WESTWOOD BOARD OF APPEALS APPLICATION FOR HEARING

1. Name of Applicant: Bechara Demien

2. Applicant is (check one): Owner ____ Tenant ____ Licensee ____ Abutter ____
   Prospective Purchaser ____ Other ____

3. Mailing address of Applicant: 471 EAST ST Westwood MA 02090

4. Telephone - Home: 857-3528445 Business: 617 818 8357

5. E-Mail Address of Applicant: beckdamiana yahoo.com

6. Address of Property subject to Hearing: 471 EAST ST Westwood MA 02090

7. Owner of Property: Bechara Demien

8. Mailing Address of Property Owner: 471 EAST ST Westwood MA 02090

9. Telephone - Home: 617-818 8357 Business: 857 352 8445

10. Deed recorded in: Norfolk County Registry of Deeds: Book # 27975 Page # 415
    Or Land Court Registry: Certificate # ____ Book # ____ Page # ____

11. Property MAP # 23 LOT # ~~22~~ DISTRICT GR.

12. Has an appeal/application ever been filed with the ZBA on this property? (Y/N) N If yes, when: ____

13. NATURE of Application (check one):
    - ____ Appeal in accordance with MA G.L.Ch. 40A, Sec. 8 as amended
    - ____ ✓ Special Permit in accordance with MA G.L.Ch.40A, Sec. 9 as amended
    - ____ Variance in accordance with MA G.L. Ch. 40A, Sec. 10 as amended
    - **When applying for a Special Permit under Section 9.3 of the Westwood Zoning Bylaw, please make sure that you and/or your attorney refer to the specific bylaw regarding this section.**

STATE the EXACT NATURE of this application including the applicable section number(s) of the Westwood Zoning Bylaw:

Requesting special permit under Section 4.5.6 raising hight and set back. due to addition to a second story.

2-3-16

Plan on a minimum of three months to complete the process.

I hereby request a hearing before the Westwood Board of Appeals with reference to the subject property.

I am aware that the **cost of legal advertising** will be billed to me directly as the Applicant, by the newspaper at a later date. I am also aware of the provisions in the Zoning Bylaw with regard to **Reimbursement for Consultants**, and I agree to reimburse the Board of Appeals and the Town of Westwood for all costs incurred by the Town or its' Boards for all fees, expenses and costs in connection with the review and evaluation of the Application for Special Permit and/or Variance.

I have reviewed the Zoning Board of Appeals Instructions and Information and understand the time requirements.

Signed: _____ Date: _____

APPLICANT"S SIGNATURE (or Agent)

Signed: _____ Date: 11/22/2016

PROPERTY OWNER (if different from applicant)

SCHEDULE OF FILING FEES FOR THE BOARD OF APPEALS

Residential Properties - $165.00

Business Properties - $330.00

Comprehensive Permits - $2530.00

CHECKLIST:

- 6 copies of the Application
- 6 copies of the OPTIONAL Appendices (if completed)
- 6 copies of a Certified Plot Plan – size 11" x 17"
- 6 copies of the Building Plans (interior and/or exterior as applicable) – size 11" x 17"
- 6 copies of the Building Commissioner's denial of a building permit or equivalent

File the six (6) packets in the Town Clerk's office located at 580 High Street making sure to include a check for the filing fee in the correct amount.

Deliver one (1) electronic copy of the Application with attachments to the Office of the Board of Appeals at 50 Carby Street.

Plan on a minimum of three months to complete the process.

OPTIONAL

APPENDIX B - Special Permit Considerations

- The structure is in harmony with the general purpose and intent of the bylaw.

Yes The structure is in harmony with general purpose and intent of the bylaw please see attached pictures

- The structure is in an appropriate location and is not detrimental to the neighborhood and does not significantly alter the character of the zoning district.

The structure is in an appropriate location and is not detrimental to the neighborhood blend in with the neighborhood.

- Adequate and appropriate facilities will be provided for the proper operation of the proposed structure.

- The proposed structure will not be detrimental or offensive to the adjoining zoning districts and neighboring properties due to the effects of lighting, odors, smoke, noise, sewage, refuse material, visual or other nuisances.

We Only adding second floor to the existing structure (residential)

- The proposed structure will not cause undue traffic congestion in the immediate area.

Not at all.

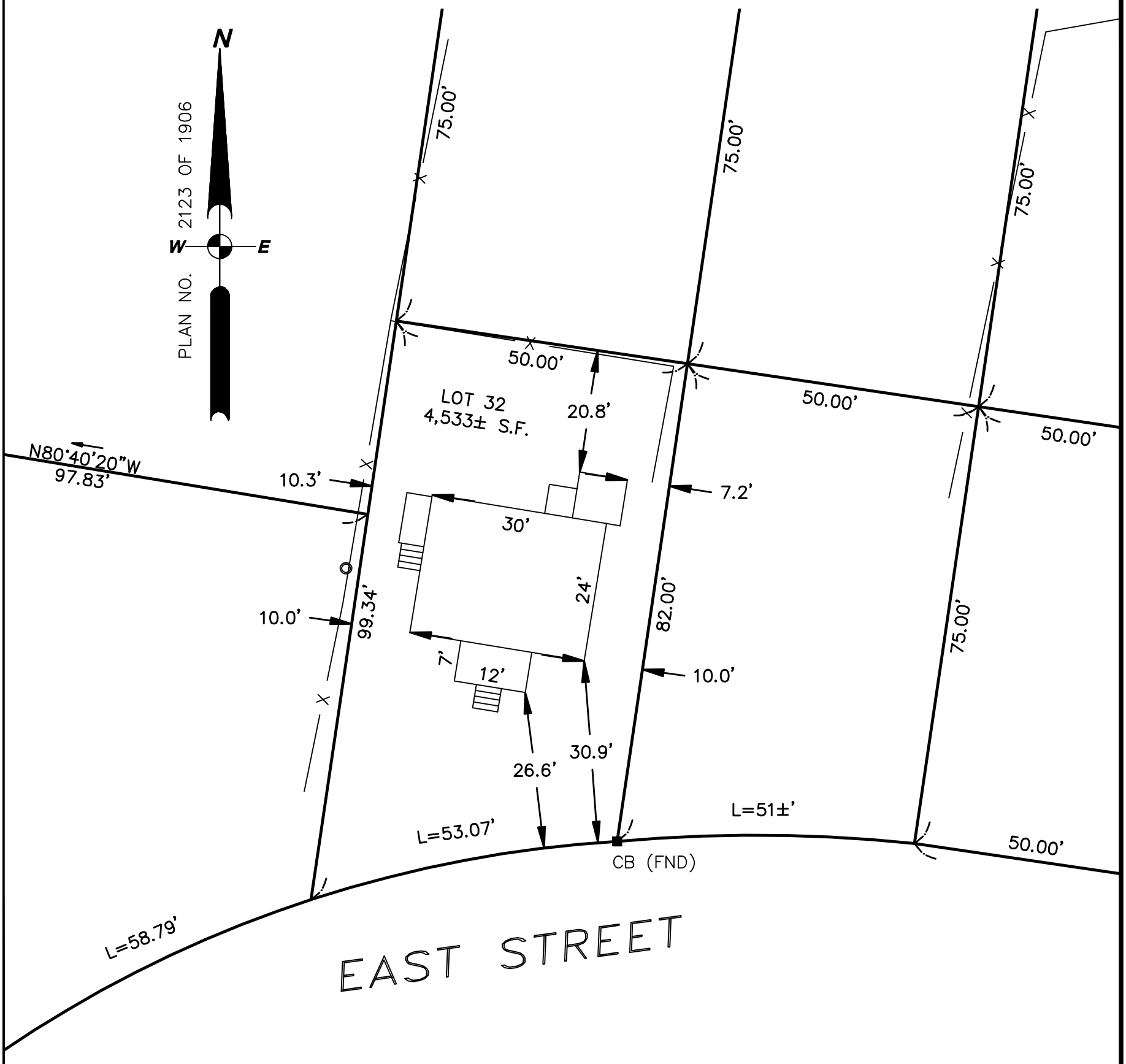
Plan on a minimum of three months to complete the process.

THE BUILDING OFFSETS AS SHOWN ON THIS PLAN ARE NOT TO BE USED FOR THE ESTABLISHMENT OF PROPERTY LINES OR FOR THE ESTABLISHMENT OF ANY PROPOSED CONSTRUCTION UNLESS SAID CONSTRUCTION IS SHOWN HEREON.

THIS PLAN WAS PREPARED FOR THE EXCLUSIVE USE AND PURPOSE FOR THE PARTY STATED HEREON AND SHALL NOT BE USED BY ANY THIRD PARTY WITHOUT THE EXPRESSED WRITTEN PERMISSION OF GUERRIERE AND HALNON, INC.

ZONE: GR
AREA REQUIRED 12,000 S.F.
FRONTAGE REQ 90.00'
LOT WIDTH REQ 90.00'
SETBACKS F–25' S–15' R–30'
LOT IS PRE–EXISTING NON CONFORMING USE LOT DATES BACK TO JAN 20, 1906

F–4011



CONSTRUCTION ON THIS LAND IS SUBJECT TO ANY EASEMENTS, RIGHTS–OF–WAY, RESTRICTIONS, RESERVATIONS, OR OTHER LIMITATIONS WHICH MAY BE REVEALED BY AN EXAMINATION OF THE TITLE.

PREPARED FOR:
BECHARA DEMIEN
471 EAST STREET
WESTWOOD, MA 02090

I certify that this plan was prepared from an on the ground survey and that the foundation is located on the lot as shown hereon.

COMMONWEALTH OF MASSACHUSETTS
BRUCE E. WILSON, JR. No. 36870
REGISTERED PROFESSIONAL LAND SURVEYOR

BRUCE E. WILSON, JR. P.L.S. #36870
Professional Land Surveyor Date

PLOT PLAN OF LAND IN WESTWOOD, MA

DATE : MAY 9, 2016
SCALE : 1"=20'

GUERRIERE & HALNON INC.
ENGINEERING AND LAND SURVEYING
MILFORD ----- FRANKLIN ----- WHITINSVILLE
55 WEST CENTRAL STREET FRANKLIN, MA 02038

F–4011

Commonwealth of Massachusetts

Manufactured Buildings Program

Transmittal Form for all correspondences relating to Manufactured Buildings and Building Components

To: Linda McAlister factured Buildings Program	Phone Number:	Date Transmitted
Linda.McAlister e.ma.us	508-422-1955	11/8/16
Commonwealth of Massachusetts	Department of Public Safety	
Board of Building Regulations and Standards	50 Maple Street, Suite One	
Milford	Massachusetts	01757-3698

The person forwarding this material shall complete the following portion of this transmittal

Name of Person Transmitting Material	MC Number	TPIA Number
Brett Hebert	352	02

The following information is being transmitted to the Board of Building Regulations and Standards and / or the Department of Public Safety for reasons detailed below (Please check the appropriate box or give a further description of the transmitted items under the section labeled *other*. Be sure to identify the appropriate Use Group.)		Please indicate the Distinct Model and / or Serial Number pertaining to transmitted items	Use Group
Building Plans for Review and Approval	☐		
Building Plans forwarded as a record copy for your files (Review not required)	☒	ON#6540	R-3
Revised building plans for review. (Please clearly identify revisions on the plans.)	☐		
Revised Building Plans forwarded as a record copy for your files (Review not required - Please clearly identify revisions on the plans.)	☐		

Compliance Assurance Programs	Original Submission	☐	Modification to:		☐
Calculations Manual	Original Submission	☐	Modification to:		☐
Installation Manual	Original Submission	☐	Modification to:		☐
Systems Drawings	Original Submission	☐	Modification to:		☐

Other - Provide a detailed description of any other materials which are being transmitted. **Identify any revisions clearly along with BBRS number.** Also, identify the requested action.

Site Location: 471 EAST STREET, WESTWOOD, MA 02090 (NORFOLK COUNTY)

The office transmitting this information has reviewed the above mentioned and attached materials and has found them, to the best of our knowledge and abilities, to be in compliance with the codes and \ or rules and regulations for the Commonwealth of Massachusetts' Manufactured Building Program, as applicable

Signed By for TPIA:	BBRS No: assigned by Mass.	Signed By for MASS:
Renee Moist Digitally signed by Renee Moist DN: cn=Renee Moist, o=PFS Corporation, ou=NorthEast Region, email=RMoist@PFSCorporation.Com, c=US Date: 2016.11.14 10:43:31 -05'00'		

Print Form

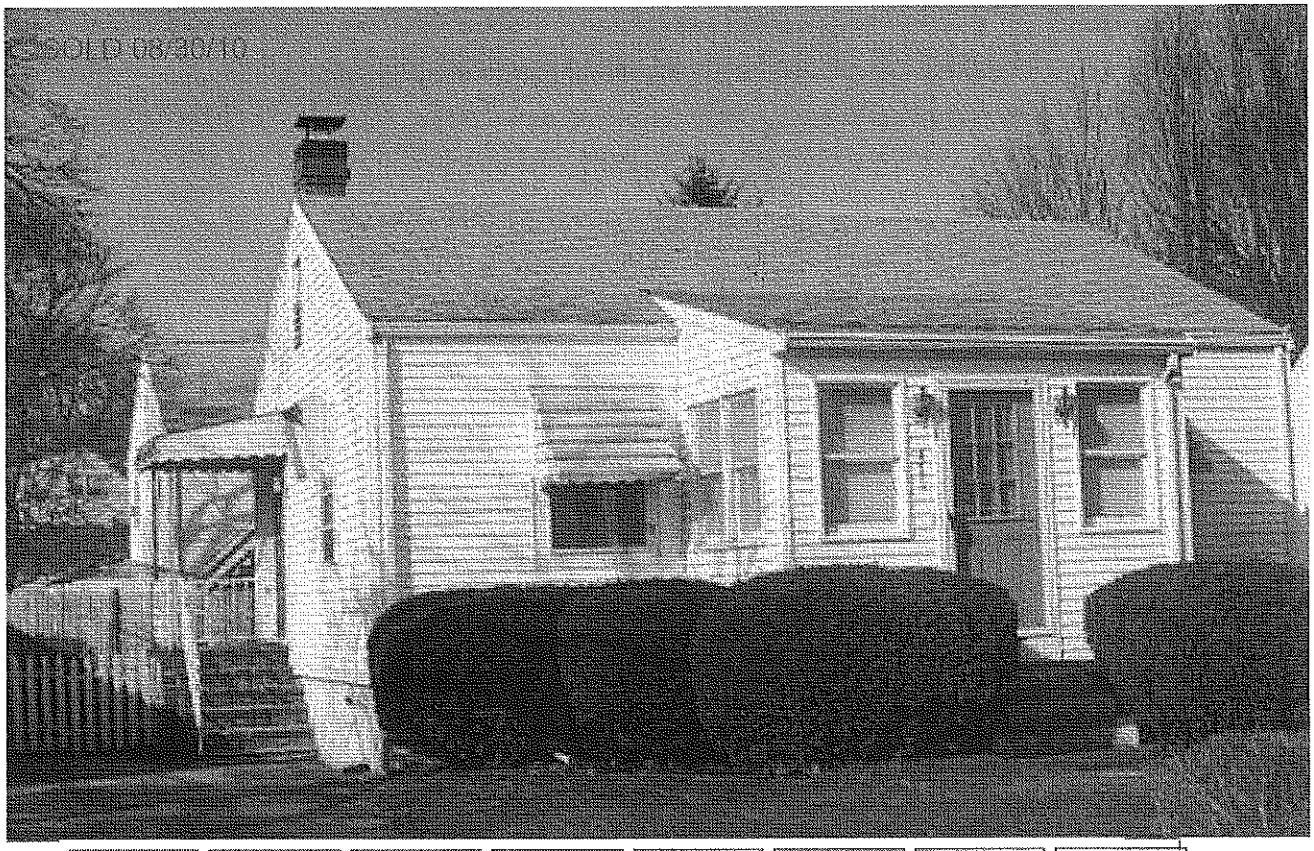
REDFIN

Public View | Owner Dashboard

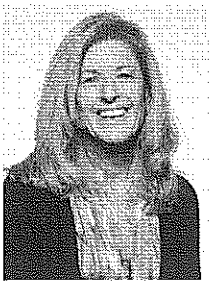
471 East St
Westwood, MA 02090
Status: Sold

$315,256	$250,000	2	1	804 Sq. Ft.
Redfin Estimate	Sold Aug 30, 2010	Beds	Bath	$392 / Sq. Ft.

Built: 1937



Street View



Nancy Schiff
REDFIN Real Estate Agent

346 client reviews

PFS REVIEW ONLY

Date: 11/14/16
PFS CORPORATION
Bloomsburg, PA

DRAWING INDEX

SHEET#	DESCRIPTION
CV	COVER SHEET
EV1	FRONT ELEVATION
EV2	REAR ELEVATION
EV3	LEFT ELEVATION
EV4	RIGHT ELEVATION
FP1	2ND STORY FLOOR PLAN
SW1	2ND STORY BRACE WALL PLAN
EL1	2ND STORY ELECTRICAL PLAN
ELC	ELECTRICAL LOAD CALCS
CS	CIRCUIT SCHEDULE
FND	EXISTING 1ST FLOOR
TR1	7/12 25'-0" RAFTER
TR2	7/12 25'-0" RAFTER CONNECTIONS
SE1	7/12 25'-0" CROSS SECTION
DWS	DOOR AND WINDOW SCHEDULE
PL1	PLUMBING DETAILS
PL2	PLUMBING DETAILS
PL3	PLUMBING NOTES
HL1	2ND STORY HEATLOSS
CD	CANTILEVER DETAIL
	RES CHECK

CLASSIFICATION

OCCUPANT LOAD:	SINGLE FAMILY
USE GROUP:	R-3
CONSTRUCTION TYPE:	VB WOOD FRAME UNPROTECTED

DESIGN LOADS

ROOF LIVE LOAD:	40 PSF GSL
ROOF DEAD LOAD:	10 PSF
CEILING DEAD LOAD:	10 PSF
CEILING LIVE LOAD:	20 PSF (STORAGE) / 30 PSF (HABITABLE)
FLOOR LIVE LOAD:	40 PSF
FLOOR DEAD LOAD:	10 PSF
HORIZONTAL WIND LOAD:	100 MPH @ 3 SEC GUST
EXPOSURE:	C
GROUND SNOW LOAD:	40 PSF
SEISMIC CATEGORY:	B

APPLICABLE CODES

MA 1&2 FAMILY DWELLING CODE -(780 CMR) 8TH EDITION
MA FUEL/GAS/PLUMBING (248 CMR)
2009 INTERNATIONAL MECHANICAL CODE W/ MA AMENDMENTS
2014 NATIONAL ELECTRICAL CODE W/ MA AMENDMENTS
2012 INTERNATIONAL ENERGY CONS. CODE W/ MA AMENDMENTS

INSULATION VALUES

ROOF TO EXTERIOR:	R-38
EXTERIOR WALLS TO EXTERIOR:	R-21 HIGH DENSITY
FLOOR TO BASEMENT OR CRAWL SPACE:	R-30 (ON-SITE)

THESE DRAWINGS ARE DESIGNED TO BE USED FOR THE CONSTRUCTION OF FACTORY BUILT HOUSING UNITS. THESE UNITS ARE DESIGNED IN ACCORDANCE WITH THE APPROVED SYSTEMS PACKAGE AND THE APPLICABLE STATE BUILDING CODES AS LISTED ABOVE ON THIS PAGE.

