

Project Name:	Mid-Rise Mixed-Use (5-story)	NRCC-PRF-01-E	Page 1 of 28
Project Address:		Calculation Date/Time:	17:44, Thu, Jan 16, 2020
Input File Name:	Mid-Rise Mixed Use 5-Story Prototype_CZ03 - WH.cibd19		

A. GENERAL INFORMATION					
1.	Project Location (city)	- specify -	8.	Standards Version	Compliance2019
2.	CA Zip Code		9.	Compliance Software (version)	CBECC-Com 2019.1.0
3.	Climate Zone	3	10.	Weather File	OAKLAND_724930_CZ2010.epw
4.	Total Conditioned Floor Area in Scope	113,100 ft²	11.	Building Orientation (deg)	(N) 0 deg
5.	Total Unconditioned Floor Area	27,900 ft²	12.	Permitted Scope of Work	NewComplete
6.	Total # of Stories (Habitable Above Grade)	5	13	Building Type(s)	Mixed Occupancy
7.	Total # of dwelling units	88	14	Gas Type	NaturalGas

B. PROJECT SUMMARY								
Table Instructions: Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within permit application.								
Building Components Complying via Performance					Building Components Complying Prescriptively			
Envelope	<input checked="" type="checkbox"/>	Performance	Covered Process: Commercial Kitchens	<input type="checkbox"/>	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).		
	<input type="checkbox"/>	Not Included		<input checked="" type="checkbox"/>	Not Included			
Mechanical	<input checked="" type="checkbox"/>	Performance	Covered Process: Computer Rooms	<input type="checkbox"/>	Performance	Indoor Lighting (Unconditioned)§140.6	NRCC-LTI -E is required	
	<input type="checkbox"/>	Not Included		<input checked="" type="checkbox"/>	Not Included	Outdoor Lighting §140.7	NRCC-LTO-E is required	
Domestic Hot Water	<input checked="" type="checkbox"/>	Performance	Covered Process: Laboratory Exhaust	<input type="checkbox"/>	Performance	Sign Lighting §140.8	NRCC -LTS-E is required	
	<input type="checkbox"/>	Not Included		<input checked="" type="checkbox"/>	Not Included	Mandatory Measures		
Lighting (Indoor Conditioned)	<input checked="" type="checkbox"/>	Performance				Electrical power systems, commissioning and solar ready requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)		
	<input type="checkbox"/>	Not Included				Electrical Power Distribution S110.11	NRCC-ELC-E is required	
Solar Thermal Water Heating	<input type="checkbox"/>	Performance				Commissioning S120.8		NRCC-CXR-E is required
	<input checked="" type="checkbox"/>	Not Included				Solar Ready S110.10		NRCC-SRA-E is required

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C1. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft²-yr)

COMPLIES

Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹
Space Heating	7.23	7.74	-0.51
Space Cooling	14.77	14.24	0.53
Indoor Fans	10.71	10.54	0.17
Heat Rejection	--	--	--
Pumps & Misc.	0.02	0.08	-0.06
Domestic Hot Water	20.13	20.13	--
Indoor Lighting	20.81	20.81	--
ENERGY STANDARDS COMPLIANCE TOTAL	73.67	73.54	0.13 (0.2%)

¹ Notes: The number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS¹

<input type="checkbox"/> This project is pursuing CalGreen Tier 1		<input type="checkbox"/> This project is pursuing CalGreen Tier 2	
Miscellaneous Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹
Receptacle	58.15	58.15	0.0
Process	--	--	--
Other Ltg	39.77	39.77	0.0
Process Motors	2.10	8.42	6.3
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	173.69	179.88	-6.2 (-3.6%)

¹ Notes: This table is used to document compliance with programs OTHER THAN Title 24 Part 6, if applicable.

D. EXCEPTIONAL CONDITIONS

This project includes mechanical ventilation systems for enclosed parking garages having total design exhaust rate greater than or equal to 10,000 cfm. Please verify the design meets the Mandatory Requirements for Enclosed Parking Garages as per Section 120.6 (c).

This project includes Domestic Hot Water in the analysis. Please verify that Domestic Hot Water is included in the design for the permitted scope of work.

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E. HERS VERIFICATION

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below.

- Highrise residential ventilation airflow
- Highrise residential kitchen hood rated by HVI

F. ADDITIONAL REMARKS

This Section Does Not Apply

G. ENVELOPE GENERAL INFORMATION

1	2	3	4
Opaque Surfaces & Orientation	Total Gross Surface Area	Total Fenestration Area	Window to Wall Ratio
North-Facing ¹	9,000 ft ²	1,981 ft ²	22.0%
East-Facing ²	12,150 ft ²	2,677 ft ²	22.0%
South-Facing ³	9,000 ft ²	1,977 ft ²	22.0%
West-Facing ⁴	12,150 ft ²	2,677 ft ²	22.0%
Total	42,300 ft ²	9,311 ft ²	22.0%
Roof	22,620 ft ²	0 ft ²	00.0%

Notes:

¹ North-Facing is oriented to within 45 degrees of true north, including 45°00'00" east of north (NE), but excluding 45°00'00" west of north (NW).

² East-Facing is oriented to within 45 degrees of true east, including 45°00'00" south of east (SE), but excluding 45°00'00" north of east (NE).

³ South-Facing is oriented to within 45 degrees of true south, including 45°00'00" west of south (SW), but excluding 45°00'00" east of south (SE).

⁴ West-Facing is oriented to within 45 degrees of true west, including 45°00'00" north of due west (NW), but excluding 45°00'00" south of west (SW).

