

TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA													
GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP*	ICE BARRIER UNDERLAYMENT REQUIRED ^b	FLOOD HAZARDS ^c	AIR FREEZING INDEX ^d	MEAN ANNUAL TEMP ^e
	Speed ^f (mph)	Topographic effects ^g	Special wind region ^h	Wind-borne debris zone ⁱ		Weathering ^j	Frost line depth ^k	Termite ^l					
50	124				B								

- For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.
- Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index, "negligible," "moderate" or "severe" for concrete as determined from Figure R301.2(3). The grade of masonry units shall be determined from ASTM C34, C55, C62, C73, C90, C129, C145, C216 or C652.
 - The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
 - The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
 - The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(4)A]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
 - The outdoor design dry-bulb temperature shall be selected from the columns of 97th-percent values for winter from Appendix D of the *International Plumbing Code*. Deviations from the Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.
 - The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
 - The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of the currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.
 - In accordance with Sections R905.1.2, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."
 - The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99 percent) value on the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)".
 - The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)".
 - In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
 - In accordance with Figure R301.2(4)A, where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with "YES" and identify any specific requirements. Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
 - In accordance with Section R301.2.1.2.1, the jurisdiction shall indicate the wind-borne debris wind zone(s). Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

← Jurisdiction to fill in table.

TABLE N1102.1.2 (R402.1.2)
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT*

CLIMATE ZONE	FENESTRATION U-FACTOR ^a	SKYLIGHT U-FACTOR ^b	GLAZED FENESTRATION SHGC ^{c,d}	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ^e	FLOOR R-VALUE	BASEMENT ^f WALL R-VALUE	SLAB ^g R-VALUE & DEPTH	CRAWL SPACE ^h WALL R-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13 + 5 ^h	8/13	19	5/13 ^f	0	5/13
4 except Marine	0.35	0.55	0.40	49	20 or 13 + 5 ^h	8/13	19	10/13	10, 2 ft	10/13
5 and Marine 4	.30	0.55	NR	49	20 or 13 + 5 ^h	13/17	30 ^g	15/19	10, 2 ft	15/19
6	0.32	0.55	NR	49	20 + 5 or 13 + 10 ^h	15/20	30 ^g	15/19	10, 4 ft	15/19
7 and 8	0.32	0.55	NR	49	20 + 5 or 13 + 10 ^h	19/21	38 ^g	15/19	10, 4 ft	15/19

- For SI: 1 foot = 304.8 mm.
- R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.
 - The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.
 - "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home.
"10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
 - R-5 shall be added to the required slab edge R-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs.
 - There are no SHGC requirements in the Marine Zone.
 - Basement wall insulation is not required in warm-humid locations as defined by Figure N1101.10 and Table N1101.10.
 - Or insulation sufficient to fill the framing cavity. R-19 minimum.
 - The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation.
 - The second R-value applies when more than half the insulation is on the interior of the mass wall.

Stow MA is a stretch energy code community.
A HERS rater is required to specify and verify adequate insulation.
These documents are prepared based on the Prescriptive 2015 IECC.

APPENDIX U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES)
(Adopted as amended)

Delete APPENDIX U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

SECTION AU102 (RB102) GENERAL DEFINITIONS

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

SECTION AU103 (RB103) SOLAR-READY ZONE

AU103.1 (RB103.1) General. New detached one- and two-family dwellings, and multiple single-family dwellings (townhouses) with not less than 600 ft² (55.74 m²) of roof area oriented between 110° and 270° of true north shall comply with sections AU103.2 through AU103.8 (RB103.2 through RB103.8).

EXCEPTIONS:

- New residential buildings with a permanently installed on-site renewable energy system.
- A building with a solar-ready zone that is shaded for more than 70% of daylight hours annually.
- Buildings and structures as designed and shown in construction documents that do not meet the conditions for a solar-ready zone area.

This project does NOT have any areas so oriented. Therefore no need to comply with sections AU103.2 - AU103.8

AU103.2 (RB103.2) Construction Document Requirements for Solar Ready Zone. Construction documents shall indicate the solar ready zone where applicable.

AU103.3 (RB103.3) Solar-Ready Zone Area. The total solar-ready zone area shall consist of an area not less than 300 ft² (27.87 m²) exclusive of mandatory access or set back areas as required by 527 CMR. New multiple single-family dwellings (townhouses) three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 ft² (185.8 m²) per dwelling shall have a solar-ready zone area of not less than 150 ft² (13.94 m²). The solar-ready zone shall be composed of areas not less than five feet (1,524 mm) in width and not less than 80 ft² (7.44 m²) exclusive of access or set back areas as required by 527 CMR.

APPENDIX F: PASSIVE RADON GAS CONTROLS (Adopted as revised)

AF101.1 Revise the section as follows:

AF101.1 General. This appendix contains minimum requirements for new construction in the high radon potential counties as listed in Table AF101(1) regardless of the radon levels at the site. These requirements are intended to provide a passive means of resisting radon gas entry and prepare the dwelling for post-construction radon mitigation, if necessary. See Figure AF102. Active construction techniques, rather than passive techniques, shall be permitted to be used where approved.

Alternatively, the passive system requirements of ANSI/AARST Standard Designation #CCAH: *Reducing Radon in New Construction of One & Two Family Dwellings and Townhouses*, 2013 may be used for new construction in Zone 1, or approved equal system.

Respective of which approach is used, no testing is required as follows:

- for the radon levels at the site prior to construction;
- for the radon control system when completed; or
- in the building after completion of the project.

Therefore, such testing shall not be a condition of issuing a certificate of occupancy.

AF102.1 Revise the definition of "GAS-PERMEABLE LAYER" as follows:

GAS-PERMEABLE LAYER. A gas-permeable layer shall consist of one of the following:

- A uniform layer of clean aggregate that is not less than four inches (102 mm) thick. The aggregate shall consist of material that will pass through a two-inch (51-mm) sieve and be retained by a 1/8-inch (6.4-mm) sieve.
- A uniform layer of sand (native or fill) that is not less than four inches (102 mm) thick and that is overlain by a soil gas collection mat or soil gas matting installed in accordance with the manufacturer's instructions. The soil gas mat or matting shall be designed for this purpose and condition, and have the capacity to freely transport soil gases to the collection point from the most remote area.

AF103.2.2 Revise the subsection as follows:

AF103.2.2 Sumps. Sumps open to soil or serving as the termination point for subslab drain tile loops shall be covered with a gasketed or sealed lid. Sumps used as the suction point in a sub slab depressurization system shall have a lid designed to accommodate the vent pipe. Sumps used as a floor drain shall have a lid equipped with a trapped inlet. Drainage systems that lead outside the foundation walls shall be isolated or trapped so as not to short-circuit the depressurization system.

AF103.3.1 Revise the subsection as follows:

AF103.3.1 Soil-gas-retarder. The soil in basements and enclosed crawl spaces shall be covered with a soil-gas-retarder. The soil-gas-retarder shall be lapped not less than 12 inches (305 mm) at joints and shall extend to foundation walls enclosing the basement or crawl space. The soil-gas-retarder shall fit closely around any pipe, wire or other penetrations of the material. Punctures or tears in the material shall be sealed or covered with additional sheeting. The membrane shall extend upward six inches be sealed to the perimeter footing or wall with an ASTM C290 class 25 or higher sealant or equal.

