BUILDING ENERGY ANALYSIS REPORT

PROJECT:

Nonresidential Performance Sample

Project Designer:

Jon Doe Design 123 Easy St. San Diego, CA 92000 858-123-4567

Report Prepared by:

David Hensel, PE Hensel Consulting Engineers, Inc. 5857 Owens Ave., 3rd Floor Carlsbad, CA 92008 (619) 665-3259



Job Number:

19441

Date:

12/28/2019

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2019 Building Energy Efficiency Standards.

This program developed by EnergySoft Software – www.energysoft.com.

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A. G	ENERAL INFORMATION				
1.	Project Location (city)	Sacramento	8.	Standards Version	Compliance2019
2.	CA Zip Code	95800	9.	Compliance Software (version)	EnergyPro 8.0
3.	Climate Zone	12	10.	Weather File	SACRAMENTO-EXECUTIVE_724830_CZ2010.epw
4.	Total Conditioned Floor Area in Scope	4,480 ft ²	11.	Building Orientation (deg)	(N) 0 deg
5.	Total Unconditioned Floor Area	1,200 ft ²	12.	Permitted Scope of Work	NewComplete
6.	Total # of Stories (Habitable Above Grade)	2	13	Building Type(s)	Nonresidential
7.	Total # of dwelling units	0	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** □ Performance Performance The following building components are ONLY eligible for prescriptive Covered Process: Commercial compliance and should be documented on the NRCC form listed if within the Envelope scope of the permit application (i.e. compliance will not be shown on the Kitchens \boxtimes Not Included Not Included NRCC-PRF-E). \boxtimes Performance Performance Indoor Lighting (Unconditioned)§140.6 NRCC-LTI -E is required Mechanical Covered Process: Computer Rooms Not Included Not Included Outdoor Lighting §140.7 NRCC-LTO-E is required \boxtimes Performance Performance Sign Lighting §140.8 NRCC -LTS-E is required Covered Process: Laboratory Exhaust Domestic Hot Water Not Included Not Included **Mandatory Measures** Electrical power systems, commissioning and solar ready requirements are □ Performance mandatory and should be documented on the NRCC form listed if applicable Lighting (Indoor Conditioned) (i.e. compliance will not be shown on the NRCC-PRF-E.) Not Included NRCC-ELC-E is required Electrical Power Distribution S110.11 Performance Commissioning \$120.8 NRCC-CXR-E is required Solar Thermal Water Heating 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/ft ²-yr)

COMPLIES

Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹
Space Heating	9.31	19.67	-10.36
Space Cooling	103.63	119.87	-16.24
Indoor Fans	134.09	99.45	34.64
Heat Rejection			
Pumps & Misc.	-		
Domestic Hot Water	37.02	32.92	4.10
Indoor Lighting	69.80	44.85	24.95
ENERGY STANDARDS COMPLIANCE TOTAL	353.85	316.76	37.09 (10.5%)

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

	☐ This project is pursuing CalGreen Tier 2				
ent	4	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹	
		95.87	95.87	0.0	
		92.49	92.49	0.0	
		5.06	5.06	0.0	
		23.48	23.48	0.0	
NENTS		570.75	533.66	37.1 (6.5%)	
			95.87 92.49 5.06 23.48	Standard Design (TDV) Proposed Design (TDV) 95.87 95.87 92.49 92.49 5.06 5.06 23.48 23.48	

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

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D. EXCEPTIONAL CONDITIONS

The general lighting exceptional method is employed for one or more spaces. Verify that the lighting allowances match the lighting installed on the plans and serve the areas within each space as identified in the compliance model.

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 uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.

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.

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

Standard Building (Compliance)

G. ENVELOPE GENERAL INFORMATION

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	800 ft ²	320 ft ²	40.0%
East-Facing ²	1,040 ft ²	320 ft ²	30.8%
South-Facing ³	2,000 ft ²	260 ft ²	13.0%
West-Facing ⁴	720 ft ²	0 ft²	00.0%
Total	4,560 ft ²	900 ft ²	19.7%
Roof	2,880 ft ²	0 ft²	00.0%

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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).

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H. FENESTRATION ASSEMBLY SUM	MARY §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	Status²
Double Metal Tinted	VerticalFenestration FixedWindow MetalFraming	Default Performance	SiteBuilt	900	0.71	0.60	0.77	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.