H. FENESTRATION ASSEMBLY SUMMARY §110.6

1.	2.	3.	4.	5.	6.	7.	8.	9.
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product Type / Frame Type	Certification Method ¹	Assembly Method	Area ft ²	Overall U-factor	Overall SHGC	Overall VT	Status ²
Res Fixed Window	Vertical Fenestration Fixed Window N/A	NFRC Rated	Manufactured	8465	0.36	0.25	0.42	N

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H. FENESTRATION ASSEMBLY SUMMARY §110.6								
1.	2.	3.	4.	5.	6.	7.	8.	9.
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product Type / Frame Type	Certification Method ¹	Assembly Method	Area ft ²	Overall U-factor	Overall SHGC	Overall VT	Status ²
Nonres Fixed Window	VerticalFenestration FixedWindow N/A	NFRC Rated	Manufactured	846	0.36	0.25	0.42	N

¹ Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.

² Status: N - New, A - Altered, E - Existing

I. ENVELOPE DETAILS §120.7 & §140.3								
I1. OPAQUE SURFACE ASSEMBLY SUMMARY								
1	2	3	4	5	6	7	8	9
Surface Name	Surface Type	Description of Assembly Layers	Area (ft ²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Status ¹
SlabOnOrBelowGradeF073	UndergroundFloor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	27900	NA	0	NA	F-Factor: 0.730	N
ResWoodWallU059	ExteriorWall	Stucco - 7/8 in. Plywood - 5/8 in. Compliance Insulation R1.54 Wood framed wall, 16in. OC, 5.5in., R-5 Gypsum Board - 5/8 in.	33840	Wood	5	2	U-Factor: 0.111	N
WoodFramedInteriorWallU099	InteriorWall	Gypsum Board - 1/2 in. Wood framed wall, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.	66390	Wood	11	NA	U-Factor: 0.099	N
Concrete Podium Roof	Roof	Stone - 1 in. Concrete - 140 lb/ft3 - 10 in.	5280	NA	0	NA	U-Factor: 0.625	N
BelowGradeWallC114	UndergroundWall	Concrete - 140 lb/ft3 - 10 in.	13400	NA	0	NA	C-Factor: 1.351	N
OtherFloorU071	InteriorFloor	Concrete - 140 lb/ft3 - 10 in. Compliance Insulation R6.00 Compliance Insulation R2.15 Compliance Insulation R0.50 Plywood - 5/8 in. Carpet - 3/4 in.	22620	NA	0	9	U-Factor: 0.071	N

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I. ENVELOPE DETAILS §120.7 & §140.3

II. OPAQUE SURFACE ASSEMBLY SUMMARY

1	2	3	4	5	6	7	8	9
Surface Name	Surface Type	Description of Assembly Layers	Area (ft ²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Status ¹
WoodFramingAndOtherRoofU028	Roof	Roofing felt - 1/8 in. Building Paper - 1/16 in. Fiberboard sheathing - 1/2 in. Compliance Insulation R0.50 Compliance Insulation R0.02 Compliance Insulation R0.01 Gypsum Board - 1/2 in. Wood framed roof, 16in. OC, 7.25in., R-38	22620	Wood	38	1	U-Factor: 0.032	N
ResWoodFramedTypicalInteriorFloor	InteriorFloor	Gypsum Board - 1/2 in. Wood framed floor, 16in. OC, 5.5in., R-0 Plywood - 5/8 in. Carpet - 3/4 in.	23250	Wood	0	NA	U-Factor: 0.185	N
NonResConcreteExteriorWall	ExteriorWall	Stucco - 7/8 in. Concrete - 140 lb/ft ³ - 8 in. Compliance Insulation R8.07 Compliance Insulation R0.20 Compliance Insulation R1.00 Wood framed wall, 16in. OC, 3.5in., R-0 Gypsum Board - 1/2 in.	8460	Wood	0	9	U-Factor: 0.083	N
ResF2ConcreteInteriorFloor	InteriorFloor	Gypsum Board - 1/2 in. Concrete - 140 lb/ft ³ - 4 in. Plywood - 5/8 in. Carpet - 3/4 in.	67230	NA	0	NA	U-Factor: 0.184	N

¹ Status: N - New, A - Altered, E - Existing

II. OVERHANG DETAILS

This Section Does Not Apply

III. OPAQUE DOOR SUMMARY

This Section Does Not Apply

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J. CRRC ROOFING PRODUCT SUMMARY §140.3

This Section Does Not Apply

K. HVAC SYSTEM SUMMARY §110.1 & §110.2

K1. Dry System Equipment (furnaces, air handling units, heat pumps, VRF, etc.)

Dry System Equipment ¹ (Fan & Economizer info included below in Table N)

1	2	3	4	5	6	7	8	9	10
Equipment Name	Equipment Type	Qty	Heating				Cooling		Status ⁵
			Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtuh)	Efficiency	Total Cooling Output (kBtu/h)	Efficiency	
Parking Garage Vent System	Exhaust (NA)	1	0	No	0	NA	0	NA	N
BaseSys5 F1	PVAV (Packaged3Phase)	1	559	No	0	NA	550	EER-9.8	N
DOAS1	DOASCV (Packaged3Phase)	1	51	Yes	35	HSPF-8.00	48	SEER-15.60 / EER-12.25	N
ZnSys F2-4 1-Bed Core N	SZHP (Split1Phase)	3	11	Yes	8	HSPF-8.200	10	SEER-14.000 / EER-11.400	N
ZnSys F2-4 1-Bed Core West	SZHP (Split1Phase)	6	11	Yes	8	HSPF-8.200	10	SEER-14.000 / EER-11.400	N
ZnSys F2-4 1-Bed Core East	SZHP (Split1Phase)	6	11	Yes	8	HSPF-8.200	10	SEER-14.000 / EER-11.400	N
ZnSys F2-4 1-Bed North	SZHP (Split1Phase)	15	11	Yes	9	HSPF-8.200	10	SEER-14.000 / EER-11.400	N
ZnSys F2-4 2-Bed Core NE-NW	SZHP (Split1Phase)	6	16	Yes	12	HSPF-8.200	15	SEER-14.000 / EER-11.400	N
ZnSys F2-4 2-Bed East	SZHP (Split1Phase)	9	16	Yes	12	HSPF-8.200	15	SEER-14.000 / EER-11.400	N
ZnSys F2-4 2-Bed West	SZHP (Split1Phase)	9	16	Yes	12	HSPF-8.200	15	SEER-14.000 / EER-11.400	N
ZnSys F2-4 3-Bed NE	SZHP (Split1Phase)	3	21	Yes	16	HSPF-8.200	20	SEER-14.000 / EER-11.400	N

