



Proposed

Ranney Building & Design, Inc.
Hyannis, MA 02601
508-733-4683
Ranneybuilt.com

Lovett
55 Lower County Rd
West Dennis,

DATE:

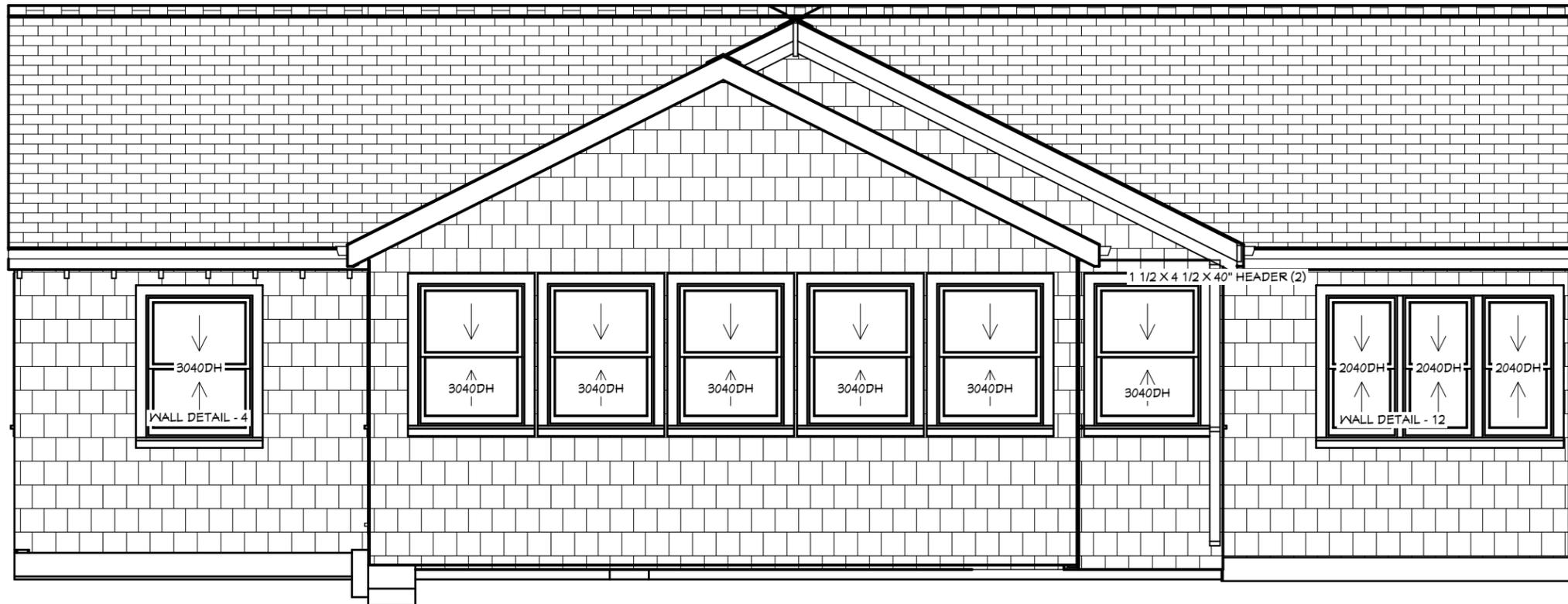
3/18/2025

SCALE:

1/4"=1'-0"

SHEET:

A - 1



Front Elevation

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SHEET:

A - 2



Right Elevation

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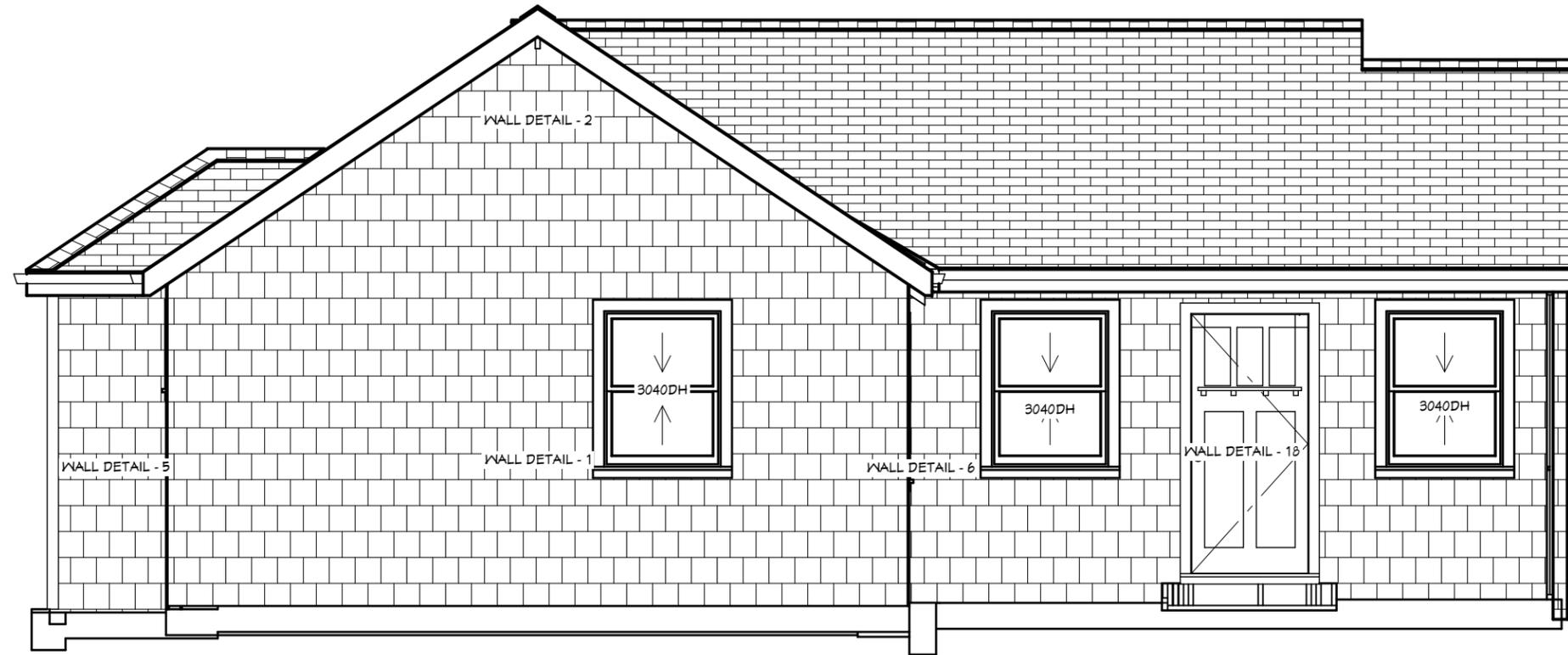
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SCALE:

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SHEET:

A - 3



Left Elevation

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SHEET:

A - 4

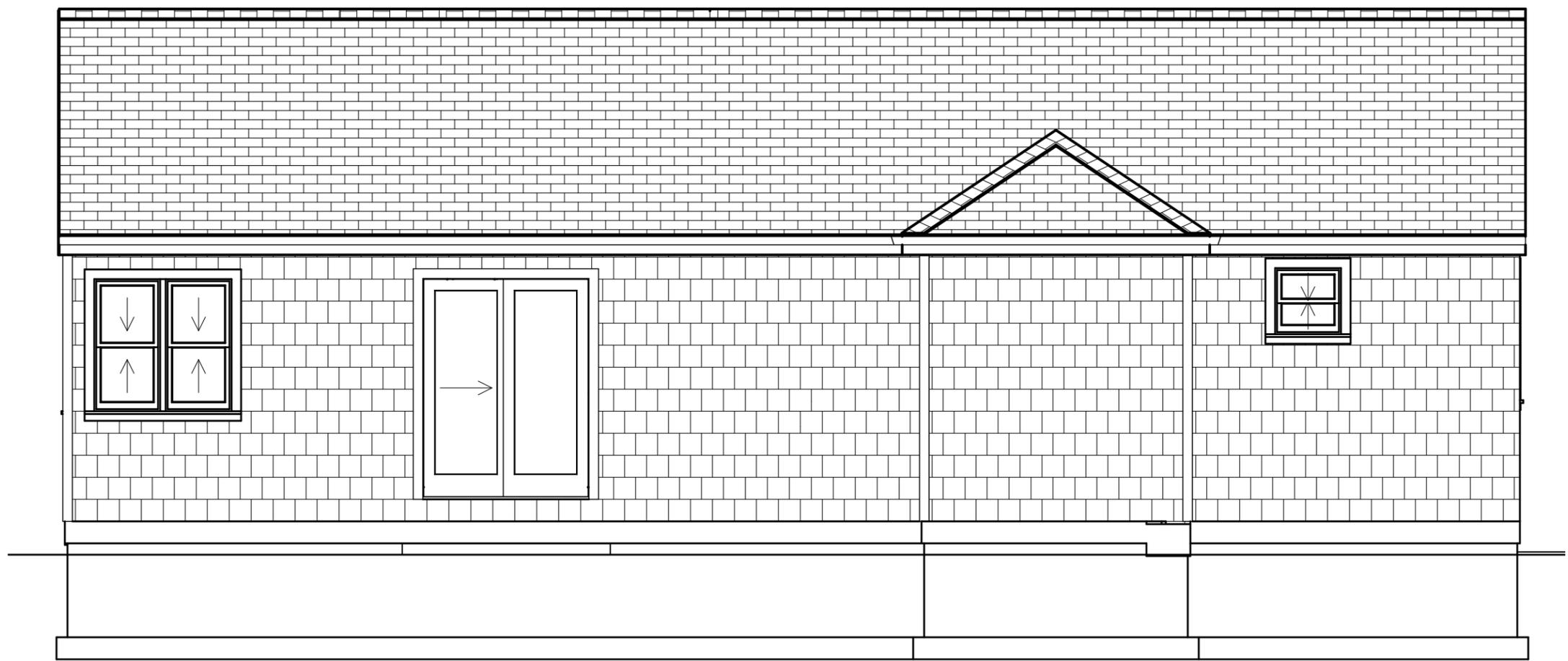
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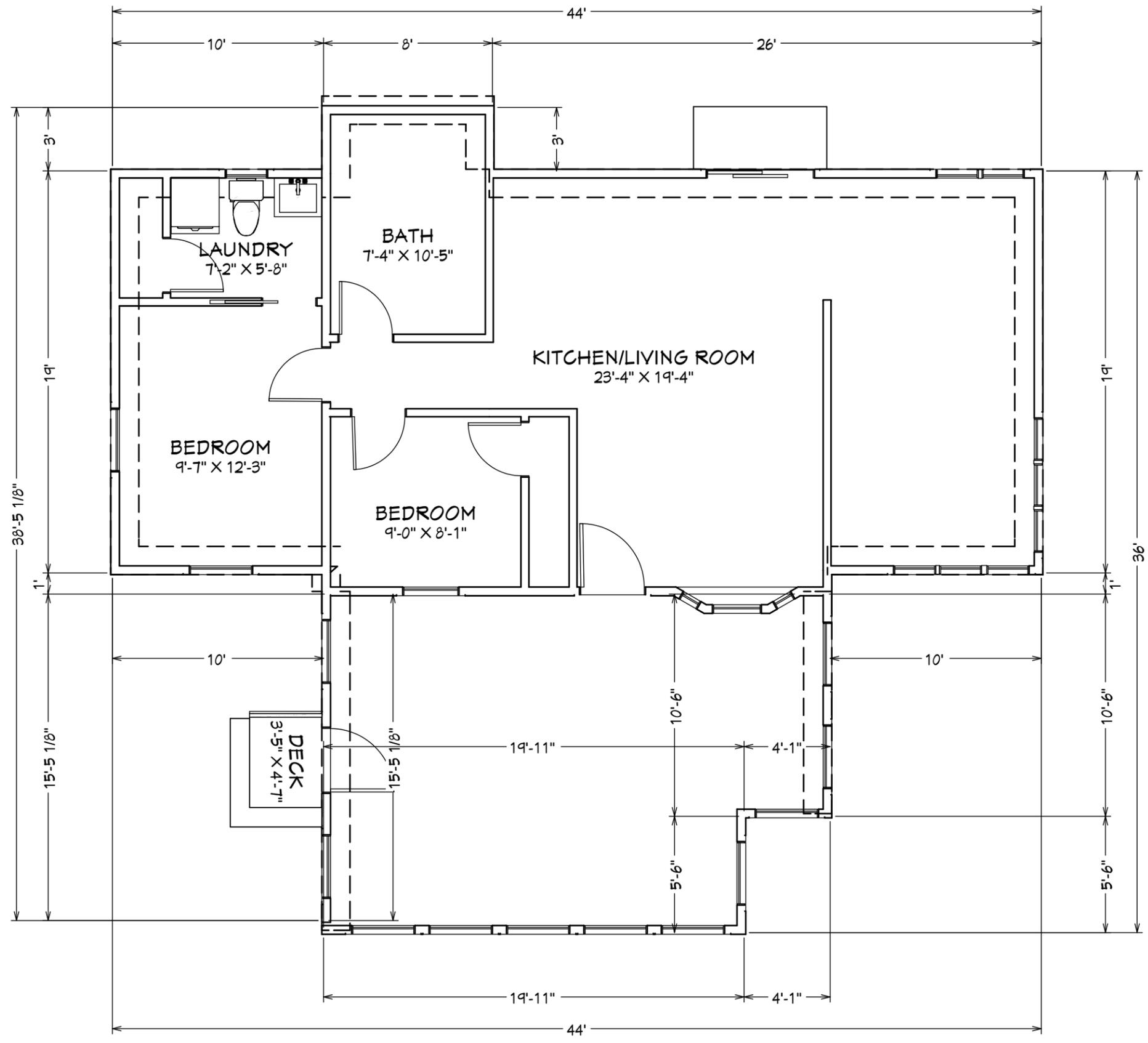
SCALE:
1/4" = 1'-0"

