
# NEW FOURTH FLOOR PENTHOUSE

## SPRINGER'S JEWELERS BUILDING
## 580 CONGRESS STREET
## PORTLAND, MAINE 04101

RELEASED FOR CONSTRUCTION - JUNE 30, 2018

architect: brian e. duffy associates

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### ABBREVIATIONS

| | |
|---|---|
| **CL** | CENTERLINE |
| **EQ** | EQUAL |
| **EXT** | EXTERIOR |
| **GWB** | GYPSUM WALLBOARD |
| **HMF** | HOLLOW METAL FRAME |
| **IBC** | INTERNATIONAL BUILDING CODE |
| **LVL** | LAMINATED VENEER LUMBER |
| **MAX** | MAXIMUM |
| **MDO** | MEDIUM DENSITY OVERLAY |
| **MIN** | MINIMUM |
| **NIC** | NOT IN CONTRACT |
| **PT** | PRESSURE TREATED |
| **R** | RISER |
| **RO** | ROUGH OPENING |
| **ROHH** | ROUGH OPENING HEAD HEIGHT |
| **SF** | SQUARE FEET |
| **SIM** | SIMILAR |
| **T** | TREAD |
| **UNO** | UNLESS NOTED OTHERWISE |
| **VIF** | VERIFY IN FIELD |

### GENERAL NOTES:

1. DRAWING NOTES: Unless indicated or obvious otherwise, all drawing notes refer to new construction, to be included in contract. Existing construction is to remain unless indicated otherwise.
2. LAYOUT DIMENSIONS: Floor plan dimensions are to face of new framing, to finish face of existing construction, to centerlines of structural steel, and to centerlines or rough openings of doors & windows, unless indicated otherwise. Field verify existing dimensions prior to fabrication and/or construction. Hold dimensions not indicated with " +/- ".
3. DIMENSIONAL LUMBER SIZES: Dimensions without inch marks are nominal, and dimensions with inch marks (") are actual, as follows:
   1 x 6 = Nominal Dimensions
   3/4" x 5 1/2" = Actual Dimensions
4. CODE COMPLIANCE: All work shall conform to the latest editions of all Federal, State, and Local codes and regulations that apply to this project.
5. COORDINATION: It is the responsibility of the builder to coordinate all disciplines and trades so that all building systems and components are assembled without conflict.
6. BUILDING ENVELOPE: Provide complete building envelope assemblies, including at opening & mechanical penetrations, that include properly installed flashing, joint sealants, water-resistive barriers (WRB), air infiltration barriers, attic & roof vents, ventilation baffles, thermal insulation, and vapor retarders as appropriate for each type of assembly.
7. BUILDING INSULATION: Provide as indicated, whether or not shown consistently in details or other drawings. For clarity, insulation may not be shown in some cases, even if it is to be provided.
8. CENTERING: Center building elements within applicable or between adjacent building elements when conditions or the drawings indicate or imply that such is the intent, unless dimensions show otherwise.
9. SYMMETRY: Where conditions or the drawings indicate or imply that symmetry is intended, information provided at one side applies equally to both sides.
10. FRAMING: See Structural Drawings for sizing, spacing, fastening & connection details for all framing members, including but not limited to joists, studs, beams and rafters.
11. DRAWING SCALES: Do not scale from drawings. Build from given dimensions only, as some drawings and/or portions of drawings may not be to scale (regardless of their indicated scale).

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REGISTERED ARCHITECT
BRIAN E. DUFFY
No.1524
STATE OF MAINE

NEW FOURTH FLOOR PENTHOUSE
580 CONGRESS STREET
PORTLAND, MAINE 04101

date: JUNE 30, 2018
drawn by: WJT
scale: AS NOTED
sheet title: COVER SHEET
sheet: 188

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|---|---|
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# PROJECT CODE ANALYSIS

**PROJECT SYNOPSIS:**
Conversion of the fourth floor of an existing, historic building with a basement plus four stories from an S-1 Occupancy to a single-dwelling-unit R-3 Occupancy, including a small fifth floor addition generally in the middle of the existing roof's footprint. The building's lower floors are an M Occupancy. The building shares continuous masonry party walls with existing buildings on both sides. Full NFPA 13 sprinkler system entire building.

**2009 INTERNATIONAL BUILDING CODE (IBC)**

| SECTION | DESCRIPTION |
|---|---|
| | USE and OCCUPANCY CLASSIFICATION |
| 309.1 | • Existing Basement, 1st, 2nd and 3rd Floors: Mercantile Group M |
| 311.2 | • 4th Floor (previous Classification): Moderate-hazard storage, Group S-1 |
| 310.1 | • 4th and 5th Floors (new Classifcation): Residential Group R-3 |
| | CHANGE of OCCUPANCY CLASSIFICATION |
| 3409.1 | • Provisions of code relating to change of occupancy not mandatory for Historic Buildings if building official judges that there is no distinct life safety hazard |
| | SEPARATION of OCCUPANCIES |
| Table 508.4 | • Armstrong Class A supsended ceiling at floor assembly between M and R-3 occupancies (at floor assembly between 3rd and 4th Floors) = 1-hour required separation (with sprinkler) |
| | CONSTRUCTION TYPE |
| Table 601 | • Type III B |
| | BUILDING HEIGHT and AREA |
| 504.2 | • Building heights listed below increased (1) story and 20 feet (sprinkler system increase) |
| Table 503 | • Type III B height: 64' +/- < 75 feet allowed |
| | • M: 1st, 2nd & 3rd Floors = (3) stories allowed above grade plane |
| | • M: Building area for each of Basement through 3rd Floors = 2,074 SF; 2,074 < 12,500 SF allowed |
| | • R-3: 5th Floor = (5) stories allowed |
| | • R-3: Unlimited area allowed |
| Table 706.4 | • Per "Bulding Materials and Structures Report 143: Fire Tests of Brick Walls," published by the National Bureau of Standards, United States Department of Commerce, 12" solid brick party walls meet & exceed 3-hour fire-resistance rating required for fire walls |
| Table 1004.1.1 | OCCUPANT LOAD |
| | • Dwelling unit gross floor area: 1,722 (4th Floor) + 187 (5th Floor) = 1,909 SF; 1,909 ÷ 200 = 10 occupants |
| | COMMON PATH OF EGRESS TRAVEL |
| 1014.3 | • 75 feet maximum (see Plans) |
| | EXIT ACCESS TRAVEL DISTANCE |
| Table 1016.1 | • 250 feet maximum with sprinkler system (see Plans) |
| | EXIT ENCLOSURE |
| 1022.1 | • Existing 2-hour Stair Tower = 2-hour requirement for (4) stories |
| | FIRE ESCAPE |
| 3406.1.2 | • Existing fire escape allowed as means of egress |

**2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)**

| SECTION | DESCRIPTION |
|---|---|
| | CODE APPLICABILITY |
| 101.4.2 | • IECC not applicable (historic building exemption) |

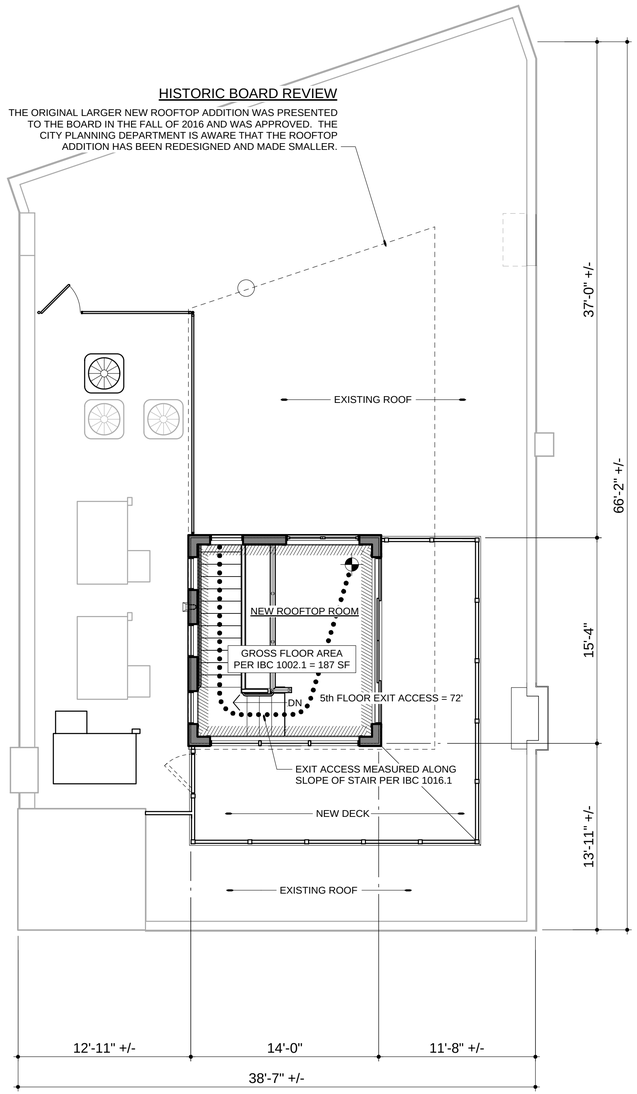
**FIRE ALARM SYSTEM**
DESIGNED and PERMITTED by:
R.B. Allen Company, Inc
131 Lafayette Road
North Hampton, NH 03862

KEY

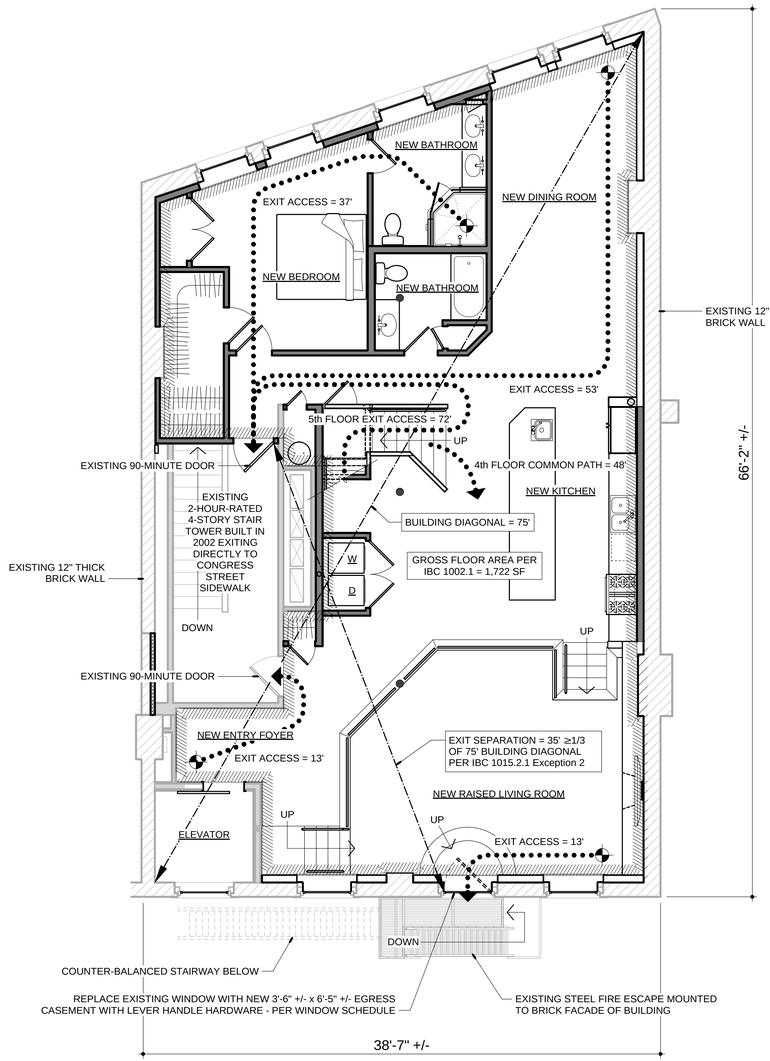
GROSS FLOOR AREA

EXIT ACCESS TRAVEL PATH

EXIT ACCESS = 25' EXIT ACCESS TRAVEL DISTANCE




1 ROOFTOP ROOM PLAN (5th FLOOR)
3/16" = 1'-0"




2 PENTHOUSE PLAN (4th FLOOR)
3/16" = 1'-0"

Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
09/12/2018

PROJECT NORTH
North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BRIAN E. DUFFY No.1524 REGISTERED ARCHITECT STATE OF MAINE

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sheet title: LIFE SAFETY & BUILDING CODE ANALYSIS
sheet: A-100