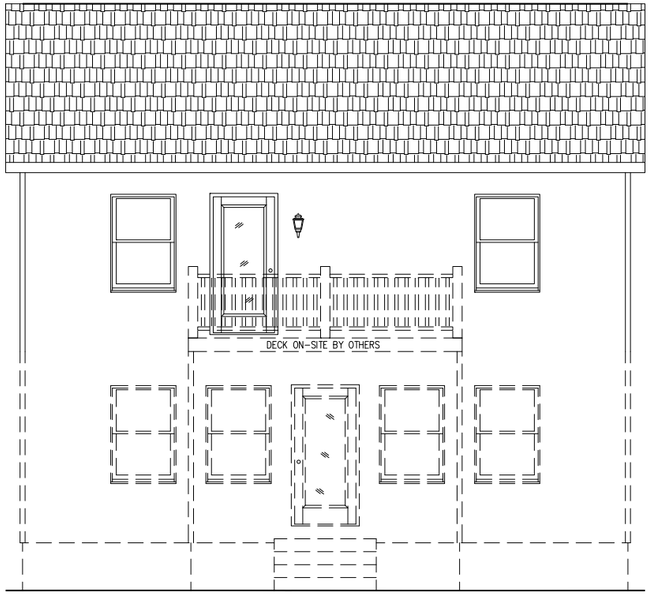
A 48 HOUR NOTIFICATION IS REQUIRED PRIOR TO THE SET. THE CSL ON RECORD WILL RELAY THIS TO THE LOCAL BUILDING AUTHORITY. IF ANY CONNECTIONS HAVE BEEN CONCEALED PRIOR TO INSPECTION, THE BUILDING OFFICIAL MAY REQUEST HAVING THE REMOVAL OF ELEMENTS THAT CONCEAL THE CONNECTIONS TO PROVIDE ACCESS. THIS WOULD NOT CONSTITUTE "DESTRUCTIVE DISSASSEMBLY". ALL CONNECTIONS ON SITE MUST BE INSPECTED BY THE LOCAL AUTHORITY.

ICON ★ LEGACY
Custom Modular Homes, LLC

Icon - Legacy Custom Modular Homes, LLC

246 SAND HILL ROAD
SELINSGROVE, PA 17870
PHONE 570-374-3280
FAX 570-374-1122
WWW.ICONLEGACY.COM

O#6540 ADDITION



FRONT ELEVATION

R.A. AND P.E. STAMP

PFS STAMP

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: New Hampshire
Signature: Renee Moss
Title: Staff Plan Reviewer
Date: 11/14/16

THIS BUILDING HAS BEEN EXTRACTED FROM AN APPROVED SYSTEMS OR PER MODEL APPROVAL
JLA

SERIAL #/ ORDER #
O#6540

PAGE #:
CV

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CUSTOM MODULAR HOMES LLC
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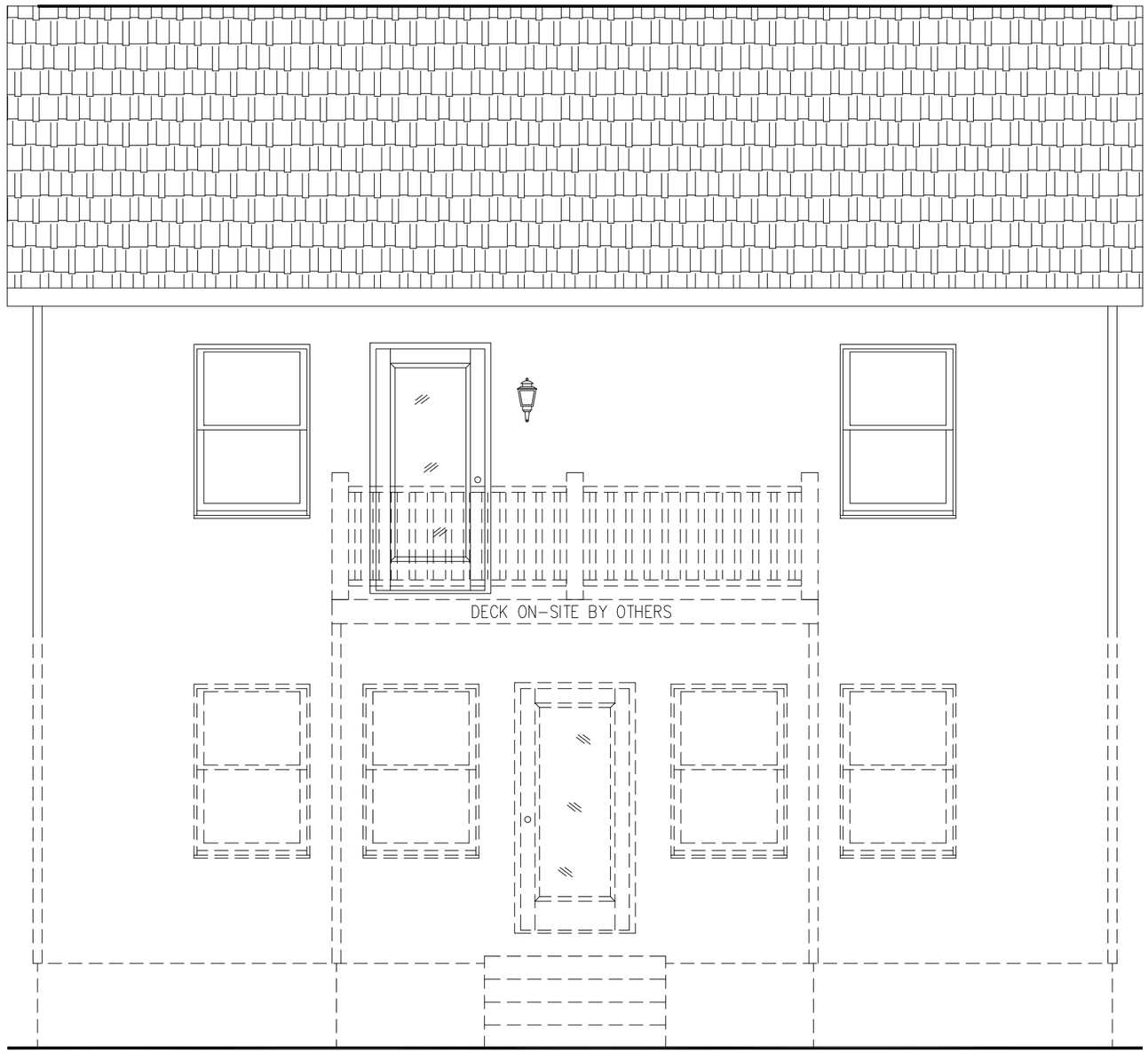
REVISION	DATE	BY
PRELIM	6/21/16	JBG
FINAL	11/1/16	PIF

BUILDER: AVALON BUILDING SYSTEMS
HOMEOWNER/PROJECT: DEMIEN BACHARA
ADDRESS: 471 EAST STREET
CITY: WESTWOOD
STATE: MA
ZIP: 02090
COUNTY: NORFOLK
SNOW LOAD (LBS): 40
WIND SPEED (MPH): 100
ORDER NO: 6540
SERIAL NO:
SQFT: 742
TYPE: TWO STORY
FILE NAME: O#6540

COVER PAGE



FRONT ELEVATION

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DATE 11/14/16
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Bloomsburg, PA

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EV1

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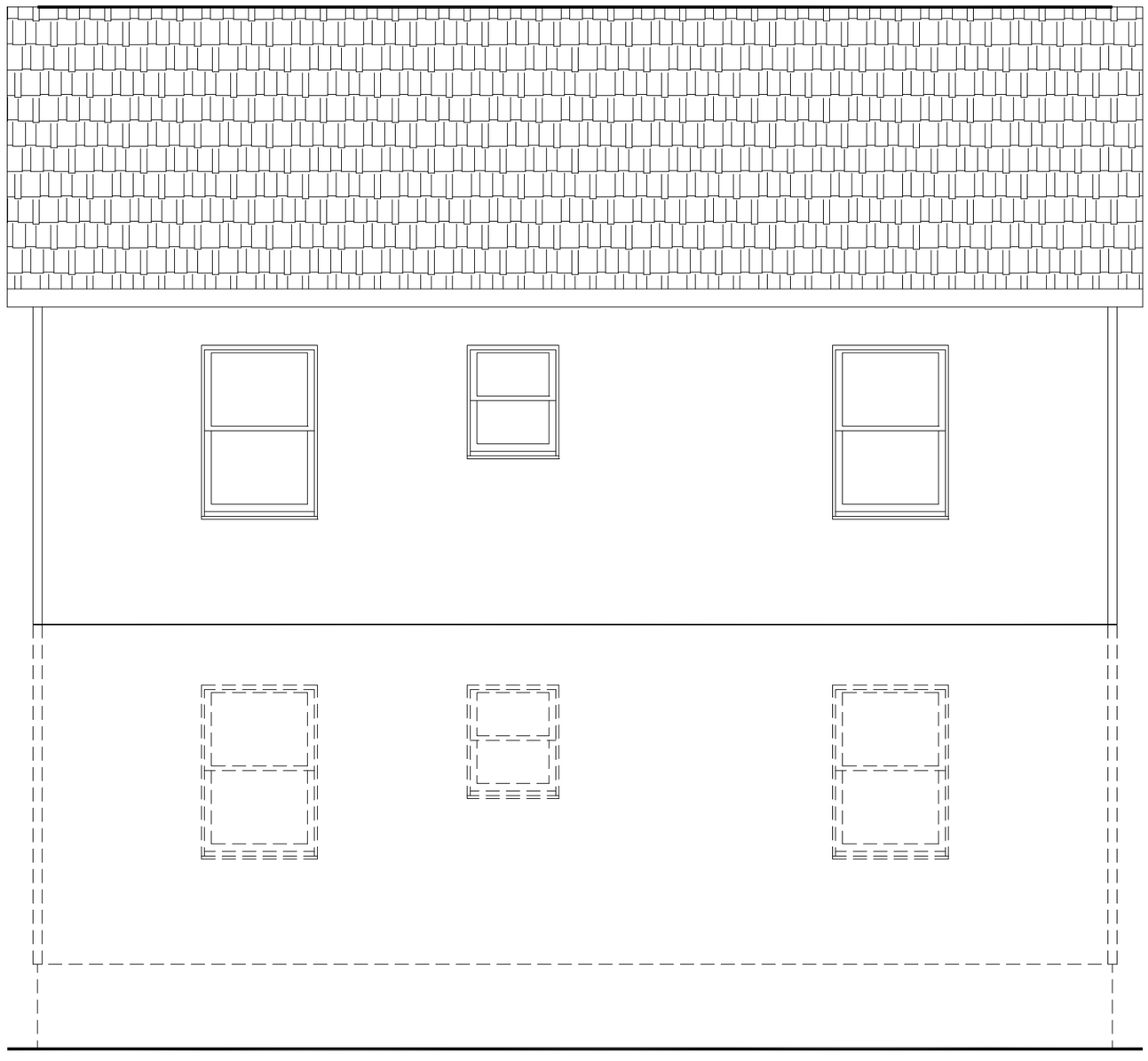
FRONT ELEVATION



REAR ELEVATION

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DATE 11/14/16
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REVISION	BY	DATE
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BUILDER: AVALON BUILDING SYSTEMS
HOMEBUYER/PROJECT: DEMIEN BACHARA
ADDRESS: 471 EAST STREET
CITY: WESTWOOD
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ZIP: 02090
COUNTY: NORFOLK
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SQFT: 742
TYPE: TWO STORY
FILE NAME: O#6540

REAR ELEVATION

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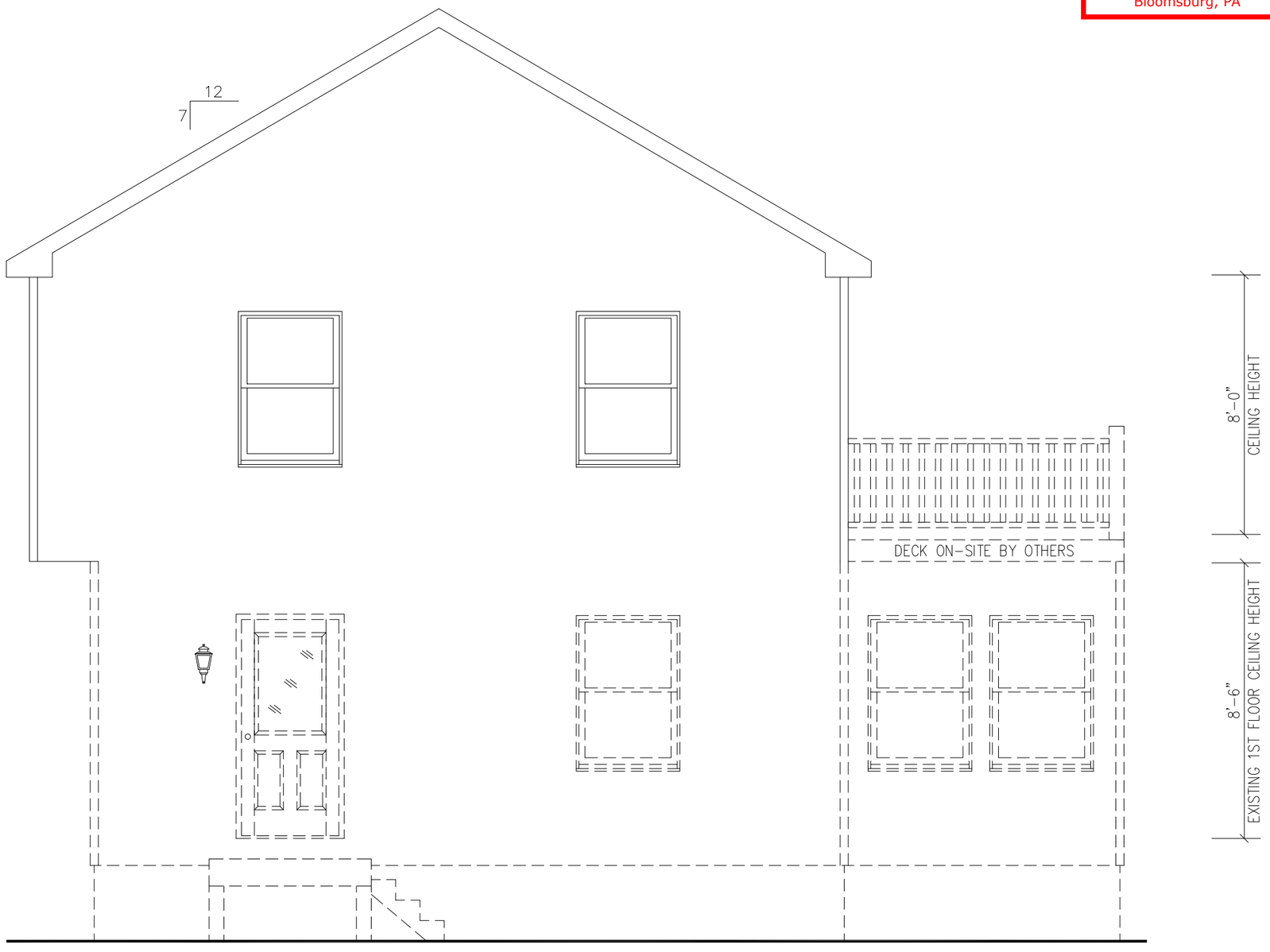

LEFT SIDE ELEVATION

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HOMEBUYER/PROJECT: DEMIEN BACHARA
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CITY: WESTWOOD
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ZIP: 02090
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SNOW LOAD (LBS): 40
WIND SPEED (MPH): 100
ORDER NO: 6540
SERIAL NO:
SQFT: 742
TYPE: TWO STORY
FILE NAME: O#6540

LEFT ELEVATION

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DATE 11/14/16
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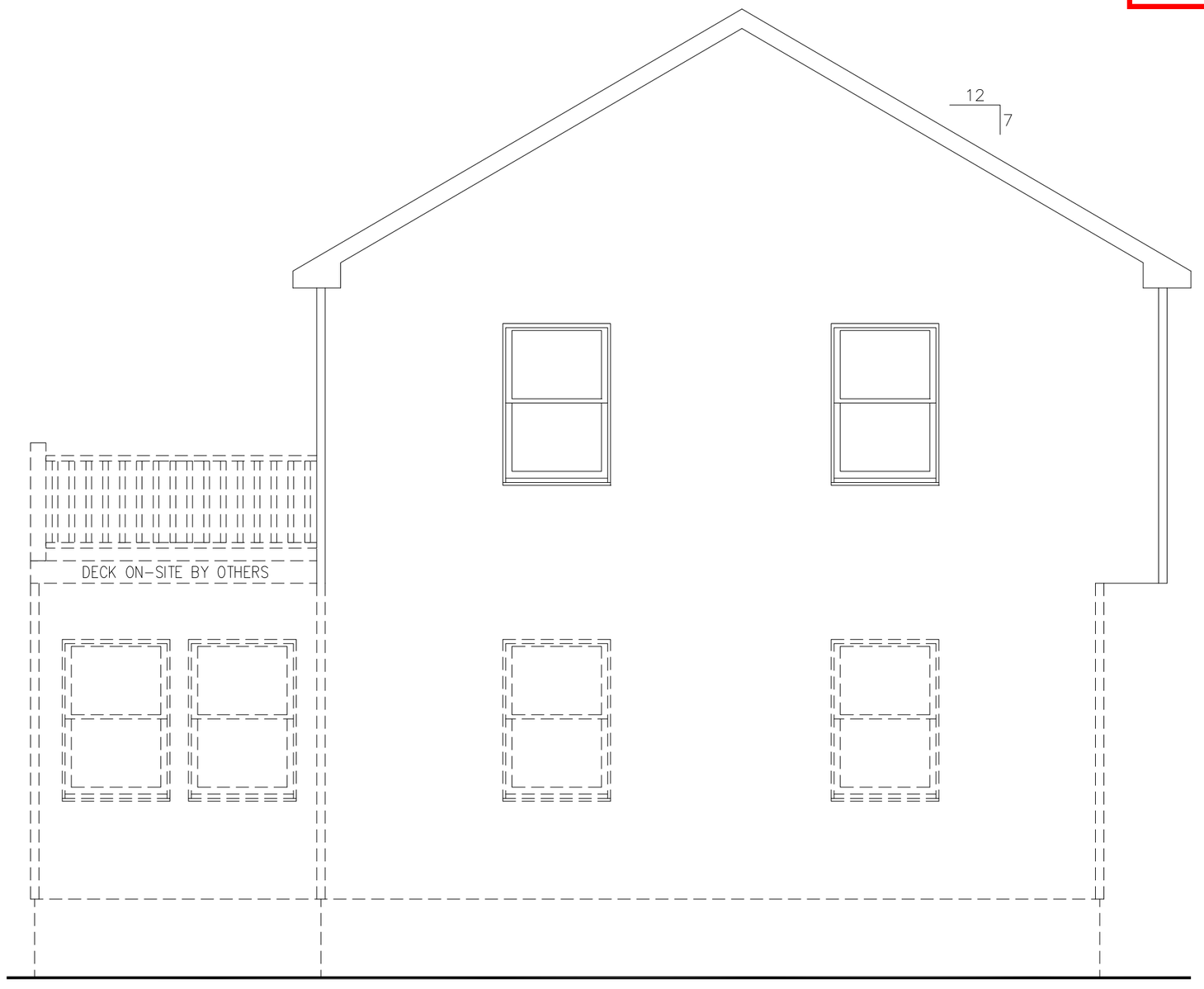