I. ENVELOPE DETAILS §120.7 & §140.3

1. OPAQUE SURFACE ASSEMBLY SUMMARY								
1	2	3	4	5	6	7	8	9
Surface Name	Surface Type	Description of Assembly Layers	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Status ¹
R-13 Wall9	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-13 Gypsum Board - 1/2 in.	4560	Wood	13	NA	U-Factor: 0.102	N
Slab On Grade15	UndergroundFloor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	4400	NA	0	NA	F-Factor: 0.730	N
R-13 Wall91	InteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-13 Gypsum Board - 1/2 in.	200	Wood	13	NA	U-Factor: 0.095	N
R-30 Roof Attic24	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.	3680	Wood	30	NA	U-Factor: 0.038	N

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

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I. ENVELOPE DETAILS §120.7 & §140.3

I1. OPAQUE SURFACE ASSEMBLY SUMMARY

1	2	3	4	5	6	1	8	9
Surface Name	Surface Type	Description of Assembly Layers	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Status¹
R-0 Floor No Crawlspace49	InteriorFloor	Air - Cavity - Wall Roof Ceiling - 4 in. or more Plywood - 1/2 in. Carpet - 3/4 in.	1280	NA	0	NA	U-Factor: 0.183	Ν

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

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1	2	3	3	4			
Fenestration Tag/ID	Fenestration Orientation	Overhang D	Overhang Dimensions				
renestration rag/ID	renestration Orientation	Horizontal Projection	Distance Above Window	Vertical Projection			
East Windows13	East	6.0 ft.	0.1 ft.	Left: 0 ft., Right: 0 ft.			
East Windows30	East	6.0 ft.	0.1 ft.	Left: 0 ft., Right: 0 ft.			
South Windows32	South	6.0 ft.	0.1 ft.	Left: 0 ft., Right: 0 ft.			
South Windows46	South	6.0 ft.	0.1 ft.	Left: 0 ft., Right: 0 ft.			

13. OPAQUE DOOR SUMMARY

1	2	3
Assembly Name	Overall U-factor	Status ¹
Wood Door35	0.500	N

J. CRRC ROOFING PRODUCT SUMMARY S140.3

This Section Does Not Apply

K. HVAC SYSTEM SUMMARY §110.1 & §110.2

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Dry System Equipment ¹ (Fan & Economizer info included below in Table N)									
1	2	3	4	5	6	7	8	9	10
				Heati	ng		Cooli	ng	St
Equipment Name	Equipment Type	Qty	Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtuh)	Efficiency	Total Cooling Output (kBtu/h)	Efficiency	Status ⁵
Retail Mech. System	SZVAVAC (Packaged3Phase)	1	92	No	0	AFUE-81.0	69	EER-12.0	N
Parking Garage17	Exhaust (NA)	1	0	No	0	NA	0	NA	N
Office Mech System	SZVAVAC (Packaged3Phase)	1	61	No	0	AFUE-81.0	69	EER-12.0	N
Restaurant Mech Sys.	SZVAVAC (Packaged3Phase)	1	148	No	0	AFUE-82.0	154	EER-11.4	N

K2. ECONOMIZER 8	& FAN SYSTEMS S	SUMMARY §	140.4 ¹																	
1	2	3	4	5	6	7	8	9	10	11	12	13								
	System Type	Design OA		Su	pply Fan				Return Fan		Economizer Type	St								
Name or Item Tag	packaged, DOAS, etc.	CFM	CFM	ВНР	Watts	Control	CFM	ВНР	Watts	Control	(if present)	Status ⁵								
Retail Mech. System	SZVAVAC	256	2400	1.200	1034.4	VariableSpeedDri ve	NA	NA	NA	NA	DifferentialDryBu lb	N								
Office Mech System	SZVAVAC	288	2400	1.140	982.6	VariableSpeedDri ve	NA	NA	NA	NA	DifferentialDryBu lb	N								
Restaurant Mech Sys.	SZVAVAC	640	5000	3.040	2532.5	VariableSpeedDri ve	NA	NA	NA	NA	DifferentialDryBu lb	N								
¹ Status: N - New, A – Altere	d, E – Existing			V								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 H20)
Parking Garage17	2-Parking Garage	1	1,000	0.500	436.0	2.06

K4. Wet System Equipment (boilers, chillers, cooling towers, etc.

