

PREPARED FOR: EDWARD THOMPSON  
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**GARAGE REMODEL - EXISTING PLANS**

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

CREATED 11/23/22; REVISED 12/13/22; 12/20/22

**Marisa Garrity**

158 Cranberry Highway  
Orleans, MA 02653  
(508) 945-0300

marisa.muto@nc@gmail.com

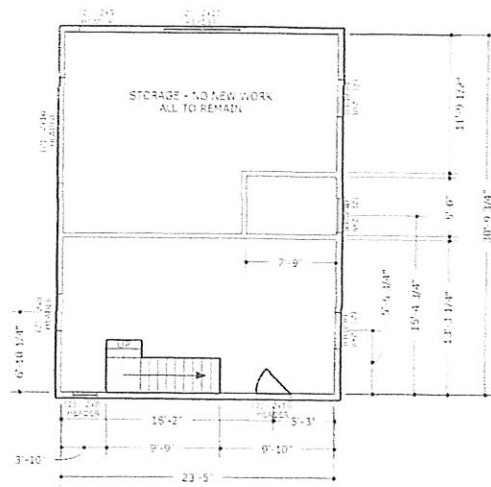
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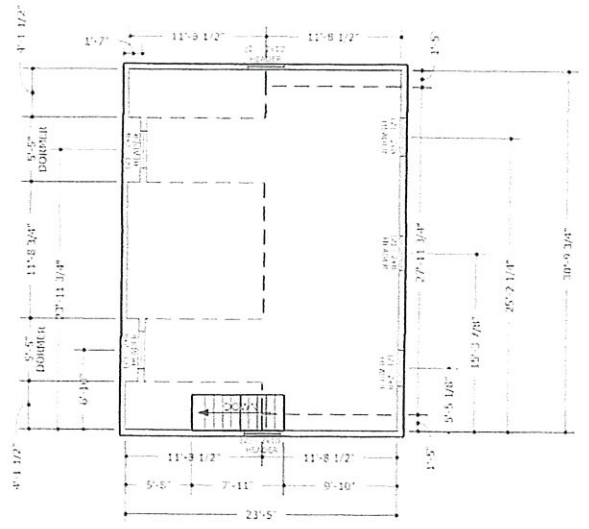
REAR

LEFT



FIRST FLOOR PLAN

1/8"=1'-0"



SECOND FLOOR PLAN

1/8"=1'-0"

FRONT

Open Entry RIGHT

December 23, 2022

EXISTING FLOOR PLANS

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

Project Location | 100 MA-28, West Harwich, MA 02671

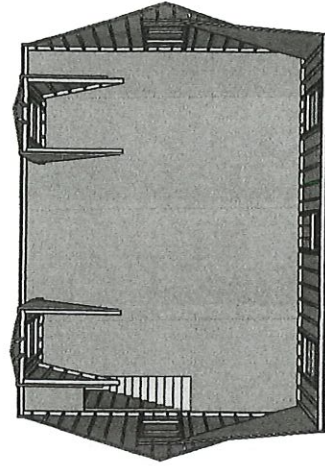
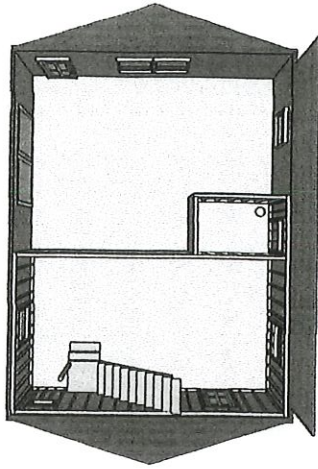
A 2

DATE: 12/23/22  
DRAWN: J. COVATTA  
CHECKED: J. COVATTA

PREPARED FOR: KEVIN THOMPSON  
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WATER GARDEN

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EXISTING 3D FLOOR PLANS

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

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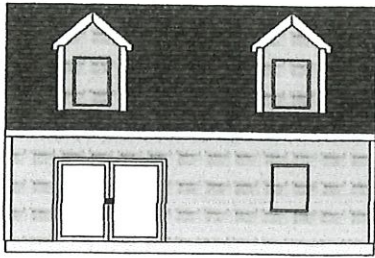
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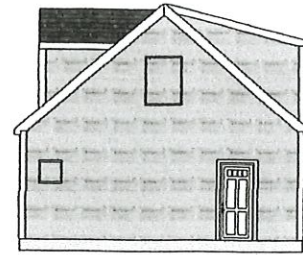
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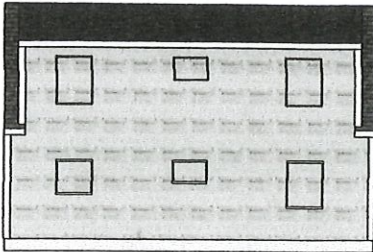
LEFT ELEVATION

1/8"=1'-0"



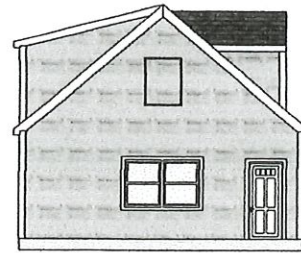
FRONT ELEVATION

1/8"=1'-0"



RIGHT ELEVATION

1/8"=1'-0"



REAR ELEVATION

1/8"=1'-0"

Kindle Garvey

December 23, 2022

EXISTING ELEVATIONS

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

Project Location | 100 MA-28, West Harwich, MA 02671

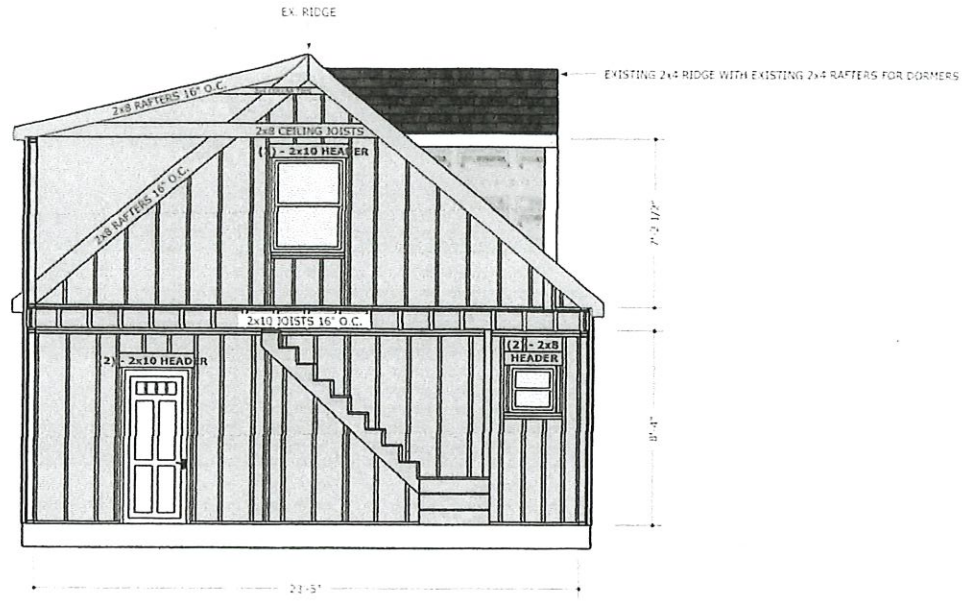
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Marka Garity

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EXISTING SECTION

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

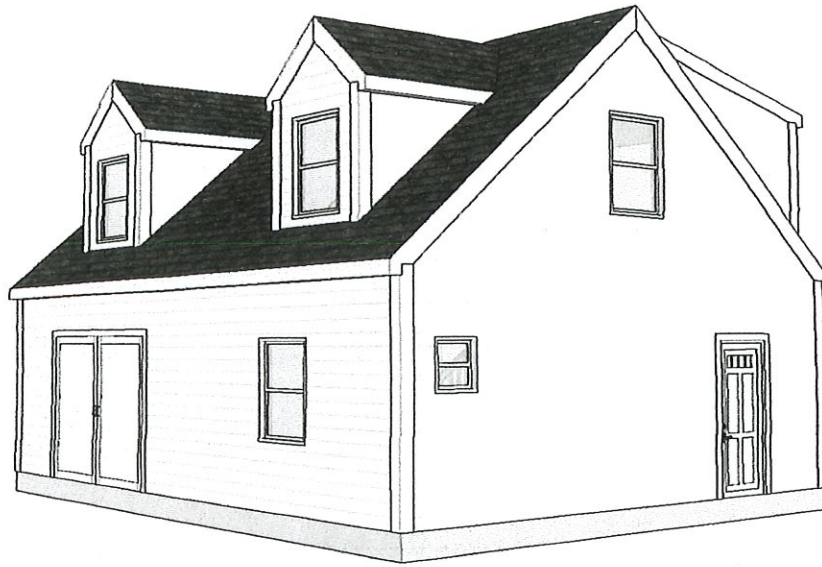
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DATE PLOTTED: 03/24/2023 10:00 AM  
C:\PROJECTS\2023\100 MA-28\100 MA-28.dwg  
PLOT SCALE: 1/4" = 1'-0"

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**GARAGE REMODEL - PROPOSED PLANS**