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K1. Dry System Equipment (furnaces, air handling units, heat pumps, VRF, etc.)									
Dry System Equipment ¹ (Fan & Economizer info included below in Table N)									
1	2	3	4	5	6	7	8	9	10
Equipment Name	Equipment Type	Qty	Heating				Cooling		Status ⁵
			Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtu/h)	Efficiency	Total Cooling Output (kBtu/h)	Efficiency	
ZnSys F2-4 3-Bed NW	SZHP (Split1Phase)	3	21	Yes	16	HSPF-8.200	20	SEER-14.000 / EER-11.400	N
ZnSys F2-4 Studio SE	SZHP (Split1Phase)	3	8	Yes	6	HSPF-8.200	8	SEER-14.000 / EER-11.400	N
ZnSys F2-4 Studio SW	SZHP (Split1Phase)	3	8	Yes	6	HSPF-8.200	8	SEER-14.000 / EER-11.400	N
ZnSys F5 1-Bed Core N	SZHP (Split1Phase)	1	11	Yes	8	HSPF-8.200	10	SEER-14.000 / EER-11.400	N
ZnSys F5 1-Bed Core West	SZHP (Split1Phase)	2	11	Yes	8	HSPF-8.200	10	SEER-14.000 / EER-11.400	N
ZnSys F5 1-Bed Core East	SZHP (Split1Phase)	2	11	Yes	8	HSPF-8.200	10	SEER-14.000 / EER-11.400	N
ZnSys F5 1-Bed North	SZHP (Split1Phase)	5	11	Yes	9	HSPF-8.200	10	SEER-14.000 / EER-11.400	N
ZnSys F5 2-Bed Core NE-NW	SZHP (Split1Phase)	2	16	Yes	12	HSPF-8.200	15	SEER-14.000 / EER-11.400	N
ZnSys F5 2-Bed East	SZHP (Split1Phase)	3	16	Yes	12	HSPF-8.200	15	SEER-14.000 / EER-11.400	N
ZnSys F5 2-Bed West	SZHP (Split1Phase)	3	16	Yes	12	HSPF-8.200	15	SEER-14.000 / EER-11.400	N
ZnSys F5 3-Bed NE	SZHP (Split1Phase)	1	21	Yes	16	HSPF-8.200	20	SEER-14.000 / EER-11.400	N
ZnSys F5 3-Bed NW	SZHP (Split1Phase)	1	21	Yes	16	HSPF-8.200	20	SEER-14.000 / EER-11.400	N
ZnSys F5 Studio SE	SZHP (Split1Phase)	1	8	Yes	6	HSPF-8.200	8	SEER-14.000 / EER-11.400	N
ZnSys F5 Studio SW	SZHP (Split1Phase)	1	8	Yes	6	HSPF-8.200	8	SEER-14.000 / EER-11.400	N

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K1. Dry System Equipment (furnaces, air handling units, heat pumps, VRF, etc.)									
Dry System Equipment ¹ (Fan & Economizer info included below in Table N)									
1	2	3	4	5	6	7	8	9	10
Equipment Name	Equipment Type	Qty	Heating				Cooling		Status ⁵
			Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtu/h)	Efficiency	Total Cooling Output (kBtu/h)	Efficiency	

¹ Status: N - New, A - Altered, E - Existing

K2. ECONOMIZER & FAN SYSTEMS SUMMARY §140.4 ¹												
1	2	3	4	5	6	7	8	9	10	11	12	13
Name or Item Tag	System Type	Design OA	Supply Fan				Return Fan				Economizer Type (if present)	Status ⁵
	packaged, DOAS, etc.	CFM	CFM	BHP	Watts	Control	CFM	BHP	Watts	Control		
BaseSys5 F1	PVAV	5952	19012	24.716	19688.2	VariableSpeedDrive	NA	NA	NA	NA	DifferentialDryBu	N
DOAS1	DOASCV	1611	1611	0.647	564.2	ConstantVolume	NA	NA	NA	NA	NoEconomizer	N
ZnSys F2-4 1-Bed Core N	SZHP	0	379	0.152	132.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 1-Bed Core West	SZHP	0	379	0.152	132.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 1-Bed Core East	SZHP	0	379	0.152	132.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 1-Bed North	SZHP	0	391	0.157	136.9	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 2-Bed Core NE-NW	SZHP	0	568	0.228	198.8	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 2-Bed East	SZHP	0	568	0.228	198.8	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 2-Bed West	SZHP	0	568	0.228	198.8	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 3-Bed NE	SZHP	0	742	0.298	259.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 3-Bed NW	SZHP	0	742	0.298	259.5	ConstantVolume	NA	NA	NA	NA	NA	N