This Section Does Not Apply

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K5. DHW EQUIPME	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
Standard Gas 50 gal or Le2	Gas	Storage	1	50.00	40	UEF: 0.60	NA	SBLF: NA	NA	NA

K6. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS

This Section Does Not Apply

K7. SOLAR HOT WATER HEATING SUMMARY

This Section Does Not Apply

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
Retail Mech. System	No Optimum Start	NA	No Evaporative Cooler	No Heat Recovery	1 Zones With CO2Sensor Vent. Control, No DDC Differential Drybulb Economizer No Supply Air Temp. Control
Office Mech System	No Optimum Start	NA	No Evaporative Cooler	No Heat Recovery	No DCV Controls, No DDC Differential Drybulb Economizer No Supply Air Temp. Control
Restaurant Mech Sys.	No Optimum Start	NA	No Evaporative Cooler	No Heat Recovery	1 Zones With CO2Sensor Vent. Control, No DDC Differential Drybulb Economizer No Supply Air Temp. Control
Plant - DHW1 - SHW	NA	NA	NA	NA	Fixed Temperature Control, No DDC
otes: This table includes controls related	to the performance path only. For p	rojects using the prescriptive path,	mandatory and prescriptive controls requir	rements are documented on the NRCC-MC	CH-E.

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K9. MECHANICAL VENTILATION AN	9. MECHANICAL VENTILATION AND REHEAT §120.1							
1	2	3	4	5	6	7	8	9
	Mechanical Ventilation							DCV or Occupant Soncor Controls or
Zone Name	Ventilation Function	# hotel rooms	# of people	# of bedrooms	Min Supply OA CFM	Min Exhaust CFM	Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
1-Retail Zone	Retail - Sales	0	10.67	0	256	0	1280	DCV
3-Office Zone	Office - Office space	0	9.60	0	288	0	1920	NA
4-Restaurant Zone	Food Service - Bars, cocktail lounges	0	50.00	0	640	0	1280	DCV

K10. DISTRIBUTION SUMMARY §120.4/140	.4(1)					
1	2	3	4	5		
	Dry System Distribution					
Equipment Name	Dust Lookage Varification V/N	Du	tatus			
	Duct Leakage Verification Y/N	Insulation R-Value	Location	S ₁		
Retail Mech. System	No	8	Conditioned	N		
Office Mech System	No	8	Conditioned	N		
Restaurant Mech Sys.	No	8	Conditioned	N		
¹ Status: N - New, E – Existing				•		

Does the Project include Zonal Systems?			4		No
---	--	--	---	--	----

K11. ZONAL SYSTEM A	ND TERMINAL UNI	T SUMMARY § 140.	4					X11. 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										
System ib	Zone Name	System Type	Heating	Cooling	Design	Min.	Min. Ratio	ВНР	Watts	Cycles	ECM Motor							
1-Retail Zone-Trm	1-Retail Zone	VAVNoReheatBox	NA	NA	2400	600	0.25	NA	NA	NA								
3-Office Zone-Trm	3-Office Zone	VAVNoReheatBox	NA	NA	2400	600	0.25	NA	NA	NA								
4-Restaurant Zone-Trm	4-Restaurant Zone	VAVNoReheatBox	NA	NA	5000	1200	0.24	NA	NA	NA								

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K12. EVAPORATIVE C	OOLER SUM	1MARY								
This Section Does Not A	pply									
L. UNMET LOAD HOU	RS									
This Section Does Not A										
This section Boes Not 7	PP: 1									
M. COVERED PROCES	S SUMMAR	8Y §140.9								
M1. ENCLOSED PARK	ING GARAG	ES					-			
1		2		3		4	5	5		
Garage Exhaust Sys	tem Name	Design Exhaust Flo	ow Rate (cfm)	Minimum Exhaust Flor	w Rate (cfm)	Fan Power (Watts)	an Power (Watts) CO Control Y		ſes/No	
Parking Garag	e17	1,000)	0.436 No						
M2. COMMERCIAL KI	TCHENS									
This Section Does Not A	pply									
M3. COMPUTER ROC	MS									
This Section Does Not A	pply				*					
M4. LABORATORY/PF	OCESS EXH	AUST								
This Section Does Not A	pply									
N. INDOOR LIGHTING	SUMMARY	/ §140.6					·			
N1. INDOOR CONDIT	IONED LIGH	ITING GENERAL INFO	\$ 140 6 ¹							
NI. INDOOR CONDIT	IONED LIGH	TING GENERAL INFO	3 140.6					Conf	irmed	
1		2	3		4		5		1	
							tom) Allowance	Pass	Fail	
Occupancy Type ¹	Conc	ditioned Floor Area ² (ft ²)	Installed Lighting (Watts)		Control Credits Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)			