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

CREATED 11/23/22; REVISED 12/13/22; 12/20/22

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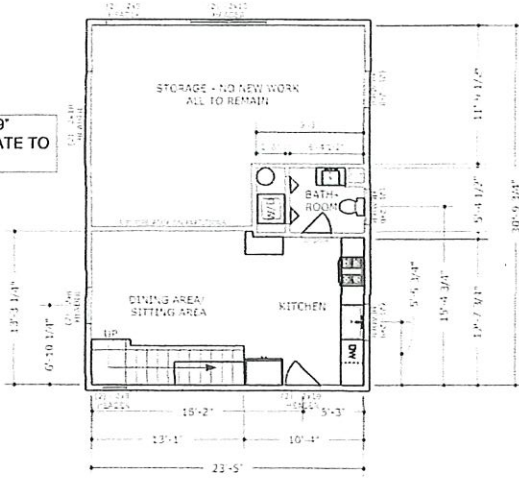
REAR



*Michele Cudilo*

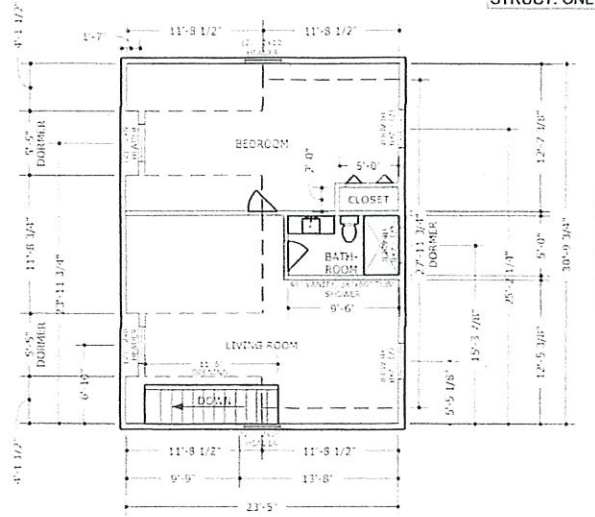
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ADD 1/2"X9" STEEL PLATE TO 8' HOR.



FIRST FLOOR PLAN

1/8"=1'-0"



SECOND FLOOR PLAN

1/8"=1'-0"

FRONT

December 23, 2022

PROPOSED FLOOR PLANS

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

Project Location | 100 MA-28, West Harwich, MA 02671

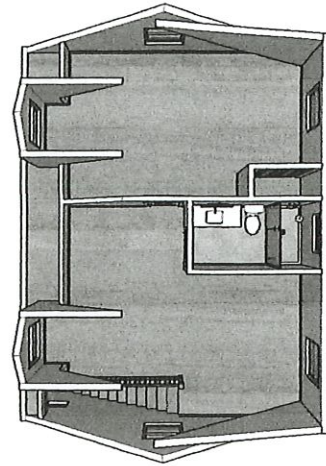
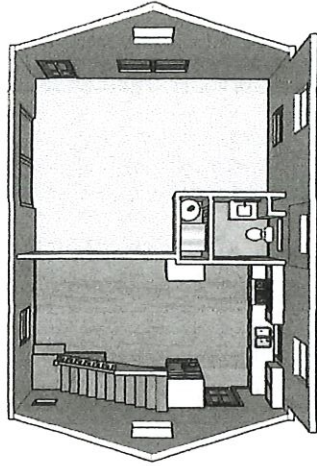
A 7

CAVING ENGINEERING, LLC  
600 STATE STREET  
HARWICH, MA 02645

PREPARED FOR: MICHELE CUDILO  
100 MA-28, W. HARWICH, MA 02671

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Martha Corbett

December 23, 2022

PROPOSED 3D FLOOR PLANS

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

Project Location | 100 MA-28, West Harwich, MA 02571

A 6

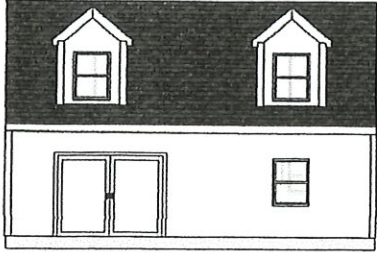
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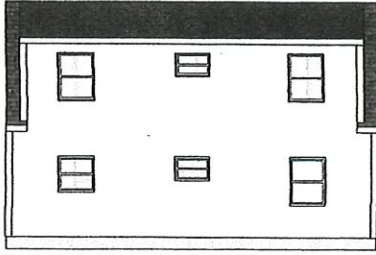
LEFT ELEVATION

1/8"=1'-0"



FRONT ELEVATION

1/8"=1'-0"



RIGHT ELEVATION

1/8"=1'-0"



REAR ELEVATION

1/8"=1'-0"

Miriam Garity

December 23, 2022

PROPOSED ELEVATIONS

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

Project Location | 100 MA-28, West Harwich, MA 02671

A 9

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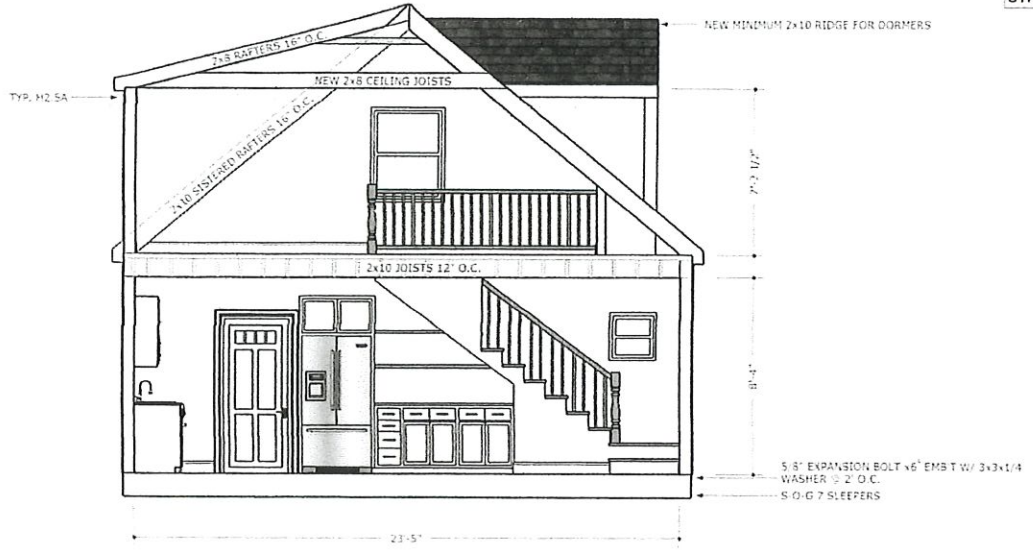
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NOTES: NO CHANGES TO OPENINGS



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**NOTES**

2x10 JOISTS 12" O.C. @ 18' SPAN

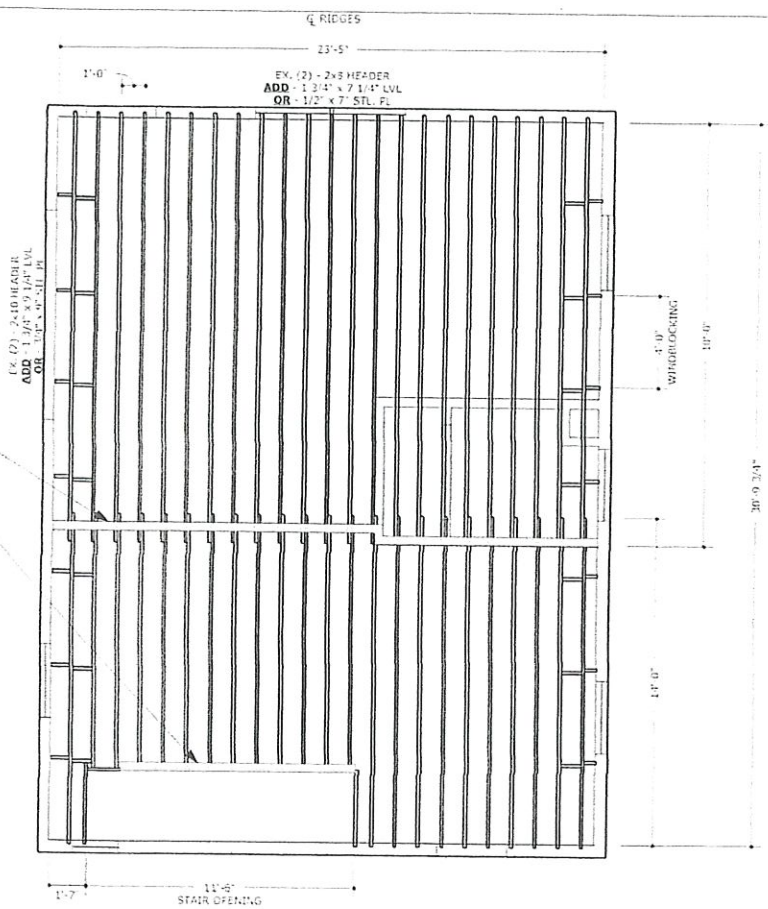
2x10 JOISTS 12" O.C. @ 14' SPAN

NEW 11'-6" STAIRCASE OPENING

WINDBLOCKING - 2 BAYS @ 4' O.C.  
@ EACH LEVEL @ GABLE ENDS

DOUBLE JOIST BLOCK BELOW  
PARTITIONS

BRG. WALLS ON STRIP FOOTING  
18" WIDE x10" DEEP



*Michelle Cudde*  
12/26/22 FOR  
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Metra City

December 23, 2022

**PROPOSED FLOOR/ CEILING FRAMING PLAN**

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

Project Location | 100 MA-28, West Harwich, MA 02671

A 11

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Check Compliance

1.1 SCOPE

Wind Speed (3-sec. gust) ..... 110 mph  
 Wind Exposure Category ..... B

1.2 APPLICABILITY

Number of Stories ..... (Fig 2) ..... 2 stories ≤ 2 stories  
 Roof Pitch ..... (Fig 2) ..... 12/12 ≤ 12:12  
 Mean Roof Height ..... (Fig 2) ..... 33 ft ≤ 33'  
 Building Width, W ..... (Fig 3) ..... 23 ft ≤ 80'  
 Building Length, L ..... (Fig 3) ..... 20.8 ft ≤ 80'  
 Building Aspect Ratio (L/W) ..... (Fig 4) ..... 1.34 ≤ 3:1  
 Nominal Height of Tallest Opening<sup>2</sup> ..... (Fig 4) ..... 6-8 ≤ 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<sup>1,3</sup>

5/8" Anchor Bolts imbedded or 5/8" Proprietary Mechanical Anchors as an alternative in concrete only  
 Bolt Spacing – general ..... (Table 4) ..... S-D-G 24 in.  
 Bolt Spacing from end/joint of plate ..... (Fig 5) ..... 6-12 in. ≤ 6" – 12"  
 Bolt Embedment – concrete ..... (Fig 5) ..... 7 in. ≥ 7"  
 Bolt Embedment – masonry ..... (Fig 5) ..... - 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) ..... 12 ft ≤ 12' or L/2 or W/2

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) ..... 24 ft

Maximum Cantilevered Floor Joists

Supporting Loadbearing Walls or Shearwall ..... (Fig 8) ..... 24 ft

Floor Bracing at Endwalls ..... (Fig 9) .....

Floor Sheathing Type ..... (per 780 CMR Chapter 55) .....

Floor Sheathing Thickness ..... (per 780 CMR Chapter 55) ..... 3/4 in.

Floor Sheathing Fastening ..... (Table 2) .. 8 d nails at 6 in edge / 12 in field

4.1 WALLS

Wall Height

Loadbearing walls ..... (Fig 10 and Table 5) ..... 10 ft ≤ 10'

Non-Loadbearing walls ..... (Fig 10 and Table 5) ..... 18.4 ft ≤ 20'

Wall Stud Spacing ..... (Fig 10 and Table 5) ..... 16 in. ≤ 24" o.c.

Wall Story Offsets ..... (Figs 7 & 8) ..... - ft ≤ d

4.2 EXTERIOR WALLS<sup>3</sup>

Wood Studs

Loadbearing walls ..... (Table 5) ..... 2x 6 10 ft - in.

Non-Loadbearing walls ..... (Table 5) ..... 2x 6 18 ft 5 in.

Gable End Wall Bracing

Full Height Endwall Studs ..... (Fig 10) .....

WSP Attic Floor Length ..... (Fig 11) ..... - ft ≥ W/3

Gypsum Ceiling Length (if WSP not used) ..... (Fig 11) ..... 23.5 ft ≥ 0.9W

2 x 4 Continuous Lateral Brace @ 6 ft. o.c. ... (Fig 11) .....

Double Top Plate

Splice Length ..... (Fig 13 and Table 6) ..... 30.8 ft WALL 14 ft

Splice Connection (no. of 18d common nails) ..... (Table 6) .....

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(VERIFY)



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Loadbearing Wall Connections			
Lateral (no. of endnailed 16d common nails) .....	(Table 7) .....	2	
Non-Loadbearing Wall Connections			
Lateral (no. of endnailed 16d common nails) .....	(Table 8) .....	2	
Load Bearing Wall Openings (record largest opening but check all openings for compliance to Table 9)			
Header Spans .....	(Table 9) .....	PER PLAN	ft in. ≤ 11'
Sill Plate Spans .....	(Table 9) .....	PER PLAN	ft in. ≤ 11'
Full Height Studs (no. of studs) .....	(Table 9) .....		
Non-Load Bearing Wall Openings (record largest opening but check all openings for compliance to Table 9)			
Header Spans .....	(Table 9) .....	PER PLAN	ft in. ≤ 12'
Sill Plate Spans .....	(Table 9) .....	PER PLAN	ft in. ≤ 12'
Full Height Studs (no. of studs) .....	(Table 9) .....		
Exterior Wall Sheathing to Resist Uplift and Shear Simultaneously <sup>4</sup>			
Minimum Building Dimension, W			
Nominal Height of Tallest Opening <sup>2</sup> .....	= 23.5'		
Sheathing Type .....	(note 4) .....	6-8" WSP	
Edge Nail Spacing .....	(Table 10 or note 4 if less) EXIST.	6 in.	
Field Nail Spacing .....	(Table 10) .....	12 in.	
Shear Connection (no. of 16d common nails) (Table 10) .....		3/16"	
Percent Full-Height Sheathing .....	(Table 10) .....	2ND 39% = 9.2'	OK
5% Additional Sheathing for Wall with Opening > 6'8" (Design Concepts) 1ST 7.3' 17.1'			EXIST. ENVELOP
Maximum Building Dimension, L			
Nominal Height of Tallest Opening <sup>2</sup> .....	= 30.8'		
Sheathing Type .....	(note 4) .....	6-8" WSP	
Edge Nail Spacing .....	(Table 11 or note 4 if less) EXIST.	6 in.	
Field Nail Spacing .....	(Table 11) .....	12 in.	
Shear Connection (no. of 16d common nails) (Table 11) .....		3/16"	
Percent Full-Height Sheathing .....	(Table 11) .....	2ND 27% = 8.3'	OK
5% Additional Sheathing for Wall with Opening > 6'8" (Design Concepts) 1ST 5.7' 16.6'			OK
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) .....	2 ft ≤ smaller of 2' or L/3
Truss or Rafter Connections at Loadbearing Walls		
Proprietary Connectors		
Uplift .....	(Table 12) .....	MAX. SPAN = 23.5' SIMPSON U=260
Lateral .....	(Table 12) .....	L=176 H2.5A
Shear .....	(Table 12) .....	S=176
Ridge Strap Connections, if collar ties not used per page 21... ..	(Table 13) .....	T=176 L STAB
Gable Rake Outlooker .....	(Figure 20) .....	N/A ft ≤ smaller of 2' or L/2
Truss or Rafter Connections at Non-Loadbearing Walls		
Proprietary Connectors		
Uplift .....	(Table 14) .....	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 .....		7/16 in. ≥ 7/16" WSP
Roof Sheathing Fastening .....	(Table 2) Ed @ 6" o/c	EDGE & FIELD

Notes:

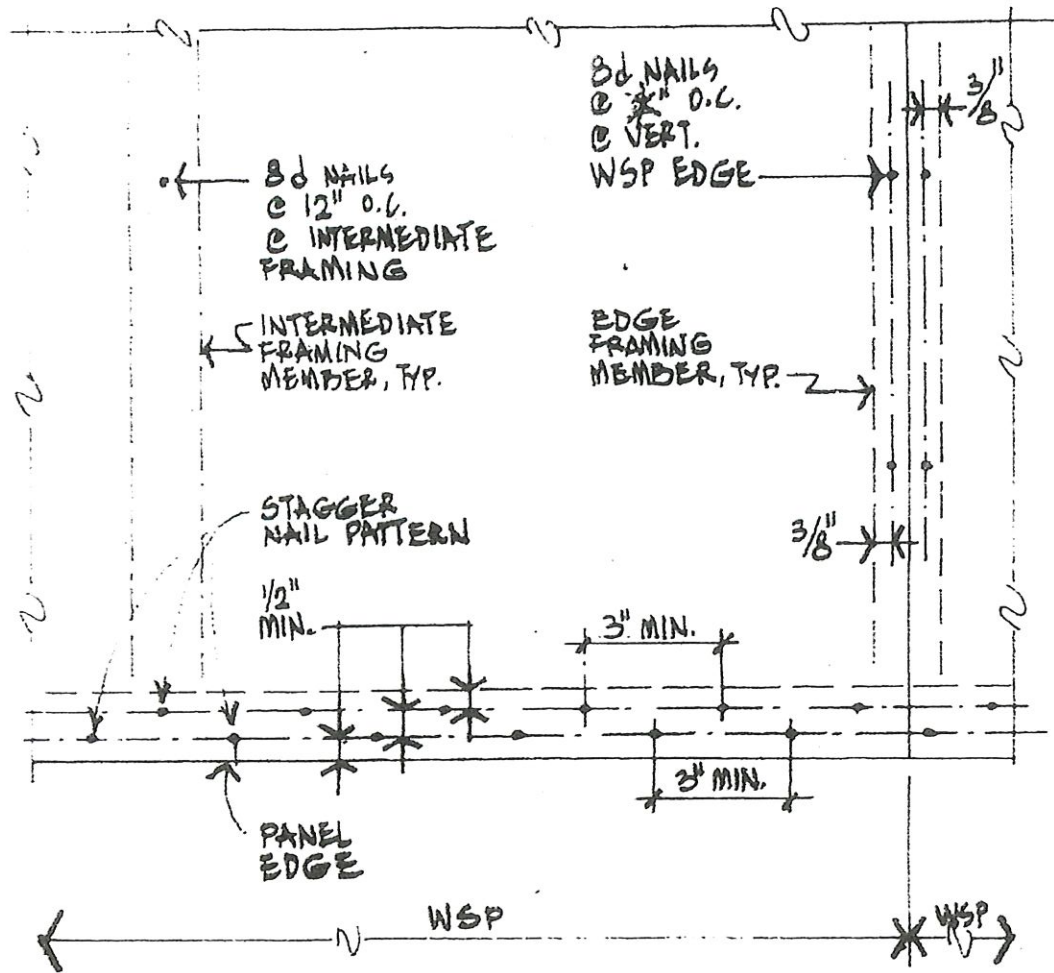
- This checklist must be met in its entirety, excluding the specific exception noted in 2, to comply with the requirements of 780 CMR 5301.2.1.1 Item 1. If the checklist is met in its entirety then the following metal straps and hold downs are not required per the WFCM 110 mph Guide:
  - Steel Straps 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
- 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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7 Madio, PE  
12/9/22

