

ENVELOPE COMPLIANCE SUMMARY

City of Puyallup  
Development & Permitting Services  
ISSUED PERMIT

Building

Planning

Engineering

Public Works

Fire

Traffic

PRCA20220091

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Project & Applicant Information

Project Title

Larson Jeep - 2018 WSEC

Project Address

300 River Rd  
Puyallup, WA 98371

Applicant Name

Zachary Dickson

Applicant Phone

360-456-4956

Applicant Email

zmd@sunsetair.com


For Building Department Use:

THE APPROVED CONSTRUCTION PLANS, DOCUMENTS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

FULL SIZED LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITEE ON SITE FOR INSPECTION

City of Puyallup  
Building  
ACCEPTED

Photography  
04/12/2022  
3:33:54 PM



Date:

Jan 20, 2022

Approval of submitted plans is not an approval of omissions or oversights by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

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	Retail, Automobile Dealership	Building Cond. Floor Area	20,491
Project Scope	New Building	Space Conditioning Categories	Fully Conditioned	Project Cond. Floor Area	20,491
				Floors Above Grade	1
				Compliance Method	Compliance Method 1 - General

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
	Alteration			{{wwr_srr_scc_semi_heated}}	No Calculation Adjustments allowed	No alternates selected	RUN COMPLIANCE
	New Building	Fully Conditioned	Component performance	29.67% / 0%	None selected	No alternates selected	COMPLIES
	Alteration			29.67% / 0%	No Calculation Adjustments allowed	No alternates selected	RUN COMPLIANCE

Air Barrier Testing	Air barrier testing included in project scope	Air Barrier Comments
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Project Title	Larson Jeep - 2018 WSEC	Date	Jan 20, 2022		
Scope & Space Conditioning	-	Compliance Verification	RUN COMPLIANCE		
Window-to-wall Ratio	{{wwr_scc_semi_heated}}	Skylight-to-roof-ratio	{{srr_scc_semi_heated}}	Vertical Fenestration Alternate	No alternates selected

Project Title	Larson Jeep - 2018 WSEC	Date	Jan 20, 2022		
Scope & Space Conditioning	NEW BUILDING - FULLY CONDITIONED	Compliance Verification	COMPLIES		
Window-to-wall Ratio	29.67%	Skylight-to-roof-ratio	0%	Vertical Fenestration Alternate	No alternates selected

Opaque Envelope Assemblies

Roof/Ceiling

Location in Documents

Assembly ID

Assembly Location

Insulation R-Values

Cavity

Continuous (% penetration)

2nd Layer (MB Roof)

U-Factor

Net Area (SF)

Insulation entirely above deck

A4.1

NA

Exterior

R-38 (< 0.04%)

U-0.027

11,415

U-Factor Source: WSEC Appendix A

U-Factor Source Description:

Is this assembly exterior or interior?: Exterior

Walls

Location in Documents

Assembly ID

Assembly Location

Cavity

Continuous (% penetration)

Insulated Wall Furring

U-Factor

Net Area (SF)

Wood-framed and other - Commercial

A2.2, A2.3

1,2,2A

Exterior

R-30

R-10 (< 0.04%)

U-0.027

4,840

Which insulation code target does wall comply with?: Wall Assembly U-factor

U-Factor Source: WSEC Appendix A

U-Factor Source Description:

Framing Depth: 2x8

Framing Spacing: 16

Is this assembly exterior or interior?: Exterior

Slab-on-grade Floors

Location in Documents

Assembly ID

Assembly Location

Slab Edge

Under Slab

F-Factor

Perimeter Length (SF)

Unheated slab

A9.1

NA

At grade level

R-10

R-0

F-0.54

447

Slab Insulation Method: Uninsulated slab

F-Factor Source: WSEC Appendix A

F-Factor Source Description:

Fenestration & Opaque Door Assemblies

Opaque Doors

Location in Documents

Assembly ID

Assembly Location

Insulation R-Values

Door Insulation

U-Factor

Rough Opening (SF)

Swinging	A2.2, A6.1	117, 121, 122D	Exterior			U-0.37	85	
	What percentage of this opaque door is glazing?: 50% or less			U-Factor Source: WSEC Appendix A				
	U-Factor Source Description:			Is this assembly exterior or interior?: Exterior				
	Is this a public entrance door?: No							
Vertical Fenestration	Location in Documents	Assembly ID	Assembly Location	Orientation	Shading (PF)	Fenestration SHGC	Fenestration U-Factor	Rough Opening (SF)
Curtain wall (external non-load bearing wall)	A2.2, A6.1	North curtain wall	Exterior	North Facing	PF < 0.2	SHGC-0.45	U-0.42	928
	U-Factor & SHGC Source:			U-Factor Source Description:				
	Is this assembly exterior or interior?: Exterior							
Curtain wall (external non-load bearing wall)	A2.2, A6.1	West curtain wall	Exterior	South/East/West Facing	PF < 0.2	SHGC-0.45	U-0.42	221
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
	Is this assembly exterior or interior?: Exterior							
All other fenestration types	A2.2, A6.1	North windows	Exterior	North Facing	PF < 0.2	SHGC-0.45	U-0.42	408
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
	Is this assembly exterior or interior?: Exterior							
All other fenestration types	A2.2, A6.1	Non-north windows	Exterior	South/East/West Facing	PF < 0.2	SHGC-0.45	U-0.42	176
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
	Is this assembly exterior or interior?: Exterior							
Glazed Doors	Location in Documents	Assembly ID	Assembly Location	Orientation	Shading (PF)	Fenestration SHGC	Fenestration U-Factor	Rough Opening (SF)
Swinging entrance door	A2.2, A6.1	101	Exterior	North Facing	PF < 0.2	SHGC-0.45	U-0.5	48
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
	Is this assembly exterior or interior?: Exterior			Is this a public entrance door?: Yes				
	Door enclosed within a vestibule?: No vestibule							
Swinging entrance door	A2.2, A6.1	100, 105A, 105B	Exterior	South/East/West Facing	PF < 0.2	SHGC-0.45	U-0.5	192
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
	Is this assembly exterior or interior?: Exterior			Is this a public entrance door?: Yes				
	Door enclosed within a vestibule?: No vestibule							
Tilt-up and sectional glazed doors	A2.2, A6.1	122A, 122B, 122C	Exterior	South/East/West Facing	PF < 0.2	SHGC-0.45	U-0.4	380
	U-Factor & SHGC Source: NFRC Rating			U-Factor Source Description:				
	Is this assembly exterior or interior?: Exterior							

