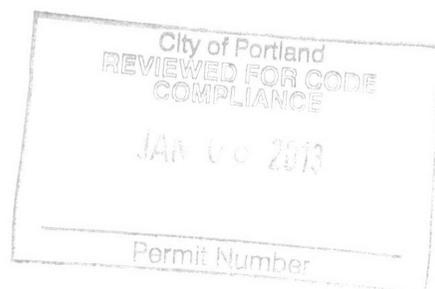




Roof Assessment and Proposed Solution



Reho Capital Management LLC - Portland, OR



2
02-520201-31

◀◀◀ Drawing ▶▶▶

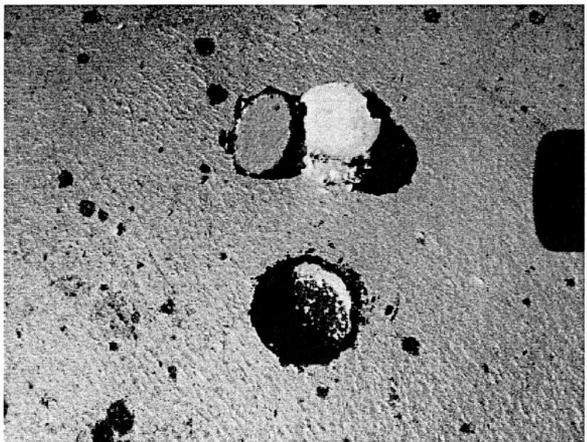
Section: Tryon Creek Roof
Area: Drawing
Caption: Satellite View of Roof



City of Portland
REVIEWED FOR CODE
COMPLIANCE
JAN 06 2013
Permit Number _____

◀◀◀ Roof Condition Summary ▶▶▶

Reho Capital Management LLC
9069 Sw 35th Ave.
Portland, OR 97219

Section: Tryon Creek Roof	Sq. Footage: 5,353	Leaks: Several												
	Core Analysis <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Layer</th> <th style="text-align: center;">Material</th> <th style="text-align: center;">Thickness</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Wood T&G</td> <td style="text-align: center;">Deck</td> <td style="text-align: center;">1.5</td> </tr> <tr> <td style="text-align: center;">ISO</td> <td style="text-align: center;">Insulation</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">Modified</td> <td style="text-align: center;">Modified</td> <td style="text-align: center;">0.1</td> </tr> </tbody> </table>		Layer	Material	Thickness	Wood T&G	Deck	1.5	ISO	Insulation	1.0	Modified	Modified	0.1
Layer	Material	Thickness												
Wood T&G	Deck	1.5												
ISO	Insulation	1.0												
Modified	Modified	0.1												
Core Comments: Core Sample Taken														

Roof Condition Summary: We strive to provide our customers with comprehensive information as to their overall roof condition and life expectancy. The roof is in poor condition. A new roof installation is now recommended. This roofing work is suggested now to eliminate the risk of expensive tear off and potential deck replacement associated with continued repairs or re-roofing delays.

Membrane: The field of the roof has obvious areas allowing moisture to enter into the roof assembly. These areas are in need of repairs and re-roofing needs to be considered. Analysis of the entire roof assembly, inclusive of moisture detection via core reports or non-destructive thermal imaging needs to be performed. Owners with roof systems that are in this condition need to be aware of the risks associated with saturated insulation and deck deterioration that manifest due to delayed roof replacement.

- (All) Past Repairs of Existing Roof System - Past repairs can contain small leaks which can create areas of wet insulation and cause ponding in these areas.(see photo)
- (All) Standing Water - Standing water places a strain on the waterproofing membrane, structural members and decking. (see photo)

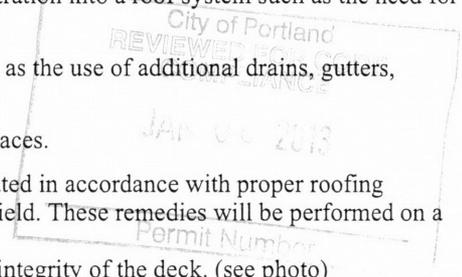
Details: The details of the roof are in poor condition and are currently allowing for moisture to enter into the roof system. While repairs to these details may provide short-term solutions to moisture entry, building owners should be preparing for near future roof replacement. Building owners need to consider the risks associated with moisture infiltration into a roof system such as the need for insulation removal and decking deterioration.

Drainage: The roof currently experiences standing water. Remediating measures such as the use of additional drains, gutters, downspouts, diverters, or crickets is suggested.

Insulation: The insulation in the roof assembly has been crushed in some identified places.