1,280

560

Retail Sales Area (Retail

Merchandise Sales)

0

0

(Watts)

0

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N1. INDOOR CONDITIONE	D LIGHTING GENERAL INFO	§ 140.6¹						
						Confi	irmed	
1	2	3	4	į	5			
	Conditioned Floor Area ²	Installed Lighting Power	Lighting Control Credits	Additional (Cus	tom) Allowance	Pass	Fail	
Occupancy Type ¹	(ft²)	(Watts)	(Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)			
Office Area (>250 square feet)	1,920	756	0	0	0			
Dining Area (Bar/Lounge and Fine Dining)	1,280	840	0	384	0			
Building Totals:	4,480	2,156	0	384	0			

¹ See Table 140.6-C

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

N2. INDOOR CONDITIO	N2. INDOOR CONDITIONED LIGHTING SCHEDULE § 130.01								
Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft² in offices)			ln	Installed Watts (Conditioned)					
	Complete Luminaire Description (i.e.,		How Wattage	is Determined	Total Number				
Name or Item Tag	3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	CEC Default from NA8	According to §130.0(c)	Luminaires	Installed Watts	Pass	Fail	
A-1	Suspended LED	28	No	Yes	27	756			
F-1	Suspended LED	28	No	Yes	20	560			
F-2	Standard Track	300	No	Yes	2	600			
L-1	LED Can	12	No	Yes	20	240			

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

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

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N3. INDOOR CO	13. INDOOR CONDITIONED LIGHTING CONTROL CREDITS § 140.6								
Lighting Cor	ntrol Credits Schedule (includes all li compliance credit per §14	Control Credit Calculation				Confi	rmed		
Location in Building	Occupancy Type (must meet requirements of Table 140.6-A)	Type/Description of Lighting Control (i.e., partial on occupancy sensor, manual dimming, etc.)	# of Units	Watts of Controlled Lighting	Power Adjustment Factor	Control Credit Watts	V If Acceptance Test Required	Pass	Fail
S-1-Retail Zone	Retail Sales Area (Retail Merchandise Sales)	- none specified none specified none specified none specified none specified -	0		0.000.000.000.0	0			
S-3-Office Zone	Office Area (>250 square feet)	- none specified none specified none specified none specified none specified -	0		0.000.000.000.0	0			
S-4-Restaurant Zone	Dining Area (Bar/Lounge and Fine Dining)	- none specified none specified none specified none specified none specified -	0		0.000.000.000.0	0			
S-4-Restaurant Zone	Dining Area (Bar/Lounge and Fine Dining)	- none specified none specified none specified none specified none specified -	0		0.000.000.000.0	0			

N4: INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CON	TROLS § 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

15. 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	

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N7. GENERAL LIGI	HTING FROM SPECIAL FUNCTION AREAS § 140							
Room Number	Primary Function Area	Illuminance Value Room Cavity Ratio		Allowed LPD	Floor Area (ft²)	Allowed Watts	Confi	rmed
	,	(LUX)	(Table G)				Pass	Fail
NA	NA	NA	NA	NA	NA	NA		

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

	Rectans												
		Rectangular Spaces											
Description	Poom Longth (ft)		Room Width (ft	,	Poom Cavity Hoight (ft)	DCD	Confi	irmed					
lass/Activity Description	ROOM Length (It)	ROUTH LETIGETT (TE)		,	Room Cavity Height (It)	NCK	Pass	Fail					
A	NA		NA		NA	NA							
							,						
/	A Description	A NA	A NA	A NA NA	A NA NA	A NA NA NA	A NA NA NA NA	A NA					