188

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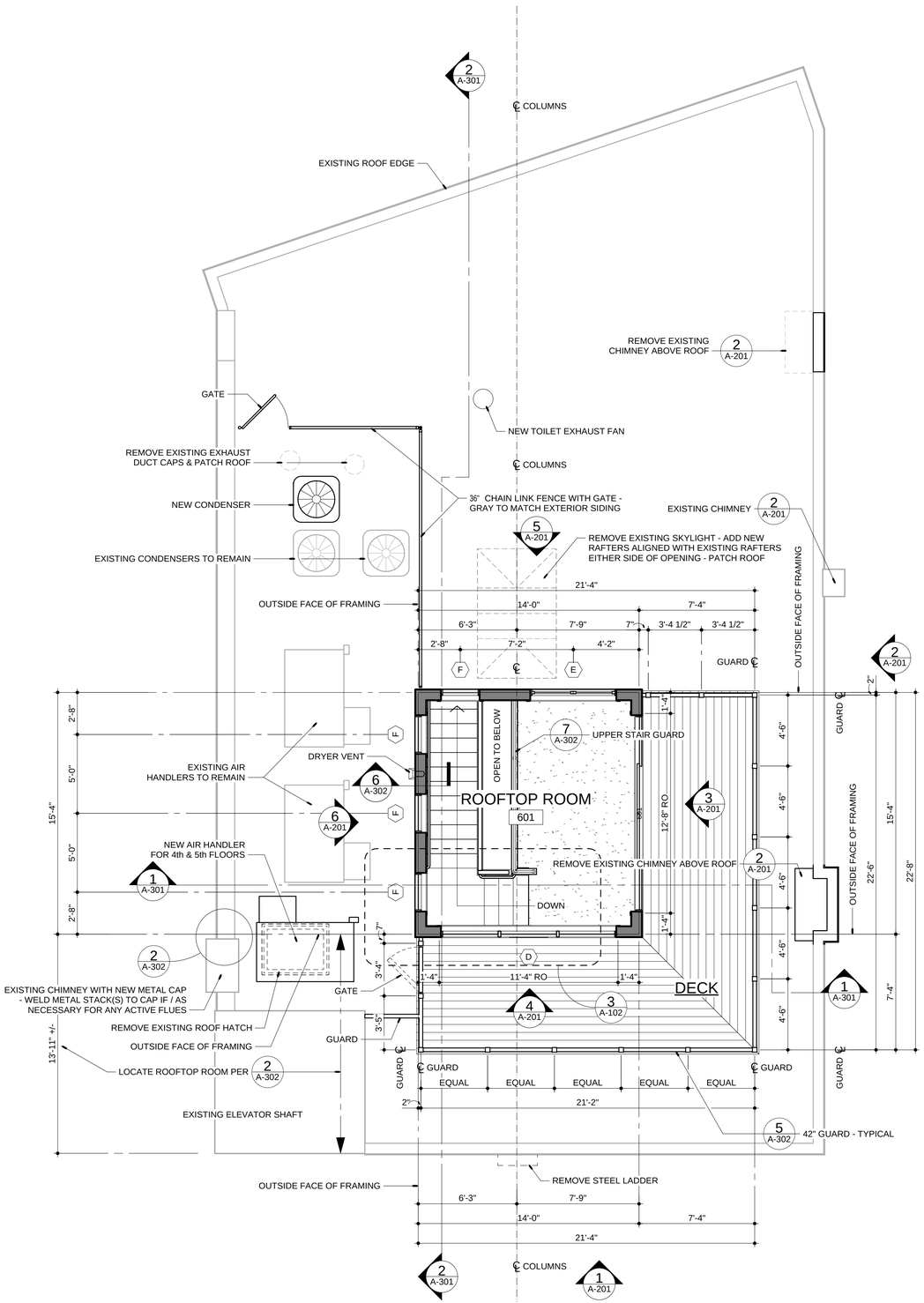
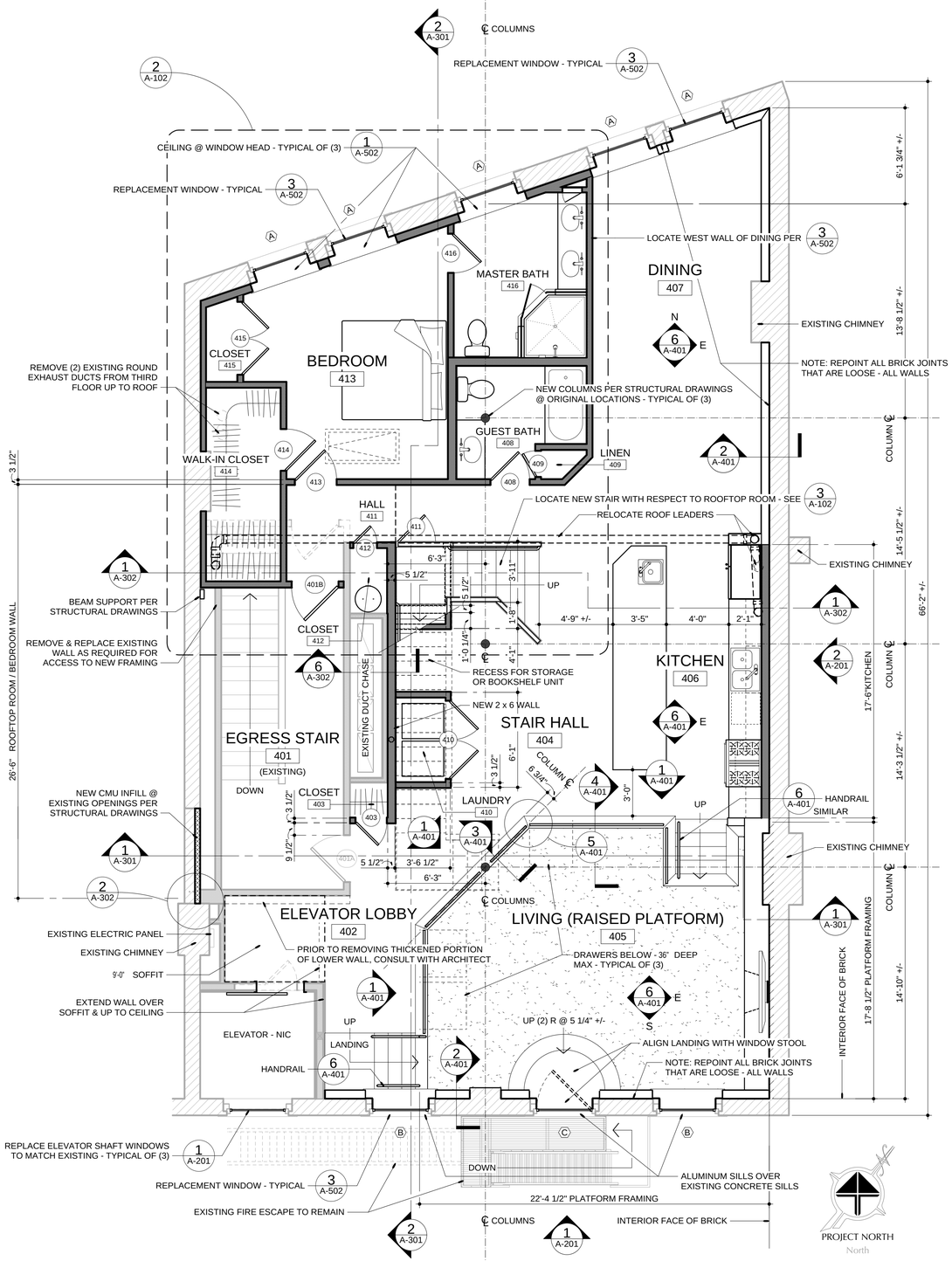



1 ROOFTOP ROOM PLAN (5th FLOOR)
1/4" = 1'-0"




2 PENTHOUSE PLAN (4th FLOOR)
1/4" = 1'-0"

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sheet: A-101

186

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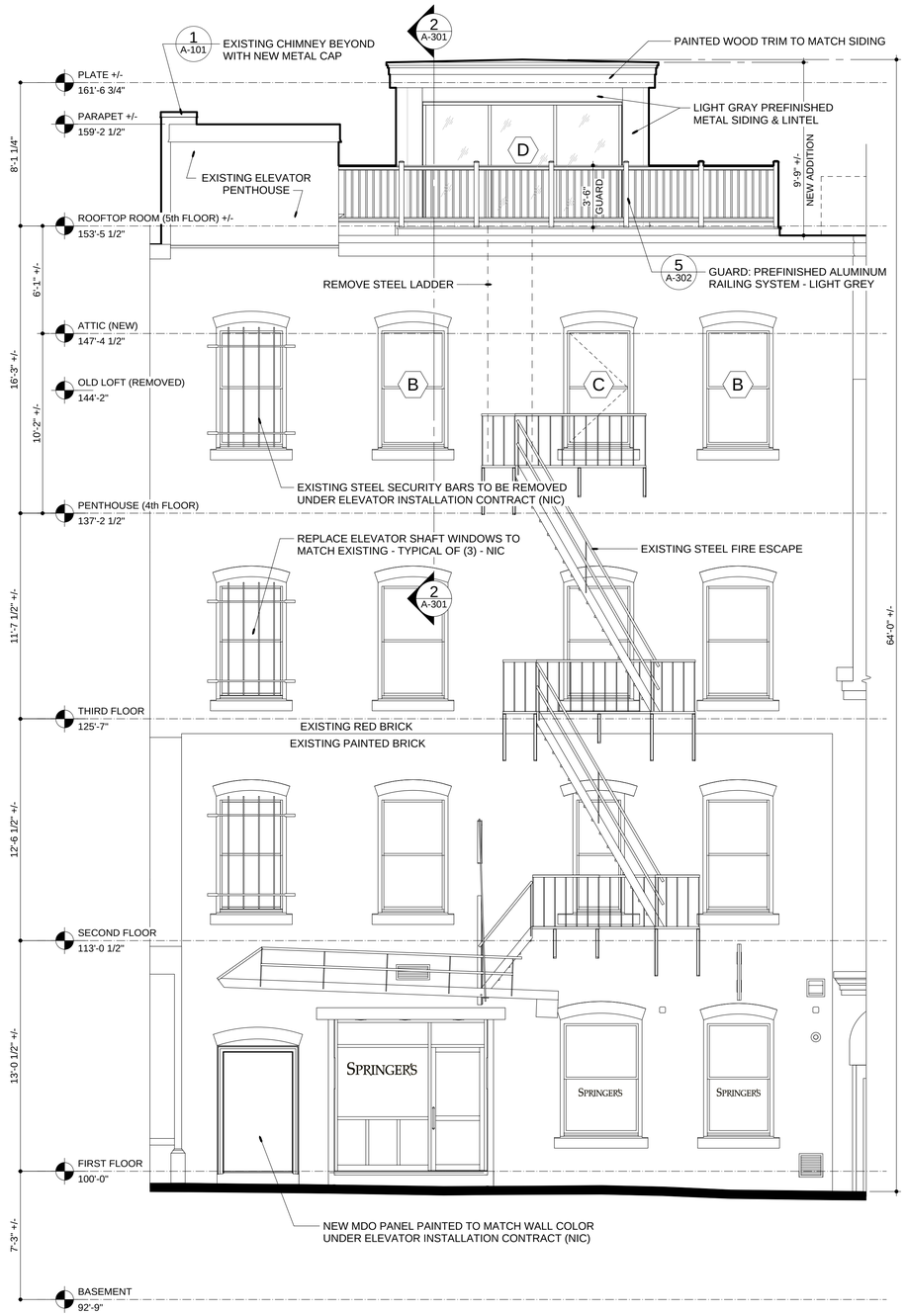
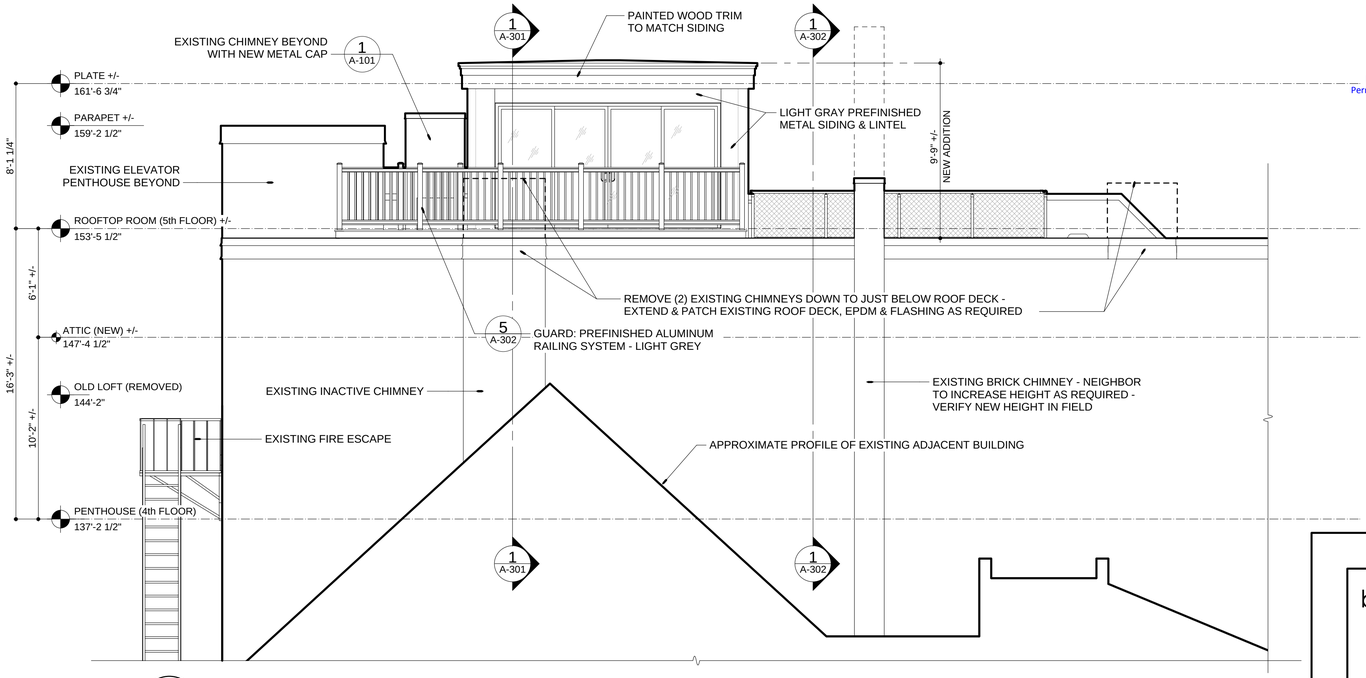


