

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

Please Read
Application And
Notes, If Any,
Attached

BUILDING DIVISION

PERMIT

PERMIT ISSUED

Permit Number: 091306

I hereby certify that OAKHURST PROPERTIES LLC / Pizzag

NOV 24 2009

is requesting permission to Roof replacement of EPDM membrane

City of Portland

332 FOREST AVE

CP 114A-F007001

Provided that the person or persons, firm or corporation accepting this permit shall comply with all 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 written permission procured before this building or part thereof is lath or other work is set-in. 2 HOUSING NOTICE IS 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

[Signature]
11/24/09
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 09-1306	Issue Date:	CBL: 114A F007001
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Location of Construction: 332 FOREST AVE	Owner Name: OAKHURST PROPERTIES LLC	Owner Address: 364 FOREST AVE	Phone:
Business Name:	Contractor Name: Pizzagalli	Contractor Address: 131 Presumpscot St Portland	Phone 2078742323
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial	Zone: B-2

Past Use: Commercial Merchantile/Retail	Proposed Use: Commercial Merchantile/Retail - Roof replacement of EPDM membrane	Permit Fee: \$850.00	Cost of Work: \$82,752.00	CEO District: 2
		FIRE DEPT: <input type="checkbox"/> Approved <input checked="" type="checkbox"/> Denied <i>N/A</i>	INSPECTION: Use Group: <i>B</i> Type: <i>3</i> <i>IBC 2003</i>	

Proposed Project Description: Roof replacement of EPDM membrane	Signature:	Signature:
	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: Ldobson	Date Applied For: 11/16/2009	Zoning Approval
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1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
3. 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..

Special Zone or Reviews	Zoning Appeal	Historic Preservation
<input type="checkbox"/> Shoreland	<input type="checkbox"/> Variance	<input checked="" type="checkbox"/> Not in District or Landmark
<input type="checkbox"/> Wetland	<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Does Not Require Review
<input type="checkbox"/> Flood Zone	<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Requires Review
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Interpretation	<input type="checkbox"/> Approved
<input type="checkbox"/> Site Plan	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Conditions
Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	<input type="checkbox"/> Denied	<input type="checkbox"/> Denied
Date: <i>ok</i>	Date:	Date: <i>[Signature]</i>

PERMIT ISSUED

NOV 24 2009

City of Portland

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

Permit No: 09-1306	Date Applied For: 11/16/2009	CBL: 114A F007001
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Location of Construction: 332 FOREST AVE	Owner Name: OAKHURST PROPERTIES LLC	Owner Address: 364 FOREST AVE	Phone:
Business Name:	Contractor Name: Pizzagalli	Contractor Address: 131 Presumpscot St Portland	Phone (207) 874-2323
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial	

Proposed Use: Commercial Merchantile/Retail - Roof replacement of EPDM membrane	Proposed Project Description: Roof replacement of EPDM membrane
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Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 11/17/2009
Note:	Ok to Issue: <input checked="" type="checkbox"/>		
Dept: Building	Status: Approved with Conditions	Reviewer: Tammy Munson	Approval Date: 11/24/2009
Note:	Ok to Issue: <input checked="" type="checkbox"/>		
1) This permits authorizes replacement of roofing material only. Any structural work required upon removal of the existing roofing shall require separate reviews and approvals.			
Dept: Planning	Status: Approved	Reviewer: Barbara Barhydt	Approval Date: 11/19/2009
Note:	The roof replacement does not require site plan review, so the building permit may be issued.		Ok to Issue: <input checked="" type="checkbox"/>

Comments: 11/17/2009-mes: WAIT for Planning sign off - there is a site plan in the future works

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

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.

 X **Framing/Rough Plumbing/Electrical: Prior to Any Insulating or drywalling**

 X **Final inspection required at completion of work.**

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.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.

Signature of Applicant/Designee

Date

Signature of Inspections Official

Date

From: Marge Schmuckal
To: Barbara Barhydt
Date: 11/17/2009 1:08:38 PM
Subject: Oakhurst - roof replacement

Barbara,
I have a permit application for roof replacement (the membrane, not structural members UNLESS rotted members are found).