Project Title	Larson Jeep - 2018 WSEC						Date	Jan 20, 2022
Scope & Space Conditioning	-			Compliance Verification		RUN COMPLIANCE		
Window-to-wall Ratio	29.67%	Skylight-to-roof-ratio	0%	Vertical Fenestration Alternate		No alternates selected		

Project Title	Larson Jeep - 2018 WSEC				PRCA20220091	Date	Jan 20, 2022	
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	NA	0.027	11,415.0	308.2	0.027	11,415.0 (1)	308.2	
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	1,2,2A	0.027	4,840.0	130.7	0.054	4,840.0 (1)	261.4	
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	NA	0.54	447.0	241.4	0.54	447.0 (1)	241.4	
Fenestration and Opaque Door Assemblies		PROPOSED			TARGET			
Opaque Doors	Assembly ID	Door Assembly U-Factor	Rough Opening (SF)	U x A	Door Assembly U-Factor	Rough Opening (SF)	U x A	
Swinging	117, 121, 122D	0.37	85.0	31.5	0.37	85.0 (1)	31.5	
Vertical Fenestration	Assembly ID	Fenestration Assembly U-Factor	Rough Opening (SF)	U x A	Fenestration Assembly U-Factor	Rough Opening (SF)	U x A	
Curtain wall (external non-load bearing wall)	North curtain wall	0.42	928.0	389.8	0.38	928.0 (1)	352.6	
Curtain wall (external non-load bearing wall)	West curtain wall	0.42	221.0	92.8	0.38	221.0 (1)	84.0	
All other fenestration types	North windows	0.42	408.0	171.4	0.30	408.0 (1)	122.4	
All other fenestration types	Non-north windows	0.42	176.0	73.9	0.30	176.0 (1)	52.8	
Glazed Doors	Assembly ID	Door Assembly U-Factor	Rough Opening (SF)	U x A	Door Assembly U-Factor	Rough Opening (SF)	U x A	
Swinging entrance door	101	0.5	48.0	24.0	0.60	48.0 (1)	28.8	
Swinging entrance door	100, 105A, 105B	0.5	192.0	96.0	0.60	192.0 (1)	115.2	
Tilt-up and sectional glazed doors	122A, 122B, 122C	0.4	380.0	152.0	0.40	380.0 (1)	152.0	
	Proposed Area	Proposed UxA		Target Area		Target UxA		
Project Totals	19,140	1,712		19,140		1,750		

Project Title	Larson Jeep - 2018 WSEC					PRCA20220091	Date	Jan 20, 2022	
SHGC x A Calculation		NEW BUILDING - FULLY CONDITIONED					COMPLIES		
Fenestration and Opaque Door Assemblies			PROPOSED			TARGET			
Glazed Doors - North Facing	Assembly ID	PF	Glazed Door SHGC	Rough Opening (SF)	SHGC x A	Glazed Door SHGC	Rough Opening (SF)	SHGC x A	
Swinging entrance door	101	PF < 0.2	0.45	48.0	21.6	0.51	48.0 (1)	24.5	
Glazed Doors - South/East/West Facing	Assembly ID	PF	Glazed Door SHGC	Rough Opening (SF)	SHGC x A	Glazed Door SHGC	Rough Opening (SF)	SHGC x A	
Swinging entrance door	100, 105A, 105B	PF < 0.2	0.45	192.0	86.4	0.38	192.0 (1)	73.0	
Tilt-up and sectional glazed doors	122A, 122B, 122C	PF < 0.2	0.45	380.0	171.0	0.38	380.0 (1)	144.4	
Vertical Fenestration - North Facing	Assembly ID	PF	Fenestration SHGC	Rough Opening (SF)	SHGC x A	Fenestration SHGC	Rough Opening (SF)	SHGC x A	
Curtain wall (external non-load bearing wall)	North curtain wall	PF < 0.2	0.45	928.0	417.6	0.51	928.0 (1)	473.3	
All other fenestration types	North windows	PF < 0.2	0.45	408.0	183.6	0.51	408.0 (1)	208.1	
Vertical Fenestration - South/East/West Facing	Assembly ID	PF	Fenestration SHGC	Rough Opening (SF)	SHGC x A	Fenestration SHGC	Rough Opening (SF)	SHGC x A	
Curtain wall (external non-load bearing wall)	West curtain wall	PF < 0.2	0.45	221.0	99.5	0.38	221.0 (1)	84.0	
All other fenestration types	Non-north windows	PF < 0.2	0.45	176.0	79.2	0.38	176.0 (1)	66.9	
	Proposed Area	Proposed SHGC x A			Target Area	Target SHGC x A			
Project Totals	2,353	1,059			2,353	1,074			

# Building Envelope Requirements List, pg 1 of 8

2018 WSEC Requirements for Commercial Buildings including Group R2, R3 & R4 over 3 stories & all R1 -- Administered by ©2022 NEEA, All rights reserved

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Project:  
Larson Jeep - 2018 WSEC  
300 River Rd  
Puyallup, WA 98371

PRCA20220091

Date: 2022-01-20

Applies	Code Section	Component	Compliance Information Required In Permit Documentation	Location in Documents	Building Department Notes
<b>SCOPE</b>					
	C103.1	Construction documents - General	For a tenant space (first build-out) project, indicate if there is no envelope scope included in the project.		
	C103.1	Construction documents - General	For an alteration project, indicate if there is no envelope scope included in the project.		
	C402.1.1.1	Low energy spaces	Identify low energy spaces on plans; include calculations if applicable that demonstrate eligibility for envelope provisions exemption		
	C402.1.1.2	Semi-heated spaces	Identify semi-heated spaces on plans, include mechanical heating system type and calculations that demonstrate eligibility for wall insulation exemption		
	C402.1.1.3	Greenhouse spaces	Identify greenhouse spaces on plans; include non-opaque assembly information and mechanical heating system type if applicable, that demonstrates eligibility for envelope provisions exemption		
	C402.1.2	Equipment buildings	Provide building sf area, average wall and roof U-factor, installed electrical and mechanical equipment information and heating setpoint restriction, that demonstrates eligibility for envelope provisions exemption		
	C402.1.2.1	Standalone elevator hoistways	Provide building area, average wall and roof U-factor, installed mechanical equipment information and heating setpoint restriction, that demonstrates eligibility for envelope provisions exemption	N/A	
	C410.2	Walk-in cooler and freezer spaces	Identify walk-in cooler and freezer spaces on plans; including site assembled, site constructed and prefabricated units		
			Identify warehouse cooler and freezer spaces on plans		
	C101.4.1	Mixed residential & commercial building	Identify spaces with different occupancy requirements on plans		
	C503.2	Change of space conditioning alteration	Identify on plans existing unconditioned spaces changing to semi-heated or conditioned space, and existing semi-heated spaces changing to conditioned space; provide calculations for existing and final level of space conditioning		
	C505.1	Change of occupancy alteration	Identify on plans existing F, S and U-occupancy spaces undergoing a change in occupancy and final occupancy type		

