AGENCY TRACKING NO. 63321-356
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120240
AC ___ FLS ___ SS ___
DATE JAN 0 2 2020

Project Name	AMS Modular Classroom 24x40	NRCC PRF-01 E	Page 11 of 18
Project Address.	Palmdale	Calculation Date/Time.	09-03, Tue, Feb 27, 2018
Compliance Scope	NewComplete	Input File Name	AMS 24x40 for DSA - CZ14 (8).cibd16

[2] See NRCC-LTI-01 E for unconditioned spaces
[3] Lighting information for existing spaces modeled is not included in the table

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1]							§ 130.0	
Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0 3 w/ft² in offices)	Installed Watts (Conditioned)						Confirmed	
Name or Item Tag	Complete Luminaire Description (i.e., 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from NA8	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Pass	Fail
2x4 VTLED	2x4 - 60w LED	60	No	Yes	8	480	☐	☐

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

S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES	§ 140.9
This Section Does Not Apply	

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS	§ 140.9
This Section Does Not Apply	

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS	§ 140.9
This Section Does Not Apply	

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS	§ 140.9
This Section Does Not Apply	

T. UNMET LOAD HOURS
This Section Does Not Apply

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	--	2.6	--	12.5	--	--
Space Cooling	3.0	3.6	-0 6	--	--	--

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U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Indoor Fans	4.5	1.9	2.6	--	--	--
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	--	--	--	--	--	--
Domestic Hot Water	--	--	--	6.3	6 3	0 0
Indoor Lighting	1.8	1.0	0.8	--	--	--
COMPLIANCE TOTAL	9.3	9 1	0.2	18.8	6.3	12.5
Receptacle	2 5	2.5	0.0	--	--	--
Process	--	--	--	--	--	--
Other Ltg	--	--	--	--	--	--
Process Motors	--	--	--	--	--	--
TOTAL	11.8	11.6	0.2	18.8	6.3	12.5

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	§ 10-103
I certify that this Certificate of Compliance documentation is accurate and complete	
Documentation Author Name: Hans Marsman, CEA, CEPE, LEED AP BD+C	Signature: CABEC Digitally signed by Hans Marsman Date. 2018 02 27 09:41:56 -08'00'
Company: Brummitt Energy Associates, Inc	Signature Date
Address 777 South Highway 101, Suite 203	
City/State/Zip: Solana Beach California 92075	CEA Identification (If applicable) NR-16-09-20024
Phone 619 531 1126	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

1	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation, and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
2	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537 2 or 6737 3 to sign this document as the person responsible for its preparation, and that I am a licensed contractor performing this work.
3	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737 1

Responsible Envelope Designer Name Randall P Cavannagh	Signature:	
Company American Modular Systems | Gen7 Schools	Date Signed 11/30/16	
Address. 787 Spreckels Avenue	Declaration Statement Type. 1	
City/State/Zip Manteca CA 95336	Title Engineer	License #: C12631
Phone 209 825 1921		
Responsible Lighting Designer Name Randall P Cavannagh	Signature:	
Company American Modular Systems | Gen7 Schools	Date Signed 11/30/16	
Address 787 Spreckels Avenue	Declaration Statement Type. 1	
City/State/Zip Manteca CA 95336	Title Engineer	License # C12631
Phone 209.825 1921		
Responsible Mechanical Designer Name Randall P Cavannagh	Signature:	
Company American Modular Systems | Gen7 Schools	Date Signed: 11/30/16	
Address 787 Spreckels Avenue	Declaration Statement Type 1	
City/State/Zip Manteca CA 95336	Title Engineer	License # C12631
Phone 209 825 1921		

