



Envelope Compliance Certificate

90.1 (2007) Standard

Section 1: Project Information

Project Type: **Addition**

Project Title : Existing TSL Building Service Addition

Construction Site:
191 Riverside Street
Portland, ME

Owner/Agent:

Designer/Contractor:
Nudell Architects

Section 2: General Information

Building Location (for weather data): **Portland, Maine**
Climate Zone: **6a**
Building Type for Envelope Requirements: **Non-Residential**
Vertical Glazing / Wall Area Pct.: **2%**

Activity Type(s)

Automotive:Service/Repair

Floor Area

11792

Section 3: Requirements Checklist

Envelope PASSES: Design 9% better than code.

Climate-Specific Requirements:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor ^(a)
Exterior Wall 1: Other Steel Framed Wall (b)	5650	---	---	0.040	0.064
Window 1: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 2: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 3: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 4: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 5: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 6: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 7: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 8: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 9: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Window 10: Metal Frame with Thermal Break:Double Pane with Low-E, Tinted, SHGC 0.23	14	---	---	0.450	0.550
Door 1: Insulated Metal, Swinging	21	---	---	0.090	0.700
Door 2: Insulated Metal, Swinging	21	---	---	0.090	0.700
Door 3: Insulated Metal, Swinging	21	---	---	0.090	0.700
Door 4: Insulated Metal, Swinging	21	---	---	0.090	0.700

Door 5: Insulated Metal, Non-Swinging	168	---	---	0.058	0.500
Door 6: Insulated Metal, Non-Swinging	240	---	---	0.058	0.500
Exterior Wall 2: Other Steel Framed Wall (b)	1104	---	---	0.040	0.064
Exterior Wall 3: Other Steel Framed Wall (b)	1104	---	---	0.040	0.064
Door 7: Insulated Metal, Non-Swinging	216	---	---	0.058	0.500
Roof 1: Other Insulation Above Deck (b)	11792	---	---	0.050	0.048

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

(b) 'Other' components require supporting documentation for proposed U-factors.

Insulation:

- 1. Open-blown or poured loose-fill insulation has not been used in attic roof spaces with ceiling slope greater than 3 in 12.
- 2. Wherever vents occur, they are baffled to deflect incoming air above the insulation.
- 3. Recessed lights, equipment and ducts are not affecting insulation thickness.
- 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- 5. All exterior insulation is covered with protective material.
- 6. Cargo and loading dock doors are equipped with weather seals.

Fenestration and Doors:

- 7. Windows and skylights are labeled and certified by the manufacturer for U-factor and SHGC.
- 8. Fixed windows and skylights unlabeled by the manufacturer have been labeled using the default U-factor and SHGC.
- 9. Other unlabeled vertical fenestration, operable and fixed, that are unlabeled by the manufacturer have been site labeled using the default U-factor and SHGC. No credit has been given for metal frames with thermal breaks, low-emissivity coatings, gas fillings, or insulating spacers.

Air Leakage and Component Certification:

- 10. All joints and penetrations are caulked, gasketed, weather-stripped, or otherwise sealed.
- 11. Windows, doors, and skylights certified as meeting leakage requirements.
- 12. Component R-values & U-factors labeled as certified.
- 13. 'Other' components have supporting documentation for proposed U-Factors.
- 14. Building entrances that separate conditioned space from the exterior have an enclosed vestibule with all doors equipped with self-closing devices. Interior and exterior doors in the closed position are no less than 7 ft apart. Conditioned vestibules comply with the requirements for a conditioned space. Unconditioned vestibules comply with the requirements of a semiheated space.

Exceptions:

- Building entrances with revolving doors.
- Doors not intended to be used as a building entrance.
- Doors opening directly from a dwelling unit.
- Doors that open directly from a space less than 3000 sq. ft. in area and is separate from the building entrance.

Section 4: Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 3.9.0 and to comply with the mandatory requirements in the Requirements Checklist.

HOWARD NUDELL

Name - Title

3/19/2012

Date

Project Notes:

JHN# 2008-279.01