Are you all set with this?
Marge



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: 334 Forest Ave.		
Total Square Footage of Proposed Structure/Area 15,790		Square Footage of Lot 48,824+/-
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# 114A F 3 114A F 7 114A F 8		Applicant * <u>must</u> be owner, Lessee or Buyer* Name <u>Oakhurst Properties LLC</u> Address <u>304 Forest Ave</u> City, State & Zip <u>Portland Me 04101</u>
Telephone: <u>207-772-7468</u>		Lessee/DBA (If Applicable)
Owner (if different from Applicant) Name Address City, State & Zip		Cost Of Work: \$ <u>82,752</u> C of O Fee: \$ <u>0</u> Total Fee: \$ <u>857⁵²</u>
Current legal use (i.e. single family) <u>Merchantile/ Retail</u>		
If vacant, what was the previous use? <u>Merchantile / Retail</u>		
Proposed Specific use: <u>Merchantile / Retail</u>		
Is property part of a subdivision? <u>No</u> If yes, please name _____		
Project description: <u>Roof replacement of existing building</u> <u>Roof replacement of EPDM membrane.</u>		
Contractor's name: <u>Pizzagalli Const Co</u>		
Address: <u>131 Presumpscot St</u>		
City, State & Zip <u>Portland ME 04104</u>		Telephone: <u>874-2323</u>
Who should we contact when the permit is ready: <u>Tim Gallagher</u>		Telephone: <u>874-2323⁶⁴¹⁴</u>
Mailing address: <u>131 Presumpscot St Portland Me</u>		

Please submit all of the information outlined on the applicable 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 or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division 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: [Handwritten Signature]

Date: 11-16-2009

RECEIVED

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

NOV 16 2009

Dept. of Building Inspections
City of Portland Maine



Certificate of Design Application

From Designer: CWS Architects / L&L Structural Engineering Services, Inc.
 Date: November 13, 2009
 Job Name: 334 Forest Ave - Roof Replacement
 Address of Construction: 334 Forest Ave., Portland, ME 04101

2003 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year 2003 IBC Use Group Classification (s) Merchantile Group

Type of Construction Type IIIB

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC Yes, when Phase II completed

Is the Structure mixed use? NO If yes, separated or non separated or non separated (section 302.3) N/A

Supervisory alarm System? YES Geotechnical/Soils report required? (See Section 1802.2) NO

Structural Design Calculations

YES Submitted for all structural members (106.1 - 106.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
<u>Retail</u>	<u>100 psi</u>

Wind loads (1603.1.4, 1609)

1609.6 Design option utilized (1609.1.1, 1609.6)
100mph Basic wind speed (1809.3)
II/1.0 Building category and wind importance Factor, I_p
 table 1604.5, 1609.5)
B Wind exposure category (1609.4)
± 0.18 Internal pressure coefficient (ASCE 7)
±17.2/-18.7 Component and cladding pressures (1609.1.1, 1609.6.2.2)
10.5/15/9 Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

1617.5 Design option utilized (1614.1)
I Seismic use group ("Category")
0.28/0.11 Spectral response coefficients, S_D & S_{D1} (1615.1)
"C" Site class (1615.1.5)

NA Live load reduction
- Roof live loads (1603.1.2, 1607.1.1)
45 psi Roof snow loads (1603.7.3, 1608)
50 psi Ground snow load, P_g (1608.2)
45 psi If $P_g > 10$ psf, flat-roof snow load P_f
0.9 If $P_g > 10$ psf, snow exposure factor, C_e
1.0 If $P_g > 10$ psf, snow load importance factor, I_s
1.0 Roof thermal factor, C_t (1608.4)
NA Sloped roof snowload, P_s (1608.4)
B Seismic design category (1616.3)
1.5 Basic seismic force resisting system (1617.6.2)
1.5 Response modification coefficient, R , and
 deflection amplification factor C_d (1617.6.2)
1617.5 Analysis procedure (1616.6, 1617.5)
0.22W Design base shear (1617.4, 1617.5.1)

Flood loads (1803.1.6, 1612)