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			Group R spaces permitted before July 1, 2002 that are undergoing a change to a commercial occupancy shall be identified on plans		PRCA20220091
			Commercial (non-Group R) occupancy spaces undergoing a change to Group R shall be identified on plans		
<b>ENVELOPE PROVISIONS</b>					
	C103.2 C103.6.3 C402.1.3 C402.1.4 C402.1.5	Compliance documentation	Indicate envelope thermal performance compliance path (prescriptive or component performance) and provide WSEC envelope compliance reports	YES	
			If complying via component performance, demonstrate that the Proposed Total UA is equal to or less than the Allowable Total UA		
			If complying via total building performance, provide a list of all proposed envelope component types, areas and U-values		
	C303.1.1 C303.1.2	Insulation identification	Indicate identification mark shall be applied to all insulation materials and insulation installed such that the mark is readily observable during inspection	A5.1	
	C303.1.3 C402.4.3	Fenestration product rating	Indicate fenestration products shall be labeled with NFRC U-factor, SHGC, VT and leakage rating, or if products do not have an NFRC rating, indicate applicable Chapter 3 default values	A6.1	
	C303.1.1 C402.2.1	General insulation installation	Indicate installation methods, thicknesses, densities and clearances to achieve the intended R-value of all insulation materials	A5.1	
			Where two or more layers of rigid insulation will be used, indicate that edge joints between layers are staggered, or exception taken		
	C103.2 C402.2.1	Roof assembly insulation	Indicate R-value(s) of cavity/continuous insulation on roof sections		
			Indicate framing materials on roof sections	A4.1	
			Indicate method of framing for ceilings below vented attics and vaulted ceilings per A102.2 (std, adv)		
			Provide area weighted average U-factor calculation for insulation whose thickness varies by 1 inch or less	A5.1	
			Indicate effective U-factors of tapered insulation entirely above deck per A102.2.6; include roof configuration and slope, maximum R-value at peak and minimum R-value at low point for all roof surfaces	A5.1	
			Indicate R-values for thermal spacers and each insulation layer, and liner system (LS) method for metal building roofs	N/A	

# Building Envelope Requirements List, pg 3 of 8

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	C402.2.1.1	Skylight curb insulation	Indicate skylight curb insulation R-value on roof section, if not included in skylight NFRC rating	PRCA20220091	
	C402.2.1.2	Rooftop HVAC equipment curbs	Indicate rooftop HVAC equipment curb insulation R-value on roof section	A4.1	
	C103.2 C402.2.3 C402.2.4 C303.2.1	Above/below grade wall insulation	Indicate R-value(s) of cavity/continuous insulation on wall sections	A5.1	
			Indicate framing materials on wall sections		
			Indicate method of framing for wood construction per A103.2 (std, int, adv)		
			Indicate material density category, wall weight and heat capacity for qualifying mass walls		
			For qualifying ASTM C90 masonry walls, indicate loose-fill core insulation material and percentage of cores filled including grouted cores, bond beams, vertical fills, headers and any other grouted cores		
			Indicate method of protection of exposed exterior basement/crawlspace wall insulation		
	C103.2 C402.4.4	Opaque doors	Indicate rated U-factor or R-value (non-swinging) on wall sections or in door schedules - applies to doors with less than 50% glazed area	A6.1	
	C402.4.4	Garage doors	Indicate rated U-factor for sectional and tilt-up garage doors on wall sections or in door schedules - applies to garage doors with less than 14% glazed area; all other garage doors shall comply as opaque doors	A6.1	
	C402.2.5	Floor over outdoor or unconditioned space insulation	Indicate R-value(s) of cavity/continuous insulation on floor sections		
			Indicate framing material on floor sections		
			Indicate material density category and weight of qualifying mass floors		
	C402.2.6 C303.2.1	Slab-on-grade floor insulation	Indicate R-value of continuous insulation on wall section or foundation detail	Detail 5A/A9.1	
			Indicate insulation extends down vertically and/or horizontally the required distance from top of slab	Detail 5A/A9.1	
			Indicate method of protection of exposed exterior slab edge insulation		
			Indicate R-value of continuous insulation on wall section or foundation detail		
			Indicate insulation extends down vertically from top of slab and then horizontally under the entire slab		
			Indicate method of protection of exposed exterior slab edge insulation		

# Building Envelope Requirements List, pg 4 of 8

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	C402.2.8	Radiant heating system insulation	Indicate insulation R-value behind radiant panels, U-bend/headers and bottom surface of radiantly heated floors (other than heated slab-on-grade)	N/A	PRCA20220091
	C402.4.1 C502.2.1	Vertical fenestration maximum area	Provide total gross sf area of all above grade wall elements and rough opening sf area of all vertical fenestration elements in the building, for the prescriptive max allowed window-to-wall ratio (WWR) calculation in the WSEC envelope compliance reports; demonstrate compliance for each space conditioning category separately	See UA Calculations	
	C402.4.1.1 C405.2.4.1 C502.2.1	Increased prescriptive maximum vertical fenestration area with daylight zones and controls	Provide calculations showing that not less than 50% of the total conditioned floor area is within a daylight zone; demonstrate compliance for each space conditioning category separately		
			Indicate in envelope plans that all lighting fixtures located within daylight zones shall be provided with daylight responsive controls per Section C405.2.4.1		
			Indicate that the VT of vertical fenestration is at least 1.1 times the rated SHGC or no less than VT-0.55, whichever is greater		
	C402.4.1.3 C502.2.1	Increased prescriptive maximum vertical fenestration area with high-performance glazing	Indicate high performance U-factors and SHGC values in fenestration schedules		
			Indicate if an area-weighted U-factor is used for multiple fenestration elements within the same fenestration category per Table C402.4; provide area-weighted U-factor calculation		
	C402.1.5	Wall/vertical fenestration target area adjustment	Indicate if component performance with target area adjustment will be used to account for vertical fenestration area in excess of the prescriptive maximum allowed; include target area adjustment in WSEC envelope compliance reports		
	C402.4.1 C502.2.2	Skylight maximum area	Provide total gross sf area of roof, and rough opening sf area of all skylight elements in the building, for the prescriptive max allowed skylight-to-roof ratio (SRR) calculation in the WSEC envelope compliance reports; demonstrate compliance for each space conditioning category separately		
	C402.1.5.2	Roof/skylight target area adjustment	Indicate if component performance with target area adjustment will be used to account for skylight area in excess of the prescriptive maximum allowed; include target area adjustment in WSEC envelope compliance reports		
	C402.4 C402.4.3.4 C303.1.3	U-factors, SHGC and VT for all fenestration assemblies	Indicate U-factors, SHGC and VT values in fenestration schedules	A6.1	



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			Indicate if an area-weighted U-factor is used for multiple fenestration elements within the same fenestration category per Table C402.4; provide area-weighted U-factor calculation	PRCA20220091	
			Indicate if values are NFRC or default; if default then specify frame type, glazing layers, gap width, low-e coatings, gas-fill		
	C402.4.3	Permanent shading devices	For each group of windows with similar orientation and overhang or permanent projection geometry, provide projection factor calculations (Equation C4-6) for north and non-north orientations	n?a	
	C402.4.2	Single story spaces requiring skylights	Provide list of enclosed, single story spaces that exceed 2,500 sf; for each space identify the space use, floor area, floor to ceiling height, whether skylights are installed, and any exception taken		
			Provide calculations for percentage of conditioned floor area located within a toplit daylight zone; if exception is taken for spaces where the total floor area minus the sidelit zone area is less than 2,500 sf, include percentage of conditioned floor area located within a sidelit daylight zone in calculations		
			Provide calculations for percentage of skylight area in each space over 2,500 SF, OR		
			Provide calculations for skylight effective aperture (Equation C4-5) for each space over 2,500 SF		
			Indicate haze factor of skylight glazing material or diffuser		
	C410.2	Walk-in and warehouse cooler and freezer envelope	Indicate insulation R-value in cooler and freezer wall and ceiling assemblies	N/A	
			Indicate cooler and freezer door insulation R-value; indicate method of minimizing infiltration (strip doors, curtains, spring-hinged doors, etc); provide automatic door closure (or note exception taken)	N/A	
			For transparent reach-in doors and fixed windows, indicate number of glass panes (double or triple pane); identify whether the interstitial spaces between panes is filled with inert gas or if panes are heat-reflective treated glass		
<b>ADDITIONAL EFFICIENCY CREDITS - ENHANCED ENVELOPE PERFORMANCE</b>					
	C406.10	Enhanced envelope performance	To comply with additional efficiency credit, demonstrate envelope thermal performance compliance via component performance; provide WSEC envelope compliance reports that demonstrate Proposed Total UA is 15% lower than the Allowable Total UA	N/A	

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AIR LEAKAGE					
	C402.5.1.1	Air barrier construction and sealing	Identify location and provide diagram of continuous air barrier in plans and sections	PRCA20220091	
			Provide details for all joints, transitions in materials, penetrations in air barrier and note method of sealing (caulked, gasketed, or other approved method)		
	C402.5.3 C402.1.3 C402.1.4	Rooms containing fuel burning space conditioning appliances	For room(s) located within the conditioned space that contain non-direct vent fuel-burning appliances that require outdoor air for combustion, indicate method of isolation from the conditioned space; include sealing of walls, floor and ceiling of room, doorway gasketing and sealing around ductwork and piping penetrations		
			Indicate walls, floor and ceiling of the room envelope are insulated to the same level required for exterior envelope, and combustion air ductwork that passes thru conditioned space is insulated to at least R-8		
	C402.5.4	Doors and access openings to shafts, chutes, stairways and elevator lobbies	Indicate locations of all doors and access openings to shafts, chutes, stairways and elevator lobbies		
			Indicate method of sealing of these openings (gasketing, weatherstripping, other sealing method); or exception taken		
	C402.5.5 C403.7.8	Outdoor air intakes, exhausts and relief openings	Indicate locations of all stairway enclosure, elevator shaft and building pressurization relief openings, outside air intakes and exhaust openings		
			Note in envelope plans that all relief, outside air intake and exhaust openings shall be provided with dampers in accordance with Mechanical Section C403.7.8		
	C402.5.8	Recessed lighting in building envelope	Indicate method of sealing between light fixture housing and wall or ceiling		
			Note in envelope plans that all recessed lighting fixtures shall be IC rated and have an air leakage rating not greater than 2 cfm per ASTM E283 test; include these requirements in lighting fixture schedules		
	C402.5.6	Loading dock seals	Indicate weather seal at cargo and loading dock doors		
	C402.5.7	Vestibules	Indicate locations and dimensions of vestibules for building entrances; also indicate vestibule information for exit-only doors in buildings where separate doors for entering and exiting are provided		
			Indicate locations of all building entrances and exit-only doors provided with an air curtain in lieu of a vestibule		

# Building Envelope Requirements List, pg 7 of 8

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The following information is necessary to check a building permit application for compliance with the building envelope requirements in the Washington State Energy Code, Commercial Provisions.

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			Indicate exception and criteria utilized for all building entrances and exit-only doors that do not have a vestibule or air curtain	PRCA20220091	
			Indicate required performance for air curtains installed per Exception 7		
			For unconditioned vestibules, indicate which envelope assembly (interior or exterior) complies with the requirements for a conditioned space		
	C103.2 C402.5.1.2C 402.5.1.2.1 R402.4.1.2	Building enclosure air leakage test	Indicate in project documents that building enclosure air leakage testing is required for WSEC compliance		
			Provide area calculations that account for all six sides of the air barrier boundaries		
			For commercial buildings, indicate that building enclosure air leakage testing shall be performed per ASTM C779 (or equivalent method approved by the code official) and the target leakage rate is 0.25 cfm/ft2 (1.5 L/s*m2) at 0.3 in. wg (75 Pa)		
			If the building is mixed residential / commercial and three stories or less above grade plane, indicate which building enclosure air leakage test procedure will be used for the Group R-2 / R-3 areas (Section R402.4.1.2 or C402.5.1.2); if per R402.4.1.2, indicate that the target leakage rate is 5 air changes per hour at 0.2 in. wg (50 Pa)		
			Include the following requirements in project documents: (1) Submit building enclosure air leakage test reports to jurisdiction and owner; (2) If initial test result exceeds 0.25 cfm/ft2 (1.5 L/s*m2), indicate that inspection and all practical corrective actions be completed and documented in the air leakage test report; (3) If initial test result exceeds 0.40 cfm/ft2 (2.0 L/s*m2), indicate that corrective actions shall also include re-testing; (4) Indicate that corrective measures and retesting must be repeated until the test result is 0.40 cfm/ft2 (2.0 L/s*m2) or less; (4) Include air barrier test report in project close out documentation provided to building owner.		

## ADDITIONAL EFFICIENCY CREDITS - REDUCED AIR INFILTRATION

	C406.9	Reduced air infiltration	To comply with additional efficiency credit, indicate in project documents that the building enclosure air leakage test results shall not exceed 0.17 cfm/ft2 at 0.3 in. wg (75 Pa); all documentation requirements per C103.2 and C402.5.1.2 apply		
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## ALTERATIONS

# Building Envelope Requirements List, pg 8 of 8

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	C503.1 C503.3.1	Roof alteration - insulation	For a roof alteration where existing ceiling cavities are exposed, indicate cavities are insulated to full depth at minimum nominal value of R-3.0 per inch	PRCA20220091	
			For a roof covering replacement where insulation is installed entirely above the roof deck, indicate insulation complies with requirements for new construction per Tables C402.1.3 or C402.1.4		
	C503.1	Wall and floor alteration - insulation	For a wall or floor alteration (floor over outdoor or unconditioned space) where existing envelope cavities are exposed, indicate cavities are insulated to full depth at minimum nominal value of R-3.0 per inch		
	C503.3.2	Addition of vertical fenestration	Where the addition of new vertical fenestration results in a window-to-wall ratio (WWR) exceeding the prescriptive maximum allowed per C402.4.1, demonstrate method of compliance (prescriptive vertical fenestration alternate, component performance with target area adjustment for the alteration area and existing-to-remain areas combined, or total building performance per C407); demonstrate for each space conditioning category separately		
	C503.3.3	Addition of skylights	Where the addition of new skylights results in a skylight-to-roof ratio (SRR) exceeding the prescriptive maximum allowed per C402.4.1, demonstrate method of compliance (component performance compliance with target area adjustment for the alteration area and existing-to-remain areas combined, or total building performance per C407), demonstrate for each space conditioning category separately		
	C103.2 C103.6.3 C503.2 C505.1	Change in space conditioning or occupancy compliance documentation	Indicate envelope alteration thermal performance compliance path (prescriptive or component performance with 110% allowance); provide WSEC envelope compliance reports		
	C103.2 C103.6.3 C503.2C 505.1	Change in space conditioning or occupancy compliance documentation	If complying via total building performance with 110% allowance, provide a list of all proposed envelope component types, areas and U-values		
<b>PROJECT CLOSE OUT DOCUMENTATION</b>					
	C103.6.3	Project close out documentation requirements	Indicate in plans that project close out documentation is required including applicable calculations, WSEC envelope compliance reports, and fenestration NFRC rating certificates		

# Lighting, Motor and Electrical Requirements List, pg 1 of 10

2018 WSEC Requirements for Commercial Buildings including Group R2, R3 & R4 over 3 stories & all R1 -- Administered by ©2022 NEEA, All rights reserved

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Project:  
Larson Jeep Building 300 - 2018 WSEC  
300 River Road  
Puyallup, WA 98371

PRCA20220091

Date: 2022-01-18

Applies	Code Section	Component	Compliance Information Required In Permit Documentation	Location in Documents	Building Department Notes
<b>LIGHTING SCOPE</b>					
	C103.1	Construction documents - General	For a shell & core or tenant space (first build-out) project, indicate if there is no lighting scope included in the project.		
	C103.1	Construction documents - General	For an alteration project, indicate if there is no lighting scope included in the project.		
<b>LIGHTING CONTROLS</b>					
YES	C405.2	Lighting controls, general	For all lighting fixtures, indicate lighting control method on plans for spaces and lighting zone(s) served, or exception taken	E2.20	
	C405.2, Option 2	Luminaire level lighting controls (LLLC)	Indicate on plans all fixtures provided with LLLC in lieu of C405.2 lighting controls; provide description of control capabilities and performance parameters		
	C405.2.5, Item 3 C405.2.1.1 C405.2.3.1	Lighting in dwelling units (dormitory, hotel and all other than multifamily)	Indicate method of automatic control of all installed luminaires in dwelling units in buildings other than multifamily (occupancy or light reduction controls)		
	C405.2.5, Item 2	Lighting in sleeping units	Indicate method of automatic off control of all installed luminaires in sleeping units (vacancy or key card control); also refer to Receptacles		
YES	C405.2.3 C405.2.3.1 C405.2.5	Manual controls	Indicate on plans the method of manual lighting control, location of manual control device and the area or specific application it serves	E2.20	
YES	C405.2.3.1 C405.2.1.1 C405.2.4	Manual interior light reduction controls	Indicate on plans which method of manual 50% lighting load reduction is provided, or indicate applicable exception	E2.20	
YES	C405.2.1 C405.2.2.1 C405.2.1, Exception 3	Method of automatic shut-off control	Indicate on plans the method of automatic shut-off control during unoccupied periods (occupancy sensor, time switch or digital timer switch) for all lighting zones	E2.20	
YES	C405.2.1	Occupant sensor controls	Indicate on plans all luminaires that are controlled by occupant sensor controls; indicate controls are configured to turn luminaires 100% off when the space is unoccupied	E2.20	
YES	C405.2.1 C405.2.1.1	Occupant sensor controls	Indicate if occupant sensor controls are configured to be manual on or automatic on to not more than 50% power; indicate spaces eligible for exception that allows automatic on to 100% power	E2.20	

# Lighting, Motor and Electrical Requirements List, pg 2 of 10

2018 WSEC Requirements for Commercial Buildings including Group R2, R3 & R4 over 3 stories & all R1 -- Administered by ©2022 NEEA, All rights reserved  
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YES	C405.2.1.2	Occupant sensor controls - warehouses spaces	Indicate each aisleway and corridor within a warehouse space are designated as separate zones that are independently controlled	E2.20	PRCA20220091
YES			Indicate occupant sensors are configured to automatically reduce lighting power by 50% when the zone is unoccupied and 100% off after the zone is unoccupied for over 20 minutes; indicate controls are configured to automatically restore lighting to full power when the zone or space is occupied	E2.20	
YES	C405.2.1.3	Occupant sensor controls - open plan office areas	For open plan office areas larger than 300 sf, indicate general lighting is provided with vacancy controls that reduce lighting power by not less than 80% and are configured to turn luminaires 100% off when the space is unoccupied; indicate that no individual control zone area exceeds 600 sf	E2.20	
	C405.2.1.4	Occupant sensor controls - parking garages	Indicate parking garage general lighting is provided with vacancy controls that reduce lighting power by not less than 30% and are configured to turn luminaires 100% off when no vehicles or pedestrians are present, unless eligible for an exception; indicate that no individual control zone area exceeds 3,600 sf		
NA	C405.2.1.5	Occupant sensor controls - enclosed fire-rated stairwells	Indicate stairway lighting is provided with vacancy controls that reduce lighting power by not less than 50% when the stairway in unoccupied		
YES	C405.2.2.1	Automatic time switch controls	Indicate spaces on plans where time switch controls turn luminaires 100% off during unoccupied hours	E2.20	
YES			Indicate spaces on plans where time switch controls are configured to turn on lighting to full power versus 50% power	E2.20	
YES			Indicate locations of override switches on plans and the lighting zone(s) served; indicate that the area(s) served by each override switch does not exceeds 5,000 sf	E2.20	
NA	C405.2.1, Exception 3	Digital timer switch	Indicate digital timer switch control includes: manual on/off, time delay, audible and visual indication of impending time-out		
NA	C405.2.4.2 C405.2.4.3	Daylight zones - Sidelit and toplit	Indicate primary and secondary sidelit daylight zone floor areas on plans		
NA			Indicate toplit daylight zone floor areas on plans		
NA			For small vertical fenestration assemblies (rough opening less than 10 percent of primary daylight zone floor area) where daylight responsive controls are not required, provide fenestration area to daylight zone floor area calculation(s)		

# Lighting, Motor and Electrical Requirements List, pg 3 of 10

2018 WSEC Requirements for Commercial Buildings including Group R2, R3 & R4 over 3 stories & all R1 -- Administered by ©2022 NEEA, All rights reserved

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NA	C405.2.4	Daylight responsive controls	Indicate on plans lighting zone(s) served by daylight responsive controls; indicate that the area served by each control device does not exceeds 2,500 sf		PRCA20220091
NA			Identify sidelit and toplit daylight zones that are not provided with daylight sensing controls and the exception(s) that apply		
NA	C405.2.4.1.1	Daylight responsive controls	Indicate on plans the lighting load reduction method (continuous dimming, or stepped dimming that provides at least two even steps between 0%-100% of rated power)		
NA	C405.2.4.1	Daylight responsive controls	Indicate that daylight sensing controls are configured to completely shut off all controlled lights in the lighting zone		
YES	C405.2.5	Additional controls - Specific application lighting controls	Identify spaces and lighting fixtures on plans that require specific application lighting controls per this section	E2.20	
YES	C405.2.5, Item 1	Display and accent lighting	Indicate on plans that manual controls are provided that control display, accent lighting and display case lighting independently from both general area lighting and other lighting applications within the same space	E2.20	
YES			Indicate manual and automatic (occupant sensor or time switch) lighting control methods	E2.20	
	C405.2.5, Item 3	Hotel/motel guest rooms	Indicate method of automatic control - vacancy or captive key control of all installed luminaires and switched receptacles in guest room		
NA	C405.2.5, Item 1	Supplemental task lighting	Indicate method and location of manual and automatic shut-off control (occupant sensor or time switch) for supplemental task lighting, including under-shelf or under-cabinet lighting		
YES	C405.2.5, Item 1	Lighting equipment for sale or demonstration	Indicate on plans that lighting equipment for sale or demonstration are controlled independently from both general area lighting and other lighting applications within the same space	E2.20	
YES			Indicate manual and automatic (occupant sensor or time switch) lighting control methods	E2.20	
NA	C405.2.5, Item 4	Lighting for non-visual applications	Identify all eligible non-visual lighting applications on plans; indicate that the area served by each control device does not exceeds 4,000 sf		
NA			Indicate on plans that non-visual lighting are controlled independently from both general area lighting and other lighting applications within the same space		



# Lighting, Motor and Electrical Requirements List, pg 4 of 10

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NA			Indicate method of manual lighting control and applicable automatic lighting control		PRCA20220091
YES	C405.2.5, Item 5	Means of egress lighting	Identify on plans egress fixtures that function as both normal and emergency means of egress illumination	E2.00, E2.10	
YES			Provide calculation of lighting power density of total egress lighting	E2.00, E2.10	
YES			If total egress lighting power density is greater than 0.02 W/sq. ft., indicate on plans egress fixtures requiring automatic shut-off during unoccupied periods	E2.00, E2.10	
YES			Indicate method of automatic shut-off control	E2.00, E2.10	
YES	C405.4.1 C405.4.2	Lighting control of exempt interior lighting	Indicate that exempt interior lighting equipment and lighting located within spaces that are eligible for a lighting power exemption are controlled independently from non-exempt and general area lighting	E2.20	
YES	C405.2.6	Exterior lighting controls	For decorative exterior lighting, indicate on plans automatic daylight shut-off controls, or exception taken	E2.20	
YES			For exterior lighting that is not decorative, indicate on plans automatic daylight or time-switch shut-off controls and setback controls; or indicate exception taken	E2.20	
YES			For lighting requiring setback controls, include control sequence that reduces lighting power by at least 30% between 12am-6am, or from 1 hour after closing to 1 hour before opening, or based upon motion sensor	E2.20	
YES			For building facade and landscape lighting, indicate control sequence for shut-off control is based on dawn-to-dusk and business opening/closing schedule; indicate whether automatic or time switch controls will be provided for this function	E2.20	
YES	C405.5.2	Lighting control of exempt exterior lighting	Indicate that exempt exterior lighting and lighting located within exterior areas/surfaces that eligible for a lighting power exemption are controlled independently from non-exempt exterior lighting	E2.20	
NA	C405.5.4	Exterior gas-fired lighting appliances	Indicate ignition system is a method other than continuously burning pilot light		
YES	C405.2.7	Area controls - Master control switches and circuit power limit	Indicate location(s) of master control switch(es) intended to control multiple independent switches; circuit breaker may not be used as a master control switch	E2.00, E2.10	
YES			Verify that no 20 amp circuit controlled by a single switch or automatic control is loaded beyond 80%	E2.00, E2.10	
ADDITIONAL EFFICIENCY CREDIT - ENHANCED INTERIOR LIGHTING CONTROLS					



# Lighting, Motor and Electrical Requirements List, pg 5 of 10

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	C406.4	Enhanced digital lighting controls	To comply with additional efficiency credit, indicate on plans that interior lighting fixtures are configured with all of the following control functions, as applicable: 1) Each fixture is individually addressed, or exception taken; 2) Fixtures are configured for continuous dimming; 3) No more than eight fixtures are controlled by a single daylight sensor; 4) In enclosed and open office areas, illumination levels of overhead general area lighting is configured to be individually adjusted by occupants		PRCA20220091
			Include calculations that demonstrate the total lighting power of all interior lighting fixtures configured with enhanced lighting controls is no less than 90% of the total interior lighting power for the area the enhanced lighting controls credit is being applied to		

## INTERIOR LIGHTING POWER & EFFICACY

YES	C405.4.1 C405.4.2	Total connected interior lighting power	Include all luminaires in interior lighting fixture schedule; indicate fixture types, lamps, ballasts, and manufacturer's watts per fixture for the installed lamp	E2.30	
YES			Identify spaces eligible for lighting power exemption on plans and in WSEC interior lighting compliance reports; indicate the exception applied	E2.30	
YES			Identify lighting equipment eligible for lighting power exemption in fixture schedule and in WSEC interior lighting compliance reports; indicate the exception applied	E2.30	
	C405.1 C405.1.1	Lighting in dwelling units (multifamily)	For all installed luminaires, include lamp type and number of lamps in lighting fixture schedule; for lamps that are not LED, T-8 or small diameter fluorescent, indicate efficacy of other lamp types is 65 lumens per watt or greater		
			For all installed luminaires, indicate in lighting fixture schedule whether complying via lighting power density or by qualifying lamp type; if by lamp type, include number of lamps		
			For all installed luminaires, indicate in lighting fixture schedule whether complying via lighting power density or by qualifying lamp type; if by lamp type, include number of lamps		

## INTERIOR LIGHTING POWER CALCULATION - INDICATE COMPLIANCE PATH TAKEN

NA	C405.4.2.1	Building Area Method	Demonstrate that total proposed wattage per building area does not exceed maximum allowed wattage per building area; identify locations of building areas on plans; provide WSEC exterior lighting compliance reports		
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# Lighting, Motor and Electrical Requirements List, pg 6 of 10

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YES	C405.4.2.2	Space-By-Space Method	Demonstrate that total proposed wattage does not exceed maximum allowed wattage; identify locations of space types on plans, including retail display areas and areas with display, highlight and decorative lighting; provide WSEC exterior lighting compliance reports	E2.30	PRCA20220091
<b>ADDITIONAL EFFICIENCY CREDITS - REDUCED INTERIOR LIGHTING POWER DENSITY</b>					
YES	C406.3.1 C406.3.2	Reduced interior lighting power density	To comply with additional efficiency credit, demonstrate that total connected interior lighting wattage is 10% or 20% less than the total maximum allowed lighting wattage for the area the reduced lighting power credit is being applied to; indicate whether lighting power allowance is based on the building area method or space-by-space method; provide WSEC exterior lighting compliance reports	E2.30	
	C406.3	Reduced interior lighting power density - dwelling unit lamp efficacy	For project with dwelling units, to comply with additional efficiency credit indicate in lighting fixture schedule that lamps within installed interior luminaires have an efficacy rating of at least 65 lumens per watt; include number of lamps and provide calculations that demonstrate at least 95% of lamps have this efficacy rating		
<b>EXTERIOR LIGHTING POWER &amp; EFFICACY</b>					
YES	C405.5.2	Total connected exterior lighting power	Include all luminaires in exterior lighting fixture schedule; indicate fixture types, lamps, ballasts, and manufacturer's watts per fixture for the installed lamp	E2.30	
YES			Identify exterior applications eligible for lighting power exemption on plans and in WSEC exterior lighting compliance reports; indicate exception applied	E2.30	
YES	C405.5.3(1)	Exterior lighting zone	Indicate building exterior lighting zone as specified by the AHJ	E2.30	
YES	C405.5.1	Exterior building grounds lighting	For building grounds fixtures rated at greater than 50 watts, indicate rated lamp efficacy (in lumens per watt) in fixture schedule	E2.30	
<b>EXTERIOR LIGHTING POWER CALCULATION</b>					
YES	C405.5.3	Tradable allowances	Demonstrate that total proposed tradable surface wattage does not exceed maximum allowed tradable surface wattage (including base site allowance); identify locations of tradable surfaces on plans; provide WSEC exterior lighting compliance reports	E2.30	

# Lighting, Motor and Electrical Requirements List, pg 7 of 10

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YES			Demonstrate that proposed wattage per non-tradable surface type does not exceed maximum allowed wattage per non-tradable surface type (including base site allowance remaining after tradable allowance calculation); identify locations of non-tradable surfaces on plans; provide WSEC exterior lighting compliance reports	E2.30	PRCA20220091
<b>LIGHTING ALTERATIONS</b>					
	C503.6.1	Interior and parking garage lighting fixture alterations	Where $\geq 50\%$ of existing luminaires in an interior space or parking garage are replaced; indicate compliance path (building area or space-by-space method); include all new and existing-to-remain luminaires in WSEC interior lighting compliance reports; indicate proposed lighting wattage does not exceed maximum allowed per compliance path		
			Where $< 50\%$ of existing luminaires in an interior space or parking garage are replaced; indicate total existing lighting wattage in each space prior to alteration; include all new and existing-to-remain luminaires in WSEC interior lighting compliance reports; indicate proposed total lighting wattage in alteration area does not exceed total existing lighting wattage prior to alteration		
			Where $\geq 50\%$ of existing exterior lighting wattage is replaced; include all new and existing-to-remain luminaires in WSEC exterior lighting compliance reports; indicate proposed total exterior lighting wattage does not exceed maximum allowed		
			Where $< 50\%$ of existing exterior lighting wattage is replaced; indicate total existing lighting wattage prior to alteration; include all new and existing-to-remain luminaires in WSEC interior exterior compliance reports; indicate proposed total exterior lighting wattage does not exceed total existing wattage prior to alteration		
	C503.6.2	Interior lighting wiring and circuiting alterations	Where new wiring is installed to serve new interior luminaires and /or luminaires are relocated to a new circuit; indicate manual and automatic lighting controls are provided (as applicable) - manual (C405.2.3); occupancy sensor (C405.2.1); light reduction (C405.2.3); daylight responsive (C405.2.4); specific application (C405.2.5)		
			Where new wiring is installed to serve new exterior luminaires and /or luminaires are relocated to a new circuit; indicate automatic lighting controls are provided (C405.2.6)		

# Lighting, Motor and Electrical Requirements List, pg 8 of 10

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	C503.6.3	Lighting panel alterations	Where a new interior and/or exterior lighting panel is installed or an existing panel is moved (all new raceway and conductor wiring), indicate all applicable lighting controls requirements apply		PRCA20220091
	C503.6.4	Newly-created rooms	Where interior space(s) is reconfigured (permanently installed walls or ceiling-height partitions) to create new enclosed spaces, indicate all applicable lighting controls requirements apply		
	C504.2	Lighting repairs	Identify existing luminaires being upgraded with bulb and / or ballast replacement; indicate fixture alteration does not increase existing fixture wattage		
	C505.1	Change of interior space use	Identify spaces on plans where the building area type or space use type is being changed from one type to another per Tables C405.4.2(1) or (2)		
			Indicate compliance method (building area or space-by-space); include all new and existing-to-remain luminaires in WSEC interior lighting compliance reports; indicate proposed lighting wattage does not exceed maximum allowed per compliance path		

## RECEPTACLES

YES	C405.10	Controlled receptacles	Identify all controlled and uncontrolled receptacles on electrical plans in each space in which they are required; include receptacle configuration such as spacing between controlled and uncontrolled, duplex devices, etc	E2.20	
YES			Provide schedule that lists the number of controlled and uncontrolled receptacles in each space where controlled receptacles are required - classrooms, private offices, open office areas, conference rooms, copy rooms, break rooms and modular partitions/workstations	E2.20	
YES			Indicate on plans the method of automatic control for each controlled receptacle zone (occupant sensor or programmable time-of-day control); indicate that each zone served by a single controller does not exceed 5,000 sf	E2.20	
	C405.2.5, Item 2	Switched receptacles in sleeping units	Indicate method of automatic off control of all switched receptacles in sleeping units (vacancy or key card control)		
	C503.6.6	Electrical receptacle alterations	Where new receptacles are added or replaced within an alteration project that is 5,000 sf or larger, indicate receptacles are provided with automatic controls per C405.10, or exception taken		

## MOTORS, TRANSFORMERS, ELECTRIC METERS, INTERIOR TRANSPORTATION

# Lighting, Motor and Electrical Requirements List, pg 9 of 10

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	C405.6	Electrical transformers	Include electrical transformer schedule on electrical plans; indicate transformer type, size, efficiency, or exception taken		PRCA20220091
YES	C405.11	Feeders and branch circuits	Provide documentation that demonstrates maximum voltage drop across feeders and branch circuits does not exceed 5%	E5.00	
	C405.7	Dwelling unit electrical energy consumption	Indicate on electrical plans that each dwelling unit in Group R-2 has a separate electrical energy meter		
	C405.8	Electric motor efficiency	Include all motors, including fractional hp motors, in electric motor schedule on electrical plans; indicate motor type, horsepower, rpm, rated efficiency, or exception applied		
	C405.9.1	Elevator cabs	For luminaires in each elevator cab, provide calculations that demonstrate average efficacy is not less than 35 lumens per watt		
			For elevators that do not have an integral air conditioning system, indicate rated watts per cfm for elevator cab ventilation fans do not exceed 0.33 watts per cfm		
			Indicate automatic controls that de-energize lighting and ventilation fans when elevator is stopped and unoccupied for a period of 15 minutes or more		
	C405.9.2	Escalators and moving walks	Indicate escalators comply with ASME A17.1/CSA B44; automatic controls are configured to reduce operational speed to the minimum permitted when not in use		
	C405.9.3	Regenerative drive	Indicate all one-way down or reversible escalators are provided with a variable frequency regenerative drive		

## DOCUMENTATION AND SYSTEM REQUIREMENTS TO SUPPORT COMMISSIONING (CX)

NA	C408.4	Scope of electrical power and lighting systems commissioning	Indicate that all electrical systems (receptacles, transformers, motors, vertical and horizontal transportation) for which the WSEC requires control functions and / or configuration to perform specific functions are required to be commissioned		
NA			Where total building lighting load is > 20 kW, or where total lighting load of luminaires requiring daylight sensing and / or occupancy control > 10 kW, indicate that all automatic lighting control systems are required to be commissioned; or provide building lighting power calculation demonstrating eligibility for exception		
NA	C405.13 C408.1.1 C408.1.2 C408.1.4.2 C103.6.3	Commissioning requirements in construction documents	Indicate Cx requirements in plans and specifications for all applicable electrical and lighting control systems per C408		

# Lighting, Motor and Electrical Requirements List, pg 10 of 10

2018 WSEC Requirements for Commercial Buildings including Group R2, R3 & R4 over 3 stories & all R1 -- Administered by ©2022 NEEA, All rights reserved

The following information is necessary to check a permit application for compliance with the lighting systems, motors and electrical system requirements in the Washington State Energy Code, Commercial Provisions.

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

NA	C408.1.2 C408.1.2.1 C408.1.4 C103.6.3	Commissioning requirements in construction documents	Include general summary of Cx plan per C408.1.2 including: 1) Narrative description of activities; 2) Responsibilities of the Cx team; 3) Schedule of activities including verification of project close out documentation per C103.6; 4) Conflict of interest plan (if required)		PRCA20220091
NA	C408.1.2 C408.1.4 C103.6.3	Commissioning requirements in construction documents	Include in general summary that a Cx project report and Compliance Checklist (Figure C408.1.4.1) shall be completed by the Certified Cx Professional and provided to the owner prior to the final electrical inspection		
NA	C408.4.1	Functional performance testing criteria	Identify in plans and specifications the intended operation of all equipment and controls during all modes of operation, including interfacing between new and existing-to-remain systems		

## PROJECT CLOSE OUT DOCUMENTATION

NA	C103.6.3	Project close out documentation requirements	Indicate in plans that project close out documentation is required including WSEC lighting compliance reports that document all interior and exterior lighting area and / or surface types, lighting power allowances and installed densities		
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If "no" is selected for any question, provide explanation.