Deck: There were noted areas of roof deck deficiency. These areas will need to be treated in accordance with proper roofing practice. Repairs or replacement to the area will be subject to conditions found in the field. These remedies will be performed on a unit cost basis.

- (All) Rotted Wood - Rotted wood may create safety concerns with the structural integrity of the deck. (see photo)



◀◀◀ Construction Specification ▶▶▶

Reho Capital Management LLC
9069 Sw 35th Ave.
Portland, OR 97219

Specifications For CentiMark 60 Mil TPO Mechanically Fastened System

Sections included: Tryon Creek Roof

Project Preparation:

Perform a pre-job meeting to determine jobsite logistics and safety requirements.

Furnish proposed construction schedule, if needed.

Safety Related

Furnish and install proper safety equipment in accordance with Centimark's written safety program.

Furnish and install warning lines to identified areas associated with ground related roofing activities.

Store roofing materials in accordance with good roofing practices. Material placement will be to distribute weight loads throughout the entire roof area.

Surface Preparation:

Remove and dispose of approximately 50 square feet of existing roof down to structural deck at rear wall.

Inspect existing structural deck for deterioration.

Identify and remove structural deck not capable of providing an acceptable substrate for the installation of the new roof. Furnish and install new deck at a unit cost of \$5.00 per square foot. Areas of removal will be approved by an Owner's representative.

Remove roof top equipment as designated by Owner. Furnish and install deck material and rigid insulation to replace void left by equipment removed.

Remove and dispose of existing pitch pan(s) as needed.

Remove existing counter-flashings and dispose of debris.

Remove existing sheet metal copings and dispose of debris.

Insulation Attachment:

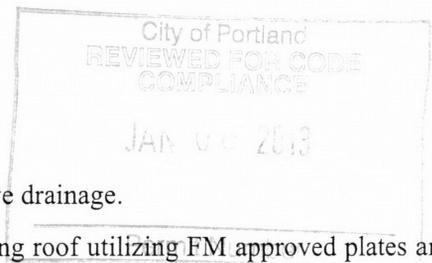
Furnish and install a 16' x 69' tapered EPS cricket at the rear wall to improve drainage.

Mechanically fasten one layer of 1/4" Securock coverboard over the existing roof utilizing FM approved plates and fasteners.

System Application:

Furnish and install **CentiMark** 60 mil reinforced, TPO roof membrane.

Position the TPO membrane over the prepared substrate and allow the membrane sufficient time to "relax" prior to installation.



Install the new TPO membrane over the prepared surface by utilizing mechanical fasteners on 10 foot centers.

Mechanical attachment of the membrane shall be done utilizing a 1" wide polymer batten bar or 2 3/8" round seam plates and FM Global (FM) approved fasteners. Maximum spacing 6" on center.

The thermoplastic membrane seams will be overlapped a minimum of 5", then hot air welded together. Weld width shall be a minimum of 1.5" in width for automatic machine welding. Weld width shall be 2" in width for hand welding. Upon completion of welding, each seam shall be probed to ensure proper securement.

HVAC, Curbed Penetrations and Other Air Handling Unit Details

Furnish and install at the base of the unit 2 3/8" round seam plates to the field membrane. Adhere a second piece of thermoplastic membrane to the curb with bonding adhesive and install prefabricated universal corners for reinforcement.

Furnish and install a 30" wide TPO protective mat at rooftop access points.

Parapet Wall Detail

Furnish and install 2 3/8" round seam plates or 1" wide polymer batten strip to the field sheet at the base of the wall. A second piece of membrane will be adhered to the wall, welded to the field sheet and a new coping.

Pipes Less Than 6" In Diameter

Furnish and install new prefabricated thermoplastic pipe boot secured at the top with a stainless steel screw type clamp fully adhered to the field sheet.

Stacks Greater Than 6" In Diameter

Furnish and install a 60 mil, non-reinforced thermoplastic flashing, where applicable.

Miscellaneous Projections

Furnish and install thermoplastic flashings to the roof projections. Upon completion of welding, each seam shall be probed to ensure proper securement.

Furnish and install new white 24 gauge TPO coated metal pitch pan(s) and/or ChemCurb(s).

New pitch pan(s) and/or ChemCurb(s) shall be installed utilizing mechanical fasteners and/or adhesives and topped with sealant.

Furnish and install TPO uncured flashing to meet the dimensions of the pitch pan(s).

Furnish and install supports and protection pads under conduit lines, gas lines and free standing units where necessary.

Sheet Metal Accessories:

Furnish and install new retrofit drain inserts into existing drains.

Furnish and install new 24 gauge pre-finished galvanized steel coping with continuous cleat. Choice of color to be selected by owner from a standard color chart.