_____ Flood Hazard area (1612.3)
 _____ Elevation of structure

Other loads

_____ Concentrated loads (1607.4)
 _____ Partition loads (1607.5)
 _____ Misc. loads (Table 1607.8, 1607.6.1, 1607.7,
 1607.12, 1607.13, 1610, 1611, 2404)



Certificate of Design

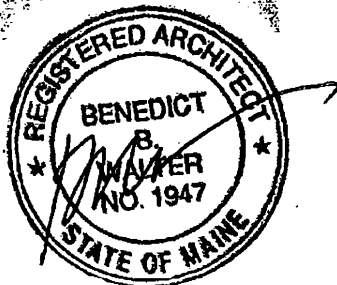
Date: November 13, 2009

From: Ben Walter - CWS Architects

These plans and / or specifications covering construction work on:

334 Forest Ave. - Roof Replacement

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the *2003 International Building Code* and local amendments.



(SEAL)

Signature: _____

Title: President

Firm: CWS Architects

Address: 434 Cumberland Ave.

Portland, ME 04101

Phone: 207-774-4441

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

CWS Architects

Architecture • Planning • Construction Services

434 Cumberland Avenue Portland, Maine 04101
www.CWSarch.com

Phone: (207) 774-4441
Fax: (207) 774-4016

November 13, 2009

Dan Noblet
Pizzagalli Construction
131 Presumpscot Street
Portland, ME, 04103

Re: 334 Forest Avenue – Roof Replacement

Dear Dan:

I have reviewed the drawing S2 dated 11-13-09 provided by Joe Leasure of L&L Structural Engineering Services, Inc. that delineates options for providing a roof replacement for the subject building.

As indicated and with minor exceptions, the northerly half (roughly, refer to limits indicated on plan) of the building is indicated have adequate structural support to allow for a new 3" polyisocyanurate insulation component as part of the proposed new roof system. Please make the minor reinforcements indicated if you choose to proceed with adding insulation to this portion of the building.

Conversely, the southern half (roughly, refer to limits indicated on plan) of the building would require substantial structural reinforcements in order for the structure to support the addition of any new polyisocyanurate insulation. Roof replacement in this portion of the building is acceptable if no new insulation is installed. Please make the substantial reinforcements indicated if you choose to proceed with adding insulation (3") to this portion of the building.

Joe indicated that there are various T&G roof decks that range in 1 1/2" to 2" in depth and that in all cases these roof decks are suitable for additional insulation. There appears to be some minor areas of rot in the roof deck that should be replaced during the roof replacement. The existing roof consists of two layers: 1) tar and gravel; and 2) EPDM that will both be removed and should be disposed of properly.

It is understood that you will be replacing the roof with a new and complete fully adhered EPDM roof system to be provided and installed by a design/build roofing contractor. This contractor is responsible for designing the roof system and conforming to all code stipulated regulations. It is expected that all the new rooftop HVAC units will remain in their current locations and utilize their existing curbs. CWS will advise you on an as-needed basis regarding minor details such as coping colors, etc.

I have attached a partially completed (by CWS & L&L) copy of the portions of the building permit application that apply to this work scope. You will need to complete some of the portions of the application. Please call if you have any further questions.

Very truly yours,

CWS ARCHITECTS



Benedict B. Walter, AIA
President
Maine Licensed Architect

cc: Tom Brigham, Oakhurst Dairy
Joe Leasure, L&L Structural Engineering Services, Inc.



FiberTop

DESCRIPTION:

Firestone FiberTop roof insulation is a cellulosic wood fiber insulation with an emulsion coating on one surface that may be used as a recovery board or to provide insulating value. Firestone FiberTop may be used with all single-ply, ballasted, fully adhered, mechanically attached, modified bitumen and BUR roofing systems.

ADVANTAGES :

1. High-density cellulosic wood fiberboard.
2. Firestone ½" FiberTop has the highest transverse strength properties in the roofing industry.
3. The emulsion coating contains no asphalt and is applied to only one surface.
4. Compatible with ballasted, fully adhered and mechanically attached single-ply, modified bitumen and built-up roofing systems.
5. Available in 4' x 4' (1.22 m x 1.22 m) and 4' x 8' (1.22 m x 2.44 m) boards in 0.5" (12.7 mm) and 1" (25.4 mm) thickness.

