

# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

## BUILDING INSPECTION

### PERMIT

Permit Number: 070198

Please Read  
Application And  
Notes, If Any,  
Attached

This is to certify that CHADBOURNE PETER W AMITY CHADBOURNE JT eff

has permission to create bedroom and bathroom above existing

AT 80 RACINE AVE 399 A012001

provided that the person or persons firm or person accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and when permission procured before this building or part thereof is occupied or service closed-in. 4 HOUR NOTICE REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

#### OTHER REQUIRED APPROVALS

Fire Dept. \_\_\_\_\_

Health Dept. \_\_\_\_\_

Appeal Board \_\_\_\_\_

Other \_\_\_\_\_  
Department Name

*2/20/07 Chityl Ak*  
Director - Building & Inspection Services

**PENALTY FOR REMOVING THIS CARD**

# BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

- N/A Footing/Building Location Inspection: Prior to pouring concrete
- N/A Re-Bar Schedule Inspection: Prior to pouring concrete
- N/A Foundation Inspection: Prior to placing ANY backfill
- ✓ Framing/Rough Plumbing/Electrical: Prior to any insulating or drywalling
- ✓ Final/Certificate of Occupancy: Prior to any occupancy of the structure or use. NOTE: There is a \$75.00 fee per inspection at this point.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects **DO** require a final inspection

         If any of the inspections do not occur, the project cannot go on to the next phase, **REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.**

N/A **CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED**

<u>        </u> Signature of Applicant/Designee	<u>        </u> Date
<u>        </u> Signature of Inspections Official	<u>        </u> Date

CBL: 399-A-012 Building Permit #: 07-0198

# City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 07-0198	Issue Date: 02/26/2007	CBL: 399 A012001
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Location of Construction: 80 RACINE AVE	Owner Name: CHADBOURNE PETER W & AMI	Owner Address: 80 RACINE AVE	Phone: 797-4565
Business Name:	Contractor Name: Jeff Martin	Contractor Address: PO BOX 692 Gray	Phone: 2076158399
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Dwellings	Zone:

Past Use: single family w/ garage	Proposed Use: single family w/ living area above garage	Permit Fee:	Cost of Work: \$0.00	CEO District: 4
Proposed Project Description: create bedroom and bathroom above existing garage		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <i>E-3</i> Type: <i>SB</i> <i>IRC 2003</i>	
		Signature:	Signature: <i>2/26/07 CLM</i>	
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D)				
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied				
Signature: _____ Date: _____				

Permit Taken By: csh	Date Applied For: 02/26/2007	<b>Zoning Approval</b>
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<ol style="list-style-type: none"> <li>This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</li> <li>Building permits do not include plumbing, septic or electrical work.</li> <li>Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</li> </ol>	<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <i>OK</i> Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>2/26/07 CLM</i>	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied <i>N/A</i> Date: _____	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>2/26/07 CLM</i>
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## CERTIFICATION

I hereby certify that I am the owner of record of the named property, or 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 and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

**City of Portland, Maine - Building or Use Permit**

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

<b>Permit No:</b> 07-0198	<b>Date Applied For:</b> 02/26/2007	<b>CBL:</b> 399 A012001
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<b>Location of Construction:</b> 80 RACINE AVE	<b>Owner Name:</b> CHADBOURNE PETER W & AMI	<b>Owner Address:</b> 80 RACINE AVE	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b>	<b>Contractor Address:</b>	<b>Phone</b>
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Additions - Dwellings	

<b>Proposed Use:</b>	<b>Proposed Project Description:</b>
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**Dept:** Zoning      **Status:** Approved with Conditions      **Reviewer:** Chris Hanson      **Approval Date:** 02/26/2007**Note:**      **Ok to Issue:** 

- 1) This property shall remain a single family dwelling. Any change of use shall require a separate permit application for review and approval.

**Dept:** Building      **Status:** Approved with Conditions      **Reviewer:** Chris Hanson      **Approval Date:** 02/26/2007**Note:**      **Ok to Issue:** 

- 1) The design load spec sheets for any engineered beam(s) must be submitted to this office.
- 2) Hardwired interconnected battery backup smoke detectors shall be installed in all bedrooms, protecting the bedrooms, and on every level.
- 3) Permit approved based on the plans submitted and reviewed w/owner/contractor, with additional information as agreed on and as noted on plans.
- 4) Fastener schedule per the IRC 2003
- 5) Separate permits are required for any electrical, plumbing, or HVAC systems. Separate plans may need to be submitted for approval as a part of this process.



# General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>80 Racine Ave.</u>		
Total Square Footage of Proposed Structure <u>All existing 1530</u>		Square Footage of Lot <u>6841</u>
Tax Assessor's Chart, Block & Lot Chart#      Block#      Lot# <u>399      A      12</u>	Owner: <u>Peter &amp; Amity Chadbourne</u>	Telephone: <u>797-4565</u>
Lessee/Buyer's Name (If Applicable)  <u>NA</u>	Applicant name, address & telephone: <u>Peter Chadbourne</u> <u>50 Racine Ave.</u> <u>Portland, ME 04103</u> <u>797-4565</u>	Cost Of Work: \$ <u>15K</u> Fee: \$ <u>170.<sup>00</sup></u> C of O Fee: \$ _____
Current Specific use: <u>Home</u> <u>SFH</u> If vacant, what was the previous use? _____ Proposed Specific use: <u>Home</u>		
Project description: <u>Make a living space over garage Bed &amp; Bath -</u>		
Contractor's name, address & telephone: <u>Jeff Martin, PO Box 642</u> <u>Gray, ME 615-8399</u>		
Who should we contact when the permit is ready: <u>Peter Chadbourne</u>		
Mailing address: <u>Same as above</u> Phone: <u>797-4565</u>		

Please submit all of the information outlined in the Commercial Application Checklist.  
Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information visit us on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov), stop by the Building Inspections office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant:

Date:

**This is not a permit; you may not commence ANY work until the permit is issued.**

THIS IS NOT A BOUNDARY SURVEY

INSPECTION OF PREMISES

I HEREBY CERTIFY TO NORWEST LAND TITLE FLEET AND ITS TITLE INSURED

The monumentation is in harmony with current deed description.

The building setbacks are not in conformity with town zoning requirements. PER CEO

The land and the dwelling do not appear to fall within the special flood hazard zone as delineated by the Federal Emergency Management Agency.

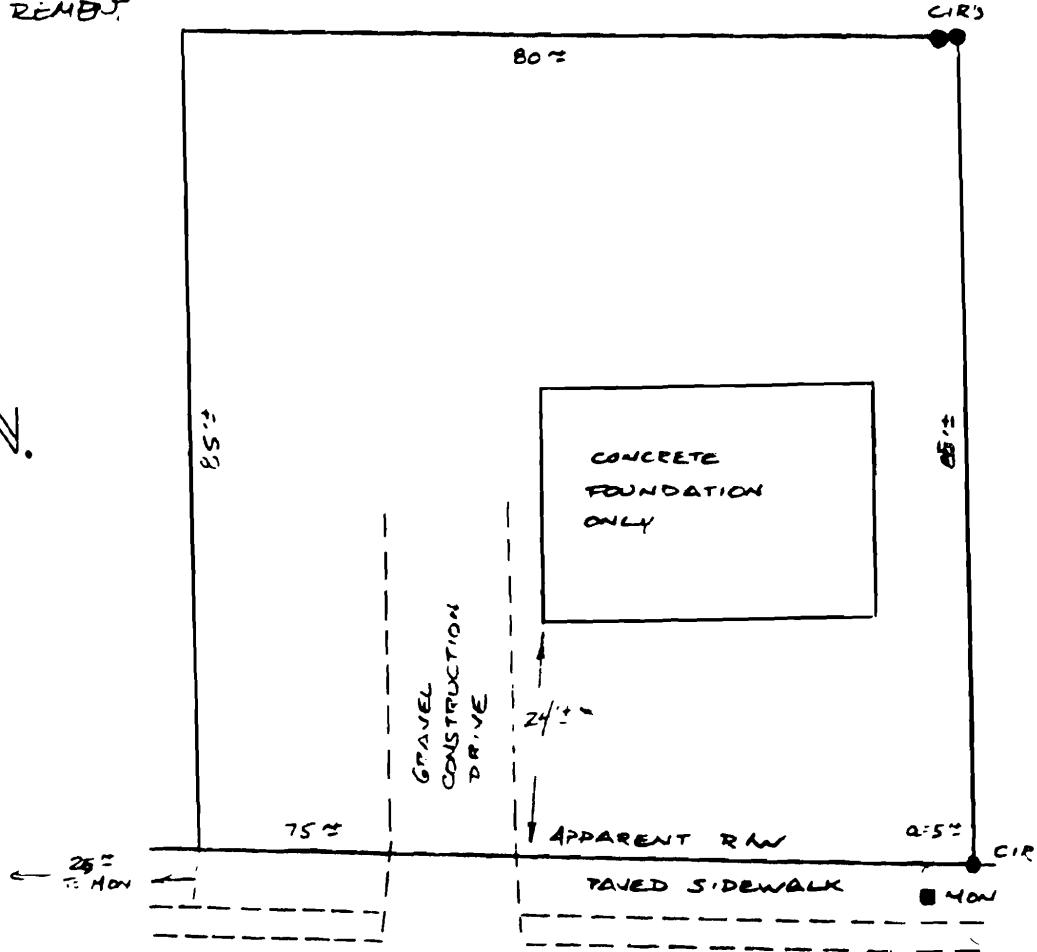
NOTE: STRUCTURE DOES NOT APPEAR TO MEET 25' FRONT SETBACK REQUIREMENT.

80 RACINE ROAD  
PORTLAND, MAINE

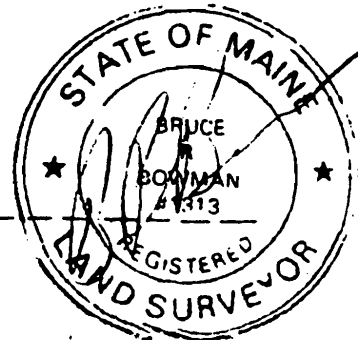
Job Number: 155-48  
Inspection Date: 08-26-91  
Scale: 1" = 20'

BUYER: PETER W. CHADBOURNE

SELLER: BAYSTATE DEVELOPMENT CORP



RACINE ROAD  
(BITUMINOUS)



THIS PROPERTY IS SUBJECT TO ALL RIGHTS AND EASEMENTS OF RECORD. THOSE THAT ARE EVIDENT ARE SHOWN. THIS PLAN MIGHT NOT REVEAL CONFLICTS WITHIN ABUTTING DEEDS.

BRUCE R. BOWMAN, INC.  
20 Forest Avenue  
Cumberland, Maine  
Phone (207) 829-3959

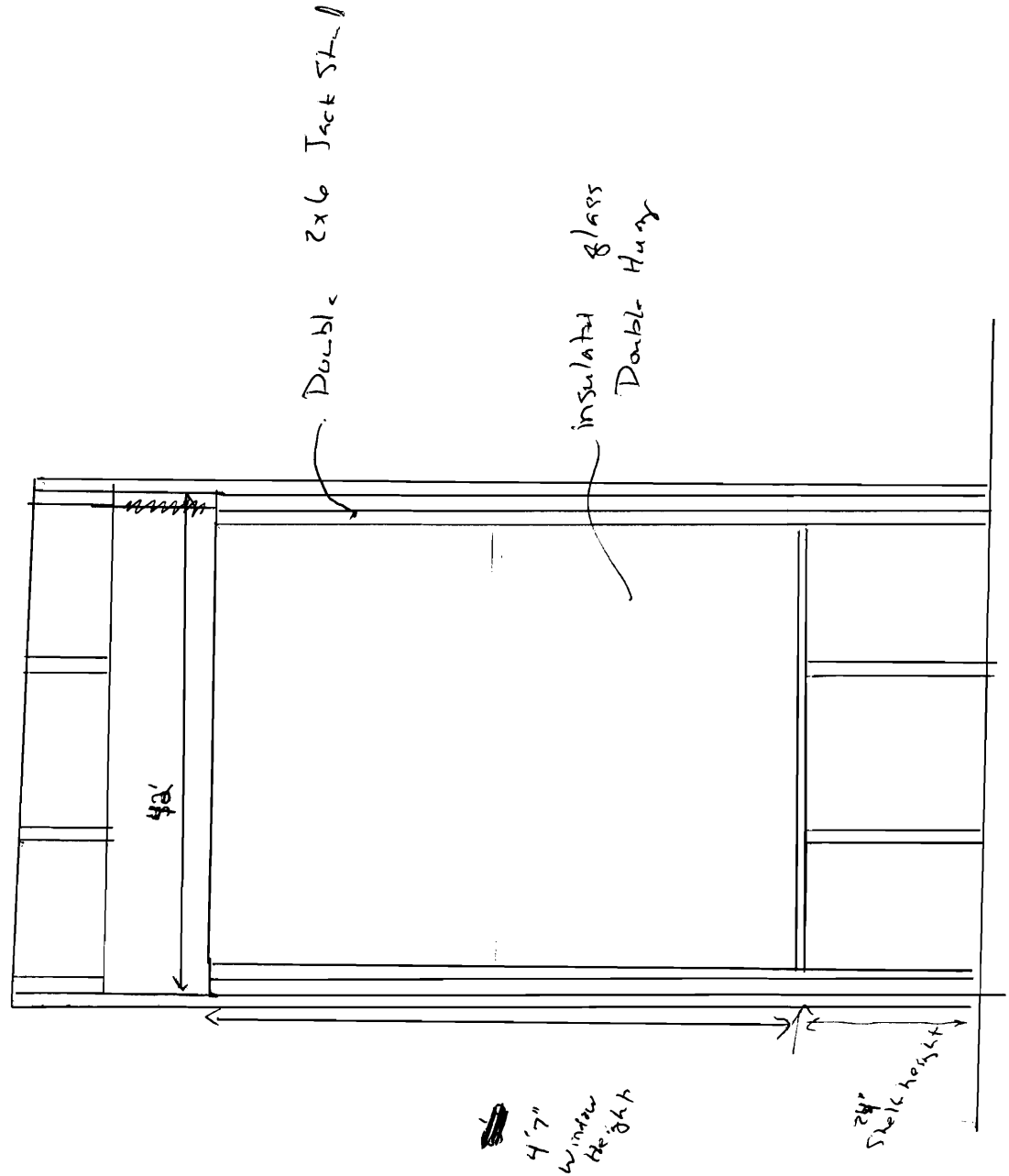
PLAN BOOK 179 PAGE 63 LOT 14  
DEED BOOK 572 PAGE 46 COUNTY CUMBERLAND

THIS PLAN IS NOT FOR RECORDING

Drawn by: JC

Side Section

5/8" Plywood Spacers



Double 2x6 Jack Stud

insulated glass Double Hung

4x

4'7" window height

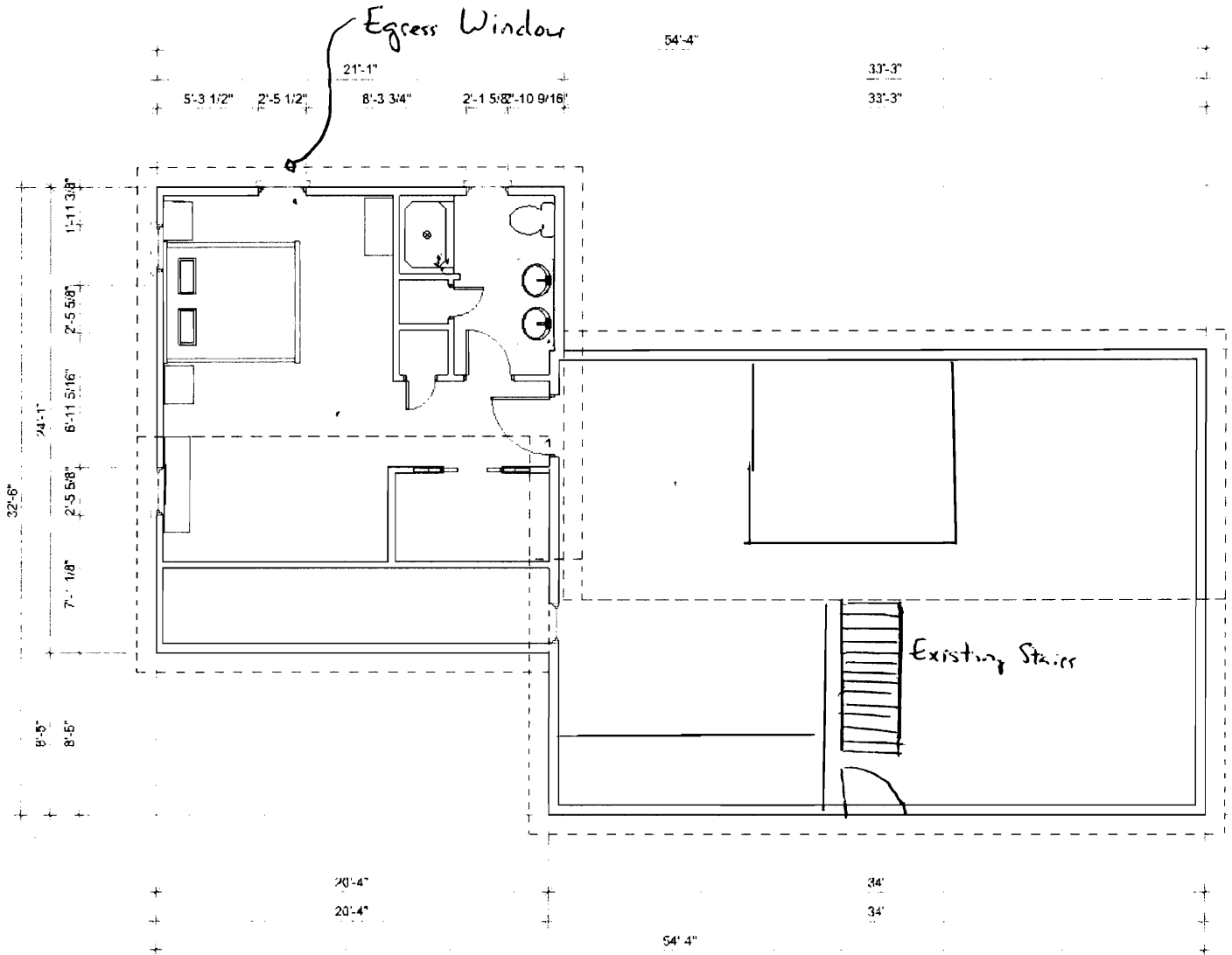
2 1/2" Sidelight height





## Second Floor Plan

Entrance to room will be where existing walk closet is. Stairs in garage leading to second floor will be removed and boxed in. New wall height will be 7.5'.



**Figure 7 Space Plan**

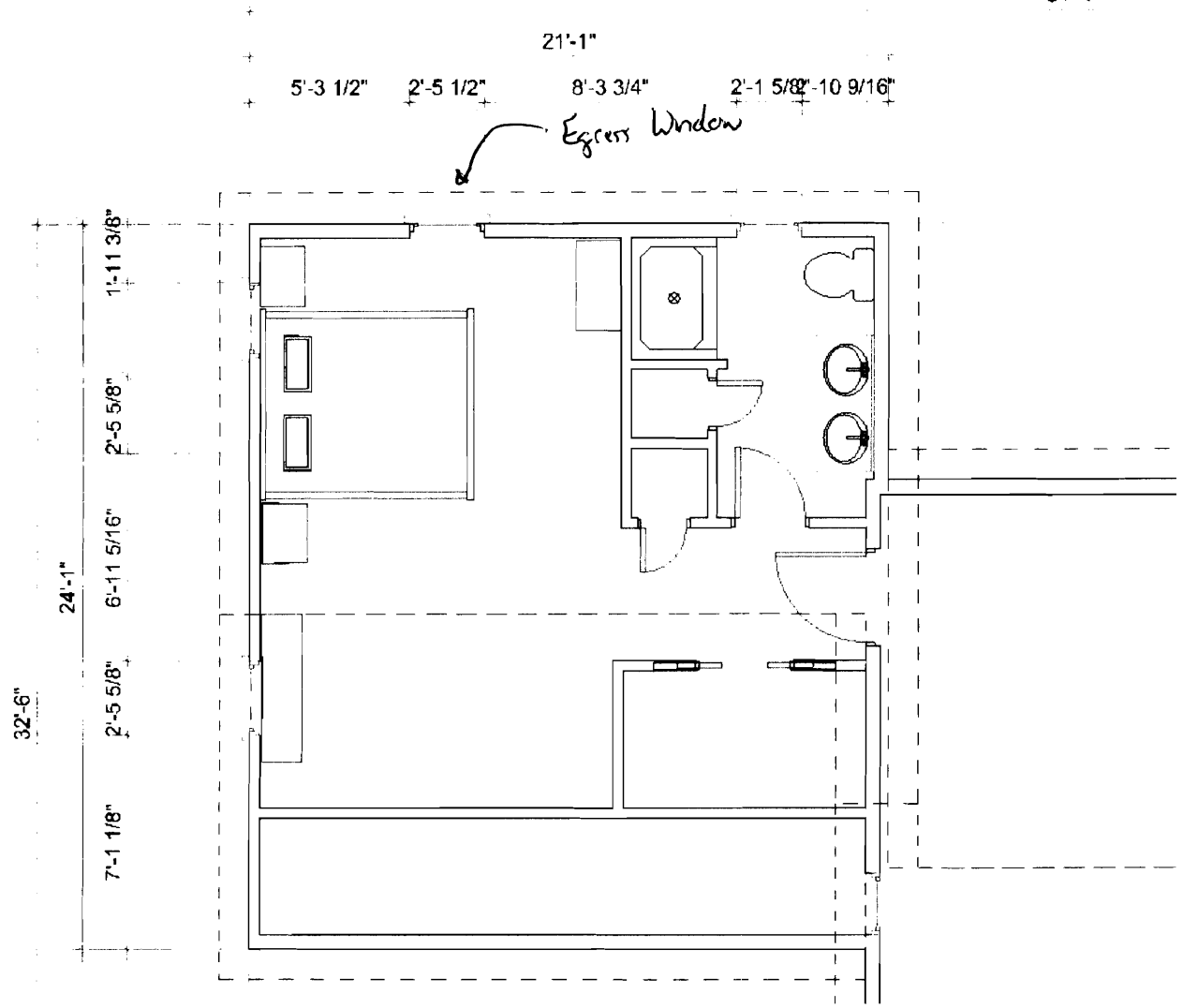
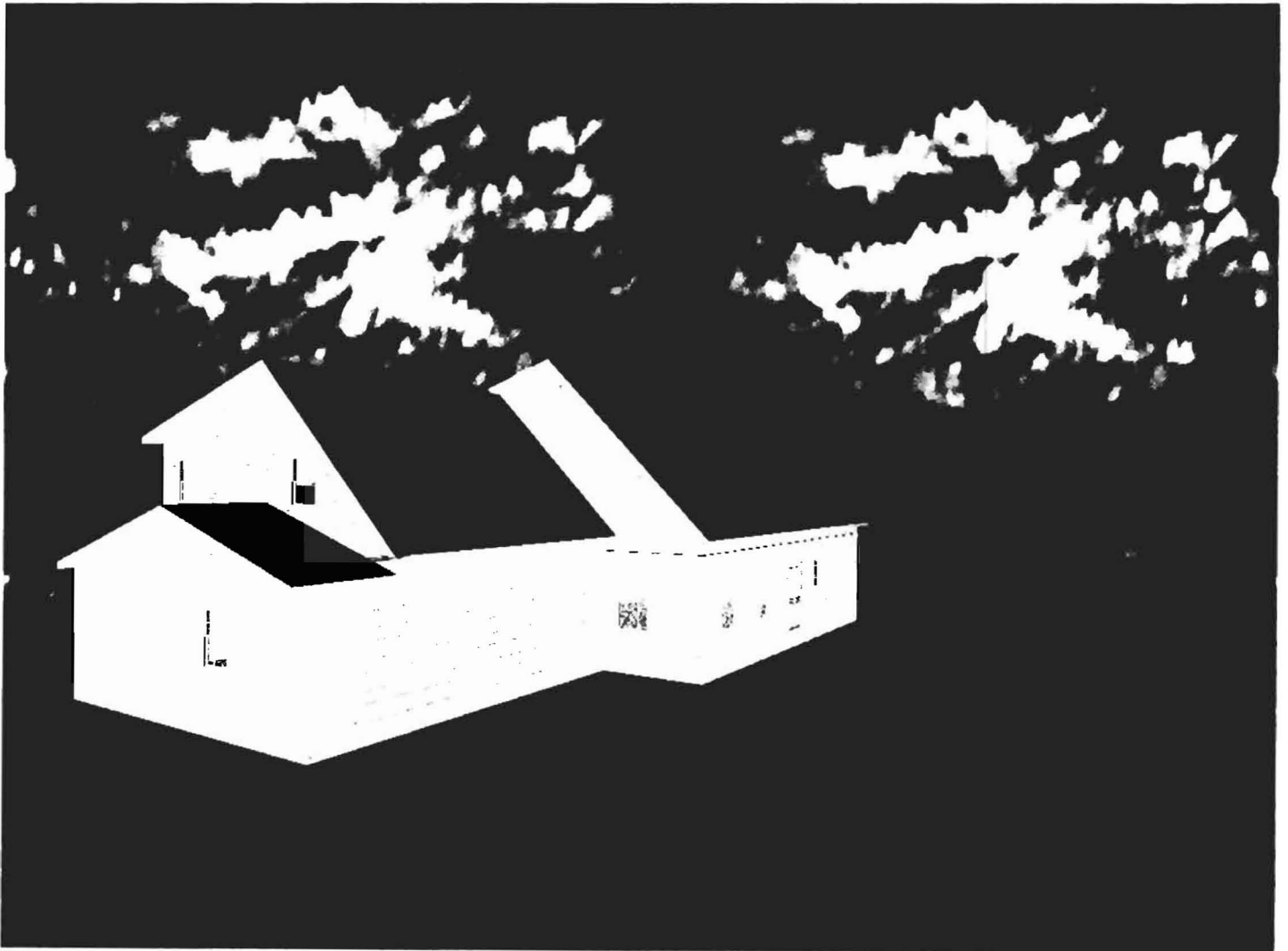


Figure 8 Space Plan – Garage Only



**Figure 2 Existing House - Rear**

Proposed new outside view (please ignore roof problems on existing house, could not set correctly in tool):



**Figure 3 Proposed Addition Illustration – Front view**

## Plot plan

R3 code (page 14-83) calls for an 8' side setback and a 25' rear setback. The rear setback is met. The side setback is current 10'.

3. *Side yard:*

a. *Principal or accessory structures with ground coverage greater than one hundred (100) square feet:*

*Height of Structure Required Side Yard*

<i>1 story . . . . .</i>	<i>8 feet</i>
<i>1 1/2 stories . . . . .</i>	<i>8 feet</i>
<i>2 stories . . . . .</i>	<i>14 feet</i>
<i>2 1/2 stories . . . . .</i>	<i>16 feet</i>

## Floor Space Utilization

R3 code page 14-35 defines a half story:

*Story:* That portion of a building included between the surface of any floor and the surface of the floor, or the roof, next above. A half story is a story situated under a sloping roof, the area which at a height four (4) feet above the floor does not exceed two-thirds of the floor area of the story immediately below it and which does not contain an independent apartment or dwelling unit. A story which exceeds eighteen (18) feet in height shall be counted as two (2) stories. A basement shall be counted as a story for the purpose of height measurement where more than one-half of its height is above the average level of the adjoining ground.

The area of the floor beneath the proposed modification is 630 sq. ft. (see Figure 6). This allows for  $630 * \frac{2}{3} = 420$  sq. ft. that has a sloping roof height or 4' or more. The proposed modification will have 419 sq. ft. that has a sloping roof height or 4' or more.

## **Addition Proposal for 80 Racine Ave., Portland, ME 04103**

Owners: Peter and Amity Chadbourne

Land classification: R3

Lot size: 6841 sq. ft.

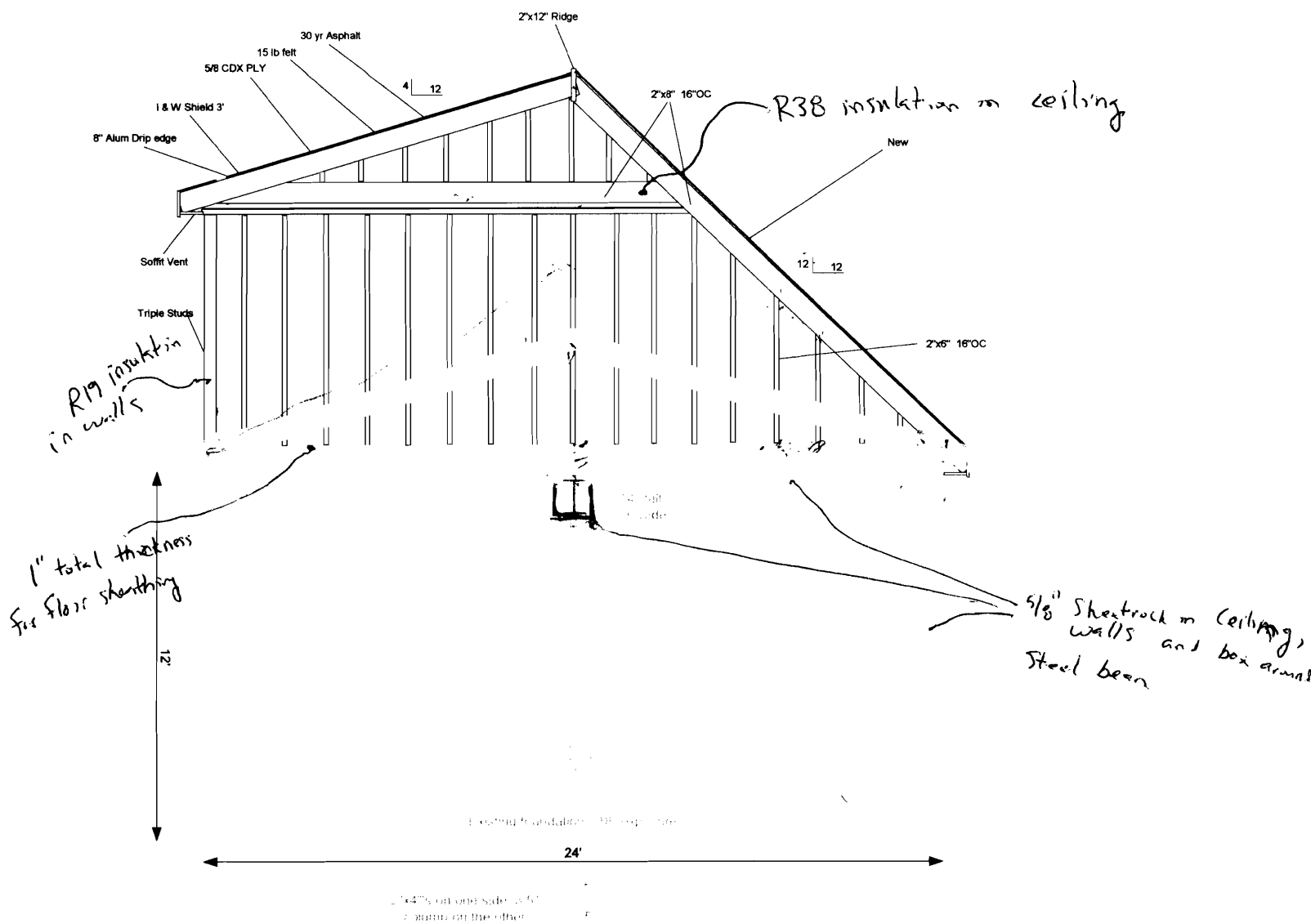
Building area: 1580 sq. ft. (23%)

Proposal: Add a room above the existing garage. Remove existing roof and replace with news walls and roof.

Existing outside view:



**Figure 1 Existing House – Front**



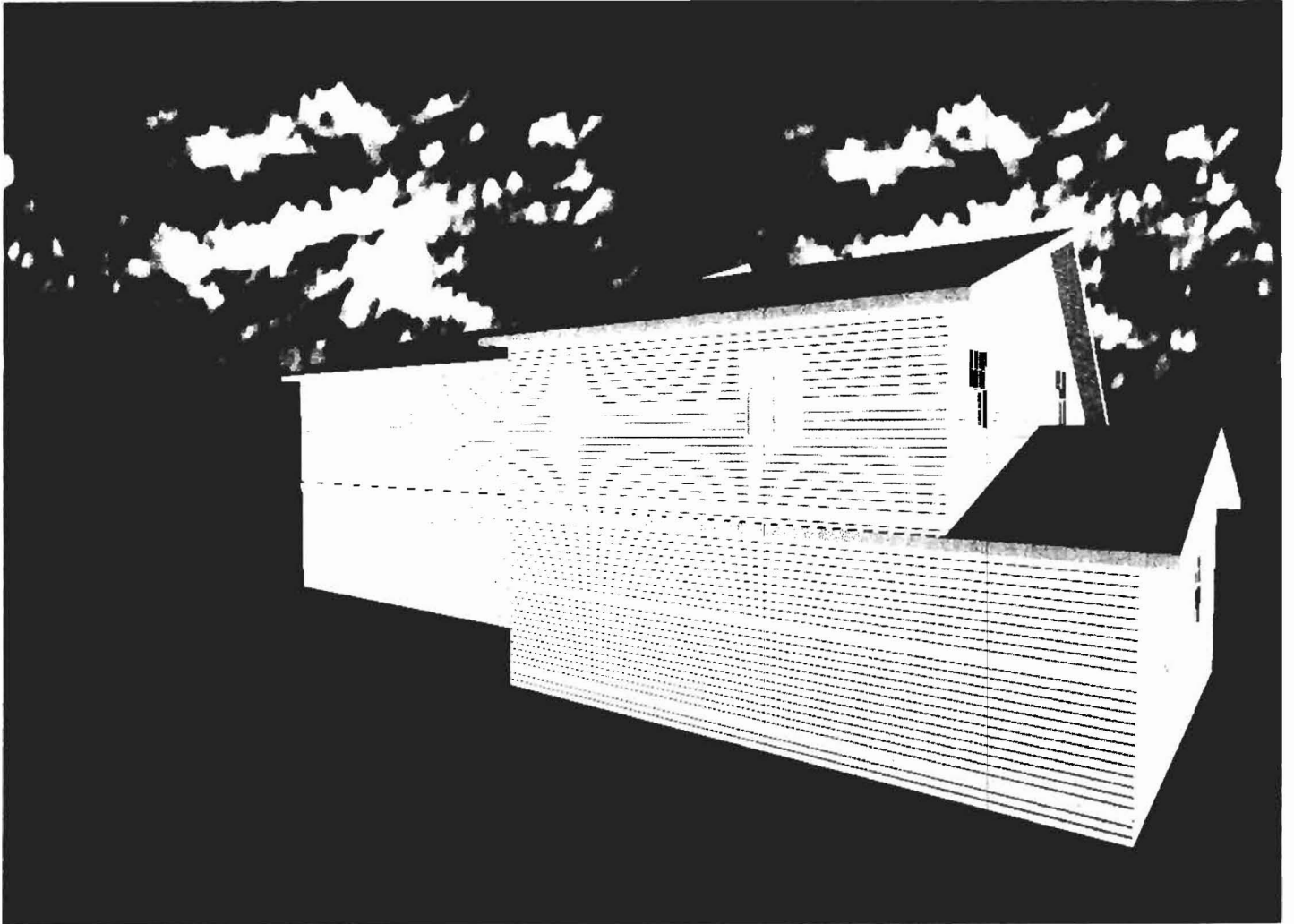
**Figure 10 Side View of Existing Space with New Addition**

New living area will have 2" x 6" walls with R-19 insulation.

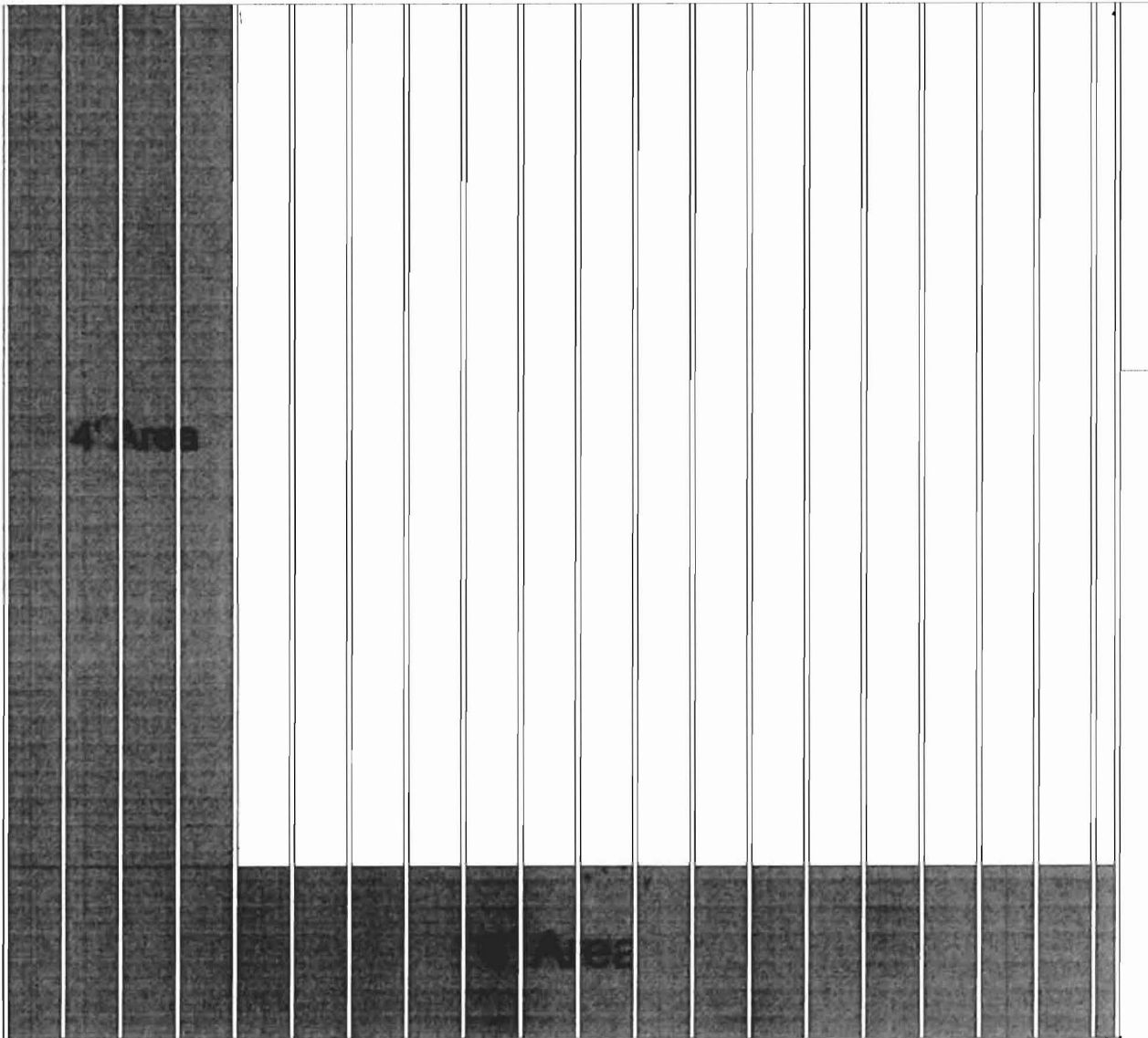
Existing garage has 2" x 4" walls. R-13 insulation will be added and interior walls and ceiling will be sheet rocked.

Will provide adequate insulation ground heating and water pipes.





**Figure 4 Proposed Addition Illustration – Front view**



Total Area  
 = 24' x 26' + 8.5' x 0.75'  
 = 630.375 sq. ft.

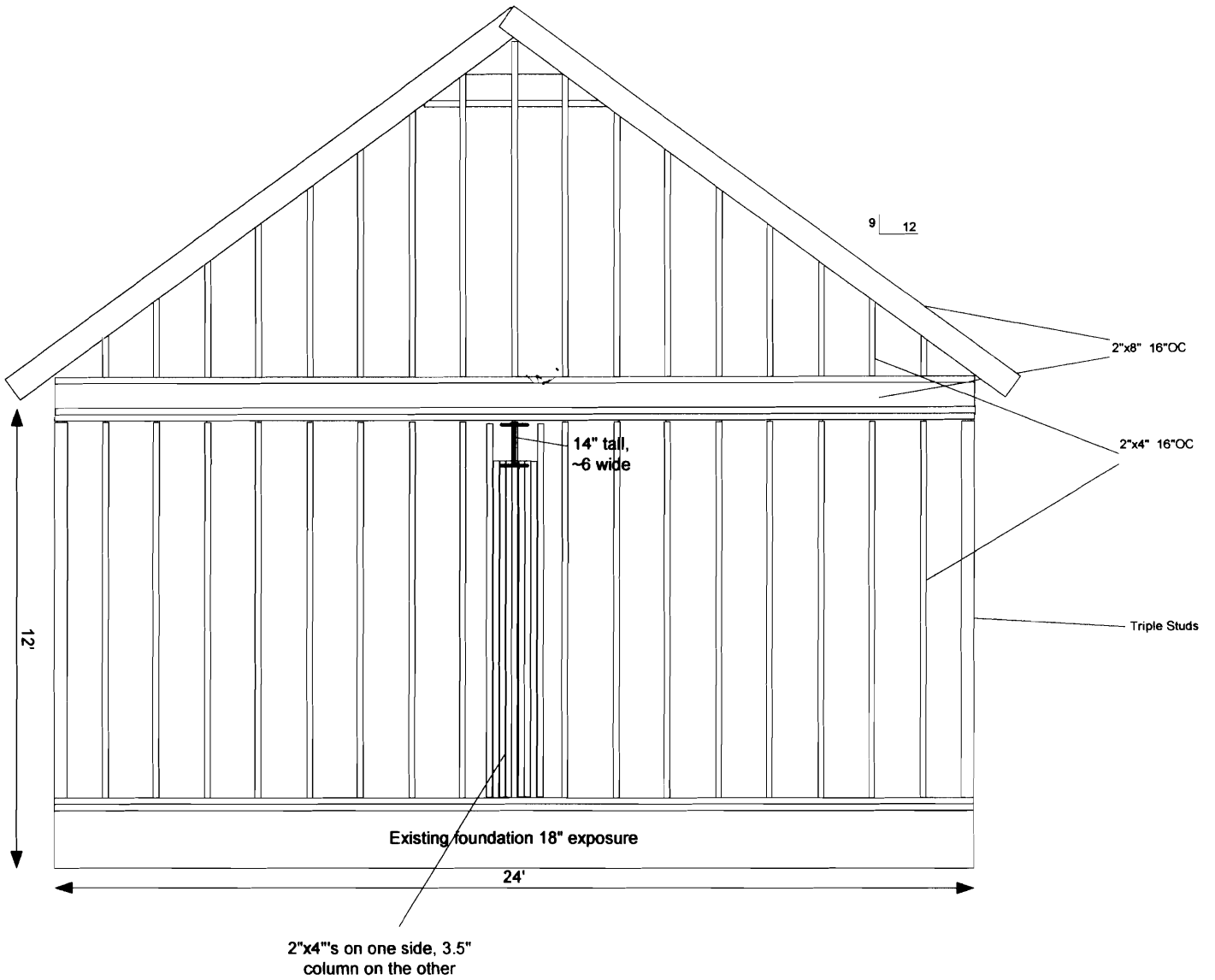
Allowable space  
 = 630.375 sq. ft. \* 2/3  
 = 420.25 sq. ft.

4' Area  
 = 26' x 4' + 20' x 5.333'  
 = 210.6667 sq. ft.

Total Area - 4' Area  
 = 630.375 - 210.6667  
 = 419.71 sq. ft.

**Figure 6 Floor Space Utilization**

# Building Sections



**Figure 9 Side View of Existing Space**

FAX TRANSMITTAL COVER SHEET

DATE:

3/15/96

TO:

DAVE JORDAN

ATTN:

FROM:

MIKE PAUL

NUMBER OF PAGES, INCLUDING COVER SHEET:

3

SPECIAL NOTES:

Spec on Steel Beam  
as Requested for  
Peter Chamberlain Residence  
Racine Ave.

FAX NUMBER: 207-282-9837

W SHAPES  
Dimensions



Siz- tion	Area A	Depth d	Web		Flange		Distance					
			Thickness tw	L/2	Width b1	Thickness t1	T	k	A1			
										In.	In.	In.
14 x 132	36.8	14.86	14%	0.645	3/8	14.725	14%	1.030	1	11 1/4	11 1/2	11 1/2
x 120	35.3	14.48	14%	0.590	3/8	14.670	14%	0.940	1	11 1/4	11 1/2	11 1/2
x 108	32.0	14.32	14%	0.525	3/8	14.605	14%	0.860	1	11 1/4	11 1/2	11 1/2
x 99	29.1	14.16	14%	0.485	3/8	14.565	14%	0.780	1	11 1/4	11 1/2	11 1/2
x 90	26.5	14.02	14%	0.440	3/8	14.520	14%	0.710	1	11 1/4	11 1/2	11 1/2
14 x 82	24.1	14.31	14%	0.510	3/8	10.130	10%	0.855	1/2	11	11	11
x 74	21.8	14.17	14%	0.450	3/8	10.070	10%	0.785	1/2	11	11 1/2	11 1/2
x 66	20.0	14.01	14%	0.416	3/8	10.035	10%	0.720	1/2	11	11 1/2	11 1/2
x 61	17.9	13.89	13%	0.375	3/8	9.905	10%	0.645	1/2	11	11 1/2	11 1/2
W 14 x 53	15.6	13.92	13%	0.370	3/8	8.090	8	0.600	1/2	11	11 1/2	11 1/2
x 48	14.1	13.79	13%	0.340	3/8	8.030	8	0.595	1/2	11	11 1/2	11 1/2
x 43	12.6	13.66	13%	0.305	3/8	7.995	8	0.530	1/2	11	11 1/2	11 1/2
W 14 x 38	11.2	14.10	14%	0.310	3/8	8.770	8 1/2	0.515	1/2	12	11 1/2	11 1/2
x 34	10.0	13.98	14%	0.285	3/8	8.745	8 1/2	0.455	1/2	12	11 1/2	11 1/2
x 30	8.85	13.84	13%	0.270	3/8	8.730	8 1/2	0.385	1/2	12	11 1/2	11 1/2
W 14 x 26	7.89	13.91	13%	0.255	3/8	5.025	5	0.429	1/2	12	11 1/2	11 1/2
x 22	6.49	13.74	13%	0.230	3/8	5.000	5	0.335	1/2	12	11 1/2	11 1/2

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W SHAPES  
Properties



Nem- inal WL per ft	Compact Section Criteria					r	Elastic Properties						
	I <sub>x</sub> in. <sup>4</sup>	F <sub>y</sub> ksi	d L	F <sub>y</sub> ksi	r <sub>x</sub> in.		Axis X-X			Axis Y-Y			
							I	S	r	I	S	r	
132	7.1	—	22.7	—	4.05	0.97	1530	209	6.28	548	74.5	3.76	21
120	7.8	—	24.5	—	4.04	1.05	1380	190	6.24	495	67.5	3.74	21
100	8.5	58.6	27.3	—	4.02	1.14	1240	173	6.22	447	61.2	3.73	18
89	9.3	48.5	29.2	—	4.00	1.25	1110	157	6.17	402	55.2	3.71	17
80	10.2	40.4	31.9	—	3.99	1.36	990	143	6.14	362	49.9	3.70	15
82	5.9	—	26.1	—	2.74	1.65	882	120	6.05	348	29.3	2.48	13
74	6.4	—	31.5	—	2.72	1.79	796	112	6.04	334	28.6	2.48	12
68	7.0	—	33.8	57.7	2.71	1.94	723	103	6.01	321	24.2	2.46	11
61	7.7	—	37.0	48.1	2.70	2.15	640	92.2	5.98	307	21.5	2.45	10
53	8.1	—	37.4	48.7	2.15	2.62	541	77.8	5.89	277	14.3	1.92	8.7
48	8.7	—	42.8	40.2	2.13	2.89	465	70.3	5.85	264	12.8	1.91	7.8
43	7.5	—	44.8	32.9	2.12	3.22	428	62.7	5.82	252	11.3	1.89	6.9
38	8.8	—	45.5	31.3	1.77	4.04	385	54.5	5.87	26.7	7.88	1.55	6.1
34	7.4	—	42.1	27.4	1.78	4.58	340	48.6	5.83	23.3	8.91	1.53	5.4
30	8.7	55.3	52.3	25.1	1.74	5.34	291	42.0	5.79	19.6	5.82	1.49	4.7
26	6.0	—	54.5	22.2	1.20	6.59	245	35.3	5.86	8.91	3.54	1.08	4.0
22	7.5	—	59.7	18.5	1.25	8.20	199	29.0	5.54	7.00	2.80	1.04	3.3

AMERICAN INSTITUTE OF STEEL CONSTRUCTION

For beams laterally unsupported, see page 2-148

For beams laterally supported

Span in Feet	W 14			W 14			W 14		Deflection in.
	5	8	10	6%	6%	6%	5	5	
5	8.50	8.50	8.40	7.10	7.10	7.10	5.30	5.30	.04
6	11.7	10.0	14.4	11.5	10.2	8.70	7.00	5.60	.06
7									.08
8	148	135	120	124	115	108	93	77	.09
9	137	124	110	108	98	95	80	68	.11
10	123	111	99	96	86	83	70	57	.14
11	112	101	90	88	77	74	62	51	.18
12	103	93	83	79	70	60	51	42	.21
13	95	86	76	72	64	55	47	38	.25
14	88	80	71	67	59	51	43	36	.30
15	82	74	60	62	55	48	40	33	.34
16	77	70	62	58	51	44	37	31	.40
17	72	66	58	54	48	42	35	29	.45
18	68	62	54	51	45	39	33	27	.51
19	65	59	52	48	43	37	31	26	.57
20	62	56	50	46	41	35	29	24	.63
21	59	53	47	43	38	33	28	23	.70
22	56	51	45	41	37	32	27	22	.77
23	54	49	43	39	35	30	25	21	.85
24	51	46	41	38	33	29	24	20	.93
25	49	45	40	36	32	28	23	19	1.01
26	47	43	38	35	31	27	22	18	1.10
27	46	41	37	33	30	26	22	16	1.19
28	44	40	35	32	29	25	21	17	1.28
29	41	37	33	31	27	24	20	16	1.38
30	39	35	31	29	26	22	19	15	1.58
31	38	33	29	27	24	21	17	14	1.80
32				26	23	20	16	14	2.03

Properties and Reaction Values

	77.8	70.3	62.7	54.6	48.6	42.0	35.3	29.0	
S, in. <sup>2</sup>	74	68	60	53	47	41	35	29	
V, kips	31.8	27.8	23.8	19.8	16.9	15.0	14.2	12.0	For explanation of deflection, see page 2-32
R <sub>1</sub> , kips/in.	8.79	8.06	7.25	7.37	6.77	6.42	6.06	5.46	
R <sub>2</sub> , kips	37.3	31.2	25.9	25.3	20.9	17.8	17.0	13.0	
R <sub>1</sub> , kips/in.	3.37	2.93	2.40	2.51	2.23	2.28	1.74	1.62	
R <sub>2</sub> , kips	49	41	33	34	29	26	23	19	

Load above heavy line is limited by maximum allowable web shear.

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Allowable uniform loads in kips for beams laterally supported

For beams laterally unsupported, see page 2-148

Designation	W 12									
	135	120	108	96	87	79	72	65	58	51
Flange Width	12 3/4	23 3/4	12 3/4	12 3/4	12 3/4	12 3/4	12	12	10	10
L <sub>x</sub>	13.1	13.0	12.9	12.8	12.8	12.8	12.7	12.7	10.6	10.6
L <sub>y</sub>	53.2	48.2	43.3	39.6	36.2	33.3	30.5	27.7	24.4	24.4
Span in Feet	9	205	260	226	201	188	168	152	130	128
	10	295	258	209	189	170	154	140	127	124
	11	268	235	209	189	170	154	140	127	112
	12	246	215	191	173	156	141	129	118	103
	13	227	199	177	160	144	130	119	107	95
	14	210	184	164	148	134	121	110	99	88
	15	196	172	153	138	125	113	103	93	82
	16	184	161	144	130	117	106	96	87	77
	17	173	152	135	122	110	100	91	82	73
	18	164	143	128	115	104	94	86	77	69
	19	155	136	121	109	98	89	81	73	65
	20	147	129	115	104	93	85	77	70	62
	21	140	123	109	99	89	81	73	66	59
22	134	117	104	94	85	77	70	63	56	
23	128	112	100	90	81	74	67	61	54	
24	123	108	96	86	78	71	64	58	51	
25	118	103	92	83	75	68	62	56	49	
26	113	99	88	80	72	65	59	54	48	
27	109	96	85	77	69	63	57	52	46	
28	105	92	82	74	67	61	55	50	44	
29	102	89	79	72	64	58	53	48	43	
30	98	86	77	69	62	56	51	46	41	

Properties and Reaction Values

	185	163	145	131	118	107	97.4	87.0	78.0	70.8
S, in. <sup>2</sup>	153	134	113	101	93	84	76	68	63	60
V, kips	90.9	79.4	61.1	53.1	45.9	40.1	35.1	30.4	29.4	25.6
R <sub>1</sub> , kips/in.	18.0	16.9	14.5	13.1	12.2	11.2	10.2	9.27	8.55	8.20
R <sub>2</sub> , kips	160	128	95.7	78.9	67.9	58.4	47.1	38.6	35.3	31.3
R <sub>1</sub> , kips/in.	18.0	15.1	10.9	8.90	8.24	6.90	5.93	4.85	3.66	3.62
R <sub>2</sub> , kips	157	136	112	99	88	79	68	58	48	44

Load above heavy line is limited by maximum allowable web shear. Values of V in bold face exceed maximum web shear V.

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