Furnish and install new 24 gauge white thermoplastic coated metal gravel stop/drip edge with continuous cleat.

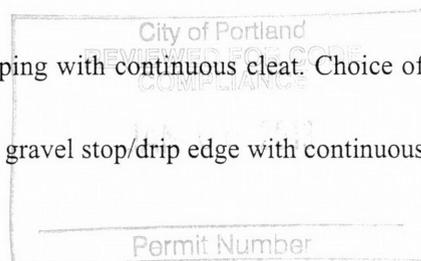
Standard Operating Procedures:

Employee Professionalism

All work shall be performed in a safe, professional manner in compliance with Centimark policy.

Permits

CentiMark will supply the necessary permits for the project.



Asbestos Testing

Core samples of suspect existing roof systems will be taken to an independent laboratory for the testing of asbestos content (ACRM). **CentiMark** can provide removal of ACRM for an additional investment.

Nightly Tie-In's

Depending on new roof system being installed, temporary water cut-offs are to be constructed at the end of each working day to protect the newly installed roof system and building interior.

Clean Up

All work premises will be cleaned daily during the construction process and at the completion of the project.

Job Acceptance and Punch List

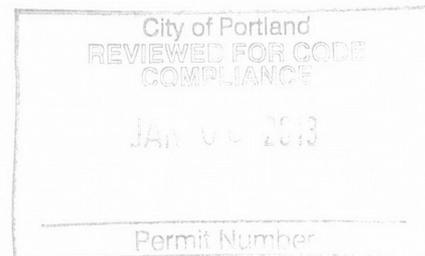
Conduct a post job walk through for final sign-off of our job completion form.

Warranty

Upon purchase of the roofing system, you become entitled to receive the benefits of single source responsibility through **CentiMark's** comprehensive written warranty. This warranty protects your roof against defects in materials or workmanship. If your roof leaks at any time during the warranty period, we will provide complete warranty service.

Quote Name	Section Name	Length
Tryon Creek Roof - 60 Mil TPO	Tryon Creek Roof	Twenty (20)

CentiMark Corporation disclaims any and all responsibility for pre-existing conditions including, but not limited to: structural damage or deficiencies, clogged drains, mold growth, excessive standing water, removal of hazardous material or other hidden deficiencies such as; damaged or leaking skylights, HVAC units/conduits, electrical or gas lines. This proposal does not cover, and in no case shall CentiMark be liable for, the removal of, or damage to, HVAC units/conduits, gas lines, water lines, electric lines, or conduits, whether located above, below, or in the roof system, lightning protection systems, landscaping, communication cable, communication devices, or other devices, including recalibration of satellites. It is the building owner's financial obligation to provide corrective measures.



◀◀◀ Executive Proposal Summary ▶▶▶

Reho Capital Management LLC
9069 Sw 35th Ave.
Portland, OR 97219

Quote	Section	Sq Ft.	System	Warranty*	Price
Tryon Creek Roof - 60 Mil TPO					\$32,860
	Tryon Creek Roof	5,353	<u>TPO Fastened</u>	Twenty (20) years	
* Roof system warranties protect your roof against defects in materials or workmanship for the specified period as outlined in the CentiMark Non-Prorated Limited Roof Warranty or the manufacturer's warranty.					

For internal use only, ID # 137162

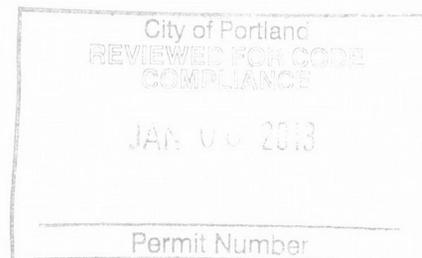
CentiMark Project Manager Signature Date

Standard terms: One-third (1/3) of the contract price due at the job start and the balance due net thirty (30) upon job completion, unless otherwise agreed to in the contract document. (Special terms are available upon request)

The quotes appearing in this Proposal have been calculated based on current prices for the component building materials. However, the market for building materials is considered to be volatile, and sudden price increases could occur through no fault of CentiMark. Since the quotes are material terms of this Proposal, CentiMark exclusively reserves the right to revoke, without written notice, the quotes at any time prior to a valid purchase order or fully executed contract.

This quote does not include any supplemental deck attachment as may be required by Factory Mutual Global (FM). Please note that should FM and/or you require such deck attachment, additional costs will be estimated and added as a separate item to the overall cost of this project.

