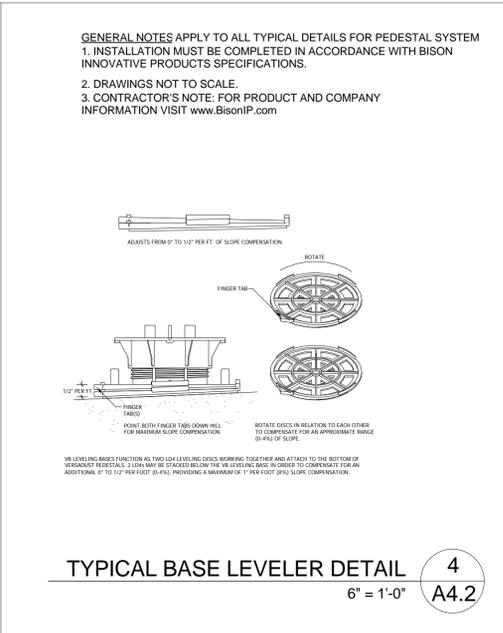
TYPICAL PERIMETER DETAIL 7  
12" = 1'-0" A4.2



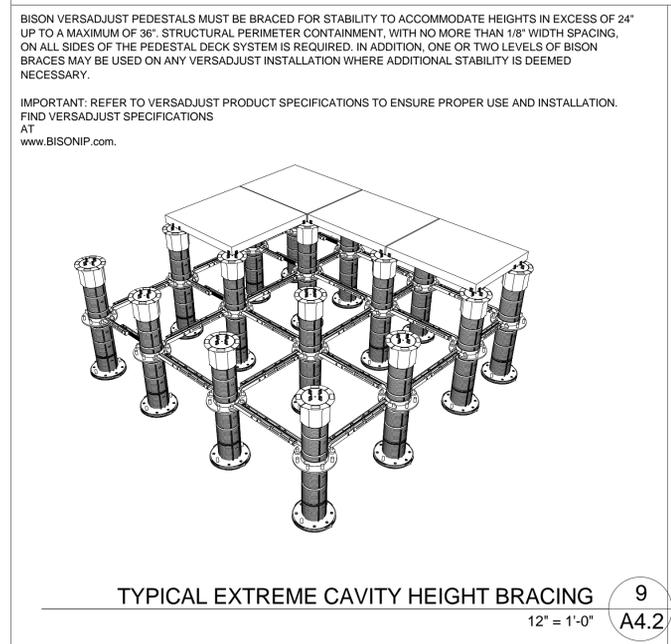
TYPICAL THRESHOLD DETAIL 6  
12" = 1'-0" A4.2



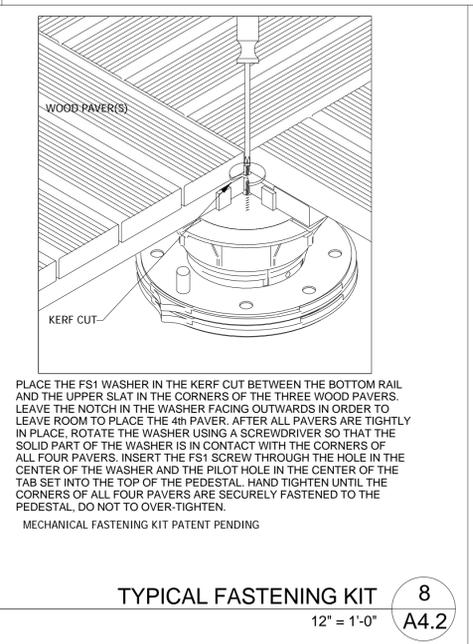
TYPICAL STARTING INSTALLATION DETAIL 5  
6" = 1'-0" A4.2



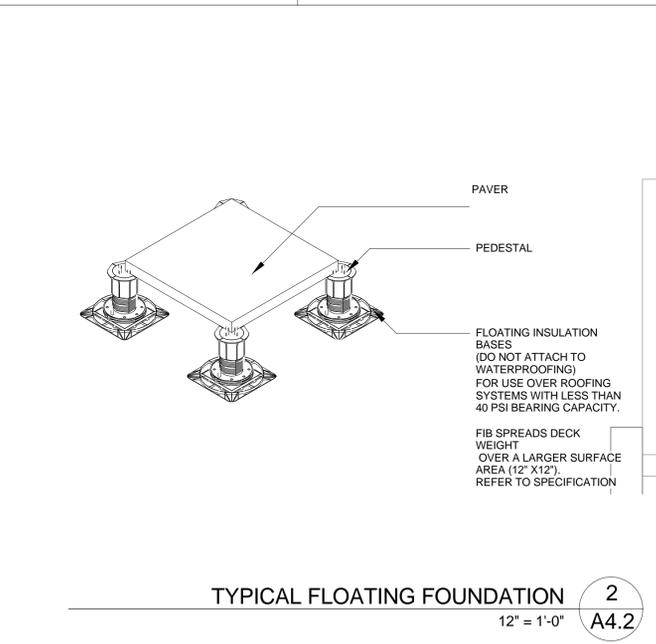
TYPICAL BASE LEVELER DETAIL 4  
6" = 1'-0" A4.2



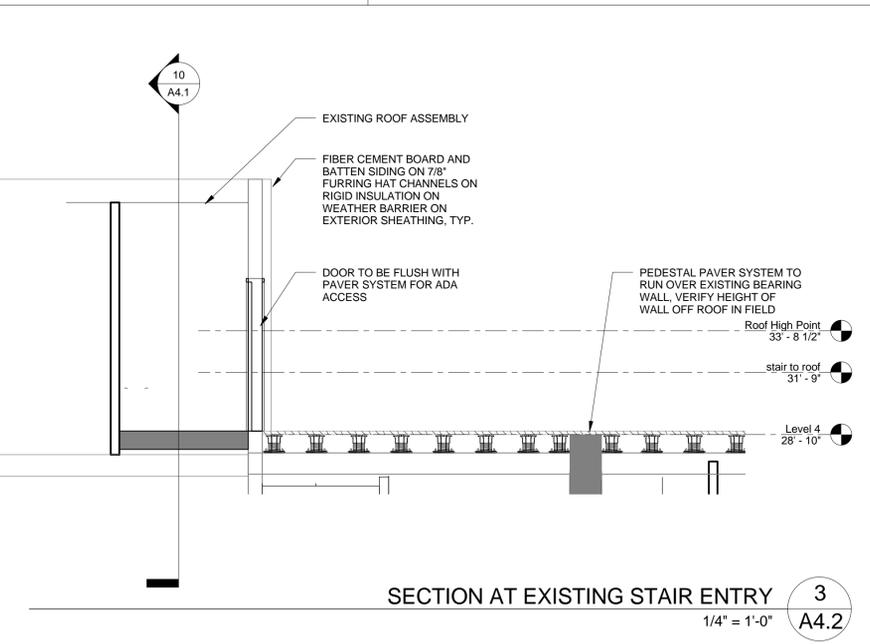
TYPICAL EXTREME CAVITY HEIGHT BRACING 9  
12" = 1'-0" A4.2



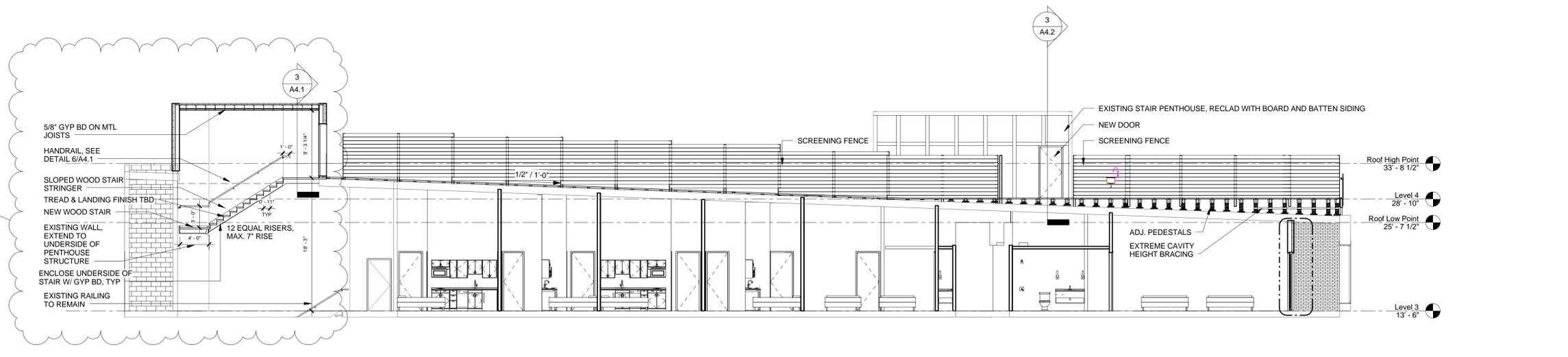
TYPICAL FASTENING KIT 8  
12" = 1'-0" A4.2



TYPICAL FLOATING FOUNDATION 2  
12" = 1'-0" A4.2



SECTION AT EXISTING STAIR ENTRY 3  
1/4" = 1'-0" A4.2



Section 6  
1/8" = 1'-0" A4.2

Revisions

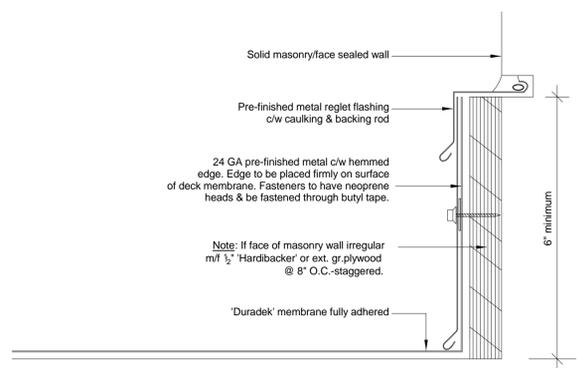
1	REVISION 01	04.14.17
3	REVISION 03	09.26.17

HMH Job Number  
16050

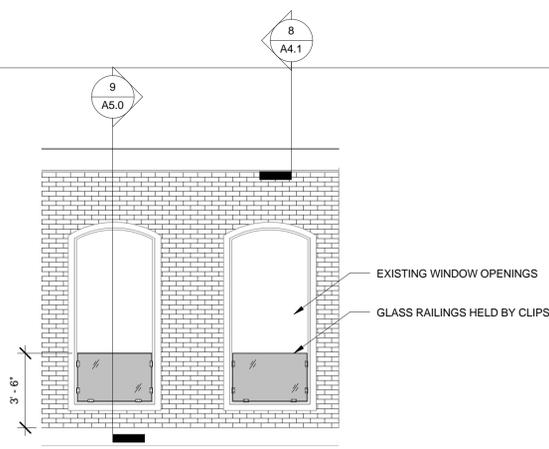
Drawn By  
CS

Date  
02.14.17

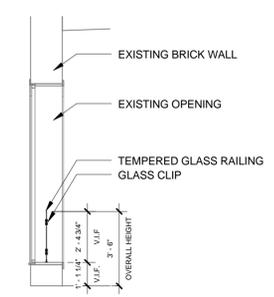
Drawing  
SECTIONS & DETAILS



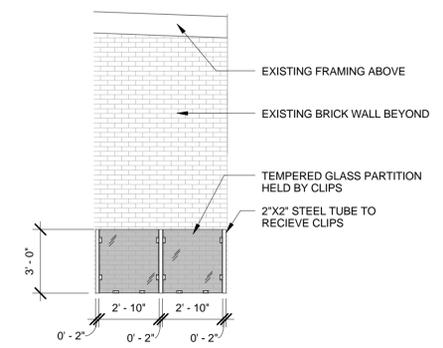
TYP DURADEK EDGE CONDITION 13  
6" = 1'-0" A5.0



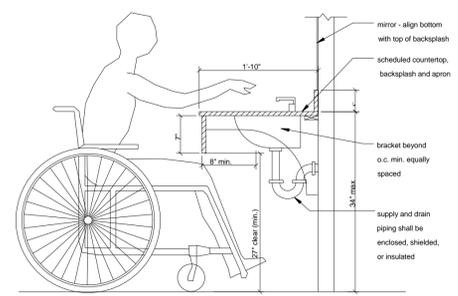
TYPICAL BALCONY ELEVATION 10  
1/4" = 1'-0" A5.0



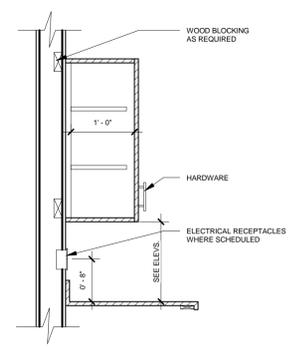
GLASS RAILING SECTION 9  
1/4" = 1'-0" A5.0



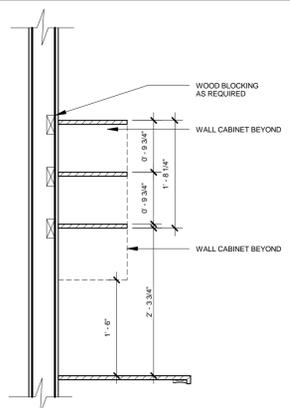
TYPICAL PARTITION BETWEEN BALCONIES 11  
1/4" = 1'-0" A5.0



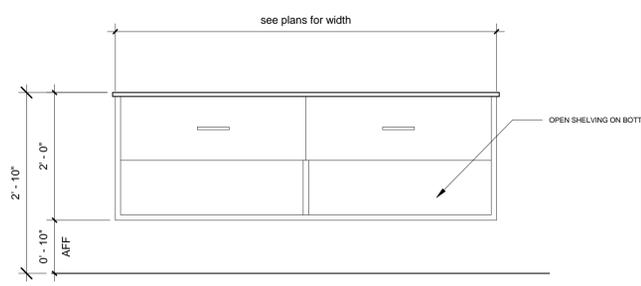
TYPICAL ADA VANITY 12  
3/4" = 1'-0" A5.0



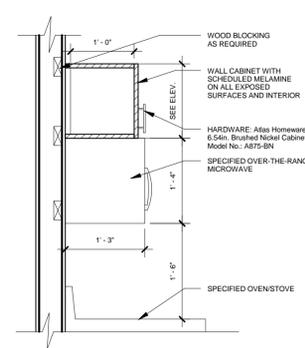
TYP. UPPER CABINET 8  
3/4" = 1'-0" A5.0



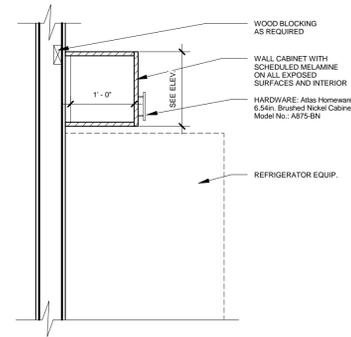
upper shelving 7  
3/4" = 1'-0" A5.0



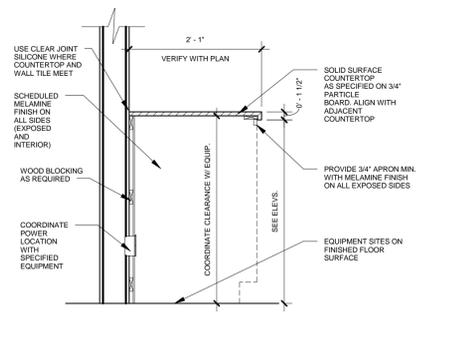
TYPICAL VANITY 6  
3/4" = 1'-0" A5.0



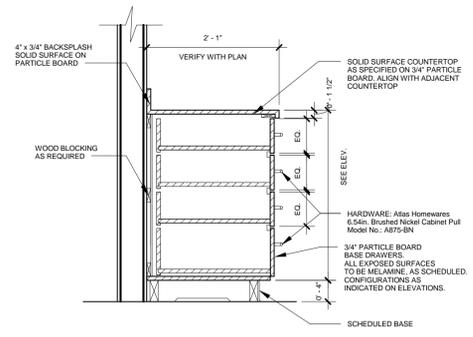
MILLWORK UPPER CABINET AT RANGE 5  
3/4" = 1'-0" A5.0



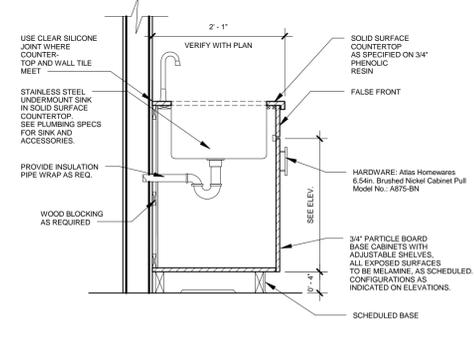
MILLWORK- above refrigerator 4  
3/4" = 1'-0" A5.0



TYP BASE CABINET W/ EQUIP 3  
3/4" = 1'-0" A5.0



TYP BASE CABINET W/ DRAWERS 2  
3/4" = 1'-0" A5.0



TYP BASE CABINET W/ SINK 1  
3/4" = 1'-0" A5.0

Revisions

HMH Job Number 16050

Drawn By Author

Date 02.14.17

Drawing DETAILS

A5.0



**DOOR HARDWARE SCHEDULE:**

HARDWARE LISTED BELOW U.N.O. TO BE BY ASSA ABLOY OR EQUAL.

SET 1: UNIT ENTRY DOORS PROVIDE WIRELESS CONTROL FOR DEADBOLT  
 3 HINGE TA2717 4-1/2" X 4 1/2"  
 1 MORTISE LOCK (ENTRY) 64 8247 E2MD T2  
 1 PERMANENT CORE 6300  
 1 CLOSER 351UO  
 1 KICK PLATE K1050 10" X 2" LDW 4BE CSK  
 1 WALL STOP 406-456  
 1 GASKETING S88D  
 1 SWEEP 18041 CNB TKSP8  
 1 VIEWER 622  
 1 DOOR GUARD 603  
 1 PROTECTION PLATE 605SMS

SET 2: PRIVACY SET  
 3 HINGE TA2717 4" X 4"  
 1 CYLINDRICAL LOCK DLU65 E2MD  
 1 DOOR STOP 505  
 3 SILENCER (WF) 609

SET 3: PASSAGE SET  
 3 HINGE TA2717 4" X 4"  
 1 CYLINDRICAL LOCK DLU15 E2MD  
 1 DOOR STOP 505  
 3 SILENCER (WF) 609

SET 4: BARN DOOR  
 STAINLESS STEEL DECORATIVE SLIDING DOOR HARDWARE  
 EXAMPLE: EVERBILT MODEL #14455  
 SUBMIT TO ARCH FOR APPROVAL PRIOR TO INSTALLATION

SET 5: STORAGE SET  
 3 HINGE TA2717 4-1/2" X 4 1/2"  
 1 MORTISE LOCK (STOREROOM) 64 8247 E2MD  
 1 PERMANENT CORE 6300  
 1 CLOSER 351UO  
 1 KICKPLATE K1050 10" X 2" LDW 4BE CSK  
 1 WALL STOP 409  
 1 GASKETING S88D

SET 6: COMMUNICATING DOORS  
 6 HINGE TA2717 4-1/2" X 4 1/2"  
 2 MORTISE LOCK (ENTRY) 64 8247 E2MD T2  
 2 PERMANENT CORE 6300  
 1 CLOSER 351UO  
 1 KICKPLATE K1050 10" X 2" LDW 4BE CSK  
 1 WALL STOP 406-456  
 1 GASKETING S88D

SET 7: BALCONY SLIDING DOORS  
 HARDWARE BY DOOR MANUF.

SET 8: EGRESS HARDWARE

**APPLIANCE SCHEDULE**

TAG	DESCRIPTION	MANUFACTURER	MODEL NO.	DIMENSIONS
A1	2 BURNER STOVETOP	WHIRLPOOL	W5CE1522FB	21-5/16"D x 16-9/16"W x 3-1/16"H
A2	OVER-THE-RANGE MICROWAVE	MAYTAG	MMV1174DS	29-7/8"W x 15-3/4"D x 17-1/4"H
A3	DISHWASHER	MAYTAG	MDB4949SDM	23.9"W x 25.2"D x 33.5"H
A4	REFRIGERATOR / FREEZER	MAYTAG	MRT118FZEM	31-3/8"D x 29-3/4"W x 65-1/2"H
A5	STOVE / OVEN	MAYTAG	MER8600DS	27-3/4"D x 29-7/8"W x 47-7/8"H
A6	UNDERCOUNTER REFRIGERATOR	TBD	TBD	TBD

Door Schedule												
DOOR NO.	TYPE	HEIGHT	WIDTH	THICKNESS	MATERIAL	FRAME	HEAD	JAMB	SILL	HW SET	RATING	COMMENTS
3	B	8'-0"	2'-6"	0'-1 3/4"						5		
6	C	8'-0"	3'-0"	0'-1 3/4"						5	45 MIN	
101	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
103	D	8'-0"	3'-0"	0'-1 3/4"						2		
104	H	8'-0"	2'-8"	0'-1 3/4"						4		
105	D	8'-0"	2'-10"	0'-1 3/4"						5		
106	E	8'-0"	2'-8"							4		
107	H	8'-0"	2'-8"	0'-1 3/4"						3		
108	D	8'-0"	2'-10"	0'-1 3/4"						2		
201	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
202	J	8'-0"	3'-0"	0'-1 3/4"						6	45 MIN	
203	G	8'-0"	3'-0"							4		
204	H	8'-0"	2'-8"	0'-1 3/4"						2		
206	H	8'-0"	2'-8"	0'-1 3/4"						5		
301	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
303	H	8'-0"	2'-8"	0'-1 3/4"						2		
304	G	8'-0"	3'-0"							4		
305	G	8'-0"	3'-0"							4		
306	H	8'-0"	2'-8"	0'-1 3/4"						5		
401	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
402	E	8'-0"	2'-8"							4		
403	E	8'-0"	2'-8"							4		
502	D	8'-0"	2'-10"	0'-1 3/4"						2		
503	D	8'-0"	3'-0"	0'-1 3/4"						2		
505	G	8'-0"	3'-0"							3		
506	B	8'-0"	2'-6"	0'-1 3/4"						3		
701	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
702	H	8'-0"	2'-8"	0'-1 3/4"						2		
704	J	8'-0"	3'-0"	0'-1 3/4"						6	45 MIN	
801	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
802	D	8'-0"	2'-10"	0'-1 3/4"						5		
803	H	8'-0"	2'-8"	0'-1 3/4"						2		
901	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
903	E	8'-0"	2'-8"							4		
1001	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1003	C	7'-0"	3'-0"	0'-1 3/4"						2		
1101	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1103	D	8'-0"	2'-10"	0'-1 3/4"						2		
1104	D	8'-0"	2'-10"	0'-1 3/4"						2		
1105	D	8'-0"	2'-10"	0'-1 3/4"						2		
1201	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1202	H	8'-0"	2'-8"	0'-1 3/4"						2		
1204	J	8'-0"	3'-0"	0'-1 3/4"						6	45 MIN	
1301	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1302	D	8'-0"	2'-10"	0'-1 3/4"						2		
1304	H	8'-0"	2'-8"	0'-1 3/4"						3		
1401	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1403	E	8'-0"	2'-8"							4		
1501	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1502	D	8'-0"	2'-10"	0'-1 3/4"						3		
1503	J	8'-0"	3'-0"	0'-1 3/4"						6	45 MIN	
1505	I	7'-11 3/4"	12'-0"							7		
1601	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1602	H	8'-0"	2'-8"	0'-1 3/4"						3		
1603	H	8'-0"	2'-8"	0'-1 3/4"						4		
1604	I	7'-11 3/4"	12'-0"							7		
1701	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1702	G	8'-0"	3'-0"							4		
1703	J	8'-0"	3'-0"	0'-1 3/4"						6	45 MIN	
1704	I	7'-11 3/4"	12'-0"							7		
1801	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	
1802	B	8'-0"	2'-6"	0'-1 3/4"						3		
1804	I	7'-11 3/4"	12'-0"							7		
1814	A	8'-0"	3'-0"	0'-1 3/4"						3		
1823	H	8'-0"	2'-8"	0'-1 3/4"						4		
1826	H	8'-0"	2'-8"	0'-1 3/4"						4		
1828	E	8'-0"	2'-8"							2		
R1	F	7'-0"	3'-0"	0'-2"						8		ACCESS CONTROL TO ROOF DECK-EGRESS INTO STAIRWELL
R2	F	7'-0"	3'-0"	0'-2"						8		ACCESS CONTROL TO ROOF DECK-EGRESS INTO STAIRWELL
R3	C	8'-0"	3'-0"	0'-1 3/4"						3	45 MIN	
R4	C	8'-0"	3'-0"	0'-1 3/4"						3	45 MIN	
R5	C	8'-0"	3'-0"	0'-1 3/4"						1	45 MIN	

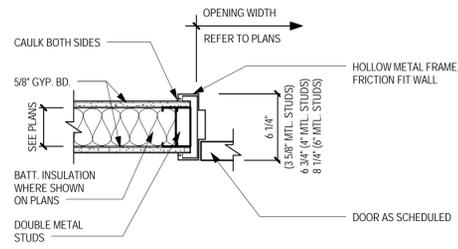
Revisions		
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17
3	REVISION 03	09.26.17

HMH Job Number 16050

Drawn By CS

Date 02.14.17

Drawing SCHEDULES

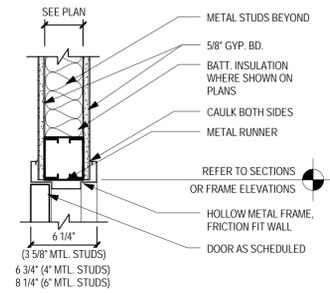


MTL. STUDS/GYP. BD.

081213-05

REVISED: 06/03/15

Door Jamb **2**  
1 1/2" = 1'-0" **A6.1**

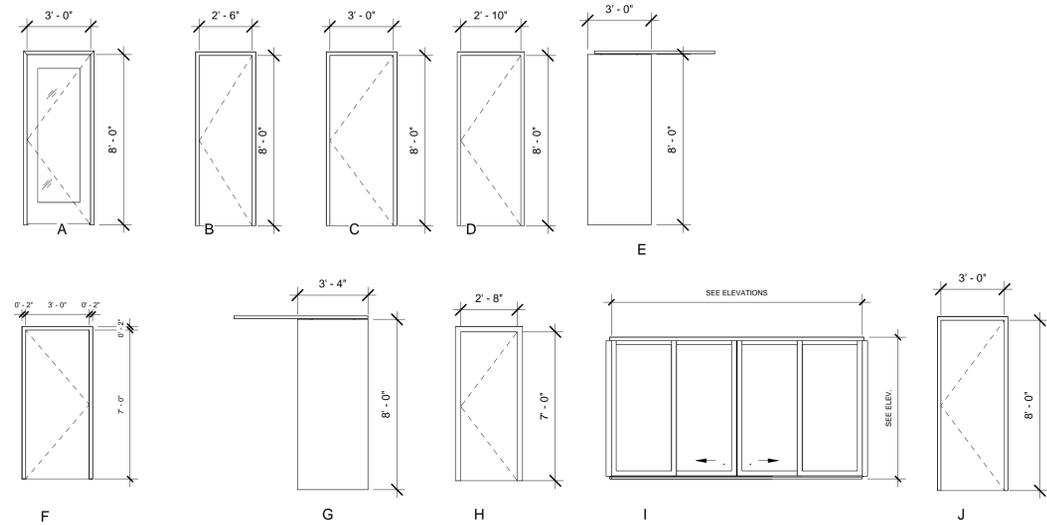


MTL. STUDS/GYP. BD.

081213-04

REVISED: 06/03/15

DOOR HEAD **1**  
1 1/2" = 1'-0" **A6.1**



**Door Elevations**



Revisions		
1	REVISION 01	04.14.17
2	REVISION 02	05.09.17

HMH Job Number  
16050

Drawn By  
Author

Date  
02.14.17

Drawing  
DOOR & WINDOW  
DETAILS

**A6.1**

## SECTION 02281 - TERMITE CONTROL

### PART 1 GENERAL

#### SECTION INCLUDES

Soil treatment for termite control below grade at interior and exterior foundation perimeter. Provide submittals as specified and verify with the local Authorities Having Jurisdiction.

#### SUBMITTALS

Product data to indicate toxicants to be used, composition by percentage, dilution schedule, intended application rate, maintenance and warranty documentation. Test reports to indicate regulatory agency approval reports when required. Indicate caution requirements and general procedures per Manufacturer's application instructions. Manufacturer to certify that toxicants meet or exceed specified requirements and minimum regulatory standards. Record moisture content of soil before application, date and rate of application, areas of application, areas of toxicity meter readings and corresponding soil coverage. Indicate re-treatment schedule and limits of warranty.

#### REQUIREMENTS

Applicator to be Company specializing in the work of this Section with minimum five years documented experience approved by manufacturer and licensed in the State of the project location. Conform to all applicable codes for requirements for application, application licensing, authority to use toxicant chemicals per EPA and local regulations. Provide Certificate of Compliance from authority having jurisdiction for approval of toxicants. Apply toxicant a maximum of 12 hours prior to installation of vapor barrier under slabs-on-grade and finish grading work outside foundations.

**Warranty:** Provide five year coverage for damage and repairs to building and building contents caused by termites. Repair damage and Re-treat. Inspect and report annually to Owner in writing.

### PART 2 PRODUCTS

#### MATERIALS

FMC Corp. Talstar (Bifenthrin); Velsicol Tribute (Fenvalerate); ICI Torpedo (Pyrethrum); FMC Dragnet TC (Permethrin); Mobay Pryfon (Isefenphos). Substitutions permitted with documented approval from authority having jurisdiction.

**Toxicant Chemical** to be EPA and local authority approved; synthetically color dyed to permit visual identification of treated soil. **Diluent** as recommended by toxicant manufacturer. Mix toxicant to manufacturer's instructions and current regulatory requirements.

### PART 3. EXECUTION

#### APPLICATION

Verify that soil surfaces are unfrozen, sufficiently dry to absorb toxicant, ready for treatment and that grading is complete. Protect adjacent landscaping. Spray apply or inject toxicant per manufacturer's instructions and current regulations. Apply toxicant at locations indicated in Schedule at end of section. Apply extra treatment to structure penetration surfaces such as pipe or ducts, and soil penetrations such as grounding rods or posts. Re-treat disturbed treated soil with same toxicant as original treatment. If inspection or testing identifies the presence of termites, re-treat soil and re-test. Do not permit soil grading over treated work. Per manufacturer's instructions, limit personnel contact on treated areas and cover areas for weather protection.

#### SCHEDULES

**Submit for review a schedule indicating all treatment locations for each toxicant used. The following is a minimum outline for developing a schedule (Verify all existing conditions) :**  
**Under slabs-on-grade; Crawl spaces; Both sides of foundation surface; Soil within 10 feet of building perimeter for a depth required by manufacturer.**

#### END OF TERMITE CONTROL

### SECTION 06114 - WOOD BLOCKING AND CURBING

#### PART 1 GENERAL

#### SECTION INCLUDES

Roof curbs, cant, and perimeter nailers; blocking in wall and roof openings; wood furring and grounds; concealed wood blocking for support of accessories of other trades as indicated on drawings; telephone, electrical panel and signage back boards; built-in work occurring in concrete or masonry; non-exposed sheathing for parapet and fascia walls; preservative treatment of wood. Coordinate and submit product data and application instructions. Site storage to be off ground & under waterproof cover for proper ventilation, protection and drainage. Perform Work in accordance with the Lumber Grading Agency (Certified by ALS) and the Plywood Grading Agency: Certified by APA.