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NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS				Confirmed	
1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes	Pass	Fail
Concr. Slab over Crawlspace	ExteriorFloor	Air - Floor - 3 1/2 in. Concrete - 140 lb/ft3 - 4 in. Carpet - 3/4 in		☐	☐
Roof U=0 70 per EZFrame	Roof	Metal Standing Seam - 1/16 in Expanded Polystyrene - EPS - 1/2 in R2 1 Metal framed roof, 24in. OC, 5 5in., R-19 Acoustic Tile - 3/8 in	See EZFrame Report for U-factor 0.70	☐	☐
R-13 in metal frame + R-5 c.i.	ExteriorWall	Wood siding - 1/2 in. Vapor permeable felt - 1/8 in. Compliance Insulation R5.00 Metal framed wall, 16in. OC, 3 5in., R-13 Gypsum Board - 1/2 in.		☐	☐

B OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)
This Section Does Not Apply

C. OPAQUE DOOR SUMMARY							Confirmed	
1. Opaque Door Assembly Name / Tag or I D.	2. Door Type	3. Certification Method	4. Operation	5. Area	6. Overall U-factor	7. Status[1]	Pass	Fail
Metal Door	MetalUninsulatedDoubleLayerDoor	DefaultPerformance	Swinging	21	0 700	N	☐	☐

[1] Status: N - New, A – Altered, E – Existing

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NRCC-PRF-MCH-DETAILS -SECTION START-

A MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)*

CONDITIONED ZONE NAME	1 DESIGN AIR FLOWS: HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	2. VENTILATION (§ 120 1): VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN VENT PER AREA (CFM/ft2)	DESIGN NUM OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Confirmed: Pass	Confirmed: Fail
Classrooms	AC-1	1,200	NA	NA	NA	NA	N	AC-1	960	NA	24 00	15 00	360	360	NA	N	N	☐	☐
								TOTAL	960		24 00		360	360	NA			☐	☐

B ZONAL SYSTEM AND TERMINAL UNIT SUMMARY													§ 140.4	
1.	2.	3.	4.		5.	6.	7			8.			Confirmed	
System ID	System Type	Qty	Rated Capacity (kBtuh): Heating	Rated Capacity (kBtuh): Cooling	Economizer	Zone Name	Airflow (cfm): Design	Min.	Min. Ratio	Fan: BHP	Cycles	ECM Motor	Pass	Fail
Classrooms TRM	Uncontrolled	1	NA	NA	NA	Classrooms	1200	NA	NA	NA	NA	☐	☐	☐

C. EXHAUST FAN SUMMARY
This Section Does Not Apply

D. DHW EQUIPMENT SUMMARY – *(Adapted from NRCC-PLB-01)*
This Section Does Not Apply

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS
This Section Does Not Apply

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F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)
This Section Does Not Apply

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify)

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	Pass	Fail
AC-1	1	X	X	--	--	--	--	--	--	--	X	--	--	--	--	--	--	--	☐	☐

H. EVAPORATIVE COOLER SUMMARY
This Section Does Not Apply

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) § 140.6

Lighting Control Credits Schedule (includes all lighting controls installed in conditioned space for compliance credit per §140 6(a)2 and Table 140.6-A)				Control Credit Calculation			√ If Acceptance Test Required	Confirmed	
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		Pass	Fail
Classroom 101	Classrooms, Lecture, Training, Vocational Areas	- none specified -	1		0.00	0		☐	☐

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B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E)	§ 130.1
This Section Does Not Apply	

§130.1(a) = Manual area controls; §130.1(b) = Multi Level, §130.1(c) = Auto Shut-Off; §130 1(d) = Mandatory Daylight, §130 1(e) = Demand Responsive

C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E)	§ 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

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E)	§ 140 6-D
This Section Does Not Apply	

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E)							§ 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	☐	☐

Note Tailored Method for Special Function Areas is not currently implemented

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)							
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	☐	☐
Non-Rectangular Spaces							
This Section Does Not Apply							

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

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G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)						
1. Wall Display	2. Combined Floor Display and Task Lighting	3. Combined Ornamental and Special Effects Lighting	4. Very Valuable Merchandise	Allowed Watts	Confirmed: Pass	Fail
0	0	0	0	0	☐	☐