Valid from 08/30/2012 to 10/20/2012





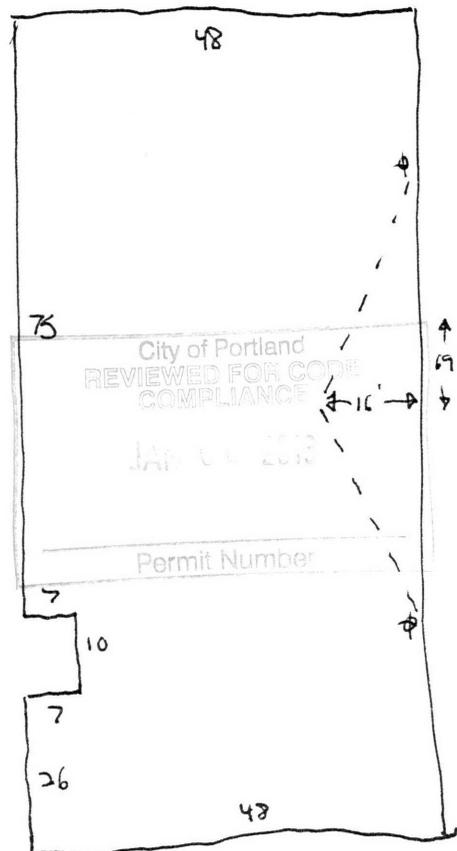
Google earth



69' cricket

- 1x3-11
- 3'R-TH
- 5'R-1
- 1'R-TH III
- PB-TH I
- 3"D-11
- 1x1-1
- 1x6-1111
- PP-TH I
- 2x2-1111
- 8x10-1
- 4x4, ft-1
- 2x5-1
- 4x8-1

CORE: WOOD T&G, 1" ISO, Modified



ROOF COVERING MATERIALS (TEVT)

Roofing Systems (TGFU)-Continued

- Insulation:** Any UL Classified insulation, any thickness.
Barrier Board: 1/4 in. min G-P Gypsum Dens-Deck® or Dens-Deck Prime™, with all joints staggered 6 in. from the plywood joints.
Membrane: "EverGuard PVC", adhered with TACC "LA 432" adhesive at 1 gal/60 sq ft or "FA 636" adhesive at 1 gal/140 sq ft.
18. **Deck:** NC **Incline:** 1/2
Insulation: Atlas Roofing "ACFoam II", "BMCA EnergyGuard RA", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO", 45-80 mil, fully adhered with "TPO Bonding Adhesive", 60 sq ft/gal.
 19. **Deck:** NC **Incline:** 2
Membrane: "EverGuard TPO FB", 45-60 mil fully adhered with TACC 636 Bonding Adhesive at 120 sq ft/gal.
 20. **Deck:** NC **Incline:** 2-1/2
Membrane: "EverGuard TPO FB", 45-60 mil fully adhered with Imperial "586" Roofing Adhesive, 100 sq ft/gal.
 21. **Deck:** NC **Incline:** 3-1/2
Membrane: "EverGuard TPO FB", 45-60 mil, hot mopped or mechanically fastened.
 22. **Deck:** NC **Incline:** 1/2
Insulation: Atlas Roofing "ACFoam II", "BMCA EnergyGuard RA", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO", 45-80 mil, fully adhered with Imperial "3738T" Roofing Adhesive, 120 sq ft/gal.
 23. **Deck:** NC **Incline:** 1/4
Insulation: Firestone "ISO 95+GL", "EnergyGuard", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO", 45-80 mil, fully adhered with Imperial "3738T" Roofing Adhesive, 120 sq ft/gal.
 24. **Deck:** NC **Incline:** 1/4
Insulation: Firestone "ISO 95+GL", "EnergyGuard", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO", 80 mil, fully adhered with Imperial "4459MG" Roofing Adhesive, 60 sq ft/gal.
 25. **Deck:** NC **Incline:** 2-1/2
Membrane: One layer "Everguard TPO FB 450 Ultra", "Everguard TPO FB 600 Ultra" or "Everguard TPO FB 800 Ultra", adhered with Imperial 3738T at 120 sq. ft./gal.
 26. **Deck:** NC **Incline:** 2-1/2
Membrane: One layer "Everguard TPO FB 450 Ultra", "Everguard TPO FB 600 Ultra" or "Everguard TPO FB 800 Ultra", adhered with TACC 636 at 120 sq. ft./gal.
 27. **Deck:** NC **Incline:** 2-1/2
Membrane: One layer "Everguard TPO FB 450 Ultra", "Everguard TPO FB 600 Ultra" or "Everguard TPO FB 800 Ultra", adhered with Imperial 586 at 100 sq. ft./gal.
 28. **Deck:** NC **Incline:** 1
Membrane: One layer "EverGuard TPO FB 450 Ultra", "Everguard TPO FB 600 Ultra" or "Everguard TPO FB 800 Ultra", hot mopped or mechanically fastened.
 29. **Deck:** NC **Incline:** 3/4
Insulation (Optional): Any UL Classified polyisocyanurate, wood fiber, glass fiber, or perlite any thickness.
Base Sheet: One or more layers Type G1 or G2 or "GAF Stratavent Eliminator Venting Base Sheet (Nailable)", mechanically fastened.
Ply Sheet (Optional): One or more layers Type G1 "GAFGLAS Ply 6", hot mopped or mechanically fastened.
Membrane: Two or more layers "Ruberoïd 20" or three or more plies Type G1 "GAFGLAS" Ply 6", hot mopped.
Membrane: "EverGuard TPO FB", 600 Ultra and 800 Ultra or "Everguard FB" 40-100 mil (TPA), hot mopped or mechanically fastened.
 30. **Deck:** C-15/32 **Incline:** 3/4
Insulation: Any UL Classified polyisocyanurate, min 3 in. thick.
Base Sheet: One or more layers Type G1 or G2 or "GAF Stratavent Eliminator Venting Base Sheet (Nailable)", mechanically fastened.
Ply Sheet (Optional): One or more layers Type G1 "GAFGLAS Ply 6", hot mopped or mechanically fastened.
Membrane: Two or more layers "Ruberoïd 20" or three or more plies Type G1 "GAFGLAS Ply 6", hot mopped.
Membrane: "EverGuard TPO FB", 600 Ultra and 800 Ultra or "Everguard FB" 40-100 mil (TPA), hot mopped or mechanically fastened.
 31. **Deck:** NC **Incline:** 3/4
Insulation (Optional): Wood fiber, glass fiber, perlite, 1/2 in. thick min.