### PART 2 PRODUCTS

#### MATERIALS

**Lumber Grading Rules:** SPIB, WWPA, or applicable standard in project location.

**Miscellaneous Framing:** Southern Pine species, No. 2 Grade or Douglas Fir - construction grade, 19 percent maximum moisture content , (pressure preservative treat, where indicated). Exposed interior lumber to have a finish grade grand quality and a maximum moisture content of 6%.

**Plywood:** APA Rated Sheathing, Grade C-D; Exposure Durability 1; sanded.

**Fire retardant treated framing and sheathing** to have a minimum moisture content of 12% and a maximum moisture content of 19%. All lumber to be kiln dried after treatment.

**Fasteners:** Hot dipped galvanized steel for high humidity and treated wood locations, unfinished steel elsewhere. Maximum spacing for all securing hardware to not exceed 16" o.c.

**Anchors:** Toggle bolt type for anchorage to hollow masonry; expansion shield and lag bolt type for anchorage to solid masonry or concrete; bolt or ballistic fastener for anchorage to steel.

**Wood Preservative:** **Pressure Treatment** to be AWPA Treatment C1 for lumber and C9 for plywood using water borne preservative with 0.25 percent retanage, label each piece; and **Surface Application** to be clear or colored type. Coordinate color with Architect if exposed.

**Fire Retardant Treatment:** AWPA Treatment C20, Type for exterior/interior locations. Chemically treated & pressure impregnated to provide a maximum flame/fuel/smoke rating of 25/25/5, UL rated FR-S and labeled.

### PART 3. EXECUTION

#### MATERIALS

**Framing:** Field verify all dimensions and set members level and plumb, in correct position. Place horizontal members, crown side up. Construct curb members of single pieces. Space framing and furring 16" o.c., unless noted otherwise. Plywood sheathing to be laid with surface grain at right angles to main supports. Abort joints over framing. Plywood wainscot (if used) to be laid with vertical surface grain. Curb roof openings (unless prefabricated), form corners by alternating lapping side members. Coordinate curb installation with installation of decking, deck openings, vapor retardant, flashing, parapet construction, and related components. Install floor and wall blocking as required for built-in installations and framed structural openings for related trades. Millwork framing to be coordinated by the trade.

**Sheathing:** Secure sheathing to framing members with ends over firm bearing and staggered. Install telephone and electrical panel and signage back boards with plywood sheathing material. Provide fire retardant treated plywood where required. Size the back board by 12 inches beyond size of complete panel system. Unless noted otherwise, sheathing to be 3/4 inch minimum thick, square edges, with site brush applied preservative treated.

**Site Applied Wood Treatment:** Apply preservative treatment in accordance with manufacturer's instructions. Brush apply two coats of preservative treatment on wood in contact with cementitious materials, roofing and related metal flashings, and all surfaces in potentially damp and unconditioned spaces. Treat site-sawn cuts. Allow preservative to dry prior to erecting members.

#### SCHEDULES

**Wood Blocking:** Provide wood strips and blocking as indicated or required by conditions, in thickness and shape as required for the work required. Wood blocking or nailers on steel shall be bolted. Fasten wood ground, furring and other engaging wood work to wood and masonry with approved types and sizes of nails, ties or inserts spaced to provide rigid secure supports. All blocking, framing and sheathing in concealed interior applications and non-sprinklered structural conditions to be fire rated material. All blocking/framing/sheathing for exterior use and/or encapsulated in a roofing system shall be preservative treated for moisture, unless noted otherwise.

**Wire Partitions - (If required):** For temporary or permanent enclosures. Locate where indicated on drawings, required by trades or directed by Owner. Shall be 14 gage, 2" x 4" galvanized welded wire fabric over (metal or treated wood) studs @ 24" o.c., with 2' x 4' hinged access gates with locking latches. Provide one access gate per a maximum of 1200 G.S.F. of enclosure.

#### END OF WOOD BLOCKING AND CURBING

## SECTION 07160 - BITUMINOUS DAMPROOFING

### PART 1 GENERAL

#### SECTION INCLUDES

Cold applied asphalt bitumen damproofing with drainage panels and protective cover as indicated in the schedule. Perform Work in accordance with NRCA Waterproofing Manual. Coordinate and submit product data, installation instructions and certificate of compliance.

#### REQUIREMENTS

Manufacturer and Applicator to be companies specializing in the work of this section with minimum five years documented experience. Review geotechnical reports and verify subsurface conditions to determine if drainage panels and protection boards will be required due to excessive moisture and subsurface flow. Maintain ambient temperatures above 40 degrees F for 24 hours before and during application until membrane has cured. Do not apply damproofing if rain is occurring or threatening; or if surface is wet or excessively moist.

### PART 2 PRODUCTS

#### MANUFACTURERS

W. R. Meadows, Sealmastic Solvent and Emulsion Damproofing, Type I - Spray Grade, or II - Brush-on Spray Grade, or III - Trowel-on Grade. Other Acceptable Manufacturers: Sonneborne Building Products, Karnak Chemical Corp., Koppers Co., Inc.; Tamko. Substitutions to have direct comparison with product being replaced. Submit during bid phase.

#### COLD ASPHALTIC MATERIALS

**Asphalt Emulsion:** Conforming to ASTM D3747; **Asphalt Cement:** ASTM D2822 Type I; **Asphalt Primer:** ASTM D41, compatible with substrate. **Flexible Flashings:** As recommended by the manufacturer for each condition.

#### ACCESSORIES

**Protection Board:** Where called for on plans, or where the R-value of the building envelope must be maintained. Rigid insulation specified in Section 07200; or 1/4" min. thick biodegradable hardboard, polystyrene foam sheet, asphalt wood fiberboard, or bitumen impregnated glass fiberboard with integral drainage channels in high moisture content soil.

**Drainage Panel:** Where potential below grade water movement is anticipated, 1/4" minimum thick formed plastic, molded flexible rubber, hollow sandwich embossed with or without cover sheet.

### PART 3 EXECUTION

#### PREPARATION

Verify existing conditions before starting work. Verify substrate surfaces are durable, free of loose or damaged matter detrimental to adhesion or application of damproofing system. Verify items which penetrate surfaces to receive damproofing are securely installed. Protect adjacent surfaces not designated to receive damproofing. Clean / prepare surfaces per manufacturer's instructions. Do not apply damproofing to surfaces unacceptable to manufacturer or applicator. Apply mastic to seal penetrations, small cracks, or minor honeycomb in substrate.

#### APPLICATION

Prime surfaces in accordance with manufacturer's instructions and NRCA - Waterproofing Manual. Apply bitumen as recommended for each condition; in a continuous, unbroken film, free of pinholes and gaps. Apply in two coats, continuous & uniform, at a rate of 1.5 -2.5 gal/100 sq ft per coat; from 1" (nominal) below finish grade elevation to top of footings. Seal items projecting thru surface with mastic. Seal watertight. Immediately backfill against damproofing to protect from damage. Cover with veneer in cavity application

#### INSTALLATION - DRAINAGE PANEL AND PROTECTION BOARD

Place drainage panel directly against membrane, butt joints; place to encourage drainage downward. Where required by manufacturer, place protection board directly against drainage panel membrane; butt joints. Adhere protection board/drainage panel to substrate with mastic or to tacky damproofing surface. Scribe and cut boards around projections, penetrations, and interruptions. Use protection board where backfill operations or coarse backfill material has the potential to damage damproofing material.

### 3.4 SCHEDULE

**Foundation Wall:** All below grade areas down to footing to receive damproofing.

**Turn-down slab:** All below grade areas down to footing to receive damproofing.

**Exterior Wall where grade level is above top of interior slab:** top of grade to footing to receive damproofing and drainage panel. Coordinate use of protection board.

**Building Crawl Space:** From top of footing (both sides) as indicated on drawings.

Masonry Cavity Walls: The outside surface of the inner masonry wall in a cavity application from top of wall down to top of footing.

#### END OF BITUMINOUS DAMPROOFING

## SECTION 07200 - INSULATION

### PART 1 GENERAL

#### SECTION INCLUDES

**Typical insulation for general construction; select the most durable products for conditions indicated and R-values required as indicated on the drawings:**

**Board insulation** with or without integral vapor retarder at cavity wall construction, perimeter foundation wall, underside of floor slabs, exterior wall behind wall finish, and as indicated.

**Batt insulation** for filling perimeter window/door shim spaces/crevices in exterior wall / roof; and with or without vapor retarder in exterior wall and ceiling / roof construction.

**Foamed-in-place insulation** in masonry cavity walls, or in exterior framed walls, and at exterior wall crevices requiring a thermal seal, and air barrier; and at junctions of dissimilar wall and roof materials to achieve a thermal and air seal. Provide protective overcoat / cover per manufacturer.

**Granular insulation** in cells of concrete masonry unit walls, spaces between masonry wythes and where indicated on drawings.

**Materials of This Section:** Provide continuity of thermal barrier at building enclosure elements in conjunction with thermal insulating materials indicated. Provide the extent of insulation work as indicated / implied on drawings. Select the product which best performs the function required in the location of intended use based on manufacturer's recommendations. Coordinate and submit product data, installation instructions and certificate of compliance.

#### REQUIREMENTS

Manufacturer and Applicator to be Companies specializing in the products specified in this section with minimum three years documented experience. Applicator to be approved by manufacturer. Conform to applicable code for flame/fuel/smoke, fire resistance, concealment and over coat requirements. Do not install insulation or adhesives when ambient temperature or weather conditions are detrimental to successful installation. Protect all materials during delivery, storage and handling from weather and damage. Sequence work to ensure that all substrate and adjacent materials are in place before beginning the Work of this section; and to ensure timely placement of materials. Coordinate the work with adjacent trades to ensure correct installation of materials.

**Materials of This Section:** Provide continuity of thermal barrier at building enclosure elements in conjunction with thermal insulating materials indicated. Provide the extent of insulation work as indicated / implied on drawings. Select the product which best performs the function required in the location of intended use based on manufacturer's recommendations. Coordinate and submit product data, installation instructions and certificate of compliance.

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## PART 2 PRODUCTS

### MATERIALS - BOARD TYPE INSULATION

**Contractor's Option: Provide any of the following in thickness(s) as needed to meet indicated R-value(s). Consult manufacturer's requirements for the need of applied barriers:**

**Polystyrene:** ASTM C578, Type IV or X, CFC-free extruded cellular polystyrene; 5 year aged, thermal resistance "R" per inch of 5.0 at 75 degrees F; 1.35 pcf minimum density; minimum compressive strength of 15 psi; square edges; thickness indicated; 0.3 percent by volume maximum water absorption; **"Styrofoam Cavitymate,"** by Dow Chemical Co.; **"Foamular 250,"** by Owens Corning; **"AmaFoam-Clm,"** by Tenneco Building Products.

**Polyisocyanurate:** FS HH 119721 Class 1; CFC-free, closed cell glass fiber reinforced type; thermal resistance aged R of 7.2 per inch minimum at 75 degrees F mean temperature; thickness indicated; compressive strength minimum 25 psi; follow ASTM D2942 for less than 1-1/2 percent by volume maximum water absorption; square edges; factory applied skin of aluminum foil on both faces:

**"Tuff-R,"** by The Celotex Corp.; **"Isoshield,"** by Apache Products Co., Anderson, SC.

### MATERIALS - SEMI-RIGID GLASS FIBER

**Semi-Rigid Board Insulation:** ASTM C612 semi-rigid glass fiber type; thermal resistance "R" per inch of 4.3; FHC 25/50 classification; 3.0 pcf, K-value 0.23. Per intended use select, unfaced; faced one side with asphalt treated mesh reinforced Kraft paper; faced one side with mesh reinforced aluminum foil; or faced one side with asphalt treated mesh reinforced Kraft paper and other side with mesh reinforced aluminum foil; square edges; of sufficient width to provide friction fit between studs by thickness indicated: **Owens-Corning Fiberglas Corp. ; Certainteed Corp. .**

### MATERIALS - BATT

**Building insulation:** ASTM C665; minimum "R" value 13 per 3-1/2 inches; preformed glass fiber batt; provide Type I - without membranes, unfaced, Type III, Class B, with reflective covering, aluminum foil, one side or Type II, Class C, with non-reflective covering, kraft paper facing, one side where recommended by manufacturer: **Certainteed Corp. ; Owens-Corning Fiberglas Corp. .**

### MATERIALS - FOAM-IN-PLACE / GRANULAR FILL

**Contractor's Option:** Provide any of the following in quantities as needed to meet indicated R-value:

**Masonry Core Inserts:** ASTM C578; Molded expanded polystyrene; Type I - Factory installed; average "R" value of 3.85 per inch at 75 degrees: **"Korfll,"** by Concrete Block Insulating Systems. **Substitution approval must occur in Bid Phase and coordinated with CMU costs.**

**Foam-in-Place:** Multipolymer-based, synthetic resin type; thermal conductivity per ASTM C177; for 0.21 k value at 35 degrees F, and 0.219 k value at 75 degrees F; Water Vapor Transmission per ASTM C355 at 16.9 perms maximum; Compressive Strength per ASTM D1622 at 32 psi minimum; Density per ASTM D1622 at 0.8 lb/cu ft minimum; and Flame Spread and Smoke and Smoke Developed Rating per ASTM E84 5/0: **Core-Fill 500** by Tailored Chemical Products Inc.; **Polymaster R-505** by Polymaster Inc.; **TriPolymer** by C. P. Chemical Co., Inc.;

**Granular Insulation:** Perlite ASTM C549, Type IV, water repellent; fire resistance; flame/fuel/smoke contribution of 0/0/0; follow ASTM E84: **Chernock Corp. ; Brouk Co. ; Carolina Perlite.**

**Roof Insulation - Refer to roofing specification for material requirements.**

### ACCESSORIES

**Insulation Fasteners:** Impale clip of galvanized steel, to be adhered to surface to receive board or batt insulation, length to suit insulation thickness and substrate, capable of securely and rigidly fastening insulation in place. All fasteners per manufacturer's recommendations.

**Nails or Staples:** Steel wire; galvanized; type and size to suit application.

**Tape:** Polyethylene-backed, synthetic rubber-based adhesive tape, 30 mils thick minimum; minimum 3 inches wide: **"Perra-A Barrier,"** by W.R. Grace; **"Series 612 Seam Seal Tape;"** by Polyken Technologies; **"Sheathing Tape No. 8086,"** by 3M Contractor Products Department.

**Adhesive:** Low VOC-emitting type as recommended by manufacturer for each application. Verify compatibility of adhesive with insulation, substrate and environmental conditions.

**Wire Mesh:** Galvanized steel, hexagonal wire mesh.

**Ventilation Baffles:** Formed plastic or metal, as required by manufacturer.

**Sheet Barrier:** Black polyethylene film for above grade application; 10 mil thick; or reinforced for below grade application; per manufacturer's requirement.

**Protection:** Protection boards, cementitious overcoats or Factory applied membrane barrier as recommended by manufacturer for intended application.

### PART 3. EXECUTION

#### PREPARATION

Verify scope of work, site conditions and that substrate, adjacent materials, and insulation are dry and ready to receive the work. Verify substrate surface is flat and free of all conditions that may impede adhesive bond. Verify system compatibility with all trades and adjacent materials.

#### INSTALLATION - FOUNDATION PERIMETER

Adhere 8" wide strip of polyethylene sheet over construction joints with double beads of adhesive each side of joint; tape seal joints; and extend sheet full height of joint and extend as required for moisture protection. Apply adhesive in 3 continuous beads per board length to full bed 1/8" thick.

Install boards on foundation wall, grade beam or subsurface perimeter. Place boards vertically or horizontally in a method to maximize contact bedding; stagger joints and butt edges and ends tight. Extend boards over all joints 3" minimum; cut and fit tight to protrusions and protect exposed insulation surfaces. apply manufacturer's adhesive in five continuous beads per board length.

#### INSTALLATION - BOARD TYPE - SLAB ON GRADE

Provide a 6 mil polyethylene sheet over graded, smooth, dry, well-tamped fill. Lap sheet 2" min. and extend 2'-0" min. horizontally into building. Lay insulation over polyethylene sheet, cutting to size where necessary. Attach insulation around perimeter of foundation wall using adhesive as recommended by insulation manufacturer. Pour concrete directly over insulation.

#### INSTALLATION - BOARD TYPE - CAVITY WALLS

Secure impale fasteners to substrate at a frequency of 6 per insulation board. Adhere an 8 inch wide strip of polyethylene sheet over control joint with double beads of adhesive each side of joints. Tape seal joints between sheets, and extend full height of joint. Apply adhesive in three continuous beads per board length. Daub adhesive tight to protrusions for continuity of vapor and air barrier. Install boards horizontally between wall reinforcement. Place membrane surface of insulation against adhesive. Place boards in a method to maximize contact bedding. Stagger side joints. Butt edges and end tight to adjacent board and to protrusions. Tape seal board joints.

#### INSTALLATION - SEMI-RIGID BOARD

Install semi-rigid fiberglass boards between metal studs or where the non-rigidity of batt insulation will not span the voids. Fit insulation tight in spaces without gaps or voids. Install faced insulation with face towards warm side.

#### INSTALLATION - BATT TYPE

Install batt insulation with applied barrier in exterior walls and roof and unfaced batts in ceiling spaces without gaps or voids. Fit insulation tight in all spaces. Trim insulation neatly to fit spaces. Use batts free of damage. Install insulation with factory applied membrane facing warm side of building spaces. Lap ends and side flanges of membrane to framing members and secure in place per the manufacturer's instructions. Place wire mesh under roof insulation for support between framing members. Place foam blocks between roof purlins and roofing, where required. Tape seal ends, laps, tears or cuts in membrane. Use baffles as required. Do not impede natural ventilation.

#### INSTALLATION - FOAM-IN-PLACE

Mask and protect adjacent surfaces from over spray or dusting. Apply insulation by spray method, to a uniform monolithic density without voids; per manufacturer's instructions. Apply to achieve a thermal resistance R value of 11 for 8 inch and 13 for 12 inch CMU. Patch damaged areas. Protect finished work; and do not permit subsequent construction work to disturb applied insulation.

#### INSTALLATION - GRANULAR TYPE

Place granular insulation in walls per manufacturer's instructions. Verify holes and openings have been sealed to prevent escape of insulation. Place after masonry materials have sufficiently dried and attained optimum moisture content; but, prior to covering cores with bond beams or lintels. Place as masonry is erected; and ensure spaces are completely free of mortar to allow free flow of insulation. Completely fill spaces. Place in lifts and rod to eliminate air pockets. Do not exceed 6 feet pouring height. Place temporary signs in rooms which face insulated walls warning workers to use caution to prevent loss of insulation if cutting into walls.

### SCHEDULES

**Provide typical materials for standard uses as itemized in this section. When choosing materials /options from Part 2 - Products, use the following guidelines:**

If indicated hickness does not equal the required R-value, provide quality of material which exceeds the most restrictive condition. Use economy grade material where detailed thickness exceeds required R-value, unless affected by environmental conditions. Verify and coordinate masonry penetrations prior to selecting core fill insulation; foam-in-place restricts future modifications. For ceiling Insulation, use unfaced batt or kraft-faced toward unconditioned area above ceiling. In exterior wall applications, use foil faced batt unless sheathing has vapor barrier. Use foil faced batt or semi-rigid where interior walls are subject to moisture, humidity or cold.

#### END OF STANDARD INSULATION

## SECTION 07270 - FIRESTOPPING (IF REQUIRED)

### PART 1 GENERAL

#### SECTION INCLUDES

Fireproof firestopping, firesealing materials and accessories for use in time rated assemblies and protection from temperature extremes. Verify the extent of all rated conditions and potential heat producing equipment and provide fire protection materials as outlined in this section for the conditions as indicated and required by the Authority Having Jurisdiction. Coordinate and submit product data, installation instructions and certificate of compliance.

#### SYSTEM DESCRIPTION

**Firestopping (Firesealing):** A sealing or stuffing material or assembly placed in spaces between building materials to arrest the movement of smoke, heat, gases, or fire through wall or floor openings, in order to maintain the integrity of time rated construction.

**Firestopping Materials:** Tested in accordance with ASTM E119, ASTM E814, UL 263, UL 1479, as required for intended use, to achieve a fire rating as noted on Drawings. Provide materials which are flexible to allow normal building movement and penetrating items.

**Surface Burning:** Tested in accordance with ASTM E84, UL 723, as required for intended use, with a flame spread / fuel / smoke developed rating of 25/25/250 or less..

Firestop all interruptions to fire rated assemblies, materials, components, and maintain the integrity of the time rating. Meet or exceed specified requirements of the intended use and U. L. approval.

#### REQUIREMENTS

Manufacturer and Applicator to be Companies specializing in the work of this section with minimum three (3) years documented experience. Provide recent local listing of projects documenting product success / experience of the (Manufacturer approved) applicator. Conform to all applicable codes for fire resistance ratings and surface burning characteristics. Provide certificate of compliance from local jurisdiction indicating approval of materials used. Do not apply materials when temperature of substrate & ambient air is below 60 degrees F. Maintain this minimum temperature before, during and for 3 days after material installation. Provide ventilation in areas to receive solvent cured materials, and maintain ventilation thru set-up per manufacturer's recommendation.

### PART 2 PRODUCTS

#### MATERIALS

**Sealing:** ASTM C665; Type 1, mineral fiber, regular color, 4 inch minimum thickness, minimum four pounds per cubic foot density; flame spread 15, smoke developed 0 when tested; follow ASTM E84; minimum melt point shall be 2000 degrees F when tested; follow ASTM C24; vapor retarding foil-faced with galvanized steel safling clips, UL labeled. Acceptable Products / Manufacturers: Thermafiber Systems, USG

## SECTION 08112 - STANDARD STEEL FRAMES

### PART 1 GENERAL

#### SECTION INCLUDES

(Non-rated, fire rated) steel frames, as indicated on drawings; all conforming to current industry standards and regulations. Coordinate product data, shop drawings, certificate of compliance, installation instructions and required samples under the provisions of Section 01300.

#### QUALITY ASSURANCE

Conform to requirements of SDI-100 and ANSI A117.1; maintain access to reference copy. Manufacturer to be company specializing in manufacturing the Products specified in this section with minimum five years documented experience. Fire rated frame construction to conform to ASTM E152, NFPA 252 and UL 10B. Installed frame assembly to conform to NFPA 80 for fire rated class same as fire door. Accept frames on site in manufacturer's packaging. Inspect for damage.

### PART 2 PRODUCTS

#### MANUFACTURERS

Steelcraft: Curries; Amweld; (all model-welded). Substitutions to have direct comparison with product being replaced. Submit during bid phase.

#### MATERIALS

Frames: To suit SDI-100 Grade and Model of doors specified in Sections 08111 (& 08211). Unless indicated otherwise for structural integrity / special conditions, all frames to be 16 ga.  
Removable Stops: Rolled steel channel shape, butted corners, for countersink style screws.  
Bituminous Coating: Fibred asphalt emulsion, on masonry frames.  
Primer: Zinc chromate type.  
Silencers: Resilient rubber fitted into drilled hole.  
Weatherstripping: Vinyl set in aluminum frame. (If required)

#### FABRICATION

Fabricate frames as welded unit, and with hardware reinforcement plates welded in place. Provide mortar guard boxes as required for masonry frames. Reinforce frames wider than 48 inches with roll formed steel channels fitted tightly into frame head, flush with top, where required by supplier.  
Terminate door stops out of circulation path when door is closed. Prepare frames for silencers. Provide three single silencers for single doors on strike side. Provide two single silencers on frame head at double doors without Mullions. Configure exterior frames with special profile to receive recessed weatherstripping. Attach fire rated label to each fire rated door unit. Fabricate frames to suit masonry wall coursing with 4 or 2 inch head member. Finish to be steel sheet galvanized to ASTM A525 A60 (exterior use); cold rolled steel (interior use); with factory applied baked primer and field applied paint finish per 09500; with bituminous coating on inside of frame profile to a thickness of 1/16 inch.

### PART 3. EXECUTION

#### INSTALLATION

Verify existing conditions before starting work. Verify that opening sizes and tolerances are acceptable. Install frames in accordance with SDI-100 and DHI; and coordinate with type of wall construction for anchor placement. Coordinate installation of hardware, glazing and accessories.  
Install roll formed steel reinforcement channels between abutting frames. Anchor to structure and floor. Maximum diagonal distortion : 1/16" measured with straight edges, crossed corner to corner.

## END OF STANDARD STEEL FRAMES

### SECTION 08211 - FLUSH WOOD DOORS

### PART 1 GENERAL

#### SECTION INCLUDES

Flush wood doors; flush configuration; non-rated / fire rated [and glazing in panels]; where indicated on drawings; all conforming to current industry standards and regulations. Coordinate product data, shop drawings, installation instructions and samples as required for submittals.

#### QUALITY ASSURANCE

Perform work in accordance with AWI Quality Standard Section 1300, Premium Grade. Maintain access to reference copy. Finish doors in accordance with AWI Quality Standard Section 1500, grades identified in schedule. Manufacturer to be company specializing in manufacturing the Products specified in this section with minimum five years documented experience. Accept doors on site in manufacturer's packaging. Inspect for damage. Do not store in damp / wet areas; or in areas where sunlight might bleach veneer. Coordinate the work of door opening construction, door frame and hardware installation.

#### REGULATORY REQUIREMENTS

Verify scope of work and ratings required by the local Authority-Having-Jurisdiction. Fire Door Construction to conform to ASTM E152, NFPA 252 and UL 10C. Installed Fire Rated Door Assembly to conform to NFPA 80 for fire rated class as scheduled.

#### WARRANTY

Verify product use and provide the following warranties for interior doors: One year for FPCT; and Life of Installation for PC5 doors. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, telegraphing core construction, and installation.

### PART 2 PRODUCTS

#### MANUFACTURERS

Mohawk; Algoma; Five Lakes. Substitutions to have direct comparison with product being replaced. Submit during bid phase.

#### MATERIALS

**Flush Interior Doors:** 1-3/4" thick; solid core construction, fire rated, acoustic rated as indicated.  
**Core (Solid, Non-Rated):** AWI Section 1300, Type FPCT - Framed Non-gued (Drop In) Particleboard for interior doors.  
**Core (Solid, Fire Rated):** AWI Section 1300, Type FD 1-1/2, FD 1, FD 3/4, FD 1/2, FD 1/3, as required for rating. (Where Applicable).  
**Veneer Facing (Flush Interior Doors):** AWI Premium quality species wood, rotary cut, with book matched grain, and pair match on double doors, for transparent finish.  
**Facing Adhesive:** Type II - water resistant for interior.  
**Metal Louvers:** Coordinate with Division 15 Specifications and HVAC drawings.

#### FABRICATION

Fabricate non-rated doors in accordance with AWI Quality Standards requirements. Fabricate fire rated doors (where applicable) in accordance with AWI Quality Standards and to Warnock Hersey requirements. Attach fire rating label to door. Provide astragals for fire rated double doors (if applicable); and provide lock blocks for hardware reinforcement. Exposed edges to be the same species as veneer facing hardwood for transparent finish. Fit edge trim to edge of sillies after veneer facing. Bond edge banding to cores only on PC5 doors. At exterior doors, provide flashing at glazed openings for full thickness and width of door. Factory machine doors for finish hardware. Provide solid blocking for through bolted hardware. Factory fit doors for frame opening dimensions identified on shop drawings; and prepare door edge to receive weather stripping devices. Provide edge clearances in accordance with AWI 1600. Finish (non-factory) all visible surfaces to match facing per section 09900.

### PART 3 EXECUTION

#### INSTALLATION

Verify existing conditions before starting work. Verify that opening sizes and tolerances are acceptable. Do not install doors in frame openings not plumb / out-of-tolerance for size or alignment.  
Install fire rated and non-rated doors in accordance with AWI Quality Standard, NFPA 80 and to manufacturer's requirements. Trim non-rated door width by cutting equally on both jamb edges.  
All door trimming and cutting to be by factory prior to shipment. Coordinate installation of doors, frames, hardware, cut-outs and accessories. Conform to AWI requirements for fit / clearance tolerances, maximum diagonal distortion (warp), maximum vertical distortion (bow), and maximum width distortion (cup). Adjust door for smooth and balanced door movement. Adjust closer for full closure. Refer to door and frame schedule as indicated on drawings.

#### END OF FLUSH WOOD DOORS

## SECTION 08710 - DOOR HARDWARE

### PART 1 GENERAL

#### SECTION INCLUDES

Hardware for hollow steel and aluminum doors; cylinders for aluminum storefront entrances; and thresholds, weatherstripping, seals, and door gaskets; all conforming to current industry standards and regulations. Submit product data, parts list, schedule and installation instructions. Submit parts lists, templates and connection requirements.

#### QUALITY ASSURANCE

Verify locations and mounting heights of each type of hardware scheduled. Organize hardware into sets indicating complete designations of every item required for each door or opening. Include the fastening, finish and keying information for each item. Provide samples as required for approval. Record actual locations of installed cylinders, master key code and secure key shipment. Provide complete operation and maintenance procedures. Require secure shipment direct from supplier. Manufacturer and Supplier to be companies specializing in the Products specified in this section with minimum five years documented experience. Employ an Architectural Hardware Consultant (AHC) to assist in the work of this section. Conform to all codes enforced by the local Authority Having Jurisdiction. Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer. Provide manufacturer (parts and installation) warranty as follows: 1 year for all components; 2 years for locksets; 5 years for exit devices; and 10 years for all closers. Provide extra key lock cylinders for each master keyed group.

### PART 2 PRODUCTS

#### SUPPLIERS

Falcon; Best; Schlage.

#### MANUFACTURERS

**Hinges:** Hager, Stanley & McKinney; **Latch Sets:** Falcon, Best & Schlage;  
**Phvots:** Dorma & Rixson; **Push/Pulls:** Hager, Rockwood & Ives;  
**Closers:** Dorma, LCN & Dor-o-matic; **Mortise Locks:** Falcon, Best & Schlage;  
**Gasketing:** Hager, Reese & National Guard; **Cylinder Locks:** Falcon, Best & Schlage;  
**Exit Devices:** Dorma, Monarch & Von Duprin; **Manual Bolts:** Hager, Rockwood & Ives;  
**Overhead Holders:** Dorma & Glynn Johnson; **Protection Plates:** Hager, Rockwood & Ives.  
Substitutions to have direct comparison with product being replaced. Submit during bid phase.

#### KEYING

Door Locks: Owner to verify locking requirements per the following categories: Keyed in like-groups, Keyed differently, Master keyed, Grand master keyed, Great grand master keyed, or per project specific conditions. Include control keying with removable core cylinders, if requested by Owner.  
Supply keys in the following quantities: 4 keys each for masters, grand masters, great grand masters and control keys; plus 2 change keys for each lock or biting. Provide lockable steel key cabinet (Baked enamel finish)with hooks and sized for project keys plus 25 percent growth.