RIGHT SIDE ELEVATION

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REVISION	BY	DATE
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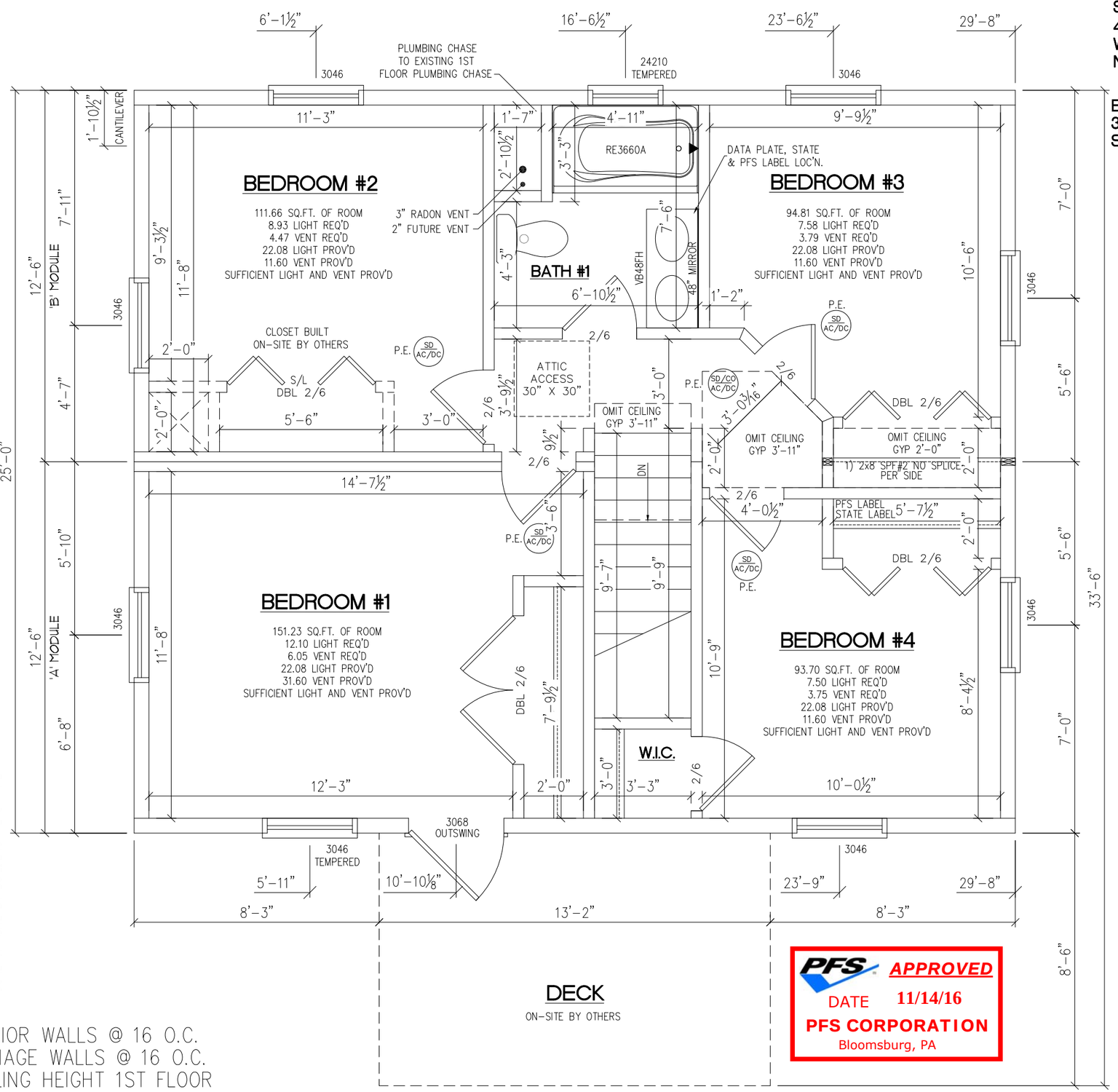
RIGHT ELEVATION



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ALL CEILING GYP MUST BE MECHANICALLY FASTENED

BUILDER TO INSTALL & SUPPLY WHOLE HOUSE VENTILATION & TO BE APPROVED & INSPECTED ON-SITE BY LOCAL BUILDING OFFICAL
DUCT TIGHTNESS AND BLOWER DOOR TESTING DONE ON-SITE BY BUILDERS' HERS RATER

*BUILDER IS RESPONSIBLE TO COMPLY WITH R612.2 (WINDOW SILLS) OF THE 2009 IRC (DONE ON-SITE IF APPLICABLE)
-WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW
-WHERE THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED
-OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR

NOTES:
1. 2X6 EXTERIOR WALLS @ 16 O.C.
2. 2X4 MARRIAGE WALLS @ 16 O.C.
3. 8'-0" CEILING HEIGHT 1ST FLOOR
4. SILVERLINE 3000 SERIES DOUBLE HUNG WINDOWS
5. 31,000 TOTAL BTU HEAT LOSS
6. 7/12 NON-STORAGE RAFTER @ 16 O.C.

BUILDER TO VERIFY ALL LOCATIONS MATCH WITH EXISTING 1ST FLOOR BELOW

THIS BUILDING HAS BEEN EXTRACTED FROM AN APPROVED SYSTEMS OR PER MODEL APPROVAL
JLA

SITE ADDRESS
471 EAST STREET
WESTWOOD, MA 02090
NORFOLK COUNTY

BUILDER:
3 PORTER ST. UNIT 201
STOUGHTON, MA 02072

NO LOT FIRE SEPARATION REQUIRED

MA STATE BUILDING CODE -(780 CMR) 8TH EDITION
MA FUEL/GAS/PLUMBING (248 CMR)
2009 INTERNATIONAL MECHANICAL CODE W/ MA AMENDMENTS
2014 NATIONAL ELECTRICAL CODE W/ MA AMENDMENTS
2012 INTERNATIONAL ENERGY CONS. CODE W/ MA AMENDMENTS

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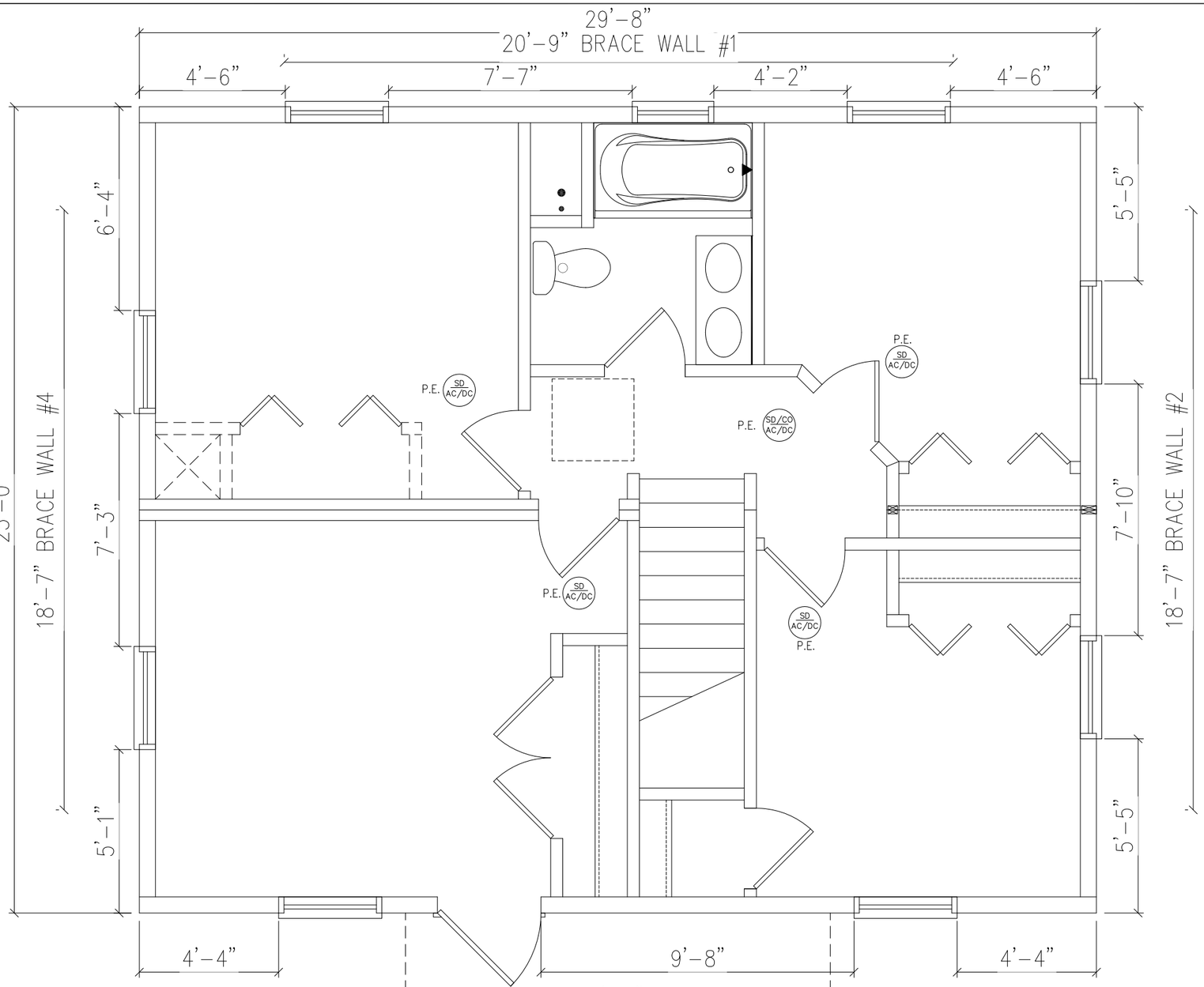
REVISION	BY	DATE
PRELIM	JBG	6/21/16
FINAL	PIF	11/1/16

BUILDER	AVALON BUILDING SYSTEMS		
HOMEOWNER/PROJECT	DEMIEN BACHARA		
ADDRESS	471 EAST STREET		
CITY	WESTWOOD	STATE MA	ZIP 02090
COUNTY	NORFOLK	SNOW LOAD (LBS) 40	WIND SPEED (MPH) 100
ORDER NO	6540	SQFT 742	TYPE TWO STORY
FILE NAME	O#6540		

2ND STORY FLOOR PLAN

SERIAL #/ ORDER #
O#6540

PAGE #:
FP1



16 GAUGE 1 3/4" STAPLES @ 3" & 6" O.C.

METHOD TYPE	BRACE WALL LINE	WIND SPEED 100	BRACE WALL LINE SPACING	CONTINUOUS SHEATHING REQUIRED R602.10.3(1)	EXPOSURE/HEIGHT FACTORS EXPOSURE B R602.10.3.2(2) 1.0	ROOF EAVE TO RIDGE HEIGHT 8 FT R602.10.3.(2) 0.9	NUMBER OF BRACE WALL LINES	WALL REDUCTION FACTOR 0.9	LENGTH REQUIREMENTS FOR BRACE WALL PANELS WITH CONTINUOUS SHEATHING	FULL HEIGHT SHEATHING PROVIDED
CS-WSP	29.667	BRACE WALL #1	25	5.750	5.750 X 1.0 = 5.750	5.750 X 0.9 = 5.060	5.060 X 1.00 = 5.060	5.060 X 0.90 = 4.554	24 "	**20.75 Feet**
CS-WSP	25	BRACE WALL #2	29.667	7.000	7.000 X 1.0 = 7.000	7.000 X 0.9 = 6.160	6.160 X 1.00 = 6.160	6.160 X 0.90 = 5.544	24 "	**18.58 Feet**
CS-WSP	29.667	BRACE WALL #3	25	5.750	5.750 X 1.0 = 5.750	5.750 X 0.9 = 5.060	5.060 X 1.00 = 5.060	5.060 X 0.90 = 4.554	35 "	**18.33 Feet**
CS-WSP	25	BRACE WALL #4	29.667	7.000	7.000 X 1.0 = 7.000	7.000 X 0.9 = 6.160	6.160 X 1.00 = 6.160	6.160 X 0.90 = 5.544	24 "	**18.58 Feet**

PFS APPROVED
DATE 11/14/16
PFS CORPORATION
Bloomsburg, PA

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REVISION	DATE	BY
PRELIM	6/21/16	JBG
FINAL	11/1/16	PIF

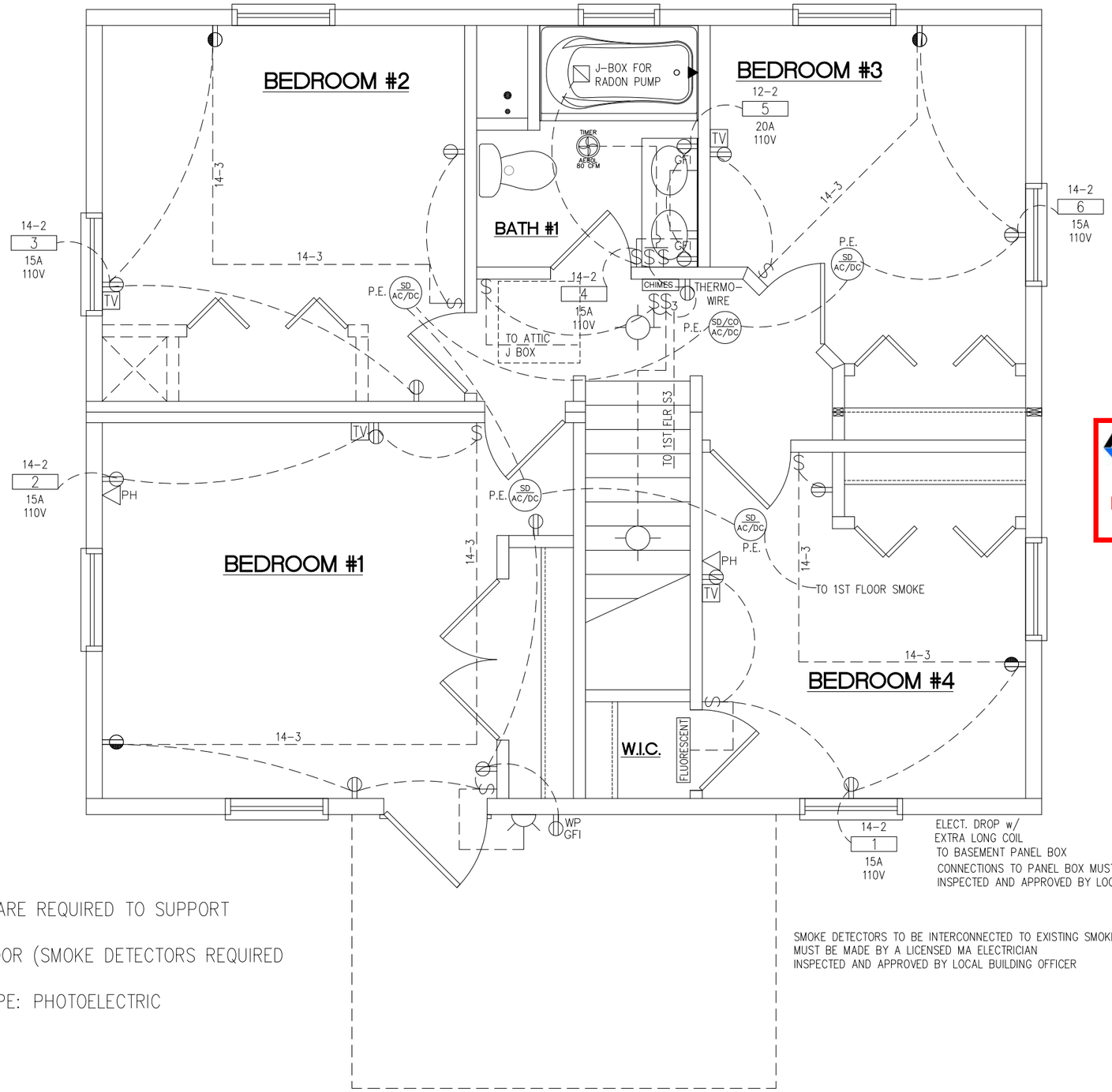
BUILDER AVALON BUILDING SYSTEMS
HOMEOWNER/PROJECT DEMIEN BACHARA
ADDRESS 471 EAST STREET
CITY WESTWOOD
COUNTY NORFOLK
ORDER NO 6540
SERIAL NO
FILE NAME O#6540
STATE MA
ZIP 02090
SNOW LOAD (LBS) 40
WIND SPEED (MPH) 100
SQFT 742
TYPE TWO STORY

1ST STORY SHEAR WALLS

SERIAL #/ ORDER #
O#6540

PAGE #:
SW1

50# LIGHT BOXES ARE REQUIRED



ELECT. DROP w/
EXTRA LONG COIL
TO BASEMENT PANEL BOX
CONNECTIONS TO PANEL BOX MUST BE MADE BY A LICENSED MA ELECTRICIAN
INSPECTED AND APPROVED BY LOCAL BUILDING OFFICER

SMOKE DETECTORS TO BE INTERCONNECTED TO EXISTING SMOKE DETECTORS
MUST BE MADE BY A LICENSED MA ELECTRICIAN
INSPECTED AND APPROVED BY LOCAL BUILDING OFFICER

NOTES:
1. INSULATED STAPLES ARE REQUIRED TO SUPPORT ALL WIRING
2. 742 SQ. FT. PER FLOOR (SMOKE DETECTORS REQUIRED EVERY 1,200 SQ. FT.
3. SMOKE DETECTOR TYPE: PHOTOELECTRIC

ALL 125-VOLT, 15-20 AMPERE RECEPTS INSTALLED IN AREAS SPECIFIED BY 210.52 SHALL BE LISTED TAMPER-RESISTANT TYPE.

ALL BRANCH CIRCUITS SUPPLYING 15 AND 20 AMPERE OUTLETS ARE TO BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER IN ACCORDANCE WITH THE 2014 NEC

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DATE 11/14/16
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SERIAL #/ ORDER #
O#6540

PAGE #:
EL1

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SELINSGROVE, PA 17870
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CUSTOM MODULAR HOMES LLC
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DATE	REVISION	BY
6/21/16	PRELIM	JBG
11/1/16	FINAL	PIF

BUILDER: AVALON BUILDING SYSTEMS
HOMEOWNER/PROJECT: DEMIEN BACHARA
ADDRESS: 471 EAST STREET
CITY: WESTWOOD
COUNTY: NORFOLK
ORDER NO: 6540
SERIAL NO:
FILE NAME: O#6540
STATE: MA
ZIP: 02090
SNOW LOAD (LBS): 40
WIND SPEED (MPH): 100
SQFT: 742
TYPE: TWO STORY

2ND STORY ELECTRICAL PLAN

ELECTRICAL LOAD CALCULATION FOR ON#6540-MA

HOUSE SQFT: 742

AIR CONDITIONING AND HEAT

AIR CONDITIONING:	0 WATTS	0 WATTS
CENTRAL ELECTRIC SPACING HEATING:	0 WATTS (X 0.65)	0 WATTS
LESS THAN FOUR SEPARATELY CONTROLLED ELECTRIC SPACE HEATING UNITS:	0 WATTS (X 0.65)	0 WATTS
FOUR OR MORE SEPARATELY CONTROLLED ELECTRIC SPACE HEATING UNITS:	0 WATTS (X 0.45)	0 WATTS

*NOTE: USE THE LARGER OF THE AIR CONDITIONING OR THE DIVERSIFIED DEMAND OF THE HEATING LOAD.

OTHER LOADS

		WATTS OR VOLT-AMPS	CIRCUIT AMPACITY	WIRE SIZE
GENERAL LIGHTING:	(742 x 3)	2,226	15A	14-2
SMALL APPLIANCES:	(0 X 1,500)	0	N/A	N/A
RANGE:		0	N/A	N/A
DISHWASHER:		0	N/A	N/A
GARBAGE DISPOSAL:		0	N/A	N/A
WASHER:		0	N/A	N/A
DRYER:		0	N/A	N/A
FURNACE:		0	N/A	N/A
WATER HEATER:		0	N/A	N/A
		2,226		

FIRST 10kW OF OTHER LOADS @ 100%:		=	2,226
REMAINDER OF OTHER LOADS @ 40%:	(0 x 0.40)	=	0
AIR CONDITIONING OR HEAT FROM ABOVE:		=	0
TOTAL CALCULATED LOAD::		=	2,226
REQUIRED SERVICE SIZE:	(2,226 / 240)	=	9 AMPS
INSTALLED PANEL SIZE:		=	200 AMPS

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BUILDER: AVALON BUILDING SYSTEMS
HOMEBUYER/PROJECT: DEMIEN BACHARA
ADDRESS: MAIN STREET
CITY: WESTWOOD
COUNTY: NORFOLK
ORDER NO: 6540
FILE NAME: O#6540
STATE: MA
ZIP: 02090
SNOW LOAD (LBS)
WIND SPEED (MPH)
SQFT
TYPE
SERIAL NO

ELECTRICAL LOAD CALC

CIRCUIT SCHEDULE

*WIRE WITH GROUND ALL CIRCUITS

CRT	BRK	WIRE	LOCATION	VOLT	CRT	BRK	WIRE	LOCATION	VOLT
1	15A	14-2	BEDRROM#4	110	2	15A	14-2	BEDROOM#1	110
3	15A	14-2	BEDROOM#2	110	4	15A	14-2	GENERAL LIGHTING	110
5	20A	12-2	BATH GFI	110	6	15A	14-2	BEDRROM#3	110
7					8				
9					10				
11					12				
13					14				
15					16				
17					18				
19					20				
21					22				
23					24				
25					26				
27					28				
29					30				
31					32				
33					34				
35					36				
37					38				
39					40				

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STATE: MA
ZIP: 02090
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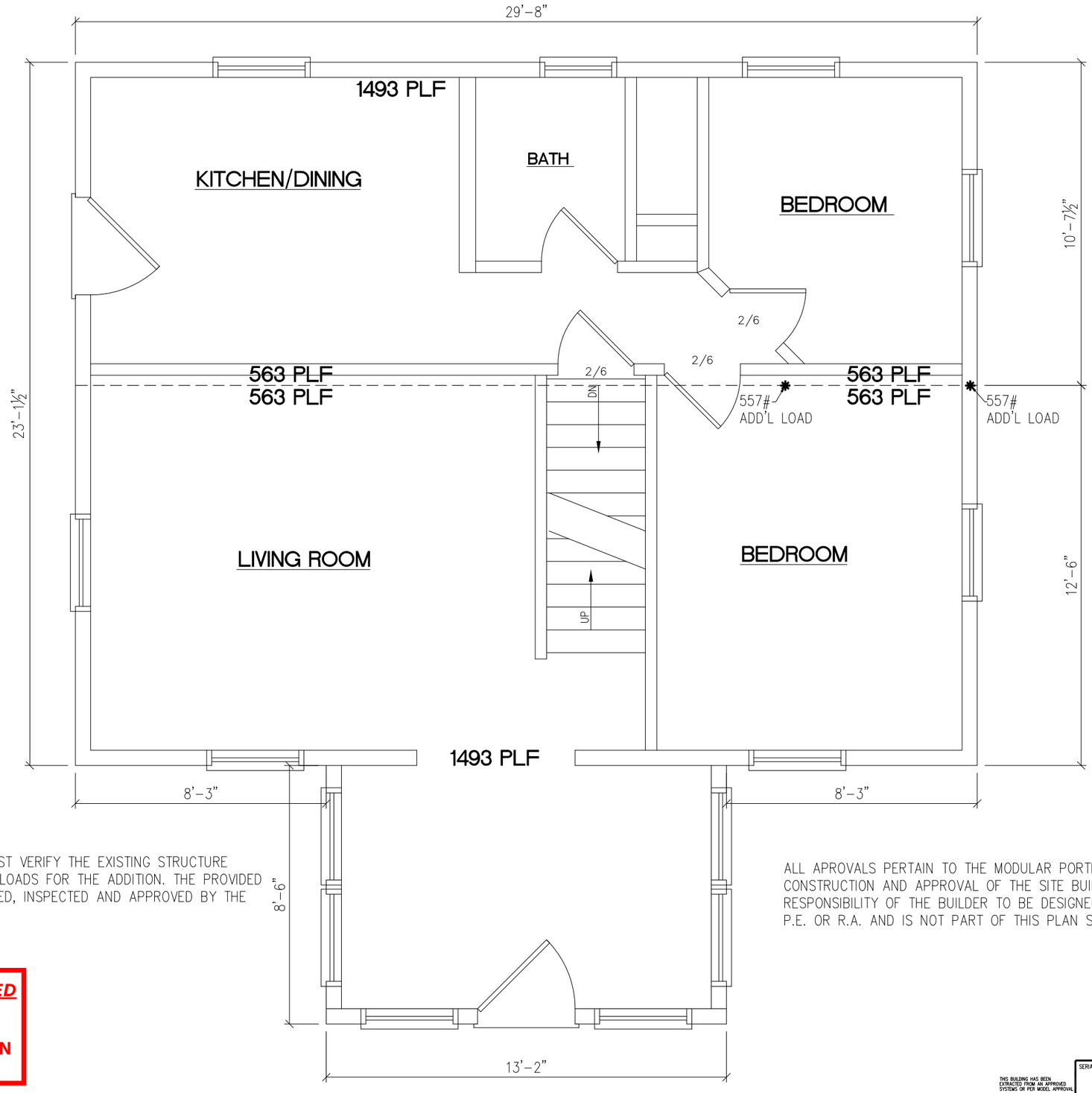
SNOW LOAD (LBS):
WIND SPEED (MPH):
ORDER NO: 6540
SERIAL NO:
SQFT:
TYPE:
FILE NAME: O#6540

CIRCUIT SCHEDULE

BUILDER TO PROVIDE UPLIFT CONNECTIONS BETWEEN THE EXISTING STRUCTURE AND MODULES AT THE REQUIRED LOCATIONS FOR THE LOADS LISTED.



MA LICENSED P.E. OR R.A. MUST VERIFY THE EXISTING STRUCTURE CAN SUPPORT THE INDICATED LOADS FOR THE ADDITION. THE PROVIDED INFORMATION MUST BE REVIEWED, INSPECTED AND APPROVED BY THE LOCAL BUILDING OFFICIAL.

ALL APROVALS PERTAIN TO THE MODULAR PORTION ONLY. ALL DESIGN, CONSTRUCTION AND APPROVAL OF THE SITE BUILT PORTIONS ARE THE RESPONSIBILITY OF THE BUILDER TO BE DESIGNED BY A MA LICENSED P.E. OR R.A. AND IS NOT PART OF THIS PLAN SET APPROVAL.

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FINAL	PIF	11/1/16

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SNOW LOAD (LBS): 40
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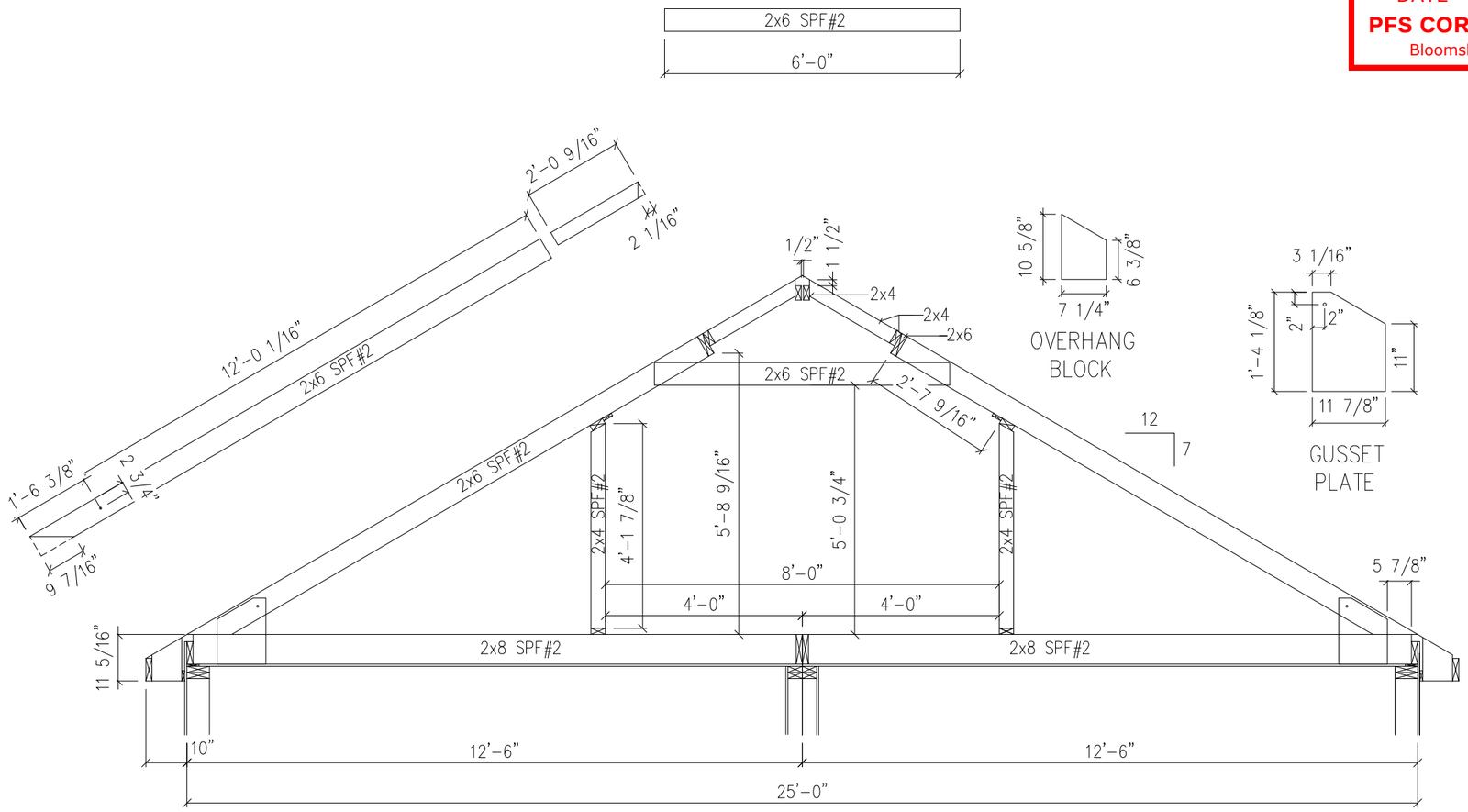
ORDER NO: 6540
SERIAL NO:
SQFT: 742
TYPE: TWO STORY
FILE NAME: O#6540

EXISTING 1ST FLOOR



7/12 - 25'-0" WIDE - GOOD TO 40#GSL - 16" O.C.
NON-STORAGE RAFTER

THIS TRUSS DESIGN MAY BE USED FOR LESSER SPANS PROVIDED
NO MEMBER HAS A GREATER LENGTH AND ALL CONNECTIONS ARE AS SPECIFIED.

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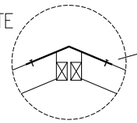
ORDER NO: 6540
SERIAL NO:
SQFT: 742
TYPE: TWO STORY
FILE NAME: O#6540

25'-0" 7/12 RAFTER

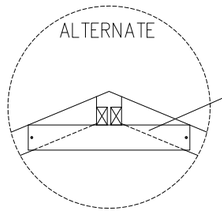
CONNECTION: A-2

ALTERNATE

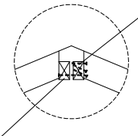


1 1/2" X 26GA. STRAP @ 16" O.C.
W/1-6D NAILS EACH END
OR
W/1-16GA. STAPLES EACH END

ALTERNATE



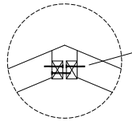
USE 1-8D NAIL EACH END OF 1X4



USE 2 10D NAILS THROUGH RAFTER
INTO RIDGE PLATE

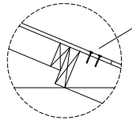
10D NAILS @ 29" O.C. THROUGH
PLATES *FULL PENETRATION REQ'D*

CONNECTION: A-1



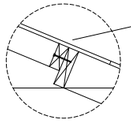
USE 1-16D NAIL INTO END
GRAIN EACH END
AND
USE 10D NAILS @ 11" O.C.
THROUGH PLATES

CONNECTION: B-1



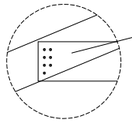
USE 1-6D NAILS THROUGH SHEATHING
OR
USE 1-16GA. STAPLES THROUGH SHEATHING

CONNECTION: B-2



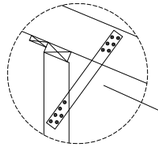
USE 1-16D NAILS TOENAILED EACH END
AND
USE 10D NAILS @ 11" O.C. THROUGH PLATES

CONNECTION: C

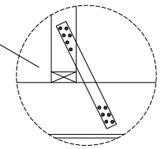


USE 7-16D NAILS EACH END

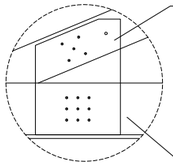
CONNECTION: D



1 1/2" X 26GA. STRAP
W/6-10D NAILS EACH END
OR
W/7-16GA. STAPLES EACH END



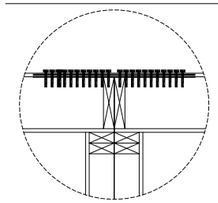
CONNECTION: E



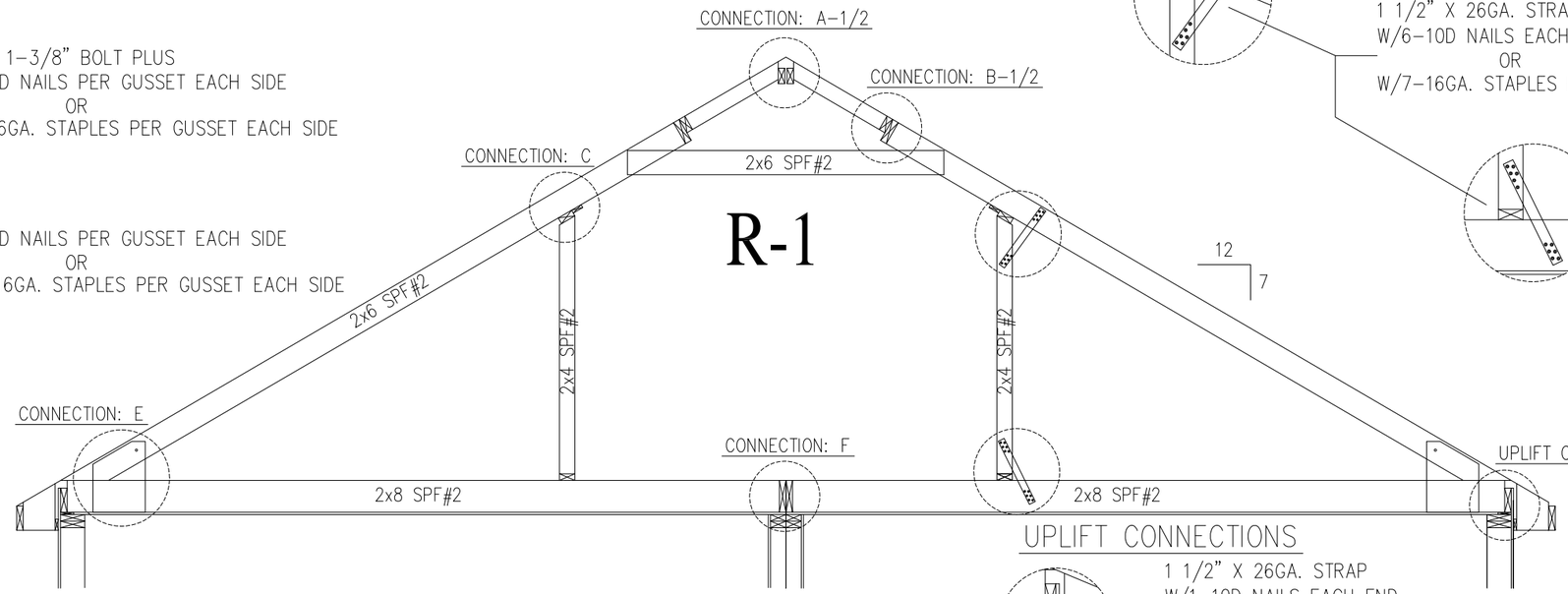
USE 1-3/8" BOLT PLUS
5-6D NAILS PER GUSSET EACH SIDE
OR
7-16GA. STAPLES PER GUSSET EACH SIDE

9-6D NAILS PER GUSSET EACH SIDE
OR
11-16GA. STAPLES PER GUSSET EACH SIDE

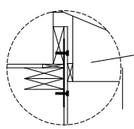
CONNECTION: F



USE 10-16D NAILS THROUGH DECKING EACH SIDE
OR
DBL 1 1/2" X 20GA. STRAP
W/9-10D NAILS EACH END



UPLIFT CONNECTIONS



1 1/2" X 26GA. STRAP
W/1-10D NAILS EACH END
OR
W/2-16GA. STAPLES EACH END
OR
OVERLAP SHEATHING

7/12 - 25'-0" WIDE - GOOD TO 40#GSL - 16" O.C.

NON-STORAGE RAFTER

GOOD TO 115 MPH WIND SPEED

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O#6540

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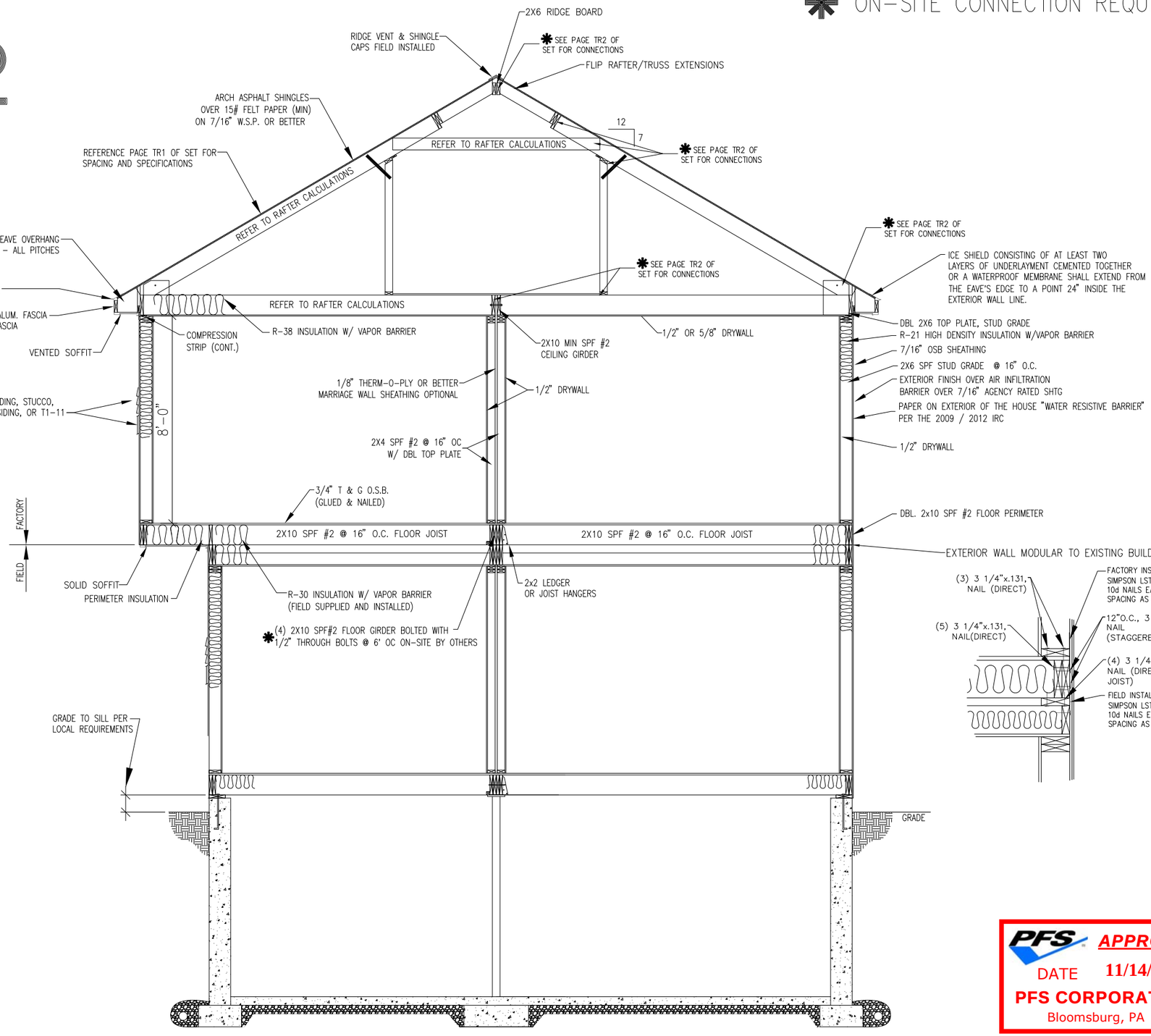
PRELIM	JBG	6/21/16
FINAL	PIF	11/1/16

BUILDER: AVALON BUILDING SYSTEMS
HOMEOWNER/PROJECT: DEMIEN BACHARA
ADDRESS: 471 EAST STREET
CITY: WESTWOOD
COUNTY: NORFOLK
ORDER NO: 6540
SERIAL NO:
FILE NAME: O#6540
STATE: MA
ZIP: 02090
SNOW LOAD (LBS): 40
WIND SPEED (MPH): 100
SQFT: 742
TYPE: TWO STORY

25'-0" 7/12 RAFTER CONNECTIONS

7/12

✱ ON-SITE CONNECTION REQUIRED



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SERIAL NO:
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ZIP: 02090
SNOW LOAD (LBS): 40
WIND SPEED (MPH): 100
SQFT: 742
TYPE: TWO STORY