5. Wall Display
This Section Does Not Apply

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

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

8. Very Valuable Merchandise
This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 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: NRCA-LTI-02-A	Indoor: NRCA-LTI-03-A	Indoor: NRCA-LTI-04-A	Outdoor: NRCA-LTO-02-A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls	Pass	Fail
Occupant Sensors	1	☒	☐	☐	☐	☐	☐
Automatic Time Switch	1	☒	☐	☐	☐	☐	☐
Automatic Daylighting	1	☐	☒	☐	☐	☐	☐
Demand Responsive		☐	☐	☐	☐	☐	☐
Outdoor Controls	1	☐	☐	☐	☒	☐	☐

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A. PROJECT GENERAL INFORMATION

1	Project Location (city)	Palmdale	8	Standards Version	Compliance2016
2	CA Zip Code		9	Compliance Software (version)	CBECC-Com 2016 3 0 SP2
3.	Climate Zone	14	10	Weather File	PALMDALE_723820_CZ2010 epw
4.	Total Conditioned Floor Area in Scope	4,800 ft²	11.	Building Orientation (deg)	(S) 165 deg
5.	Total Unconditioned Floor Area	0 ft²	12	Permitted Scope of Work	NewComplete
6	Total # of Stories (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential
7.	Total # of dwelling units	0	14	Gas Type	NaturalGas

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft²-yr) § 140 1

BUILDING COMPLIES

1. Energy Component	2 Standard Design (TDV)	3 Proposed Design (TDV)	4. Compliance Margin (TDV)	5 Percent Better than Standard
Space Heating	18 56	43 57	-25 01	-134 8%
Space Cooling	115 30	140 89	-25 59	-22 2%
Indoor Fans	102 10	33 75	68 35	66 9%
Heat Rejection	--	--	--	--
Pumps & Misc	--	--	--	--
Domestic Hot Water	11 16	11 16	--	0 0%
Indoor Lighting	34 34	24.38	9 96	29 0%
COMPLIANCE TOTAL	281.46	253 75	27 71	9.8%
Receptacle	64 30	64.30	0.0	0 0%
Process	--	--	--	--
Other Ltg	--	--	--	--
Process Motors	--	--	--	--
TOTAL	345 76	318.05	27 7	8.0%

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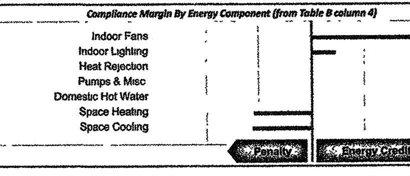
C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Indoor Fans Check envelope and mechanical
2nd	Indoor Lighting Check lighting
3rd	Heat Rejection Check envelope and mechanical
4th	Pumps & Misc. Check mechanical
5th	Domestic Hot Water Check mechanical
6th	Space Heating Check envelope and mechanical
7th	Space Cooling Check envelope and mechanical

Compliance Margin By Energy Component (from Table B column 4)



D EXCEPTIONAL CONDITIONS
The building does not include service water heating Verify that service water heating is not required and is not included in the design

E. HERS VERIFICATION
This Section Does Not Apply

F. ADDITIONAL REMARKS
Roof the roof U-value has been calculated using EZFrame per CEC guidance, U-value = 0 070

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance "NA"= not in project
For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans

Building Component	Compliance Path	Compliance Forms *(required for submittal)*	Location of Mandatory Notes on Plans
Envelope	☒ Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	M1 7
	☐ Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐ NA		
Mechanical	☒ Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	M1 7
	☐ Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐ NA		
Domestic Hot Water	☐ Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	P1.0
	☒ Prescriptive	NRCC-PLB-01 E	
	☐ NA		
Lighting (Indoor Conditioned)	☒ Performance	NRCC-PRF-LTI DETAILS (section of the NRCC-PRF-01-E)	E1 0
	☐ Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐ NA		
Covered Process Commercial Kitchens	☐ Performance	S2 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 03-E	
	☒ NA		
Covered Process Computer Rooms	☐ Performance	S3 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 04-E	
	☒ NA		
Covered Process Laboratory Exhaust	☐ Performance	S4 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 09-E	
	☒ NA		