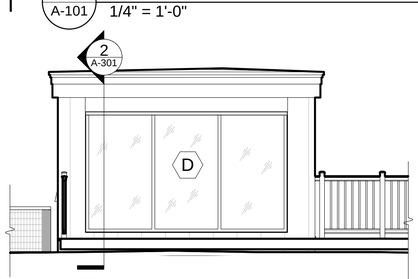

1 A-101 BUILDING SOUTH ELEVATION (FREE STREET FACADE)
1/4" = 1'-0"



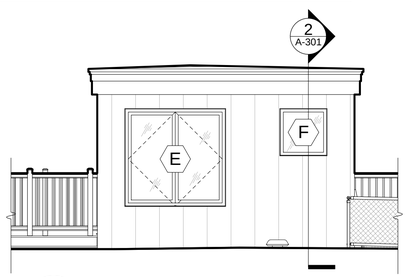

2 A-101 BUILDING EAST ELEVATION
1/4" = 1'-0"




3 A-101 EAST ELEVATION
1/4" = 1'-0"




4 A-101 SOUTH ELEVATION
1/4" = 1'-0"




5 A-101 NORTH ELEVATION
1/4" = 1'-0"




6 A-101 WEST ELEVATION
1/4" = 1'-0"

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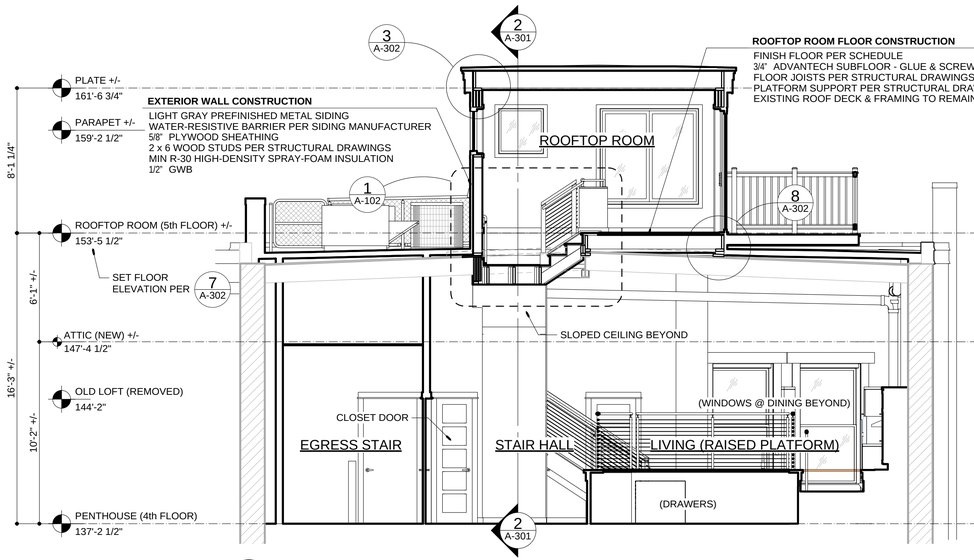
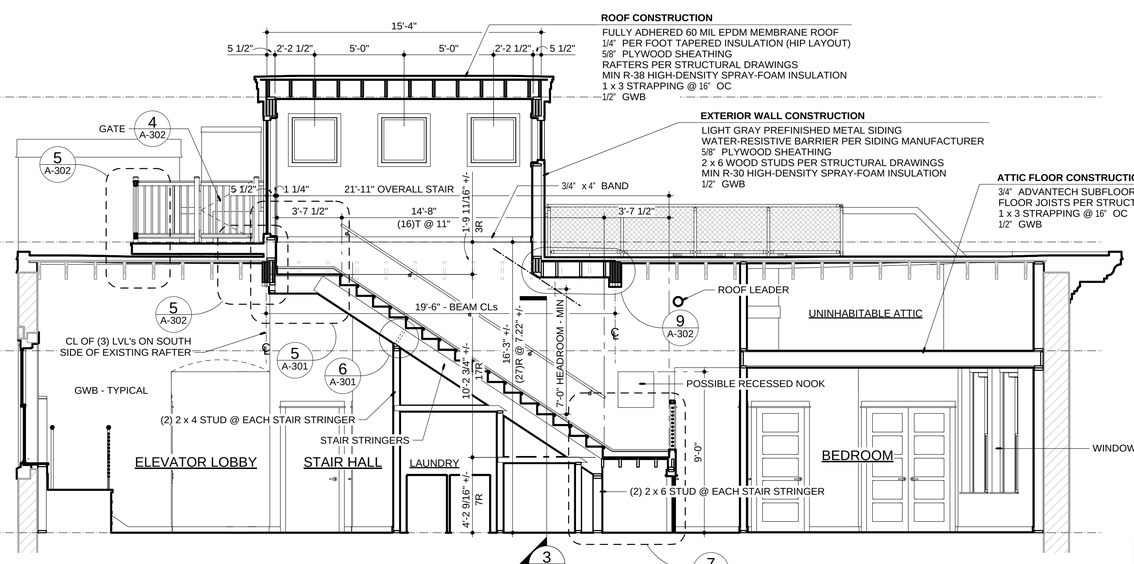



1 A-101 CROSS SECTION @ UPPER STAIR
1/4" = 1'-0"




2 A-101 LONGITUDINAL SECTION @ STAIR
1/4" = 1'-0"



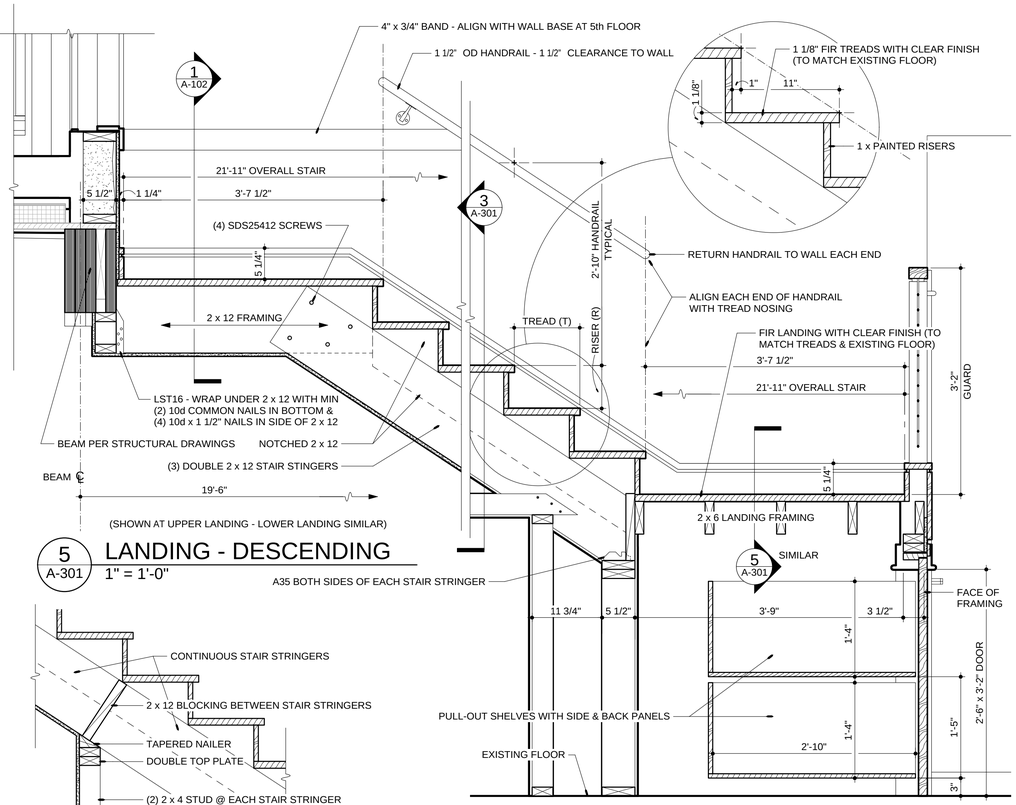

3 A-301 STAIR SECTION DETAIL
1" = 1'-0"




4 A-102 GUARD & CROSS SECTION @ LOWER STAIR
1" = 1'-0"




6 A-301 STRINGER SUPPORT
1" = 1'-0"




5 A-301 LANDING - DESCENDING
1" = 1'-0"

7 A-301 LOWER LANDING
1" = 1'-0"

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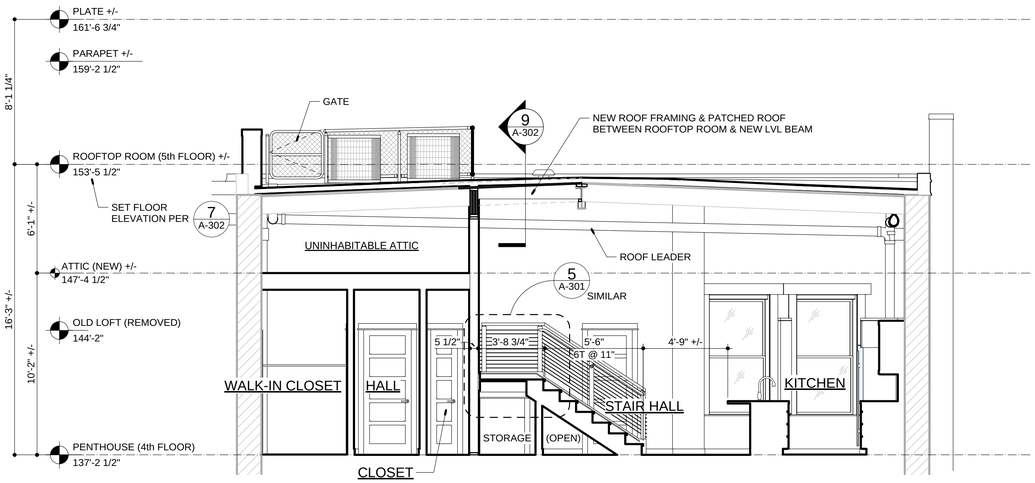
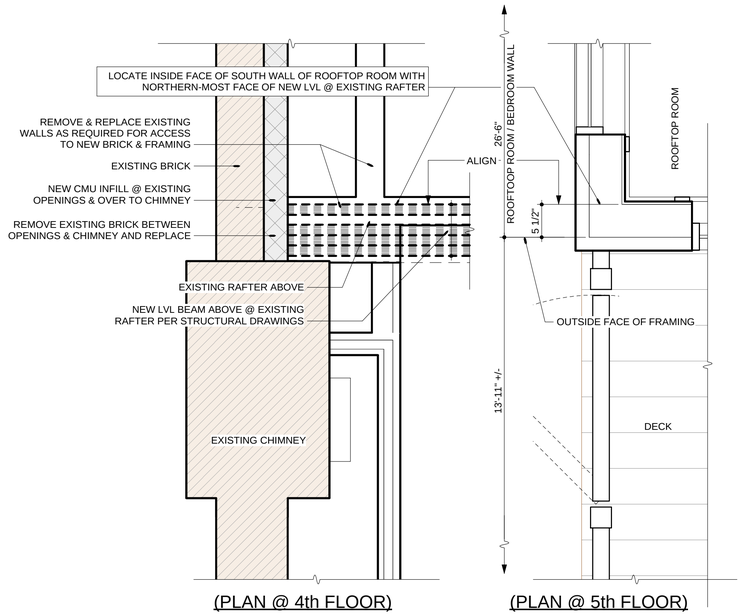



1 A-101 CROSS SECTION @ LOWER STAIR
1/4" = 1'-0"




2 A-101 ROOFTOP ROOM LOCATION
1" = 1'-0"

## ABBREVIATIONS

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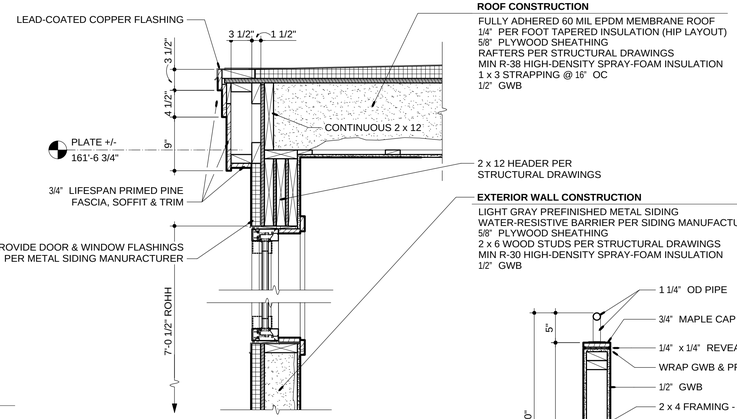
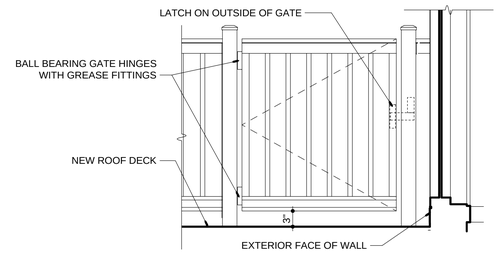
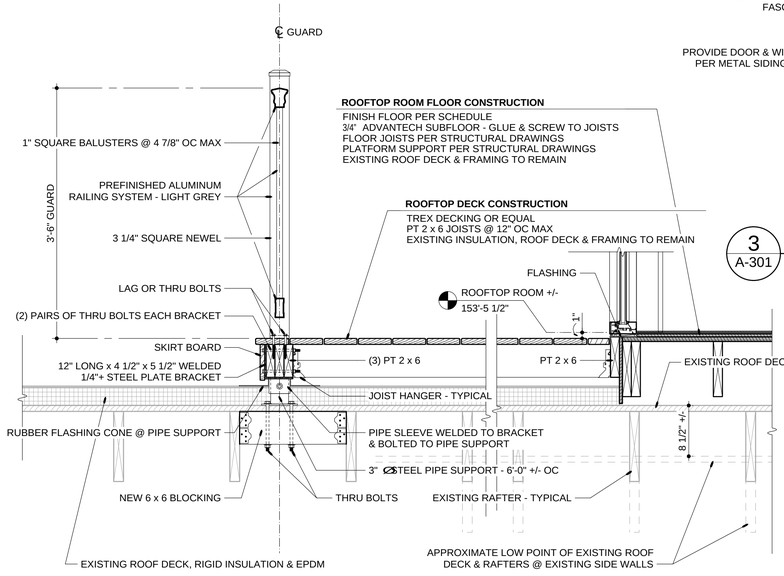