CROSS SECTION / DETAIL #1

DOOR AND WINDOW SCHEDULE

WINDOWS

DESCRIPTION	ROUGH OPENING	AREA	LIGHT	CLEAR OPENING WIDTH (EACH)	CLEAR OPENING HEIGHT (EACH)	VENT	U-FACTOR	QTY	TOTAL AREA
SILVERLINE 3000 SERIES DOUBLE HUNG 24210DH	30 1/4" X 37 1/4"	7.83	5.0	26.188	14.438	2.63	0.30	1	7.83
SILVERLINE 3000 SERIES DOUBLE HUNG 3046DH	38 1/4" X 57 1/4"	15.21	11.0	34.188	24.438	5.80	0.30	8	121.68
							TOTAL AREA:		129.51

EXTERIOR DOORS

DESCRIPTION	ROUGH OPENING	AREA	LIGHT	CLEAR OPENING WIDTH (EACH)	CLEAR OPENING HEIGHT (EACH)	VENT	U-FACTOR	QTY	TOTAL AREA
PLASTPRO 3068 (< 50% GLASS)	38 1/2" X 82 1/8"	21.96	0.0	0.000	0.000	20.00	0.17	1	21.96
							TOTAL AREA:		21.96

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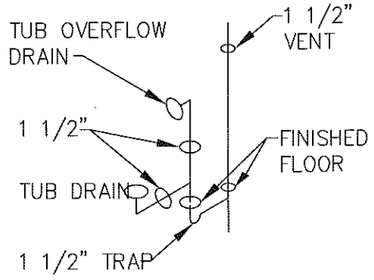
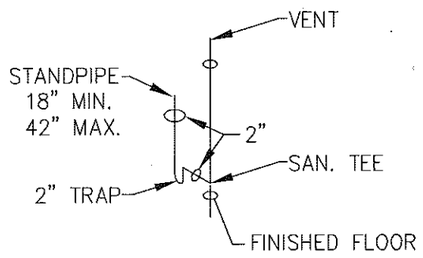
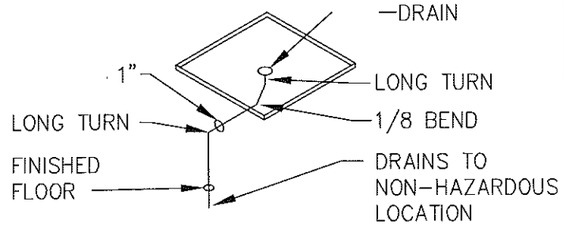
DOOR & WINDOW SCHEDULE



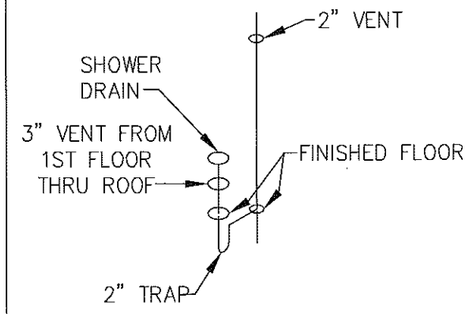
TUB/SHOWER



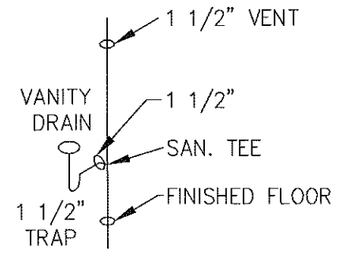
CLOTHES WASHER



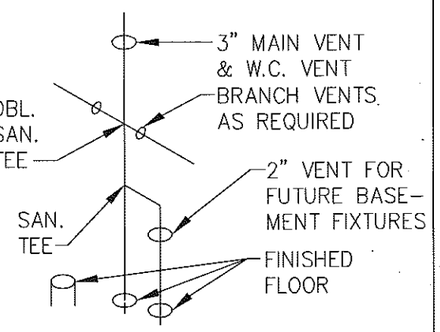
WASHER/WATER HEATER PAN USED WHEN CRAWL SPACE OR USED WHEN EITHER IS INSTALLED ON 2ND FLOOR



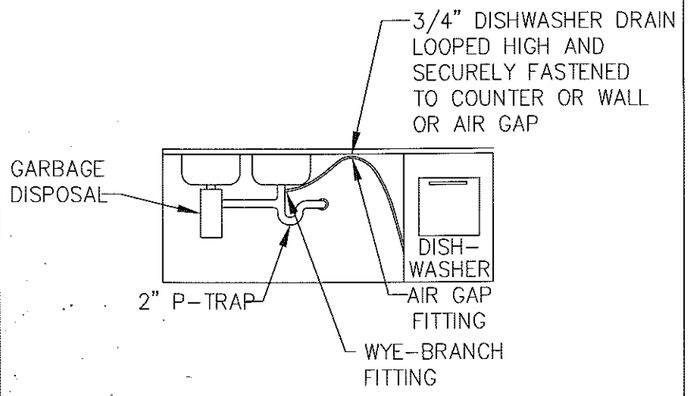
SHOWER



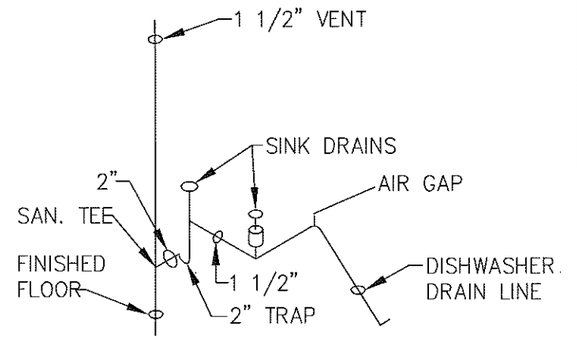
BATHROOM VANITY



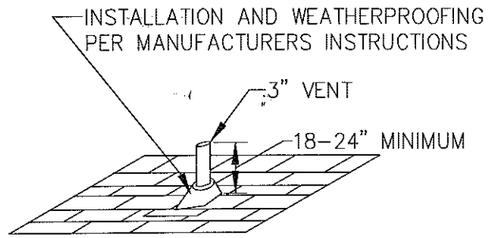
WATER CLOSET AND MAIN VENT



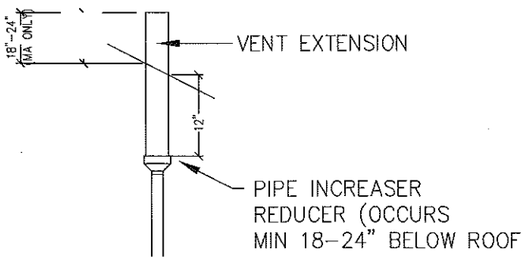
KITCHEN SINK/DISHWASHER/DISPOSAL



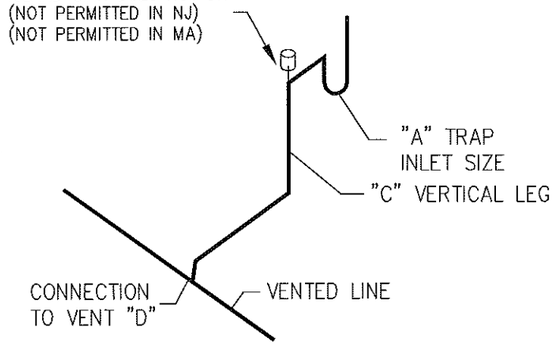
KITCHEN SINK/DISHWASHER DETAIL



VENT THRU ROOF DETAIL



FROST CLOSURE



THE VENT PIPE FROM A FIXTURE DRAIN, EXCEPT WATER CLOSETS AND SIMILAR SIPHONIC FIXTURES, SHALL NOT CONNECT BELOW THE TOP WEIR OF THE TRAP. THE VENT PIPE MAY BE CONNECTED AT A LOWER ELEVATION IF THE FOLLOWING ARE MET:

1. THE VERTICAL SECTION OF THE DRAIN PIPE SHALL BE AT LEAST ONE PIPE SIZE LARGER THAN THE TRAP INLET SIZE.
2. THE HORIZONTAL PIPE CONNECTED TO THE TRAP OUTLET SHALL BE AT LEAST TWO PIPE DIAMETERS LONG.
3. THE DEVELOPED LENGTH OF THE TRAP ARM SHALL NOT EXCEED THE VALUES STATED IN THE APPLICABLE PLUMBING CODES.

"A" – TRAP SIZE PER ALL APPLICABLE PLUMBING CODES
"B" – TRAP ARM LENGTHS:
1 1/4" TRAP – 3'-6"
1 1/2" TRAP – 5'-0"
3" TRAP – 10'-0"
4" TRAP – 12'-0"
"C" – SIZE IS ONE SIZE LARGE THAN TRAP SIZE
"D" – DISTANCE FROM CROWN WEIR AND VENT CONNECTION ACCORDING TO MAX. DISTANCE OF VENT FROM FIXTURE TRAP

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CUSTOMER/PROJECT: SYSTEMS DRAWINGS
BUILDER:

REV#	DATE	REVISIONS	BY
1	12/14/09	CODE UPDATES	BJH
2	12/10/10	REVISED SYSTEMS	SLW
3	1/4/2011	MA. CODE UP-DATE	SLW
4	8/10/2011	Code up-date RI, VA, NJ.	SW

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FILE:
SQ.FT.:
STATE:
TYPE:
MODEL:
DRAWING: PLUMBING DETAILS
SHEET: PL1

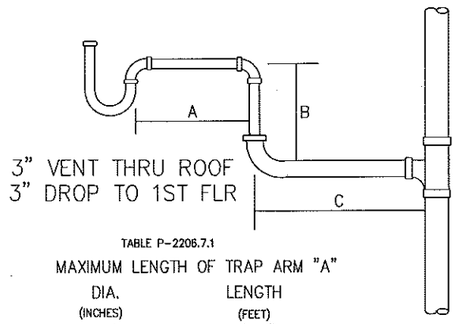


TABLE P-2206.7.1

MAXIMUM LENGTH OF TRAP ARM "A"

DIA. (INCHES)	LENGTH (FEET)
1-1/4	3'-6"
1-1/2	5'
2	8
3	10'
4	14'

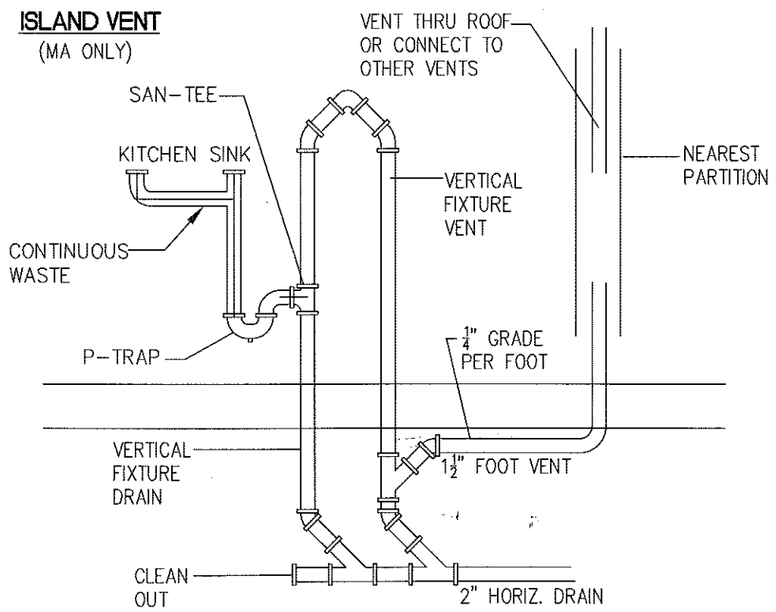
ALLOWABLE FALL IN TRAP ARM: THE TOTAL FALL IN TRAP ARM DUE TO PIPE SLOPE SHALL NOT EXCEED ONE PIPE DIAMETER, NOR SHALL THE VENT PIPE CONNECTION TO A FIXTURE DRAIN, EXCEPT FOR WATER CLOSETS AND SIMILAR FIXTURES, BE BELOW THE WEIR OF THE TRAP,

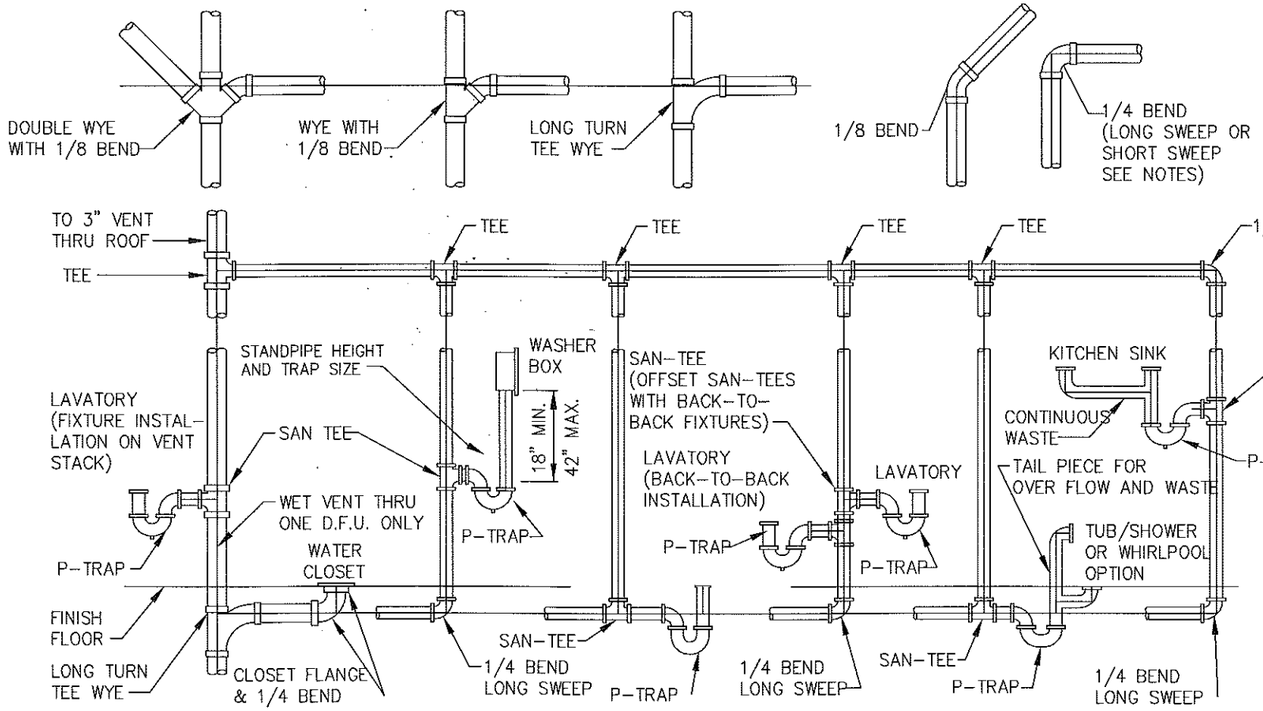
VERTICAL LEG FOR WASTE FIXTURE DRAINS: A VERTICAL LEG ("B" IN DIAGRAM) MAY BE INSTALLED IN THE TRAP ARM OF A WASTE-FIXTURE DRAIN IN LIEU OF THE USUAL TRAP ARM TO VENT CONNECTION. TYPICAL INSTALLATIONS INCLUDE ISLAND SINKS AND FIXTURES NOT ADJACENT TO A WALL. VERTICAL LEG TRAP ARM INSTALLATIONS SHALL MEET THE FOLLOWING CRITERIA:

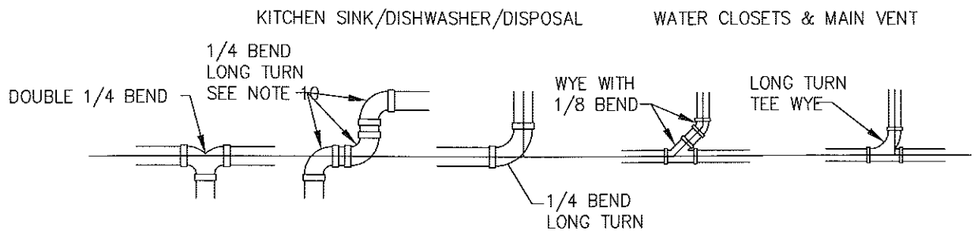
1. MINIMUM TRAP DIAMETER SHALL MEET CODES
2. THE DIAMETER OF SECTION "A" SHALL BE EQUAL TO THE DIAMETER OF THE TRAP.
3. THE LENGTH OF SECTION "A" SHALL BE NOT LESS THAN 8" AND IN ACCORDANCE WITH TABLE P-2206.7.1.
4. THE DIAMETER OF SECTION "B" SHALL BE ONE PIPE SIZE LARGER THAN THE DIAMETER OF SECTION :A".
5. THE LENGTH OF SECTION "B" SHALL BE NOT MORE THAN 36 INCHES
6. THE DIAMETER OF SECTION "C" SHALL BE ONE PIPE SIZE LARGER THAN THE DIAMETER OF SECTION "B".
7. THEIR IS NO RESTRICTION ON THE LENGTH OF SECTION "C".
8. BENDS SHALL BE THE DIAMETER OF THE LARGEST CONNECTED SECTION.

NOT PERMITTED IN MASSACHUSETTS

ISLAND VENT
(MA ONLY)







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CUSTOMER/PROJECT: SYSTEMS DRAWINGS
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3	1/14/2011	MA. CODE UP-DATE	SLW
4	2/10/2011	Code up-date IC, VA, NJ.	SW

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FILE:
SQ.FT.:
STATE:
TYPE:
MODEL:
DRAWING: PLUMBING DETAILS
SHEET: PL2

PLUMBING NOTES:

1. ALL PLUMBING CONSTRUCTION AND MATERIAL BELOW THE MODULAR FLOOR AND BETWEEN FLOORS IS THE RESPONSIBILITY OF THE BUILDER/CONSTRACTOR AND IS TO BE DONE IN ACCORDANCE W/STATE AND LOCAL CODES.
2. CONCEALED PIPING IN UNHEATED AREAS, INCLUDING OUTSIDE WALLS, SHALL BE PROTECTED AGAINST FREEZING IN PLANT. PIPING SHALL BE KEPT OUT OF UNHEATED AREAS WHERE POSSIBLE.
3. ALL WASTE AND VENT LINES IN MODULES ARE ABS OR PVC PIPE. ALL SUPPLY LINES IN MODULES ARE COPPER, PEX, OR CPVC.
4. PITCH ON HORIZONTAL WASTE LINES IS $\frac{1}{8}$" PER FOOT FOR GREATER THAN 3" DIAMETER PIPE, $\frac{1}{4}$" PER FOOT FOR 3" DIAMETER PIPE OR LESS.
5. WASTE LINES: INSTALL WYE WITH CLEANOUT PRIOR TO EXITING WALL FOR CONNECTION TO DISPOSAL SYSTEM. 4" MINIMUM WASTE LINE TO SEPTIC (BY BUILDER IN FIELD).
6. WASHER SHALL HAVE MINIMUM 2" TRAP.
7. REMOVABLE TRAPS UNDER ALL SINKS TO PROVIDE CLEANOUT ACCESS.
8. GARBAGE DISPOSAL MUST HAVE SEPARATE TRAP. DISHWASHER CANNOT DISCHARGE INTO GARBAGE DISPOSAL.
9. KITCHEN SINK SHALL HAVE 2" DRAIN WHEN A GARBAGE DISPOSAL OR DISHWASHER ARE CONNECTED.
10. HORIZONTAL TO HORIZONTAL AND VERTICAL TO HORIZONTAL DRAIN CHANGES IN DIRECTION SHALL BE 45° WYES, LONG SWEEP 90° ELBOWS, LONG SEEP TY'S, 6TH, 8TH, OR 16TH BENDS, APPROVED COMBINATIONS OF THESE OR EQUIVALENT LONG SWEEP FITTINGS. SHORT SWEEPS ARE PERMITTED IN SINGLE BRANCH HORIZONTAL TO VERTICAL CHANGES IN DIRECTION ON 3" PIPE AND LARGER.
11. ALL HORIZONTAL VENT BRANCH PIPING SHALL BE LOCATED A MINIMUM OF 6" ABOVE THE FLOOD LEVEL OF THE HIGHEST FIXTURE IN THAT BRANCH.
12. PVC–DWV PIPE SUPPORTS: AT BRANCHES, CHANGES IN DIRECTION, AND AT THE BASE, EACH FLOOR AND MID STORY (VERTICAL) MAXIMUM EVERY 4'–0" AT THE END OF BRANCHES, AND CHANGE OF DIRECTIONS OR ELEVATION,
13. PIPE PENETRATING FIRE RATED ASSEMBLIES INCLUDING FLOOR/CEILING SHALL BE FIRE STOPPED WHERE REQUIRED BY ALL CODES WITH MATERIAL EQUIVALENT TO CONSTRUCTION THROUGH WHICH IT PENENTRATES AND BE SUITABLE TO PIPE MATERIAL, OR USE METAL PIPE FROM A MINIMUM OF ABOVE THE FIRE RATED ASSEMBLY AND DOWN.
14. FIRE STOPPING SHALL BE PROVIDED AND VERIFIED BEFORE IT IS COVERED OR CONCEALED IN THE CONSTRUCTION PROCESS.
15. ANY STRUCTURAL MEMBER SUBJECT TO HOLE DRILLING, CUTTING, OR NOTHCING SHALL BE LEFT IN A SAFE STRUCTURAL CONDITIION BY BEING REINFORCED, REPAIRED, OR REPLACED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE CODE.
16. FIELD INSTALLED (ON–SITE) PIPING SHALL BE APPROVED BY THE LOCAL BUILDING CODE ENFORCEMENT OFFICER. PIPING SHALL BE FIELD TESTED FOR LEAKS.
17. BATH TUBS, INCLUDING GARDEN TUBS, HYDRO–MASSAGE, AND HOT TUBS SHALL HAVE A 1 $\frac{1}{2}$" MIN OVERFLOW.
18. JOINTS AROUND PLUMBING FIXTURES SHALL BE MADE WATERPROOF AT FLOORS, WALLS, & COUNTERTOPS.
19. EACH FIXTURE SHALL BE INDIVIDUALLY DIRECT OR WET VENTED.
20. EACH DWELLING UNIT SHALL HAVE ONE MAIN 3" STACK FROM BUILDING DRAIN.
21. ALL VENTS THROUGH ROOF TO BE 3" MIN DIAMETER AND SHALL TERMINATE 18'–24" ABOVE THE ROOF.
22. BASEMENT MODELS SHALL BE PROVIDED IN FACTORY WITH A 2" VENT TO BASEMENT STUBBED BELOW THE FIRST FLOOR, THEN CAPPED AND LABELED. BASEMENT VENT MAY BE DELETED WHEN CLOTHES WASHER IS ON THE FIRST OR SECOND FLOOR.
23. ALL TRAP ARMS MUST BE SUPPORTED WITH $\frac{1}{4}$" MINIMUM BEARING.(MA ONLY)
24. ALL PLASTIC PIPE MUST BE SUPPORTED AT INTERVALS IN ACCORDANCE WITH APPLICABLE PLUMBING CODES.
25. TRAPS SHALL BE PLACED AS CLOSE AS POSSIBLE TO FIXTURE OUTLET. MAXIMUM VERTICAL DROP FROM FIXTURE OUTLET TO TRAP WEIR IS 24".
26. INACCESSIBLE TRAPS SHALL NOT HAVE UNIONS, CLEANOUTS OR SLIPJOINTS. ACCESSIBLE TRAPS SHALL BE REMOVABLE WITH UNION IN TRAP SEAL OR HAVE CLEANOUT OPENING SIZED THE SAME AS THE TRAP.
27. MAXIMUM DISTANCE OF FIXTURE TRAP WEIR TO VENT SHALL BE IN ACCORDANCE WITH ALL APPLICABLE PLUMBING CODES.
28. PLASTIC PIPING SHALL BE PROTECTED WITH $\frac{1}{16}$" STEEL PLATE WHEN PIPE PASSES THROUGH WOOD MEMBERS LESS THAN 1 $\frac{1}{4}$" FROM EDGE OF MEMBER.
29. FIRST FLOOR FIXTURES SHALL CONNECT INTO HORIZONTAL BUILDING DRAIN MORE THAN 10 PIPE DIAMETERS DOWNSTREAM OF STACK BASE AND NOT CONNECT INTO SECOND FLOOR DRAIN STACK.
30. POTABLE WATER SYSTEM SHALL BE DISINFECTED ON SITE BY BUILDER IN ACCORDANCE WITH APPLICABLE STATE PLUMBING CODES.
31. ISLAND FIXTURE VENTING SHALL NOT BE PERMITTED FOR FIXTURES OTHER THAN SINKS AND LAVATURES.. (SEE ISLAND DETAILS).
32. ANTI–SIPHONING DEVICE, VACUUM BREAKDERS, AND AIR GAPS: FOR WATER DISTRICTUION SYSTEMS "PROTECTION OF POTABLE WATER SUPPLY".
    - 32.1. WATER HEATER LOCATED AT OR ON LIVING SPACE LEVEL MUST HAVE AN ANTI–SIPHONING DEVICE INSTALLED.
    - 32.2. CLOTHES WASHER MUST HAVE AN ANTI–SIPHONING DEVICE INSTALLED (IF NOT BUILT INTO THE APPLIANCE).
33. WATER HAMMER ARRESTORS SHALL BE INSTALLED WHERE QUICK CLOSING VALVES ARE UTLIZED. (I.E. WASHING MACHINES AND DISHWASHERS).
34. PIPE INSTALLED DOWNSTREAM OF THE POINT OF POINT OF DELIVERY SHALL NOT EXTEND THROUGH ANY TOWNHOUSE UNIT OTHER THAN THE UNIT SERVED BY SUCH PIPING.

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1	12/14/09	CODE UPDATES	BJH
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3	1/4/2011	MA CODE UP–DATE	SLW
4	5/10/2011	Code up–date RI, VA, NJ	SW

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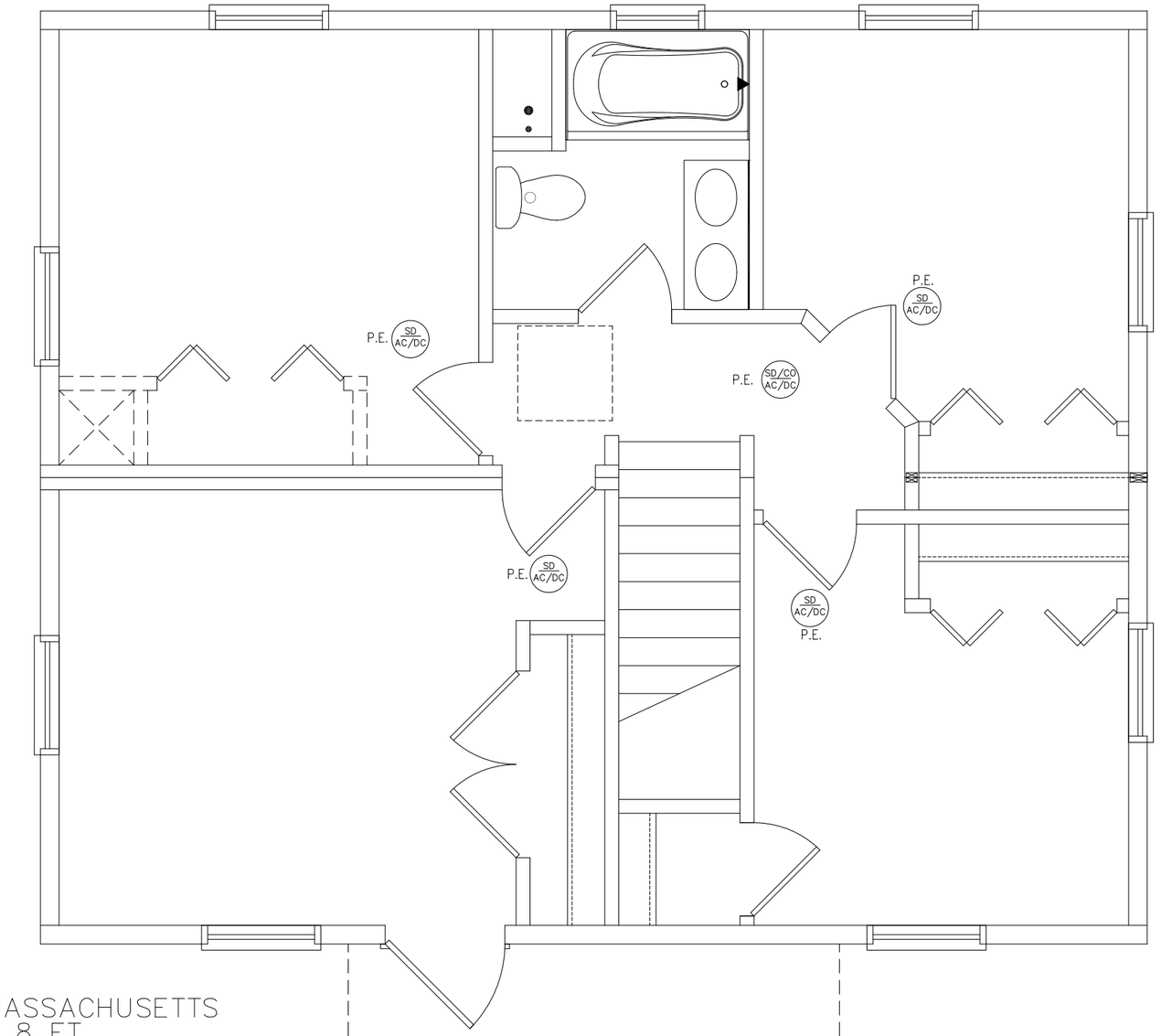
FILE:
SQ.FT.:
STATE:
TYPE:
MODEL:
DRAWING: PLUMBING NOTES
SHEET: PL3



STATE: MA – MASSACHUSETTS
CEILING HEIGHT: 8 FT
3398 WINDOW AND DOOR BTU/H LOSS
2712 WALL BTU/H LOSS
1539 CEILING BTU/H LOSS
3078 FLOOR BTU/H LOSS
18271 INFILTRATION BTU/H LOSS
28998 TOTAL BTU/H LOSS
8496 TOTAL WATT LOSS
34 FT. RADIATION
53 FT. HWBB
35 FT. HI CAPACITY HWBB

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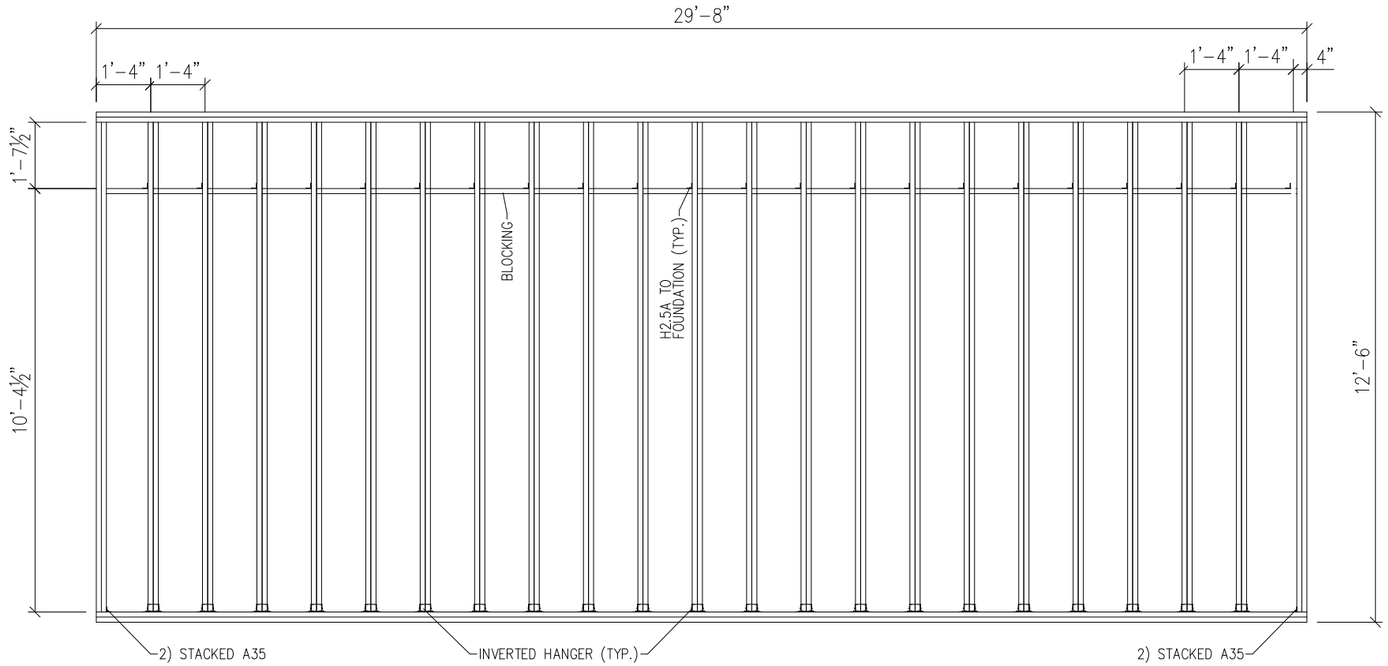
BUILDER: AVALON BUILDING SYSTEMS
HOMEOWNER/PROJECT: DEMIEN BACHARA
ADDRESS: 471 EAST STREET
CITY: WESTWOOD
STATE: MA
ZIP: 02090
COUNTY: NORFOLK
SNOW LOAD (LBS): 40
WIND SPEED (MPH): 100
ORDER NO: 6540
SERIAL NO:
SQFT: 742
TYPE: TWO STORY
FILE NAME: O#6540

2ND STORY HEAT LOSS



FLOOR FRAMING

2) 2X10 SPF#2 JOISTS @ 16" O.C.

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PRELIM	JBG	6/21/16
FINAL	PIF	11/1/16

BUILDER: AVALON BUILDING SYSTEMS
HOMEBUYER/PROJECT: DEMIEN BACHARA
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ZIP: 02090
COUNTY: NORFOLK
SNOW LOAD (LBS): 40
WIND SPEED (MPH): 100
ORDER NO: 6540
SERIAL NO:
SQFT: 742
TYPE: TWO STORY
FILE NAME: O#6540

1ST STORY FLOOR FRAMING

REScheck Software Version 4.6.1

Compliance Certificate

Project DEMIEN BACHARA

Energy Code:	**2012 IECC**
Location:	**Westwood, Massachusetts**
Construction Type:	**Single-family**
Project Type:	**Addition**
Climate Zone:	**5 (6650 HDD)**
Permit Date:	
Permit Number:	

Construction Site:
471 EAST STREET
WESTWOOD, MA 02090

Owner/Agent:
AVALON BUILDING SYSTEMS
3 PORTER ST. UNIT 201
STOUGHTON, MA 02072

Designer/Contractor:
ICON LEGACY CMH
246 SAND HILL RD
SELINSGROVE, PA 17870

Compliance: Passes using UA trade-off

Compliance: **2.3% Better Than Code** Maximum UA: **133** Your UA: **130**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules.
It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Ceiling 1: Flat Ceiling or Scissor Truss	742	38.0	0.0	0.030	22
Wall 1: Wood Frame, 16" o.c.	875	21.0	0.0	0.057	41
Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E	130			0.300	39
Door 1: Glass	22			0.170	4
Floor 1: All-Wood Joist/Truss:Over Unconditioned Space	742	30.0	0.0	0.033	24

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2012 IECC requirements in RES*check* Version 4.6.1 and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

ICON LEGACY CMH — Name - Title

Brett J Helvert — Signature

11/14/16 — Date

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Bloomsburg, PA

RES*check* Software Version 4.6.1

Inspection Checklist

Energy Code: 2012 IECC

Requirements: 0.0% were addressed directly in the RES*check* software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1][1]	Construction drawings and documentation demonstrate energy code compliance for the building envelope.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
103.1, 103.2, 403.7 [PR3][1]	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
302.1, 403.6 [PR2][2]	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr____ Cooling: Btu/hr____	Heating: Btu/hr____ Cooling: Btu/hr____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

2012 IECC	Foundation Inspection	Complies?	Comments/Assumptions
303.2.1 [FO11][2]	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.8 [FO12][2]	Snow- and ice-melting system controls installed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.1, 402.3.3, 402.3.6, 402.5 [FR2][1]	Glazing U-factor (area-weighted average).	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.3 [FR4][1]	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.1 [FR23][1]	Air barrier and thermal barrier installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.3 [FR20][1]	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.4 [FR16][2]	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.1 [FR12][1]	Supply ducts in attics are insulated to ≥R-8. All other ducts in unconditioned spaces or outside the building envelope are insulated to ≥R-6.	R-____ R-____	R-____ R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.2 [FR13][1]	All joints and seams of air ducts, air handlers, and filter boxes are sealed.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.3 [FR15][3]	Building cavities are not used as ducts or plenums.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3 [FR17][2]	HVAC piping conveying fluids above 105 ºF or chilled fluids below 55 ºF are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.1 [FR24][1]	Protection of insulation on HVAC piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4.2 [FR18][2]	Hot water pipes are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5 [FR19][2]	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13][2]	All installed insulation is labeled or the installed R-values provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.6 [IN1][1]	Floor insulation R-value.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2, 402.2.7 [IN2][1]	Floor insulation installed per manufacturer's instructions, and in substantial contact with the underside of the subfloor.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.5, 402.2.6 [IN3][1]	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-____ ☐ Wood ☐ Mass ☐ Steel	R-____ ☐ Wood ☐ Mass ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.2 [IN4][1]	Wall insulation is installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1][1]	Ceiling insulation R-value.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
303.1.1.1, 303.2 [FI2][1]	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft².			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.3 [FI22][2]	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.4 [FI3][1]	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.2 [FI17][1]	Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8.	ACH 50 =____	ACH 50 =____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.2 [FI4][1]	Duct tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	____ cfm/100 ft²	____ cfm/100 ft²	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2.2.1 [FI24][1]	Air handler leakage designated by manufacturer at <=2% of design air flow.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.1 [FI9][2]	Programmable thermostats installed on forced air furnaces.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.2 [FI10][2]	Heat pump thermostat installed on heat pumps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4.1 [FI11][2]	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1 [FI25][2]	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1 [FI6][1]	75% of lamps in permanent fixtures or 75% of permanent fixtures have high efficacy lamps. Does not apply to low-voltage lighting.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
404.1.1 [FI23][3]	Fuel gas lighting systems have no continuous pilot light.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
401.3 [FI7][2]	Compliance certificate posted.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
303.3 [FI18][3]	Manufacturer manuals for mechanical and water heating systems have been provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

2012 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	21.00
Below-Grade Wall	0.00
Floor	30.00
Ceiling / Roof	38.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
Window	0.30	
Door	0.17	

Heating & Cooling Equipment	Efficiency
Heating System:_____	_____
Cooling System:_____	_____
Water Heater:_____	_____

Name: _____ **Date:** _____

Comments

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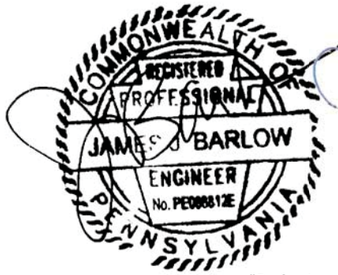
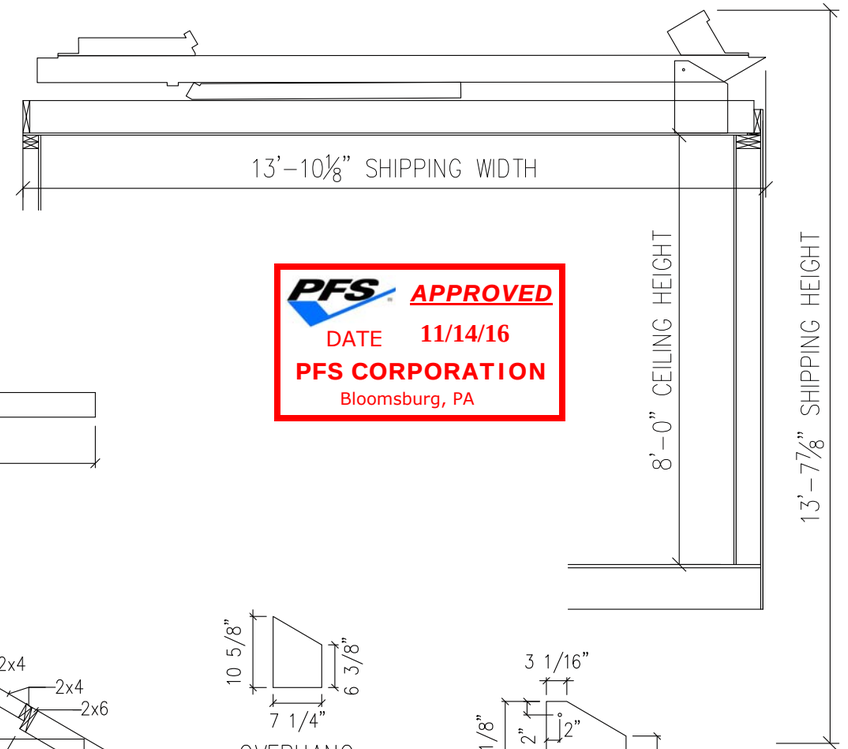