ROOF COVERING MATERIALS (TEVT)

Roofing Systems (TGFU)-Continued

- Membrane:** One layer "Everguard TPO FB" 450 Ultra, 600 Ultra or 800 Ultra, hot mopped or mechanically fastened.
32. **Deck:** NC **Incline:** 1/2
Insulation (Optional): Min. 1/2 in. wood fiber over any UL Classified polyisocyanurate, any thickness.
Membrane: "EverGuard Freedom TPO" or "Freedom EZ", self adhered.
 33. **Deck:** NC **Incline:** 2
Membrane: "EverGuard Freedom TPO" or "Freedom EZ", self adhered.
 34. **Deck:** C-15/32 **Incline:** 2
Insulation (Optional): Any UL Classified, any thickness.
Barrier Board: 1/4 in. G-P Gypsum Dens-Deck®.
Membrane: "EverGuard Freedom TPO" or "Freedom EZ", self adhered.
 35. **Deck:** NC **Incline:** 1/4
Insulation (Optional): Atlas Roofing "ACFoam II", "BMCA EnergyGuard RA", Firestone "ISO 95+GL", "EnergyGuard", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard Freedom TPO" or "Freedom EZ", self adhered.
- Class B - Fully Adhered**
1. **Deck:** C-15/32 **Incline:** 1-1/2
Gypsum Board (Optional): 1/2 in., mechanically fastened.
Slip Sheet: Atlas Roofing "FR-50".
Insulation: Apache Building Products "Pyrox White", 2 in. min, mechanically fastened.
Membrane: "EverGuard FB", 40-100 mil (TPA).
 2. **Deck:** NC **Incline:** 1
Base Sheet: Type G3, hot mopped or nailed.
Insulation: Firestone Building Products "ISO-95+GL", Atlas Roofing "ACFoam II", any thickness.
Membrane: "EverGuard FB", 40-100 mil (TPA).
 3. **Deck:** NC **Incline:** 1/2
Base Sheet: Type G3, hot mopped or nailed.
Insulation: Celotex "Top-R-II", any thickness.
Membrane: "EverGuard FB", 40-100 mil (TPA).
 4. **Deck:** NC **Incline:** 1/4
Insulation: Atlas Roofing "ACFoam II", "GAFTEMP Isotherm RA", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO FB", 45-60 mil, fully adhered with Imperial "3738T" Roofing Adhesive, 180 sq ft/gal.
- Class C - Fully Adhered**
1. **Deck:** C-15/32 **Incline:** 1-1/2
Gypsum Board (Optional): 1/2 in., mechanically fastened.
Insulation: Johns Manville "ENRGY 1G", Rmax "Ply 1" or "Multi-Max", Apache Building Products "Pyrox White", Firestone Building Products "Iso 95+GL" or Atlas Roofing "ACFoam II", 1-1/2 in. thick min.
Membrane: "EverGuard FB", 40-100 mil (TPA).
 2. **Deck:** NC **Incline:** 1/2
Insulation: Atlas Roofing "ACFoam II", "BMCA EnergyGuard RA", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO", 45-60 mil, fully adhered with Ashland "PLIOBOND 2825", 60 sq ft/gal.
- SINGLE PLY MEMBRANE ROOFING SYSTEMS (TPA, PVC and TPO)**
- Class A - Mechanically Fastened**
1. **Deck:** NC **Incline:** 2
Gypsum Board (Optional): 1/2 in., mechanically fastened.
Insulation: Apache Building Products "Pyrox White" or Johns Manville "ENRGY 3", any thickness.
Membrane: "EverGuard PVC", 40-100 mil (TPA).
 2. **Deck:** NC **Incline:** 1-1/2
Gypsum Board (Optional): 1/2 in., mechanically fastened.
Insulation: Rmax "Thermarof Plus" or Atlas Roofing "ACFoam II", any thickness.
Membrane: "EverGuard PVC", 40-100 mil (TPA).
 3. **Deck:** C-15/32 **Incline:** 3-1/2
Insulation (Optional): Isocyanurate, extruded or expanded polystyrene, any thickness.
Barrier Board: 1/2 in. gypsum wallboard or 1/4 in. G-P Gypsum Dens-Deck®.
Membrane: "EverGuard PVC", 40-100 mil (TPA).
 4. **Deck:** NC **Incline:** 1/4
Insulation: Polystyrene (1 to 2.5 lb per cu ft), 1 in. min.
Slip Sheet: Atlas Roofing "FR-10".
Membrane: "EverGuard PVC", 40-100 mil (TPA).
 5. **Deck:** NC **Incline:** 2-1/2