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# WSP ATTACHMENT

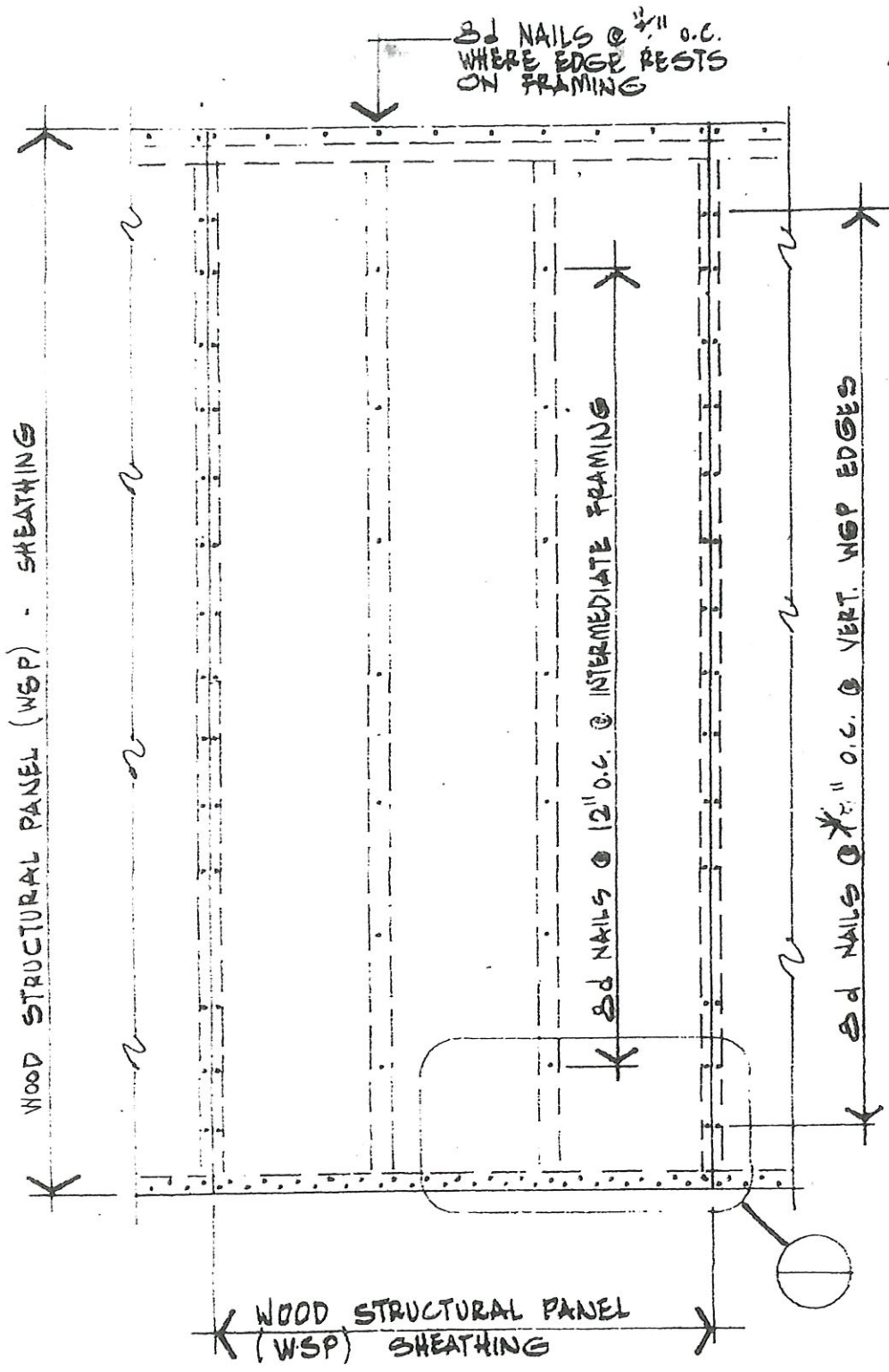
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FOR VERT. AND HORIZ. ATTACHMENT

## NOTES:

- Wood Structural Panels shall be minimum thickness of 7/16" and be installed as follows:
- Panels shall be installed with strength axis parallel to studs.
  - All horizontal joints shall occur over and be nailed to framing.
  - On single story construction, panels shall be attached to bottom plates and top member of the double top plate.
  - 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.
  - 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
- \* PER CODE CHECKLIST P. 2 OF 4

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# WSP ATTACHMENT

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## FOR VERTICAL AND HORIZONTAL ATTACHMENT