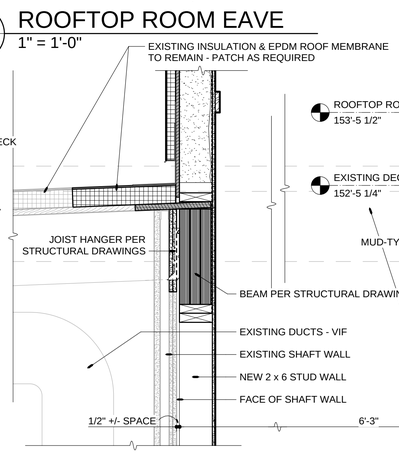

3 A-301 ROOFTOP ROOM EAVE
1" = 1'-0"



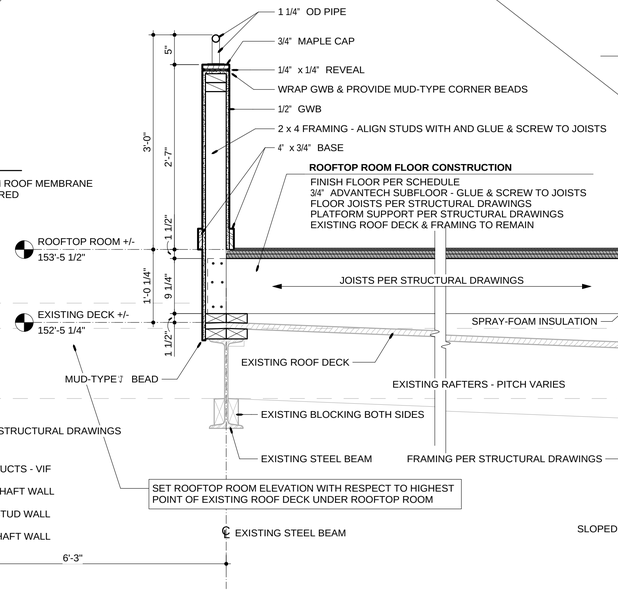

4 A-201 ROOFTOP DECK GATE
3/4" = 1'-0"



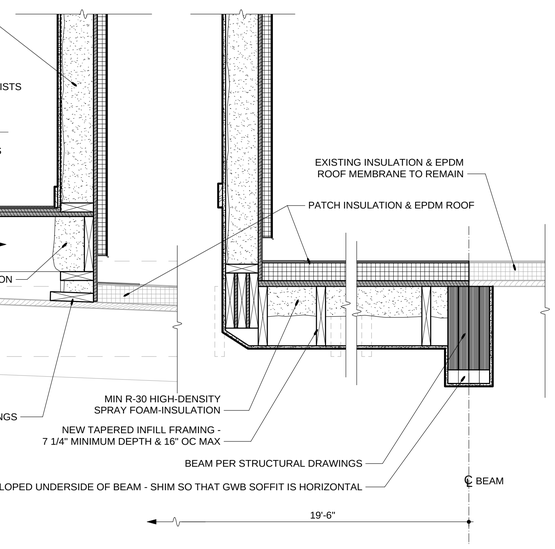

5 A-301 DECK @ ROOFTOP ROOM
1" = 1'-0"




6 A-101 WALL BASE @ STAIR
1" = 1'-0"




7 A-101 UPPER STAIR GUARD
1" = 1'-0"




8 A-301 WALL BASE
1" = 1'-0"

9 A-301 INFILL ROOF ABOVE STAIR
1" = 1'-0"

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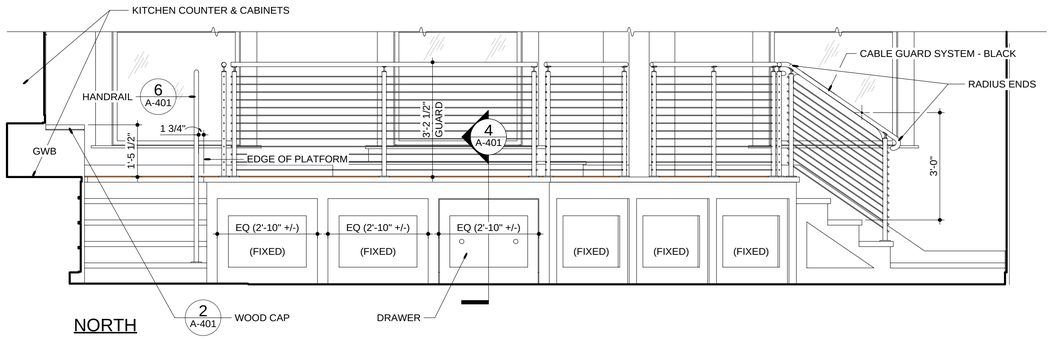
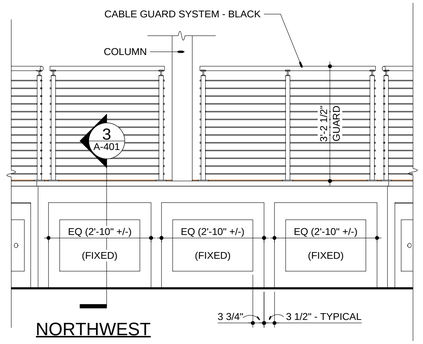
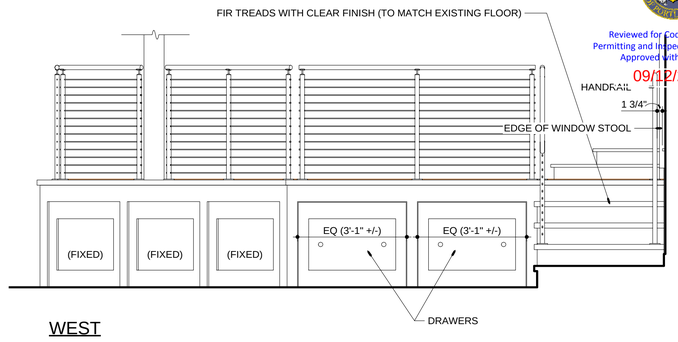



NORTH




NORTHWEST




WEST

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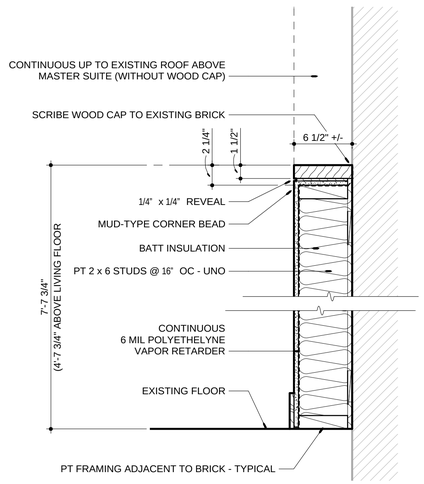
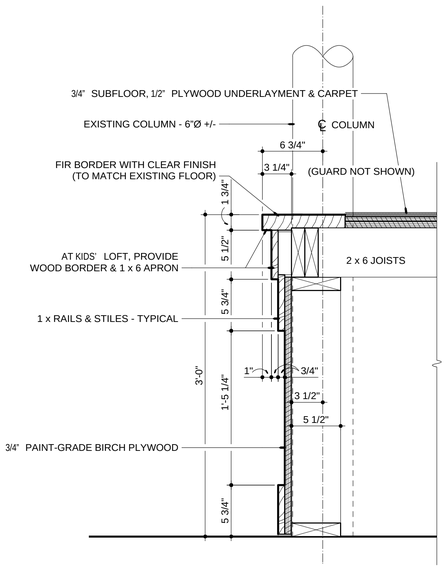
09/12/2018

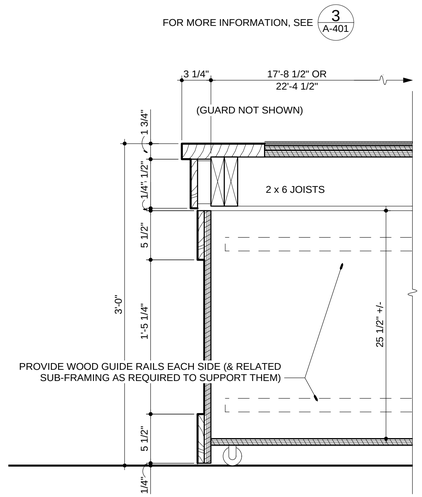
## 1 A-101 LIVING (RAISED PLATFORM) INTERIORS
1/2" = 1'-0"



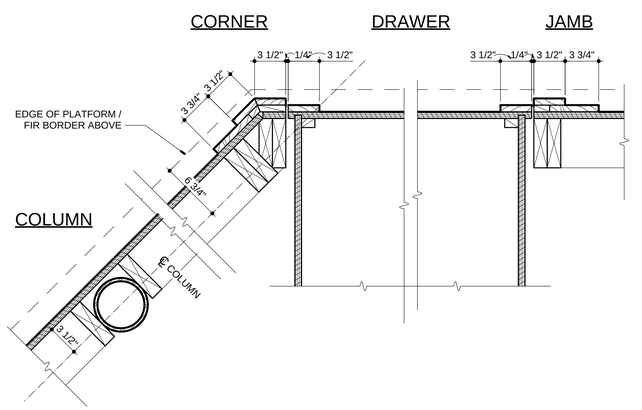

## 2 A-401 WAINSCOT DETAILS
1 1/2" = 1'-0"



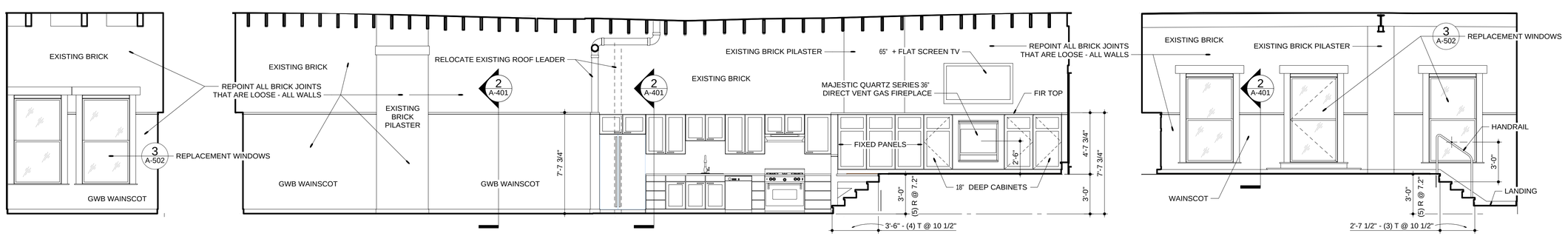

## 3 A-101 PLATFORM EDGE
1 1/2" = 1'-0"




## 4 A-101 PLATFORM DRAWER
1 1/2" = 1'-0"




## 5 A-101 PLATFORM PLAN DETAILS
1 1/2" = 1'-0"




## 6 A-101 DINING / KITCHEN / LIVING INTERIORS
1/4" = 1'-0"

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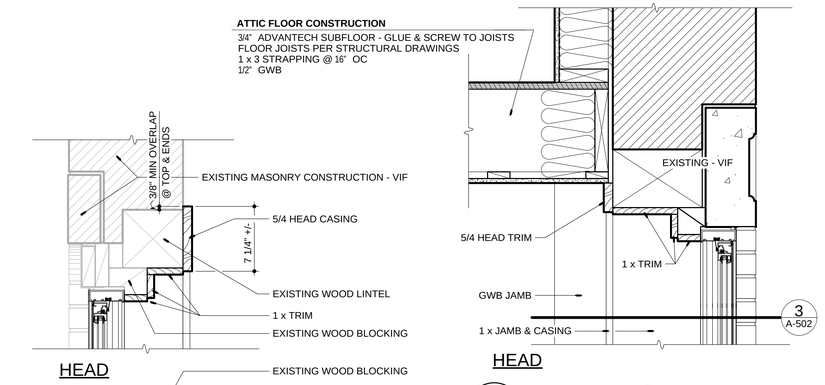
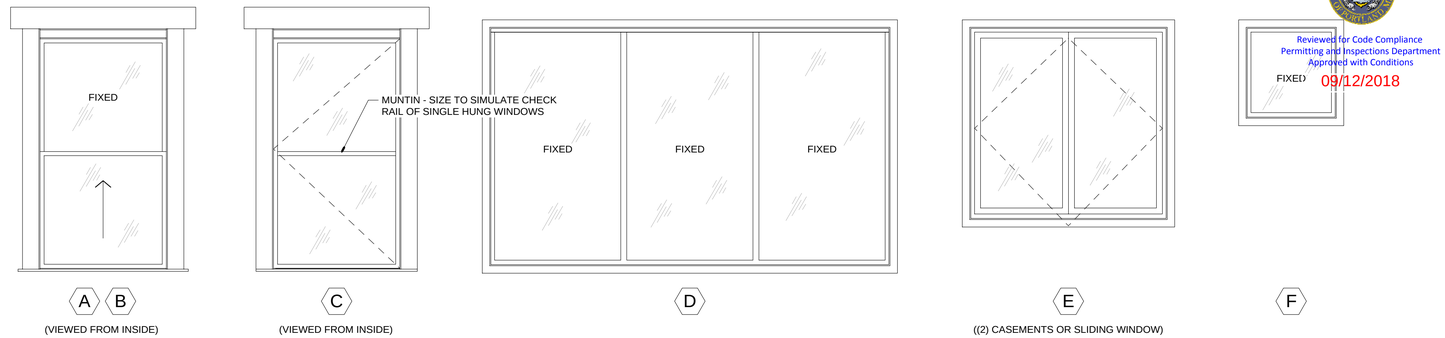
580 CONGRESS STREET
PORTLAND, MAINE 04101

date: JUNE 30, 2018
drawn by: WJT
scale: AS NOTED
sheet title: INTERIORS & DETAILS
sheet: A-401



RELEASED FOR CONSTRUCTION JUNE 30, 2018



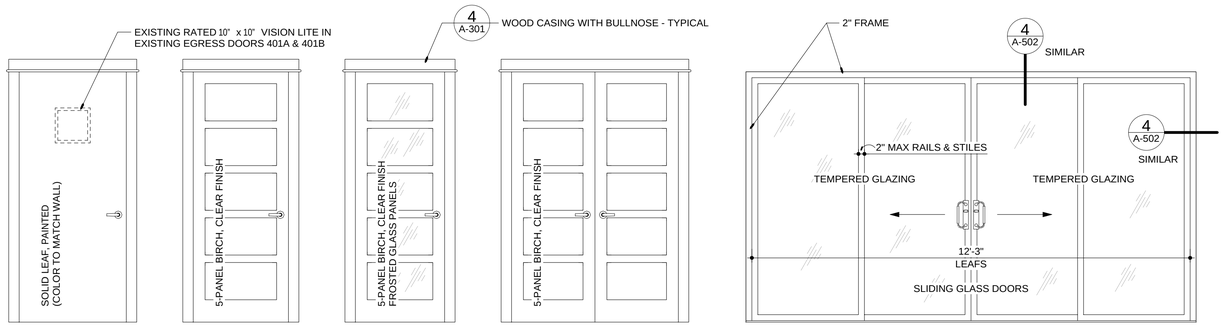




Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
09/12/2018

## WINDOW SCHEDULE

| MARK | COUNT | WINDOW SIZE | | | OPERATION | MATERIAL | GLAZING | REPLACEMENT | EGRESS | MARK | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WIDTH | HEIGHT | MEASUREMENT | | | | | | | |
| A | 6 | 3'6 3/8" | 6'5" | OPENING | SINGLE HUNG | ALUMINUM | LOW-E | REPLACEMENT | | A | OPENING CONTROL DEVICE |
| B | 3 | 3'6 3/8" | 6'5" | OPENING | SINGLE HUNG | ALUMINUM | TEMPERED; LOW-E | REPLACEMENT | | B | OPENING CONTROL DEVICE |
| C | 2 | 3'6 3/8" | 6'5" | OPENING | CASEMENT | ALUMINUM | TEMPERED; LOW-E | REPLACEMENT | EGRESS | C | PROVIDE LEVER HANDLE HARDWARE |
| D | 1 | 11'4" | 6'7 1/2" | RO | FIXED | ALUMINUM | TEMPERED; TINT; LOW-E | | | D | |
| E | 1 | 5'8" | 5'6" | RO | CASEMENT | ALUMINUM | TINT; LOW-E | | | E | |
| F | 4 | 2'8" | 2'8" | RO | FIXED | ALUMINUM | TINT; LOW-E | | | F | |

**ALUMINUM:** CLEAR ANODIZED ALUMINUM WITH THERMALLY-BROKEN FRAME & SASH COMPONENTS
**EGRESS:** EGRESS WINDOW AT FIRE ESCAPE
**LOW-E:** LOW EMISSIVITY INSULATED GLAZING
**OPENING:** WINDOW SIZE IS APPROXIMATE OPENING / SASH SIZE, MEASURED TO FACE OF JAMBS, TOP OF STOOL, & FINISHED HEAD
**OPENING CONTROL DEVICE:** PROVIDE OPENING CONTROL DEVICE LIMITED TO 4" NET CLEAR OPENING WITH TWO-STEP RELEASE TO FULLY OPEN WINDOW
**REPLACEMENT:** REPLACEMENT WINDOWS TO MATCH EXISTING SIZES, LITES, SIGHT LINES & COLORS (SIZES INDICATED ARE APPROXIMATE; VIF)
**RO:** WINDOW SIZE IS ROUGH OPENING MEASUREMENTS
**TEMPERED:** TEMPERED GLAZING
**TINT:** TINTED GLAZING - COLOR PER ARCHITECT




## ROOM FINISH SCHEDULE

| ROOM NO. | ROOM NAME | FLOOR | | WALLS | | | | CEILING | ROOM NO. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | MATERIAL | BASE | NORTH | EAST | SOUTH | WEST | | | |
| 401 | EGRESS STAIR | EXISTING | | PATCH & PAINT | PATCH & PAINT | PATCH & PAINT | PATCH & PAINT | PATCH & PAINT | 401 | |
| 402 | ELEVATOR LOBBY | WOOD | 4" | GWB | NA | GWB | GWB | EXPOSED | 402 | |
| 403 | CLOSET | WOOD | 4" | GWB | GWB | GWB | GWB | GWB | 403 | |
| 404 | STAIR HALL | WOOD | 4" | GWB | NA | NA | GWB | EXPOSED | 404 | |
| 405 | LIVING (RAISED PLAT | CARPET | 4" | NA | BRICK/CSWK | BRICK/GWB | NA | EXPOSED | 405 | |
| 406 | KITCHEN | TILE | | NA | BRICK/CSWK | NA | NA | EXPOSED | 406 | |
| 407 | DINING | WOOD | 4" | BRICK/GWB | BRICK/GWB | NA | GWB | EXPOSED | 407 | |
| 408 | GUEST BATH | TILE | TILE | GWB | GWB | GWB | GWB | GWB | 408 | |
| 409 | LINEN | TILE | TILE | GWB | GWB | GWB | GWB | GWB | 409 | |
| 410 | LAUNDRY | TILE | TILE | GWB | GWB | GWB | GWB | GWB | 410 | |
| 411 | HALL | WOOD | 4" | GWB | GWB | GWB | GWB | GWB | 411 | |
| 412 | CLOSET | WOOD | 4" | GWB | GWB | GWB | GWB | GWB | 412 | |
| 413 | BEDROOM | CARPET | 4" | GWB | GWB | GWB | GWB | GWB | 413 | |
| 414 | WALK-IN CLOSET | CARPET | 4" | GWB | GWB | GWB | GWB | GWB | 414 | |
| 415 | CLOSET | CARPET | 4" | GWB | GWB | GWB | GWB | GWB | 415 | |
| 416 | MASTER BATH | TILE | TILE | GWB | GWB | GWB | GWB | GWB | 416 | |
| 601 | ROOFTOP ROOM | CARPET | 4" | GWB | GWB | GWB | GWB | GWB | 601 | |

**4":** 1/2" x 4" WOOD BASE - EXTEND AROUND STAIR OPENING
**BRICK:** ALL EXISTING BRICK WALLS ON FOURTH FLOOR ARE TO BE REPOINTED WITH COLOR MATCHING MORTAR. CLEAN ALL BRICK AND APPLY A COAT OF CLEAR SEALER. SEAL TEST PATCH AREA FOR OWNER'S APPROVAL BEFORE COMPLETING THE ENTIRE FOURTH FLOOR AREA.
**CARPET:** CARPET ON 1/2" PLYWOOD SUBSTRATE; WOOD BORDER AT LIVING & KID'S LOFT
**CSWK:** CASEWORK
**EXPOSED:** CLEAN, PATCH, SAND & PAINT EXISTING ROOF RAFTERS, UNDERSIDE OF DECK, & RELATED BLOCKING
**GWB:** 1/2" GYPSUM WALLBOARD; 5/8" FIRE RESISTANT AT WALLS ENCLOSING EGRESS STAIR & ELEVATOR SHAFT
**PATCH & PAINT:** PATCH & REPAINT EXISTING GWB WALLS; PRESERVE RATED CONSTRUCTION
**PLYWOOD:** CLEAR-FINISHED 3/4" T&G SUBFLOOR - GLUE & SCREW TO JOISTS
**WOOD:** PATCH, SAND & REFINISH EXISTING WOOD FLOOR WITH CLEAR FINISH

## Door Schedule

| DOOR NO. | LOCATION | DOORS | | | | | FRAMES | | LABEL | DOOR NO. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WIDTH | HEIGHT | THICKNESS | TYPE | MATERIAL | MATERIAL | WALL | | | |
| 401A | EGRESS STAIR - SOUTH | 3'0" | 7'0" | 1 3/4" | A | EXISTING | HMF / WOOD | 4 3/4" | 90 MIN | 401A | REPAINT; PRESERVE RATING |
| 401B | EGRESS STAIR - NORTH | 3'0" | 7'0" | 1 3/4" | A | EXISTING | HMF / WOOD | 4 3/4" | 90 MIN | 401B | RELOCATE DOOR & FRAME; REPAINT; PRESERVE RATING |
| 403 | CLOSET | 2'0" | 7'0" | 1 3/8" | B | WOOD | WOOD CASING | 4 1/2" | | 403 | |
| 408 | TOILET | 2'6" | 7'0" | 1 3/8" | B | WOOD | WOOD CASING | 4 1/2" | | 408 | |
| 409 | CLOSET | 1'8" | 7'0" | 1 3/8" | B | WOOD | WOOD CASING | 4 1/2" | | 409 | |
| 410 | LAUNDRY | 5'0" | 6'6" | 1 3/8" | B | WOOD | WOOD CASING | 4" | | 410 | |
| 411 | UNDER-STAIR STORAGE | 2'6" | 3'2" | 1 3/8" | A | WOOD | WOOD CASING | 4 1/2" | | 411 | |
| 412 | CLOSET | 1'6" | 7'0" | 1 3/8" | B | WOOD | WOOD CASING | 4 1/2" | | 412 | |
| 413 | BEDROOM | 2'8" | 7'0" | 1 3/8" | B | WOOD | WOOD CASING | 4 1/2" | | 413 | |
| 414 | WALK-IN CLOSET | 2'8" | 7'0" | 1 3/8" | B | WOOD | WOOD CASING | 4 1/2" | | 414 | |
| 415 | CLOSET | 4'8" | 7'0" | 1 3/8" | D | WOOD | WOOD CASING | 4 1/2" | | 415 | |
| 416 | MASTER BATH | 2'6" | 7'0" | 1 3/8" | C | WOOD/GLASS | WOOD CASING | 4 1/2" | | 416 | |
| 601 | ROOFTOP ROOM | 12'3" | 6'10" | 1 3/4" | E | ALUMINUM | ALUMINUM | 3 1/2" | | 601 | NOTE 1; TEMPERED, INSULATED, LOW-E GLAZING |

**NOTE 1:** RO = 12'-8" x 7'-0 1/2" (12'-3" DOOR LEAFS + (2)2" FRAMES + (2)1/2" SHIMS = 12'-8" RO WIDTH x 6'-10" LEAF HEIGHT + 2" FRAME + 1/2" SHIM = 7'-0 1/2" RO HEIGHT)
**ALUMINUM:** CLEAR ANODIZED ALUMINUM WITH THERMALLY-BROKEN FRAME & DOOR COMPONENTS
**HMF / WOOD:** PROVIDE NEW WOOD CASING OVER EXISTING HMF - CASING PER DETAIL 4 on A-301
**WOOD CASING:** WOOD FRAME WITH WOOD CASING PER DETAIL 4 on A-301
**WALL:** WALL THICKNESS / HOLLOW METAL FRAME THROAT DIMENSION

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REGISTERED ARCHITECT
BRIAN E. DUFFY
No.1524
STATE OF MAINE

NEW FOURTH FLOOR PENTHOUSE
580 CONGRESS STREET
PORTLAND, MAINE 04101

date: JUNE 30, 2018
drawn by: WJT
scale: AS NOTED
sheet title: DOORS, WINDOWS, & FINISHES
sheet: A-502



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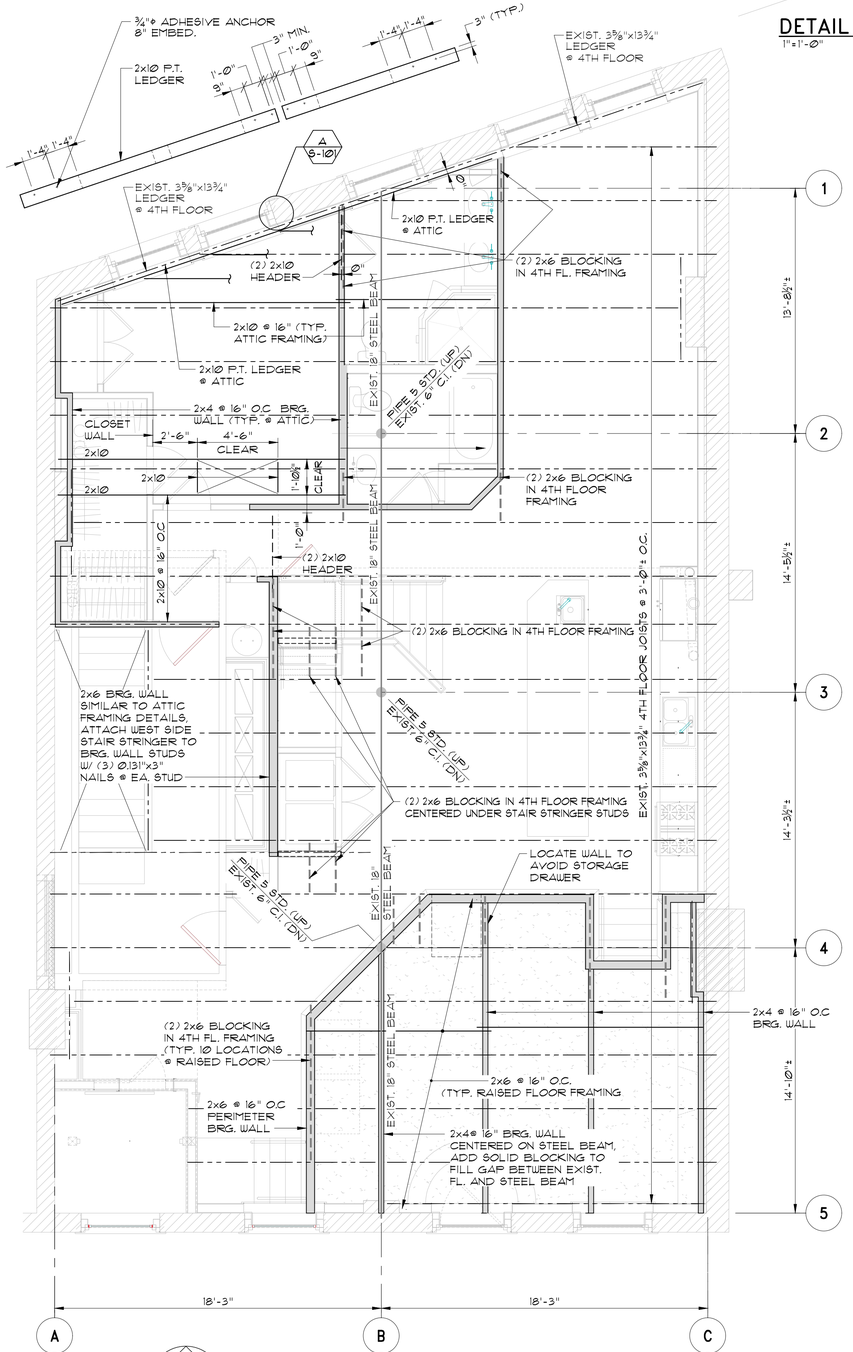
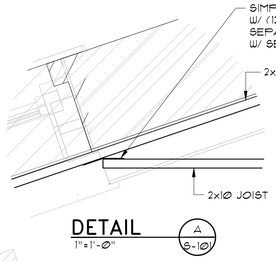



## RAISED FLOOR & ATTIC FLOOR FRAMING PLAN

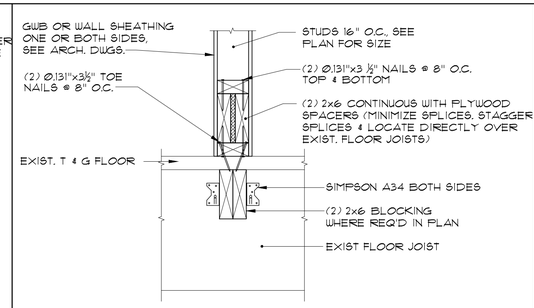
¼"=1'-Ø"




## DETAIL

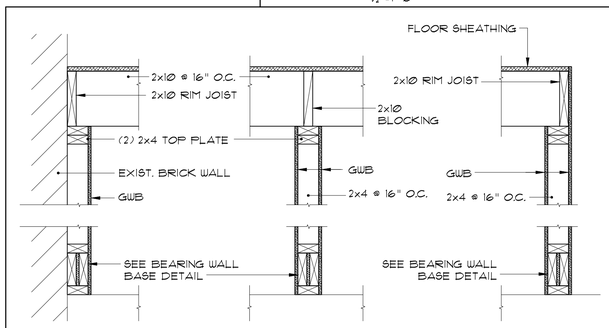
1"=1'-Ø"

A S-101



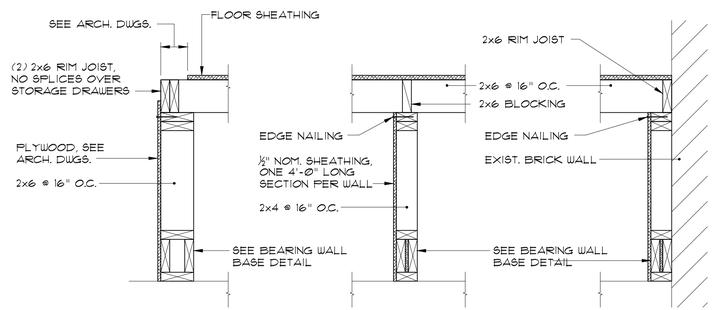

## RAISED FLOOR BEARING WALL BASE DETAIL

1½"=1'-Ø"




## ATTIC FRAMING DETAILS

1"=1'-Ø"




## RAISED FLOOR FRAMING DETAILS

1"=1'-Ø"

**GENERAL STRUCTURAL NOTES:**

1. DESIGN CODE: 2009 INTERNATIONAL BUILDING CODE.

2. ROOF DESIGN LOADS:
   GROUND SNOW LOAD: 60 PSF
   ROOF SNOW LOAD: 42 PSF WITH DRIFTING WHERE APPLICABLE.
   SNOW EXPOSURE FACTOR $C_e$ = 1.0
   SNOW IMPORTANCE FACTOR I = 1.0
   ROOF THERMAL FACTOR $C_t$ = 1.0

3. WIND LOADS:
   BASIC WIND SPEED: 100 MPH
   WIND LOAD IMPORTANCE FACTOR: 1.0
   OCCUPANCY CATEGORY: 2
   EXPOSURE B
   MAIN WIND FORCE RESISTING SYSTEM WIND LOADS: ASCE 7-05, METHOD 1, $\lambda$ = 1.22
   COMPONENT AND CLADDING WIND LOADS: ASCE 7-05, METHOD 1, $\lambda$ = 1.22

4. SEISMIC LOADS:
   SEISMIC IMPORTANCE FACTOR: 1.0
   OCCUPANCY CATEGORY: 2
   $S_s$ = Ø.315 $S_1$=Ø.Ø77
   SITE CLASS: D
   $S_{DS}$ Ø.325 $S_{D1}$ Ø.123
   SEISMIC DESIGN CATEGORY: B
   SEISMIC FORCE RESISTING SYSTEM:
   A-13, WOOD FRAMED SHEAR WALLS WITH WOOD STRUCTURAL PANELS FOR ROOFTOP ROOM. DEMAND/CAPACITY RATIO INCREASE FOR EXISTING ELEMENTS FOR SEISMIC LOADS IS NOT GREATER THAN 10%.

5. FLOOR DESIGN LOADS:
   ATTIC & SLEEPING AREAS: 30 PSF
   OTHER AREAS: 40 PSF

6. STAIRWAY LOADS:
   DISTRIBUTED LOAD: 40 PSF
   CONCENTRATED LOADS: 300 POUNDS ACTING ON 4 SQ. IN. AT CENTER OF TREADS.

7. U.N.O. = UNLESS NOTED OTHERWISE.
   N.T.S. = NOT TO SCALE

8. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY CONDITIONS DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS AND ANY CONDITIONS THAT PREVENT CONTRACTOR'S COMPLETION OF THE WORK AS SHOWN ON THE DRAWINGS.

9. THIS PROJECT INVOLVES AN EXISTING STRUCTURE. DIMENSIONS SHOWN ON THE DRAWINGS ARE BELIEVED TO BE ACCURATE, BUT CANNOT BE GUARANTEED. MEASURE AND VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO FABRICATION AND CONSTRUCTION.

**WOOD FRAMING NOTES:**

1. MATERIALS:
   A. STRUCTURAL LUMBER: NO. 2 OR BETTER SPRUCE-PINE-FIR, DOUGLAS FIR OR DOUGLAS FIR-LARCH, 19% MAX. MOISTURE CONTENT, U.N.O. SPRUCE-PINE-FIR (SOUTH) IS NOT ACCEPTABLE.
   B. PRESSURE TREATED LUMBER: NO. 2 OR BETTER SOUTHERN PINE
   C. LAMINATED VENEER LUMBER (LVL):
      BEAMS AND MULTI-PLY POSTS: VERSA-LAM 2.0 3100 LVL BY BOISE CASCADE $F_b$=3100 PSI, E=2.0x10⁶ PSI
   D. LIGHT GAUGE METAL CONNECTORS AND STRUCTURAL SCREWS: SIMPSON STRONG-TIE
   E. FOR LVL AND LIGHT GAUGE METAL CONNECTORS, EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS MAY BE USED. IF EQUIVALENT PRODUCTS ARE USED, SUBMIT PRODUCT INFORMATION CLEARLY SHOWING EQUIVALENCY.
   F. INSTALL LVL AND LIGHT GAUGE CONNECTORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND DETAILS.
2. DESIGN CODE: NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION BY THE AMERICAN WOOD COUNCIL
3. FASTENERS:
   A. DETAILS, SCHEDULES, AND NOTES ON THE DRAWINGS MAY NOT SHOW ALL REQUIRED FASTENERS. IN ADDITION TO FASTENERS SHOWN ON THE DRAWINGS, COMPLY WITH THE FOLLOWING:
      POWER-DRIVEN NAILS: FASTENING SCHEDULE TABLES 10, 11, AND 12 OF ICC-ES REPORT ESR-1539 (REISSUED Ø7/2017)
      HAND-DRIVEN NAILS: TABLE R602.3(1), FASTENING SCHEDULE OF THE 2015 INTERNATIONAL RESIDENTIAL CODE.
   B. WHERE COMMON NAILS ARE SPECIFICALLY CALLED OUT ON THE DRAWINGS, COMMON NAILS ARE REQUIRED. POWER DRIVEN NAILS CANNOT BE USED UNLESS THEY MATCH TRUE COMMON NAIL SIZES.
   C. FASTENERS FOR LIGHT GAUGE METAL FRAMING CONNECTORS, HANGERS, STRAPS, ETC. MUST MATCH THE SIZES REQUIRED BY THE LIGHT GAUGE MANUFACTURER.
4. NAILING REQUIREMENTS FOR FLOOR, ROOF AND WALL SHEATHING:
   ROOF: 10d COMMON OR Ø.131" x 2¼" NAILS, 6" O.C. ALONG PANEL EDGES, 12" O.C. ALONG INTERMEDIATE MEMBERS.
   FLOOR: 10d COMMON DEFORMED SHANK OR Ø.131" x 2¼" DEFORMED SHANK NAILS, 6" O.C. ALONG PANEL EDGES, 12" O.C. ALONG INTERMEDIATE MEMBERS.
   WALLS: 10d COMMON OR Ø.131" x 2¼" NAILS, 6" O.C. ALONG PANEL EDGES, 12" O.C. ALONG INTERMEDIATE MEMBERS.
5. SPIKE TOGETHER ALL FRAMING MEMBERS WHICH ARE BUILT-UP USING 2-ROWS OF 16d COMMON OR Ø.135" x 3½" NAILS AT 12" O.C. STAGGERED.
6. SHEATHING:
   ROOF SHEATHING: APA RATED SHEATHING OR STRUCTURAL I RATED SHEATHING, EXPOSURE 1, SPAN RATING 40/20, MIN. THICKNESS 19/32"
   FLOOR SHEATHING: APA RATED SHEATHING OR APA RATED STURD-I-FLOOR STRUCTURAL I RATED, EXPOSURE 1, SPAN RATING 48/24, MIN. THICKNESS 23/32".
   EXTERIOR WALL SHEATHING (INCLUDING SHEAR WALLS): APA RATED SHEATHING, OR STRUCTURAL I RATED SHEATHING, EXPOSURE 1, SPAN RATING 40/20, MIN. THICKNESS 19/32".
7. SPIKE TOGETHER ALL FRAMING MEMBERS WHICH ARE BUILT-UP USING 2-ROWS OF Ø.131"x3" NAILS AT 12" O.C. STAGGERED.
8. PROVIDE GALVANIZED METAL JOIST HANGERS AT FLUSH FRAMED CONNECTIONS. IF SIZES ARE NOT SHOWN ON DRAWINGS, PROVIDE HANGERS EQUAL TO SIMPSON U OR LU SERIES HANGERS AS REQUIRED BY SIZE OF MEMBER.
9. PROVIDE DOUBLE TOP PLATE IN ALL EXTERIOR WALLS AND BEARING WALLS. STAGGER TOP PLATE SPLICES MIN. 4'-Ø" AND FASTEN WITH (12) Ø.131" x 3" NAILS.
10. PROVIDE PRESSURE TREATED LUMBER FOR ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE OR PROVIDE SUITABLE SEPARATION MEMBRANE.
11. PROVIDE FULL DEPTH BLOCKING AT ENDS AND INTERIOR SUPPORTS OF ALL JOISTS AND RAFTERS WHERE JOISTS AND RAFTERS FRAME OVER SUPPORTS.
12. WHERE POSTS FRAME THROUGH FLOOR LEVELS, PROVIDE A CONTINUOUS LOAD PATH THROUGH FLOORS TO BEAM OR FOUNDATION BELOW. POSTS MAY BE SPLICED AT FLOOR LEVEL. PROVIDE SOLID BLOCKING WITH CROSS SECTIONAL AREA AND COMPRESSIVE STRENGTH EQUAL TO OR GREATER THAN POSTS IF TOP AND BOTTOM POSTS ARE NOT IN CONTACT WITH EACH OTHER.
13. PROVIDE SOLID BLOCKING AT ENDS OF ALL BEAMS TO PREVENT ROTATION OF BEAM END.
14. CONNECTIONS @ PRESSURE-TREATED (P.T.) WOOD:
    FASTENERS AND PLATE WASHERS:
    STAINLESS STEEL OR HOT-DIP GALVANIZED PER ASTM A153
    LIGHT GAGE METAL CONNECTORS:
    ZMAX OR HOT-DIP GALVANIZED CONNECTORS BY SIMPSON STRONG-TIE.
    WHERE ZMAX OR HDG CONNECTORS ARE NOT AVAILABLE, PROVIDE GRACE VYCOR DECK PROTECTOR MEMBRANE TO PREVENT CONTACT OF METAL CONNECTOR WITH P.T. WOOD.
15. WIND LOADS REQUIRE CONSTRUCTION DETAILS WHICH MAY DIFFER FROM THOSE DETAILS USED IN "TYPICAL" WOOD CONSTRUCTION. THIS MAY INCLUDE ADDITIONAL BLOCKING, SPECIAL NAILING AND FASTENING REQUIREMENTS, SPECIAL MATERIAL REQUIREMENTS, ETC. PLEASE REVIEW DETAILS CAREFULLY BEFORE CONSTRUCTION.

**MASONRY NOTES**

1. DESIGN SPECIFICATION: ACI 530-08/TMS 402-08
2. MASONRY UNITS: ASTM C-62, GRADE NW OR MW, TYPE FBS
3. MORTAR: ASTM C270, TYPE N
4. REINFORCING: ASTM A615, GRADE 60
5. ADHESIVE ANCHORS: HILTI HIT-HY 70 ADHESIVE, HAS-E THREADED ROD OR THREADED ROD WITH MIN. YIELD OF 36 KSI., SCREEN TUBES AS RECOMMENDED BY MFR.
6. PROPER DRILLING AND PREPARING HOLES FOR ADHESIVE ANCHORS ARE EXTREMELY IMPORTANT. COMPLY WITH MANUFACTURER'S INSTRUCTIONS.

**STRUCTURAL STEEL NOTES:**

1. DESIGN SPECIFICATION: AISC 360-05 ALLOWABLE STRENGTH DESIGN
2. STRUCTURAL STEEL: ASTM A992 FOR WIDE FLANGE SHAPES
   ASTM A500 GRADE B FOR TUBES
   ASTM A53 TYPE E OR S, GRADE B FOR PIPES
   ASTM A36 FOR ALL OTHER SHAPES AND PLATES
3. CONNECTIONS: FIELD BOLTED, ASTM A325N BOLTS, EXCEPT WHERE FIELD WELDING IS SHOWN
   WELDING: E70 ELECTRODES

Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
09/12/2018

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PINKHAM & GREER
CONSULTING ENGINEERS PORTLAND, MAINE

STATE OF MAINE
DAVID K. PINKHAM No. 4433
REGISTERED PROFESSIONAL ENGINEER
06-30-18

NEW FOURTH FLOOR PENTHOUSE
580 CONGRESS STREET PORTLAND, MAINE

date: JUNE 30, 2018
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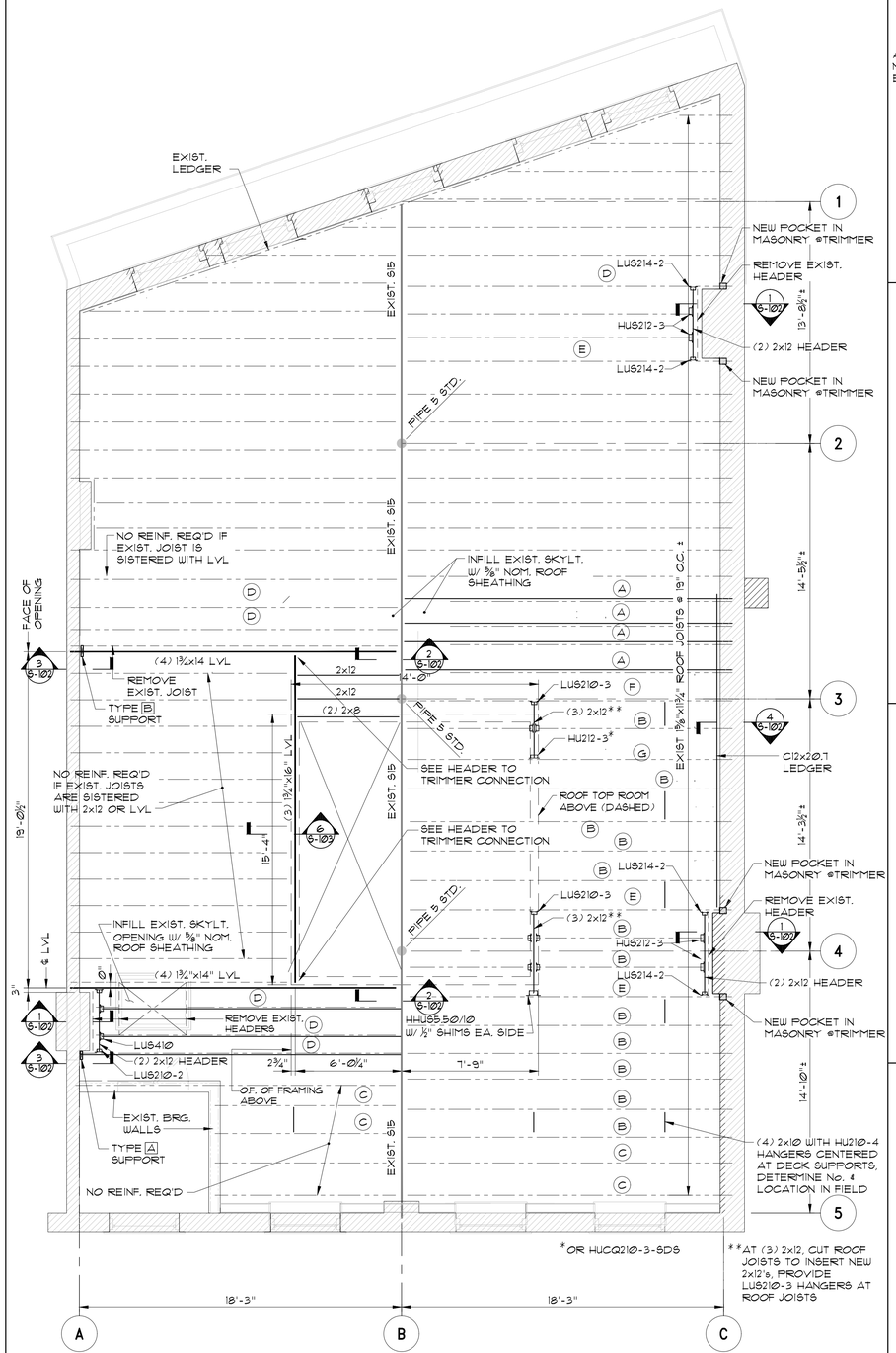
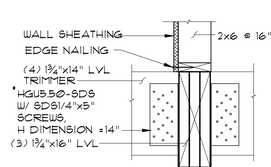



## ROOF FRAMING PLAN

¼"=1'-Ø"

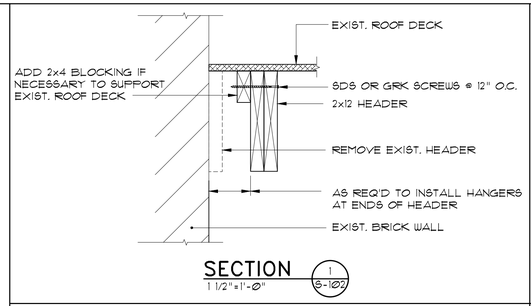
- (A) SISTER EXIST. JOIST W/ (2) 1¾"x11⅞" LVL, ONE EACH SIDE
- (B) SISTER EXIST. JOIST W/ (2) 2x12, ONE EACH SIDE
- (C) SISTER EXIST. JOIST W/ (1) 2x12
- (D) SISTER EXIST. JOIST W/ (1) 1¾"x11⅞" LVL
- (E) SISTER W/ (2) 1¾"x11⅞" LVL BOTH ON SAME SIDE
- (F) SISTER EXIST. JOIST W/ (3) 2x12
- (G) SISTER EXIST. JOIST W/ (2) 1¾"x11⅞" LVL




*THIS MAY BE A CUSTOM OR SPECIAL ORDER HANGER. DETERMINE FINAL CONNECTION CONFIGURATION IN FIELD

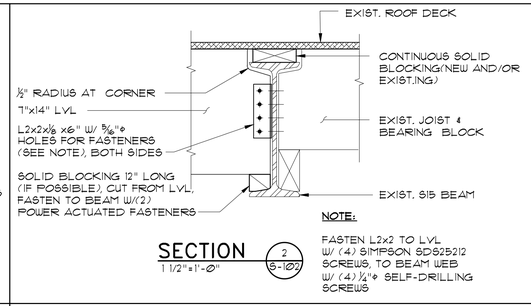
## HEADER TO TRIMMER CONNECTION

1"=1'-Ø"




## SECTION

1 1/2"=1'-Ø" (1 S-102)

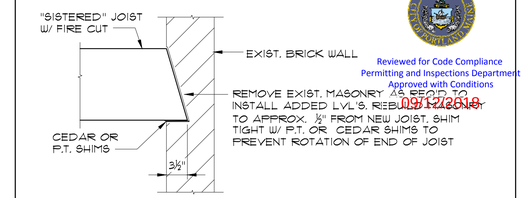



**NOTE:**

FASTEN L2x2 TO LVL W/ (4) SIMPSON SD525212 SCREWS, TO BEAM WEB W/ (4) ¼"ø SELF-DRILLING SCREWS

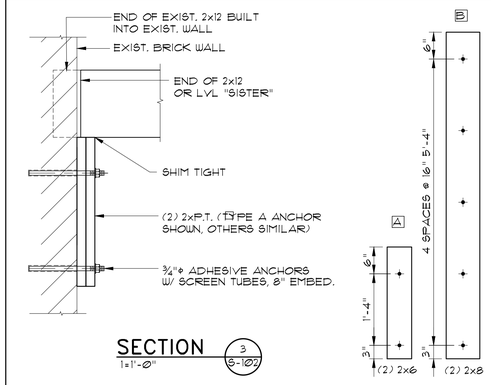
## SECTION

1 1/2"=1'-Ø" (2 S-102)



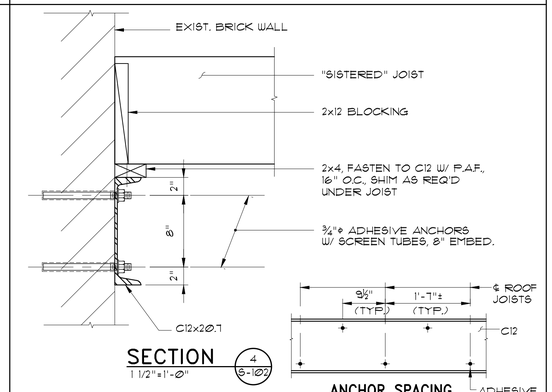

## NEW BEAM/JOIST POCKET

1"=1'-Ø"




## SECTION

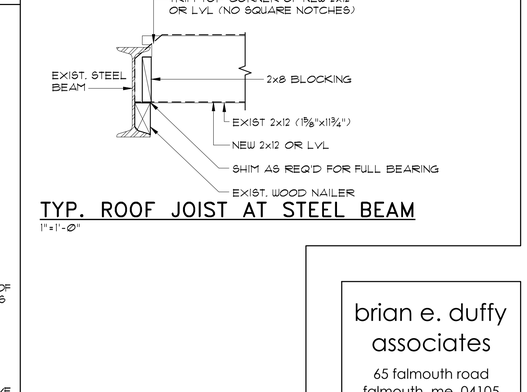
1=1'-Ø" (3 S-102)




## SECTION

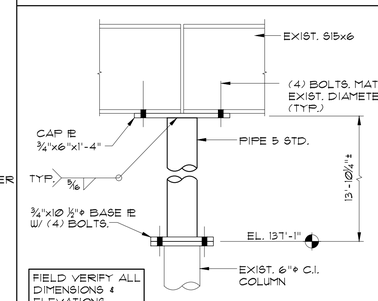
1 1/2"=1'-Ø" (4 S-102)

## ANCHOR SPACING



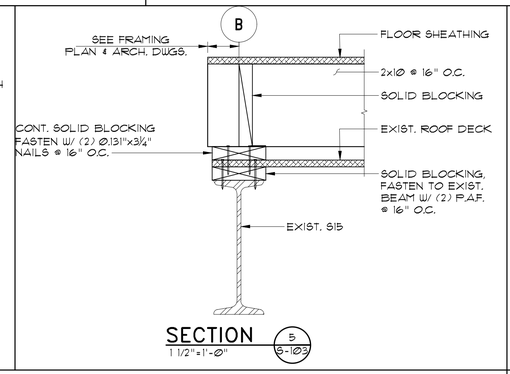

## TYP. ROOF JOIST AT STEEL BEAM

1"=1'-Ø"



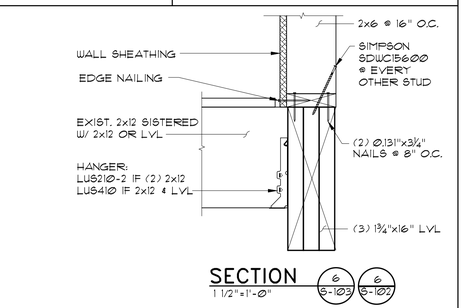

## STEEL PIPE COLUMN DETAILS

1"=1'-Ø"



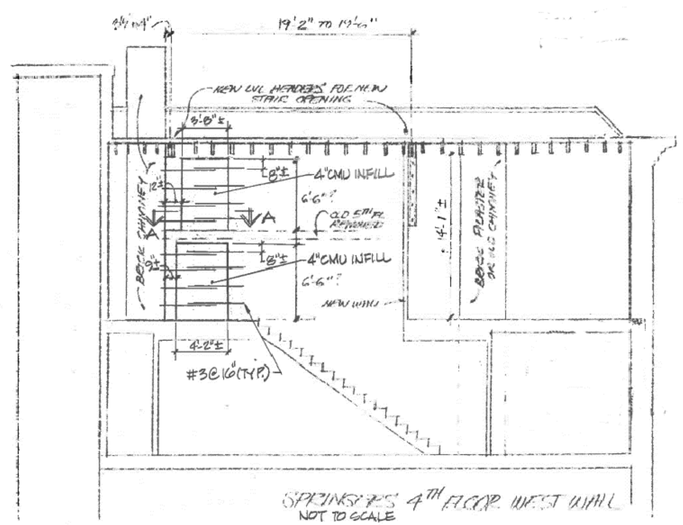

## SECTION

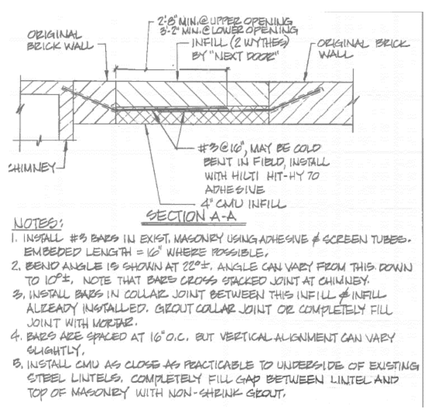
1 1/2"=1'-Ø" (5 S-103)




## SECTION

1 1/2"=1'-Ø" (6 S-103 / 6 S-102)




## SECTION A-A

NOTES:

1. INSTALL #3 BARS IN EXIST. MASONRY USING ADHESIVE ø SCREEN TUBES. EMBEDED LENGTH = 16" WHERE POSSIBLE.
2. BEND ANGLE IS SHOWN AT 22°±, ANGLE CAN VARY FROM THIS DOWN TO 10°±. NOTE THAT BARS CROSS STACKED JOINT AT CHIMNEY.
3. INSTALL BARS IN COLLAR JOINT BETWEEN THIS INFILL ø INFILL ALREADY INSTALLED. GROUT COLLAR JOINT OR COMPLETELY FILL JOINT WITH MORTAR.
4. BARS ARE SPACED AT 16" O.C. BUT VERTICAL ALIGNMENT CAN VARY SLIGHTLY.
5. INSTALL CMU AS CLOSE AS PRACTICABLE TO UNDERSIDE OF EXISTING STEEL LINTELS, COMPLETELY FILL GAP BETWEEN LINTEL AND TOP OF MASONRY WITH NON-SHRINK GROUT.