SPECIFICATION COMPLIANCE:

ASTM C208, Type II, Grade 2
Federal Woodfiber Spec: LLL-I-535B
ANSI/AHA A 194.1 Type IV, Class 1
UL Classified
FM Approved

METHOD OF APPLICATION:

Insulation shall be neatly fitted to all roof penetrations, projections and nailers. No more insulation shall be installed than can be covered with membrane and completed before the end of each day's work or before the onset of inclement weather. Install with black surface side up and attach per Firestone specifications.

FIRESTONE FIBERTOP MUST BE INSTALLED USING:

Fasteners and plates, hot asphalt or Firestone approved insulation adhesives.

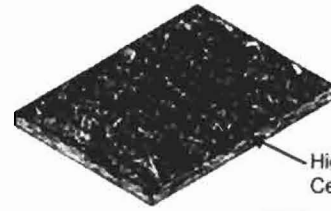
Notes: See Firestone Technical Information Sheet 950 for Insulation Attachment Patterns.

On ballasted systems: Insulation may be loose laid. Top layer may not be mechanically attached.

STORAGE AND PRECAUTIONS :

1. Keep insulation dry at all times.
2. Elevate insulation above the deck or ground.
3. Cover insulation with waterproof tarps.
4. Combustible. Refer to MSDS for more information.
5. Do not install over wet, damp or uneven substrates.

This sheet is meant only to highlight Firestone's products and specifications. Information is subject to change without notice. Firestone takes responsibility for furnishing quality materials, which meet Firestone's published product specification. As neither Firestone itself nor its representatives practice architecture, Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure on which its products may be applied. If questions arise as to the soundness of a structure, or its ability to support a planned installation properly, the Owner should obtain opinions of competent structural engineers before proceeding. Firestone accepts no liability for any structural failure or for resultant damages, and no Firestone Representative is authorized to vary this disclaimer.



PRODUCT DATA

Thickness*		R-Value*
<u>inches</u>	<u>mm</u>	<u>ft²h° F/Btu in</u>
0.5	12.7	1.4
1.0	25.4	2.8

*R-Values shown are based on ASTM Test C518 or C177 at 75° F mean temperature.

PHYSICAL PROPERTIES

Physical Property	0.5" (12.7 mm)		1.0" (25.4 mm)	
	<u>English Values</u>	<u>Metric Values</u>	<u>English Values</u>	<u>Metric Values</u>
Transverse Strength min, lbf (N)	14	62.3	14	62.3
Tensile Strength Parallel min, lbf/in ² (kPa)	150	1,034	50	345
Tensile Strength Perpendicular min, lbf/in ² (kPa)	600	28.7	500	23.9
Vapor Permeance, grains/hr•sq ft•in Hg pressure differential, (mg/s•m ² kPa) min	5	0.287	--	--
Water Absorption by volume, max, %	7		10	
Moisture Content by weight, max, %	10		10	
Linear Expansion 50-90% RH, max, %	0.5		0.5	
Modulus of Rupture min, lbf/in ² (kPa)	275	1,896	80	552
Deflection at Specified Min. Load, max in (mm)	0.75	19	0.62	16
Flute Spanability max width, in (mm)	1.6	40.6	2.7	68.6

LEED INFORMATION:

Post Consumer Recycled Content:	Minimum 50%
Post Industrial Recycled Content:	0%
Manufacturing Location:	International Falls, MN Jarratt, VA Marrero, LA Sunbury, PA Danville, VA

Firestone Building Products Company

A Division of BFS Diversified Products, LLC
310 E. 96th Street, Indianapolis, IN 46240
Sales: (800) 428-4442 • Technical (800) 428-4511
www.firestonebpco.com

Firestone BUILDING PRODUCTS

ISO 95+™ GL Flat and Tapered

DESCRIPTION:

Firestone ISO 95+ GL flat and tapered roof insulation consists of a closed-cell polyiso foam core laminated to a black glass reinforced mat facer. Flat and tapered ISO 95+ GL provide outstanding thermal performance on commercial roofing applications, while providing positive roof top drainage to help eliminate ponding water when tapered ISO 95+ GL is used.

All Firestone polyiso insulations use EPA accepted blowing agents and qualify under the Federal Procurement Regulation for Recycled Material. Flat and tapered ISO 95+ GL with IsoGard Foam Technology incorporates a HCFC-free blowing agent that does not contribute to the depletion of the ozone (ODP-free). Firestone ISO 95+ GL is a formaldehyde free material.

METHOD OF APPLICATION:

Insulation shall be neatly fitted to all roof penetrations, projections and nailers. No more insulation shall be installed than can be covered with membrane and completed before the end of each day's work or before the onset of inclement weather.

Note: See Firestone Technical Information Sheet 950 for Insulation Attachment Patterns.

ISO 95+ GL FLAT AND TAPERED MUST BE INSTALLED USING:

Fasteners and plates, hot asphalt or Firestone approved insulation adhesives.

For ballasted systems, the top layer of Firestone insulation may not be mechanically attached.

ISO 95+ GL Flute Span Over Metal Decks				
Thickness	1.0"	1.25"	1.5"-3.8"	4.0"
Span	2.625"	3.675"	4.375"	4.5"

SPECIFICATION COMPLIANCE:

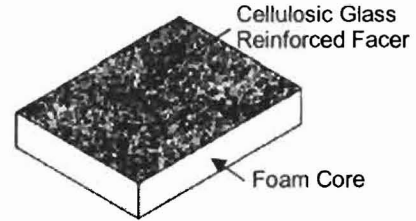
ASTM C1289, Type II, Class 1, Grade 2 for 20 psi
 ASTM C1289, Type II, Class 1, Grade 3 for 25 psi
 UL Classified
 FM Class 1 Approved
 Manufactured in an ISO 9002 Registered Facility
 CAN/ULC-S704, Type 1, Class 3



CCMC 13274-L



This sheet is meant to highlight Firestone's products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials, which meet Firestone's published product specifications. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Firestone representative is authorized to vary this disclaimer.



PRODUCT DATA

Insulation Thickness		LTTR* R-Value
(inches)	(mm)	
1.00	25.4	6.0
1.25	31.7	7.5
1.50	38.1	9.0
1.75	44.5	10.5
2.00	50.8	12.1
2.30	58.4	14.0
2.50	63.5	15.3
2.80	71.1	17.2
3.00	76.2	18.5
3.25	82.6	20.1
3.50	88.9	21.7
3.75	95.3	23.4
4.00	101.6	25.0

**Long Term Thermal Resistance (LTTR) values provide a 15-year time-weighted average in accordance with CAN/ULC-S770.*

POLYISO PHYSICAL PROPERTIES

Physical Property	ASTM Test	English Values	Metric Values
Compressive Strength, min	D 1621	20 psi	138 kPa
Compressive Strength, min	D 1621	25 psi	172 kPa
Density	D 1622	2 pcf	32 kg/m ³
Dimensional Stability	D 2126	<2%	<2%
Moisture Vapor Transmission	E 96	<1.0 Perm	<57.5 ng/(Pa*s*m ²)
Water Absorption	C 209	<1% by Volume	<1% by Volume
Service Temperature		-100° to 250° F	-73° to 121° C

Physical properties listed are identical for 20 and 25 psi ISO95+ GL except for a slight increase in density for 25 psi material.

AVAILABLE SIZES:

Flat Boards: 4' x 4' (1.22 m x 1.22 m)
 4' x 8' (1.22 m x 2.44 m)
 Thickness ranging 1.0" (25.4 mm) to 4.0" (101.6 mm)

Tapered Boards: 4' x 4' (1.22 m x 1.22 m)
 4' x 8' (1.22 m X 2.44 m) (special order)
 Thickness ranging 0.5" (12.7 mm) to 4.0" (101.6 mm)

Slopes ranging 1/16" per foot (.5%) to 1/2" per foot (4%)
See chart on page 2.

STORAGE AND PRECAUTIONS:

- Keep insulation dry at all times.
- Elevate insulation above the deck or ground.
- Cover insulation with waterproof tarps.
- Combustible. Refer to MSDS for more information.
- Do not install over wet, damp or uneven substrates.

Manufacturing Locations:

Aurora, CO Florence, KY Bristol, CT Youngwood, PA
 Jacksonville, FL Corsicana, TX Salt Lake, UT DeForest, WI

Firestone Building Products Company
 250 W. 96th Street, Indianapolis, IN 46260
 Sales: (800) 428-4442 • Technical (800) 428-4511
www.firestonebpc.com

TECHNICAL INFORMATION SHEET

901
10/19/2009

RECYCLE CONTENT OF ISO 95+ GL

Thickness (inches)	Thickness, (millimeters)	% Post Consumer	% Post Industrial	TOTAL RECYCLE CONTENT
1.00	25.40	37%	15%	52%
1.25	31.75	33%	15%	48%
1.50	38.10	29%	15%	44%
1.75	44.45	26%	15%	41%
2.00	50.80	24%	15%	39%
2.30	58.42	21%	15%	36%
2.50	63.50	20%	15%	35%
2.80	71.12	18%	15%	33%
3.00	76.20	17%	15%	32%
3.25	82.55	16%	15%	31%
3.50	88.90	15%	15%	30%
3.75	95.25	14%	15%	29%
4.00	101.60	14%	15%	29%

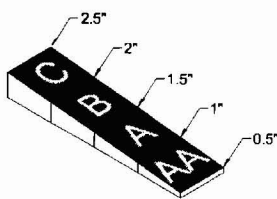
LEED INFORMATION:

The Designer will find the following chart useful for specifying Polyiso Roof Insulation in Sustainable Building Designs. Recycle content can be used to calculate LEED points. LEED Reference Guide information can be obtained on line at <http://www.usgbc.org/>

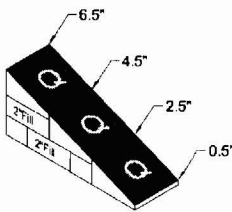
"LEED is trademark of the U.S. Green Building Council."

TAPERED ISO 95+ GL (Common Panel Types):

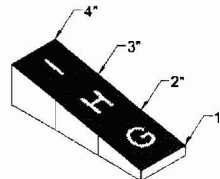
Panel Code	Min-Max Thickness		Slope		Pieces Per Bundle (4'x4')
A	0.5" - 1.0"	12.7 mm - 25.4 mm	1/8"/ft.	1%	64
AA	1.0" - 1.5"	25.4 mm - 38.1 mm	1/8"/ft.	1%	38
B	1.5" - 2.0"	38.1 mm - 50.8 mm	1/8"/ft.	1%	26
C	2.0" - 2.5"	50.8 mm - 63.5 mm	1/8"/ft.	1%	20
G	1.0" - 2.0"	25.4 mm - 50.8 mm	1/4"/ft.	2%	32
H	2.0" - 3.0"	50.8 mm - 76.2 mm	1/4"/ft.	2%	18
I	3.0" - 4.0"	76.2 mm - 100.6 mm	1/4"/ft.	2%	12
X	0.5" - 1.5"	12.7 mm - 38.1 mm	1/4"/ft.	2%	48
Y	1.5" - 2.5"	38.1 mm - 63.5 mm	1/4"/ft.	2%	24
Z	2.5" - 3.5"	63.5 mm - 88.9 mm	1/4"/ft.	2%	16
Q	0.5" - 2.5"	12.7 mm - 63.5 mm	1/2"/ft.	4%	32



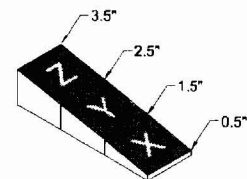
1/8"/ft. Tapered Section



1/2"/ft. Tapered Section



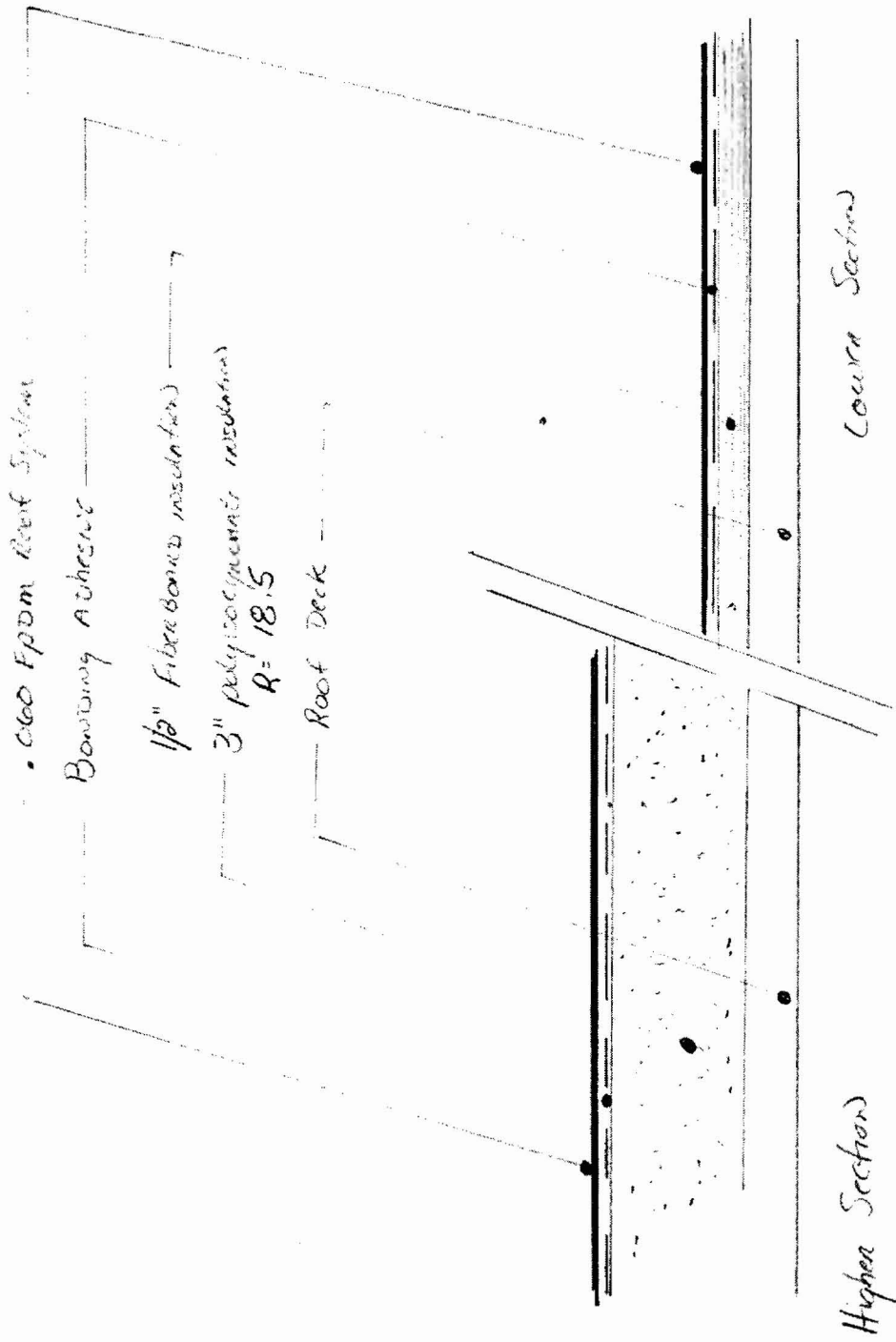
1/4"/ft. Tapered Section



1/4"/ft. Tapered Section

Contact Firestone's Estimating Services Department for a project quotation or for layout guidance. For site assistance or contractor support, contact Firestone's Tapered Project Management Team by calling: 1-800-428-4442 or by emailing: estimatingervicesdept@firestonebp.com

S723-RFS-066



OAKHURST DAIRY
 PIER 1 BUILDING
 PROPOSED ROOF SYSTEM
 SCALE = N.T.S.