ENVELOPE COMPLIANCE SUMMARY

PRCNC20240424

2021 WSEC Compliance Forms for Commercial Buildings including Group R2, R3 & R4 over 3 stories and all R1

Project & Applicant Information	**Project Title**	Wesley Bradley Park Phase 2 - Care Center - 2021 WSEC	For Building Department Use: **Date: Dec 03, 2024**
	Project Address	707 39th Ave. SE Puyallup, WA 98374	City of Puyallup Building ACCEPTED JMontgomery 05/20/2024 7:10:14 AM FULL SIZED LEDGIBLE COLOR REPORT IS REQUIRED TO BE PROVIDED BY THE PERMITTEE ON SITE FOR ALL INSPECTIONS
	Applicant Name	Jill Krance	
	Applicant Phone	952-252-4822	
	Applicant Email	jill.krance@INSITEARCHITECT.COM	

For questions about this report, contact WSEC Commercial Technical Support at 360-539-5300 or via email at com.techsupport@waenergycodes.com

General Occupancy	All Commercial	**General Building Use Type(s)**	Healthcare, Senior Care Community	**Building Cond. Floor Area**	37,315
Project Scope	New Building	**Space Conditioning Categories**	Fully Conditioned	**Project Cond. Floor Area**	37,315
				Floors Above Grade	1
				Compliance Method	General Prescriptive
Envelope Project Description					

Envelope Compliance Scope and Method	**Scope**	**Space Conditioning Category**	**Compliance Method**	**WWR/SRR per Category**	**UA Calculation Adjustment**	**Fenestration Alternates**	**Compliance Verification**
	New Building	Fully Conditioned	Component performance	11.14% / 0%	Enhanced envelope performance - 15% lower UA than WSEC target	No alternates selected	**COMPLIES**

Additional Energy Efficiency (AEC) Measures Included	Enhanced envelope performance - 15% lower UA	**Load Management (LDM) Measures Included**	No envelope or miscellaneous load management measures included in project
Air Barrier Testing	Standard building thermal envelope test	**Air Barrier Comments**	

Project Title	**Wesley Bradley Park Phase 2 - Care Center - 2021 WSEC**	**Date**	**Dec 03, 2024**

Scope & Space Conditioning	**NEW BUILDING - FULLY CONDITIONED**			**Compliance Verification**	**COMPLIES**
Window-to-wall Ratio	11.14%	**Skylight-to-roof-ratio**	0%	**Vertical Fenestration Alternate**	No alternates selected

Opaque Envelope Assemblies

				Insulation R-Values				
Roof/Ceiling	**Location in Documents**	**Assembly ID**	**Assembly Location**	**Cavity**	**Continuous (% penetration)**	**2nd Layer (MB Roof)**	**U-Factor**	**Net Area (SF)**
Insulation entirely above deck	SHEET A5.4	pool roof	Exterior		R-38 (< 0.04%)		U-0.023	2,638
	Sloped Roof & Tapered Insulation: Sloped with tapered insulation			U-Factor Source: WSEC Appendix A Default				
	U-Factor Source Description:							
Attic and other	SHEET A5.1-A5.5	wood roof truss	Exterior	R-49	(< 0.04%)		U-0.020	7,992
	U-Factor Source: ASHRAE 90.1 Appendix A			U-Factor Source Description:				
	Roof Framing Type: Advanced			Roof Framing Depth (Inches): 24"				
	Roof Framing Spacing (OC): 24" o.c.			Roof Framing Material: Wood-framed				
	Ceiling/Attic Venting: Vented							
Insulation above & below deck	SHEET A5.1-A5.5	flat wood trusses	Exterior	R-49	R-30 (< 0.04%)		U-0.020	25,745
	U-Factor Source: WSEC Appendix A Default			U-Factor Source Description:				
	Roof Framing Type: Advanced			Roof Framing Depth (Inches): 24"				
	Roof Framing Spacing (OC): 24" o.c.			Roof Framing Material: Wood-framed				
	Ceiling/Attic Venting: Vented							
Walls	**Location in Documents**	**Assembly ID**	**Assembly Location**	**Cavity**	**Continuous (% penetration)**	**Insulated Wall Furring**	**U-Factor**	**Net Area (SF)**
Wood-framed and other - Commercial	SHEET A1.0N, A1.1N, A1.1S	ABOVE GRADE WALLS	Exterior	R-21	R-12 (< 0.04%)		U-0.032	18,735