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

N9. ADDITIONAL "USE IT OR LOSE	IT"					
1.	2.	3.	4.		Confi	rmed
Wall Display	Combined Floor Display and Task Lighting	Combined Ornamental and Special Effects Lighting	Very Valuable Merchandise	Allowed Watts	Pass	Fail
0	0	0	0	0		

N10. Wall Display This Section Does Not Apply

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

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N12. Combined Ornamental and Special Effects Lighting

This Section Does Not Apply

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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	Confi	rmed	
		NRCA-LTI-02-A NRCA-LTI-03-A NRCA-LTI-04-A			NRCA-LTO-02-A	,	
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls	ass	Faii
Occupant Sensors	3	⊠					
Automatic Time Switch	0						
Automatic Daylighting	3		M				
Demand Responsive	0						
Outdoor Controls	1				⊠		

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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 bust 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	1	eld ector Fail
Envelope			NRCI-ENV-01-E - Must be submitted for all buildings	uss	
Mechanical		\vdash	NRCI-MCH-01-E - Must be submitted for all buildings	┢	恄
			NRCI-PLB-01-E - Must be submitted for all buildings	$\vdash \Box$	$\vdash \Box$
		×	NRCI-PLB-02-E - Must be submitted for high-rise residential and hotel/ motel central hot water distribution systems to be recognized for compliance		
Plumbing		\boxtimes	NRCI-PLB-01-E - Must be submitted for all buildings		
		×	NRCI-PLB-21-E - Must be HERS verified for central systems in high-rise residential hotel/ motel application		
		×	NRCI-PLB-22-E - Must be HERS verified for single dwelling unit systems in high-rise residential, hotel/motel application		
	\boxtimes		NRCI-LTI-01-E - Must be submitted for all buildings		
		×	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		
Indoor Lighting		×	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		
		×	NRCJ-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		
			NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance		
		×	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance		
Outdoor Lighting	×		NRCI-LTO-01-E - Must be submitted for all buildings		
Outdoor Lighting		\boxtimes	NRCI-LTO-02-E - Must be submitted for EMCS Lighting Control system		
Sign Lighting		\boxtimes	NRCI-LTS-01-E - Must be submitted for all buildings		
Electrical		\boxtimes	NRCI-ELC-01-E - Must be submitted for all buildings		
Photovoltaic		\boxtimes	NRCI-SPV-01-E - Must be submitted for all buildings		

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O. DECLARATION OF	REQUIRED CERTIFICATES OF	INSTA	LLATIC	N				
compliance. These do	cuments bust be retained an	d provi	ided to	Author to indicate which Certific the building inspector during co pliance_documents/Nonresident	onstruction and can be	st be submitted for the features to be recognize found online at:	d for	
Building Component			NO		Form/Titl	e		eld ector Fail
Cove	ered Process		\boxtimes	NRCI-PRC-01-E - Must be submitte	IRCI-PRC-01-E - Must be submitted for all Refrigerated Warehouses			
							<u></u>	
P. DECLARATION OF F	REQUIRED CERTIFICATES OF	ACCEP.	TANCE					
compliance. These do	cuments must be provided to	the b	uilding	inspector during construction a	nd must be completed	st be submitted for the features to be recognize through an Acceptance Test Technician Certifica cuments/Nonresidential_Documents/NRCA/	-	
Buildir	ng Component	YES	NO	Form/Title				eld ector Fail
		\boxtimes		NRCA-ENV-02-F - NRFC label verific	cation for fenestration		Pass	
[E	Envelope			NRCA-ENV-03-F - Daylighting Desig	n PAFs			

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Project Name:

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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	1	eld ector
-				Pass	Fail
			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		
			NRCA-MCH-03-A Constant Volume Single Zone HVAC		
			NRCA-MCH-04(a)-A Air Distribution Duct Leakage - HERS Verification required		
			NRCA-MCH-04(b)-A Air Distribution Duct Leakage - ATT only		
			NRCA-MCH-05-A Air Economizer Controls		
			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		
			NRCA-MCH-07-A Supply Fan Variable Flow Controls		
Madadad			NRCA-MCH-08-A Valve Leakage Test		
Mechanical			NRCA-MCH-09-A Supply Water Temperature Reset Controls		
		Ы	NRCA-MCH-10-A Hydronic System Variable Flow Controls		
			NRCA-MCH-11-A Automatic Demand Shed Controls		
			NRCA-MCH-12-A FDD for Packaged Direct Expansion Units		
			NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance		
			NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance		
			NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance		
			NRCA-MCH-16-A Supply Air Temperature Reset Controls		
			NRCA-MCH-17-A Condenser Water Temperature Reset Controls		
			NRCA-MCH-18 Energy Management Control Systems		
			NRCA-MCH-19 Occupancy Sensor Controls		