01/03/13

"Professional Certification. I hereby certify that these documents were prepared or approved by me and that I am a duly licensed professional engineer under the laws of the State of Maryland." License No.:33421 Expiration Date:7/16/14

11/04/16



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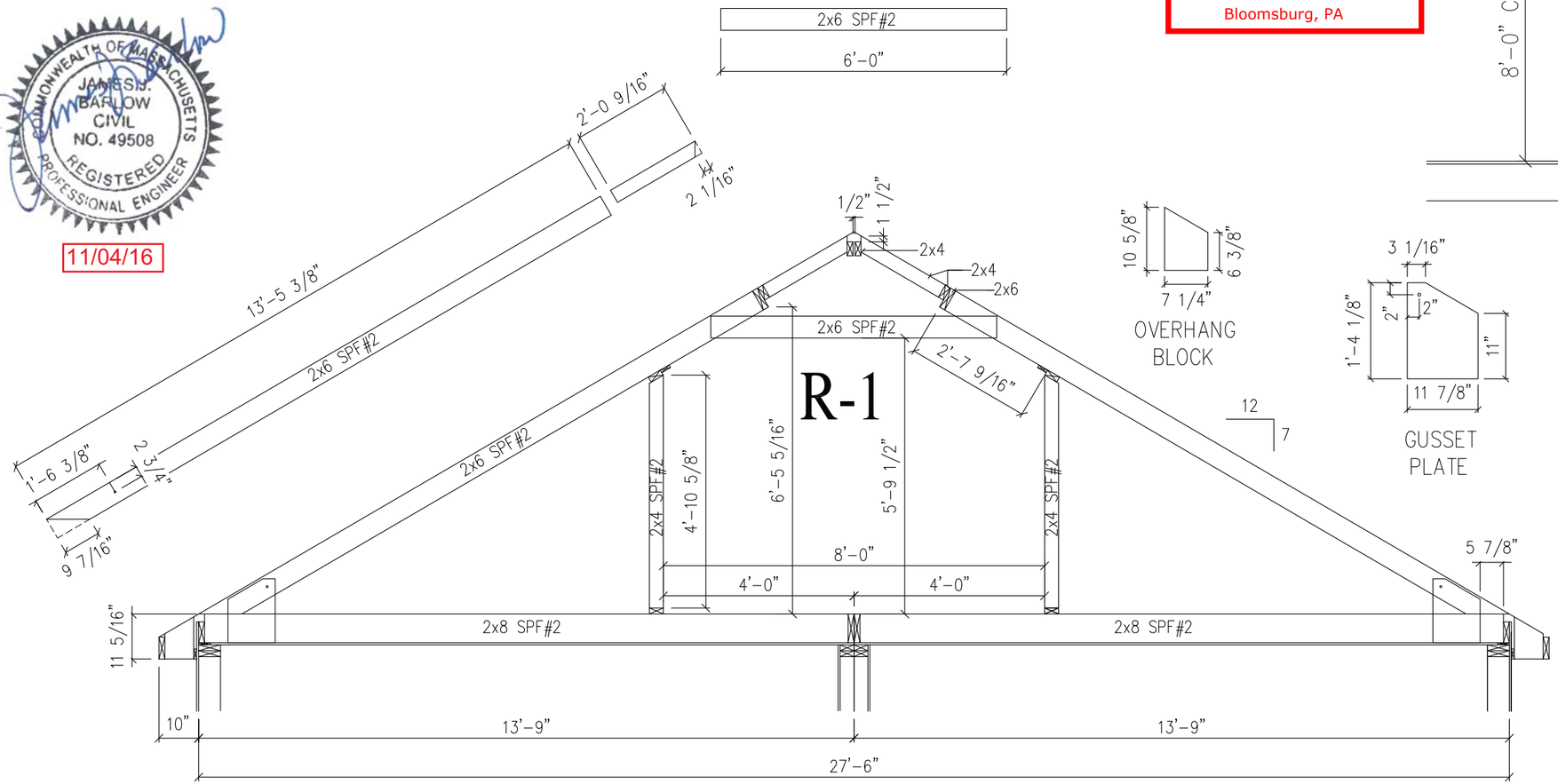


OVERHANG BLOCK

GUSSET PLATE

7/12 - 27'-6" WIDE - GOOD TO 40#GSL - 16" O.C.
NON-STORAGE RAFTER

THIS TRUSS DESIGN MAY BE USED FOR LESSER SPANS PROVIDED
NO MEMBER HAS A GREATER LENGTH AND ALL CONNECTIONS ARE AS SPECIFIED.

TRUSS: 7-275-01

SERIAL #/ ORDER # S#????/O#????

PAGE #: 6A

246 SAND HILL ROAD
SELINSGROVE, PA 17870
PHONE: (570) 374-3280
FAX: (570) 374-1122
WWW.ICONLEGACY.COM

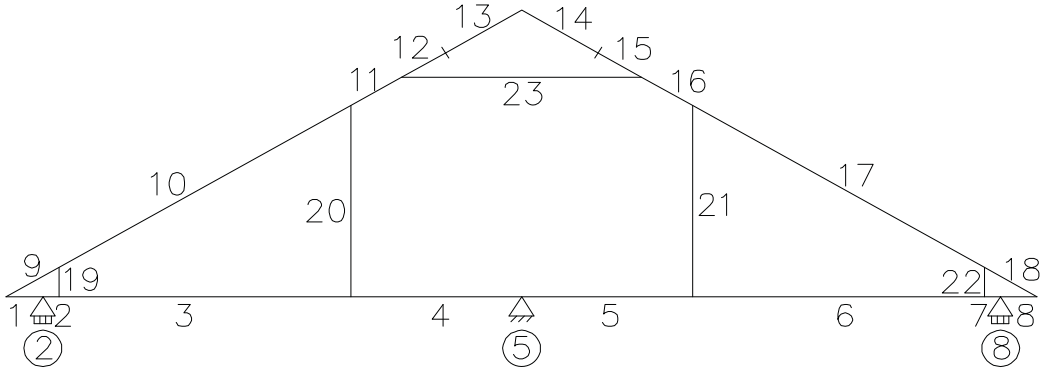
ICON LEGACY
CUSTOM MODULAR HOMES LLC
Make plans with us.

DATE	REVISION	BY

BUILDER
CUSTOMER/PROJECT
ADDRESS
CITY | STATE | ZIP
COUNTY | SNOW LOAD (LBS) | WIND SPEED (MPH)
ORDER NO | SQFT | TYPE
SERIAL NO
FILE NAME

STRUCTURAL LUMBER
INTERACTION CALCULATIONS

LEGACY CUSTOM MODULAR HOMES



11/04/16

COMMONWEALTH OF MASSACHUSETTS
JAMES H. BARLOW
CIVIL
NO. 49508
REGISTERED
PROFESSIONAL ENGINEER

TRUSS NO.: TR7-27-6
JOB NO.: 120111
PITCH: 7/12
SPAN: 27'-6"

TRUSS CENTERS FOR 115 mph WIND: 16"
TRUSS CENTERS FOR 150 mph WIND: 16"

TC DL: 10 psf
BC LL: 10 psf WHERE h < 42"
BC LL: 20 psf WHERE h ≧ 42"
BC DL: 10 psf

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	20 psf	30 psf	40 psf	60 psf	70 psf	90 psf	
GROUND SNOW:							
TRUSS CENTERS:	16	16	16	12	12	N/A	in
BALANCED SNOW LOAD:	*20.4	23.1	30.8	46.2	53.9	N/A	psf
UNBALANCED SNOW LOAD:	36.02	42.72	54.32	77.44	89.02	N/A	psf
OPPOSITE SIDE UNB. SNOW LOAD:	6.12	6.93	9.24	13.86	16.17	N/A	psf
UNBALANCED SNOW LOAD LENGTH:	5.09	5.93	6.63	7.75	8.22	N/A	ft

* ADDITIONAL 5 psf RAIN ON SNOW SURCHARGE APPLIED

MEMBER INFORMATION:

MEMBER	SIZE & SPECIES
1 - 8	2 x 8 SPF #2
9 - 12 & 15 - 18	2 x 6 SPF #2
13 & 14	2 x 4 SPF #2
19 - 22	2 x 4 SPF #2
23	2 x 6 SPF #2

APPLIED MWFRS UPLIFT: 21.67 psf WINDWARD AT 115 mph
12.31 psf LEEWARD AT 115 mph
36.87 psf WINDWARD AT 150 mph
20.94 psf LEEWARD AT 150 mph

APPLIED C & C UPLIFT: 23.06 psf AT 115 mph
39.23 psf AT 150 mph

MAXIMUM SUPPORT REACTIONS (lbs):

	DEAD LOAD	DL + LL + 20 psf SNOW	DL + LL + 30 psf SNOW	DL + LL + 40 psf SNOW	DL + LL + 60 psf SNOW	DL + LL + 70 psf SNOW	DL + LL + 90 psf SNOW	MWFRS UPLIFT 0.6 DL + 115 mph UPLIFT	MWFRS UPLIFT 0.6 DL + 150 mph UPLIFT	C & C UPLIFT 0.6 DL + 115 mph UPLIFT	C & C UPLIFT 0.6 DL + 150 mph UPLIFT
EXTERIOR WALL	435.3	932.4	983.3	1107.5	1087.5	1217.4	N/A	-76.2	-312.9	-154.1	-445.3
MATING WALL	83.4	200.6	206.6	223.5	196.1	208.6	N/A	0	-21.4	-7	-47

NOTES:
1. MATING WALL LOADS ARE TOTAL FOR BOTH SIDES.
2. WIND PER ASCE 7-10, 115 & 150 mph, EXP. C, RISK CATEGORY II.
3. SNOW PER ASCE 7-10, Ct = 1.1, Ce = 1.0.
4. COMPONENT DESIGN IS BASED ON C & C PRESSURES
   TRUSS UPLIFT CONNECTIONS ARE BASED ON MWFRS PRESSURES.
5. THIS TRUSS DESIGN MAY BE USED FOR LESSER SPANS PROVIDED
   NO MEMBER HAS A GREATER LENGTH AND ALL CONNECTIONS ARE AS SPECIFIED.

MAXIMUM INTERACTION & DEFLECTION:

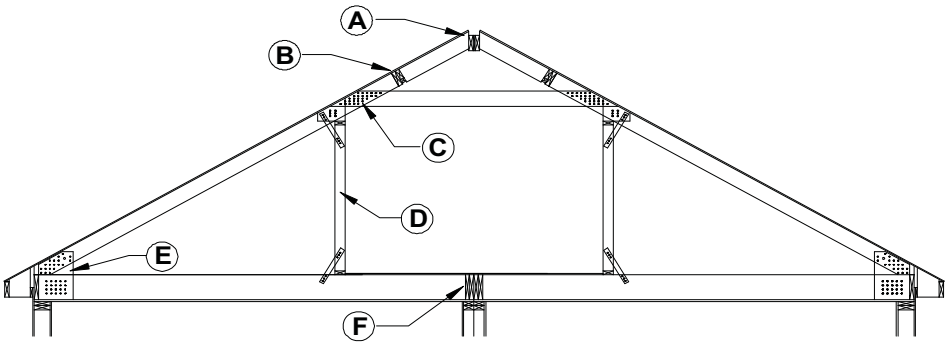
	MAXIMUM CSI	MAXIMUM DEFLECTION (in)	l /
BOTTOM CHORD	0.86922	0.42228	409
TOP CHORD	0.97162	0.42514	527
WEB	0.12172	0.00	*****

CONNECTIONS
TRUSS FRAMING

LEGACY CUSTOM MODULAR HOMES

PROJECT NUMBER : **120111**
TRUSS NUMBER : **TR7-27-6**
TRUSS PITCH : **7/12**
TRUSS SPACING : **16** **in O.C.**
TRUSS SPAN : **27'-6"**

DESIGN LOADS: **20 - 40 psf GROUND SNOW**
115 / 150 mph WIND



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UPLIFT CONNECTIONS (MWFRS LOADS):

EXTERIOR WALL

115 mph WIND

UPLIFT DESIGN LOAD = 76.2 lbs
BASED ON WIND LOAD C_D = 1.6
OK FOR 1 1/2" x 26ga STRAP
WITH 1 10 d NAILS EACH END
OR WITH 2 16 ga STAPLE EACH END

150 mph WIND

UPLIFT DESIGN LOAD = 312.9 lbs
BASED ON WIND LOAD C_D = 1.6
OK FOR 1 1/2" x 26ga STRAP
WITH 4 10 d NAILS EACH END
OR WITH 6 16 ga STAPLE EACH END

MATING WALL (PER SIDE)

115 mph WIND

UPLIFT DESIGN LOAD = 0 lbs
BASED ON WIND LOAD C_D = 1.6
OK FOR 1 1/2" x 26ga STRAP
WITH 0 10 d NAILS EACH END
OR WITH 0 16 ga STAPLE EACH END

150 mph WIND

UPLIFT DESIGN LOAD = 10.7 lbs
BASED ON WIND LOAD C_D = 1.6
OK FOR 1 1/2" x 26ga STRAP
WITH 1 10 d NAILS EACH END
OR WITH 1 16 ga STAPLE EACH END

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CONNECTIONS
TRUSS FRAMING

LEGACY CUSTOM MODULAR HOMES

CONDITION "A" - RIDGE: MEMBER: 14 START JOINT
MEMBER: 13 END JOINT

SHEAR CONNECTION

DL + LL & DL + 115 mph WIND
MAX SHEAR DESIGN LOAD = 91.6 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 1 16 d NAILS INTO END GRAIN EACH END
USE 10 d NAILS AT 11 " O.C. THROUGH PLATES

DL + LL & DL + 150 mph WIND
MAX SHEAR DESIGN LOAD = 91.6 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 1 16 d NAILS INTO END GRAIN EACH END
USE 10 d NAILS AT 11 " O.C. THROUGH PLATES

TENSION CONNECTION

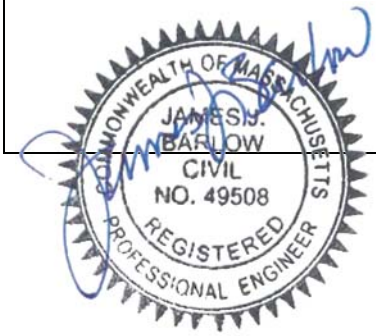
DL + LL & DL + 115 mph WIND
MAX TENSION DESIGN LOAD = 49 lbs
BASED ON WIND LOAD C_D = 1.6
OK FOR 1 1/2" x 26ga STRAP
WITH 1 6 d NAILS EACH END
OR WITH 1 16 ga STAPLE EACH END

ALTERNATE CONNECTION: USE 1 8 d NAILS EACH END OF 1 x 4

ALTERNATE CONNECTION:
USE 2 10 d NAILS TOENAILED THROUGH RAFTER INTO RIDGE PLATE
USE 10 d NAILS AT 29 " O.C. THROUGH PLATES
*** FULL PENETRATION INTO PLATE IS REQUIRED

DL + LL & DL + 150 mph WIND
MAX TENSION DESIGN LOAD = 94.3 lbs
BASED ON WIND LOAD C_D = 1.6
OK FOR 1 1/2" x 26ga STRAP
WITH 2 6 d NAILS EACH END
OR WITH 2 16 ga STAPLE EACH END

ALTERNATE CONNECTION: USE 1 8 d NAILS EACH END OF 1 x 4



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CONNECTIONS
TRUSS FRAMING

LEGACY CUSTOM MODULAR HOMES

CONDITION "B" - TOP CHORD FLIP:

MEMBER: 13 / 15 START JOINT
MEMBER: 12 / 14 END JOINT

TENSION CONNECTION

DL + LL & DL + 115 mph WIND

MAX TENSION DESIGN LOAD = 38.5 lbs
BASED ON WIND LOAD C_D = 1.6
USE 1 6 d NAILS THROUGH SHEATHING EACH SIDE
OR USE 1 16 ga STAPLE THROUGH SHEATHING EACH SIDE

DL + LL & DL + 150 mph WIND

MAX TENSION DESIGN LOAD = 83.7 lbs
BASED ON WIND LOAD C_D = 1.6
USE 2 6 d NAILS THROUGH SHEATHING EACH SIDE
OR USE 2 16 ga STAPLE THROUGH SHEATHING EACH SIDE

SHEAR CONNECTION

DL + LL & DL + 115 mph WIND

MAX SHEAR DESIGN LOAD = 91.6 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 1 16 d NAILS TOENAILED EACH END
USE 10 d NAILS AT 11 " O.C. THROUGH PLATES

DL + LL & DL + 150 mph WIND

MAX SHEAR DESIGN LOAD = 91.6 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 1 16 d NAILS TOENAILED EACH END
USE 10 d NAILS AT 11 " O.C. THROUGH PLATES

CONDITION "C" - COLLAR TIE:

MEMBER: 23 START JOINT
MEMBER: 23 END JOINT

DL + LL & DL + 115 mph WIND

DESIGN LOAD = 856.8 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 7 16 d NAILS EACH END
BEARING BLOCK NOT REQUIRED

DL + LL & DL + 150 mph WIND

DESIGN LOAD = 856.8 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 7 16 d NAILS EACH END
BEARING BLOCK NOT REQUIRED

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TRUSS FRAMING

LEGACY CUSTOM MODULAR HOMES

CONDITION "D" - KNEE WALLS:

MEMBER: 20 / 21 START JOINT
MEMBER: 20 / 21 END JOINT

TENSION CONNECTION

DL + LL & DL + 115 mph WIND

DESIGN TENSION LOAD = 346.5 lbs
BASED ON SNOW LOAD C_D = 1.15
OK FOR 1 1/2" x 26ga STRAP
WITH 6 10 d NAILS EACH END
OR WITH 7 16 ga STAPLE EACH END

DL + LL & DL + 150 mph WIND

DESIGN TENSION LOAD = 346.5 lbs
BASED ON SNOW LOAD C_D = 1.15
OK FOR 1 1/2" x 26ga STRAP
WITH 6 10 d NAILS EACH END
OR WITH 7 16 ga STAPLE EACH END

CONDITION "E" - HEEL:

MEMBER: 1 / 9 START JOINT
MEMBER: 8 / 18 END JOINT

TOP CHORD

DL + LL & DL + 115 mph WIND

DESIGN LOAD = 943.4 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 1 3/8" BOLT PLUS
5 6 d NAILS PER GUSSETT EACH SIDE
OR 7 16 ga STAPLE PER GUSSETT EACH SIDE

DL + LL & DL + 150 mph WIND

DESIGN LOAD = 943.4 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 1 3/8" BOLT PLUS
5 6 d NAILS PER GUSSETT EACH SIDE
OR 7 16 ga STAPLE PER GUSSETT EACH SIDE

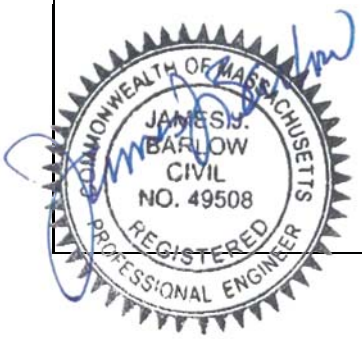
BOTTOM CHORD

DL + LL & DL + 115 mph WIND

DESIGN LOAD = 951.3 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 9 6 d NAILS PER GUSSETT EACH SIDE
OR USE 11 16 ga STAPLE PER GUSSETT EACH SIDE

DL + LL & DL + 150 mph WIND

DESIGN LOAD = 951.3 lbs
BASED ON SNOW LOAD C_D = 1.15
USE 9 6 d NAILS PER GUSSETT EACH SIDE
OR USE 11 16 ga STAPLE PER GUSSETT EACH SIDE



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CONNECTIONS
TRUSS FRAMING

LEGACY CUSTOM MODULAR HOMES

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CONDITION "F" BOTTOM CHORD AT CENTER:

MEMBER: 5 START JOINT
MEMBER: 4 END JOINT

DL + LL & DL + 115 mph WIND

DESIGN LOAD = 951.3 lbs
BASED ON SNOW LOAD C_D = 1.15

	USE	10	16 d NAILS THROUGH DECKING EACH SIDE
OR	USE	1	DBL 1 1/2" x 20ga STRAP
	WITH	9	10 d NAILS EACH END
OR	WITH	18	16 ga STAPLE EACH END

DL + LL & DL + 150 mph WIND

DESIGN LOAD = 951.3 lbs
BASED ON SNOW LOAD C_D = 1.15

	USE	10	16 d NAILS THROUGH DECKING EACH SIDE
OR	USE	1	DBL 1 1/2" x 20ga STRAP
	WITH	9	10 d NAILS EACH END
OR	WITH	18	16 ga STAPLE EACH END

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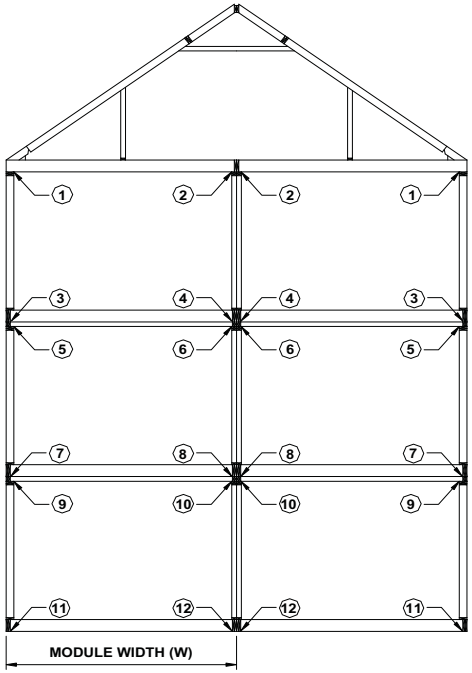
COMPONENT LOAD SUMMARY
FOLDING TRUSSES

LEGACY CUSTOM MODULAR HOMES, LLC.