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only eligible for prescriptive compliance Indicate which are relevant to the project				*The following building components may have mandatory requirements per Part 6 Indicate which are relevant to the project*			
Yes	NA	Prescriptive Requirement	Compliance Forms	Yes	NA	Mandatory Requirement	Compliance Forms
☒	☐	Lighting (Indoor Unconditioned) §140 6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	☒ ☐	☐ ☒	Commissioning §120 8 Simple Systems Complex Systems	NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E
☒	☐	Lighting (Outdoor) §140 7	NRCC-LTO-01 / 02 / 03-E	☒	☐	Electrical §130 5	NRCC ELC-01-E
☐	☒	Lighting (Sign) §140.8	NRCC-LTS-01-E	☒	☐	Solar Ready §110 10	NRCC-SRA-01 / 02-E
☐	☒	Solar Thermal Water Heating §140 5	NRCC-STH-01-E	☐ ☐ ☐ ☐ ☐ ☐	☒ ☒ ☒ ☒ ☒ ☒	Covered Process §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E

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DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP # 02/115726 DATE 10 10 18

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) -- Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify) See Tables G. and H in MCH and LTI Details Sections for Acceptance Tests and forms by equipment

Building Component	Compliance Forms *(required for submittal)*	Confirmed: Pass	Confirmed: Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☒ NRCA-ENV-02-F- NFRC label verification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-E - For all buildings with Mechanical Systems	☐	☐
	☒ NRCA-MCH-02-A- Outdoor Air	☐	☐
	☒ NRCA-MCH-03-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H- Air Distribution Duct Leakage	☐	☐
	☐ NRCA-MCH-05-A- Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A- Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A – Supply Fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-A- Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A- Hydronic System Variable Flow Controls	☐	☐
	☒ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☐ NRCA-MCH-12-A- Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A- Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A- Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A- Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H- Duct Leakage Test	☐	☐

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) -- Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify) See Tables G and H in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed: Pass	Confirmed: Fail
Plumbing	☐ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - required on central systems in high-rise residential, hotel/motel application	☐	☐
	☐ NRCI-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application	☐	☐
	☐ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application	☐	☐
	☐ NRCI-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application	☐	☐
	☐ NRCV-PLB-21-H- HERS verified central systems in high-rise residential, hotel/motel application	☐	☐
	☐ NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application	☐	☐
	☐ NRCI-STH-01-E - Any solar water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☒ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	☐	☐
	☐ NRCI-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☒ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls	☐	☐
	☒ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☒ NRCI-LTO-01-E – Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS Lighting Control System	☐	☐
	☒ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTS-01-E – Sign Lighting	☐	☐
Electrical	☒ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-SPV-01-E Photovoltaic Systems	☐	☐

Project Name	AMS Modular Classroom 120x40	NRCC-PRF-01-E	Page 7 of 19
Project Address	Palmdale	Calculation Date/Time	11 22, Thu, Oct 04, 2018
Compliance Scope	NewComplete	Input File Name	AMS 120x40 for DSA - CZ14 (4) cibd16

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) – Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify) See Tables G and H in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed: Pass	Confirmed: Fail
Covered Process	☐ NRCI-PRC-01-E Covered Processes	☐	☐
	☐ NRCA-PRC-01-F- Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-F- Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F- Refrigerated Warehouse- Evaporative Condenser Controls	☐	☐
	☐ NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F- Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

						Confirmed: Pass	Confirmed: Fail
1.	Total Conditioned Floor Area	4,800 ft²	5.	Number of Floors Above Grade	1		
2.	Total Unconditioned Floor Area	0 ft²	6	Number of Floors Below Grade	0		
3.	Addition Conditioned Floor Area	0 ft²					
4.	Addition Unconditioned Floor Area	0 ft²					