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K2. ECONOMIZER & FAN SYSTEMS SUMMARY §140.4¹

1	2	3	4	5	6	7	8	9	10	11	12	13
Name or Item Tag	System Type	Design OA	Supply Fan				Return Fan				Economizer Type (if present)	Status ⁵
	packaged, DOAS, etc.	CFM	CFM	BHP	Watts	Control	CFM	BHP	Watts	Control		
ZnSys F2-4 Studio SE	SZHP	0	284	0.114	99.4	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F2-4 Studio SW	SZHP	0	284	0.114	99.4	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 1-Bed Core N	SZHP	0	379	0.152	132.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 1-Bed Core West	SZHP	0	379	0.152	132.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 1-Bed Core East	SZHP	0	379	0.152	132.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 1-Bed North	SZHP	0	391	0.157	136.9	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 2-Bed Core NE-NW	SZHP	0	568	0.228	198.8	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 2-Bed East	SZHP	0	568	0.228	198.8	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 2-Bed West	SZHP	0	568	0.228	198.8	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 3-Bed NE	SZHP	0	742	0.298	259.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 3-Bed NW	SZHP	0	742	0.298	259.5	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 Studio SE	SZHP	0	284	0.114	99.4	ConstantVolume	NA	NA	NA	NA	NA	N
ZnSys F5 Studio SW	SZHP	0	284	0.114	99.4	ConstantVolume	NA	NA	NA	NA	NA	N

¹ Status: N - New, A - Altered, E - Existing

K3. EXHAUST FAN SUMMARY

1	2	3	4	5	6	7
System ID	Zone Name	Qty	CFM	Motor BHP	Motor Watts	Total Static Pressure (in H2O)
Parking Garage Vent System	Thermal Zone: Parking Garage	1	20,925	19.670	15769.4	3.88

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K4. Wet System Equipment (boilers, chillers, cooling towers, water heaters, etc.)											
1	2	3	4	5	6	7	8	9	10	11	12
Name or Item Tag	Equipment Type	Qty	Vol (gal)	Rated Capacity (kBtu/h)	Efficiency	Standby Loss	Pumps				Status ¹
							Qty	GPM	HP	VSD (Y/N)	
Nonres Gas Water Heater	Storage	1	5.89	7	EF: 0.67	SBLF: NA	NA	NA	NA	No	N
Nonres Elec Water Heater	Storage	1	24.11	24	UEF: 0.94	SBLF: NA	NA	NA	NA	No	N
Base Blr	HotWater	NA	NA	559	Thrml. Eff: 0.80	NA	1	27.9	0.750	Yes	N
Res Gas Water Heater	Storage	3	200.00	160	Thrml. Eff.: 0.800	0.0200	NA	NA	NA	NA	N

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K5. DHW EQUIPMENT SUMMARY										
1	2	3	4	5	6	7	8	9	10	11
DHW Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input (kBtu/h)	Efficiency	Tank Insulation R-value (Int/Ext)	Standby Loss Fraction	Heat Pump Type	Tank Location or Ambient Condition
Nonres Gas Water Heater	Gas	Storage	1	5.89	7	EF: 0.67	NA	SBLF: NA	NA	NA
Nonres Elec Water Heater	Electricity	Storage	1	24.11	24	UEF: 0.94	NA	SBLF: NA	NA	NA
Res Gas Water Heater	Gas	Storage	3	200.00	160	Thrml. Eff.: 0.800	/	0.0200	NA	Unconditioned

K6. MULTI-FAMILY HOTEL/MOTEL CENTRAL DHW SYSTEM DETAILS										§ 110.3	
1.	2.	3.	4.	5.	6.	7.		8.			
System Name	Configuration	Type	Qty in System	Central Dist. Type	Unit Dist. Type	Recirculating Pump		Piping Length			
						Efficiency	BHP	Plenum	Outside	Buried	Add ½” Insulation (HERS)
Residential DHW System	"DHW System"	Central	3	Demand Control (Standard Design for new construction)	NA	0.60	(kW)				

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K7. SOLAR HOT WATER HEATING SUMMARY

1.	2. Collector											
System Name	Manufacturer	Brand	Model #	SRRC Cert	Type	Area ft ²	Rated Eff.Curve Slope	Rated Eff.Curve Intercept	Number	Fluid	Angle from true north (degrees)	Slope from horizontal (degrees)
Residential DHW System												

K7. SOLAR HOT WATER HEATING SUMMARY

1.	3. Software		4. Storage		5.	6	Confirmed	
System Name	Name of program used	Version	Water Heater Tank Volume (gallons)	Secondary Tank Volume (gallons)	# of Identical Dwelling Units	Solar Fraction	Pass	Fail
Residential DHW System			280			0.20	<input type="checkbox"/>	<input type="checkbox"/>

K8. SYSTEM FEATURES §120.2

1	2	3	4	5	6
System Name	Optimum Start	Window Interlocks per §140.4(n)	Evaporative Cooling	Heat Recovery	Other Controls
BaseSys5 F1	Optimum Start	TBD	No Evaporative Cooler	No Heat Recovery	2 Zones With CO2Sensor Vent. Control, DDC Controls and Single Maximum Reheat Controls Differential Drybulb Economizer Warmest Zone Supply Air Temp. Reset
DOAS1	Optimum Start	TBD	No Evaporative Cooler	No Heat Recovery	No DCV Controls, DDC Controls No Economizer Warmest Zone Supply Air Temp. Reset
Nonresidential Gas DHW System	NA	NA	NA	NA	Fixed Temperature Control, No DDC
Nonresidential Elec DHW System	NA	NA	NA	NA	Fixed Temperature Control, No DDC
BaseHWSysSystem	NA	NA	NA	NA	Fixed Temperature Control, No DDC

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.