LOCATION 1 =	EXT. WALL HEADER & EXT. WALL STUD 1 STORY & 2 OR 3 STORY UPPER LEVEL
LOCATION 2 =	M. WALL HEADER & M. WALL STUD 1 STORY & 2 OR 3 STORY UPPER LEVEL
LOCATION 3 =	PERIMETER BAND 1 STORY & 2 OR 3 STORY UPPER LEVEL
LOCATION 4 =	CENTER GIRDER 1 STORY & 2 OR 3 STORY UPPER LEVEL
LOCATION 5 =	EXT. WALL HEADER & EXT. WALL STUD 2 STORY LOWER & 3 STORY MIDDLE LEVEL
LOCATION 6 =	M. WALL HEADER & M. WALL STUD 2 STORY LOWER & 3 STORY MIDDLE LEVEL
LOCATION 7 =	PERIMETER BAND 2 STORY LOWER & 3 STORY MIDDLE LEVEL
LOCATION 8 =	CENTER GIRDER 2 STORY LOWER & 3 STORY MIDDLE LEVEL
LOCATION 9 =	EXT. WALL HEADER & EXT. WALL STUD 3 STORY LOWER LEVEL
LOCATION 10 =	M. WALL HEADER & M. WALL STUD 3 STORY LOWER LEVEL
LOCATION 11 =	PERIMETER BAND 3 STORY LOWER LEVEL
LOCATION 12 =	CENTER GIRDER 3 STORY LOWER LEVEL
LOCATIONS 3, 4, 7, 8, 11 & 12 MAY BE USED TO GENERATE FOUNDATION LOADS	



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COMPONENT LOADS (lbs/ft)

TRUSS TR7-27-6, 7/12 PITCH, 27'-6" WIDTH, 20 psf GROUND SNOW

LOCATION 1		LOCATION 2		LOCATION 3		LOCATION 4		LOCATION 5		LOCATION 6		LOCATION 7		LOCATION 8		LOCATION 9		LOCATION 10		LOCATION 11		LOCATION 12	
LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL
373	864	44	92	648	1362	319	561	648	1414	319	612	923	1912	594	1080	923	1963	594	1132	1198	2461	869	1600
115 mph WIND UPLIFT LOADS												150 mph WIND UPLIFT LOADS											
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
-116	-3	-27	-	-7	-	-	-	-	-	-	-	-334	-18	-245	-	-225	-	-135	-	-115	-	-25	-

TRUSS TR7-27-6, 7/12 PITCH, 27'-6" WIDTH, 30 psf GROUND SNOW

LOCATION 1		LOCATION 2		LOCATION 3		LOCATION 4		LOCATION 5		LOCATION 6		LOCATION 7		LOCATION 8		LOCATION 9		LOCATION 10		LOCATION 11		LOCATION 12	
LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL
411	902	46	94	686	1400	321	563	686	1452	321	614	961	1950	596	1082	961	2001	596	1134	1236	2499	871	1602
115 mph WIND UPLIFT LOADS												150 mph WIND UPLIFT LOADS											
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
-116	-3	-27	-	-7	-	-	-	-	-	-	-	-334	-18	-245	-	-225	-	-135	-	-115	-	-25	-

TRUSS TR7-27-6, 7/12 PITCH, 27'-6" WIDTH, 40 psf GROUND SNOW

LOCATION 1		LOCATION 2		LOCATION 3		LOCATION 4		LOCATION 5		LOCATION 6		LOCATION 7		LOCATION 8		LOCATION 9		LOCATION 10		LOCATION 11		LOCATION 12	
LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL	LIVE	TOTAL
504	995	52	100	779	1493	327	569	779	1545	327	620	1054	2043	602	1088	1054	2094	602	1140	1329	2592	877	1608
115 mph WIND UPLIFT LOADS												150 mph WIND UPLIFT LOADS											
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
-116	-3	-27	-	-7	-	-	-	-	-	-	-	-334	-18	-245	-	-225	-	-135	-	-115	-	-25	-

Project: 6540

Location: CANTILEVER CALCS
Floor Joist
[2015 International Building Code(2012 NDS)]
(2) 1.5 IN x 9.25 IN x 12.084 FT (10.4 + 1.7) @ 16 O.C.
#2 - Spruce-Pine-Fir - Dry Use
Section Adequate By: 64.7%
Controlling Factor: Moment

Brett Hebert
Icon Legacy Custom Modular Homes, LLC
246 Sand Hill Road
Selinsgrove, PA 17870

StruCalc Version 9.0.2.5 11/14/2016 9:41:53 AM

CAUTIONS
* Properly connect sheathing to double joists/rafters or fully laminate to transfer diaphragm forces.

DEFLECTIONS

	Center		Right	
Live Load	-0.05	IN L/2410	0.05	IN 2L/802
Dead Load	-0.03	in	0.04	in
Total Load	-0.08	IN L/1524	0.09	IN 2L/460

Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

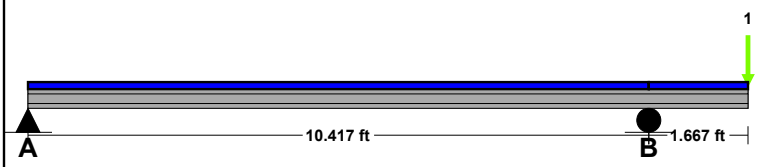
REACTIONS

	A		B	
Live Load	278	lb	1153	lb
Dead Load	-3	lb	900	lb
Total Load	275	lb	2053	lb
Uplift (1.5 F.S)	**-118**	**lb**	0	**lb**
Bearing Length	0.22	in	1.61	in

SUPPORT LOADS

	A		B	
Live Load	209	plf	865	plf
Dead Load	-2	plf	675	plf
Total Load	206	plf	1540	plf

LOADING DIAGRAM



MATERIAL PROPERTIES
#2 - Spruce-Pine-Fir

	Base Values		Adjusted	
Bending Stress:	Fb = 875	psi	Fb' = 1069	psi
	Cd=1.00 Cl=0.97 CF=1.10 Cr=1.15			
Shear Stress:	Fv = 135	psi	Fv' = 135	psi
	Cd=1.00			
Modulus of Elasticity:	E = 1400	ksi	E' = 1400	ksi
Comp. ⊥ to Grain:	Fc - ⊥ = 425	psi	Fc - ⊥' = 425	psi

Controlling Moment: -2313 ft-lb
10.42 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 3
Controlling Shear: 1449 lb
At left support of span 3 (Right Span)
Created by combining all dead loads and live loads on span(s) 2, 3

Comparisons with required sections:	Req'd	Provided
Section Modulus:	25.97 in3	42.78 in3
Area (Shear):	16.1 in2	27.75 in2
Moment of Inertia (deflection):	103.21 in4	197.86 in4
Moment:	-2313 ft-lb	3811 ft-lb
Shear:	1449 lb	2498 lb

JOIST DATA

	Center		Right	
Span Length	10.42	ft	1.67	ft
Unbraced Length-Top	0	ft	0	ft
Unbraced Length-Bottom	0	ft	0	ft

Floor sheathing applied to top of joists-top of joists fully braced.
Floor Duration Factor 1.00

JOIST LOADING

Uniform Floor Loading		Center		Right	
Live Load	LL =	40	psf	40	psf
Dead Load	DL =	15	psf	15	psf
Total Load	TL =	55	psf	55	psf
TL Adj. For Joist Spacing	wT =	73.3	plf	73.3	plf
Wall Loading					
Wall One					
Live Load (⊥ to Joists):	L1 =	0	plf	504	plf
Dead Load (⊥ to Joists):	D1 =	0	plf	491	plf
Load Location	X1 =	0	ft	1.67	ft

NOTES

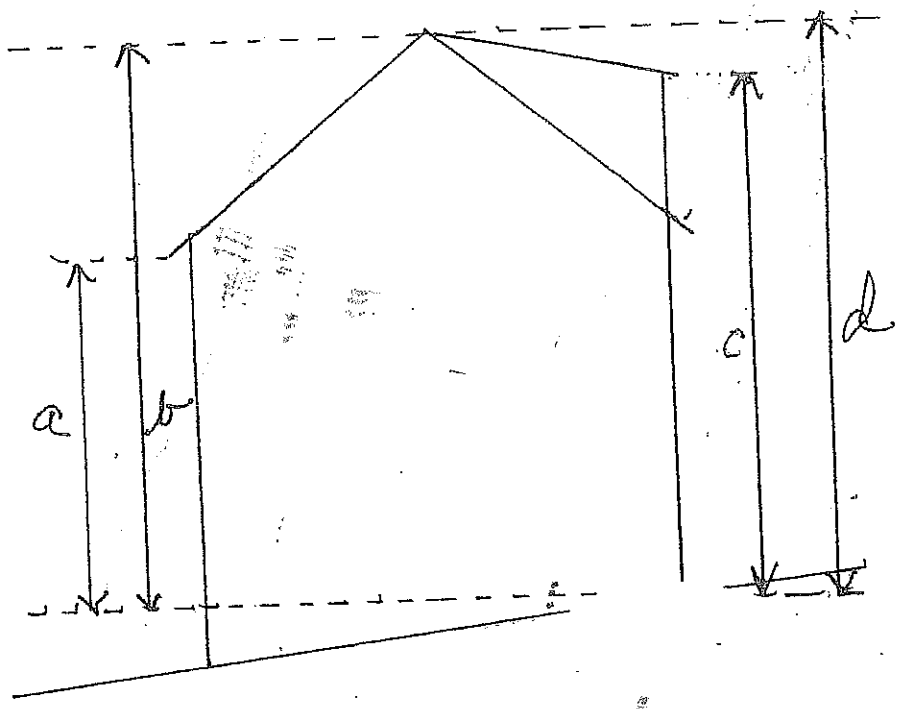
PFS APPROVED
DATE 11/14/16
PFS CORPORATION
Bloomsburg, PA

COMMONWEALTH OF MASSACHUSETTS
JAMES J. BARLOW
CIVIL
NO. 49508
REGISTERED PROFESSIONAL ENGINEER

11/14/16

How To Determine Average Height

Building Height is determined by measuring



Grade/Plane ➡

→ $\frac{a+b}{2}$ = average height without dormer $\Rightarrow \frac{(2'-4'' + 8'-6'' + 8'-0) + (28'-9'')}{2} = 23'-8''$

$\frac{c+d}{2}$ = average height with dormer

Dormers not exceeding height of
right as long as they don't exceed 25% of the roof

DENIED

DATE ISSUED: _____ FEE PAID: _____ NO.: _____

APPLICATION FOR PERMIT TO BUILD

To the Building Commissioner: Date: _____

RECEIVED JUL 6 2016 TOWN OF WESTWOOD COMMISSIONER OF BUILDING

The undersigned hereby applies for a permit to Build – Alter – Remodel, etc., according to information indicated in this application and plans and specifications submitted herewith.

PLEASE PRINT CLEARLY

IMPORTANT – Applicant to complete all items in sections I, II, III, IV, AND V

I. LOCATION OF BUILDING

STREET ADDRESS 471 (NO.) EAST ST (STREET)

ZONING DISTRICT _____ LOT FRONTAGE _____ ASSESSORS MAP # _____ LOT# _____ LOT SIZE _____

R. SIDE YARD SETBACK _____
L. SIDE YARD SETBACK _____
REAR YARD SETBACK _____
FRONT YARD SETBACK _____

II. TYPE AND COST OF BUILDING – All applicants complete Parts A – D.

A. TYPE OF IMPROVEMENT

1 New Building
2 Addition
3 Alteration
4 Repair, replacement
5 Wrecking
6 Moving (relocation)
7 Foundation only
8 Pools, Fences, Towers Tennis Courts, etc.

B. OWNERSHIP

9 Private (Individual, Corporation, nonprofit Institution, ect.)
10 Public (Federal, State or Local Government)

D. PROPOSED USE – For "Wrecking" most recent use

RESIDENTIAL

13 One Family
14 Two or more family – Enter number of units
15 Transient hotel, motel, or dormitory – Enter number of units
16 Garage
17 Carport
18 Other – Specify

NONRESIDENTIAL

19 Amusement, recreational
20 Church, other religious
21 Industrial
22 Parking garage
23 Service station, repair garage
24 Hospital, Institutional
25 Office, bank, professional
26 Public Utility
27 School, library, other educational
28 Stores, mercantile
29 Tanks, towers
30 Other - Specify

C. COST

	(Omit cents)
11 Cost of Basic Contruction	$
To be installed but not included in the above cost	
a. Electrical	$
b. Plumbing	
c. Heating, air conditioning	
d. Other (elevator, etc.)	
12 TOTAL COST OF IMPROVEMENT	$ 150,000

E. TYPE OF OCCUPANCY OR USE; NEW HOME, ETC.
Briefly outline scope and nature of work to be done.

ADDING SECOND FLOOR ON TOP OF EXISTING HOUSE

III. SELECTED CHARACTERISTICS OF BUILDING

For new buildings and additions, complete Parts E-L; for wrecking, complete only Part J, for all others skip to IV.

F. PRINCIPAL TYPE OF FRAME

31 Masonry
32 Wood frame
33 Structural steel
34 Reinforced concrete
35 Other - Specify

G. PRINCIPAL TYPE OF HEATING FUEL

36 Gas 38 Electricity 40 Other - Specify
37 Oil 39 Coal

H. TYPE OF SEWAGE DISPOSAL

41 Public Sewer
42 Private (septic tank, etc.)

I. TYPE OF WATER SUPPLY

43 Public or Private Company
44 Private (well)

J. TYPE OF MECHANICAL

Will there be air conditioning?
45 Yes 46 No
Will there be an elevator?
47 Yes 48 No

K. DIMENSIONS

49 Number of stories _____
50 Total sq.ft. of floor area, all floors, based on exterior dimensions _____
51 Total land area, sq.ft. _____

L. NUMBER OF OFF - STREET PARKING SPACES

52 Enclosed _____
53 Outdoors _____

M. RESIDENTIAL BUILDINGS ONLY

54 No. of bedrooms _____
55 No. of baths: Full Partial

471 East

IV. TO BE COMPLETED BY ALL APPLICANTS — USE N/A IF NOT APPLICABLE

1. Will building be erected on solid or filled land_____ If filled land how long ago filled _____
2. Will foundation be laid on earth, rock, timber, piles _____
3. Foundation material _____
4. Roof (flat, pitched) _____
5. Roof covering _____
6. Will all construction to be performed conform to State and Local Building Codes _____
7. Has the applicant complied with the Architectural Access Code _____
8. Does this Building or Structure conform to the Zoning Bylaw _____
9. Has the applicant complied with the Energy Code _____
10. Is this property in the FLOOD PLAIN AREA _____

THIS IS A TRUE STATEMENT SIGNED UNDER PENALTIES OF PERJURY

V. IDENTIFICATION - *To be completed by all applicants – Complete street and mailing addresses*

	NAME	COMPLETE ADDRESS	HOME & BUS. PHONE
Owner or Lessee	BECHARA DEMIEN	471 EAST ST WESTWOOD MA 02090	617-818-8357 857-352-8445
Builder/ Contractor	AVALON BUILD SYSTEM	3 PORTER ST SUITE 201 STOUGHTON MA 02072	781-344-4875
Architect/ Engineer	ICON LEGACY	246 SAND HILL RD SELINGROVE, PA 17870	570-374-3280

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent.

Signature of Applicant	Address	Application Date
	471 EAST ST, Westwood MA	07/07/2016

This permit is approved subject to the provisions of all Federal and State Laws, Rules & Regulations and Con. Com. approval.

Sewer Permit No.	COMMENTS – DEPARTMENT USE ONLY
Sanitary Permit No. (Title V)	
Highway Dept. Permit	
Fire Dept. Permit	
Water District Permit	
CONTRACTOR LICENSING INFORMATION	
Construction Supervisor License No.	
Date of Expiration	
Home Improvement Contractor No.	
Date of Expiration	

BUILDING COMMISSIONER'S DENIAL

REQUIRES SPECIAL PERMIT UNDER SECTION 4.5.6 RAISING WEIGHT IN SETBACKS

I have reviewed the applicant's request for a Building Permit and determined that it be forwarded to the Zoning Board of Appeals

BUILDING COMMISSIONER

7/19/16

A. I hereby certify under penalty of perjury that I carry Workers' Compensation Insurance Coverage.

Signature: _____

Name of Insurance Company: _____

Policy Number: _____ **Expiration Date:** _____

B. I do not carry Workers' Compensation Coverage as I am an unincorporated sole proprietorship with no employees, using other self-employed sub-contractors for all work.

Signature _____

BERDI CONSULTING

25 WAYLAND HILLS ROAD, WAYLAND MA 01778 TEL: (508) 308-9012

To whom it may concern
Date: Aug 23, 2015
Re: Second floor addition at 471 East St., Westwood, MA 02090

The structural engineering evaluation (visual) of the property located at 471 East St., Westwood, MA, was conducted to assess the possibility of the second floor addition to the existing "raised ranch" style house. The existing house has approximately 23'x30' rectangular plan with a 1st floor foyer (11'x6') addition at the front.
The assessment yields the following findings:

1. The house has a foundation wall built of 8" thick cast-in- place concrete. The foundation walls are in satisfactory condition and do not exhibit any signs of deterioration. A few hair thin vertical cracks do not affect the carrying capacity of the foundation. The visible parts of the sill plate are in good condition. The first floor joists are adequate to the span and are in good condition. The central beam is enclosed and cannot be evaluated; after the project is finalized the central beam might require some additional intermediate supports or reinforcement. The foyer part of the house is supported by two corner posts built of CMU 8x8x16 blocks.

2. The walls of the first floor are constructed of 2x4 @16" o.c. studs. The walls are capable of carrying additional loads from the proposed second floor. The window headers must be reevaluated after the project is finalized.

3. According to the provided drawings the second floor addition will be comprised of two prefabricated modular units. Each unit has its own floor structure, thus, no additional load is transferred to the existing ceiling joists. No reinforcement of the existing ceiling is necessary.

   The assessment shows that the existing structure, including the building foundation, is capable of supporting an additional floor.

Sincerely,

Stanislav Berdichevsky P.E.

25 Wayland Hills Rd.
Wayland MA 01778

508-308-9012