SHEET:
A - 5



Rear Elevation

Proposed



Proposed

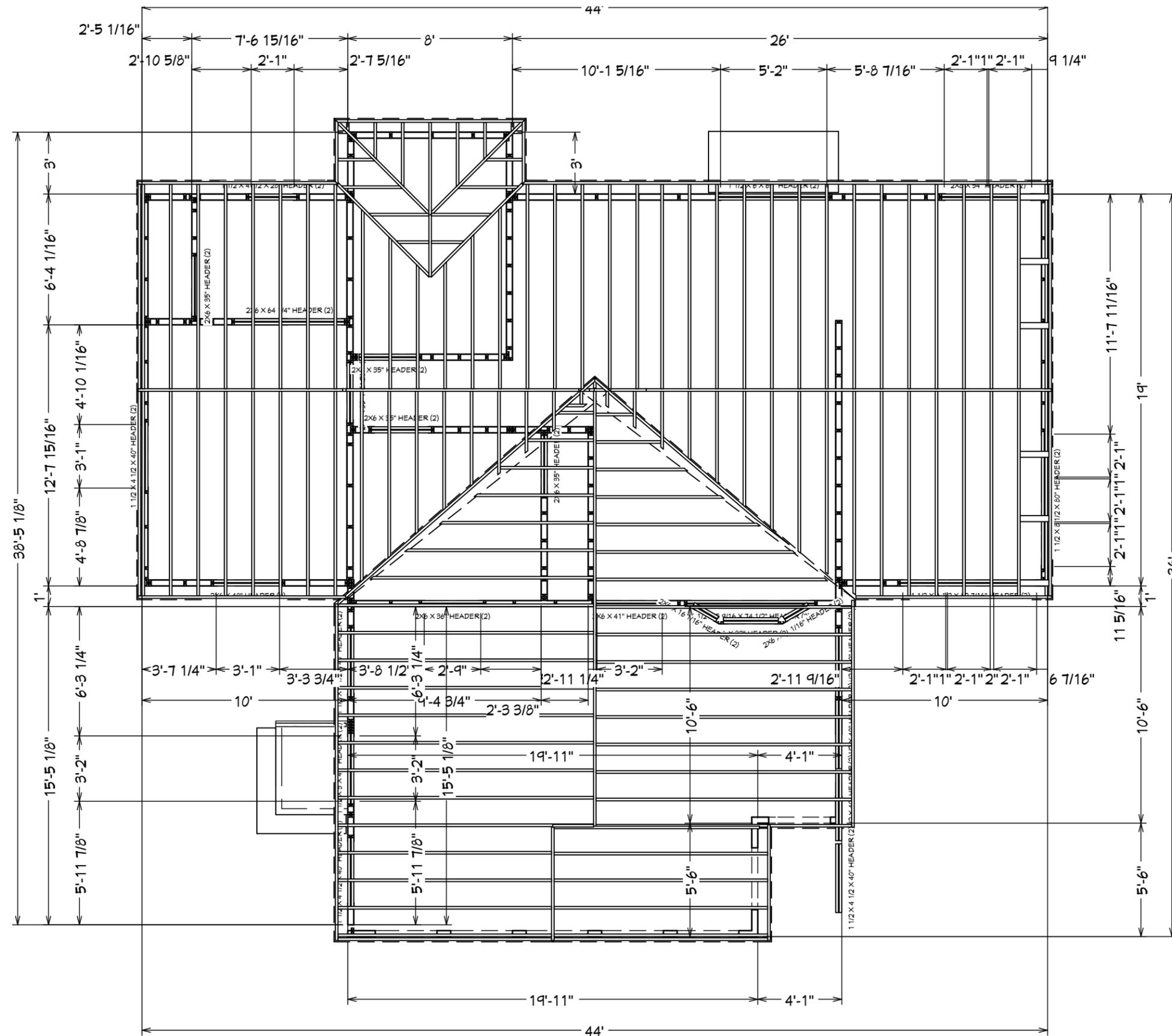
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SHEET:
A - 6