	Which code target does wall comply with?: R-20 Cavity + R-3.8 CI			U-Factor Source: ASHRAE 90.1 Appendix A				
	U-Factor Source Description:			Wall Framing Type: Standard				
	Framing Depth: 2x6			Other Framing Depth:				
	Framing Spacing (OC):							
Mass (precast concrete) - Commercial	SHEET A1.0N, A1.1N, A1.1S	BELOW GRADE WALLS	Wall is below grade		R-12 (< 0.04%)	No	U-0.057	2,559
	Does assembly include insulated wall furring?: No			Other Framing Depth:				
	Framing Spacing (OC):			U-Factor Source: ASHRAE 90.1 Appendix A				
	U-Factor Source Description:							
Floors and Edges	**Location in Documents**	**Assembly ID**	**Assembly Location**	**Cavity**	**Continuous (% penetration)**		**U-Factor**	**Net Area (SF)**
Wood-framing/joist	SHEET A5.1-A5.5	WOOD TRUSSES	Exterior	R-30	(< 0.04%)		U-0.028	17,017
	U-Factor Source: ASHRAE 90.1 Appendix A			U-Factor Source Description:				
	Floor Framing Type (Joist, Post & Beam): Wood Joist			Framing Depth: Other Framing Depth				
	Other Framing Depth: 24" DEEP TRUSS			Framing Spacing (OC): 24 O.C.				
Slab-on-grade Floors	**Location in Documents**	**Assembly ID**	**Assembly Location**	**Slab Edge**	**Under Slab**		**F-Factor**	**Perimeter Length (SF)**
Unheated slab	SHEET A1.1S	UNHEATED SLAB	At grade level	R-10	R-0		F-0.54	492
	Slab Insulation Method: 2 ft vertical (from top of slab downward)			F-Factor Source: ASHRAE 90.1 Appendix A				
	F-Factor Source Description:							
Unheated slab	SHEET A1.0N	UNHEATED SLAB	Floor is below grade	R-10	R-0		F-0.52	371
	Slab Insulation Method: 2 ft vertical (from top of slab downward)			F-Factor Source: ASHRAE 90.1 Appendix A				
	F-Factor Source Description:							
Fenestration & Opaque Door Assemblies								
				Insulation R-Values				
Opaque Doors	**Location in Documents**	**Assembly ID**	**Assembly Location**	**Door Insulation**			**U-Factor**	**Rough Opening (SF)**
Swinging	SHEET A1.0N	OPAQUE DOOR	Exterior				U-0.37	42
	What percentage of this opaque door is glazing?: 50% or less			U-Factor Source:				
	U-Factor Source Description:			Is this a public entrance door?: No				
Vertical Fenestration	**Location in Documents**	**Assembly ID**	**Assembly Location**		**Shading (PF)**	**Fenestration SHGC**	**Fenestration U-Factor**	**Rough Opening (SF)**
Fixed - All other types	SHEET A1.0N, A1.1N, A1.1S. A11.1	FIXED WINDOWS	Exterior		PF < 0.2	SHGC-0.38	U-0.26	681
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
Operable - All other types	SHEET A1.0N, A1.1N, A1.1S. A11.1	windows	Exterior		PF < 0.2	SHGC-0.33	U-0.26	1,486
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
Glazed Doors	**Location in Documents**	**Assembly ID**	**Assembly Location**		**Shading (PF)**	**Fenestration SHGC**	**Fenestration U-Factor**	**Rough Opening (SF)**
Swinging entrance door	SHEET A1.0N, A1.1N, A1.1S. A11.1	GLASS DOOR	Exterior		PF < 0.2	SHGC-0.33	U-0.60	187
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
	Is this a public entrance door?: Yes			Door enclosed within a vestibule?: Yes				