AF103.3.2 Revise the subsection as follows:

AF103.3.2 "T" Fitting and Vent Pipe. A "T" fitting shall be inserted beneath the soil-gas-retarder and be connected to a three-inch minimum vertical vent pipe. The vent pipe shall extend through the conditioned space of the dwelling and terminate not less than 12 inches (305 mm) above the roof in a location not less than ten feet (3.048 mm) away from any window or other opening into the conditioned spaces of the building that is less than two feet (610 mm) below the exhaust point. The horizontal legs of the "T" fitting shall connect to two five-foot long pieces of four-inch diameter perforated pipe laid horizontally in a 50 in² bed of gravel, filled with the same gravel as used in the gas-permeable layer.

AF103.4.2 Revise the subsection as follows:

AF103.4.2 Soil-gas-retarder. A soil-gas-retarder shall be placed on top of the gas-permeable layer prior to casting the slab or placing the floor assembly. The soil-gas-retarder shall cover the entire floor area with separate sections lapped not less than 12 inches (305 mm) and shall extend upward six inches and be sealed to the wall with an ASTM C290 class 25 or higher sealant or equal. The soil-gas-retarder shall fit closely around any pipe, wire, or other penetrations of the material. Punctures or tears in the material shall be sealed or covered. Under-slab insulation, if used, shall be placed on top of the sheeting.

AF103.4.2 Revise the subsection as follows:

AF103.4.3 "T" Fitting and Vent Pipe. Before a slab is cast or other floor system is installed, a "T" fitting shall be inserted below the slab or other floor system and the soil-gas-retarder. The "T" fitting shall be connected to a three-inch minimum vertical vent pipe. The vent pipe shall extend through the conditioned space of the dwelling and terminate not less than 12 inches (305 mm) above the roof in a location not less than ten feet (3.048 mm) away from any window or other opening into the conditioned spaces of the building that is less than two feet (610 mm) below the exhaust point. The horizontal legs of the "T" fitting shall connect to two five-foot long pieces of four-inch diameter perforated pipe laid horizontally in a 50 in² bed of gravel, filled with the same gravel as used in the gas-permeable layer.

Floor Area (SQ FT)	Number of Bedrooms			
	0-1	2-3	4-5	6-7
<1500	30	45	60	75
1501-3000	45	60	75	90
3001-4500	60	75	90	105
4501-6000	75	90	105	120
6001-7500	90	105	120	135
>7500	105	120	135	165

R303.4 Mechanical ventilation. Where the air infiltration rate of a dwelling unit is 5 air changes per hour or less where tested with a blower door at a pressure of 0.2 inch w. c. (50 Pa) in accordance with Section N1102.4.1.2, the dwelling unit shall be provided with whole-house mechanical ventilation in accordance with Section M1507.3.

Siding Color and style TBD by owner and builder.
Front porch roof supported by 2 structural fiberglass columns or similar.
2 additional columns are decorative.

New Roof slopes to match existing.

1x6 rake board and 1x3 shadow board for all Gables. Material TBD.
Optional Water Table trim board Not shown.

FT deck and stairs if added per the APA "Residential Deck Frame Construction Guide" based on the 2012 IRC.

Guardrails not shown for clarity but are required for walking surfaces greater than 30" above the surrounding terrain.

Stairway to be a minimum of 36" clear width and include a required handrail mounted inside the guardrails.

Handrails are required for stairways with 4 or more risers.

Provided gutters and downspouts to collect rainwater from the roof and direct it away from the foundation. (Not Shown)



PROPOSED ISOMETRIC

Isometric views are NTS and are illustrative only to help visualization. Some details may be inaccurate. Refer to the orthographic plans and the applicable Codes for all construction instructions.

Narrative:

New Construction 2-Story 2-BR home with finished walkout basement.

Ground Floor	GLA = 911 SF (Measured inside Ext walls)
1st Floor	GLA = 955 SF (Measured inside Ext walls)
2nd Floor	GLA = 682 SF (Measured inside Ext walls)
TOTAL	GLA = 2,548 SF

All NEW framing and construction to be in accordance with MA Code T80 CMR 9th Edition and IRC 2015 for 1 & 2 Family Residential Construction. While good faith effort has been made to incorporate as much of that information as practical in these documents, human error or omission is possible. It is the licensed builder's responsibility to review these documents prior to construction and to proceed in accordance with applicable codes.

REVISION TABLE	REVISION BY	DESCRIPTION
NUMBER	DATE	

COVER

PROJECT DESIGNED FOR:
Greendale LLC
44 Pine Point Road
Stowe, MA

DATE:

3/29/2020

SCALE:

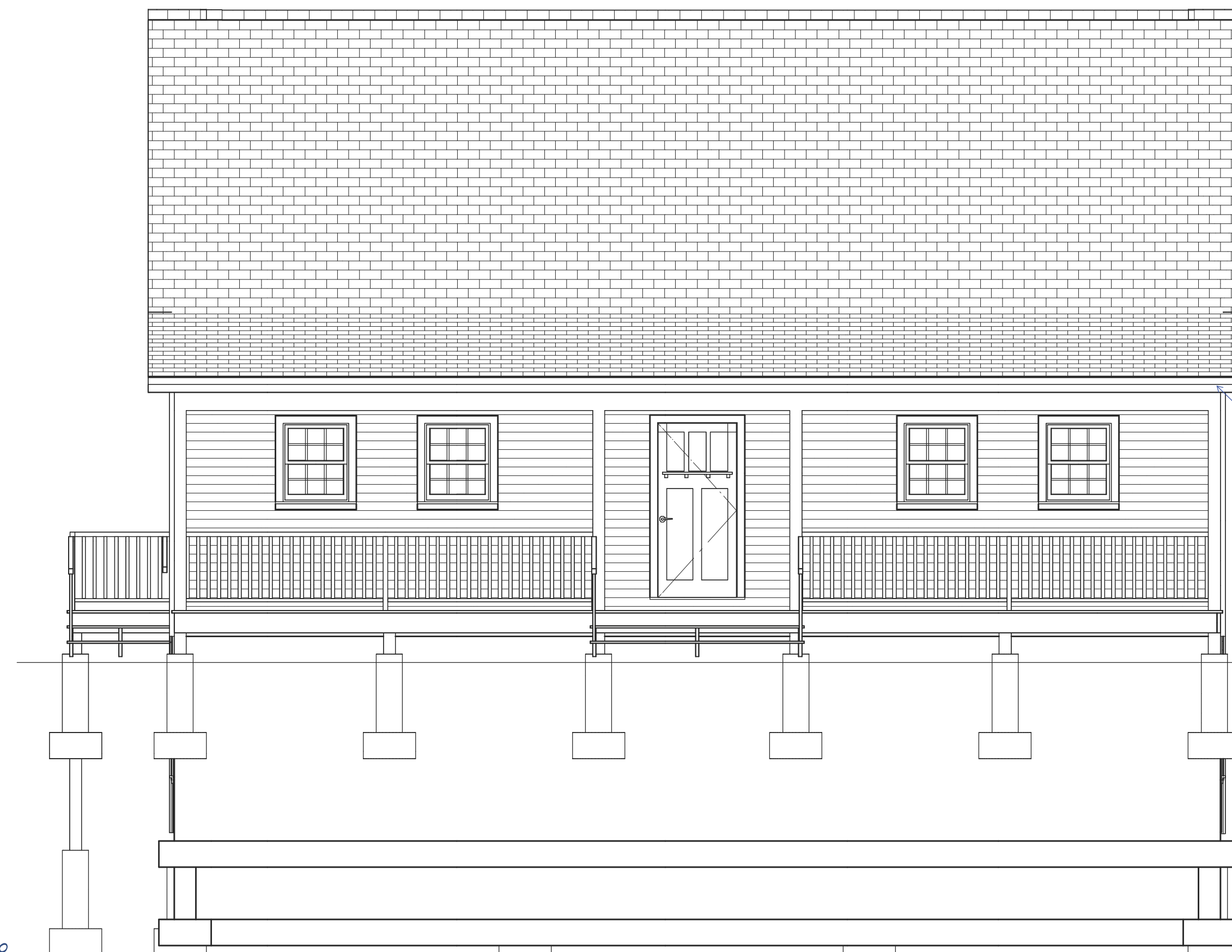
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A-0