Framing Plan - Roof System

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SHEET:

A - 7

FINISH SIDING
& SHEATHING
2x RIM JOIST
OPEN DECKING
LAG BOLT IN
PREDRILLED BLOCK
DECK
JOIST

HEADER
JOIST
SLOPED BLOCK
FELT GASKET ON
FLASHING AT BOLT
FLASHING

WALL STRUCTURE

2x FLOOR
JOISTS

TREATED MUDSILL
CONCRETE STEMWALL

Deck Anchored to Wood Wall: 1st Floor

(print at 1"=1')

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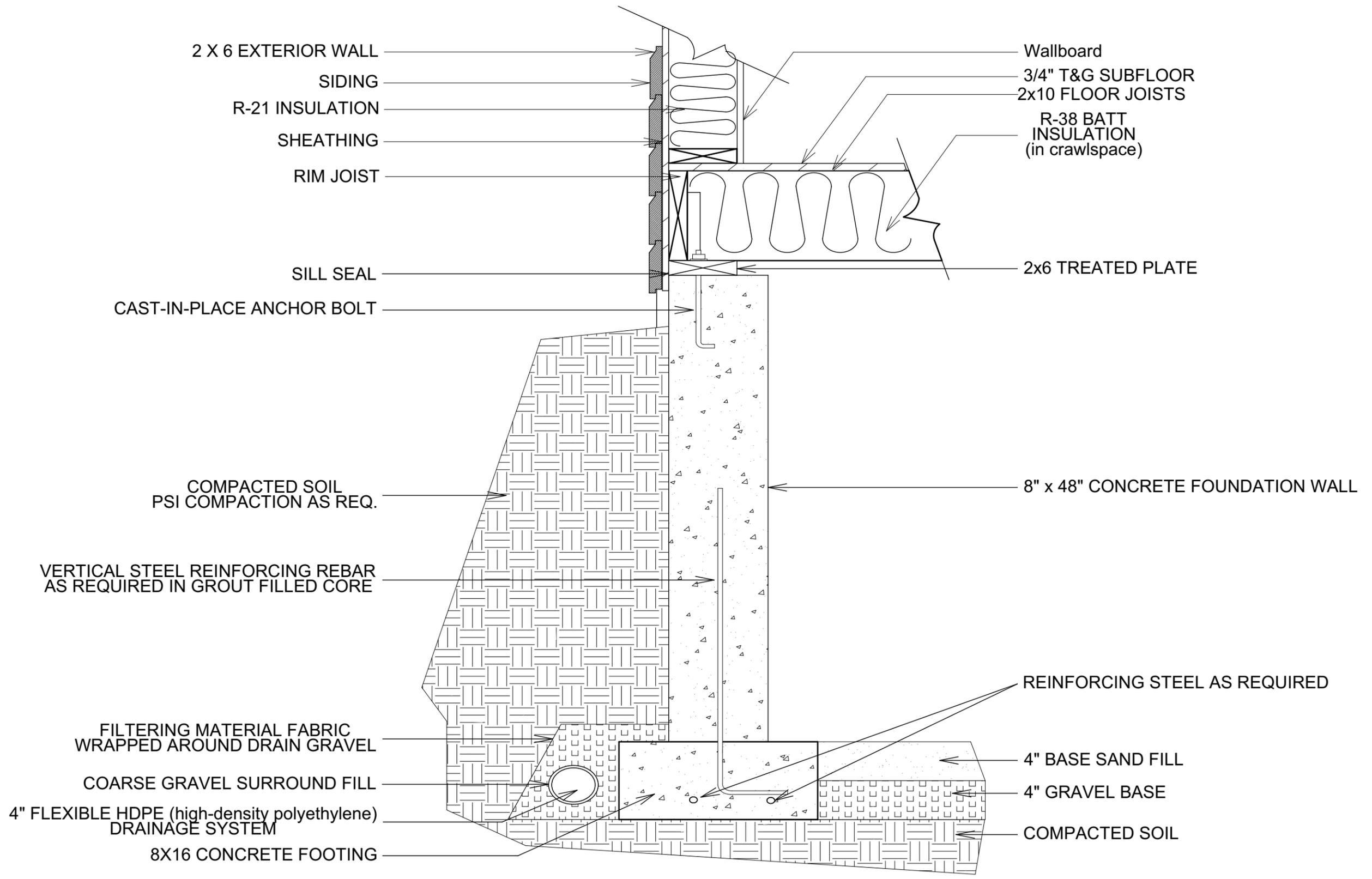
3/18/2025

SCALE:

1/4"=1'-0"

SHEET:

A - 8



2 X 6 EXTERIOR WALL
 SIDING
 R-21 INSULATION
 SHEATHING
 RIM JOIST
 SILL SEAL
 CAST-IN-PLACE ANCHOR BOLT

Wallboard
 3/4" T&G SUBFLOOR
 2x10 FLOOR JOISTS
 R-38 BATT INSULATION (in crawlspace)
 2x6 TREATED PLATE

COMPACTED SOIL
 PSI COMPACTION AS REQ.

8" x 48" CONCRETE FOUNDATION WALL

VERTICAL STEEL REINFORCING REBAR
 AS REQUIRED IN GROUT FILLED CORE

REINFORCING STEEL AS REQUIRED

FILTERING MATERIAL FABRIC
 WRAPPED AROUND DRAIN GRAVEL

4" BASE SAND FILL

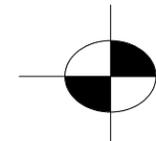
COARSE GRAVEL SURROUND FILL

4" GRAVEL BASE

4" FLEXIBLE HDPE (high-density polyethylene)
 DRAINAGE SYSTEM

COMPACTED SOIL

8X16 CONCRETE FOOTING



48" Concrete Stem Wall w/2x10 Floor Joist - L
Scale:

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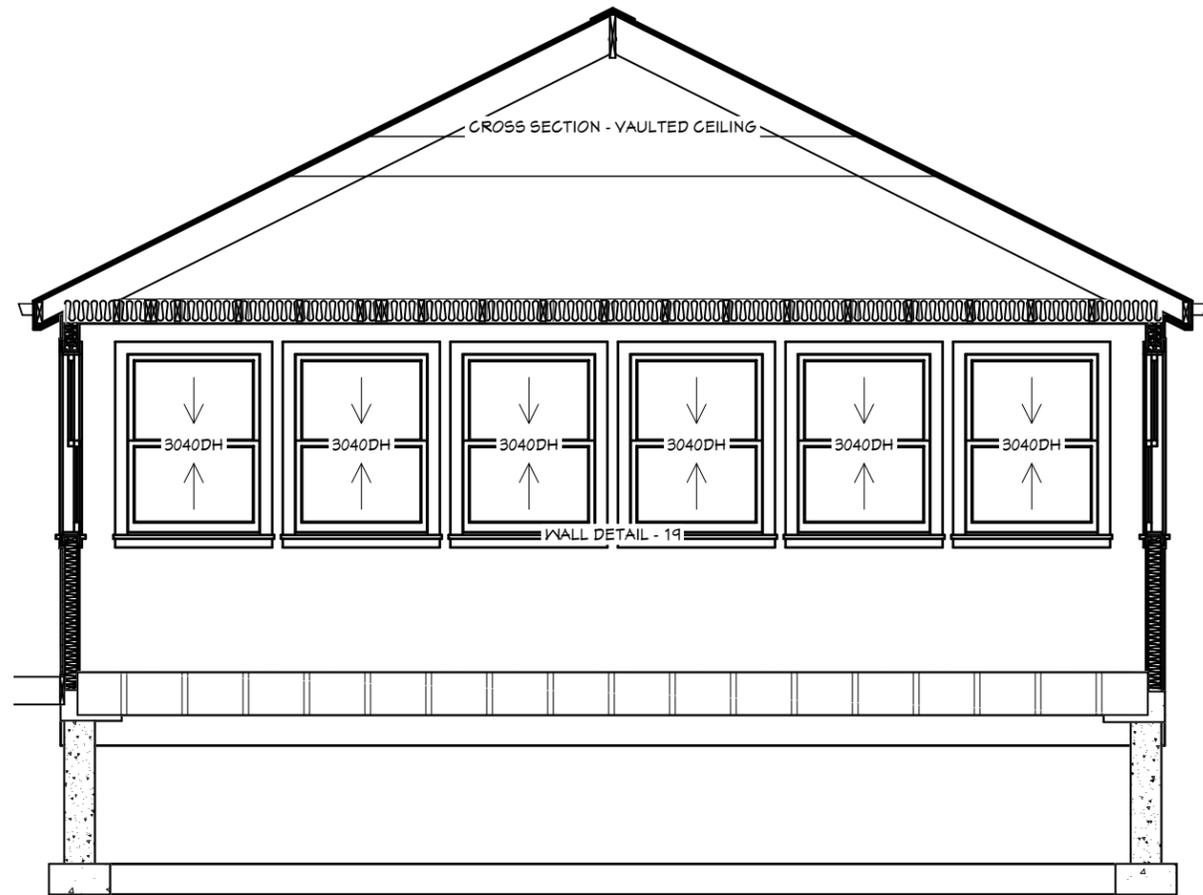
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SCALE:

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SHEET:

A - 9



Bedroom Addition (8'x10') - Expand bedroom and move laundry into new 1/2 bath in back of larger bedroom.

All wood frame construction to match existing where possible, and still meets current code MA 780 CMR.

All insulation to be closed cell spray foam in bedroom addition.