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K9. MECHANICAL VENTILATION AND REHEAT §120.1

1	2	3	4	5	6	7	8	9
Zone Name	Mechanical Ventilation							DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# hotel rooms	# of people	# of bedrooms	Min Supply OA CFM	Min Exhaust CFM	Conditioned Area (sf)	
Thermal Zone: F1 Business Center	General - Conference/meeting	0	12.00	0	180	0	360	Both
Thermal Zone: F1 Corridor	General - Corridors General - Unoccupied General - Unoccupied General - Unoccupied General - Corridors General - Corridors	0	9.34	0	277	0	1920	Occupant Sensor
Thermal Zone: F1 Lounge	General - Break rooms	0	35.00	0	525	0	1050	DCV
Thermal Zone: F1 Fitness Center	Sports/Entertainment - Gym, sports arena (play area)	0	9.00	0	450	0	900	NA
Thermal Zone: F1 Leasing Office	Office - Office space	0	1.73	0	52	0	345	NA
Thermal Zone: F1 Mechanical Room	Misc - Telephone closets	0	0.65	0	65	0	432	NA
Thermal Zone: F1 Retail N-NW	Retail - Sales Retail - Sales Retail - Sales Retail - Sales	0	49.88	0	1496	0	5985	NA
Thermal Zone: F1 Retail NE	Retail - Sales Retail - Sales Retail - Sales	0	36.01	0	1080	0	4320	NA
Thermal Zone: F1 Retail SE	Retail - Sales Retail - Sales	0	24.00	0	720	0	2880	NA
Thermal Zone: F1 Retail SW	Retail - Sales Retail - Sales Retail - Sales	0	36.91	0	1107	0	4428	NA
Thermal Zone: F2-4 1-Bed Core N	NA	0	2.00	1	37	0	720	NA
Thermal Zone: F2-4 1-Bed Core West	NA NA	0	4.00	2	73	0	1440	NA
Thermal Zone: F2-4 1-Bed Core East	NA NA	0	4.00	2	73	0	1440	NA
Thermal Zone: F2-4 1-Bed North	NA NA NA NA NA	0	10.00	5	187	0	3720	NA
Thermal Zone: F2-4 2-Bed Core NE-NW	NA NA	0	6.00	4	110	0	2160	NA
Thermal Zone: F2-4 2-Bed East	NA NA NA	0	9.00	6	165	0	3240	NA
Thermal Zone: F2-4 2-Bed West	NA NA NA	0	9.00	6	165	0	3240	NA

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K9. MECHANICAL VENTILATION AND REHEAT §120.1								
1	2	3	4	5	6	7	8	9
Zone Name	Mechanical Ventilation							DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# hotel rooms	# of people	# of bedrooms	Min Supply OA CFM	Min Exhaust CFM	Conditioned Area (sf)	
Thermal Zone: F2-4 3-Bed NE	NA	0	4.00	3	72	0	1410	NA
Thermal Zone: F2-4 3-Bed NW	NA	0	4.00	3	72	0	1410	NA
Thermal Zone: F2-4 Studio SE	NA	0	2.00	1	31	0	540	NA
Thermal Zone: F2-4 Studio SW	NA	0	2.00	1	31	0	540	NA
Thermal Zone: F2-4 Corridor	General - Corridors General - Unoccupied General - Unoccupied General - Unoccupied Lodging - Laundry rooms, central General - Corridors General - Corridors	0	13.54	0	403	0	2760	Occupant Sensor
Thermal Zone: F5 1-Bed Core N	NA	0	2.00	1	37	0	720	NA
Thermal Zone: F5 1-Bed Core West	NA NA	0	4.00	2	73	0	1440	NA
Thermal Zone: F5 1-Bed Core East	NA NA	0	4.00	2	73	0	1440	NA
Thermal Zone: F5 1-Bed North	NA NA NA NA NA	0	10.00	5	187	0	3720	NA
Thermal Zone: F5 2-Bed Core NE-NW	NA NA	0	6.00	4	110	0	2160	NA
Thermal Zone: F5 2-Bed East	NA NA NA	0	9.00	6	165	0	3240	NA
Thermal Zone: F5 2-Bed West	NA NA NA	0	9.00	6	165	0	3240	NA
Thermal Zone: F5 3-Bed NE	NA	0	4.00	3	72	0	1410	NA
Thermal Zone: F5 3-Bed NW	NA	0	4.00	3	72	0	1410	NA
Thermal Zone: F5 Studio SE	NA	0	2.00	1	31	0	540	NA
Thermal Zone: F5 Studio SW	NA	0	2.00	1	31	0	540	NA
Thermal Zone: F5 Corridor	General - Corridors General - Unoccupied General - Unoccupied General - Unoccupied Lodging - Laundry rooms, central General - Corridors General - Corridors	0	13.54	0	403	0	2760	Occupant Sensor

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K10. DISTRIBUTION SUMMARY §120.4/140.4(l)