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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		NO	Form/Title		eld ector
				Pass	Fail
	\boxtimes		NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls		
Indoor Lighting	\boxtimes		NRCA-LTI-03-A - Automatic Daylight Controls		
indoor Lighting		\boxtimes	NRCA-LTI-04-A - Demand Responsive Lighting Controls		
		\boxtimes	NRCA-LTI-05-A - Institutional Tuning Power Adjustment Factor (PAF)		
Outdoor Lighting	\boxtimes		NRCI-LTO-01-E - Must be submitted for all buildings		
Sign Lighting	\boxtimes		NRCA-LTO-02-A - Outdoor Lighting Controls		
		\boxtimes	NRCA-PRC-01-F - Compressed Air Systems		
		\boxtimes	NRCA-PRC-02-F - Kitchen Exhaust		
		×.	NRCA-PRC-03-F - Garage Exhaust		
		\boxtimes	NRCA-PRC-04-F - Refrigerated Warehouse - Evaporator Fan Motor Controls		
Covered Process		\boxtimes	NRCA-PRC-05-F - Refrigerated Warehouse - Evaporative Condenser Controls		
Covered Process		\boxtimes	NRCA-PRC-06-F - Refrigerated Warehouse - Air Cooled Condenser Controls		
		\boxtimes	NRCA-PRC-07-F - Refrigerated Warehouse - Variable Speed Compressor		
		×	NRCA-PRC-08-F - Electrical Resistance Underslab Heating System		
		×	NRCA-PRC-15-F - Fume Hood Automatic Sash Closures System		
			NRCA-PRC-16-A - Adiabatic Condensers		

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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 bust 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		NO	Form/Title		Field Inspector	
				Pass	Fail	
Mechanical		\boxtimes	NRCV-MCH-04-H Duct Leakage Test			
		\boxtimes	NRCV-MCH-24-H Enclosure Air Leakage			
Wechanical		\boxtimes	NRCV-MCH-27 Indoor Air Quality & Mechanical Ventilation			
		\boxtimes	NRCV-MCH-32-H Local Mechanical Exhaust			
Plumbing		\boxtimes	NRCV-PLB-21-H - HERS verified central systems in high-rise residential, hotel/motel application			
Fluitibilig		\boxtimes	NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application			

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT § 10-103					
Documentation Author Name: David Hensel, PE	Signature:				
Company: Hensel Consulting Engineers, Inc.	Signature.				
Address: 5857 Owens Ave., 3rd Floor	Signature Date: 2019-12-28				
City/State/Zip: Carlsbad CA 92008	CEA/ HERS Certification Identification (if applicable): M32901				
Phone: (619) 665-3259					
DESCRIPTION OF DESCRIPTION OF THE PROPERTY.					

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- 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.

Responsible Envelope Designer Name: Jon Doe, AIA	-Signature:		
Company: Jon Doe Design			
Address: 123 Easy St.	Date Signed:		
City/State/Zip: San Diego CA 92000	Declaration Statement Type:		
Phone: 858-123-4567	Title:	License #: 123456	
Responsible Lighting Designer Name: Jon Doe, AIA	-Signature:		
Company: Jon Doe Design			
Address: 123 Easy St.	Date Signed:		
City/State/Zip: San Diego CA 92000	Declaration Statement Type:		
Phone: 858-123-4567	Title:	License #: 123456	
Responsible Mechanical Designer Name: Jon Doe, AIA	Signature:		
Company: Jon Doe Design			
Address: 123 Easy St.	Date Signed:		
City/State/Zip: San Diego CA 92000	Declaration Statement Type:		
Phone: 858-123-4567	Title:	License #: 123456	

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