Sun Porch Addition (24'x16') - Remove front door, save material, and relocate (smaller) to the right side of the new Sun Porch.

All wood frame construction to be built to current code MA 780 CMR.

All insulation to be closed cell spray foam in Sun Porch Addition.

Vaulted ceiling joists locations are not to exceed 48" up the rafters from the top plates of the walls, therefore no structural ridge beam is required.

12" Sonatubes with 24" footings spaced at 7'-8" o.c. along the outside edge of the Sun Porch may be used instead of a poured foundation if ground water is an issue.

All Siding, Trim, Roof and details to match existing materials as close as possible.

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SCALE:

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SHEET:

A - 10

AWC Guide to Wood Construction in High Wind Areas: 110 mph Wind Zone
 Massachusetts Checklist for Compliance (780 CMR 5301.2.1.1)¹

	<input checked="" type="checkbox"/> Check Compliance
1.1 SCOPE	
Wind Speed (3-sec. gust).....110 mph	✓
Wind Exposure Category.....B	✓
1.2 APPLICABILITY	
Number of Stories (a roof which exceeds 8 in 12 slope shall be considered a story) <u>1</u> stories ≤ 2 stories	✓
Roof Pitch(Fig 2)..... <u>6</u> ≤ 12:12	✓
Mean Roof Height(Fig 2)..... <u>14</u> ft ≤ 33'	✓
Building Width, W(Fig 3)..... <u>18</u> ft ≤ 80'	✓
Building Length, L(Fig 3)..... <u>20</u> ft ≤ 80'	✓
Building Aspect Ratio (L/W)(Fig 4)..... <u>1.2</u> ≤ 3:1	✓
Nominal Height of Tallest Opening ²(Fig 4)..... <u>6'8"</u> ≤ 6'8"	✓
1.3 FRAMING CONNECTIONS	
General compliance with framing connections.....(Table 2).....	✓
2.1 FOUNDATION	
Foundation Walls meeting requirements of 780 CMR 5404.1	
Concrete.....	✓
Concrete Masonry.....	✓
2.2 ANCHORAGE TO FOUNDATION^{1,3}	
5/8" Anchor Bolts imbedded or 5/8" Proprietary Mechanical Anchors as an alternative in concrete only	
Bolt Spacing – general(Table 4)..... <u>32</u> in.	✓
Bolt Spacing from end/joint of plate(Fig 5)..... <u>6</u> in. ≤ 6" – 12"	✓
Bolt Embedment – concrete.....(Fig 5)..... <u>7</u> in. ≥ 7"	✓
Bolt Embedment – masonry.....(Fig 5)..... <u>15</u> in. ≥ 15"	✓
Plate Washer(Fig 5).....≥ 3" x 3" x 1/4"	✓
3.1 FLOORS	
Floor framing member spans checked(per 780 CMR Chapter 55).....	✓
Maximum Floor Opening Dimension.....(Fig 6)..... <u>0</u> ft ≤ 12'	✓
Full Height Wall Studs at Floor Openings less than 2' from Exterior Wall (Fig 6).....	✓
Maximum Floor Joist Setbacks	
Supporting Loadbearing Walls or Shearwall(Fig 7)..... <u>0</u> ft ≤ d	✓
Maximum Cantilevered Floor Joists	
Supporting Loadbearing Walls or Shearwall(Fig 8)..... <u>0</u> ft ≤ d	✓
Floor Bracing at Endwalls(Fig 9).....	✓
Floor Sheathing Type(per 780 CMR Chapter 55).....	✓
Floor Sheathing Thickness(per 780 CMR Chapter 55)..... <u>1/2</u> in.	✓
Floor Sheathing Fastening(Table 2)..... <u>8</u> d nails at <u>4</u> in edge / <u>8</u> in field	✓
4.1 WALLS	
Wall Height	
Loadbearing walls(Fig 10 and Table 5)..... <u>8</u> ft ≤ 10'	✓
Non-Loadbearing walls(Fig 10 and Table 5)..... <u>10</u> ft ≤ 20'	✓
Wall Stud Spacing(Fig 10 and Table 5)..... <u>16</u> in. ≤ 24" o.c.	✓
Wall Story Offsets(Figs 7 & 8)..... <u>0</u> ft ≤ d	✓
4.2 EXTERIOR WALLS³	
Wood Studs	
Loadbearing walls(Table 5).....2x <u>6</u> - <u>8</u> ft <u>0</u> in.	✓
Non-Loadbearing walls(Table 5).....2x <u>4</u> - <u>8</u> ft <u>0</u> in.	✓
Gable End Wall Bracing ¹	
Full Height Endwall Studs(Fig 10).....	✓
WSP Attic Floor Length.....(Fig 11)..... <u>4</u> ft ≥ W/3	✓
Gypsum Ceiling Length (if WSP not used).....(Fig 11)..... <u>4</u> ft ≥ 0.9W	✓
and 2 x 4 Continuous Lateral Brace @ 6 ft. o.c. ..(Fig 11).....	✓
or 1 x 3 ceiling furring strips @ 16" spacing min. with 2 x 4 blocking @ 4 ft. spacing in end joist or truss bays	✓
Double Top Plate	
Splice Length(Fig 13 and Table 6)..... <u>4</u> ft	✓
Splice Connection (no. of 16d common nails).....(Table 6)..... <u>3</u>	✓

MA Checklist

Proposed

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 Massachusetts Checklist for Compliance (780 CMR 5301.2.1.1)¹

Loadbearing Wall Connections	
Lateral (no. of 16d common nails).....(Tables 7)..... <u>4</u>	✓
Non-Loadbearing Wall Connections	
Lateral (no. of 16d common nails).....(Table 8)..... <u>4</u>	✓
Load Bearing Wall Openings (record largest opening but check all openings for compliance to Table 9)	
Header Spans(Table 9)..... <u>4</u> ft <u>0</u> in. ≤ 11'	✓
Sill Plate Spans(Table 9)..... <u>4</u> ft <u>0</u> in. ≤ 11'	✓
Full Height Studs (no. of studs)(Table 9)..... <u>2</u>	✓
Non-Load Bearing Wall Openings (record largest opening but check all openings for compliance to Table 9)	
Header Spans.....(Table 9)..... <u>6</u> ft <u>0</u> in. ≤ 12'	✓
Sill Plate Spans.....(Table 9)..... <u>6</u> ft <u>0</u> in. ≤ 12"	✓
Full Height Studs (no. of studs).....(Table 9)..... <u>2</u>	✓
Exterior Wall Sheathing to Resist Uplift and Shear Simultaneously ⁴	
Minimum Building Dimension, W	
Nominal Height of Tallest Opening ² <u>6'8" ≤ 6'8"</u>	✓
Sheathing Type.....(note 4)..... <u>1/2" T&G</u>	✓
Edge Nail Spacing(Table 10 or note 4 if less)..... <u>4</u> in.	✓
Field Nail Spacing.....(Table 10)..... <u>8</u> in.	✓
Shear Connection (no. of 16d common nails) (Table 10)..... <u>3</u>	✓
Percent Full-Height Sheathing(Table 10)..... <u>90</u> %	✓
5% Additional Sheathing for Wall with Opening > 6'8" (Design Concepts).....	✓
Maximum Building Dimension, L	
Nominal Height of Tallest Opening ² <u>6'8" ≤ 6'8"</u>	✓
Sheathing Type.....(note 4)..... <u>1/2" T&G</u>	✓
Edge Nail Spacing(Table 11 or note 4 if less)..... <u>4</u> in.	✓
Field Nail Spacing.....(Table 11)..... <u>8</u> in.	✓
Shear Connection (no. of 16d common nails) (Table 11)..... <u>3</u>	✓
Percent Full-Height Sheathing(Table 11)..... <u>90</u> %	✓
5% Additional Sheathing for Wall with Opening > 6'8" (Design Concepts).....	✓
Wall Cladding	
Rated for Wind Speed?.....	✓
5.1 ROOFS	
Roof framing member spans checked?(For Rafters use AWC Span Tool, see BBRS Website)	✓
Roof Overhang(Figure 19)..... <u>8'4"</u> ≤ smaller of 2' or L/3	✓
Truss or Rafter Connections at Loadbearing Walls	
Proprietary Connectors	
Uplift(Table 12).....U = <u>160</u> plf	✓
Lateral(Table 12).....L = <u>240</u> plf	✓
Shear.....(Table 12).....S = <u>160</u> plf	✓
Ridge Strap Connections, if collar ties not used per page 21... (Table 13).....T = <u>144</u> plf	✓
Gable Rake Outlooker(Figure 20)..... <u>1</u> ft ≤ smaller of 2' or L/2	✓
Truss or Rafter Connections at Non-Loadbearing Walls	
Proprietary Connectors	
Uplift(Table 14).....U = <u>N/A</u> lb.	✓
Lateral (no. of 16d common nails).....(Table 14).....L = _____ lb.	✓
Roof Sheathing Type(per 780 CMR Chapters 58 and 59).....	✓
Roof Sheathing Thickness..... <u>1/2</u> in. ≥ 7/16" WSP	✓
Roof Sheathing Fastening.....(Table 2)..... <u>8</u> d	✓

Notes:

- This checklist shall be met in its entirety, excluding the specific exception noted in 2, to comply with the requirements of 780 CMR 5301.2.1.1 Item 1. If the checklist is met in its entirety then the following metal straps and hold downs are not required per the WFCM 110 mph Guide:
 - Steel Straps per Figure 5
 - 20 Gage Straps per Figure 11
 - Uplift Straps per Figure 14
 - All Straps per Figure 17
 - Corner Stud Hold Downs per Figure 18a and Figure 18b
- Exception: Opening heights of up to 8 ft. shall be permitted when 5% is added to the percent full-height sheathing requirements shown in Tables 10 and 11.
- The bottom sill plate in exterior walls shall be a minimum 2 in. nominal thickness pressure treated #2-grade.

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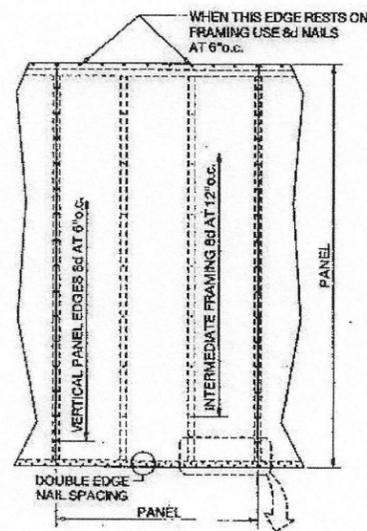
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SHEET:

A - 11

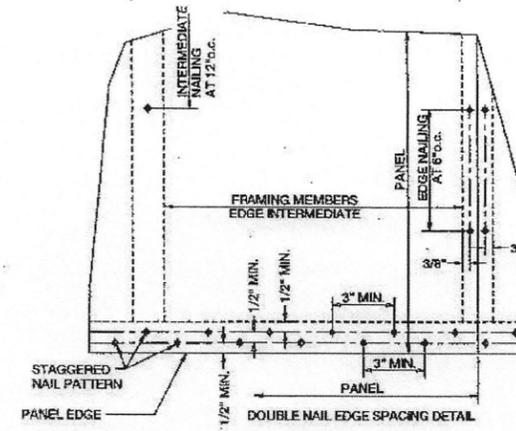
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4.
 - a. From Tables 10 and 11 and location of wall sheathing and Building Aspect Ratio, determine Percent Full-Height Sheathing and Nail Spacing requirements
 - b. Wood Structural Panels shall be minimum thickness of 7/16" and be installed as follows:
 - i. Panels shall be installed with strength axis parallel to studs.
 - ii. All horizontal joints shall occur over and be nailed to framing.
 - iii. On single story construction, panels shall be attached to bottom plates and top member of the double top plate.
 - iv. On two story construction, upper panels shall be attached to the top member of the upper double top plate and to band joist at bottom of panel. Upper attachment of lower panel shall be made to band joist and lower attachment made to lowest plate at first floor framing.
 - v. Horizontal nail spacing at double top plates, band joists, and girders shall be a double row of 8d staggered at 3 inches on center per figures below : Vertical and Horizontal Nailing for Panel Attachment



See Detail on Next Page
 Vertical and Horizontal Nailing
 for Panel Attachment

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Massachusetts Checklist for Compliance (780 CMR 5301.2.1.1)¹



Detail
 Vertical and Horizontal Nailing
 for Panel Attachment

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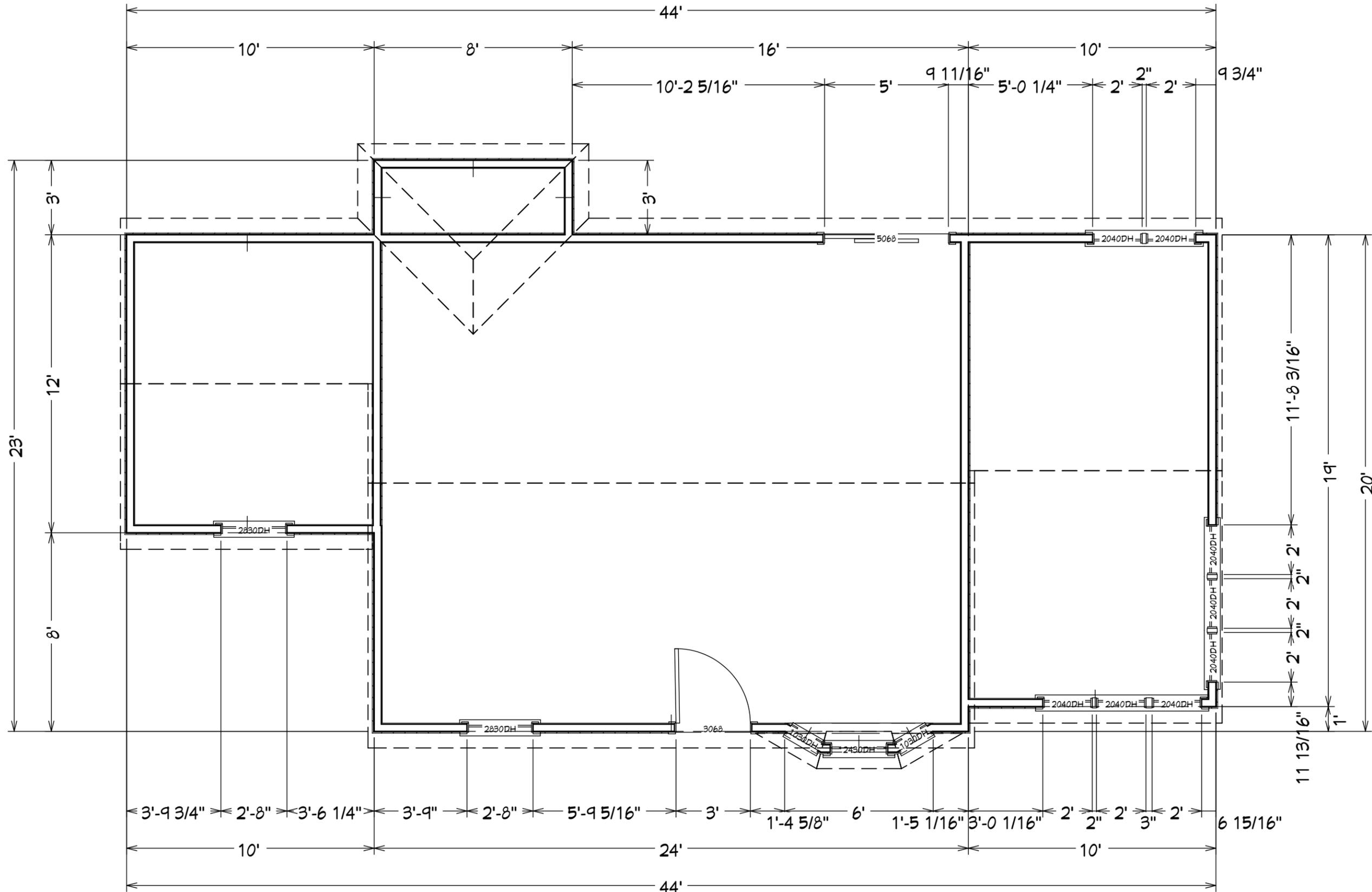
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SHEET:

A - 12



LIVING AREA
814 SQ FT

Existing Structure

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A - 13