### PART 3 EXECUTION

#### INSTALLATION

Verify existing conditions before starting work. Verify that doors and frames are ready to receive work and dimensions are as indicated on shop drawings, and verified by the manufacturer. Install hardware in accordance with manufacturer's instructions and provided templates. Do not remove labels from fire rated doors or frames. Mounting heights for hardware from finished floor to center line of hardware item: Locksets @ 40-5/16 inch; Push/Pulls @ 44 inch; Dead Locks @ 48 inch; and Exit Devices @ 40 inch.  
Architectural Hardware Consultant will inspect installation and certify that hardware and installation has been furnished and installed in accordance with manufacturer's instructions and as specified. Within six months after date of substantial completion, readjust or replace hardware items which have deteriorated or failed because of faulty design, materials or installation. Prepare a written report of problems in performance of hardware for A/E and Owner.

#### SCHEDULES

**The minimum standards for the material and fabrication of all components are outlined in Quality Assurance. The hardware schedule (as prepared by the Architectural Hardware Consultant) shall determine the minimum grade level of quality of materials for all project specific conditions, locations, intended use and finish. Cylinders for aluminum doors to be included in the schedule. Owner to verify and coordinate keying that affects all hardware. Refer to [the following ] for the hardware schedule:**

#### END OF DOOR HARDWARE

## SECTION 09260 - GYPSUM BOARD SYSTEMS

### PART 1 GENERAL

#### SECTION INCLUDES

Gypsum board and joint treatment; gypsum sheathing and exterior joint treatment; cementitious backer board; metal stud wall framing at interior and exterior locations; metal channel ceiling framing; drywall / framing accessories and acoustic insulation; all conforming to current industry standards and regulations. Coordinate shop drawings, product data and as required structural calculations.

#### SYSTEM DESCRIPTION

Exterior Wall Dead and Live Loads: Design and size components to withstand loads caused by positive and negative pressure of wind acting normal to plane of wall; and for lateral forces caused by the attachment of veneer finishes.

Interior and Exterior Framing Systems: Design to provide for movement of components without damage, failure of joint seals, undue stress on fasteners, detrimental effects when subject to seasonal or cyclic day/night temperature ranges, or stress / deflection from occupant fixturing. Design system to accommodate construction tolerances, deflection of building structural members, and clearances of intended openings. Unless noted otherwise, the minimum yield strength for cold formed metal framing shall be 33,000 PSI. Design system to resist / withstand condensation / moisture penetration due to joint movement / gaps in exterior sheathing / substrate. Acoustic Attenuation for Interior Partitions: STC in accordance with ASTM E90. Verify with drawings regarding extent of acoustical treatment in wall types.

**Do not exceed the Manufacturer's maximum height limitations for mid-span deflection, or these maximum deflections for the following wall types (coordinate with schedule):**  
**L/240 for interior partitions (terminating at/ or below ceiling height).**  
**L/360 for interior walls (thru ceiling / rated / with attachments or fixturing).**  
**L/260 for exterior walls with drywall sheathing / lightweight paneling / EIFS.**  
**L/500 for exterior framing with attached weighted veneer (masonry, stone, etc.).**

#### QUALITY ASSURANCE

Perform Work in accordance with ASTM C754, ASTM C840, GA-216 and GA-600. Maintain access to copies for reference. Applicator Qualifications: Company specializing in performing the work of this section with minimum 5 years documented experience, and approved by manufacturer. Design structural elements under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the state where the project is located.

Conform to applicable code and drawing notes / legends for fire rated assemblies. **Do not arbitrarily alter (omit or substitute) rated assembly materials without Code and Architect / Engineer Approval.** Protect products during delivery, storage, handling and installation from warping, bending, distortion and damage. Maintain product identification if removed from original packaging. Coordinate the placement of components within the framing system from all trades. Maintain a minimum ambient temperature of 55 degrees F for product storage / installation.

### PART 2 PRODUCTS

#### MANUFACTURERS - GYPSUM BOARD AND SHEATHING MATERIALS

G-P Gypsum Corporation (Georgia-Pacific); National Gypsum Company; United States Gypsum Company; /BPB America INC. Substitutions to have direct comparison with product being replaced. Submit during bid phase.

#### MANUFACTURERS - STUD FRAMING AND ACCESSORIES

Dale Industries, Inc.; National Gypsum Company; United States Gypsum Company; Dietrich Industries, Inc. Substitutions to have direct comparison with product being replaced. Submit during bid phase.

#### FRAMING MATERIALS

**Studs, Tracks and headers:** ASTM C645; GA-216 and GA-600; G90 galvanized sheet steel. C shape, punched for utility access with interlocking components. (Unless noted otherwise on DWGS all primary metal stud framing members shall have a minium depth of 4")

**Furring, Framing, and Accessories:** ASTM C645, GA-216 and GA-600; G90 galvanized material, as supplied by framing manufacturer.

**Fasteners:** ASTM C514, ASTM C1002, and GA-216, self drilling, self tapping screws.

**Anchorage to Substrate:** Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

**Adhesive:** ASTM C557, GA-216. Verify with manufacturer for each material application.

**Minimum gauge sizes:** Unless noted otherwise on the drawings for project specific conditions, use the minimum gauges specified in the schedule at the end of this section.

Fabricate all components to sizes and profiles required for installation of assemblies. Fit, reinforce and brace framing members to suit design requirements. Assemble in the largest practical sections.

## GYPSUM BOARD MATERIALS

Unless otherwise noted, all boards / sheathing shall be 5/8" thick with square cut ends. The edges may be tapered for a strong smooth finish. **Verify the following products for use in the project:**  
**\*Standard / Fire Rated Gypsum Board:** ASTM C1396.  
**\*Moisture Resistant Gypsum Board:** ASTM C1396.  
**\*Exterior Gypsum Soffit Board:** ASTM C1396; standard or fire rated type.  
**\*Foil Faced Gypsum Board:** ASTM C36; insulating type with back laminated with aluminum foil.  
**\*Gypsum Backing Board:** ASTM C1396; type, as required for use with grooved edges.  
**\*Gypsum Sheathing Board:** ASTM C1396; moisture resistant type (rated as required) with water repellent paper faces and tongue and grooved edges; or ASTM C1177 glassmat with water resistant cores.  
**\*Gypsum Coreboard:** ASTM C1396, 1 inch thick, tongue and groove edges are preferred.  
**\*Cementitious Backing Board:** High density, glass fiber reinforced, 1/2" thick x 2' wide, coated glass fiber or polymer coated mesh tape for joints and corners.

#### ACCESSORIES

**Acoustic Insulation:** ASTM C665; preformed glass fiber, friction fit type, unfaced, thickness as indicated on drawings. Use single-source Supplier (manufacturers listed in Section 07200).  
**Acoustic Sealant:** ASTM C919; water-base sealant; non-drying, non-hardening, non-skinning, non-staining and permanently flexible. Shore A-35; 80% solids minimum, non-flammable, flame/smoke 5/0 for use in conjunction with gypsum board. Sheetrock Brand Acoustical Sealant manufactured by United States Gypsum Company, or approved equal.  
**Sheathing Joint Sealant:** Exterior grade silicone as specified in Section 07900.  
**Sheathing Joint Tape:** Dupont (Tyvek) contractor tape, or equivalent; 2" width minimum.  
**Corner Beads:** Metal. **Edge Trim:** GA-201 and GA-216, Types LC & L beads.  
**Joint Materials:** ASTM C475; GA-201/216; reinforcing tape/joint compound/adhesive/ water.  
**Control Joints:** Formed Vee-shaped slot unit with removable strip.  
**Fasteners:** ASTM C1002, Type S12, W and GA-216.

### PART 3 EXECUTION

#### INSTALLATION

Verify existing conditions before starting work. Verify that site conditions are ready to receive work and opening dimensions are as indicated on drawings, and coordinated with manufacturer.

**Metal Studs:** Install studs in accordance with ASTM C754 and manufacturer's instructions. Metal stud spacing to be 16 inches on center, unless noted otherwise on drawings. Extend partition stud framing to ceiling only. Attach ceiling runner securely to ceiling framing in accordance with manufacturer's instructions and per details indicated. For interior walls that extend stud framing thru the ceiling to the structure above, maintain clearance under structural members to avoid deflection transfer to studs. Provide extended leg ceiling runners. Provide bridging/bracing as required to compensate for lateral forces and building movement at exterior framing. At door opening framing, install double studs at door frame jambs, and install stud tracks all around opening, extending to adjacent studs. Nail wood blocking to studs. Bolt or screw steel channels to studs. Install blocking for support of plumbing fixtures, toilet partitions, wall cabinets, wood frame opening, toilet accessories, hardware, and items detailed.

**Furring:** Erect wall furring for direct attachment to masonry and concrete walls. channels horizontally @ 16" oc(max), not more than 4 inches from floor /ceiling lines or abutting walls. Secure in place on alternate 16" oc(max) and 24" oc(max). Install thermal insulation where indicated and adjustable furring brackets as needed in accordance with manufacturer's instructions.

**Ceiling Framing:** Install in accordance with ASTM C754, GA-201, GA-216 and manufacturer's instructions. Coordinate location of hangers with other work. Install ceiling framing independent of walls, columns, and above ceiling work. Reinforce openings in, and laterally brace entire suspension system.

**Gypsum Board:** Install in accordance with ASTM C840, ASTM C1396, GA-201, GA-216, GA-600 and manufacturer's instructions. Erect single layer standard gypsum board in most economical direction, with ends and edges occurring over firm bearing. Erect rated board vertically, with edges/ends occurring over firm bearing. Erect exterior sheathing horizontally. Use screws when fastening gypsum board to metal furring or framing. Use nails or screws when fastening gypsum board to wood furring or framing. Place second layer (when used) perpendicular to first layer and offset joints; use fasteners and adhesive per manufacturer's instructions. Erect exterior soffit board perpendicular to supports, with staggered end joints over supports. Treat cut edges and holes in moisture resistant gypsum board and exterior gypsum soffit board with sealant.

**Control Joints:** Place consistent with lines of building spaces as indicated, and as follows:  
\*At abutment to structural elements, load bearing walls, dissimilar materials or ceilings.  
\*Full height door / window frames; and at expansion / control joints in the substrate.  
\*In horizontal planes exceeding 30'-0" (without perimeter relief).  
\*In horizontal planes exceeding 50'-0" (with perimeter relief).  
\*In vertical planes exceeding 30'-0"; and where recommended by the manufacturer.

**Accessories:** Place corner beads at external corners as indicated. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials, or as indicated. Install backing board over studs or substrate in accordance with manufacturer's instructions. Where indicated, apply gypsum board to curved walls in accordance with GA-216. Install acoustic insulation and sealant around cut openings and behind in-wall M-P-E items per Manufacturer's instructions.

**Joint Treatment:** Prepare all exposed joints, edges, and corners to produce the desired surface finish as required for the level described in accordance with GA-214. Verify with manufacturers requirements for all levels of finish and rated conditions. Feather coats on to adjoining surfaces so that camber is maximum 1/32 inch. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile. Fill and finish joints and corners of cementitious backing board. Exterior sheathing joint treatment; tape or silicone sealant per schedule. Apply finish texture coating per manufacturer's instructions. True flatness: 1/8 inch in 10 feet in any direction.

#### SCHEDULES

**Metal Framing Minimum Gauge Sizes (coordinate with height / deflection):**  
\*8 gauge for hanger wire; 16 gauge for the wire.  
\*16 gauge for exterior wall studs / framing @ L/500.  
\*18 gauge for exterior wall studs / framing @ L/360.  
\*20 gauge for interior full height walls / rated walls / framing @ L/260.  
\*20 gauge for door framing at openings up to 4'-0" wide and leaves < 300 lbs.  
\*22 gauge for interior ceiling height partition studs / framing @ L/240.  
\*22 gauge for door framing at openings up to 3'-0" wide and leaves < 100 lbs.  
**The predominate gauge in the framing location will determine the minimum gauge used.**

#### Drywall Use and Location:

\*Standard gypsum board: -general interior use without moisture / rated conditions.  
\*Fire rated gypsum board: -interior fire / smoke rated conditions.  
\*Moisture resistant G.B.: -(green board), interior areas of humidity / water use.  
\*Exterior soffit board: -exterior (horizontal) finish and sheathing material.  
\*Foil faced gyp. board: -use on interior face of exterior framing as vapor barrier.  
\*Gypsum backing board: -substrate for veneers such as EIFS.  
\*Gypsum sheathing bd.: -exterior wood frame & roof deck application.  
\*Gypsum coreboard: -shaft liner  
\*Cementitious backing bd: -ile substrate and substrate in damp areas.

**Finishes / Uses in accordance with GA-214 Levels of Finish (Levels 0 thru 5): Coordinate the drywall level of finish with the proposed interior finish as outlined in the Finish Schedule. Use Level 2 for surface areas of future finish. Verify with Manufacturer for joint treatment for the outside face of exterior sheathing substrate / cavity wall liner.**

#### END OF SECTION

## SECTION 09900

### PAINTING

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

A. Surface preparation and field application of applied coatings.

B. Field use of primers, paints, epoxy, stains, varnishes, and other field applied coatings.

#### 1.2 RELATED SECTIONS

A. Section 03300 - Cast-in-Place Concrete: Mix design and surface finish texture.

B. Section 04300 - Unit Masonry System: Admixtures and waterproofing agents.

C. Section 05500 - Metal Fabrications: Shop primed items for field painting.

D. Section 07620 - Sheet Metal Flashing & Trim: Field painting exposed metal components.

E. Section 08111 - Standard Steel Doors: Field painting of components.

Section 0812 - Standard Steel Frames: Field painting of components

F. Section 09260 - Gypsum Board Systems: Drywall finishing.

G. Division 15 - Mechanical Identification.

H. Division 16 - Electrical Identification.

#### 1.3 REFERENCES

A. ASTM D16 - Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products.

B. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood.

C. NACE (National Association of Corrosion Engineers) - Industrial Maintenance Painting.

D. NPCA - Guide to U.S. Government Paint Specifications; National Paint &Coatings Association.

E. PDCA - Architectural Specifications Manual; Painting and Decorating Contractors of America.

F. SSPC - Steel Structures Painting Manual; Steel Structures Painting Council.

#### 1.4 DEFINITIONS

A. Conform to ASTM D16 for interpretation of terms used in this section.

B. Conform to current ASTM Standards for gloss levels.

#### 1.5 SYSTEM DESCRIPTION

A. Provide the highest quality compatible primers and paints from a single source manufacturer. **All surface applications shall conform to product manufacturer recommendations.**

B. Provide the appropriate coatings for all applications that can maintain their level of finish thru exposure to exterior seasonal climate conditions and temperature fluctuations.

C. Provide the appropriate coatings for all applications that can maintain their level of finish thru exposure to typical interior use conditions and periodic cleaning with mild detergents.

D. Provide finished painted surfaces that are uniform in appearance, color and sheen on all materials viewed under all lighting conditions from the various viewing positions.

#### 1.6 SUBMITTALS FOR REVIEW

A. Section 01300 - Submittals: Procedures for submittals.

B. **Product Data:** Provide data on all finishing products.

#### C. Samples:

1. Samples should also indicate paint system, substrate material and location of use.  
2. Submit at least **three (3)** sample chips in size sufficient for illustrating range of colors and textures available for each surface finishing product scheduled.  
3. Provide painted field samples, illustrating selected colors and textures for each color and system selected. Apply coatings on the actual surface material to be painted in area of sufficient size for viewing by A / E or Owner for approval.

#### 1.7 SUBMITTALS FOR INFORMATION

A. Section 01300 - Submittals: Procedures for submittals.

B. **Manufacturer's Instructions:** Indicate special surface preparation procedures, substrate conditions requiring special attention, and application procedures for all conditions.  
1.8 SUBMITTALS AT PROJECT CLOSEOUT

A. Section 01700 - Contract Closeout; Procedures for submittals.

B. **Maintenance Data:** Submit data on cleaning, touch-up and repair of painted /coated surfaces.

#### 1.9 QUALITY ASSURANCE

A. **Manufacturer Qualifications:** Company specializing in manufacturing the Products specified in this section with minimum **ten (10)** years documented experience.

B. **Applicator Qualifications:** Company specializing in performing the work of this section with minimum **five (5)** years documented experience, and approved by manufacturer.

#### 1.10 WARRANTY

A. **All applied coatings shall have a minimum one (1) year warranty unless superceded by the Manufacturer's warranty.** All applied coatings will be warranted against the loss / decline of appearance due to defective material or nonconforming application.

B. The defective appearance characteristics shall include, but not be limited to, the following:

1. Noticeable discoloration such as yellowing, streaking or bleached / darkened areas.  
2. Any change in sheen; or, becoming "tacky" to the touch.  
3. Coatings begin to peel, crack, blister, "alligator" or release from the substrate layer.  
4. Surface becomes excessively chalky / dusty; or develop mold or mildew.

#### 1.11 REGULATORY REQUIREMENTS

A. Conform to all applicable regulations, codes for health & safety issues, and flame & smoke rating requirements for products and finishes.

#### 1.12 DELIVERY, STORAGE, AND PROTECTION

A. Section 01600 - Material and Equipment: Transport, handle, store, and protect products.

B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

C. **Container Label:** Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

D. **Paint Materials:** Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

#### 1.13 ENVIRONMENTAL REQUIREMENTS

A. Section 01600 - Material and Equipment: Environmental conditions affecting products on site.

B. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

C. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.

D. **Minimum Application Temperatures for Latex Paints:** 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.

E. **Minimum Application Temperature for Varnish and related finishes:**

- 1.15 EXTRA MATERIALS
- A. Section 01700 - Contract Closeout.
- B. Supply 2 gallons of each color, type, and surface texture; store where directed by Owner.
- C. Label each container with color, type, texture, room locations, and substrate use in addition to the manufacturer's label.

**PART 2 PRODUCTS**

**2.1 MANUFACTURERS**

**A. Manufacturers - Primer, Paint and Filler Coatings:**

- Duron Paints & Wallcoverings (Duron)
- Farrell - Calhoun (FC)
- ICI Dulux Paints (ICI)
- International Paint (IP)
- M A B Paints (MAB)
- Benjamin Moore and Company (Moore)
- Porter Paints (Porter)
- PPG Industries, Pittsburgh Paints (PPG)
- The Sherwin Williams Company (SW)
- Tnemec Company Incorporated (Tnemec)
- Substitutions: Refer to Section 01600 - Material and Equipment.
- Coordinate with Owner for any special coating or proprietary product required.

**B. Manufacturers - Insulation Paint & Etching / Washing Solvents**

- Refer to System Types and Product Selections. Substitutions per Section 01600.

**2.2 MATERIALS**

- A. Coatings:** Ready mixed, except field-catalyzed coatings. Prepare pigments:
- To a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating.
  - For good flow and brushing properties.
  - Capable of drying or curing free of streaks or sags.

- B. Accessory Materials:** Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve the finishes specified; commercial quality.

- C. Patching Materials:** Latex or Manufacturer approved filler.

- D. Fastener Head Cover Materials:** Latex or Manufacturer approved filler.

**2.3 FINISHES**

- A. Refer to the schedule on A11.0**

**SECTION 10440 - SIGNAGE**

**PART 1 GENERAL**

**SECTION INCLUDES**

Engraved plastic signs / Individual plastic characters; Screened image signs on plastic, steel or aluminum; or applied film for interior / exterior identification, information & instruction, as required by the Owner and the Authority Having Jurisdiction and conforming to current regulations. Submit shop drawings, samples and Manufacturer's installation instructions.

**REQUIREMENTS**

Manufacturer to be Company specializing in manufacturing the Products specified in this section with minimum five (5) years documented experience. Deliver, store, protect and handle products to site. Maintain the required ambient temperature during and after installation of signs.

**PART 2 PRODUCTS**

**MANUFACTURERS**

ASI Sign Systems; Apco Sign Systems; Allenite Signs; Seton Identification Products, Substitutions to have direct comparison with product being replaced. Submit during bid phase.

**SIGNAGE**

Interior: Provide engraved laminated colored plastic for permanent room identification, directional / life safety information and for door / wall / surface attachment application; and provide pressure - sensitive vinyl film (flexible & self adhering) for use on glass / polished surface applications.

Exterior: Provided by tenant.

General: Coordinate size, height, lettering, colors and graphics with A/E & Owner prior to pricing. Owner to be responsible for verifying the requirements of, and obtaining the approval from the local Authorities Having Jurisdiction. Verify with Manufacturer for each sign type and application surface; and provide all mounting hardware and accessories.

**PART 3 EXECUTION**

**INSTALLATION**

Verify that substrate surfaces are cleaned and ready to receive work. Install in accordance with manufacturer's instructions, in locations indicated, and as directed by the Authority Having Jurisdiction. Coordinate with the Owner and verify the code requirements regarding the mounting heights and locations for all signage (interior, exterior & site). Place all signage on surfaces that are visible from the circulation / egress paths.

Provide as part of the submittal package a signage schedule indicating all sign types and proposed locations of installation; including all Owner provided signage. Coordinate the scope of work with the Owner; and verify the local code requirements regarding the use and restrictions of all signage.

**END OF SIGNAGE**

**3.4 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT**

- A. Refer to M-P-E documents for schedule of color-coding & identification banding of equipment, ductwork, piping, and conduit. Color code equipment, piping, conduit, and exposed duct work in accordance with requirements indicated. Color band and identify with flow arrows, names, and numbering.

- B. Paint shop primed equipment. Paint shop finished items where indicated.

- C. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

- D. Prime and paint exposed items including, but not limited to, insulated and exposed pipes, conduit, boxes, raceways, panels, insulated and exposed ducts, hangers, brackets, collars, supports and accessories; except where items are shop finished.

- E. Paint interior surfaces of air ducts that are visible through grilles and louvers with one coat of flat black paint; and exposed dampers behind louvers / grilles to match face panels.

- F. Paint exposed conduit and electrical equipment occurring in finished areas. Paint exposed exterior electrical items including raceways, panels and attachment devices.

- G. Paint all sides/edges of plywood backboards before installing electrical/ telephone equipment

- H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons and fittings removed prior to finishing.

**3.5 FIELD QUALITY CONTROL**

- A. Section 01400 - Quality Control: Field inspection and testing.

- B. Inspect and test questionable coated areas in accordance with ASTM requirements.

**3.6 CLEANING**

- A. Section 01700 - Contract Closeout: Cleaning installed work.

- B. Promptly remove all excess primer, paint, etc. from adjacent surfaces.

- C. Collect waste material which may constitute a fire hazard, place in closed metal containers, and remove daily from site. Maintain clean and uncluttered work area.

**3.7 SHOP PRIMED ITEMS FOR SITE FINISHING**

- A. **Structural steel:** Exposed surfaces of items such as, but not limited to, framing & support members, base & expansion joint plates, shear stud connectors, struts, sag rods, suspension cables, floor & roof decks, bracing & bridging members, bar joist / girders & accessories, and stair components.

- B. **Metal fabrications:** Exposed surfaces of items such as, but not limited to, columns, lintels, channel / angle framing, ladders / railings / cages, grating & plate covers, miscellaneous piping / tubing, bollards, corner guards, and miscellaneous framing accessories.

**3.8 SCHEDULE OF APPLIED COATINGS**

[The following categories indicate specified coatings for typical construction materials. Omit categories and coatings for materials not included in the Contractual scope of work.]

- A. Exterior Site Elements / Graphics (coordinate with Site Package):**

**AREA / MATERIAL SURFACES**

- Concrete surfaces such as curbs, slab edges, sign bases; Metal surfaces such as bollards, safety/guard rails, sign posts. Site graphics: paving, informational, safety, directional as noted. **P-7 P-7**

- Metal site features such as sign columns, stairs & utility items **P-1 P-8**

- B. Exterior Building Elements / Graphics (coordinate with Drawings):**

- C. Interior Building Elements / Graphics (coordinate with Drawings):**

- Submit Manufacturer's systems for intumescent / rated coatings where required.

**3.9 SCHEDULE - COLORS**

- A. Refer to the drawings for finish schedules and color selections. Coordinate with the A/E and Owner if the color selections for any area or material are in question; and submit samples for each item.**

- B. Any variation from the specified materials for this contract work must be approved by the Owner and the A/E; and be itemized in the shop drawing submittals prior to the purchase of the materials.**

- C. The prototype selected colors are provided by the Owner's [Tenant's] preferred manufacturer - [ ] insert name of mfr. Products from the other approved manufacturers must match the prototype selected colors exactly and be pre-approved by the Owner.**

**END OF SECTION**

**SECTION 10522 - FIRE EXTINGUISHERS, CABINETS & ACCESSORIES**

**PART 1 GENERAL**

**SECTION INCLUDES**

Fire extinguishers, cabinets and accessories conforming to NFPA 10 and the local regulations of the Authority Having Jurisdiction. Provide extinguishers classified and labeled by Underwriters Laboratories Inc. for the purposes specified / indicated; and as required by the Fire Marshal.

**SUBMITTALS**

Submit shop drawings, product data and Manufacturer's installation instructions. Indicate cabinet physical dimensions, tough-in measurements for specified cabinets, wall bracket mounted measurements, location and rated installation requirements. Provide extinguisher operational features, color and finish, anchorage details, size and use classification, NFPA approved marking system, all from a single source supplier. Certify that Products meet or exceed specified requirements.

**PART 2 PRODUCTS**

**MANUFACTURERS**

J. L. Industries, Inc.; Larsen's Manufacturing Company.; Potter-Roemer Fire Protection Equipment. Substitutions to have direct comparison with product being replaced. Submit during bid phase.

**FIRE EXTINGUISHERS**

Dry Chemical Type: Stainless steel or Cast steel tank, with pressure gage; Class A:B:C, Size 10; unless size and classification is revised by the Authority Having Jurisdiction. Extinguisher finish to be Stainless steel No. 4 finish; or red enamel finish; or finish as required by the Fire Marshal. Provide the required brackets, accessories and graphic identification. Provide 18 ga. steel cabinets in areas open to the public.

**PART 3 EXECUTION**

**INSTALLATION**

Verify existing conditions before starting work. Install in accordance with manufacturer's instructions; and 48 inches from finished floor to the centerline of the extinguisher controls.

**SCHEDULES**

Unless revised by the local Authority Having Jurisdiction, provide Class A-B-C size 10 fire extinguishers in locations required by the Fire Marshal not to exceed the coverage area outlined in NFPA 10, Appendix E; or as indicated on the drawings. Units shall be placed on permanent walls in visible locations along aislesways, egress paths, and in required areas; and not to exceed a maximum spacing of 75 ft along accessible circulation paths. Additional units will be required where the spacing is interrupted by locked access and rated construction / compartmentalization.

Verify the scope of work with governing regulations for unit placement in typical locations; and for locations indicated on the drawings. Provide units in prominent public areas, near secondary entrances / exits; and in non-public, storage, mechanical and general hazardous areas.

Notify A/E in writing immediately if specified / scheduled items are at variance with the proposed use, local regulations, or the Fire Marshal's requirements.

**END OF FIRE EXTINGUISHERS, CABINETS & ACCESSORIES**

**SECTION 10800 - TOILET AND BATH ACCESSORIES**

**PART 1 GENERAL**

**SECTION INCLUDES**

Toilet and washroom accessories, grab bars and attachment hardware conforming to all current ADA, ANSI, ASTM and NEMA Standards. Submit product data, samples and installation instructions. Coordinate field measurements with product data for reinforcement, placement and coordination with related trades.

**PART 2 PRODUCTS**

**MANUFACTURERS**

American Specialties, Inc. Bobrick Washroom Equipment, Inc. Bradley Corp. All products from source supplier. Substitutions to have direct comparison with product being replaced. Submit during bid phase.

**MATERIALS**

Sheet steel, stainless steel sheet and tubing, plastic laminate, adhesive, primer and fasteners. Use single sheet of stock, free of joints or grind joints smooth. Provide all required accessories for full installation. Coordinate with and supply all keying to Owner.

Galvanize ferrous metal and fastening devices. Shop prime ferrous metals. Back paint components where contact is made with building finishes to prevent electrolysis. Accessory finishes to be baked enamel, chrome / nickel plating and stainless steel.

**PART 3 EXECUTION**

**INSTALLATION**

Verify that site conditions are ready to receive work and dimensions are as indicated on shop drawings, and required by the manufacturer. Provide templates and rough-in measurements as required. Install accessories in accordance with manufacturer's instructions; ADA & ANSI A117.1.

**END OF TOILET AND BATH ACCESSORIES**

**SECTION 14423**

**INCLINE WHEELCHAIR LIFTS**

**PART 1**

**GENERAL**

**SECTION INCLUDES**

- Inclined platform lift for straight and turning stairways. (Omega)
- RELATED SECTIONS
- Section 03300 - Cast-In-Place Concrete: Anchor placement in concrete.
- Section 04800 - Masonry Assemblies: Anchor placement in masonry.
- Section 06100 - Rough Carpentry: Blocking in framed construction for lift attachment.
- Section 09260 - Gypsum Board Assemblies: Stair walls.
- Section 13650 - Fire Alarm System: Building Fire Alarm Integration system to connect the lift control system with the building fire alarm system.
- Division 16 - Electrical: Electrical power service and wiring connections.
- Division 16 - Electrical: Concealed low voltage control wiring.
- Division 16 - Electrical: Intercom and wiring.

**1.3 REFERENCES**

- ASME A17.5 - Elevator and Escalator Electrical Equipment.
- ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
- ASME A18.1 - Section 6, Private Residence Inclined Platforms.
- ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.
- ADAA - American with Disabilities Act & Architectural Barriers Act
- NFPA 70 - National Electric Code.

**1.4 SUBMITTALS**

- Submit under provisions of Section 01300.
- Product Data: Manufacturer's data sheets on each product to be used, including: Submit manufacturer's installation instructions, including preparation, storage and handling requirements. Include complete description of performance and operating characteristics. Show maximum and average power demands.
- Shop Drawings:

- Show typical details of assembly, erection and anchorage.
- Include wiring diagrams for power, control, and signal systems.
- Show complete layout and location of equipment, including required clearances.
- Selection Samples: For each finished product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- Verification Samples: For each finished product specified, two samples, representing actual product, color, and patterns.

**1.2 QUALITY ASSURANCE**

- Manufacturer Qualifications: Firm with minimum 5 years documented experience in manufacturing of inclined wheelchair platform lifts.
- Installer Qualifications: Firm licensed to install equipment of this scope, with evidence of experience with specified equipment. Installer shall maintain an adequate stock of replacement parts and have qualified people available to ensure timely maintenance and call back service at the project site.

**1.3 REGULATORY REQUIREMENTS**

- Provide platform lifts in compliance with:
  - ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
  - ASME A17.5 - Elevator and Escalator Electrical Equipment.
  - NFPA 70 - National Electric Code.
- DELIVERY, STORAGE, AND HANDLING

- Store products in manufacturer's unopened packaging until ready for installation.
- Store components off the ground in a dry covered area, protected from adverse weather conditions.

**1.5 PROJECT CONDITIONS**

- Do not use wheelchair lift for hoisting materials or personnel during construction period.

**1.6 WARRANTY**

- Warranty: Provide a three (3) year limited warranty covering replacement of defective parts and excluding labor. Preventive maintenance agreement required.

**1.7 MAINTENANCE SERVICE**

- Furnish service and maintenance for elevator system and components for the following period from Date of Substantial Completion.
  - Three years.
- examination, adjustment, and lubrication of elevator equipment. Repair or replace parts whenever required. Use parts produced by manufacturer of original equipment. Replace wire ropes when necessary to maintain required factor of safety.
- Provide emergency call back service for this maintenance period.
- Perform maintenance work using competent and qualified personnel approved by elevator manufacturer or original installer.

**PART 2 PRODUCTS**

**2.1 MANUFACTURERS**

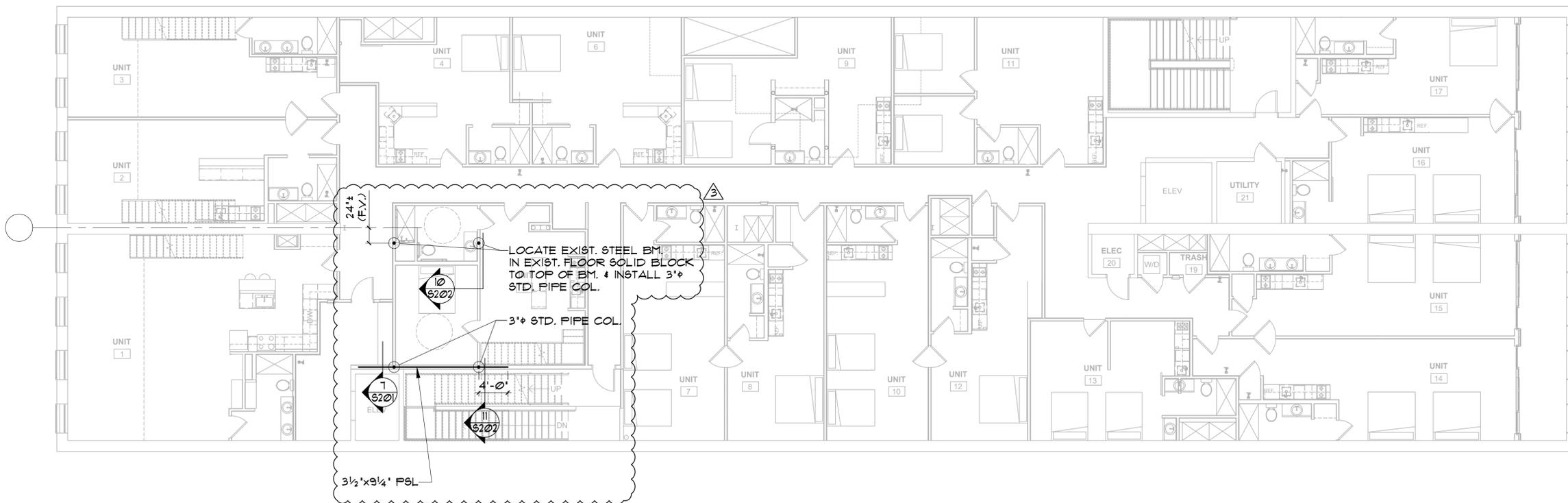
A. Acceptable Manufacturer: Savaria Inc.:2 Walker Dr, Brampton, Ontario, L6T 5E1. Toll Free: 800-661-5112. Tel: (905) 791-5555. Fax: (905) 791-2222 Email: info@savaria.com Web www.savaria.com

**2.2 INCLINED PLATFORM LIFT FOR STRAIGHT OR TURNING STAIRWAYS**

- Inclined Platform Lift: Savaria Stair-Lift, Model Omega inclined platform lift for straight and turning stairways. Lift consists of a tubular guide rail system, a folding platform that is moved along the guide rails by a rope sprocket drive system, overspeed safety system and call stations at each landing. Conform to the following design requirements:
  - Application:
    - Indoor.
  - Platform Load Rating:
    - 660 lb (300 kg)
  - Travel Speed: 14 fpm (0.07 m/s) nominal
  - Platform Deck: 16 gauge (1.6 mm) sheet metal coated with electrostatically applied and baked anti-skid paint.
  - Platform Size: (ADA Compliant): 30.50 in (775 mm) wide by 49.20 in (1250 mm) long.
  - Platform Configuration:
    - Straight through platform
  - Platform Operation:
    - Automatic Fold: Power folded and unfolded electrically from the call station.
    - Emergency Manual Fold: When unit is left in the open position, platform may be manually folded and retained in closed position.
  - Under Platform Obstruction Sensing:
    - Provide an under platform sensing device to stop the platform from traveling in the downward direction when encountering 15 lb (70 N) of pressure.
  - Platform is permitted to travel in the opposite direction of obstruction to allow clearing.
  - Passenger Restraining Arms:
    - Platform equipped with retractable passenger restraining arms in compliance with ASME A18.1.
    - Arms stop moving when an obstruction is encountered.
    - Provide with means to manually unlock and open the restraining arms for passenger emergency evacuation.
    - Arms are folded and unfolded electrically from the call stations or platform controls.
    - Arms mounted 39 in (990 mm) above the platform deck. When in guarding position the arms are located above the perimeter of the platform.
    - The gaps between ends of arms shall not exceed 4 in (100 mm).
    - When platform folds, passenger restraining arms shall fold down and be covered by the folded platform.
  - Boarding Ramps:
    - Provide boarding sides of platform with retractable ramps positioned for travel at a height of 6 in (152 mm) measured vertically above the platform deck.
    - Lock ramps in their guarding positions during travel. When the platform is at the landing, only the retractable ramp servicing the landing shall be operable.
    - Ramps shall be folded and unfolded electrically.
    - Retractable ramps, in the guarded position, shall withstand a force of 125 lb (56 N) applied on any 4 in (100 mm) by 4 in (100 mm) area. This force shall not cause the height of the ramp, at any point in its length, to be less than 6 in (152 mm) measured vertically above the platform deck.

- Provide a means to manually unlock the ramps for emergency evacuation when platform is located at a landing.
- Provide with a directional obstruction sensitive device on the travel direction side end of the platform to stop lift when an obstacle of 15 lb (70 N) is encountered. Platform is permitted to travel in the opposite direction of obstruction to allow clearing.
- Platform Side Wall:
  - Provide non-boarding and non-guide-rail side of the platform with a sidewall of not less than 6 in (152 mm) in height, measured vertically from the platform deck.
- Hand Grips:
  - Equip platform with one handgrip centered on the platform at 36.50 in (925mm) and 17 in (432mm) long
  - Clearance Dimensions:
    - When folded platform shall not protrude more than 17.50 in (445 mm) from mounting surface. (Measurement based on a wall mounted unit)
    - When unfolded and in use platform shall not protrude more than 39.25 in (1000 mm) from wall from mounting surface. (Measurement based on a wall mounted unit)
- Controls:
  - Platform Controls: 24 V Low Voltage type.
  - Platform equipped with emergency stop switch located within reach of the passenger 43 in (1090 mm) above platform deck. When activated emergency stop button shall cause electric power to be removed from the drive system stopping lift immediately.
  - Operating controls shall be two separate constant pressure buttons with directional arrows on a removable hand pendant device with emergency stop button.
  - When platform arrives at landing the user keeps pressing the directional button and the passenger restraining arms and boarding ramp shall unfold automatically allowing passenger to disembark.
  - Platform shall be equipped for:
    - Keyless operation.
    - Passenger Seat: Fold-down type with safety belt. Minimum rated load of 250 lb (115 kg). The seat will fold up automatically when platform is being folded from call station.
    - Attendant Hand Held Pendant Control: Provide with plug-in socket on platform control panel.
    - Audio Visual Alerts: -Wall Mounted audio-visual alerts will be provided to indicate when platform is in motion and traveling on stairway. The alert will be visible by pedestrian traffic from all flights and landings.
    - Platform On Board Emergency Alarm: Provide platform with on board alarm that sounds when emergency stop button is pushed.
    - Side of Carriage Obstruction Device: Provide a sensor that detects obstructions in the path of the side of the carriage. Lift shall stop immediately and not travel until the obstruction is removed. It shall be possible to drive the platform away from the obstruction.
  - Drive and Guide Rail System:
    - Operation:
      - Motor: 1.0 hp (0.75kW) electric motor with an integrated brake (Up to 3.0 hp (2.2 kW) over 100 ft (30m) of travel).
      - Required power: 208-240 VAC, single phase, 60 hz, on a dedicated 20 amp circuit. Rated current shall be up to 9 amps (for 2.2kW motor) for operation with rated load.
      - Locate roped sprocket drive system consisting of a motor, gearbox and controller (AC Drive) at the upper end of the tubes.
    - Equip drive with an emergency manual lowering system with lift switch when
      - emergency manual lowering system is engaged.
  - Full enclosed Drive Cabinet:
    - Cabinet: 22 in (560 mm) wide by 55 in (1400 mm) high by 11.50 in (290 mm) deep located at top landing.
    - Cabinet door is key locked .
    - Provided by others an integrated lockable main disconnect switch and breaker remotely located and separate from the drive cabinet.
    - Compact Drive Cabinet with Separate Control Box:
      - Compact drive cabinet will house all mechanical drive system components and shall be located at the end of the tube system at top landing.
      - Control box will contain all the electrical components of the drive system and be located up to 50 feet (15 m) linear away from the compact drive. Control box dimensions are 20 in (510 mm) wide by 20 in (510 mm) high by 11.50 in (290 mm) deep.
      - Provided by others an integrated lockable main disconnect and breaker remotely located to the compact drive cabinet.
    - Guide Rail:
      - Construct of two 2 in (51 mm) diameter steel tubes spaced 22 in (560 mm) apart vertically at right angle from rail. Tubes will run parallel to the stairs and horizontal to landings throughout the length of travel.
      - When negotiating a horizontal landing a third 2 in (51 mm) diameter steel tube shall be added to the tube system to guide and stabilize platform.
      - Tube system shall not protrude more than 7.50 in (190 mm) from the wall with support posts.
      - Suspension means contained in the tubes shall be a 3/8 in (9 mm) diameter galvanized steel core rope sprocket/chain with a minimum breaking strength of 12 540 lb (5700 kg).
      - Locate overspeed safety at the bottom of the tube assembly and shall consist of a mechanical overspeed sensor and brake with electrical drive cut-out protection.
      - Provide a final limit switch at the upper and lower end of the tubes to stop the platform if it travels past the normal terminal stopping device.
    - Auxiliary Power (Optional): Provide battery back-up system (UPS) for normal up / down lift operation during power failure for a minimum of five (5) trips with rated load.
    - Platform Storage Beyond Upper/Lower Landings:
      - Platform shall travel in the folded position beyond the upper landing at the top stair nose to a remote parking position away from the stairs.
    - Rail Mounting:
      - Tower Mount Struts: Provide with 2 in (50 mm) by 3 in (75 mm) hollow structural steel tubular posts to support the guide rails.
      - Pedestrian Handrail Integrated with Guide Rail:
        - Hand rail acting as a handrail shall be added where existing handrails are either removed or blocked by the lifting equipment (when possible).
      - The handrail gripping surface shall have a smooth gripping surface 1.50 in (38 mm) in diameter. Handrails shall be mounted to the tube assembly.
    - Call Stations:
      - Provide a call station at each serviced landing.
      - Call stations, 24 V low voltage with four control buttons: power platform fold, power platform unfold and two directional call and send buttons.
      - Call stations shall be equipped for:
        - Keyless operation
        - Finish Environment Requirements:
          - Design and fabricate lift to manufacturer's standard design for indoor location.
    - Painting: Painted components shall be painted with electrostatically applied and baked powder coat as follows:
      - Fine Textured Light Grey (RAL 7035).

- Platform equipped with emergency stop button switch located within reach of the passenger 43 in (1090 mm) above platform deck. When activated emergency stop button shall cause electric power to be removed from the drive system stopping lift immediately.
- Operating controls shall be two separate constant pressure buttons with directional arrows on a removable hand pendant device with emergency stop button.
- When platform arrives at landing the user keeps pressing the directional button and the passenger restraining arms and boarding ramp shall unfold automatically allowing passenger to disembark.
- Platform shall be equipped for:
  - Keyless operation.
  - Passenger Seat: Fold-down type with safety belt. Minimum rated load of 250 lb (115 kg). The seat will fold up automatically when platform is being folded from call station.
  - Attendant Hand Held Pendant Control: Provide with plug-in socket on platform control panel.
  - Audio Visual Alerts: -Wall Mounted audio-visual alerts will be provided to indicate when platform is in motion and traveling on stairway. The alert will be visible by pedestrian traffic from all flights and landings.
  - Platform On Board Emergency Alarm: Provide platform with on board alarm that sounds when emergency stop button is pushed.
  - Side of Carriage Obstruction Device: Provide a sensor that detects obstructions in the path of the side of the carriage. Lift shall stop immediately and not travel until the obstruction is removed. It shall be possible to drive the platform away from the obstruction.
  - Drive and Guide Rail System:
    - Operation:
      - Motor: 1.0 hp (0.75kW) electric motor with an integrated brake (Up to 3.0 hp (2.2 kW) over 100 ft (30m) of travel).
      - Required power: 208-240 VAC, single phase, 60 hz, on a dedicated 20 amp circuit. Rated current shall be up to 9 amps (for 2.2kW motor) for operation with rated load.
      - Locate roped sprocket drive system consisting of a motor, gearbox and controller (AC Drive) at the upper end of the tubes.
    - Equip drive with an emergency manual lowering system with lift switch when
      - emergency manual lowering system is engaged.
  - Full enclosed Drive Cabinet:
    - Cabinet: 22 in (560 mm) wide by 55 in (1400 mm) high by 11.50 in (290 mm) deep located at top landing.
    - Cabinet door is key locked .
    - Provided by others an integrated lockable main disconnect switch and breaker remotely located and separate from the drive cabinet.
    - Compact Drive Cabinet with Separate Control Box:
      - Compact drive cabinet will house all mechanical drive system components and shall be located at the end of the tube system at top landing.



**THIRD FLOOR FRAMING PLAN**

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

NOTES:

1) FOR REFERENCE ONLY.

Revisions

1	04-07-2017
2	11-30-2017
3	1-22-2018

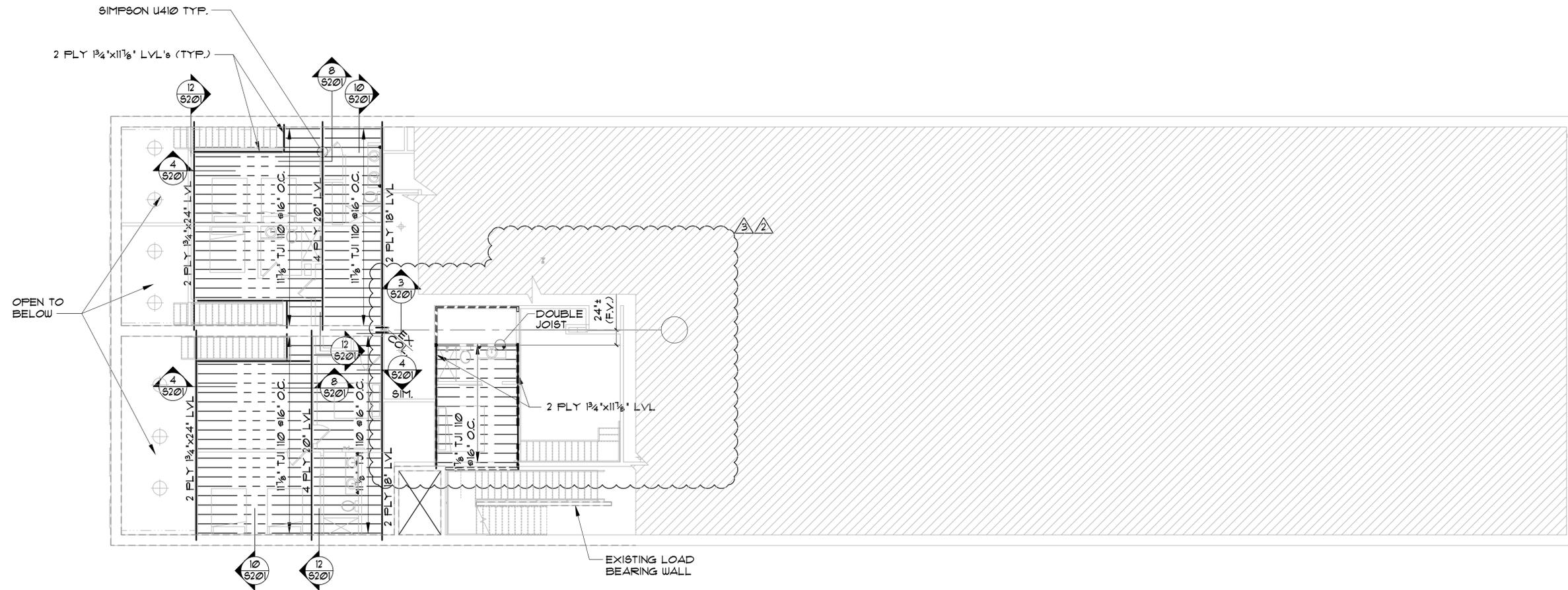
HMH Job Number  
16050

Drawn By

Date  
02.14.17

Drawing  
Roof Framing Plan

**S101**



**MEZZANINE FRAMING PLAN**

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

**NOTES:**

- 1) FIELD VERIFY ALL CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- 2) SEE ARCH. FOR DIMENSIONS & DETAILS NOT SHOWN.
- 3) CONTRACTOR TO FIELD VERIFY THE EXISTING FLOOR FRAMING IS 11 1/2" x 2 3/4" JOISTS @ 16" O.C.
- 4) USE SIMPSON JOIST HANGERS FOR ALL CONNECTIONS.
- 5) PROVIDE DOUBLE JOIST UNDER ALL PARALLEL WALLS.

Revisions

1	04-07-2017
2	11-30-2017
3	1-22-2018

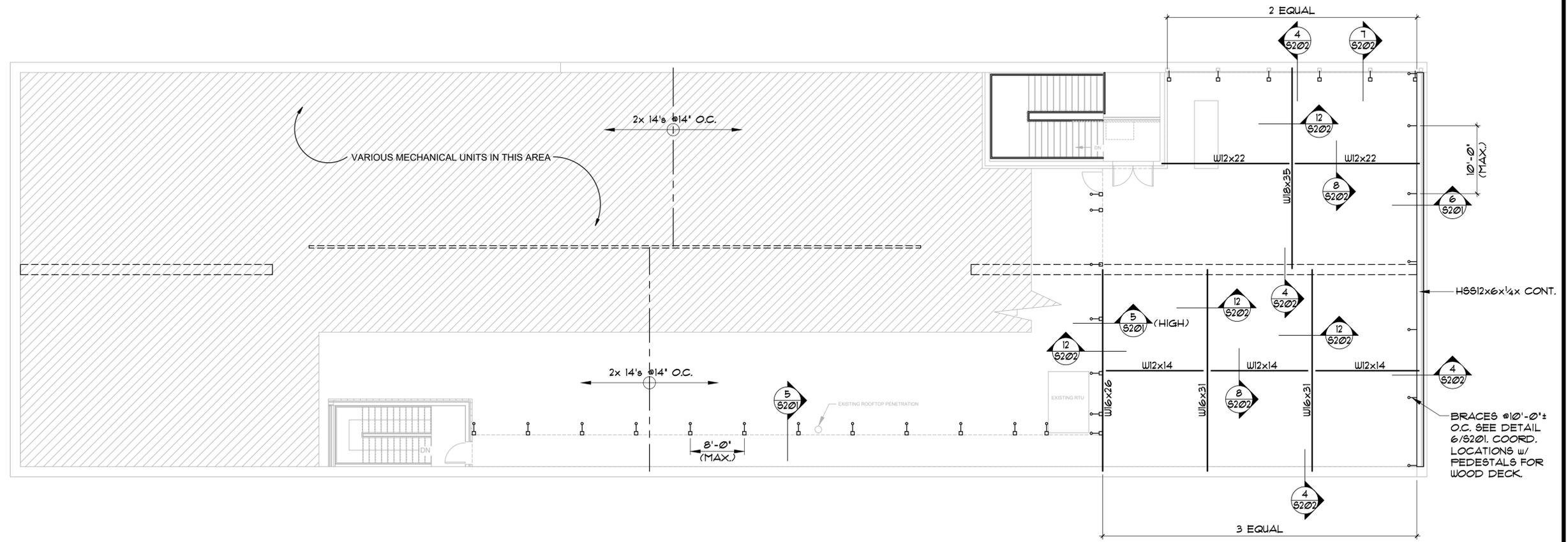
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Drawn By

Date  
02.14.17

Drawing  
Roof Framing Plan

**S102**



**ROOF FRAMING PLAN**

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

**NOTES:**

- 1) ALL STRUCTURAL STEEL ON ROOF DECK TO BE HOT DIP GALV.

Revisions

1	04-07-2017
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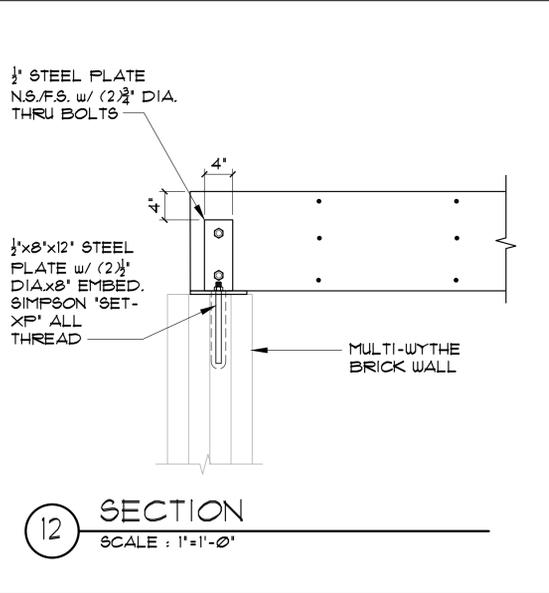
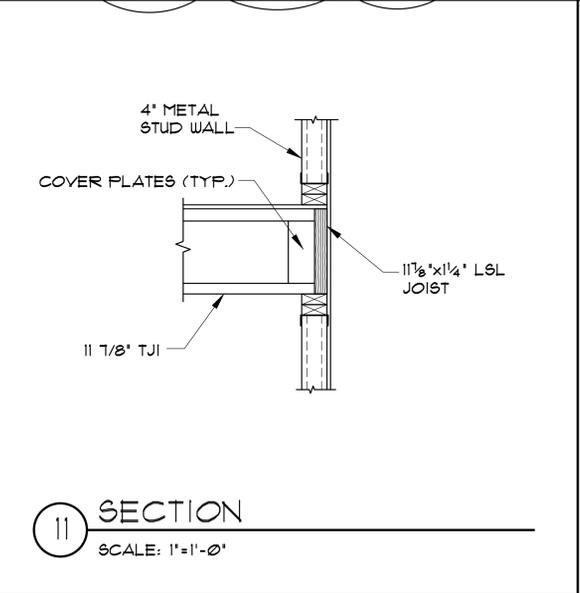
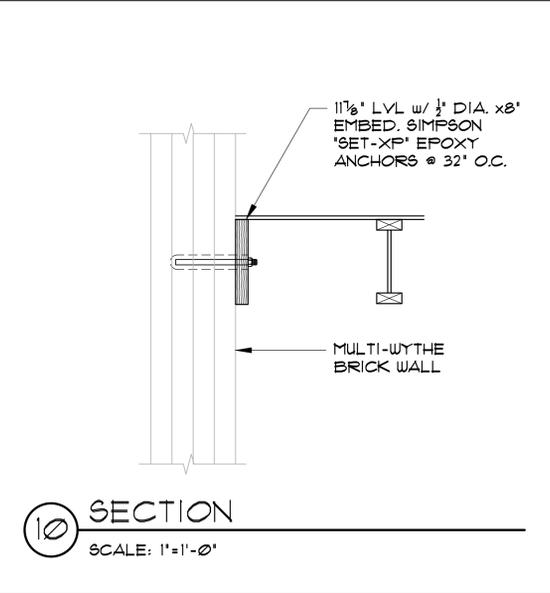
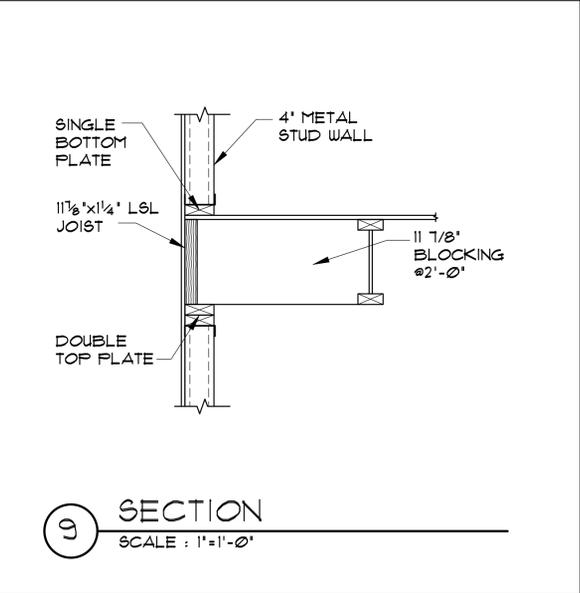
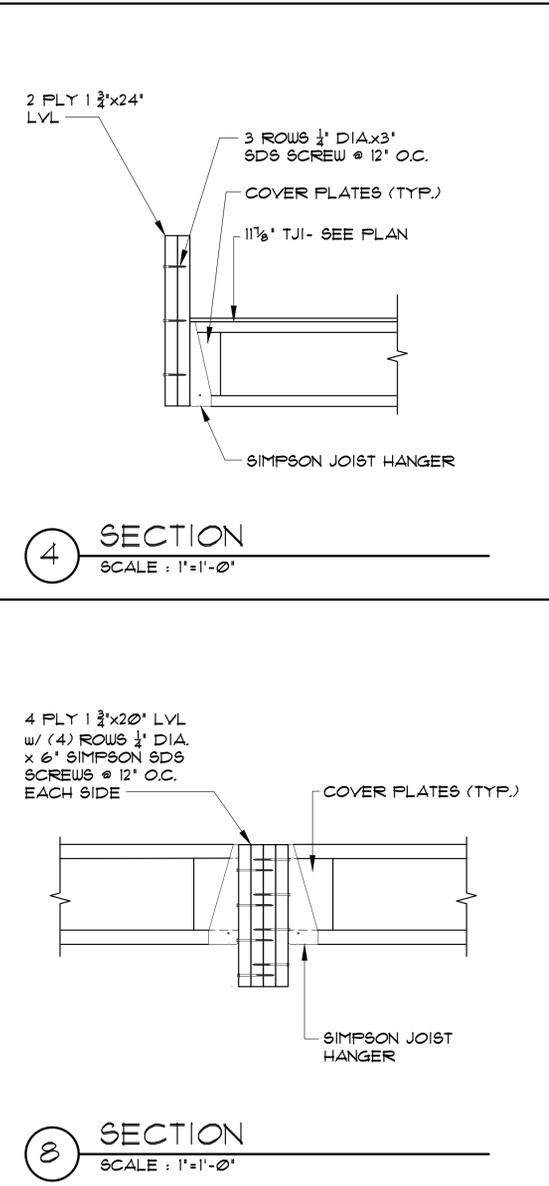
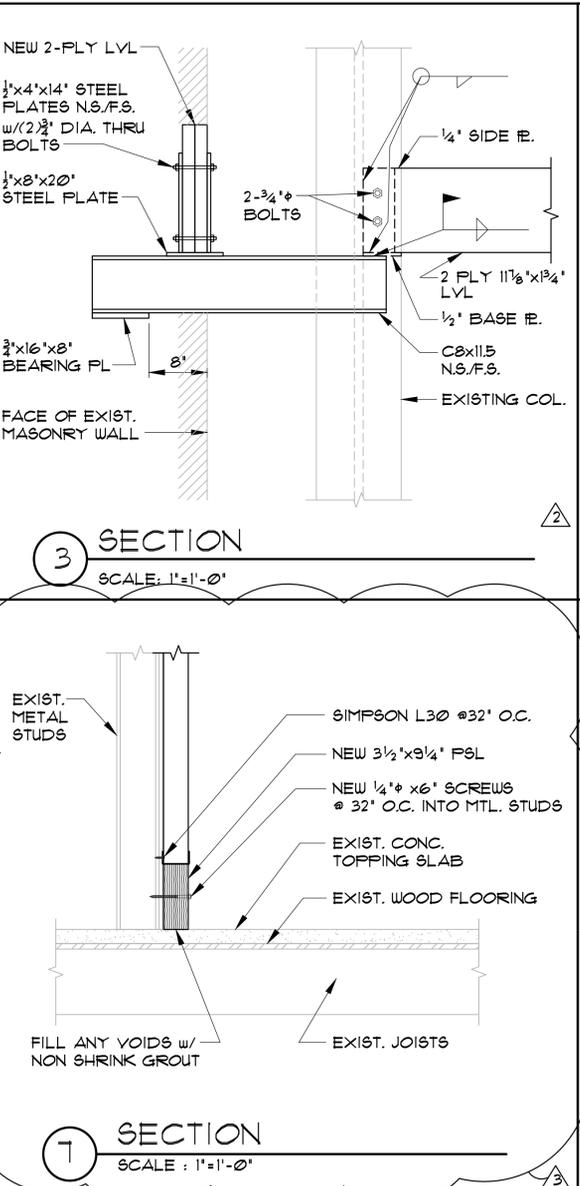
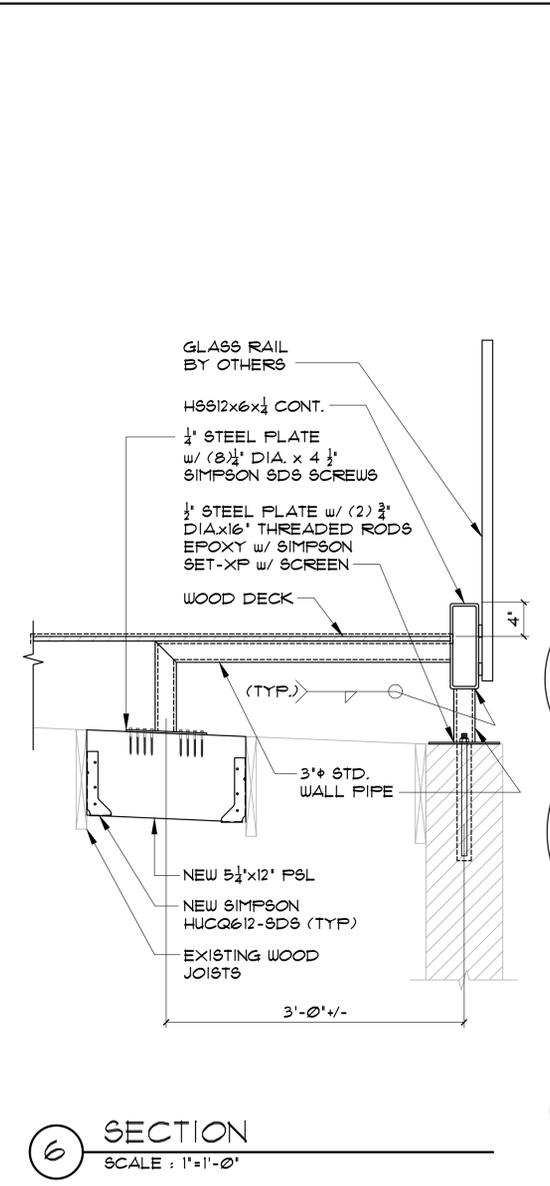
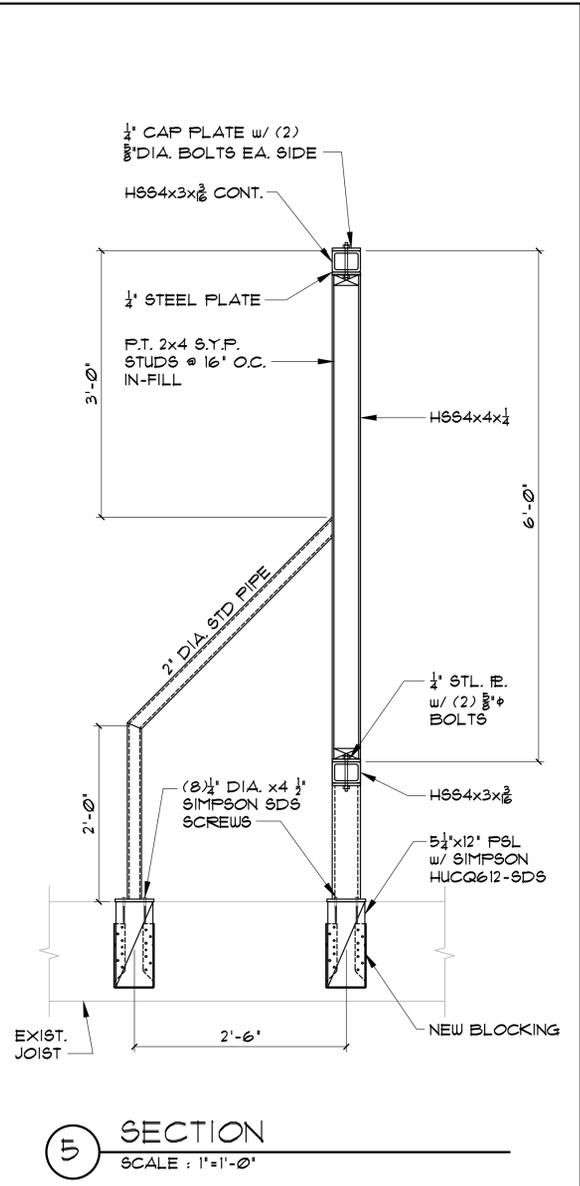
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02.14.17