1	2	3	4	5
Equipment Name	Dry System Distribution			Status ¹
	Duct Leakage Verification Y/N	Ducts		
		Insulation R-Value	Location	
BaseSys5 F1	No	0	Conditioned	N
DOAS1	No	0	Conditioned	N
ZnSys F2-4 1-Bed Core N	No	0	Conditioned	N
ZnSys F2-4 1-Bed Core West	No	0	Conditioned	N
ZnSys F2-4 1-Bed Core East	No	0	Conditioned	N
ZnSys F2-4 1-Bed North	No	0	Conditioned	N
ZnSys F2-4 2-Bed Core NE-NW	No	0	Conditioned	N
ZnSys F2-4 2-Bed East	No	0	Conditioned	N
ZnSys F2-4 2-Bed West	No	0	Conditioned	N
ZnSys F2-4 3-Bed NE	No	0	Conditioned	N
ZnSys F2-4 3-Bed NW	No	0	Conditioned	N
ZnSys F2-4 Studio SE	No	0	Conditioned	N
ZnSys F2-4 Studio SW	No	0	Conditioned	N
ZnSys F5 1-Bed Core N	No	0	Conditioned	N
ZnSys F5 1-Bed Core West	No	0	Conditioned	N
ZnSys F5 1-Bed Core East	No	0	Conditioned	N
ZnSys F5 1-Bed North	No	0	Conditioned	N
ZnSys F5 2-Bed Core NE-NW	No	0	Conditioned	N
ZnSys F5 2-Bed East	No	0	Conditioned	N
ZnSys F5 2-Bed West	No	0	Conditioned	N
ZnSys F5 3-Bed NE	No	0	Conditioned	N
ZnSys F5 3-Bed NW	No	0	Conditioned	N
ZnSys F5 Studio SE	No	0	Conditioned	N
ZnSys F5 Studio SW	No	0	Conditioned	N

¹ Status: N - New, E - Existing

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Does the Project include Zonal Systems?	Yes
---	-----

K11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4											
1	2	3	4	5	6	7	8	9	10	11	12
System ID	Zone Name	System Type	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
			Heating	Cooling	Design	Min.	Min. Ratio	BHP	Watts	Cycles	ECM Motor
ZnSys F2-4 1-Bed Core N	Thermal Zone: F2-4 1-Bed Core N	SZHP	11.00	10.00	379	NA	NA	0.152	132.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 1-Bed Core West	Thermal Zone: F2-4 1-Bed Core West	SZHP	11.00	10.00	379	NA	NA	0.152	132.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 1-Bed Core East	Thermal Zone: F2-4 1-Bed Core East	SZHP	11.00	10.00	379	NA	NA	0.152	132.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 1-Bed North	Thermal Zone: F2-4 1-Bed North	SZHP	11.00	10.00	391	NA	NA	0.157	136.9	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 2-Bed Core NE-NW	Thermal Zone: F2-4 2-Bed Core NE-NW	SZHP	16.00	15.00	568	NA	NA	0.228	198.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 2-Bed East	Thermal Zone: F2-4 2-Bed East	SZHP	16.00	15.00	568	NA	NA	0.228	198.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 2-Bed West	Thermal Zone: F2-4 2-Bed West	SZHP	16.00	15.00	568	NA	NA	0.228	198.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 3-Bed NE	Thermal Zone: F2-4 3-Bed NE	SZHP	21.00	20.00	742	NA	NA	0.298	259.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 3-Bed NW	Thermal Zone: F2-4 3-Bed NW	SZHP	21.00	20.00	742	NA	NA	0.298	259.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 Studio SE	Thermal Zone: F2-4 Studio SE	SZHP	8.00	8.00	284	NA	NA	0.114	99.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F2-4 Studio SW	Thermal Zone: F2-4 Studio SW	SZHP	8.00	8.00	284	NA	NA	0.114	99.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 1-Bed Core N	Thermal Zone: F5 1-Bed Core N	SZHP	11.00	10.00	379	NA	NA	0.152	132.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 1-Bed Core West	Thermal Zone: F5 1-Bed Core West	SZHP	11.00	10.00	379	NA	NA	0.152	132.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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K11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1	2	3	4	5	6	7	8	9	10	11	12
System ID	Zone Name	System Type	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
			Heating	Cooling	Design	Min.	Min. Ratio	BHP	Watts	Cycles	ECM Motor
ZnSys F5 1-Bed Core East	Thermal Zone: F5 1-Bed Core East	SZHP	11.00	10.00	379	NA	NA	0.152	132.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 1-Bed North	Thermal Zone: F5 1-Bed North	SZHP	11.00	10.00	391	NA	NA	0.157	136.9	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 2-Bed Core NE-NW	Thermal Zone: F5 2-Bed Core NE-NW	SZHP	16.00	15.00	568	NA	NA	0.228	198.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 2-Bed East	Thermal Zone: F5 2-Bed East	SZHP	16.00	15.00	568	NA	NA	0.228	198.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 2-Bed West	Thermal Zone: F5 2-Bed West	SZHP	16.00	15.00	568	NA	NA	0.228	198.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 3-Bed NE	Thermal Zone: F5 3-Bed NE	SZHP	21.00	20.00	742	NA	NA	0.298	259.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 3-Bed NW	Thermal Zone: F5 3-Bed NW	SZHP	21.00	20.00	742	NA	NA	0.298	259.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 Studio SE	Thermal Zone: F5 Studio SE	SZHP	8.00	8.00	284	NA	NA	0.114	99.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ZnSys F5 Studio SW	Thermal Zone: F5 Studio SW	SZHP	8.00	8.00	284	NA	NA	0.114	99.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bal F2 1-Bed Core N	Thermal Zone: F2-4 1-Bed Core N	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 1-Bed Core West	Thermal Zone: F2-4 1-Bed Core West	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 1-Bed Core East	Thermal Zone: F2-4 1-Bed Core East	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 1-Bed North	Thermal Zone: F2-4 1-Bed North	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 2-Bed Core NE-NW	Thermal Zone: F2-4 2-Bed Core NE-NW	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>