\* PER CODE CHECKLIST

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**GENERAL NOTES AND MATERIAL SPECIFICATIONS:**

**FOUNDATIONS**

1. All workmanship to conform to the requirements of the Massachusetts State Building Code, latest edition.
2. For site location and grading information, see Site Plan, by others.
3. Assumed net allowable soil bearing capacity,  $q = 3000$  psf, for a medium sand/gravel composition. Other soils encountered, contact the Engineer of Record.
4. **Concrete:** Minimum 28 day strength,  $f_c = 3000$  psi, 3/4" aggregate, designed per American Concrete Institute Code, latest issue, maximum slump = 4".
  - a.) Anchor bolts ASTM A307 galvanized, min. 5/8" diameter, 12" long, w/ 2-1/2" hook spaced 4' o/c, or in concrete piers w/ Simpson ABU-series base: SPACED 2' o/c for slab-on-grade construction (i.e. Garage). U.O.N.

**FRAMING**

1. All workmanship to conform to the requirements of the Massachusetts State Building Code, latest edition.
2. **Structural Design Loads:**
  - Dead Loads: Actual Weight of Building Components
  - Live Loads: Snow Load = 30 psf (plus drift) with applicable reduction
    - ATTIC Storage = 20 psf
    - Living Floor = 40 psf
    - Sleeping Floor = 30 psf
    - Decks and Balconies = 60 psf
    - Wind Load : Criteria used for 110 MPH Exposure B
3. **Structural Steel:** (as required)
  - a. ASTM A572 Grade 50: shop paint with rust inhibitive paint. Thru-Bolts: ASTM A307, 1/2" diameter; punched holes: 9/16" diameter.
  - b. **Welds:** Shop weld cap and base plates to columns; shop weld bearing plates to beams; use E70xx electrodes. Alternatively, field weld by certified welders.
  - c. Deflection Criteria:  $L/360$  total load deflection.
4. **Timber Framing:**
  - a. All new timber framing: Spruce-Pine-Fir No. 2 with  $F_b = 1000$  psi,  $E = 1,300,000$  psi, or better.
  - b. Pressure treated timber (P.T.): Southern Pine with  $F_b = 1300$  psi,  $E = 1,600,000$  psi, or better.
  - c. Laminated Veneer Lumber: All L.V.L. shall be 1.9E L.V.L. with  $F_b = 2925$  psi,  $E = 1,900$  ksi,  $F_v = 285$  psi,  $F_c_{per} = 750$  psi,  $F_c_{par} = 3035$  psi. Parallam (PSL): All PSL shall be min. 1.9E ES with  $F_b = 2900$  psi,  $E = 1,900$  ksi,  $F_v = 285$  psi,  $F_c_{per} = 750$  psi,  $F_c_{par} = 2900$  psi. Note that Microllam and Parallam may be used interchangeably.
    1. Deflection Criteria:  $L/480$  Live Load,  $L/360$  Total Load
    2. Optional: Provide shop drawing submittal of engineered lumber systems for approval prior to materials purchasing.
5. **Metal Connectors:**

As manufactured by Simpson Strong-Tie Co. shall be handled and installed per manufacturer requirements, with all nail holes filled, with the size nail as specified by mfr. or herein.

  - a. Rafter to Ridge Beam: Simpson LSSU-series, or Simpson Straps over top of plywood, spaced 48" o/c;  
Rafter to Ridge Plate: Collar ties min. 1x6 @ 48" o/c at top or Simpson Straps over top of plywood spaced 48" o/c
  - b. Rafter ends to top plate: Simpson H2.5A
  - c. Band Joist: Simpson straps at 48" o/c
6. **Bolts:**

Bolts in wood framing shall be standard machine bolts unless noted otherwise. Bolt holes in wood shall be 1/32" larger than bolt diameter. Bolt heads and nuts shall bear on standard malleable iron washers, or square plate washers. All nuts shall be retightened at completion of job.
7. **Blocking:**
  - a. Blocking shall be solid blocking, 2x minimum, and full depth of member.
  - b. Stud Walls: provide blocking at 8'-0" o/c, maximum height. Corners to be blocked at 48" o/c with plywood edge nailing to this blocking for the first 48" of these building corners.
  - c. **Nailing Schedule:**
    - Solid Blocking to Bearing      2-8d toenails ea. side
    - Blocking Between Studs      2-10d toenails ea. end, or 2-16d end-nails ea. End
  - d. **New Framing:** Provide 2x blocking for 2 joist/rafter bays and spaced 48" o/c in joist and rafter plane at all edges; attach plywood edges to this blocking
8. **Nailing Schedule:**

All nailing shall be in accordance with Appendix 120.Q, unless noted herein specifically.

  - Multiple Studs      16d @ 12" staggered
  - a. All nails shall be common wire nails.
  - b. Sub-bore where; nails tend to split wood.
9. Headers less than 4'-0", use 2-2x6; all others per MA State Building Code Table 5502.5(1) and (2).

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