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10 Window to Wall Ratio	Pass	Fail
North Wall	1,200 ft²	480 ft²	40 0%	☐	☐
East Wall	400 ft²	0 ft²	00 0%	☐	☐
South Wall	1,200 ft²	480 ft²	40 0%	☐	☐
West Wall	400 ft²	0 ft²	00 0%	☐	☐
Total	3,200 ft²	960 ft²	30 0%	☐	☐
Roof	4,800 ft²	0 ft²	00 0%	☐	☐

Project Name	AMS Modular Classroom 120x40	NRCC-PRF-01-E	Page 8 of 19
Project Address	Palmdale	Calculation Date/Time	11 22, Thu, Oct 04, 2018
Compliance Scope	NewComplete	Input File Name	AMS 120x40 for DSA - CZ14 (4) cibd16

J. FENESTRATION ASSEMBLY SUMMARY								§ 110.6	Confirmed	
1. Fenestration Assembly Name / Tag or I.D.	2. Fenestration Type / Product Type / Frame Type	3. Certification Method[1]	4. Assembly Method	5. Area ft²	6. Overall U-factor	7. Overall SHGC	8. Overall VT	9. Status[2]	Pass	Fail
Solar Grey NFRC	VerticalFenestration FixedWindow N/A	NFRC Rated	Manufactured	960	0 78	0 43	0 37	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

Taking compliance credit for fenestration shading devices? (If "Yes", see NRCC-PRF-ENV-DETAILS for more information)	No

K. OPAQUE SURFACE ASSEMBLY SUMMARY								§ 120.7/ § 140 3	Confirmed	
1. Surface Name	2. Surface Type	3 Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Continuous R-Value	7. U-Factor / F-Factor / C-Factor	8. Status[1]		Pass	Fail
Concr Slab over Crawlspace	ExteriorFloor	4800	NA	0	NA	U-Factor 0 210	N		☐	☐
Roof U=0 70 per EZFrame	Roof	4800	Metal	19	2	U-Factor 0 071	N		☐	☐
R-13 in metal frame + R-5 c i	ExteriorWall	3200	Metal	13	5	U-Factor 0 098	N		☐	☐
Interior wall	InteriorWall	800	Metal	13	NA	U-Factor 0 188	N		☐	☐

[1] Status. N New, A – Altered, E – Existing

L ROOFING PRODUCT SUMMARY							§ 140.3	Confirmed	
1. Product Type	2. Product Density (lb/ft²)	3. Aged Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. Roofing Product Description		Pass	Fail
Roof U=0 70 per EZFrame	3 163	0 08	0 75	NA	No	NA		☐	☐

AMS®
American Modular Systems
787 Spreckels Ave., Manteca, CA 95336
Phone (209) 825-1921 - Fax (209) 825-7018
www.americanmodular.com

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PRE–CHECKED SET NAME

24'x40' THRU 120'x40'
HIGH PITCH MODULAR
BUILDINGS

SITE SPECIFIC PROJECT NAME

SHEET TITLE

ENERGY CALCULATIONS

MANUFACTURER PROFESSIONAL OF RECORD ON PC

[seal] LICENSED ARCHITECT RANDALL PATRICK CAVANAGH No. C12631 Ren. 3-31-19 STATE OF CALIFORNIA

THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
02 117846
AC ___ FLS ___ SS ___
DATE AUG - 2 2019

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
PC 02–115726
AC ___ FLS ___ SS ___
DATE 10-11-2018

PRE-CHECK (PC) DOCUMENT
CODE: 2016 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

REVISIONS

1	
2	
3	
4	

DRAWN BY:	.
SCALE:	AS NOTED
DATE:	.

SHEET NUMBER

EN.2-02

02–XXXXXX – [pc size] BUILDINGS – SAVED 5/22/2015 7 32 AM PLOTTED 12/5/2018 1.10 PM X:\Shared\Engineering\PC DWG Files\2016 CODES\02–XXXXXX – 2016 – 24'x40'–120'x40' Standard\08 – 02 – xxxxxx – EN1 – EN1_EN2_EN3_EN4_EN5_EN6 – TITLE 24 dwg