Drawing  
Roof Framing Plan

**S103**



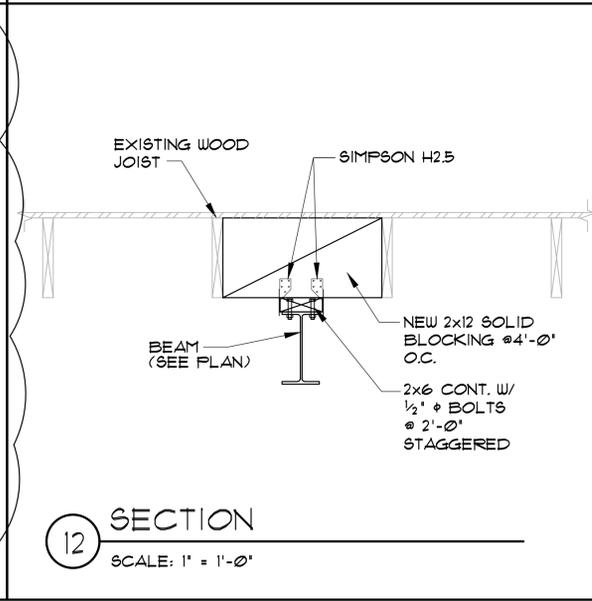
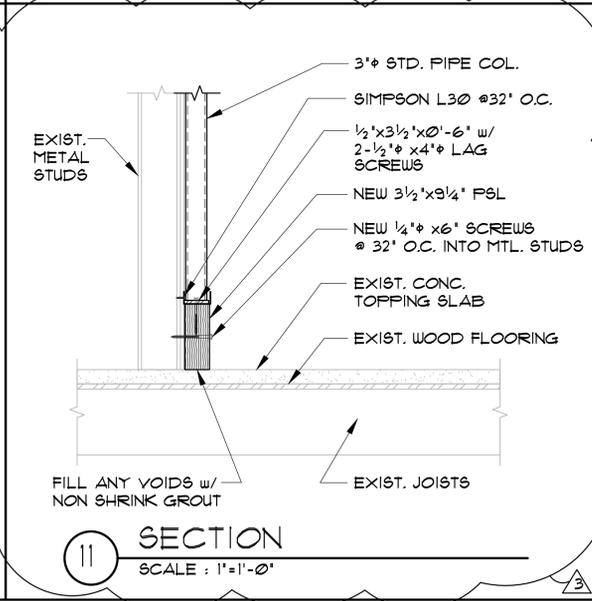
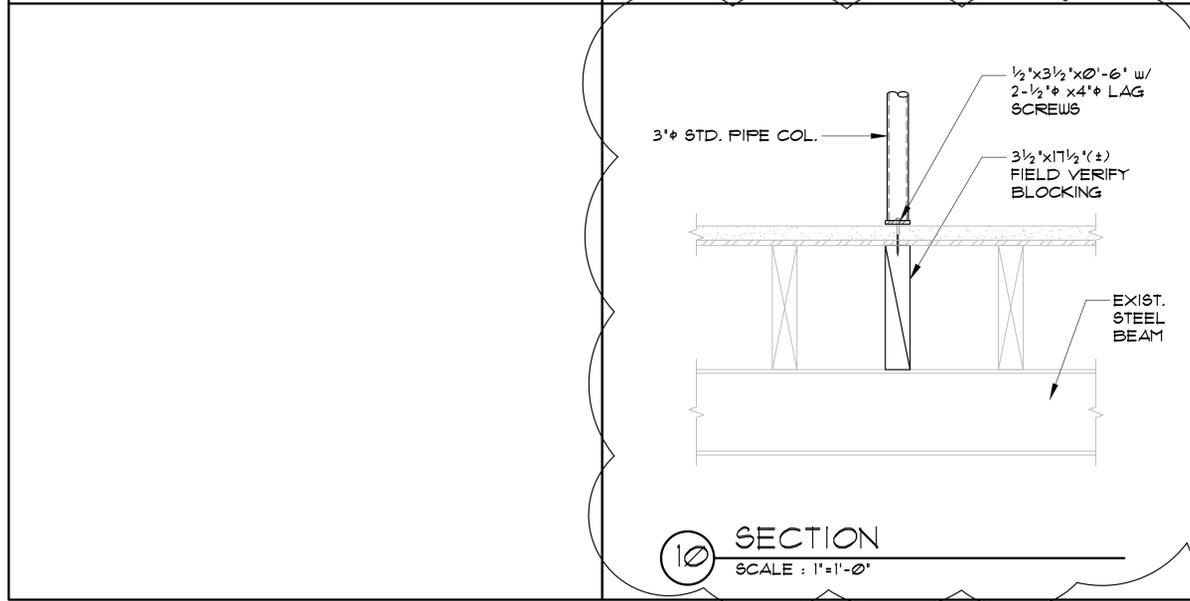
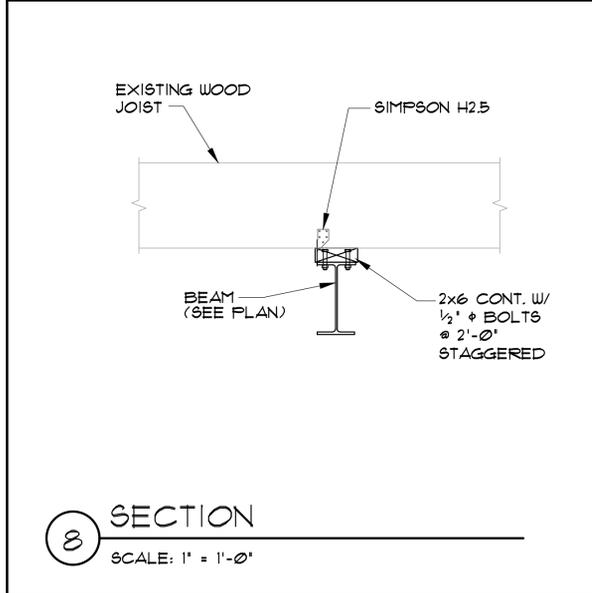
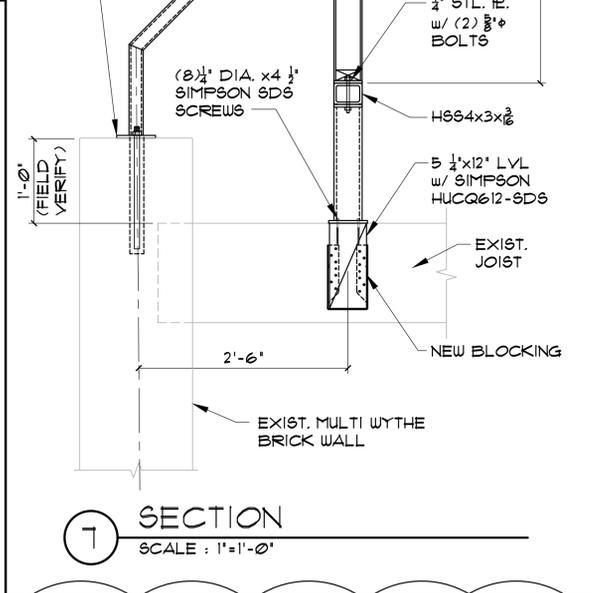
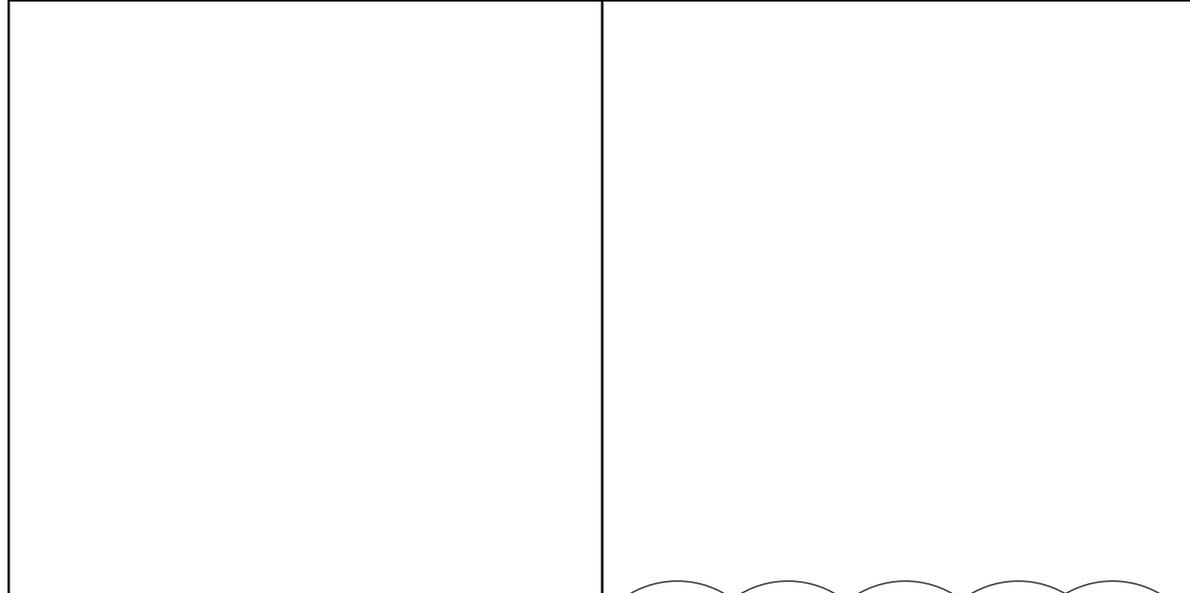
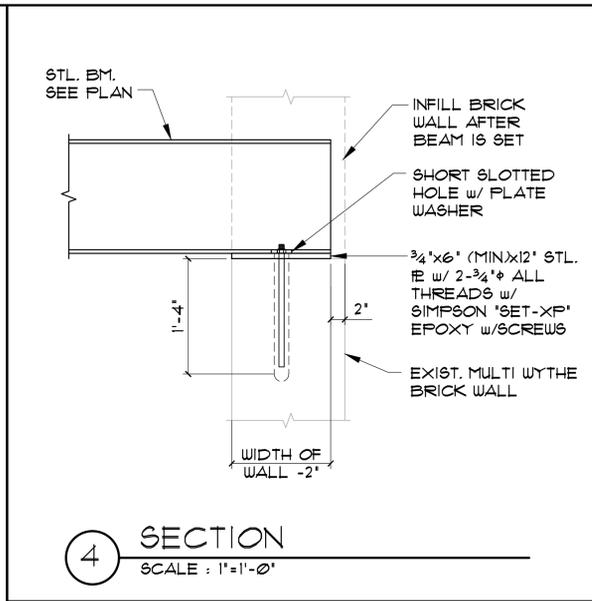
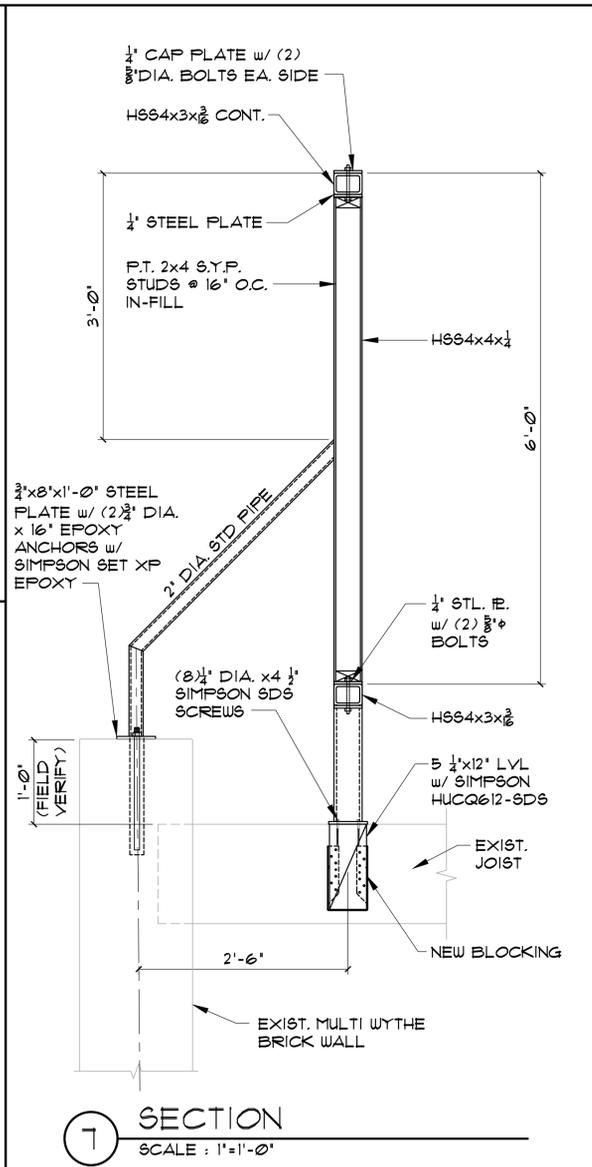
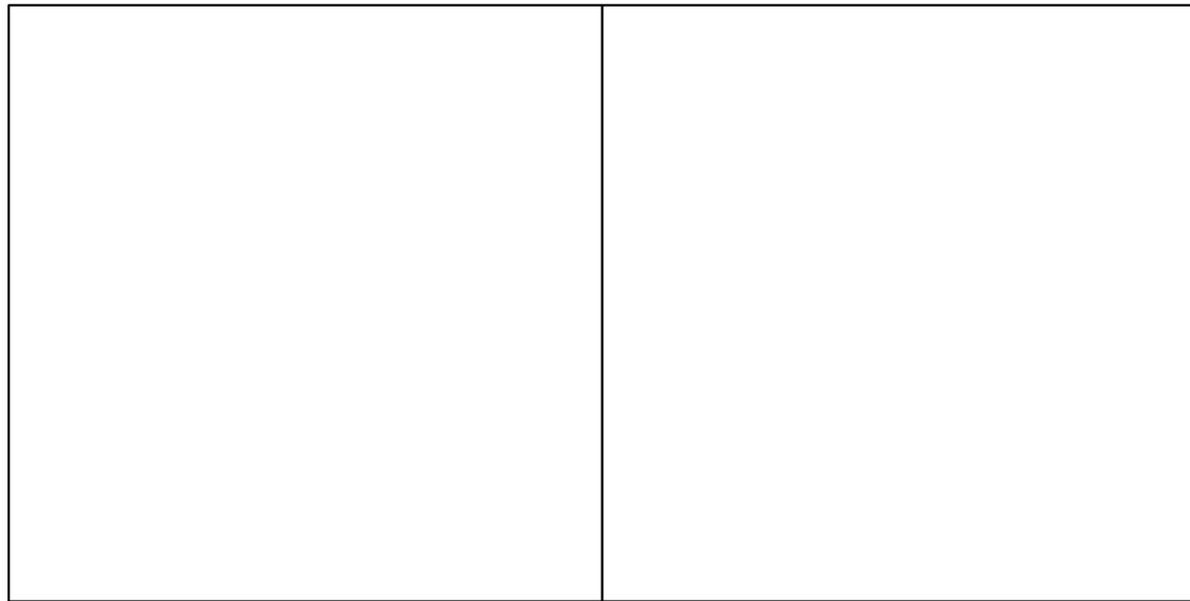
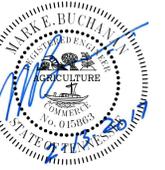
Revisions	
△	04-07-2017
△	11-30-2017
△	1-22-2018

HMH Job Number  
16050

Drawn By

Date  
02.14.17

Drawing  
Sections & Details



Revisions	
△	04-07-2017
△	11-30-2017
△	1-22-2018

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Drawing  
Sections & Details

## GENERAL NOTES

### DESIGN AND CODE INFORMATION

1. ALL CONSTRUCTION SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, 2012 EDITION.
2. VERIFY EXISTING CONDITIONS AND ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY CONDITIONS WHICH CONFLICT WITH OTHER PLANS AND SPECIFICATIONS. STRUCTURAL DRAWINGS MUST BE COORDINATED WITH ARCHITECTURAL DRAWINGS. STRUCTURAL DRAWINGS ARE NOT INTENDED FOR BUILDING LAYOUT.
3. SHOP DRAWINGS WILL NOT BE REVIEWED BY THE DESIGNER UNTIL AFTER THE GENERAL CONTRACTOR HAS THOROUGHLY REVIEWED THE SHOP DRAWINGS, VERIFIED EXISTING CONDITIONS, AND COORDINATED THE SHOP DRAWINGS WITH OTHER AFFECTED TRADES. SUBMIT FOUR COPIES OF REVIEWED DRAWINGS FOR ENGINEER'S REVIEW. ONLY THREE SETS OF MARKED UP SHOP DRAWINGS SHALL BE RETURNED BY THE DESIGNER. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.
4. THE STRUCTURE IS UNSTABLE UNTIL ALL LOAD BEARING WALLS ARE ERECTED AND WOOD MEMBERS ARE ERECTED, CONNECTIONS ARE COMPLETELY BOLTED AND/OR WELDED AND INSPECTED, AND THE WOOD DECK ATTACHED TO THE FRAMING. UNTIL SUCH TIME, TEMPORARY BRACING IS REQUIRED. THE DESIGN ADEQUACY OF TEMPORARY BRACING AND SHORING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. DO NOT SCALE STRUCTURAL DRAWINGS, AND FOR LOCATION OF MISCELLANEOUS ITEMS (OPENINGS, BENT PLATES, INSERTS, ETC.) AFFECTING STRUCTURAL WORK, SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
6. LIVE LOADS:  
FLOORS: 40 PSF
7. ROOF LOADS: EXISTING
8. WIND LOADS: EXISTING
9. SEISMIC LOADS: EXISTING

### STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE AISC 'MANUAL OF STEEL CONSTRUCTION ALLOWABLE STRESS DESIGN FOURTEENTH EDITION.
2. STRUCTURAL STEEL ROLLED SHAPES SHALL BE ASTM A-992 GRADE 50 UNLESS NOTED OTHERWISE. STRUCTURAL STEEL PLATES AND ANGLES SHALL BE ASTM A-36.

### LUMBER FRAMING

1. ALL PLYWOOD SHEATHING SHALL BE APA RATED, SEE PLAN.
2. LVL AND PSL LUMBER SHALL BE MICROLAM OR PARALLAM LUMBER AS MANUFACTURED BY TRUS JOIST.
3. WOOD I-JOISTS SHALL BE TJI/PRO SERIES AS MANUFACTURED BY TRUS JOIST.

### COLD-FORMED METAL FRAMING

1. ALL FRAMING MEMBERS SHALL BE OF TYPE AND SIZE SHOWN OR EQUAL ON THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL FRAMING MEMBERS SHALL BE MANUFACTURED FROM GALVANIZED STEEL.
3. GALVANIZED STEEL USED IN THE MANUFACTURE OF JOISTS, STUDS AND LINTELS SHALL CONFORM TO ASTM DESIGNATION A446 GRADE C (MINIMUM YIELD POINT 40000 PSI) WITH HOT DIPPED GALVANIZED COATING.
4. GALVANIZED STEEL RUNNER TRACK AND MISCELLANEOUS ACCESSORIES SHALL BE FORMED WITH MATERIAL MEETING REQUIREMENTS OF ASTM DESIGNATION A446 GRADE A (MINIMUM YIELD POINT 33000 PSI) WITH HOT DIPPED GALVANIZED COATING.
5. STRUCTURAL DESIGN SHALL BE IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE 'SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.'
6. CARE SHALL BE EXERCISED AT ALL TIMES TO AVOID DAMAGE THROUGH CARELESS HANDLING DURING UNLOADING, STORING, AND ERECTION OF FRAMING MEMBERS AND SUB-ASSEMBLIES.
7. THE ENDS OF JOISTS SHALL BE REINFORCED TO ADEQUATELY STIFFEN THE JOIST WEBS AND TO TRANSFER THE LOADS TO THE SUPPORTS. MINIMUM END BEARING SHALL BE 1-1/2 INCHES.
8. STUDS SHALL SIT SQUARELY IN THE TOP AND BOTTOM RUNNER TRACK WITH FIRM ABUTMENT AGAINST TRACK WEBS. STUDS SHALL BE ALIGNED OR PLUMBED AND SECURELY FASTENED TO THE FLANGES OF BOTH TOP AND BOTTOM RUNNER TRACK. STUDS SHALL BE POSITIONED IN RUNNER TRACK SO AS TO BE ALIGNED DIRECTLY BELOW FLOOR ROOF OR CEILING FRAMING MEMBERS OVERHEAD. IF UNABLE TO CENTER AND DIRECTLY TRANSFER LOADS FROM FLOOR OR ROOF FRAMING (SUCH AS AT OPENINGS) TO THE STUDS, LINTELS SHALL BE PROVIDED.
9. JOINING OF FRAMING MEMBERS SHALL BE MADE WITH SELF-DRILLING SCREWS OR WELDING. WIRE TYING OF FRAMING MEMBERS IN STRUCTURAL APPLICATIONS SHALL NOT BE PERMITTED.
10. HORIZONTAL STEEL STRAPPING, WHEN REQUIRED BY THE APPLICABLE TABLES, SHALL BE A.) FASTENED TO THE BOTTOM FLANGE OF THE STEEL JOIST AND B.) ATTACHED TO BOTH SIDES OF ALL STUDS. STRAPPING SHALL BE INSTALLED AND SECURELY ANCHORED TO SUITABLE RESTRAINING COLUMNS OR WALLS PRIOR TO THE ERECTION OF STRUCTURE ABOVE.
11. SPLICES IN STEEL JOISTS AND STUDS SHALL NOT BE PERMITTED.
12. DURING ERECTION THE BUILDER SHALL PROVIDE MEANS OF ADEQUATE DISTRIBUTION OF CONCENTRATED LOADS SO THAT THE LOAD CARRYING CAPACITY OF ANY STEEL FRAMING MEMBER IS NOT EXCEEDED.

## QUALITY ASSURANCE PLAN

### STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS/QUALITY ASSURANCE PROGRAM

#### GENERAL:

THIS STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS PLAN IDENTIFIES THE RESPONSIBILITIES OF THE CONTRACTOR AND THE SPECIAL INSPECTOR IN PERFORMING THE STRUCTURAL TESTING AND INSPECTION OF THE WORK REQUIRED BY CHAPTER 17 OF THE BUILDING CODE THAT IS WITHIN THE SCOPE OF THE STRUCTURAL ENGINEERING SERVICES FOR THIS PROJECT. REFER TO OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS FOR TESTING AND INSPECTIONS REQUIRED OF ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR OTHER BUILDING COMPONENTS.

#### CONTRACTOR RESPONSIBILITIES:

THE CONTRACTOR SHALL SUBMIT TO THE BUILDING OFFICIAL AND THE ARCHITECT A WRITTEN STATEMENT OF RESPONSIBILITY THAT CONTAINS THE FOLLOWING:

1. ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED WITHIN THIS STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS.
2. ACKNOWLEDGEMENT THAT CONTROL SHALL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
3. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS.
4. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

THE STRUCTURAL TESTING/INSPECTION AGENCY THAT IS TO ACT AS THE SPECIAL INSPECTOR WILL BE HIRED BY THE OWNER, BUT CONTRACTOR SHALL PAY FOR ANY ADDITIONAL STRUCTURAL TESTING/INSPECTION REQUIRED FOR WORK OR MATERIALS NOT COMPLYING WITH THE CONSTRUCTION DOCUMENTS DUE TO NEGLIGENCE OR NONCONFORMANCE AND SHALL PAY FOR ANY ADDITIONAL STRUCTURAL TESTING/INSPECTION REQUIRED FOR HIS CONVENIENCE.

CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SPECIAL INSPECTOR IS PRESENT FOR ALL WORK REQUIRING SPECIAL INSPECTION. ANY WORK THAT REQUIRES SPECIAL INSPECTION AND IS PERFORMED WITHOUT THE SPECIAL INSPECTOR BEING PRESENT IS SUBJECT TO BEING DEMOLISHED AND RECONSTRUCTED.

#### CONTRACTOR HAS THE FOLLOWING RESPONSIBILITIES TO THE SPECIAL INSPECTOR:

1. PROVIDE COPY OF CONSTRUCTION DOCUMENTS TO THE SPECIAL INSPECTOR.
2. NOTIFY THE SPECIAL INSPECTOR SUFFICIENTLY IN ADVANCE OF OPERATIONS TO ALLOW ASSIGNMENT OF PERSONNEL AND SCHEDULING OF TESTS.
3. COOPERATE WITH SPECIAL INSPECTOR AND PROVIDE ACCESS TO WORK.
4. PROVIDE SAMPLES OF MATERIALS TO BE TESTED IN REQUIRED QUANTITIES.
5. PROVIDE STORAGE SPACE FOR THE SPECIAL INSPECTOR'S EXCLUSIVE USE, SUCH AS FOR STORING AND CURING CONCRETE TESTING SAMPLES.
6. PROVIDE LABOR TO ASSIST THE SPECIAL INSPECTOR IN PERFORMING TESTS/INSPECTIONS.

#### SPECIAL INSPECTOR'S RESPONSIBILITIES:

SPECIAL INSPECTORS SHALL BE A LICENSED ENGINEER IN THE STATE OF TENNESSEE OR IS PERFORMING APPROPRIATE DUTIES DIRECTLY UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TENNESSEE AND HAS A THOROUGH UNDERSTANDING OF THE SPECIAL INSPECTION REQUIREMENTS OF THE AND 2012 IBC. THE SPECIAL INSPECTOR SHALL BE AN INDIVIDUAL OR INDIVIDUALS CERTIFIED OR EXPERIENCED TO PERFORM SUCH INSPECTIONS IN A PARTICULAR FIELD.

THE SPECIAL INSPECTOR SHALL KEEP RECORDS OF ALL INSPECTIONS AND FURNISH REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. PERIODIC REPORTS SHALL BE PROVIDED AND SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED TO THE SATISFACTION OF THE SPECIAL INSPECTOR, THE DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.

A WEEKLY REPORT OF INSPECTIONS DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED. AT THE COMPLETION OF THE SPECIAL INSPECTIONS, THE LICENSED PROFESSIONAL ENGINEER IN CHARGE OF PERFORMING THE SPECIAL INSPECTION SHALL CERTIFY THE FINAL SPECIAL INSPECTION REPORT AND AFFIX HIS/HER SEAL TO THE SPECIAL INSPECTOR'S FINAL REPORT. PROVIDE THREE (3) COPIES OF THIS REPORT: TWO TO THE ARCHITECT AND ONE TO THE STRUCTURAL ENGINEER OF RECORD.

THE SPECIAL INSPECTOR FOR THIS PROJECT IS AS FOLLOWS:

#### WOOD CONSTRUCTION:

#### SPECIAL INSPECTOR SHALL PERFORM PERIODIC INSPECTIONS OF THE FOLLOWING:

1. VISUAL INSPECTION OF WOOD FRAMING TO VERIFY COMPLIANCE WITH DETAILS ON THE APPROVED CONSTRUCTION DOCUMENTS AND SHOP DRAWINGS INCLUDING MEMBER SIZES, LOCATIONS, BRACING, CONNECTION DETAILS, NAIL SIZES, NAIL SPACING, ETC.



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Revisions



04-07-2017

HMH Job Number  
16050

Drawn By

Date  
02.14.17

Drawing  
Notes

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EXHAUST FAN SCHEDULE	
UNIT DESIGNATION	EF-1
TYPE	CEILING
SERVICE	TOILET
C.F.M.	50
STATIC PRESSURE	0.250
SONES	---
H.P.	FRACTIONAL
VOLTAGE	120/1/60
ACCESSORIES	---
DAMPER TYPE	BACKDRAFT
SCREEN TYPE	BIRDSCREEN
MOTOR WITH INTERNAL OVERLOAD	---
S.S.S. CONTROLLER	NO
WALL/ROOF CAP.	ROOF
MANUFACTURER	COOK
MODEL #	GC-122

\* CONTROL EF WITH WALL MTD. SWITCH.

DX SPLIT SYSTEM WITH ELECTRIC HEAT		
UNIT DESIGNATION	A	B
TYPE	VERTICAL	VERTICAL
SERVICE	SEE PLANS	SEE PLANS
ACCESSORIES	---	---
FILTERS	2" T.A.	2" T.A.
OTHER	---	---
FAN	---	---
TOTAL C.F.M.	800	600
O.A. MINIMUM	100/200	50
EXTERNAL S.P.	0.5	0.5
H.P.	1/3	1/3
VOLTAGE	208/1/60	208/1/60
COOLING COIL	---	---
TOT/SENS CAP. (MBH)	23.8/18.4	18.9/14.2
E.A.D.B./E.A.W.B. (°F)	80/67	80/67
MIN. E.E.R./S.E.E.R.	15.0	15.0
HEATING COIL	---	---
HP HEATING CAP. M.B.H.	21.6	17.2
ELECTRIC HEAT K.W.	3.6	3.6
VOLTAGE	208/1/60	208/1/60
MODEL NO.	GAM5A0A24M21SA	GAM5A0A18M11SA
WEIGHT (POUNDS)	126	126
CONDENSING UNIT	---	---
TYPE	AIR COOLED	AIR COOLED
O.A.D.B.	95	95
VOLTAGE	208/1/60	208/1/60
COMPRESSOR R.L.A.	9.5	6.4
CONDENSER FAN F.L.A.	0.74	0.70
UNIT M.C.A./M.D.C.P.	12/20	9/15
MODEL NO.	4TWR5024	4TWR5018
WEIGHT (POUNDS)	222	176
MANUFACTURER	TRANE	TRANE

GENERAL MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
—————	SUPPLY DUCTWORK
-----	RETURN DUCTWORK
-----	EXHAUST DUCTWORK
-----	OUTSIDE AIR DUCTWORK
⊕	FIRE DAMPER
⊗	COMBINATION FIRE & SMOKE DAMPER
⊠	SUPPLY AIR DIFFUSER
⊞	RETURN OR EXHAUST AIR REGISTER
▬	DAMPER
▲	UNDERCUT DOOR 3/4"
⊥	DOOR GRILLE - SEE PLANS FOR SIZE
┌	MANUAL VOLUME DAMPER (M.V.D.)
└	MOTORIZED VOLUME DAMPER
S.D.	SMOKE DETECTOR
8"Ø 200	8"Ø NECK SUPPLY AIR DIFFUSER @ 200 C.F.M.
8"Ø 150R	8"Ø RETURN AIR REGISTER @ 150 C.F.M.
6"Ø 100E	6"Ø EXHAUST AIR REGISTER @ 100 C.F.M.
⊞	DUCT TURNED DOWN
⊕	SPACE THERMOSTAT MOUNTING HEIGHT PER ADA (48" AFF)
⊕C	SPACE T'STAT W/BLANK COVER; MTG. HT. PER ADA (48" AFF)
⊕	WALL SWITCH FOR CONTROL; MOUNTING HEIGHT PER ADA
⊕	CONNECT TO EXISTING AT APPROX. THIS LOCATION
⊞	SUPPLY DUCT UP - SEE PLANS
⊞	SUPPLY DUCT DOWN - SEE PLANS
⊞	SUPPLY DUCT THRU SLAB OR ROOF - SEE PLANS
⊞	RETURN OR EXHAUST DUCT THRU SLAB OR ROOF - SEE PLANS
⊞	RETURN OR EXHAUST DUCT UP - SEE PLANS
⊞	RETURN OR EXHAUST DUCT DOWN - SEE PLANS
⊞	ELECTRIC UNIT HEATER - CEILING MOUNTED
U.O.N.	UNLESS OTHERWISE NOTED
R	DUCTWORK RISE IN DIRECTION INDICATED
D	DUCTWORK DROP IN DIRECTION INDICATED
⊕	ROUND DUCTWORK OR FLUE UP THRU ROOF OR SLAB
⊕	ROUND DUCTWORK OR FLUE UP
⊕	ROUND DUCTWORK OR FLUE DOWN



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Revisions  
REVISION #1 - 04/20/17

HMH Job Number  
16050

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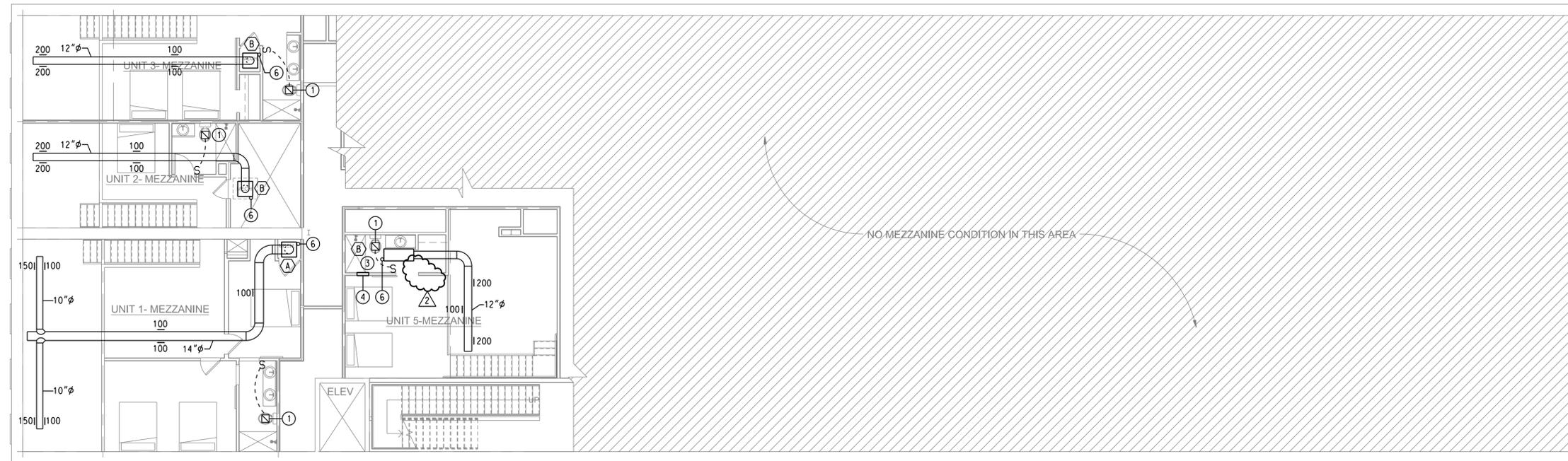
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Drawing  
HVAC  
Legend & Schedules

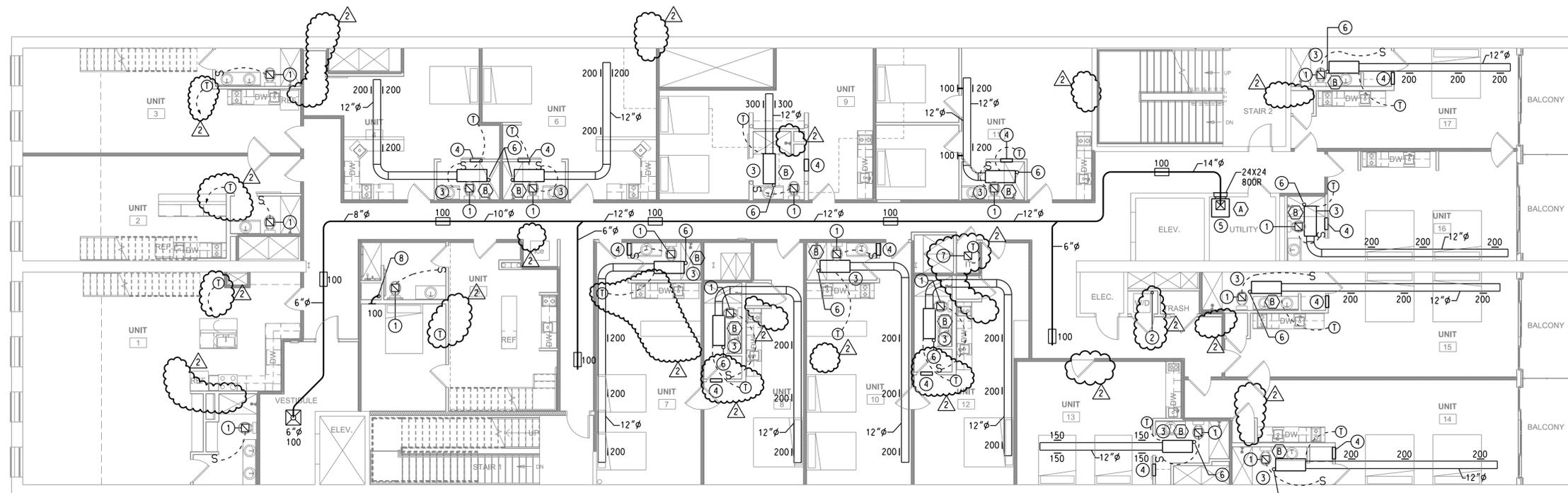
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8.0' = 1/8" in.



**HVAC MEZZANINE**  
Scale: 1/8" = 1'-0"



**PLAN NOTES:**

1. EF IN CEILING TO DISCHARGE TO ROOF CAP.
2. 4" DRYER VENT UP TO ROOF TERMINATION. ROUTE 4" DRYER VENT WITHIN WALL CAVITY. COORDINATE WITH ARCH. PLANS.
3. A/C UNIT ABOVE CEILING.
4. 24X24 SIDEWALL RETURN. MOUNT HIGH IN WALL ABOVE CEILING TO COMMUNICATE WITH AC UNIT.
5. 8"φ UP TO O.A. INTAKE ON ROOF. DUCT CONNECTION TO RETURN DUCT OF UNIT. PROVIDE MVD IN DROP. (200 CFM).
6. 6"φ UP TO O.A. INTAKE ON ROOF. DUCT CONNECTION TO RETURN CONNECTION ON UNIT. PROVIDE MVD IN DROP.

7. EF-1 LOCATED IN CEILING TO DISCHARGE TO CORRIDOR. EF CONTROLLED BY SPACE T-STAT ON RISE IN TEMPERATURE.
8. 6" DUCT DOWN IN WALL FROM UNIT ABOVE

**GENERAL NOTES:**

- A. ALL DUCT IS TO BE SINGLE WALL SPIRAL PIPE.
- B. GRILLES TO BE METALAIRE 4004 P 16X16 OR APPROVED EQUAL.
- C. LOCATE ALL CONDENSING UNITS ON ROOF ABOVE UNIT. FIELD VERIFY EXACT LOCATION.
- D. ALL OUTSIDE AIR INTAKES TO BE MIN. OF 10'-0" FROM ANY FLUES, EF'S, VTR'S, ETC. DO NOT LOCATE ANY NEW EXHAUST VENTS WITHIN 10'-0" OF ANY EXISTING O.A. INTAKES. FIELD VERIFY EXACT LOCATIONS.
- E. EXHAUST FAN ROOF PENETRATIONS AND O.A. INTAKE PENETRATIONS MAY BE GROUPED TOGETHER AS NEEDED TO LIMIT ROOF PENETRATIONS.

**HVAC LEVEL 3**  
Scale: 1/8" = 1'-0"



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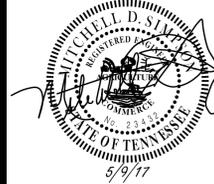
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**Revisions**

REVISION #1	- 04/20/17
REVISION #2	- 05/09/17

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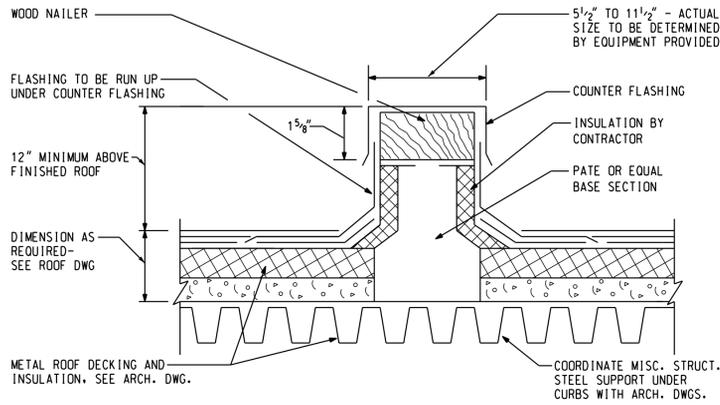
Date  
04.20.17

Drawing  
HVAC  
Level 3 & Mezzanine Plans

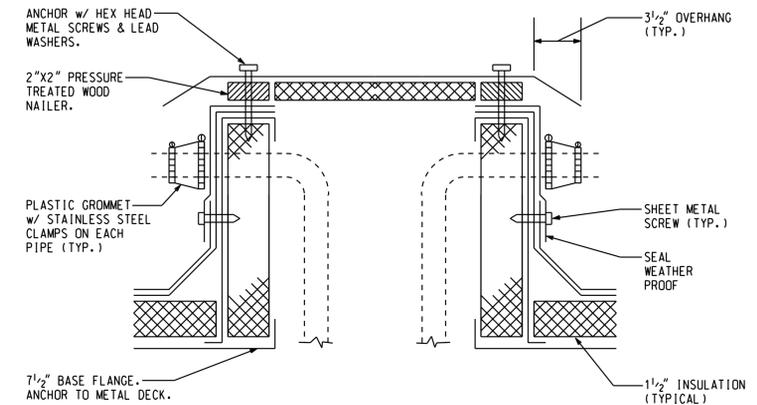
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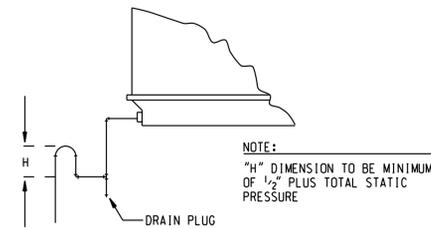


**PRE-FAB EQUIPMENT MOUNTING SUPPORT**  
SCALE: NONE



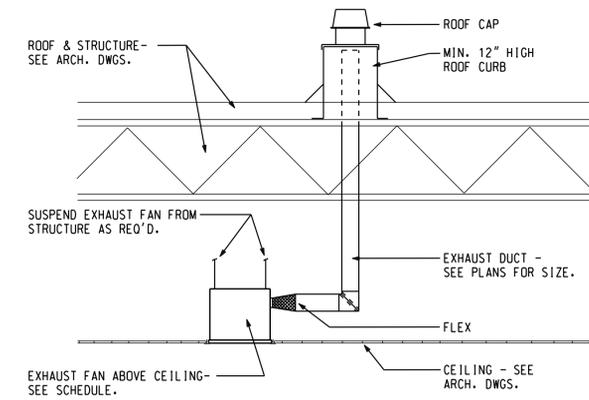
**PIPE CURB DETAIL**  
SCALE: NONE

A1



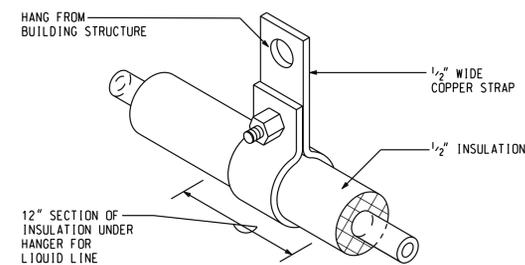
**CONDENSATE DRAIN FROM BLOW-THRU UNITS**  
SCALE: NONE

A10



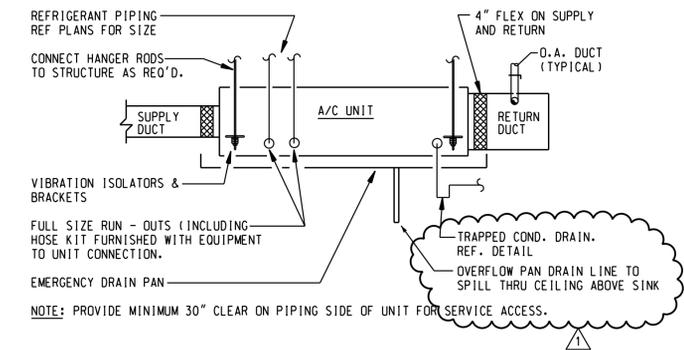
**CEILING EXHAUST FAN**  
SCALE: NONE

A7



**DETAIL FOR REFRIGERANT LINE HANGER**  
SCALE: NONE

B3



**D.X. FAN COIL UNIT**  
SCALE: NONE

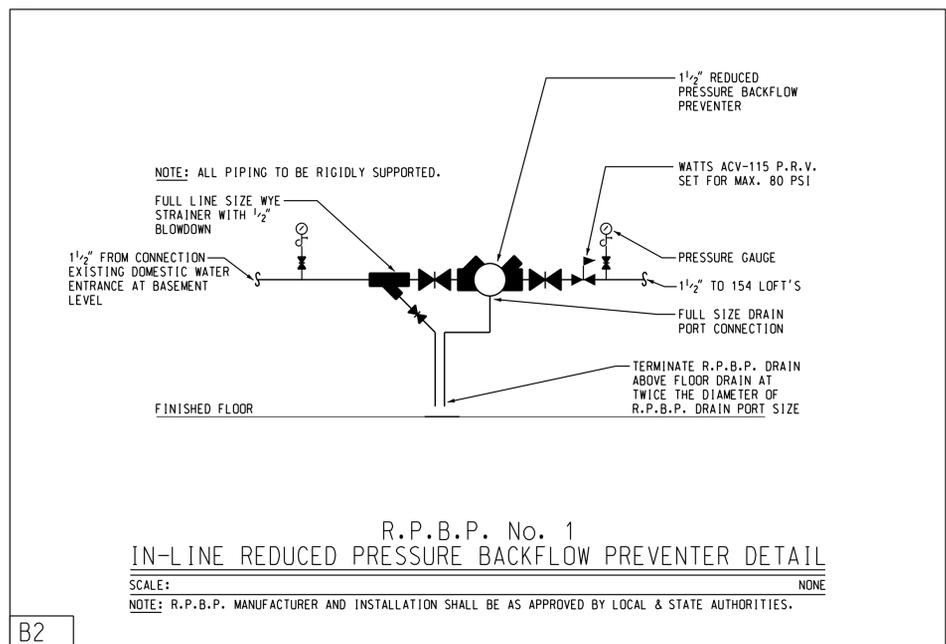
A8

B9

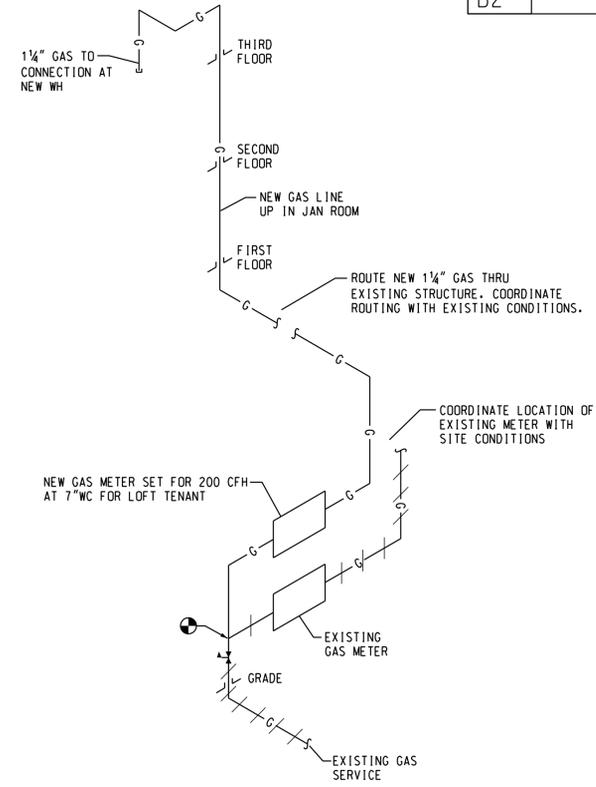
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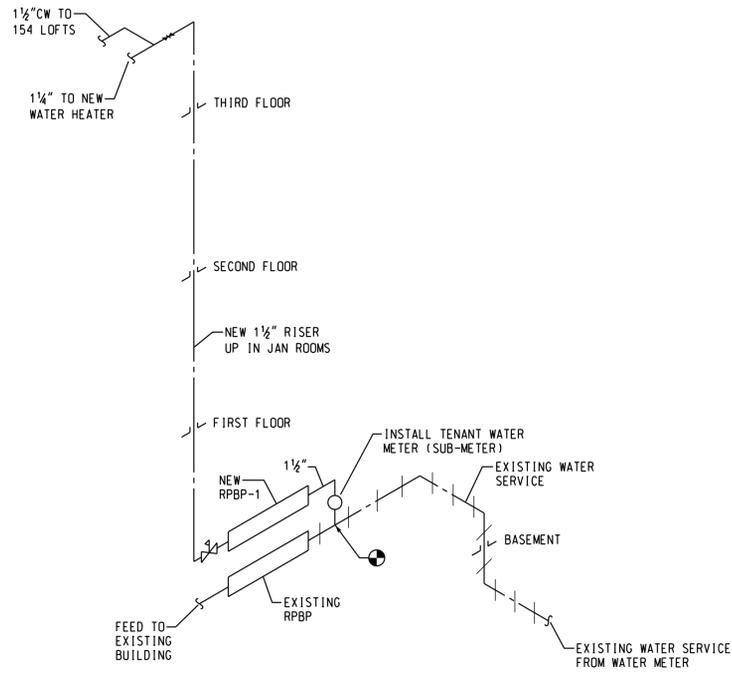
REDUCED PRESSURE BACKFLOW PREVENTER SCHEDULE							
DESIGNATION	QUANTITY	SERVING	G.P.M.	P.D. (psig)	MANUFACTURER	MODEL NUMBER	REMARKS
RPBP-1	1	DOM WATER	40	11	WATTS	LF909-0T	1 1/2" SIZE



FIXTURE CONNECTION SCHEDULE					
P-#	DESCRIPTION	C.W. (IN.)	H.W. (IN.)	WASTE (IN.)	VENT (IN.)
P-1	WATER CLOSET (FLR. MTD. -TANK TYPE -COMFORT HEIGHT) AMERICAN STANDARD 3378.128ST VITREOUS CHINA, FLOOR MOUNTED, COMFORT HEIGHT, ELONGATED BOWL, 1.28 GPF WATER CLOSET CHURCH 1200SLOWMT ELONGATED SEAT w/LID. CHROME BRAIDED FLEXIBLE SUPPLY w/STOP VALVE	1/2	---	4	2
P-2	LAVATORY (OVAL UNDERMOUNT) AMERICAN STANDARD 0495.221.020 VITREOUS CHINA 'OVALYN' LAVATORY AMERICAN STANDARD 7768SF 'MARQUETTE' WIDESPREAD 2-HANDLE, POLISHED CHROME FAUCET w/POP-UP DRAIN CHROME BRAIDED FLEXIBLE SUPPLY w/STOP VALVE. SCH 40 DWV-PVC P-TRAP	1/2	1/2	1 1/4	1 1/4
P-3	KITCHEN SINK (S.S. UNDERMOUNT) KRAUS KHU100-30 UNDERMOUNT, 18 GA. S.S. SINK GLACIER BAY 67551-0008D2 MARKET 1-HANDLE PULL DOWN SPRAYER KITCHEN FAUCET w/S.S. FINISH IN-SINK-ERATOR 'EVOLUTION' COMPACT 3/4 HP CONTINUOUS FEED DISPOSAL CHROME BRAIDED FLEXIBLE SUPPLY w/STOP VALVE SCH 40 DWV-PVC P-TRAP PROVIDE DISHWASHER DRAIN YOKE AT SINK P-TRAP PROVIDE WATER CONNECTION FROM SINK SUPPLY TO SERVE DISHWASHER COORDINATE CONNECTIONS w/DISHWASHER EQUIPMENT SUPPLIER.	1/2	1/2	1 1/2	1 1/2
P-4	REFRIGERATOR ICE MAKER BOX ROUGH-IN DATEY 39144 RECESSED BOX w/WATER HAMMER ARRESTOR COORD. MOUNTING LOCATION AND HEIGHT w/ARCH	1/2	---	---	---
P-5	SHOWER (TILE 3' x 6') AMERICAN STANDARD 'MARQUETTE' 7262S 1-HANDLE PRESSURE BALANCING SHOWER VALVE w/POLISHED CHROME FINISH. ZURN ZN145B SHOWER DRAIN	1/2	1/2	2	AS SHOWN
P-6	WASHER SUPPLY/DRAIN ROUGH-IN BOX SIOUX CHIEF 696G-231AF OX-BOX SUPPLY DRAIN w/ARRESTORS ON H/CW. SCH 40 DWV-PVC P-TRAP	1/2	1/2	2	2



**GAS SERVICE SCHEMATIC**  
SCALE: NONE



**DOMESTIC WATER SERVICE SCHEMATIC**  
SCALE: NONE

PLUMBING LEGEND		
SYMBOL	DESCRIPTION	ABBREVIATIONS
—●—	COLD WATER (UNDERGROUND)	
—	COLD WATER	C.W.
---	HOT WATER (TEMPERATURE, IF MORE THAN ONE)	H.W.
—○—	CLEAN-OUT	C.O.
---SS---	SANITARY SEWER (UNDERGROUND)	
---	SANITARY SEWER	S.S.
-----V-----	VENT	V
-----○V.T.R.-----	VENT THROUGH THE ROOF	V.T.R.
—G—	NATURAL GAS	G
—F—	FIRE WATER	F
—A/S—	AUTOMATIC SPRINKLER	A/S
—CD—	CONDENSATE DRAIN	C.D.
↑	RISER IDENTIFICATION	
□ P-1	FIXTURE IDENTIFICATION (SEE SPECIFICATIONS)	
— —	VALVES (SEE SPECIFICATIONS FOR TYPE)	
— —	SHOCK STOP	
— —	PRESSURE REDUCING VALVE	P.R.V.
— —	GAS VALVE (PLUG COCK)	
— —	OUTSIDE SCREW AND YOKE VALVES	O.S. & Y.
— —	REDUCED PRESSURE BACKFLOW PREVENTER	R.P.B.P.
— —	CONNECT TO EXISTING PIPING	



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**STUDIO 154  
LUXURY  
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**VASTLAND**

1720 WESTEND AVE  
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Revisions  
REVISION #1 - 04/20/17

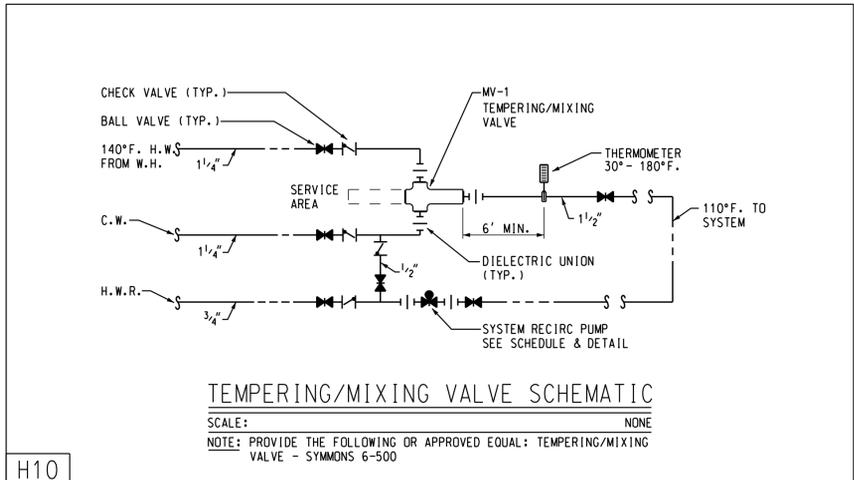
HMH Job Number  
16050

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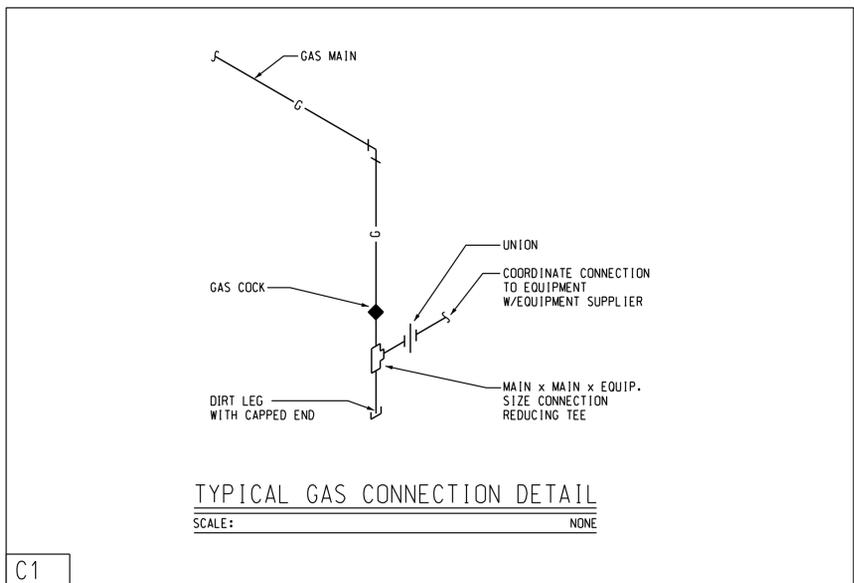
Date  
04.20.17

Drawing  
Plumbing  
Schedules & Details

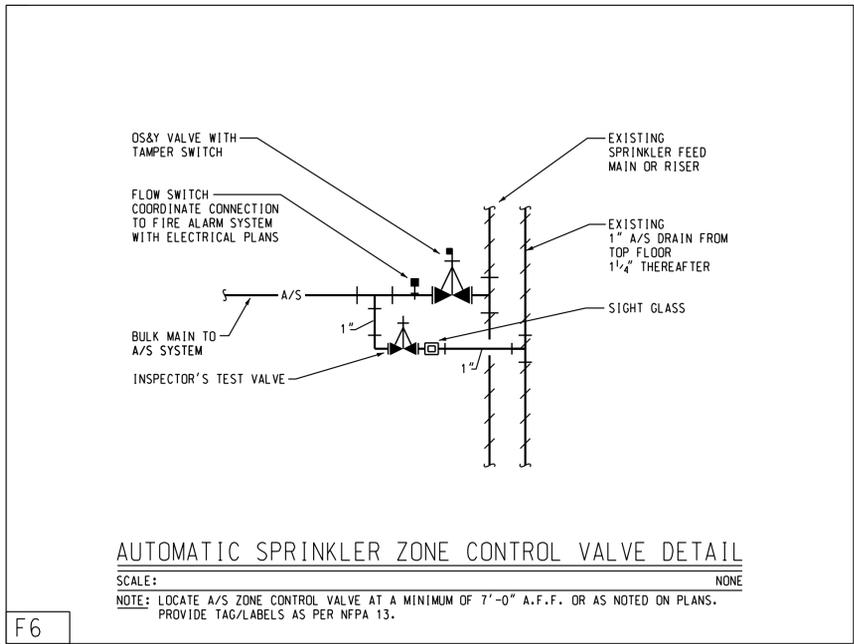
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H10



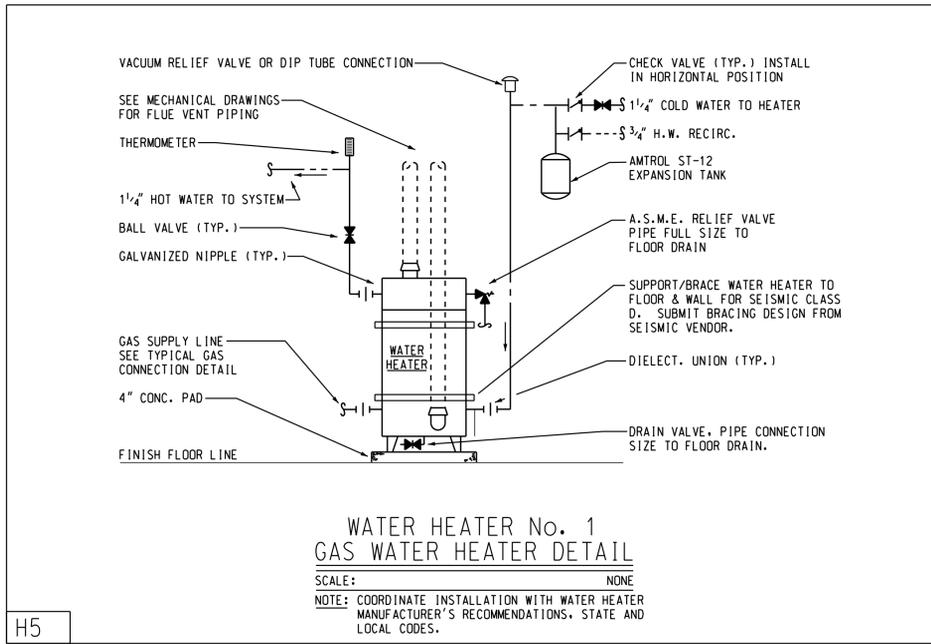
C1



F6

**GAS WATER HEATER SCHEDULE**

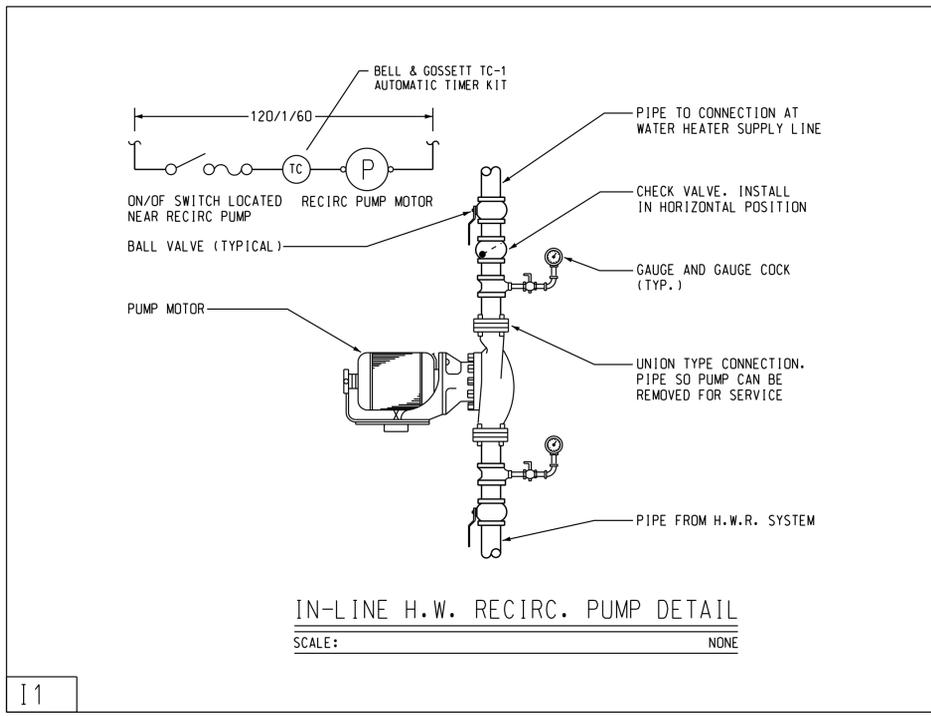
DESIGNATION	INPUT	OUTPUT	TEMP. RISE	RECOVERY G.P.H.	STORAGE CAP. (GAL.)	TANK DIA.	TANK HEIGHT	MANUFACTURER	MODEL NUMBER
WH-1	199,999 BTU	191,199 BTU	100	235	100	28"	76"	A.O. SMITH	BTH-199A



H5

**HOT WATER RECIRCULATION PUMP**

DESIGNATION	TYPE	G.P.M.	T.D.H.	H.P.	VOLTAGE	MANUFACTURER	MODEL NUMBER
HWRP-1	IN LINE BRONZE	3	5	1/20	120/1/60	B & G	NBF-85/LW



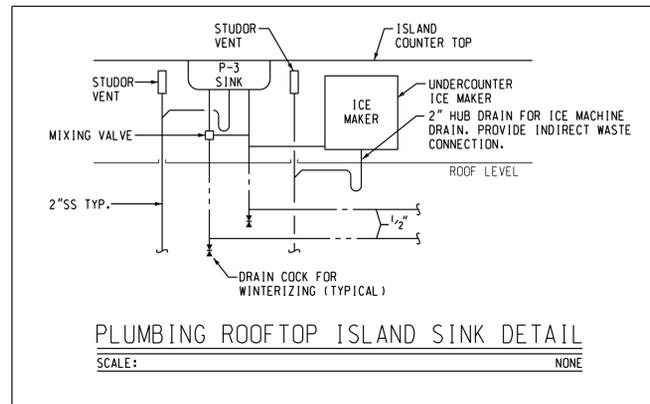
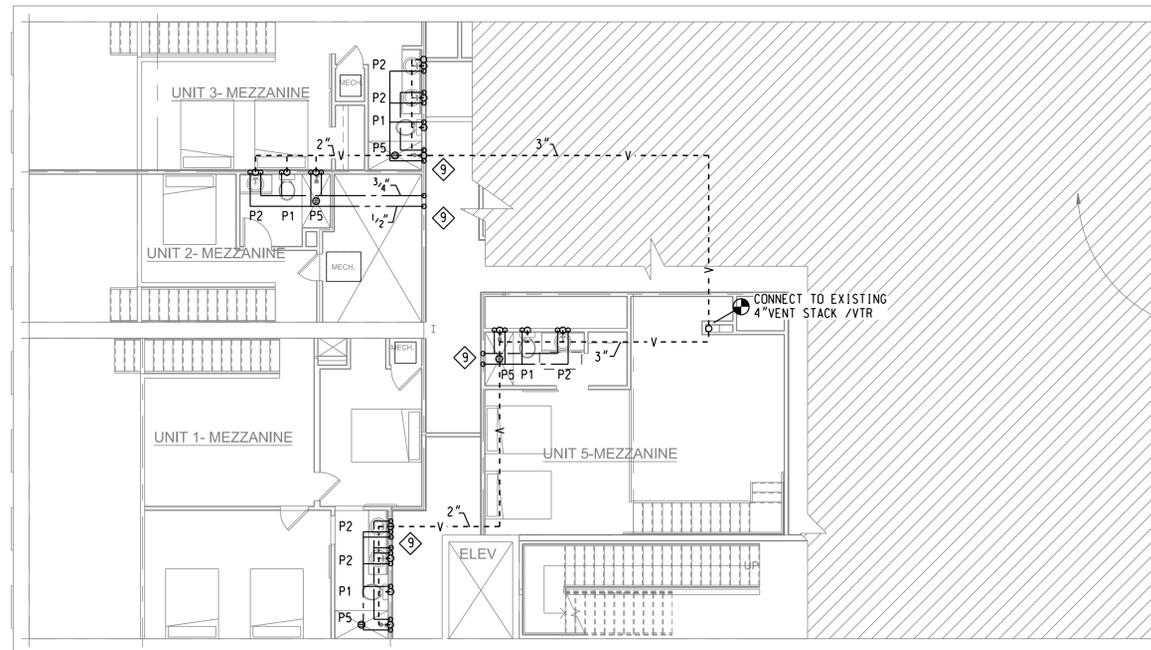
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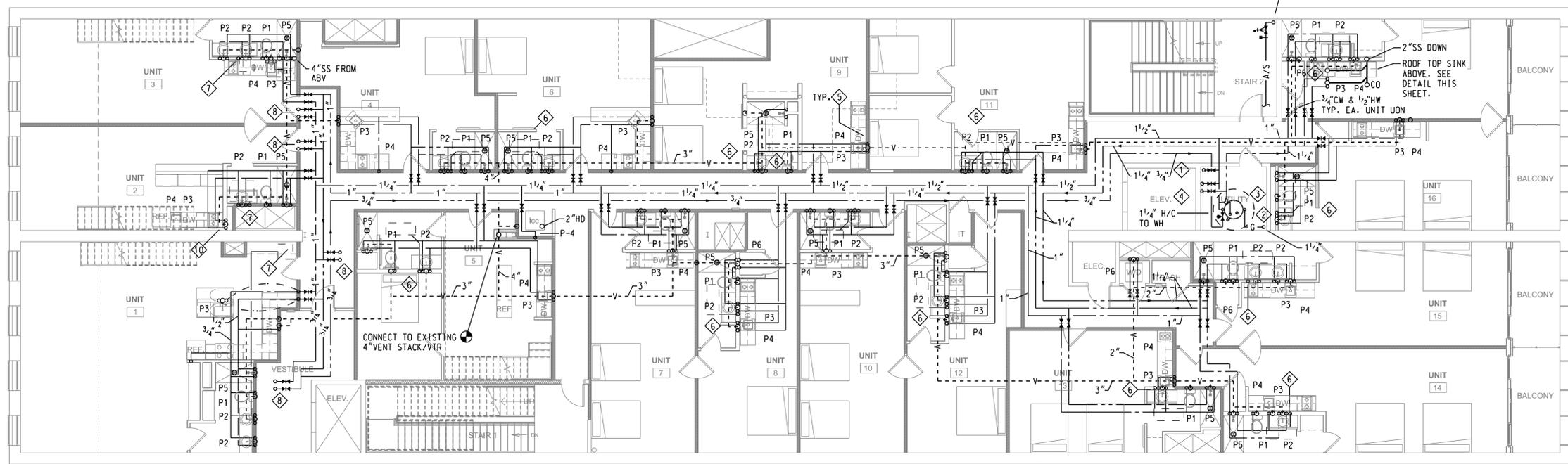
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8.0' = 1" / in.



- A/S SYSTEM DESIGN INTENT NOTES:**
- EXISTING BUILDING IS PROVIDED WITH COMPLETE A/S SYSTEM COVERAGE AS PER REQUIREMENTS OF N.F.P.A. 13. CONTRACTOR SHALL REWORK EXISTING SPRINKLER SYSTEM AS REQUIRED TO PROVIDE PROTECTION FOR RENOVATED SPACES.
  - SPRINKLER DESIGN DENSITY AS FOLLOWS:  
LIGHT HAZARD.  
A. WHITE CONCEALED PENDENT HEADS OR CONCEALED SIDEWALL HEADS IN STUDIO'S  
B. BRASS UP-RIGHT HEADS IN ALL AREAS WITH UNFINISHED CEILINGS.
  - PROVIDE QUICK RESPONSE SPRINKLERS THROUGHOUT TENANT SPACE.
  - DO NOT ROUTE SPRINKLER FEED BULK MAIN OR CROSS MAIN ABOVE ELECT. ROOMS.
  - REFER TO ELECT. PLANS FOR POWER CONNECTIONS TO FLOW AND TAMPER SWITCHES.
  - SPRINKLER PIPING TO BE:  
2" & SMALLER - SCH. 40 STEEL  
2 1/2" & LARGER - SCH. 10 THINWALL
  - SPRINKLER SUBCONTRACTOR TO COORDINATE SPRINKLER HEAD LAYOUT WITH ARCH RCP FOR CONFLICTS. ARCH WILL NOT BE SHOWING SPRINKLER HEAD LAYOUT.

- PLUMBING PLAN NOTES:**
- ROUTE 1 1/2" C.W. UP FROM BASEMENT AND CONNECT TO EXISTING C.W. LINE IN BASEMENT AND PROVIDE RPBP-1 AND PRV-1 TO SERVE THE 3rd FLOOR AND MEZZANINE.
  - ROUTE NEW 1 1/4" GAS SERVICE LINE UP FROM BASEMENT LEVEL TO SERVE WH-1 PROVIDE NEW GAS METER AT EXISTING METER TO SERVE THE 3rd FLOOR. LENGTH FROM METER TO WH ESTIMATED AT 100 FT. PROVIDE 7" W.C. SERVICE FROM NEW METER.
  - NEW WATER HEATER WH-1 & HWRP-1. PROVIDE 18" CLEARANCE AROUND HEATER.
  - CONNECT NEW DW&V & WATER TO EXISTING UTILITY SINK IN THIS SPACE.
  - PROVIDE 3/4" HW FROM P3 SINK TO SERVE DISHWASHER. PROVIDE DRAIN YOKE CONNECTION FROM DISHWASHER TO P3 SINK P-TRAP. PROVIDE 1/2" CW FROM P3 SINK TO FEED THE ADJACENT P4.
  - ROUTE LINE SIZE CONDENSATE DRAIN FROM CEILING MTD. HVAC UNIT & SPILL TO DRAIN YOKE CONNECTION ON THE P2 LAV.
  - ROUTE 1" CONDENSATE DRAIN FROM HVAC UNIT DRAIN PAN ABOVE ON MEZZANINE & CONNECT TO DRAIN YOKE AT P2 LAV.
  - 3/4" CW & 1/2" HW UP TO SERVE MEZZANINE TOILET.
  - 3/4" CW & 1/2" HW FROM BELOW.
  - ROUTE DW&V AND WATER LINES IN SIDE WALL THEN HORIZONTALLY IN CASE WORK TO SERVE P3 & P4.



- GENERAL PLUMBING NOTES:**
- CONTRACTOR SHALL COORDINATE ALL TENANT IN-FILL WORK WITH ARCHITECTURAL PLANS AND OWNER'S REPRESENTATIVE.
  - CONTRACTOR SHALL FIELD VERIFY LOCATION, SIZE AND ELEVATION OF ALL EXISTING PLUMBING LINES AFFECTED BY TENANT IN-FILL WORK.
  - DW&V PIPING TO BE CAST IRON, NO-HUB.
  - DOMESTIC WATER PIPING TO BE TYPE 'L' COPPER WITH ROUGH COPPER FITTINGS.
  - DOMESTIC WATER PIPING TO BE INSULATED - 1/2" THICK ON CW AND 1" THICK ON HW & HWR.
  - GAS PIPING TO BE SCHEDULE 40 STEEL.



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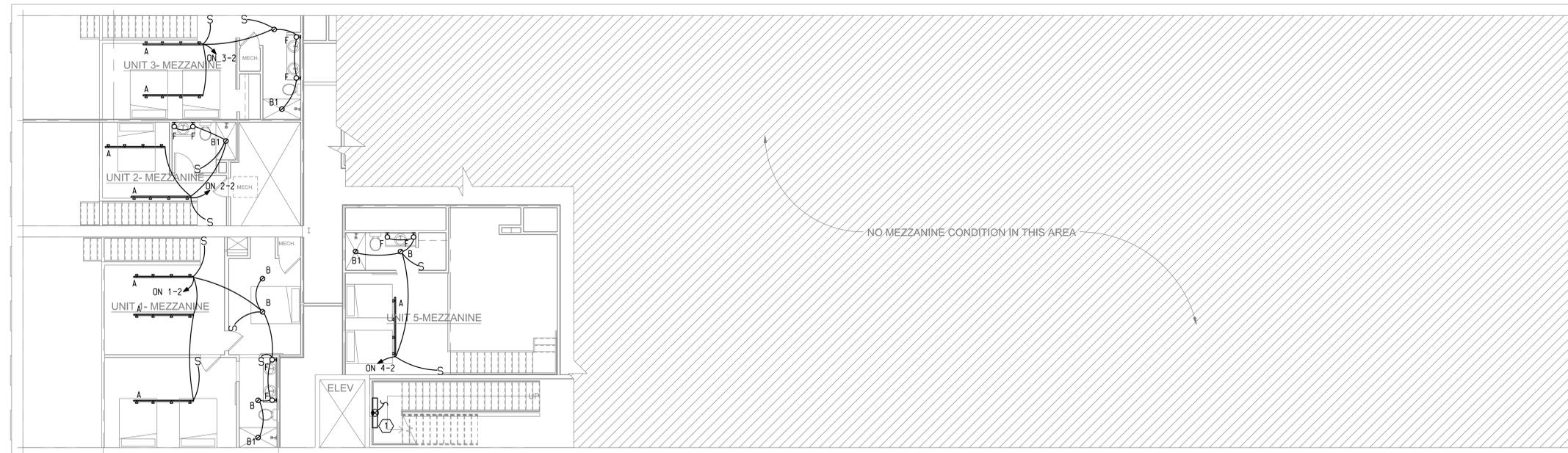


- Revisions**
- REVISION #1 - 04/20/17
  - REVISION #2 - 05/09/17

HMH Job Number  
16050  
Drawn By  
Date  
04.20.17  
Drawing  
PLUMBING  
Level 3 & Mezzanine Plans

**P201**

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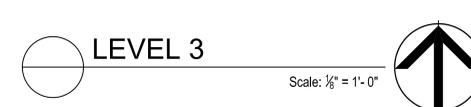
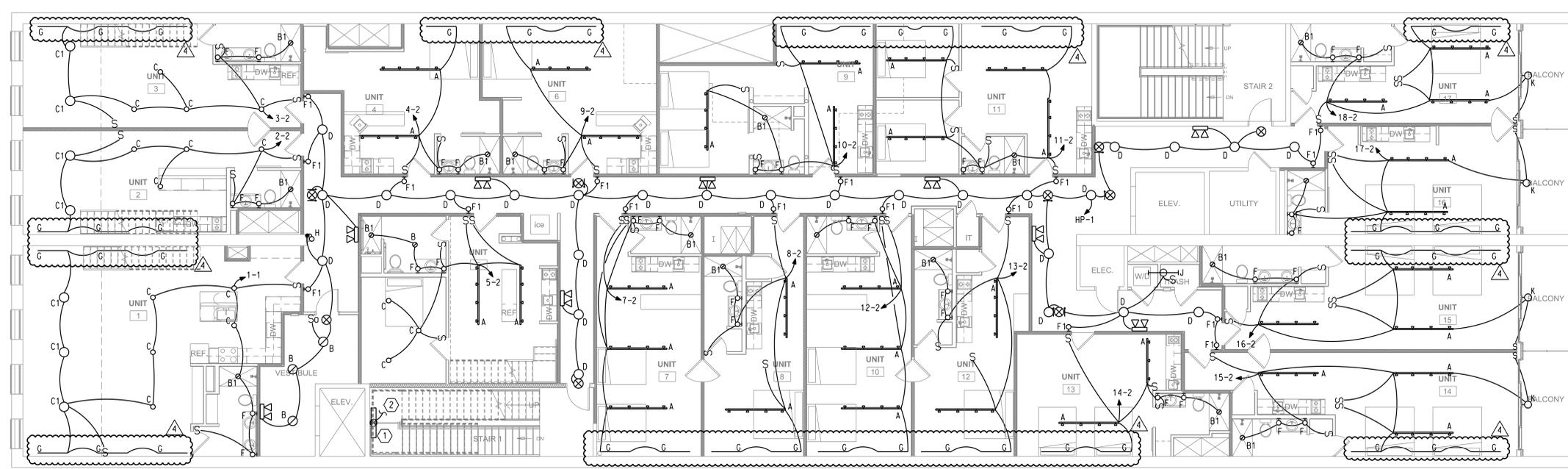


PLAN NOTES:

1. MATCH EXISTING STAIRWELL TYPE LIGHT FIXTURE WITH BATTERY PACK.
2. CONNECT TO EXISTING STAIRWELL LIGHTING CIRCUIT.



7/1 : 11/17 in.



Revisions

REVISION #1	04/20/17
REVISION #4	10/23/17

HMH Job Number  
16050

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Date  
04.20.17

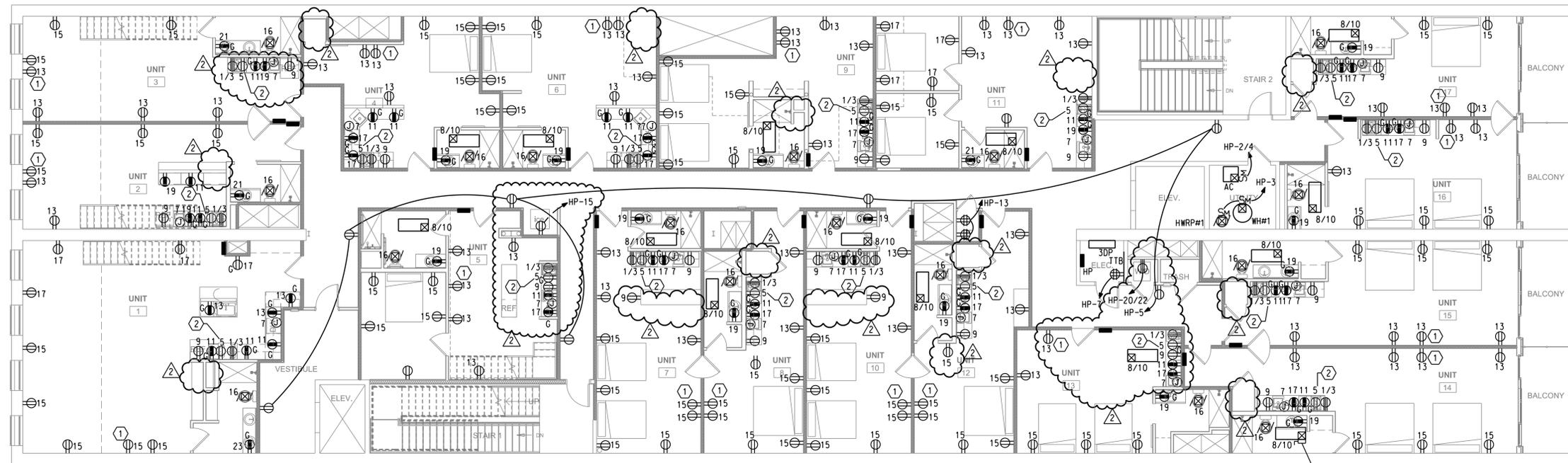
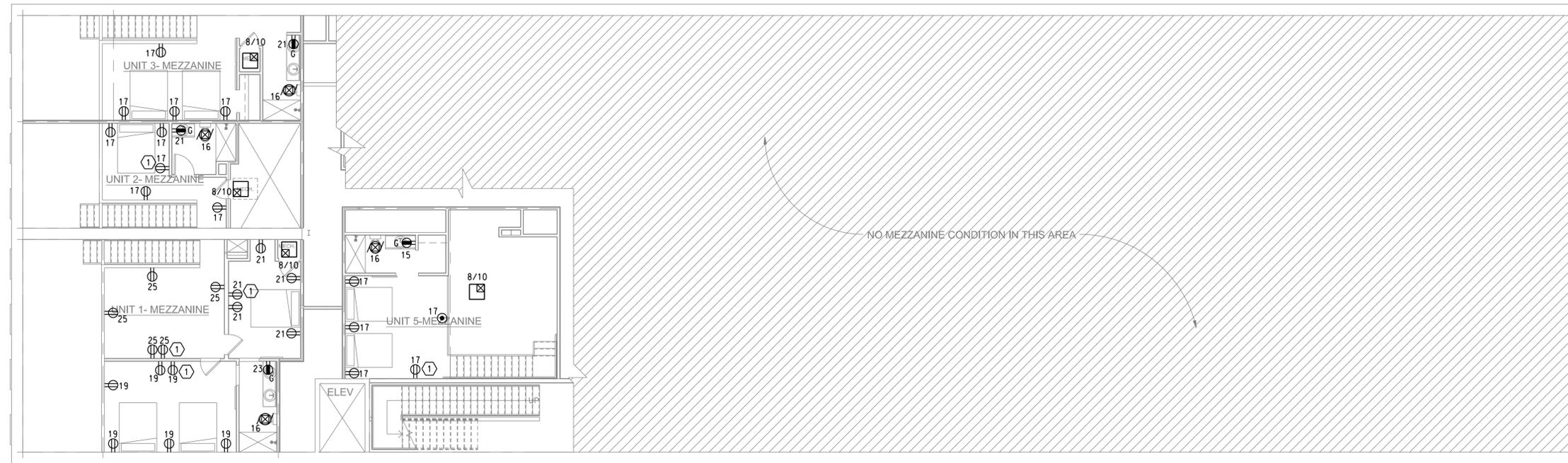
Drawing  
LIGHTING  
Level 3 & Mezzanine Plans

**E101**

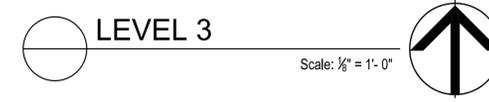


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rsouthall  
8.0' = 1/4" in.



- PLAN NOTES:
- COORDINATE HEIGHT OF RECEPTACLE WITH TV LOCATION.
  - COORDINATE HEIGHT OF RECEPTACLE WITH MICRO/HOOD LOCATION.
  - CONDENSING UNITS ARE LOCATED ON ROOF. COORDINATE LOCATIONS WITH OWNER. PROVIDE A 30A/2F/WP DISCONNECT ON EACH UNIT. SEE PANEL SCHEDULES FOR CIRCUITING.



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Revisions

REVISION #1	- 04/20/17
REVISION #2	- 05/09/17

HMH Job Number  
16050

Drawn By

Date  
04.20.17

Drawing  
POWER  
Level 3 & Mezzanine Plans

**E201**

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rsouthall  
80' x 110' in.



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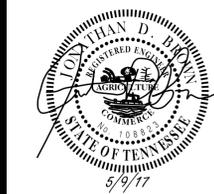
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LOFTS**

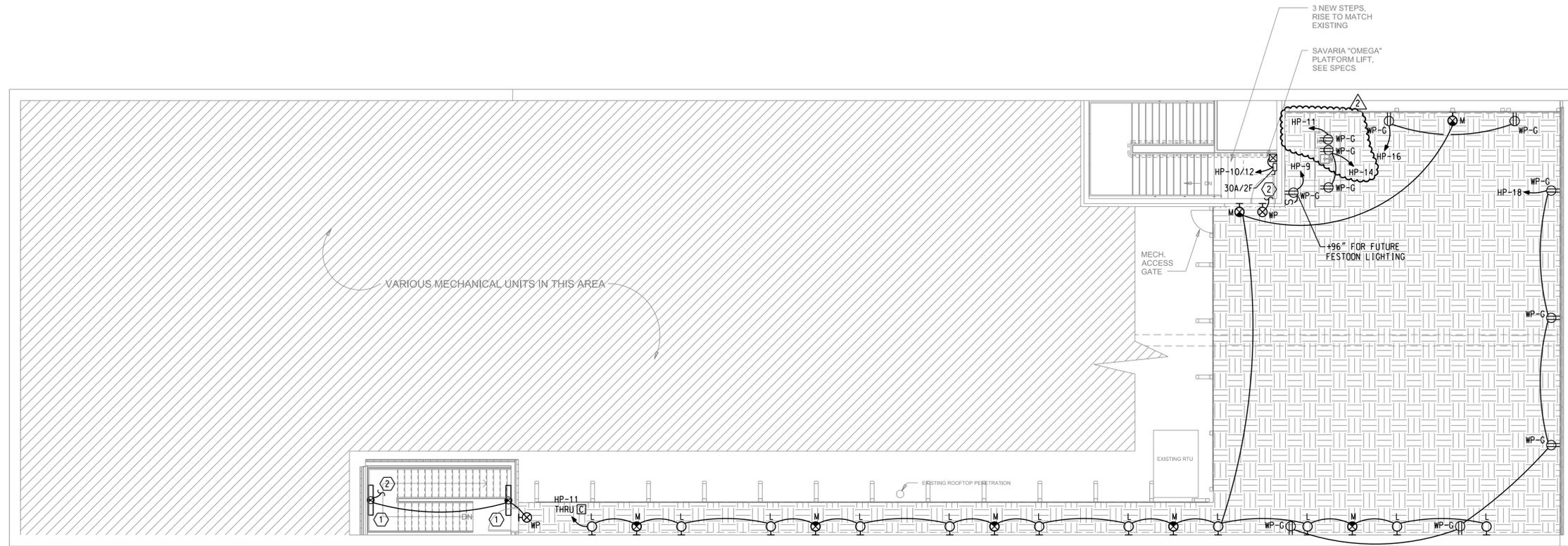
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- PLAN NOTES:
1. MATCH EXISTING STAIRWELL TYPE LIGHT FIXTURE WITH BATTERY PACK.
  2. CONNECT TO EXISTING STAIRWELL LIGHTING CIRCUIT.



**ELECTRICAL  
ROOF PLAN**

Scale: 1/8" = 1'-0"

ENTIRE SHEET

Revisions

1	REVISION #1 - 04/20/17
2	REVISION #2 - 05/09/17

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16050

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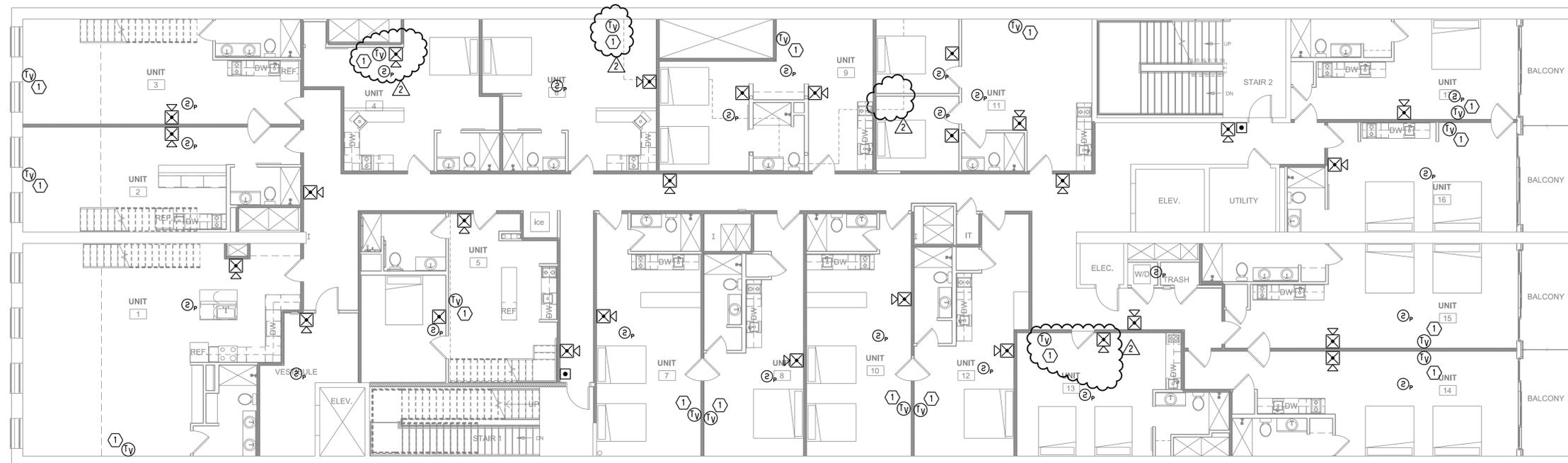
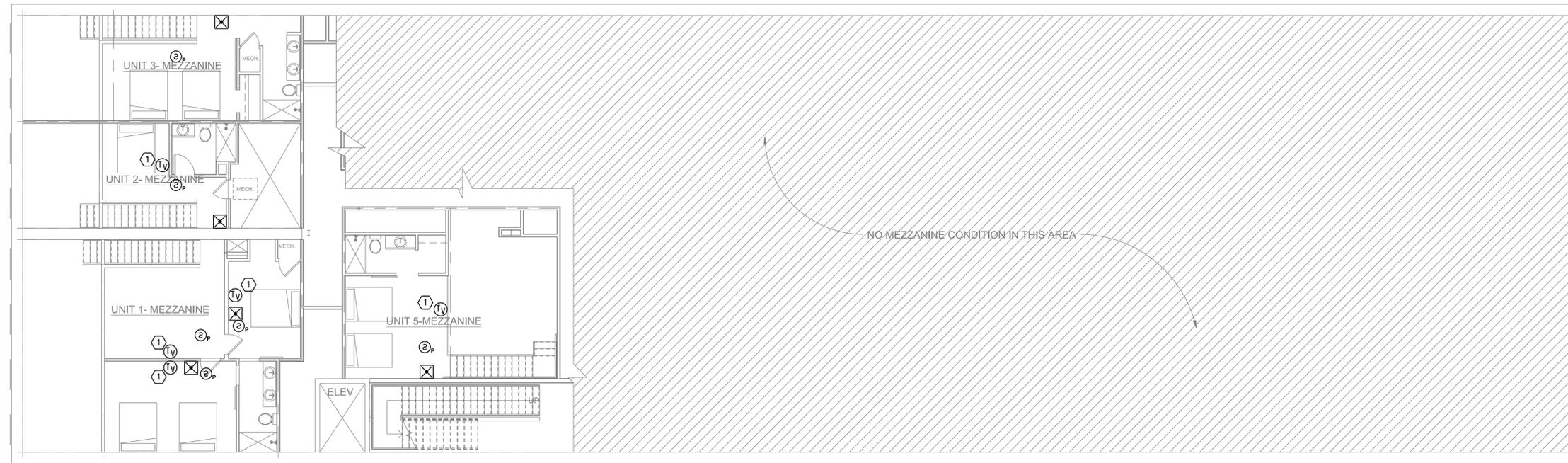
Date  
04.20.17

Drawing  
Electrical  
Roo Plan

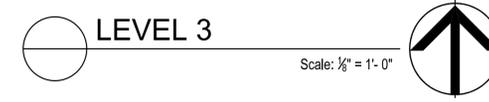
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rsouthall  
8.0' = 1/4" in.



PLAN NOTES:  
1. COORDINATE HEIGHT OF TV OUTLET WITH LOCATION OF TV.



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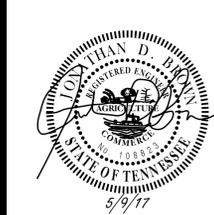
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Revisions	
△	REVISION #1 - 04/20/17
△	REVISION #2 - 05/09/17

HMH Job Number  
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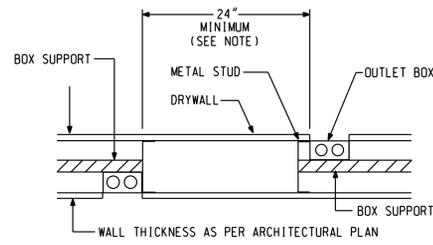
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Date  
04.20.17

Drawing  
SYSTEMS  
Level 3 & Mezzanine Plans

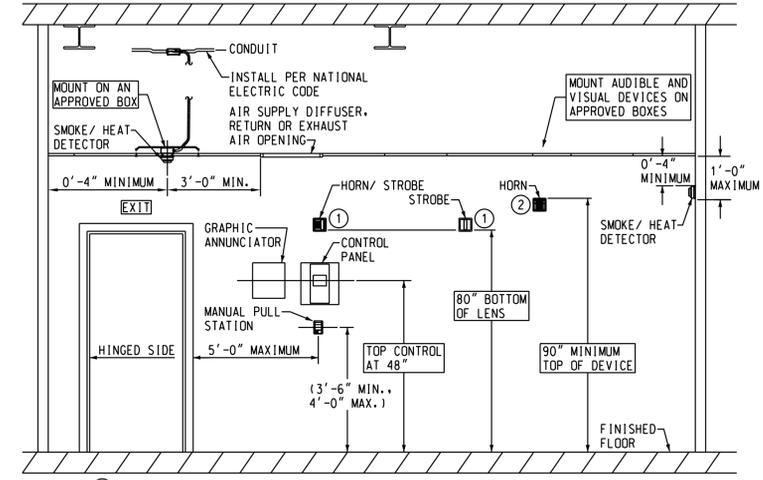
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RECEPTACLE SEPARATION IN RATED WALLS  
SCALE: NONE

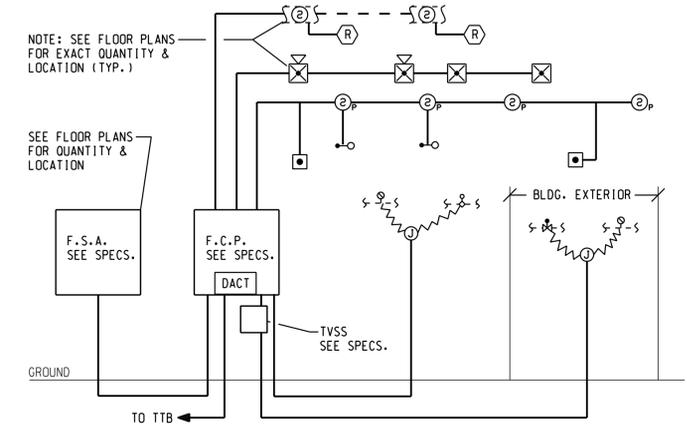
F2



NOTES: ① BOTTOM OF STROBE LENS TO BE 80" AFF OR 6" BFC, WHICHEVER IS LOWER.  
② IF CEILING HEIGHTS ALLOW, WALL MOUNTED APPLIANCES SHALL HAVE THEIR TOPS ABOVE THE FINISHED FLOOR AT HEIGHTS OF NOT LESS THAN 90" AND BELOW THE FINISHED CEILING OF NOT LESS THAN 6".

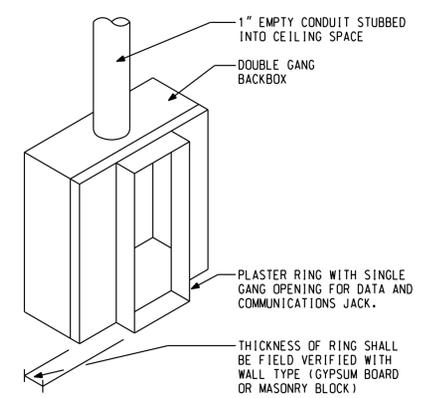
NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS  
SCALE: NONE

C3



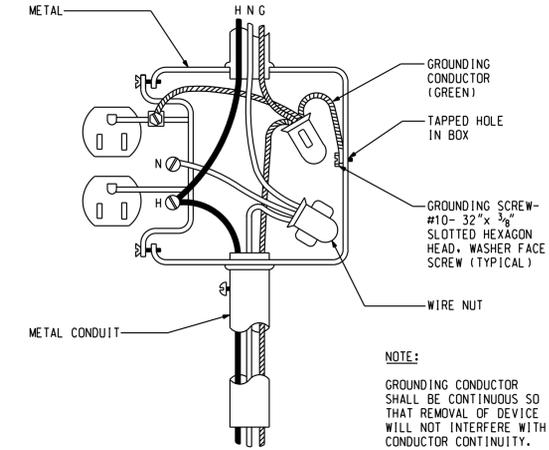
PARTIAL FIRE ALARM RISER DIAGRAM  
SCALE: NONE

C2



DATA & COMMUNICATIONS OUTLET DETAIL  
SCALE: NONE

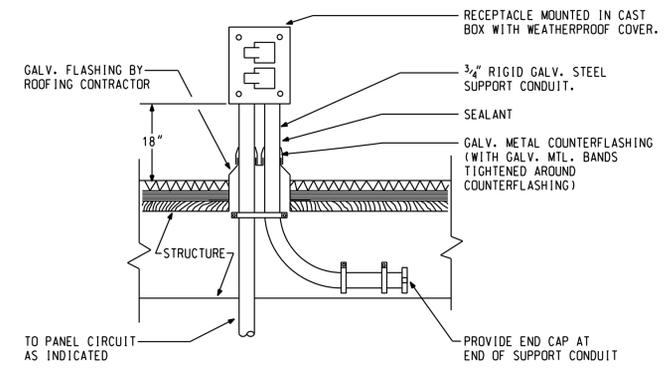
G11



NOTE:  
GROUNDING CONDUCTOR SHALL BE CONTINUOUS SO THAT REMOVAL OF DEVICE WILL NOT INTERFERE WITH CONDUCTOR CONTINUITY.

RECEPTACLE GROUNDING DETAIL  
SCALE: NONE

F5



ROOF RECEPTACLE MOUNTING  
SCALE: NONE

F3

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1:56:16 PM

PANEL: 3DP		TYPE: NOOD		MOUNTING: SURFACE		AMPS S.I.C.: 42000		SERVICE: MAIN		FEEDER No. DD				
VOLTAGE: 120/208V 3P,4W		MAINS: 800A MLO		SECTIONS: 1										
AMPS/PLS.	FDR NO.	SERVES	CKT. K.W.	POLE NO.	PHASE KW			POLE NO.	CKT. K.W.	SERVES	FDR NO.	AMPS/PLS.		
					A	B	C							
100	3	F3	UNIT 1	11.18	1	22.72	---	---	2	11.54	UNIT 2	F3	100	3
				12.21	3	---	23.34	---	4	11.13				
				6.74	5	---	---	12.58	6	5.84				
100	3	F3	UNIT 3	11.54	7	22.36	---	---	8	10.82	UNIT 4	F3	100	3
				11.49	9	---	22.62	---	10	11.13				
				5.84	11	---	---	11.68	12	5.84				
100	3	F3	UNIT 5	10.82	13	10.82	---	---	14	0.00	UNIT 6	F3	100	3
				11.13	15	---	11.13	---	16	0.00				
				4.94	17	---	---	4.94	18	0.00				
100	3	F3	UNIT 7	10.82	19	21.64	---	---	20	10.82	UNIT 8	F3	100	3
				11.13	21	---	22.26	---	22	11.13				
				4.94	23	---	---	9.88	24	4.94				
100	3	F3	UNIT 9	10.82	25	21.64	---	---	26	10.82	UNIT 10	F3	100	3
				11.13	27	---	22.26	---	28	11.13				
				4.94	29	---	---	9.88	30	4.94				
100	3	F3	UNIT 11	10.64	31	21.46	---	---	32	10.82	UNIT 12	F3	100	3
				11.49	33	---	22.62	---	34	11.13				
				5.84	35	---	---	10.78	36	4.94				
100	3	F3	UNIT 13	10.82	37	21.64	---	---	38	10.82	UNIT 14	F3	100	3
				11.13	39	---	22.26	---	40	11.13				
				4.94	41	---	---	9.88	42	4.94				
100	3	F3	UNIT 15	10.82	43	21.64	---	---	44	10.82	UNIT 16	F3	100	3
				11.13	45	---	22.26	---	46	11.13				
				4.86	47	---	---	9.80	48	4.94				
100	3	F3	UNIT 17	10.82	49	10.82	---	---	50	0.00	SPACE ONLY	100	3	
				8.63	51	---	8.63	---	52	0.00				
				2.44	53	---	---	2.44	54	0.00				
100	3	F3	HP	6.80	55	6.80	---	---	56	0.00	SPACE ONLY	100	3	
				5.26	57	---	5.26	---	58	0.00				
				5.48	59	---	---	5.48	60	0.00				
TOTALS:				145.44		145.77		92.28						
TOTAL:				383.49										

PANEL: UNIT 1		TYPE: NOOD		MOUNTING: RECESSED		AMPS S.I.C.: 10000		SERVICE: PANEL 3DP		FEEDER No. F3				
VOLTAGE: 120/208V 3P,4W		MAINS: 100A MLO		SECTIONS: 1										
AMPS/PLS.	FDR NO.	SERVES	CKT. K.W.	POLE NO.	PHASE KW			POLE NO.	CKT. K.W.	SERVES	FDR NO.	AMPS/PLS.		
					A	B	C							
50	2	D2	RANGE	4.50	1	5.50	---	---	2	1.00	LIGHTS	A2	20	1
				4.50	3	---	7.00	---	4	2.50	SPARE	A2	20	2
20	1	A2	MICROWAVE	1.00	5	---	---	3.50	6	2.50				
20	1	A2	DISHWASHER (GFCI)	1.00	7	2.80	---	---	8	1.80	HVAC UNIT	A2	20	2
20	1	A2	REFRIGERATOR	1.00	9	---	2.80	---	10	1.80				
20	1	A2	RECEPTS KITCHEN	0.36	11	---	---	1.80	12	1.44	CONDENSER (ON ROOF)	A2	20	2
20	1	A2	RECEPTS KITCHEN	0.36	13	1.80	---	---	14	1.44				
20	1	A2	RECEPTACLES (AFCI)	1.08	15	---	1.33	---	16	0.25	EXHAUST FAN	A2	20	1
20	1	A2	RECEPTACLES (AFCI)	1.08	17	---	---	1.08	18	0.00	SPACE ONLY		20	1
20	1	A2	RECEPTACLES (AFCI)	1.08	19	1.08	---	---	20	0.00	SPACE ONLY		20	1
20	1	A2	RECEPTACLES (AFCI)	1.08	21	---	1.08	---	22	0.00	SPACE ONLY		20	1
20	1	A2	RECEPTACLES	0.36	23	---	---	0.36	24	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	25	0.00	---	---	26	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	27	---	0.00	---	28	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	29	---	---	0.00	30	0.00	SPACE ONLY		20	1
TOTALS:				11.18		12.21		6.74						
TOTAL:				30.13										

PANEL: SEE NOTE		TYPE: NOOD		MOUNTING: RECESSED		AMPS S.I.C.: 10000		SERVICE: PANEL 3DP		FEEDER No. F3				
VOLTAGE: 120/208V 3P,4W		MAINS: 100A MLO		SECTIONS: 1										
AMPS/PLS.	FDR NO.	SERVES	CKT. K.W.	POLE NO.	PHASE KW			POLE NO.	CKT. K.W.	SERVES	FDR NO.	AMPS/PLS.		
					A	B	C							
20	2	A2	RANGE	1.50	1	2.50	---	---	2	1.00	LIGHTS	A2	20	1
				1.50	3	---	1.50	---	4	0.00	SPARE	A2	20	2
20	1	A2	MICROWAVE	1.00	5	---	---	3.50	6	2.50				
20	1	A2	DISHWASHER (GFCI)	1.00	7	2.80	---	---	8	1.80	HVAC UNIT	A2	20	2
20	1	A2	REFRIGERATOR	1.00	9	---	2.80	---	10	1.80				
20	1	A2	RECEPT KITCHEN	0.18	11	---	---	1.26	12	1.08	CONDENSER (ON ROOF)	A2	15	2
20	1	A2	RECEPTACLES (AFCI)	1.08	13	2.16	---	---	14	1.08				
20	1	A2	RECEPTACLES (AFCI)	1.08	15	---	1.33	---	16	0.25	EXHAUST FAN	A2	20	1
20	1	A2	RECEPTACLES (AFCI)	1.08	17	---	---	1.08	18	0.00	SPACE ONLY		20	1
20	1	A2	RECEPT KITCHEN	1.08	19	1.08	---	---	20	0.00	SPACE ONLY		20	1
20	1	A2	RECEPTACLES	0.36	21	---	0.36	---	22	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	23	---	---	0.00	24	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	25	0.00	---	---	26	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	27	---	0.00	---	28	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	29	---	---	0.00	30	0.00	SPACE ONLY		20	1
TOTALS:				8.54		8.49		5.84						
TOTAL:				22.87										

PANEL: UNIT 16		TYPE: NOOD		MOUNTING: RECESSED		AMPS S.I.C.: 10000		SERVICE: PANEL 3DP		FEEDER No. F3				
VOLTAGE: 120/208V 3P,4W		MAINS: 100A MLO		SECTIONS: 1										
AMPS/PLS.	FDR NO.	SERVES	CKT. K.W.	POLE NO.	PHASE KW			POLE NO.	CKT. K.W.	SERVES	FDR NO.	AMPS/PLS.		
					A	B	C							
20	2	A2	RANGE	1.50	1	2.50	---	---	2	1.00	LIGHTS	A2	20	1
				1.50	3	---	4.00	---	4	2.50	SPARE	A2	20	2
20	1	A2	MICROWAVE	1.00	5	---	---	3.50	6	2.50				
20	1	A2	DISHWASHER (GFCI)	1.00	7	2.80	---	---	8	1.80	HVAC UNIT	A2	20	2
20	1	A2	REFRIGERATOR	1.00	9	---	2.80	---	10	1.80				
20	1	A2	RECEPT KITCHEN	0.18	11	---	---	1.26	12	1.08	CONDENSER (ON ROOF)	A2	15	2
20	1	A2	RECEPTACLES (AFCI)	1.08	13	2.16	---	---	14	1.08				
20	1	A2	RECEPTACLES (AFCI)	1.08	15	---	1.33	---	16	0.25	EXHAUST FAN	A2	20	1
20	1	A2	RECEPT KITCHEN	1.08	17	---	---	1.08	18	0.00	SPACE ONLY		20	1
20	1	A2	RECEPTACLES	1.08	19	1.08	---	---	20	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	21	---	0.00	---	22	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	23	---	---	0.00	24	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	25	0.00	---	---	26	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	27	---	0.00	---	28	0.00	SPACE ONLY		20	1
20	1		SPACE ONLY	0.00	29	---	---	0.00	30	0.00	SPACE ONLY		20	1
TOTALS:				7.82		5.63		2.44						
TOTAL:				15.89										

PANEL: SEE NOTE		TYPE: NOOD		MOUNTING: RECESSED		AMPS S.I.C.: 10000		SERVICE: PANEL 3DP		FEEDER No. F3				
VOLTAGE: 120/208V 3P,4W		MAINS: 100A MLO		SECTIONS: 1										
AMPS/PLS.	FDR NO.	SERVES	CKT. K.W.	POLE NO.	PHASE KW			POLE NO.	CKT. K.W.	SERVES	FDR NO.	AMPS/PLS.		
					A	B	C							
20	2	A2	RANGE	1.50	1	2.50	---	---	2	1.00	LIGHTS	A2	20	1
				1.50	3	---	4.00	---	4	2.50	SPARE	A2	20	2
20	1	A2	MICROWAVE	1.00	5	---	---	3.50	6	2.50				
20	1	A2	DISHWASHER (GFCI)	1.00	7	2.80	---	---	8	1.80	HVAC UNIT	A2	20	2
20	1	A2	REFRIGERATOR	1.00	9	---	2.80	---	10	1.80				
20	1	A2	RECEPT KITCHEN	0.18	11	---	---	1.26	12	1.08	CONDENSER (ON ROOF)			

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GENERAL NOTES AND SPECIFICATIONS

- A. GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR ONE YEAR FROM DATE OF ACCEPTANCE.
- B. COMPLY WITH THE NEC, STATE, AND LOCAL CODES.
- C. USE ONLY COPPER CONDUCTORS AS NOTED. MINIMUM SIZE #12 AWG. USE TYPE THHN, UON. ALL CIRCUITS SHALL BE COLOR CODED.
- D. USE MINIMUM 1/2" CONDUIT. USE 3/4" MINIMUM GALVANIZED COATED WITH ASPHALTUM OR SCHEDULE 40 PVC IN CONCRETE BELOW GRADE. FOR PVC, TRANSITION TO RIGID BEFORE EMERGING FROM BELOW. USE EMT WHERE CONCEALED IN WALLS AND CEILINGS. USE RIGID IN SLAB AND UNDERGROUND.
- E. USE STAINLESS STEEL DEVICE COVERPLATES, UON.
- F. ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED, COMMERCIAL GRADE.
- G. USE HUBBELL WIRING DEVICES AS FOLLOWS:  
 SWITCHES - 15 AMP, #1201-1, 1202-1, 1203-1  
 SWITCHES - 20 AMP, #1221-1, 1222-1, 1223-1, 1224-1  
 SWITCHES - MOTOR STARTERS, USE SQUARE D CLASS 2510  
 RECEPTACLES - 15 AMP, #5252-1, 5262-1 FOR GENERAL PURPOSES.  
 RECEPTACLES - 20 AMP, 5634-1 FOR SAFETY TYPE.  
 RECEPTACLES - GFCI, GF5262-1 (15A), GF5362-1 (20A).  
 RECEPTACLES - TWISTLOCK, 4700-1.
- H. ALL WIRING MUST BE IN CONDUIT.
- I. EQUIPMENT OUTSIDE MUST BE WEATHERPROOF. USE HEAVY DUTY DISCONNECT SWITCHES.
- J. CONDUIT OUTSIDE MUST BE GALVANIZED STEEL OR PVC, AS NOTED ABOVE.
- K. USE 6' MAXIMUM LENGTH OF FLEXIBLE CONDUIT TO FIXTURES.
- L. FLUORESCENT FIXTURES SHALL HAVE HOLD DOWN CLIPS.
- M. REMOVE TEMPORARY WIRING UPON COMPLETION OF WORK. REMOVE UNUSED EXISTING WIRING UPON COMPLETION OF WORK.
- N. USE BUSS TYPE LPS OR LPN FUSES FOR MOTORS AND EQUIPMENT. USE BUSS TYPE KTS OR KTN FUSES FOR PANEL AND TRANSFORMER FEEDERS.
- O. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES, MECHANICAL EQUIPMENT AND EQUIPMENT FURNISHED BY OWNER PRIOR TO ROUGH-IN.
- P. INCANDESCENT FIXTURES SHALL HAVE 150 DEGREES C WIRING FROM OUTLET BOX TO LAMP HOLDERS.
- Q. FLUORESCENT LAMPS SHALL BE ENERGY SAVING TYPE T8, 3500 DEGREES KELVIN, UON. PHILLIPS, GENERAL ELECTRIC, OR SYLVANIA.
- R. FLUORESCENT FIXTURES SHALL BE FURNISHED WITH ENERGY SAVING ELECTRONIC BALLASTS.
- S. INCANDESCENT LAMPS SHALL BE 130 VOLT, INSIDE FROSTED, UON.
- T. METAL HALIDE LAMPS SHALL BE GENERAL ELECTRIC OR SYLVANIA.
- U. USE "PATE" PIPE SEALS FOR CONDUIT THROUGH ROOF. USE SEALTITE FLEXIBLE CONDUIT FOR EXTERIOR EQUIPMENT.
- V. PANELBOARDS SHALL BE GENERAL ELECTRIC OR SQUARE D, UON.
- W. TELEPHONE TERMINAL BOARD SHALL BE 3/4"x4'x8' A-D PLYWOOD PAINTED WITH TWO COLORS OF FLAT GRAY ENAMEL. PROVIDE #6 GND. TO MAIN GROUNDING ELECTRODE.
- X. VERIFY LOCATION OF PANELBOARDS AND SWITCHES WITH ARCHITECT PRIOR TO ROUGH-IN.
- Y. CONTRACTOR SHALL COORDINATE NEW SERVICE REQUIREMENTS WITH THE LOCAL POWER COMPANY AND FURNISH THEM LOAD INFORMATION. FURNISH SERVICE TO EXISTING WIRING TROUGH AS REQUIRED BY THE POWER COMPANY.
- Z. DO NOT INSTALL MORE CONDUCTORS IN A BRANCH CIRCUIT HOMERUN THAN SHOWN.
- AA. ALL WORK SHALL BE COORDINATED WITH OWNER'S REPRESENTATIVE.
- BB. FURNISH AND INSTALL FIRE ALARM SYSTEM COMPONENTS TO MATCH EXISTING SYSTEM.
- CC. INSTALL CONTROL WIRING IN MINIMUM 1/2" CONDUIT FOR ALL HVAC UNITS TO THERMOSTATS AND ROOFTOP UNITS, ETC. SEE MECHANICAL CONTROL AND MANUFACTURER'S DRAWINGS.
- DD. USE SEALTITE FLEXIBLE CONDUIT FOR EXTERIOR EQUIPMENT.

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		MOUNTING	REMARKS
			VOLT	QTY		
A	JUNO LIGHTING	T262L HEAD - BLACK	120	--	SURFACE	TRACK
B	PRESCOLITE	LC6SL-DM-6LCSL-18L-35-8-WH	120	--	RECESSED	CAN LIGHT
B1	PRESCOLITE	LC6SL-DM-6LCSL-10L-35-8-WHM	120	--	RECESSED	SHOWER LIGHT
C	PRESCOLITE	LCC6LED-CM-18L-35-8-WFL45 COLOR TBD	120	--	SURFACE	PENDANT
C1	ASHLEY LIGHTING UTTERMOST	73186R-DW5-5500 (OPTION #1) RONDURE #22038 (OPTION #2)	120	--	SURFACE	PENDANT
D	PRESCOLITE	LCC6LED-CM-18L-35-8-WFL45 COLOR TBD	120	--	SURFACE	PENDANT
F	POSSINI	T9731 (OPTION #1) 51766 (OPTION #2)	120	--	WALL	SCONCE - UNIT RESTROOM
F1	FEISS	K2500	120	--	WALL	SCONCE CORRIDOR
G	ALW	CMLS LED SERIES	120	--	CABLE MOUNT	WALL WASH
H	KLUS	K-40-12010-24V WITH DRIVER	120	--	WALL	MOUNTED ON COLUMN ADJACENT TO BRICK
J	COLUMBIA	LCL-4-35-WL-LED-0	120	--	SURFACE	4" STRIP
K	RAMES KICHLER	7K577 (OPTION #1) 8W038 (OPTION #2)	120	--	WALL	WALL SCONCE
L	KICHLER	8W038	120	--	WALL	WALL SCONCE
M	DUAL LITE	PL-HTR	120	--	WALL	WITH BATTERY
V	DUAL LITE	EV2	120	--	SURFACE	EMERGENCY LIGHT
X	SURE-LITES	EUX7-R	120	--	UNIVERSAL	EXIT SIGN WITH BATTERY

NOTE:  
1. EXIT SIGNS AND LIGHT FIXTURES WITH EMERGENCY BATTERIES ARE NOT SWITCHED.  
2. PROVIDE BODINE ELI SERIES MINI-INVERTER TO POWER MULTIPLE LIGHTS FROM ONE INVERTER.

GENERAL ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	MTG. HGT.
○	CEILING OUTLET, SURFACE FIXTURE	
⊙	CEILING OUTLET, RECESSED FIXTURE	
⊙	CEILING OUTLET, RECESSED FIXTURE w/BATTERY BACK UP	
⊙	BRACKET OUTLET	
⊙	RECESSED FLUORESCENT LIGHTING FIXTURE	
—	FLUORESCENT STRIP LIGHT FIXTURE	
□	AREA OR STREET LIGHTING FIXTURE	
⊗	EXIT LIGHT, ARROWS AS SHOWN, ON LIFE SAFETY CIRCUIT	
S	SINGLE POLE SWITCH	48" AFF
S3	THREE-WAY SWITCH	48" AFF
S0	DIMMER SWITCH - SLIDE TYPE, WATTAGE AS REQUIRED	48" AFF
⊕	DUPLEX GROUNDING RECEPTACLE	18" AFF
⊕	DUPLEX GROUNDING RECEPTACLE	ABC
⊕R	RANGE OUTLET	8" AFF
⊕W	WASHER DUPLEX RECEPTACLE	48" AFF
⊕D	DRYER OUTLET	48" AFF
⊕	DOUBLE DUPLEX GROUNDING RECEPTACLE	18" AFF
⊙	JUNCTION OR PULL BOX	
⊙	MOTOR, E.F. DENOTES EXHAUST FAN	
SM	MANUAL MOTOR STARTER OR RELAY CONTROL	
⊗	MAGNETIC MOTOR STARTER OR TERMINAL CONNECTION	
□	SAFETY SWITCH, WP INDICATES NEMA 3R, FUSED, U.O.N.	
—	LIGHTING OR POWER PANEL	
▨	MAIN OR SUB-DISTRIBUTION PANEL	
TC	TIME CLOCK - SEE SPECS	
C	CONTACTOR - SEE SPECS	
PE	PHOTO-ELECTRIC SWITCH - AIM NORTHEAST, SEE SPECS	
---	CONDUIT, CONCEALED IN CEILING OR WALL	
---	CONDUIT, CONCEALED IN SLAB OR BELOW FLOOR/GRADE	
----	CONDUIT, EXPOSED	
—○	CONDUIT, TURNING UP	
—●	CONDUIT, TURNING DOWN	
WP	WEATHERPROOF	
G	GROUND FAULT CURRENT INTERRUPTING	
AFF	ABOVE FINISHED FLOOR	
ABC	ABOVE COUNTER	
UC	UNDERCOUNTER	
UON	UNLESS OTHERWISE NOTED	
GC	GENERAL CONTRACTOR	
MC	MECHANICAL CONTRACTOR	
EC	ELECTRICAL CONTRACTOR	
EDF	ELECTRIC DRINKING FOUNTAIN	
EWH	ELECTRIC WALL HEATER	
W/H	WATER HEATER	
A.C.U.	AIR CONDITIONING UNIT	
C.U.	CONDENSING UNIT	
NIC	NOT IN CONTRACT	
N.T.S.	NOT TO SCALE	
FBO	FURNISHED BY OTHERS	
TTB	TELEPHONE TERMINAL BOARD	
TVSS	TRANSIENT VOLTAGE SURGE PROTECTOR	
⊙	MULTI USE OUTLET FOR VOICE, DATA, VIDEO (1" C. TO ABOVE CEILING)	18" AFF
⊙W	TELEPHONE OUTLET, WALL MOUNTED	48" AFF
⊙	MULTI USE OUTLET FOR VOICE, DATA, VIDEO ABOVE COUNTER (1" C. TO ABOVE CEILING)	ABC
⊙	TELEVISION OUTLET	18" AFF

FIRE ALARM SYSTEM LEGEND

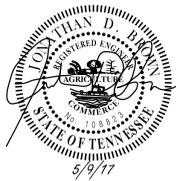
SYMBOL	DESCRIPTION	MTG. HGT.
□	FIRE ALARM MANUAL PULL STATION	
⊙	FIRE ALARM CEILING MOUNTED SMOKE DETECTOR	
⊗	FIRE ALARM FLASHING LIGHT/CHIME	
⊗	FIRE ALARM FLASHING LIGHT	



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