RELEASED FOR CONSTRUCTION

JUNE 30, 2018

Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
09/12/2018

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PINKHAM & GREER
CONSULTING ENGINEERS PORTLAND, MAINE

STATE OF MAINE
DAVID K. PINKHAM No. 4433 REGISTERED PROFESSIONAL ENGINEER
06-30-18

NEW FOURTH FLOOR PENTHOUSE
580 CONGRESS STREET PORTLAND, MAINE

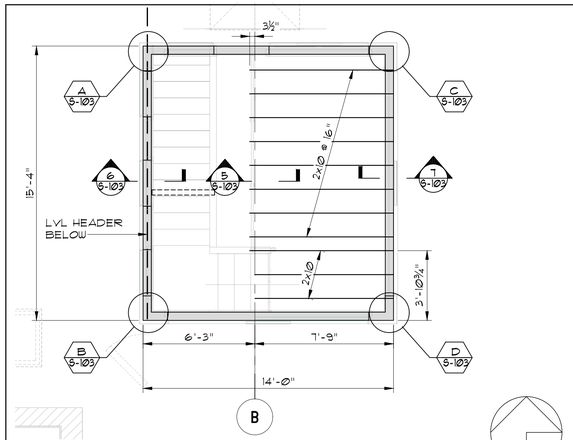
date: JUNE 30, 2018

drawn by: MJB

scale: AS NOTED

sheet title: EXIST. ROOF FRAMING PLAN & DETAILS

sheet: S-102

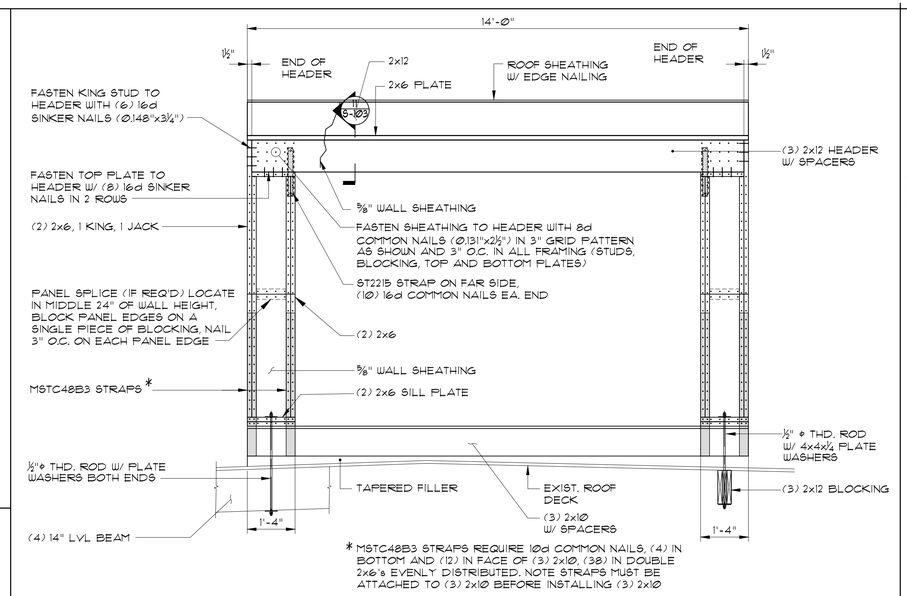



B

## ROOFTOP ROOM FLOOR FRAMING PLAN

¼"=1'-0"

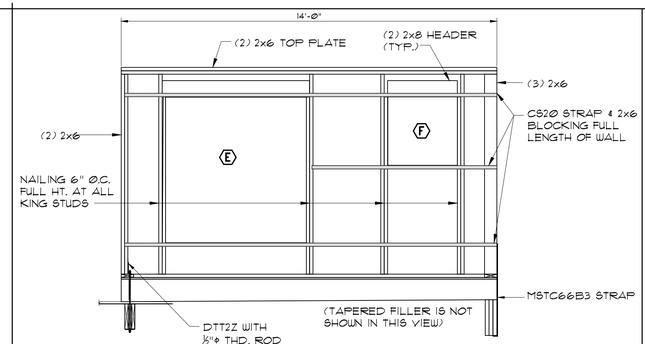
NORTH




* MSTC48B3 STRAPS REQUIRE 10d COMMON NAILS, (4) IN BOTTOM AND (12) IN FACE OF (3) 2x10, (38) IN DOUBLE 2x6's EVENLY DISTRIBUTED. NOTE STRAPS MUST BE ATTACHED TO (3) 2x10 BEFORE INSTALLING (3) 2x10

## SOUTH ELEVATION

½"=1'-0"



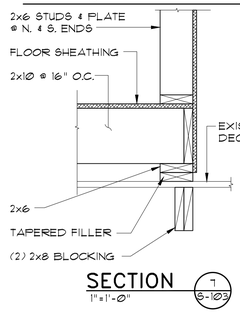

## NORTH SHEAR WALL ELEVATION

⅜"=1'-0"

### WOOD FRAMED SHEAR WALLS

1. SHEATHING PANEL NAILING:
   - A. AT ALL PANEL EDGES: Ø.131"x2½" NAILS, 6" O.C UNLESS SHOWN OTHERWISE.
   - B. AT INTERMEDIATE LOCATIONS: 10d NAILS, 12" O.C.
   - C. WHERE PANEL EDGES ABUT ON A SINGLE STUD OR ON BLOCKING, OFFSET NAILS ON ADJACENT PANELS
   - D. ADDITIONAL NAILING REQUIREMENTS MAY BE SHOWN IN SECTIONS AND DETAILS.
2. SHEATHING PANELS MAY BE INSTALLED HORIZONTALLY OR VERTICALLY.
3. ALL PANEL EDGES MUST BE BACKED WITH 2" NOMINAL OR WIDER FRAMING. THIS REQUIRES HORIZONTAL BLOCKING BETWEEN STUDS AT ALL PANEL JOINTS. DOUBLE 2x (OR 3x6 OR 4x6) STUDS MAY BE USED AT VERTICAL PANEL JOINTS BUT ARE NOT REQ'D UNLESS STUDS SPLIT. BLOCKING MAY BE INSTALLED WITH WIDE FACE VERTICAL.
4. TYPICAL WALL STUDS = 2x6 @ 16" U.N.O. & ARE NOT SHOWN IN SHEAR WALL ELEVATIONS & DETAILS

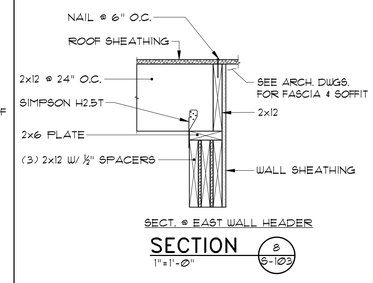
Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
09/12/2018




## SECTION

1"=1'-0"

7 S-103

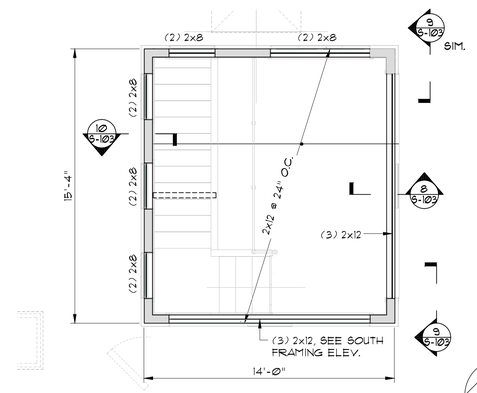



SECT. @ EAST WALL HEADER

## SECTION

1"=1'-0"

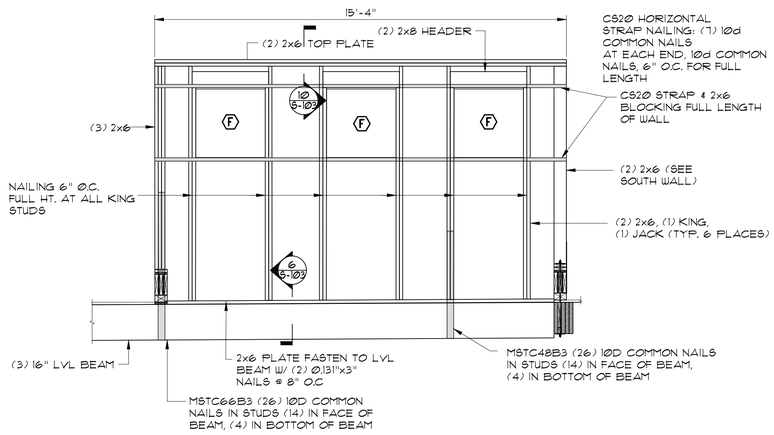
8 S-103




## ROOFTOP ROOM ROOF FRAMING PLAN

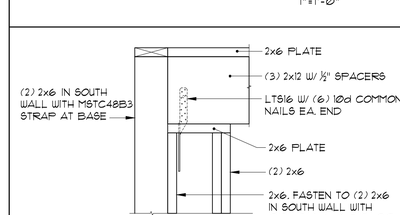
¼"=1'-0"

NORTH




## WEST SHEAR WALL ELEVATION

⅜"=1'-0"

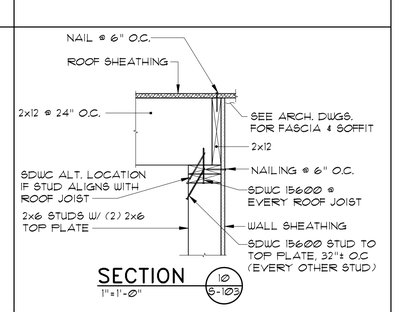



## SECTION

1"=1'-0"

9 S-103

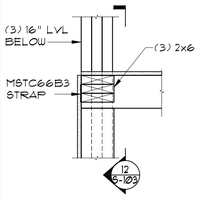
9 SIM. IS OPP. HAND @ N.E. CORNER




## SECTION

1"=1'-0"

10 S-103

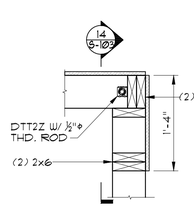



NW CORNER PLAN

## DETAIL

1"=1'-0"

A S-102

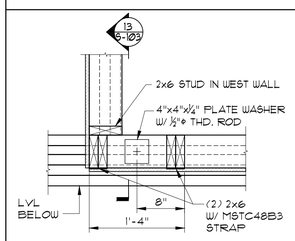



NE CORNER PLAN

## DETAIL

1"=1'-0"

C S-102

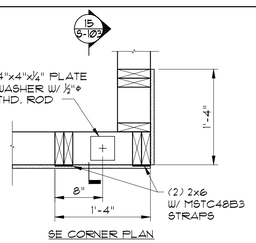



SW CORNER PLAN

## DETAIL

1"=1'-0"

B S-102

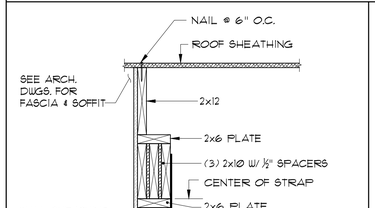



SE CORNER PLAN

## DETAIL

1"=1'-0"

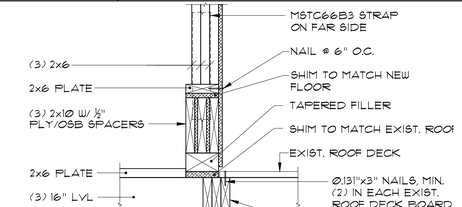
D S-102




## SECTION

1"=1'-0"

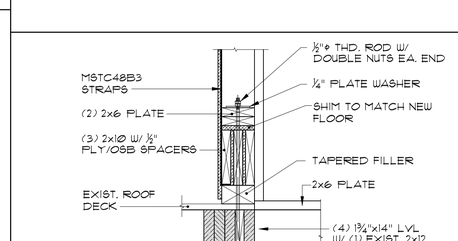
11 S-103




## SECTION

1"=1'-0"

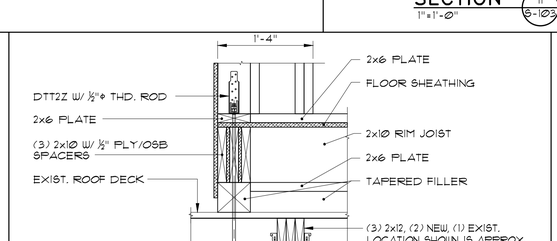
12 S-103




## SECTION

1"=1'-0"

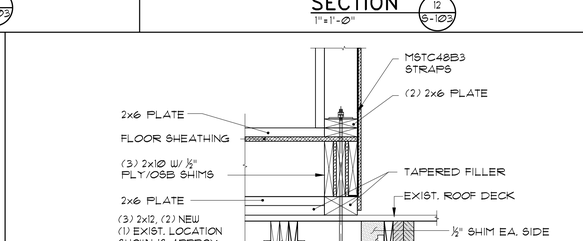
13 S-103




## SECTION

1"=1'-0"

14 S-103




## SECTION

1"=1'-0"

15 S-103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PINKHAM & GREER
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STATE OF MAINE
DAVID K. PINKHAM No. 4433
REGISTERED PROFESSIONAL ENGINEER
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06-30-18


NEW FOURTH FLOOR PENTHOUSE
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date: JUNE 30, 2018
drawn by: MJB
scale: AS NOTED
sheet title: ROOFTOP ROOM FRAMING PLANS & DETAILS
sheet: S-103

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JUNE 30, 2018