Foundation / footing steps are for illustration only. Actual foundation and footing steps to be determined by site conditions and planned retaining walls if any.

LEFT ELEVATION 1/4 in = 1 ft



12" Rake built off sheathing with 2x6 Ladder frame.
1x8 Trim with 1x3 Shadow board.

8" nom. Fascia with Gutter.
Gutter drops required but not shown.

Porch railings shown.
Optional if deck is less than 30" or less above grade.

For stairways with 4 or more risers or a total rise greater than 30" guards and handrails are required.

FRONT ELEVATION 1/4 in = 1 ft



Foundation / footing steps are for illustration only. Actual foundation and footing steps to be determined by site conditions and planned retaining walls if any.

RIGHT ELEVATION 1/4 in = 1 ft



Rake built off sheathing with 2x6 Ladder frame.
1x8 Trim with 1x3 Shadow board.

8" nom. Fascia with Gutter.
Gutter drops required but not shown.

12" Rake built off sheathing with 2x6 Ladder frame.
1x8 Trim with 1x3 Shadow board.

8" nom. Fascia with Gutter.
Gutter drops required but not shown.

- Rear porch stair location TBD by builder and owner. Build in accordance with MA Code or DCA6 as allowed by MA code.
- Vinyl siding and trim with white aluminum coil over fascia to be considered as a basis for estimating purposes unless directed otherwise by the owner or builder.
- PVC wrapped PT posts and beams for the front porch roof support.
- Vented vinyl soffit for porch ceilings.
- PVC decking for the front and rear porches connected to a PT frame with hidden fasteners.
- Vinyl Rail system where required. (Mandatory guard rails for walk surfaces greater than 30" above grade.)
- Provide gutters and downspouts to collect roof rainfall runoff and direct it away from the foundation.
- Provide well drained window wells around Cellar sashes which will be below grade.
- If required by site conditions, include a foundation perimeter drain system to terminate to daylight downhill away from the house.

REAR ELEVATION 1/4 in = 1 ft

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REVISION TABLE	
NUMBER	DATE

ELEVATIONS

PROJECT DESIGNED FOR:
Greendale LLC
44 Pine Point Road
Stowe, MA

DATE:

3/29/2020

SCALE:

SHEET:

A-1

GENERAL NOTES:

Dimensions are to face of framing or Foundation

Interior walls are 2x4 studs @ 16" o.c.

Exterior walls and other insulated walls adjacent to unconditioned space are 2x6 stud framed @ 16" o.c. U.N.O.

Provide separate switched light fixture connections over vanities and in each bathroom ceiling. Additionally provide a 50 CFM quiet exhaust fan (Can be combined with ceiling light) with a timer switch.

Provide GFCI double outlet on the wall adjacent to each vanity.

SD indicates smoke detector.
CO indicates CO2 detector.
HD indicates heat detector.

Interconnect all SD, CO, HD, and SD/CO devices in the new structure and the existing home to sound an alarm when any or all are activated. Provide and install in accordance with current code requirements. The existing home systems must also be brought up to current standards.

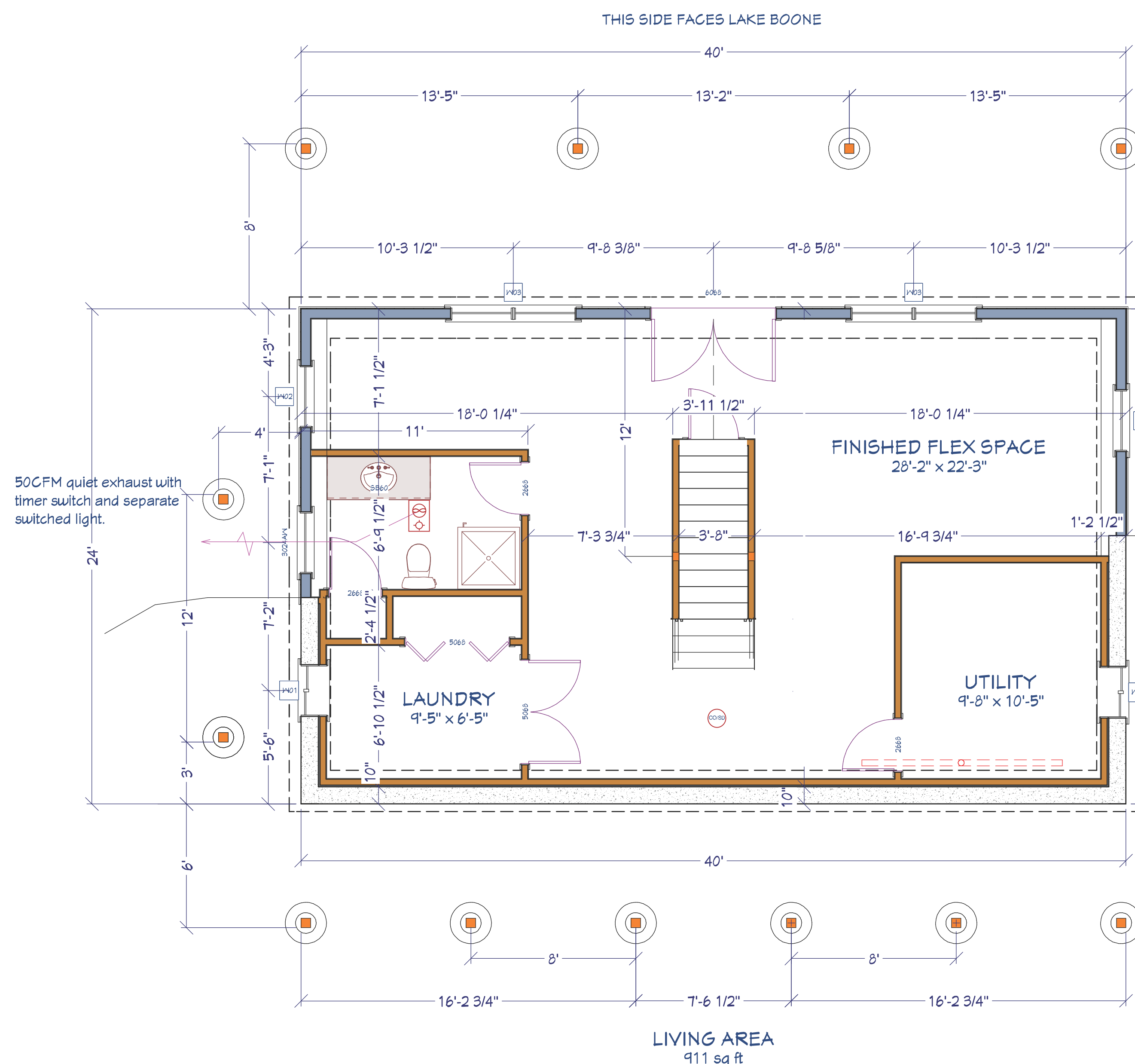
SD/CO detectors within 20 ft. of a kitchen or bathroom must be "Photo-electric" type.