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U x A Calculation	NEW BUILDING - FULLY CONDITIONED				COMPLIES		
Opaque Envelope Assemblies		**PROPOSED**			**TARGET**		
Roof/Ceiling	**Assembly ID**	**Roof/Ceiling Assembly U-Factor**	**Net Area (SF)**	**U x A**	**Roof/Ceiling Assembly U-Factor**	**Net Area (SF)**	**U x A**
Insulation entirely above deck	pool roof	0.023	2,638.0	60.7	0.027	2,638.0 (1)	71.2
Attic and other	wood roof truss	0.020	7,992.0	159.8	0.021	7,992.0 (1)	167.8
Insulation above & below deck	flat wood trusses	0.020	25,745.0	514.9	0.021	25,745.0 (1)	540.6
Walls	**Assembly ID**	**Wall Assembly U-factor**	**Net Area (SF)**	**U x A**	**Wall Assembly U-factor**	**Net Area (SF)**	**U x A**
Wood-framed and other - Commercial	ABOVE GRADE WALLS	0.032	18,735.0	599.5	0.051	18,735.0 (1)	955.5
Mass (precast concrete) - Commercial	BELOW GRADE WALLS	0.057	2,559.0	145.9	0.104	2,559.0 (1)	266.1
Floors and Edges	**Assembly ID**	**Floor Assembly U-Factor**	**Net Area (SF)**	**U x A**	**Floor Assembly U-Factor**	**Net Area (SF)**	**U x A**
Wood-framing/joist	WOOD TRUSSES	0.028	17,017.0	476.5	0.029	17,017.0 (1)	493.5
Slab on Grade Floors		**PROPOSED**			**TARGET**		
Slab-on-grade Floors	**Assembly ID**	**F-Factor**	**Perimeter Length (LF)**	**U x A**	**F-Factor**	**Perimeter Length (LF)**	**U x A**
Unheated slab	UNHEATED SLAB	0.54	492.0	265.7	0.54	492.0 (1)	265.7
Unheated slab	UNHEATED SLAB	0.52	371.0	192.9	0.54	371.0 (1)	200.3
Fenestration Assemblies		**PROPOSED**			**TARGET**		
Opaque Doors	**Assembly ID**	**Door Assembly U-Factor**	**Assembly Rough Opening (SF)**	**U x A**	**Door Assembly U-Factor**	**Assembly Rough Opening (SF)**	**U x A**
Swinging	OPAQUE DOOR	0.37	42.0	15.5	0.37	42.0 (1)	15.5
Vertical Fenestration	**Assembly ID**	**Fenestration U-Factor**	**Assembly Rough Opening (SF)**	**U x A**	**Fenestration U-Factor**	**Assembly Rough Opening (SF)**	**U x A**
Fixed - All other types	FIXED WINDOWS	0.26	681.0	177.1	0.26	681.0 (1)	177.1
Operable - All other types	windows	0.26	1,486.0	386.4	0.28	1,486.0 (1)	416.1
Glazed Doors	**Assembly ID**	**Glazed Door U-Factor**	**Assembly Rough Opening (SF)**	**U x A**	**Glazed Door U-Factor**	**Assembly Rough Opening (SF)**	**U x A**
Swinging entrance door	GLASS DOOR	0.60	187.2	112.3	0.60	187.2 (1)	112.3

	Proposed Area	Proposed UxA	Target Area	Target UxA	Target UxA with Adjustment

Project Totals	**77,945**	**3,107**	**77,945**	**3,682**	**3,130**

NOTE: Enhanced envelope credit applied - 0.85 multiplier has been applied to the Total Target UxA for exterior areas only. Refer to Target UxA with Adjustment.

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SHGC x A Calculation	NEW BUILDING - FULLY CONDITIONED	COMPLIES

Fenestration Assemblies			PROPOSED			TARGET		
Glazed Doors	Assembly ID	PF	Glazed Door SHGC	Assembly Rough Opening (SF)	SHGC x A	Glazed Door SHGC	Assembly Rough Opening (SF)	SHGC x A
Swinging entrance door	GLASS DOOR	PF < 0.2	0.33	187.2	61.8	0.33	187.2 (1)	61.8
Vertical Fenestration	Assembly ID	PF	Fenestration SHGC	Assembly Rough Opening (SF)	SHGC x A	Fenestration SHGC	Assembly Rough Opening (SF)	SHGC x A
Fixed - All other types	FIXED WINDOWS	PF < 0.2	0.38	681.0	258.8	0.38	681.0 (1)	258.8
Operable - All other types	windows	PF < 0.2	0.33	1,486.0	490.4	0.33	1,486.0 (1)	490.4

	Proposed Area	Proposed SHGC x A	Target Area	Target SHGC x A
Project Totals	2,354	811	2,354	811