ROOF COVERING MATERIALS (TEVT)

Roofing Systems (TGFU)—Continued

- Insulation:** Celotex "Thermax Hy-Tec", 1 in. min.
Membrane: "EverGuard PVC", 40-100 mil (TPA).
6. **Deck:** NC **Incline:** 1
Insulation: Firestone Building Products "Iso 95+GL", Atlas Roofing "ACFoam II", Rmax "Therमारof Plus" or "Multi-Max", any thickness.
Membrane: "EverGuard PVC", 40-100 mil (TPA).
7. **Deck:** NC (Concrete) **Incline:** 1
Insulating Concrete (Optional): Deck covered with one of the following insulating concretes (poured in place): Cellular, vermiculite, perlite, gypsum or structural.
Membrane: "EverGuard PVC", 40-100 mil (TPA).
8. **Deck:** NC **Incline:** 3-1/2
Insulation (Optional): Any UL Classified, any thickness.
Barrier Board: Regular or water resistant wallboard, 1/2 in. nom.
Membrane: "EverGuard PVC", 40-100 mil (TPA).
9. **Deck:** Structural Cement Fiber Unit **Incline:** 2
Insulation (Optional): One or more of the following or combinations, any thickness: Rmax "Therमारof Plus" or "Multi-Max", Atlas Roofing or "ACFoam II" or Johns Manville "ENRGY 2G".
Membrane: "EverGuard PVC", 40-100 mil (TPA).
10. **Deck:** Structural Cement Fiber Unit **Incline:** 1/4
Insulation: Polystyrene (1 to 2.5 lb per cu ft), 1 in. min.
Slip Sheet: Atlas Roofing "FR-10".
Membrane: "EverGuard PVC", 40-100 mil (TPA).
11. **Deck:** NC **Incline:** 2
Vapor Retarders (Not UL Classified): (1) 6 mil polyethylene (2) B F Goodrich "Permate", (3) Johns Manville "Asbestogard", (4) Fortifiber "Pyro-Kure 600" or (5) Fortifiber "Vaporstop 298".
Insulation: One or more of the following or combinations, any thickness: Rmax "Therमारof Plus" or "Multi-Max", Atlas Roofing "ACFoam II" or Johns Manville "ENRGY 2G".
Membrane: "EverGuard PVC", 40-100 mil (TPA).
12. **Deck:** NC **Incline:** 2-1/2
Vapor Barrier (Optional): Polyethylene or polypropylene, any thickness.
Insulation: Celotex "Hy-Therm AP", 2 in. thick max.
Membrane: "EverGuard PVC", 40-100 mil (TPA).
13. **Deck:** NC **Incline:** 3/4
Insulation: "GAFTEMP", wood fiber, glass fiber or perlite any thickness.
Membrane: "EverGuard TPO Black".
14. **Deck:** NC **Incline:** 1/2
Insulation: "GAFTEMP", Atlas Roofing "ACFoam II" or Firestone "ISO 95+GL" or "Energy Guard", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO", 45-80 mil.
15. **Deck:** NC **Incline:** 1
Insulation: "GAFTEMP", wood fiber, glass fiber or perlite any thickness.
Membrane: "EverGuard TPO-EX White".
16. **Deck:** C-15/32 **Incline:** Unlimited
Barrier Board: 1/4 in. G-P Gypsum Dens-Deck®, mechanically fastened.
Membrane: "EGSR", 40-100 mil, mechanically fastened.
17. **Deck:** C-15/32 **Incline:** 1/2
Slipsheet: Two or more layers Atlas Roofing "FR 50", mechanically fastened.
Membrane: "EverGuard EGSR", 40-100 mil, mechanically fastened.
18. **Deck:** NC **Incline:** 3/4
Insulation: Hunter Panels "H-Shield", "H-Shield-WF" or Johns Manville "ENRGY 2", any thickness.
Membrane: "EGTPOc", 45-60 mil.
19. **Deck:** C-15/32 **Incline:** Unlimited
Insulation (Optional): Atlas Roofing "ACFoam I", Apache Products "Apache White Line" or "Apache Pyrox", Hunter Panels "H-Shield", "H-Shield-WF" or Johns Manville "ENRGY 2", "ENRGY-IIA", "ENRGY-1G" or "Barrier Board Plus", RhoFlex "Isocyanurate GL, GW or HF", Rmax "Multi-Max", any thickness.
Barrier Board: 1/2 in. min gypsum board with staggered joints (6 in. offset).
Membrane: "EGTPOc", 45-60 mil.
20. **Deck:** NC **Incline:** 1-1/2

ROOF COVERING MATERIALS (TEVT)

Roofing Systems (TGFU)—Continued

- Insulation:** Hunter Panels "H-Shield", Atlas Roofing "ACFoam II", "BMCA EnergyGuard RA", wood fiber, glass fiber, or perlite, any thickness.
Membrane: "EverGuard TPO² Plus", 45 mil.
21. **Deck:** NC **Incline:** 1-1/2
Insulation: Polyisocyanurate, wood fiber, glass fiber or perlite, any thickness.
Base Sheet: One or more layers Type G1 or G2.
Membrane: "EverGuard TPO² Plus", 45 mil.
22. **Deck:** NC **Incline:** Unlimited
Membrane: "EverGuard TPO² Plus", 45 mil.
23. **Deck:** NC **Incline:** 2-1/2
Membrane: "EverGuard TPO", 45-60 mil.
24. **Deck:** NC **Incline:** 3/4
Insulation: Atlas Roofing "ACFoam II", "BMCA EnergyGuard RA", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO", 80 mil.
25. **Deck:** NC **Incline:** 1/2
Insulation: Atlas Roofing "ACFoam II", "GAFTEMP Isotherm RA", Firestone "ISO 95+GL", "EnergyGuard", wood fiber, glass fiber or perlite, any thickness.
Membrane: "EverGuard TPO² Plus", 45-60 mil, mechanically fastened. The side lap of the membrane secured with Firestone "QuickSeam Splice Tape" or "EverGuard TPO Cover Strip", max width of 7 in.
26. **Deck:** C-15/32 **Incline:** Unlimited
Insulation (Optional): Any UL Classified, any thickness.
Barrier Board: G-P Gypsum Dens-Deck®, 1/4 in. thick min or gypsum wallboard, 1/2 in. thick min.
Membrane: "Everguard PVC, 40-100 mil (TPA).
27. **Deck:** NC **Incline:** 1/2
Insulation (Optional): Atlas Roofing "ACFoam II", "BMCA EnergyGuard RA", Firestone Building Products "ISO 95+GL", "EnergyGuard", wood fiber, glass fiber or perlite, any thickness.
Membrane: One layer "EverGuard TPO FB 450 Ultra", "EverGuard TPO FB 600 Ultra" or "EverGuard TPO FB 800 Ultra", mechanically fastened
28. **Deck:** NC **Incline:** 1
Insulation: One of the following, any thickness:
 1. Apache Products "PYROX"
 2. Firestone Building Products "ISO 95+GL"
 3. Johns Manville "ENRGY 2"
 4. Rmax "Multi-Max FA"
 5. Atlas Roofing "ACFoam II"
 6. Atlas Roofing "ACFoam III"
 7. GAF Materials "BMCA EnergyGuard RA" or "EnergyGuard"
Membrane: "EverGuard PVC".
29. **Deck:** NC **Incline:** Unlimited
Insulation: Any UL Classified insulation, any thickness.
Barrier Board: 1/4 in. G-P Gypsum Dens Deck® or 1/2 in. gypsum board, with all joints staggered 6 in. from plywood joints.
Membrane: "EverGuard PVC".
30. **Deck:** C-15/32 **Incline:** 1/2
Slip Sheet: Two layers Atlas Roofing "FR 50".
Insulation: 1.5 in. min with all joints staggered 6 in. (min) from the plywood joints
 1. Apache Products "PYROX"
 2. Firestone Building Products "ISO 95+GL"
 3. Johns Manville "ENRGY 2"
 4. Rmax "Multi-Max FA"
 5. Atlas Roofing "ACFoam II"
 6. Atlas Roofing "ACFoam III"
 7. Johns Manville "ISO 1"
 8. GAF Materials "BMCA EnergyGuard RA" or "EnergyGuard"
Membrane: "EverGuard PVC".
31. **Deck:** C-15/32 **Incline:** 1/2
Slip Sheet: Two layers Atlas Roofing "FR 50".
Membrane: "EverGuard PVC".
32. **Deck:** C-15/32 **Incline:** 1/2
Slip Sheet: One layer Atlas Roofing "FR-10" or "FR 50".
Insulation: "ACFoam III", 1.5 in. min thickness with all joints staggered 6 in. min from the plywood joints.
Membrane: "EverGuard PVC".
33. Deleted
34. **Deck:** C-15/32 **Incline:** 1/4
Slip Sheet: Two layers Atlas Roofing "FR 50".

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Building Permit Application
City of Portland, Oregon - Bureau of Development Services

1900 SW 4th Avenue, Portland, Oregon 97201 • 503-823-7310 • TTY 503-823-6868 • www.portlandoregon.gov/bds

Type of work

New construction Addition/alteration/replacement

Demolition Other:

Category of construction

1 & 2 family dwelling Commercial/industrial Accessory building

Multifamily Master builder Other:

Job site information and location

Job no.: Job address: 9069 SW 35th

City/State/ZIP: Portland, OR

Suite/bldg./apt. no.: Project name:

Cross street/directions to job site:

Subdivision: Lot no. Tax map/parcel no.

Description of work

Overlay 1/4" Securrock 10/60 mil TPO
Mechanically fastened

Provide RS Permit no.

Property owner **Tenant**

Name: Brian Reho E-mail:

Address: 9069 SW 35th

City/State/ZIP: Portland, OR

Phone: 503-246-1737 FAX:

Owner installation: This installation is being made on property that I own, which is not intended for sale, lease, rent, or exchange.

Owner signature: Date:

Contractor

Business name: Centimark E-mail:

Address: 3033 NE 172 Place

City/State/ZIP: Portland, OR

Phone: 503-209-2463 FAX:

CCB lic. no. 69234

Authorized signature: [Signature]

Print name: Date:

Applicant **Contact Person**

Business name: Centimark

Contact name: Norman Clark

Address: same

City/State/ZIP:

Phone: FAX:

E-mail:

Authorized signature: [Signature]

Print name: Norman Clark Date: 1-8-13

This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.

Office Use Only

Permit no:

Date received:

By:

Required Data: One and Two Family Dwelling

Permit fees* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all equipment, materials, labor, overhead, and the profit for the work indicated on this application.

Valuation:	
Number of bedrooms:	
Number of bathrooms:	
Total number of floors:	
New dwelling area:	square feet
Garage/carport area:	square feet
Covered porch area:	square feet
Deck area:	square feet
Other structure area:	square feet

Required Data: Commercial Use

Permit fees* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all equipment, materials, labor, overhead, and the profit for the work indicated on this application.

Valuation:	<u>\$32,860</u>
Existing building area:	<u>5353</u> square feet
New building area:	square feet
Number of stories:	
Type of construction:	
Occupancy groups	
Existing:	
New:	

Notice

All contractors and subcontractors are required to be licensed with the Oregon Construction Contractors Board under ORS 701 and may be required to be licensed in the jurisdiction in which work is being performed.

Statement of Fact: I certify that the facts and information set forth in this application are true and complete to the best of my knowledge. I understand that any falsification, misrepresentation or omission of fact (whether intentional or not) in this application or any other required document, as well as any misleading statement or omission, may be cause for revocation of permit and/or certificate of occupancy, regardless of how or when discovered.

I acknowledge that work related to this Building Permit Application may be subject to regulations governing the handling, removal and/or disposal of asbestos and/or lead-based paint. _____ (initials)

Building Permit Fees*

Please refer to fee schedule

Fees due upon application	
Amount received	
Date received	

Residential Combo permit subcontractor submittals only can be faxed to 503-823-7693 or e-mailed to bdscombinspec@portlandoregon.gov.