All detection devices must be hard wired AC power with battery backup unless existing ceiling finishes must be removed to install the hard wiring.

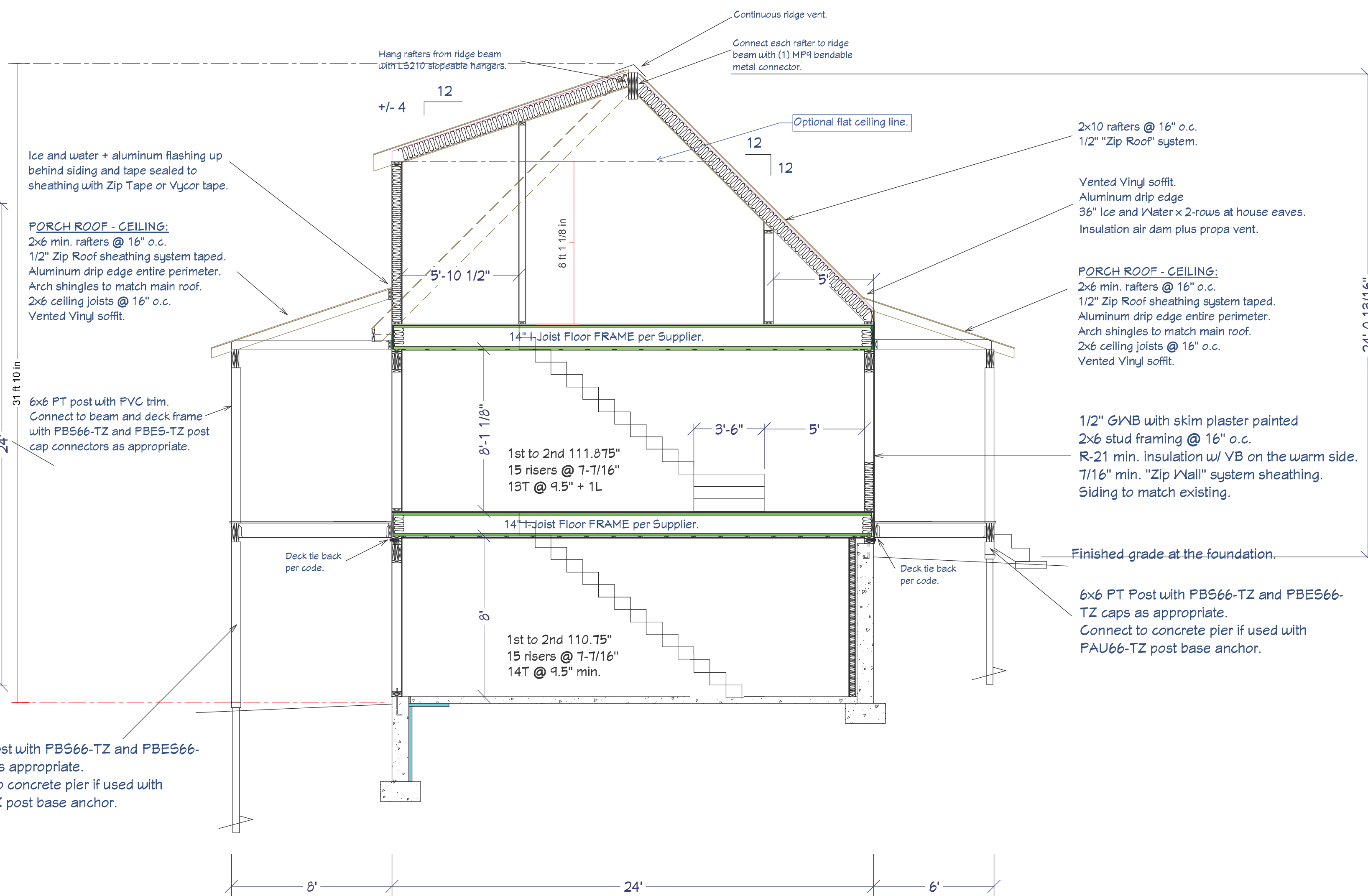
Electric lighting and outlets are to be provided as required by code. Additional outlets, fixtures, or other equipment are optional and are to be coordinated between the owner and the builder prior to rough in.

Exterior security and decorative lighting is not shown but should be provided at the owner's discretion.

ENERGY CONSERVATION per MA STRETCH ENERGY CODE.



Ground Floor PLAN 1/4 in = 1 ft



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REVISION TABLE	
NUMBER	DATE

Basement PLAN

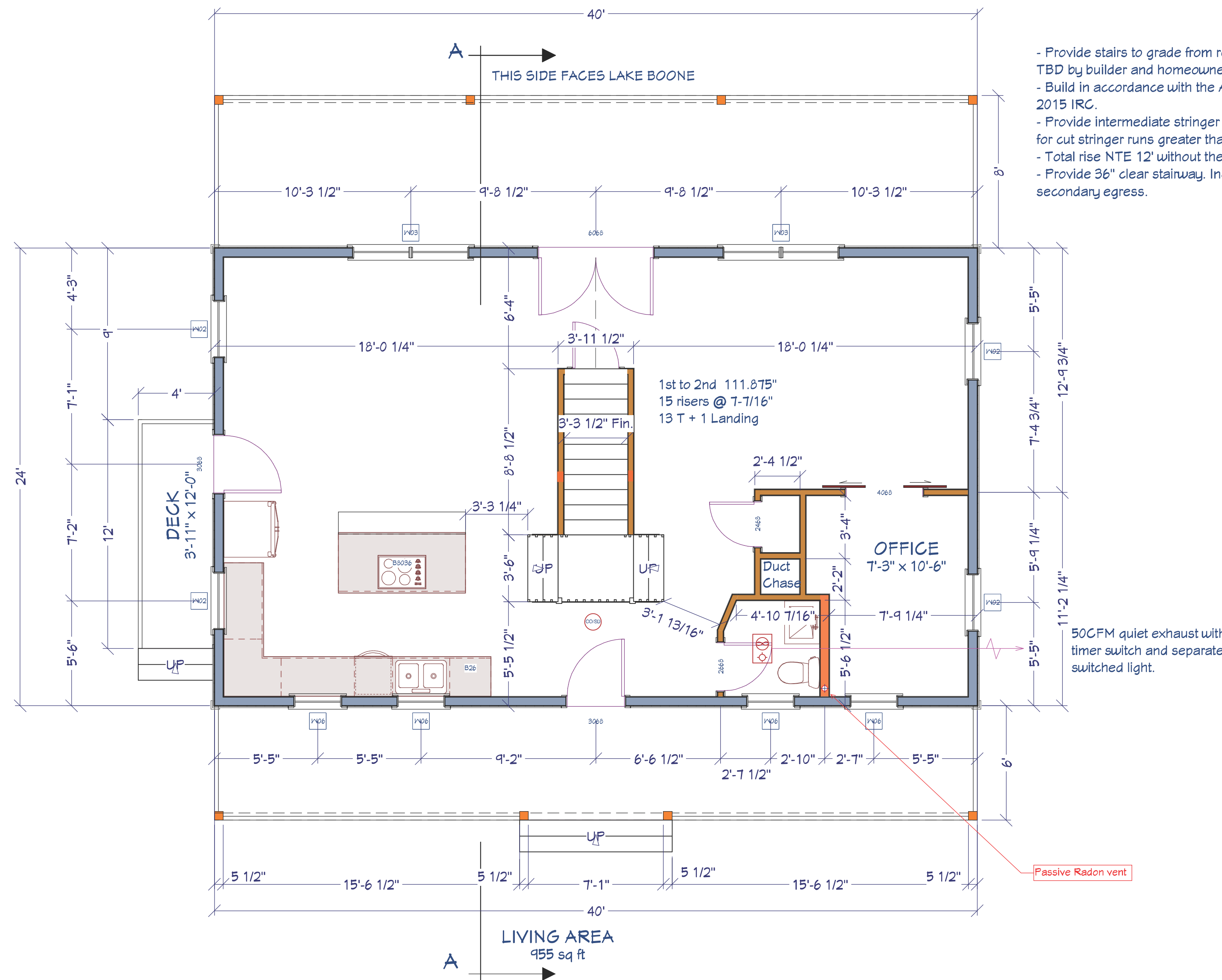
PROJECT DESIGNED FOR:
Greendale LLC
44 Pine Point Road
Stowe, MA

DATE:
3/29/2020

SCALE:

SHEET:
A-2

WINDOW SCHEDULE									
NUMBER	LABEL	QTY	MANUFACTURER	SIZE	R/O	DESCRIPTION	EGRESS	TEMPERED	COMMENTS
W01	2613RS	2		2613RS	31"X16"	RIGHT SLIDING			
W02	3046DH	6		3046DH	37"X55"	DOUBLE HUNG			
W03	6146MU	4		6146	74"X55"	MULLED UNIT			
W04	6146MU	2		6146	74"X55"	MULLED UNIT	YES		
W05	2630DH	2		2630DH	31"X37"	DOUBLE HUNG		YES	
W06	2630DH	6		2630DH	31"X37"	DOUBLE HUNG			



1st Floor Plan 1/4 in = 1 ft

Dimensions are to face of framing.

Interior walls are 2x4 studs @ 16" o.c. U.N.O.

Exterior walls and other insulated walls adjacent to unconditioned space are 2x6 stud framed @ 16" o.c. with R-20 insulation and air barrier U.N.O.

Provide separate switched light fixture connections over vanities and in each bathroom ceiling. Additionally provide a 50 CFM quiet exhaust fan and light with a timer switch.

Provide GFCI double outlet on the wall adjacent to each vanity.

SD indicates smoke detector.
CO indicates CO2 detector.
HD indicated heat detector.

Interconnect all SD, CO, HD, and SD/CO devices in the building to sound an alarm when any or all are activated. Provide and install in accordance with current code requirements.

SD/CO detectors within 20 ft. of a kitchen or bathroom must be "Photo-electric" type.

All detection devices must be hard wired AC power with battery backup.

Electric lighting and outlets are to be provided as required by code. Additional outlets, fixtures, or other equipment are optional and are to be coordinated between the owner and the builder prior to rough in.

Stow, MA is a Stretch Code Community
ENERGY CONSERVATION Per HERS Rater

STRUCTURAL LOADS:

Roof - Snow Load: 40 psf

Roof - Dead Load: 15 psf

Floors - Live Load: 40 psf (Bedrooms @ 30psf)

Floors - DL: 10 psf + 2psf for hardwood or tile floor areas.

Attic - Live Load: 10 psf (No Storage attic.)

Attic - Dead Load: 10 psf

Additional DL for PV Solar Array on roof: 5 psf.

REVISION TABLE	
NUMBER	DESCRIPTION

1st PLAN

PROJECT DESIGNED FOR:
Greendale LLC
44 Pine Point Road
Stowe, MA

DATE:

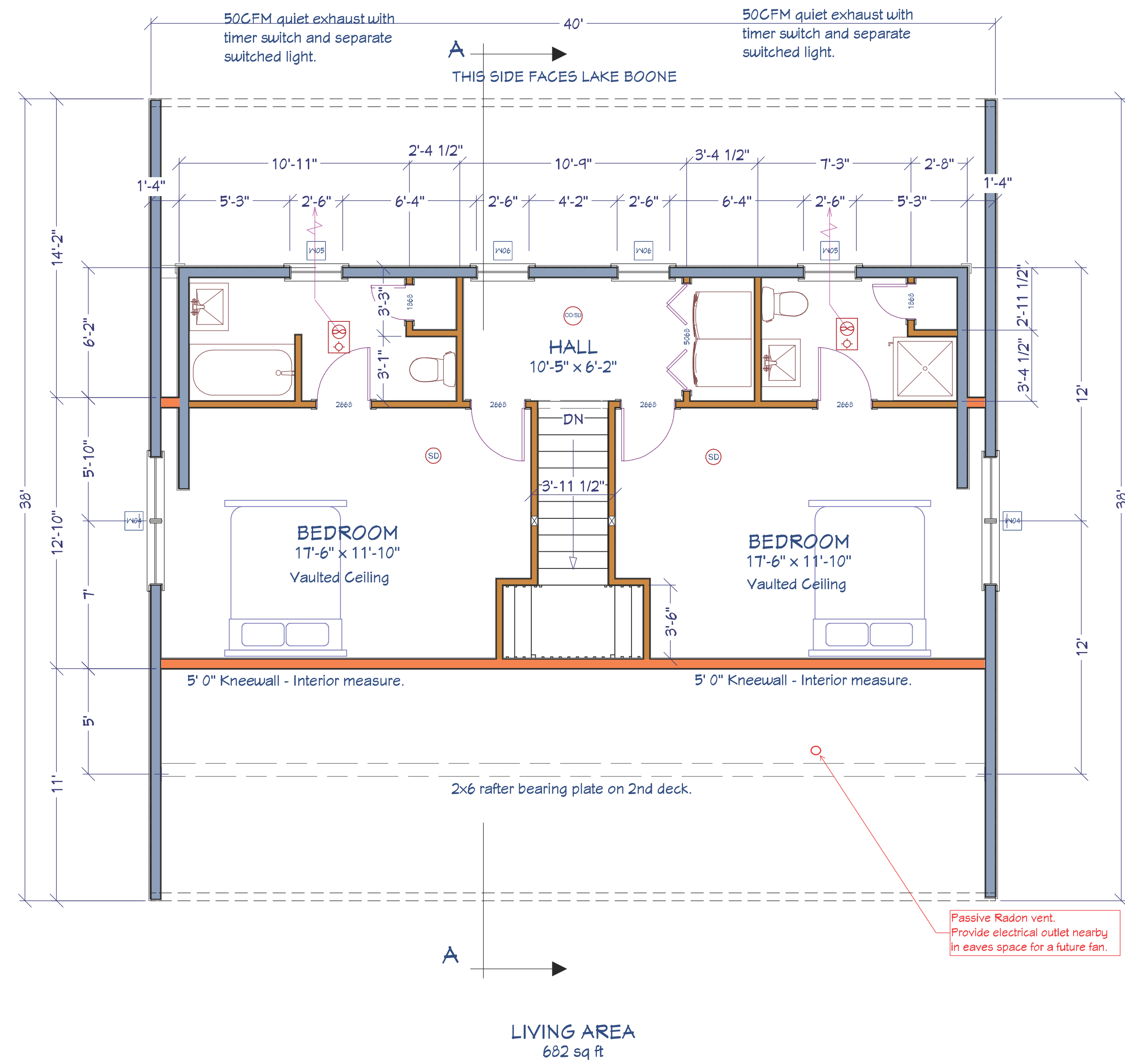
3/29/2020

SCALE:

SHEET:

A-3

All NEW framing and construction to be in accordance with MA Code 780 CMR 9th Edition and IRC 2015 for 1 & 2 Family Residential Construction. While good faith effort has been made to incorporate as much of that information as practical in these documents, human error or omission is possible. It is the licensed builder's responsibility to review these documents prior to construction and to proceed in accordance with applicable codes.



2nd Floor PLAN 1/4 in = 1 ft

Dimensions are to face of framing.

Interior walls are 2x4 studs @ 16" o.c. U.N.O.

Exterior walls and other insulated walls adjacent to unconditioned space are 2x6 stud framed @ 16" o.c. with R-20 insulation and air barrier U.N.O.

Provide separate switched light fixture connections over vanities and in each bathroom ceiling. Additionally provide a 50 CFM quiet exhaust fan and light with a timer switch.

Provide GFCI double outlet on the wall adjacent to each vanity.

SD indicates smoke detector.
CO indicates CO2 detector.
HD indicated heat detector.

Interconnect all SD,CO,HD, and SD/CO devices in the building to sound an alarm when any or all are activated. Provide and install in accordance with current code requirements.

SD/CO detectors within 20 ft. of a kitchen or bathroom must be "Photo-electric" type.

All detection devices must be hard wired AC power with battery backup.

Electric lighting and outlets are to be provided as required by code. Additional outlets, fixtures, or other equipment are optional and are to be coordinated between the owner and the builder prior to rough in.

Stow, MA is a Stretch Code Community
ENERGY CONSERVATION Per HERS Rater

STRUCTURAL LOADS:
Roof - Snow Load: 40 psf
Roof - Dead Load: 15 psf
Floors - Live Load: 40 psf (Bedrooms @ 30psf)
Floors - DL: 10 psf + 2psf for hardwood or tile floor areas.
Attic - Live Load: 10 psf (No Storage attic.)
Attic - Dead Load: 10 psf
Additional DL for PV Solar Array on roof: 5 psf.

REVISION TABLE	NUMBER	DATE	REVISOR	DESCRIPTION

2nd PLAN

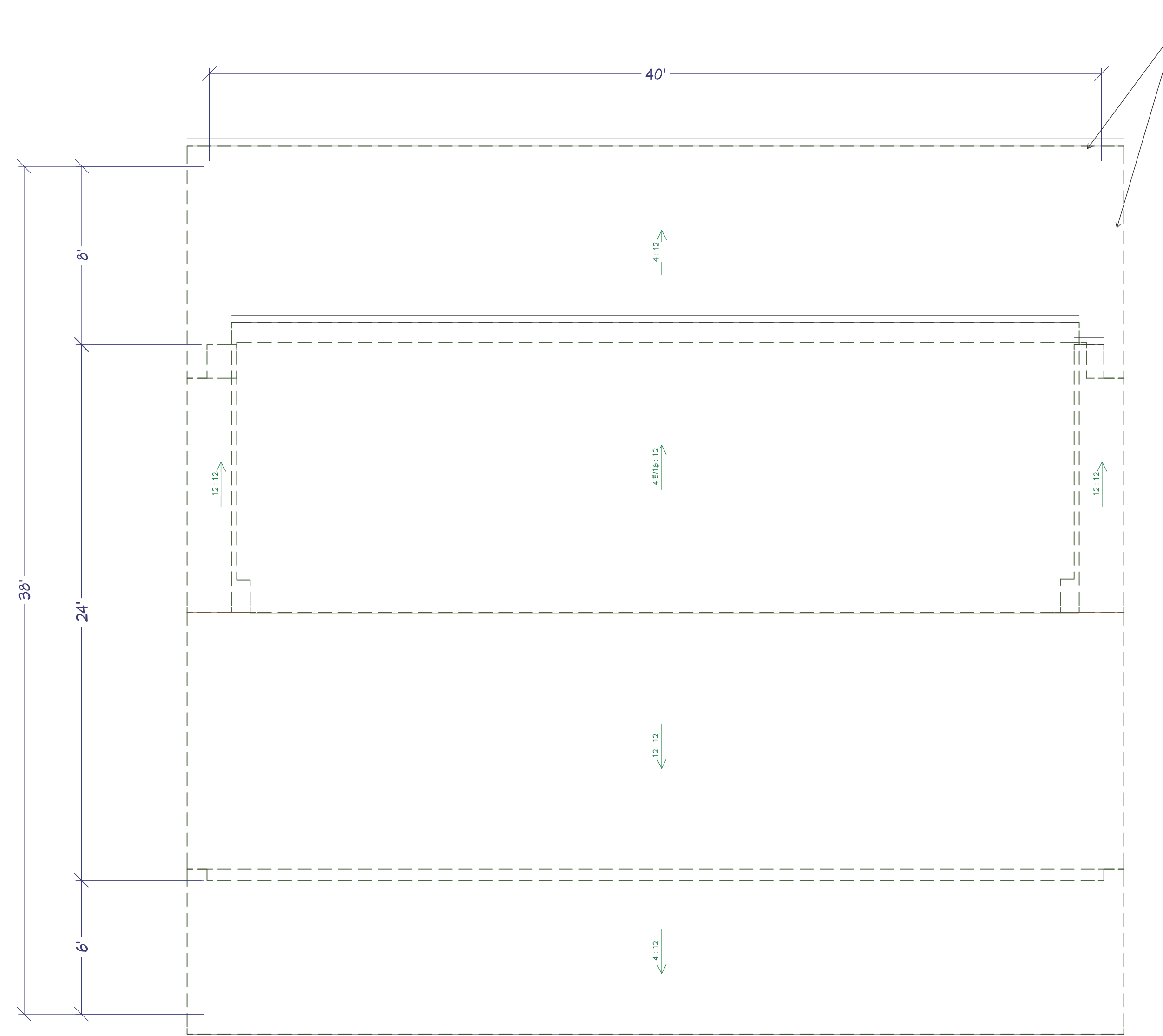
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Greendale LLC
44 Pine Point Road
Stowe, MA

DATE:
3/29/2020

SCALE:

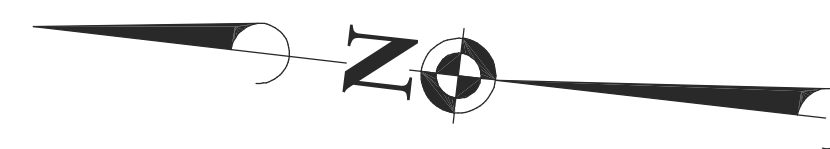
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A-4

All NEW framing and construction to be in accordance with MA Code 780 CMR 9th Edition and IRC 2015 for 1 & 2 Family Residential Construction. While good faith effort has been made to incorporate as much of that information as practical in these documents, human error or omission is possible. It is the licensed builder's responsibility to review these documents prior to construction and to proceed in accordance with applicable codes.