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K11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1	2	3	4	5	6	7	8	9	10	11	12
System ID	Zone Name	System Type	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
			Heating	Cooling	Design	Min.	Min. Ratio	BHP	Watts	Cycles	ECM Motor
Bal F2 2-Bed East	Thermal Zone: F2-4 2-Bed East	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 2-Bed West	Thermal Zone: F2-4 2-Bed West	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 3-Bed NE	Thermal Zone: F2-4 3-Bed NE	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 3-Bed NW	Thermal Zone: F2-4 3-Bed NW	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 Studio SE	Thermal Zone: F2-4 Studio SE	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F2 Studio SW	Thermal Zone: F2-4 Studio SW	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 1-Bed Core N	Thermal Zone: F5 1-Bed Core N	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 1-Bed Core West	Thermal Zone: F5 1-Bed Core West	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 1-Bed Core East	Thermal Zone: F5 1-Bed Core East	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 1-Bed North	Thermal Zone: F5 1-Bed North	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 2-Bed Core NE-NW	Thermal Zone: F5 2-Bed Core NE-NW	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 2-Bed East	Thermal Zone: F5 2-Bed East	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 2-Bed West	Thermal Zone: F5 2-Bed West	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 3-Bed NE	Thermal Zone: F5 3-Bed NE	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>

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K11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1	2	3	4	5	6	7	8	9	10	11	12
System ID	Zone Name	System Type	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
			Heating	Cooling	Design	Min.	Min. Ratio	BHP	Watts	Cycles	ECM Motor
Bal F5 3-Bed NW	Thermal Zone: F5 3-Bed NW	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 Studio SE	Thermal Zone: F5 Studio SE	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
Bal F5 Studio SW	Thermal Zone: F5 Studio SW	VentilationOnly	NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
BaseVAV TrmlUnit	Thermal Zone: F1 Business Center	VAVReheatBox	10.00	NA	426	85	0.20	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-2	Thermal Zone: F1 Corridor	VAVReheatBox	53.00	NA	1373	277	0.20	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-3	Thermal Zone: F1 Lounge	VAVReheatBox	22.00	NA	1115	223	0.20	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-4	Thermal Zone: F1 Fitness Center	VAVReheatBox	18.00	NA	616	450	0.73	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-5	Thermal Zone: F1 Leasing Office	VAVReheatBox	9.00	NA	282	56	0.20	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-6	Thermal Zone: F1 Mechanical Room	VAVReheatBox	9.00	NA	572	114	0.20	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-7	Thermal Zone: F1 Retail N-NW	VAVReheatBox	97.00	NA	4023	1496	0.37	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-8	Thermal Zone: F1 Retail NE	VAVReheatBox	72.00	NA	3064	1080	0.35	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-9	Thermal Zone: F1 Retail SE	VAVReheatBox	52.00	NA	2034	720	0.35	NA	NA	NA	<input type="checkbox"/>
BaseVAV TrmlUnit-10	Thermal Zone: F1 Retail SW	VAVReheatBox	77.00	NA	3026	1107	0.37	NA	NA	NA	<input type="checkbox"/>
DOAS1 TrmlUnit-1	Thermal Zone: F2-4 Corridor	Uncontrolled	NA	NA	1208	NA	0.00	NA	NA	NA	<input type="checkbox"/>

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K11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4											
1	2	3	4	5	6	7	8	9	10	11	12
System ID	Zone Name	System Type	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
			Heating	Cooling	Design	Min.	Min. Ratio	BHP	Watts	Cycles	ECM Motor
DOAS1 TrmlUnit-3	Thermal Zone: F5 Corridor	Uncontrolled	NA	NA	403	NA	0.00	NA	NA	NA	<input type="checkbox"/>

K12. EVAPORATIVE COOLER SUMMARY
This Section Does Not Apply

L. UNMET LOAD HOURS
This Section Does Not Apply

M. COVERED PROCESS SUMMARY §140.9

M1. ENCLOSED PARKING GARAGES				
1	2	3	4	5
Garage Exhaust System Name	Design Exhaust Flow Rate (cfm)	Minimum Exhaust Flow Rate (cfm)	Fan Power (Watts)	CO Control Yes/No
Parking Garage Vent System	20,925	4,185	15.769	Yes

M2. COMMERCIAL KITCHENS
This Section Does Not Apply

M3. COMPUTER ROOMS
This Section Does Not Apply

M4. LABORATORY/PROCESS EXHAUST
This Section Does Not Apply

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N. INDOOR LIGHTING SUMMARY §140.6

N1. INDOOR CONDITIONED LIGHTING GENERAL INFO § 140.6¹

						Confirmed	
1	2	3	4	5		Pass	Fail
Occupancy Type ¹	Conditioned Floor Area ² (ft²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Additional (Custom) Allowance			
				Area Category Footnotes (Watts)	Tailored Method (Watts)		
Convention, Conference, Multipurpose and Meeting Area	360	306	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Corridor Area	10,065	6,039	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Lounge, Breakroom, or Waiting Area	1,050	683	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Electrical, Mechanical, Telephone Rooms	807	323	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Exercise/Fitness Center and Gymnasium Areas	900	450	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Office Area (>250 square feet)	345	224	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Retail Sales Area (Retail Merchandise Sales)	17,613	17,613	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Stairwell	1,800	900	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
High-Rise Residential Living Spaces	79,440		0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Laundry Area	720	324	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Building Totals:	113,100	26,862	0	0	0		

¹ See Table 140.6-C

² See NRCC-LTI-01-E for unconditioned spaces

³ Lighting information for existing spaces modeled is not included in the table

N2. INDOOR CONDITIONED LIGHTING SCHEDULE § 130.0

This Section Does Not Apply

¹ If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details.