Roof PLAN 1/4 in = 1 ft

12" rake and eaves overhangs shown U.N.O.



Approximate NORTH
No Southerly facing roof areas.
Solar Ready Area requirement does NOT apply.

GENERAL NOTES:

Dimensions are to face of framing or Foundation

Interior walls are 2x4 studs @ 16" o.c.

Exterior walls and other insulated walls adjacent to unconditioned space are 2x6 stud framed @ 16" o.c. U.N.O.

Provide separate switched light fixture connections over vanities and in each bathroom ceiling. Additionally provide a 50 CFM quiet exhaust fan (Can be combined with ceiling light) with a timer switch.

Provide GFCI double outlet on the wall adjacent to each vanity.

SD indicates smoke detector.

CO indicates CO2 detector.

HD indicates heat detector.

Interconnect all SD,CO,HD, and SD/CO devices in the new structure and the existing home to sound an alarm when any or all are activated. Provide and install in accordance with current code requirements. The existing home systems must also be brought up to current standards.

SD/CO detectors within 20 ft. of a kitchen or bathroom must be "Photo-electric" type.

All detection devices must be hard wired AC power with battery backup unless existing ceiling finishes must be removed to install the hard wiring.

Electric lighting and outlets are to be provided as required by code. Additional outlets, fixtures, or other equipment are optional and are to be coordinated between the owner and the builder prior to rough in.

Exterior security and decorative lighting is not shown but should be provided at the owner's discretion.

ENERGY CONSERVATION per MA STRETCH ENERGY CODE.

ROOF CONSTRUCTION NOTES:

- All rafters are 2x10 KD #25PF @ 16" o.c. U.N.O.
- Ridge boards are 2x12KD + 2x4KD to cover the rafter slash cuts. U.N.O.
- Ceiling joists are 2x8 KD #25PF (No Storage Attic max. span = 22'-4")
- Overlay roof rafters to bear on 2x KD valley cleats.
- Cleats are to be properly fastened through the lower roof sheathing into the lower roof rafters.
- Provide 1/2" CDX sheathing and 15# roof felt -OR- 1/2" "Zip-Roof" sheathing system with taped seams.
- Provide ice and water shield as follows: 2-rows x 36" wide at eaves, 1-row 36" wide at rakes, centered at roof/wall intersections, and 2-rows x 36" wide centered in valleys.
- Provide aluminum drip edge around the perimeter of all roof areas. Provide step flashing wherever a sloped roof meets a wall.
- Provide roof shingles to match existing on slopes 3:12 or greater. Provide rubber membrane roofing to match existing on roof slopes less than 3:12. At a minimum, cover all new roof areas plus existing areas disturbed by this construction.
- Rafters connect to structural ledgers with toe nails per code PLUS (1) JA3G or MP34 or similar framing angle connector.
- Dormer walls to be built on top of structural rafters where needed. No ceiling or roof loads transfer to the 2nd floor framing.
- Rafters connect to flush beams with USF# LS210 hangers for slopes NTE 90 degrees. Use MP-9 bendable metal connectors elsewhere and at sloped / skewed structural roof beams.

CEILING FRAMING NOTES:

- Ceiling joists to be 2x8 KD #25PF @ 16" o.c.
- Joists supported by flush framing members to be hung from same with metal joist hangers. Connect opposing joists across the bottom of the supporting girder with LSTA21 metal straps or similar to provide a continuous rafter tie.
- Headers for exterior wall openings to be per R602.T(1)
- Headers for interior bearing wall openings to be per R602.T(2)

All NEW framing and construction to be in accordance with MA Code 780 CMR 9th Edition and IRC 2015 for 1 & 2 Family Residential Construction. While good faith effort has been made to incorporate as much of that information as practical in these documents, human error or omission is possible. It is the licensed builder's responsibility to review these documents prior to construction and to proceed in accordance with applicable codes.

REVISION TABLE	
NUMBER	DESCRIPTION

Roof PLAN

PROJECT DESIGNED FOR:
Greendale LLC
44 Pine Point Road
Stowe, MA

DATE:

3/29/2020

SCALE:

SHEET:

A-5

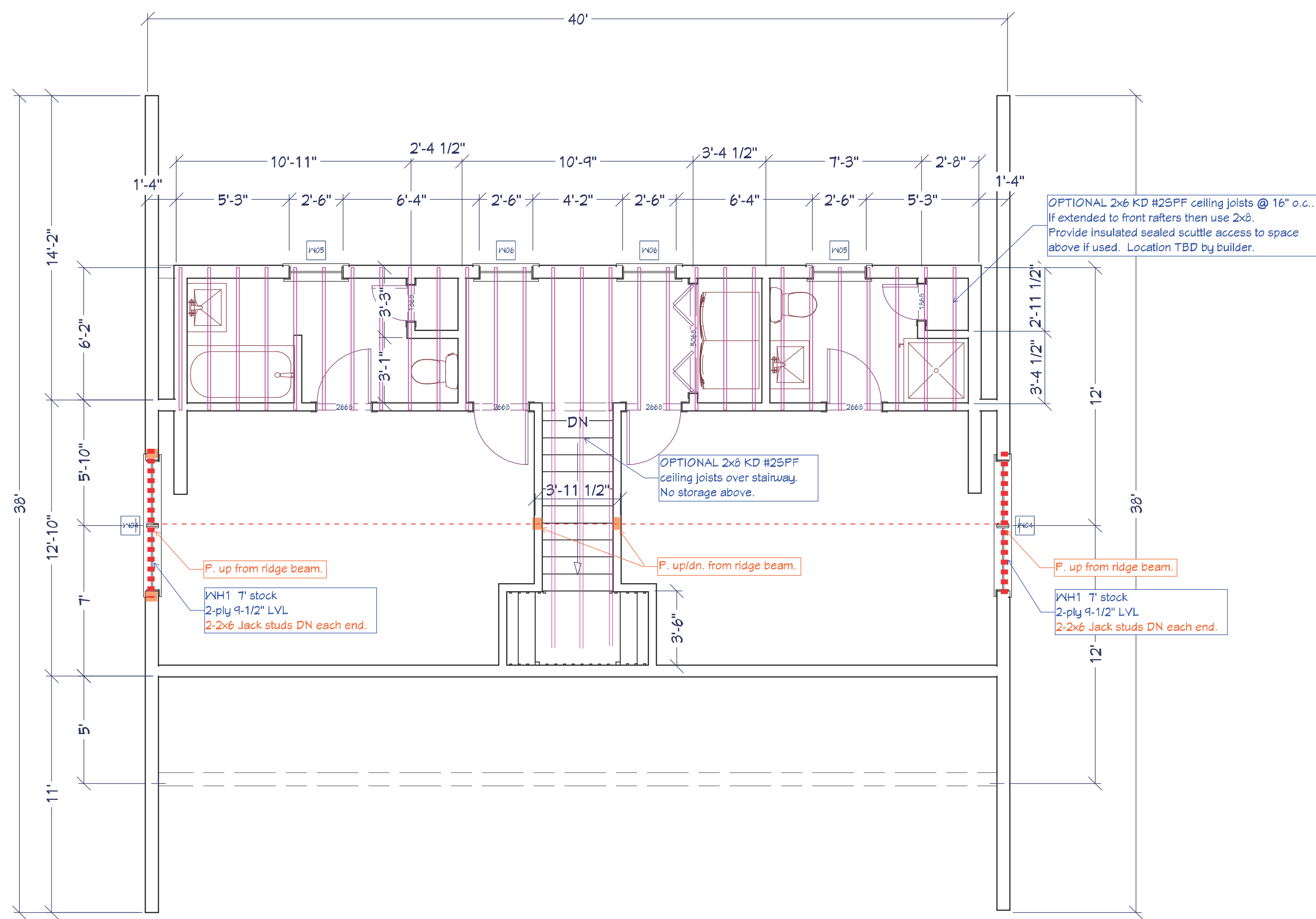
CEILING FRAMING NOTES:

- Ceiling joists to be 2x8 KD #25PF @ 16" o.c.
- Joists supported by flush framing members to be hung from same with metal joist hangers. Connect opposing joists across the bottom of the supporting girder with LSTA21 metal straps or similar to provide a continuous rafter tie.
- Headers for exterior wall openings to be per R602.T(1)
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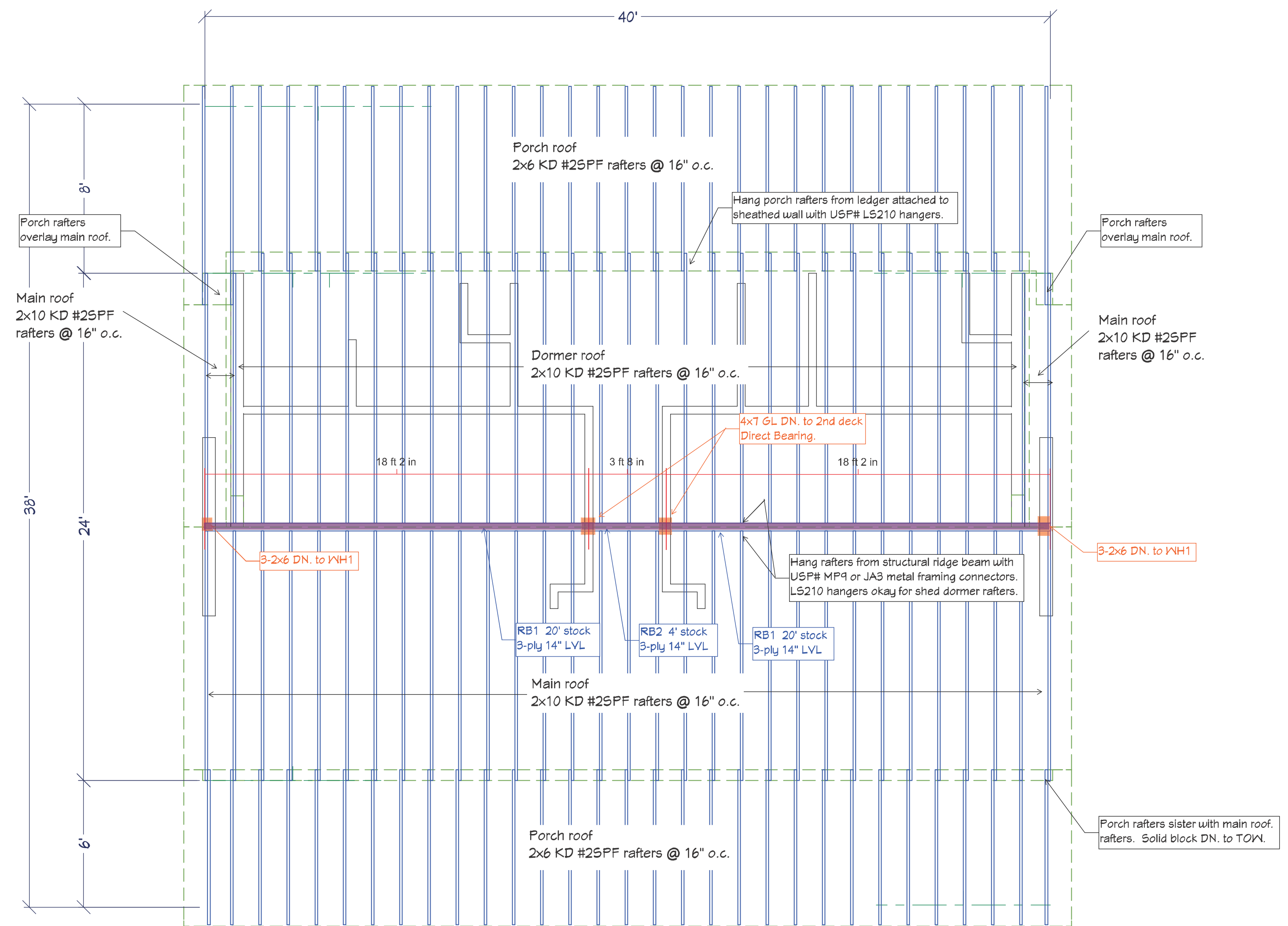
ROOF CONSTRUCTION NOTES:

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- Ridge boards are 2x12KD + 2x4KD to cover the rafter slash cuts. U.N.O.
- Ceiling joists are 2x8 KD #25PF (No Storage Attic max. span = 22'-4")
- Overlay roof rafters to bear on 2x KD valley cleats.
- Cleats are to be properly fastened through the lower roof sheathing into the lower roof rafters.
- Provide 1/2" CDX sheathing and 15# roof felt -OR- 1/2" "Zip-Roof" sheathing system with taped seams.
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- Provide aluminum drip edge around the perimeter of all roof areas. Provide step flashing wherever a sloped roof meets a wall.
- Provide roof shingles to match existing on slopes 3:12 or greater. Provide rubber membrane roofing to match existing on roof slopes less than 3:12. At a minimum, cover all new roof areas plus existing areas disturbed by this construction.
- Rafters connect to structural ledgers with toe nails per code PLUS (1) JA3G or MP34 or similar framing angle connector.
- Dormer walls to be built on top of structural rafters where needed. No ceiling or roof loads transfer to the 2nd floor framing.
- Rafters connect to flush beams with USP# L5210 hangers for slopes NTE 30 degrees. Use MP-9 bendable metal connectors elsewhere and at sloped / skewed structural roof beams.

REVISION TABLE	
NUMBER	DATE



2nd Floor



Roof FRAME 1/4 in = 1 ft

All NEW framing and construction to be in accordance with MA Code 780 CMR 9th Edition and IRC 2015 for 1 & 2 Family Residential Construction. While good faith effort has been made to incorporate as much of that information as practical in these documents, human error or omission is possible. It is the licensed builder's responsibility to review these documents prior to construction and to proceed in accordance with applicable codes.

Ceiling and Roof FRAME

PROJECT DESIGNED FOR:
Greendale LLC
 44 Pine Point Road
 Stoue, MA

DATE:

3/29/2020

SCALE:

SHEET:

S-2