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N3. INDOOR CONDITIONED LIGHTING CONTROL CREDITS § 140.6

This Section Does Not Apply

N4: INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS § 130.1

This Section Does Not Apply

§130.1(a) = Manual area controls; §130.0(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive

N5. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST § 140.6

General lighting power (see Table D)	0
General lighting power from special function areas (see Table E)	NA
Additional "use it or lose it" (See Table G)	0
Total watts	0

N6. GENERAL LIGHTING POWER § 140.6-D

This Section Does Not Apply

N7. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS § 140.6(c) 3H

Room Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft²)	Allowed Watts	Confirmed	
							Pass	Fail
NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>

Note: Tailored Method for Special Function Areas is not currently implemented

N8. ROOM CAVITY RATIO

Rectangular Spaces							Confirmed	
Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR		Pass	Fail
NA	NA	NA	NA	NA	NA		<input type="checkbox"/>	<input type="checkbox"/>

Non-Rectangular Spaces

This Section Does Not Apply

Note: All applicable spaces are listed under the Non-Rectangular Spaces table

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N9. ADDITIONAL "USE IT OR LOSE IT"						
1.	2.	3.	4.	Allowed Watts	Confirmed	
Wall Display	Combined Floor Display and Task Lighting	Combined Ornamental and Special Effects Lighting	Very Valuable Merchandise		Pass	Fail
0	0	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>

N10. Wall Display
This Section Does Not Apply

N11. Floor Display and Task Lighting
This Section Does Not Apply

N12. Combined Ornamental and Special Effects Lighting
This Section Does Not Apply

N13. Very Valuable Merchandise
This Section Does Not Apply

N14. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS § 130.4							
Declaration of Required Acceptance Certificates (NRCA) –Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).							
Test Description		Indoor			Outdoor	Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTO-02-A	Pass	Fail
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls		
Occupant Sensors		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automatic Time Switch		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automatic Daylighting		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demand Responsive		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Controls		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online at:
https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Envelope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-ENV-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-MCH-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Plumbing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-02-E - Must be submitted for high-rise residential and hotel/ motel central hot water distribution systems to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-21-E - Must be HERS verified for central systems in high-rise residential hotel/ motel application	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-22-E - Must be HERS verified for single dwelling unit systems in high-rise residential, hotel/motel application	<input type="checkbox"/>	<input type="checkbox"/>
Indoor Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS) to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTO-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTO-02-E - Must be submitted for EMCS Lighting Control system	<input type="checkbox"/>	<input type="checkbox"/>
Sign Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTS-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Electrical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-ELC-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Photovoltaic	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-SPV-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>

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O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

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Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Covered Process	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PRC-01-E - Must be submitted for all Refrigerated Warehouses	<input type="checkbox"/>	<input type="checkbox"/>

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Envelope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-ENV-02-F - NRFC label verification for fenestration	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-ENV-03-F - Daylighting Design PAFs	<input type="checkbox"/>	<input type="checkbox"/>

Not useable for compliance

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P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Mechanical	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-03-A Constant Volume Single Zone HVAC	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-04(a)-A Air Distribution Duct Leakage - HERS Verification required	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-04(b)-A Air Distribution Duct Leakage - ATT only	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-05-A Air Economizer Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-07-A Supply Fan Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-08-A Valve Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-09-A Supply Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-10-A Hydronic System Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-11-A Automatic Demand Shed Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-16-A Supply Air Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-17-A Condenser Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-18 Energy Management Control Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-19 Occupancy Sensor Controls	<input type="checkbox"/>	<input type="checkbox"/>

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P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Indoor Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-03-A - Automatic Daylight Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-04-A - Demand Responsive Lighting Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-05-A - Institutional Tuning Power Adjustment Factor (PAF)	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTO-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Sign Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTO-02-A - Outdoor Lighting Controls	<input type="checkbox"/>	<input type="checkbox"/>
Covered Process	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-01-F - Compressed Air Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-02-F - Kitchen Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-03-F - Garage Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-04-F - Refrigerated Warehouse - Evaporator Fan Motor Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-05-F - Refrigerated Warehouse - Evaporative Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-06-F - Refrigerated Warehouse - Air Cooled Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-07-F - Refrigerated Warehouse - Variable Speed Compressor	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-08-F - Electrical Resistance Underslab Heating System	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-15-F - Fume Hood Automatic Sash Closures System	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-16-A - Adiabatic Condensers	<input type="checkbox"/>	<input type="checkbox"/>

Not useable

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Q. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online at:
https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/

Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Mechanical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCV-MCH-04-H Duct Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCV-MCH-24-H Enclosure Air Leakage	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCV-MCH-27 Indoor Air Quality & Mechanical Ventilation	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	NRCV-MCH-32-H Local Mechanical Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
Plumbing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCV-PLB-21-H - HERS verified central systems in high-rise residential, hotel/motel application	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application	<input type="checkbox"/>	<input type="checkbox"/>

Not useable for compliance

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT § 10-103

Documentation Author Name:	Signature:
Company:	
Address:	Signature Date: 2020-01-16
City/State/Zip:	CEA/ HERS Certification Identification (if applicable):
Phone:	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

<p>I certify the following under penalty of perjury, under the laws of the State of California:</p> <ol style="list-style-type: none"> 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer) 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. 	
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Responsible Envelope Designer Name:	Signature:
Company:	
Address:	Date Signed:
City/State/Zip:	Declaration Statement Type:
Phone:	Title: License #:

Responsible Lighting Designer Name:	Signature:
Company:	
Address:	Date Signed:
City/State/Zip:	Declaration Statement Type:
Phone:	Title: License #:

Responsible Mechanical Designer Name: - specify -	Signature:
Company:	
Address:	Date Signed:
City/State/Zip:	Declaration Statement Type:
Phone:	Title: License #: