GULF COAST MODULAR CONSULTANTS LLC

GCMC LLC

DATE: 5/28/2023

Titan Modular Systems
162 Industrial Dr.
Alma GA , 31570

RE: Plan No.: AMS-8075-77
Building Size: 23'-4" x 36'-0" = (840 SF)
Occupancy Classification: PVT EDUCATION
Gcmc's Approval Date: 05/28/2023

To Whom It May Concern:

This is to confirm that Gulf Coast Modular Consultants llc has approved the above referenced plan under the Florida Manufactured Buildings Program administered by the Florida Department of Business and Professional Regulation (DBPR) (FAC Chapter 61-41). GCMC review confirmed that the design complies with the Florida Building Code, 7th Edition (2020), with the following limitations. & the (2021) FBC 7th Edition Supplements.

1. The Manufactured Buildings Program approval pertains to the factory built modular structure only (and does not include the foundation system).
2. The foundation and anchoring system, utility connections, and items constructed and installed on-site are subject to review, approval and inspection by the local authority having jurisdiction.
3. See the site installed items list on the approved plans for list of items that must be completed on-site.
4. Chapter 633 Fire Safety plan review and inspection are reserved for the local fire safety authority having jurisdiction.
5. This plan is valid for use only in those jurisdictions where the structural design loads are less than or equal to the design loads indicated on the approved plans.
6. This plan IS NOT Apprvd for the High Velocity Hurricane Zone (Miami-Dade and Broward Counties).
7. The use of the building with fewer plumbing fixtures than required by Section 403 of the Florida Plumbing Code is subject to the review and approval of the local authority having jurisdiction.

GCMC's review included a review of products for compliance with 553.842(5) or FAC Chapter 61-G20-3. A set of signed and sealed plans will be retained on file at GCMC in accordance with the Manufactured Buildings Program requirements.

Best Regard's

Michael A. Frey

Michael A. Frey
President / CEO
mfrey.gcmc2018@outlook.com

(file: Plans on File electronically @ GCMC In Designated Folders)

REVIEWED BY:

MICHAEL A. FREY

Michael A. Frey (GCMC)

FLORIDA MODULAR PLANS EXAMINER

NO. SMP 37

GCMC LLC.
12749 PLACID RD.
HUDSON FL 34667
PH: (727) 226-3730

STRUCTURAL LOAD LIMITATIONS

RISK CATEGORY: II

FLOOR LIVE LOAD:

A. DEAD LOAD = 12 PSF (AVERAGE).
B. 40 PSF
C. 1000 LB. CONCENTRATED LOAD OVER 30 INCH x 30 INCH AREA LOCATED ANYWHERE ON FLOOR

ROOF LIVE LOAD:

A. DEAD LOAD = 13 PSF (AVERAGE).
B. 20 PSF

SNOW LOAD:
A. N/A

WIND LOAD: ASCE 7-16

A1.	160 MPH Vult	WIND SPEED
A2.	124 MPH Vasd	WIND SPEED
B.	Iw = 1.0	WIND IMPORTANCE FACTOR
C.	C	WIND EXPOSURE CATEGORY
D.	GCpi = 0.18	INTERNAL PRESSURE COEFFICIENT

E.

WALL ZONE 5:	P = +/- 74.7	PSF	(Pasd = +/- 44.8 PSF)
WALL ZONE 4:	P = +/- 60.5	PSF	(Pasd = +/- 36.3 PSF)
ROOF ZONE 3:	P = - 159.6	PSF	(Pasd = +/- 95.8 PSF)
ROOF ZONE 2:	P = - 117.1	PSF	(Pasd = +/- 70.3 PSF)
ROOF ZONE 1:	P = - 88.8	PSF	(Pasd = +/- 53.3 PSF)
ROOF ZONE 1':	P = - 50.9	PSF	(Pasd = +/- 30.6 PSF)

F. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT.

SEISMIC LOAD: N/A

ROOF RAIN LOAD (IPC APPENDIX B):
A. RAIN INTENSITY: i = 4.7 INCHES/HOUR

FLOOD LOAD:
THE MODULAR BUILDING UNITS ARE NOT DESIGNED TO BE SUBMERGED OR SUBJECT TO WAVE ACTION. IF INSTALLED IN A FLOOD PLAIN, THE MODULAR BUILDING UNITS MUST BE INSTALLED ABOVE THE MINIMUM BASE FLOOD ELEVATION DERIVED FROM APPROPRIATE FLOOD ELEVATION MAPS FOR THE BUILDING SITE OR SET ON A FOUNDATION DESIGNED FOR FLOOD LEVELS.

GENERAL NOTES:

1. ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION APPROVAL. THE PRIMARY ENTRANCE MUST BE ACCESSIBLE.
2. ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
3. ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
4. SEE CROSS SECTION FOR ROOF TO WALL AND WALL TO FLOOR CONNECTIONS AND TIE DOWN REQUIRMENTS
5. STRAPING MUST BE TESTED AND/OR CERTIFIED TO VERIFY THE STRUCTURAL CAPACITY. APPROPRIATE DOCUMENTATION MUST BE ON FILE AT THE MODULAR BUILDING FACTORY.
6. WINDOWS AND DOORS MUST BE CERTIFIED FOR COMPLIANCE WITH THE WIND DESIGN PRESSURE FOR COMPONENTS AND CLADDING.
7. STRUCTURAL DETAILS NOT INCLUDED IN THIS PLAN SET ARE TO BE CONSTRUCTED ACCORDING TO THE MANUFACTURERS FLORIDA BUILDING SYSTEM MANUAL.
8. PROVISIONS FOR EXIT DISCHARGE LIGHTING ARE THE RESPONSIBILITY OF THE GENRAL CONTRACTOR AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN (INCLUDING EMERGENCY LIGHTING, WHEN REQUIRED).
9. PLAN REVIEW AND INSPECTION REQUIRED BY CHAPTER 633 F.S. TO BE DONE ON SITE BY LOCAL FIRE INSPECTOR.
10. IN WIND-BORNE DEBRIS REGIONS, EXTERIOR GLAZING SHALL BE IMPACT RESISTANT OR PROTECTED WITH AN IMPACT RESISTANT COVERING MEETING THE REQUIRMENTS OF AN APPROVED IMPACT RESISTANT STANDARD, OR ASTM E1996. WIND-BORNE DEBRIS REGIONS ARE DESIGNATED IN SECTION 1609 OF THE FBC.
11. THIS STRUCTURE CANNOT BE LOCATED ON THE SEAWARD SIDE OF THE COASTAL CONSTRUCTION CONTROL LINE
12. THE SEALED SET OF PLANS ARE ON FILE IN THE THIRD PARTY AGENCY'S OFFICE AS DIRECTED BY DBPR.
13. THESE PLANS COMPLY WITH THE 2020 FBC 7TH EDITION & 2021, 22 SUPPLEMENTS
14. THESE PLANS COMPLY WITH 553.8425 AND/OR RULE 61-G20-3 (PRODUCT APPROVAL)
15. PORTABLE FIRE EXTINGUISHER PER N.F.P.A. - 10 INSTALLED BY OTHERS ON SITE, AND SUBJECT TO LOCAL JURISDICTION.
16. UNLESS EXTERIOR WALL COMPONENTS INCLUDING BUT NOT LIMITED TO STRUCTURAL GLAZING, DOORS, AND WINDOWS OF ENCLOSED BUILDINGS HAVE SPECIFIC PRODUCT APPROVAL TO PRESERVE THE ENCLOSED BUILDING ENVELOPE AGAINST IMPACT LOADS AS SET FORTH IN CHAPTER 16 (HIGH-VILOCITY HURRICANE ZONES), ALL SUCH COMPONENTS SHALL BE PROTECTED BY PRODUCT APPROVED STORM SHUTTERS.
17. A FIRE ALARM MUST BE SITE INSTALLED BY OTHERS, SUBJECT TO APPROVAL BY AUTHORITY HAVING JURISDICTION.

ELECTRICAL NOTES:

1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
2. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "CLOSET STORAGE SPACE" AS DEFINED BY NEC ARTICLE 410.2.
3. WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
4. HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
5. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE W/ARTICLES 110.9 & 110.10 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
6. THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
7. ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES, OR CABLE CONNECTORS.
8. ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF (WP) ENCLOSURES. THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED. THE RECEPT ITSELF SHALL ALSO BE LISTED FOR DAMP AND WET LOCATIONS AS PER NEC.
9. EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.
10. THE BUILDINGS FIRE ALARM SYSTEM (PROTECTIVE SIGNALING SYSTEMS, FIRE DETECTION SYSTEMS, ETC.) SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 101 AND NFPA 72 AND SITE INSTALLED BY OTHERS SUBJECT TO LOCAL BUILDING OFFICIAL REVIEW AND APPROVAL. THE FIRE ALARM CONTROL PANEL MUST BE INSTALLED IN A HIGHLY VISIBLE LOCATION ACCEPTABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION. (THE FACP CANNOT BE INSTALLED IN A CLOSET OR BATHROOM).
11. TAMPER RESISTANT RECEPTS TO BE PROVIDED IN ALL EDUCATION BUILDINGS

MECHANICAL NOTES:

1. ALL SUPPLY AIR REGISTERS SHALL BE 14 INCHES x 14 INCHES ADJUSTABLE WITH 8 INCHES x 18 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS IN UNCONDITIONED SPACES SHALL HAVE R-6 MINIMUM INSULATION AND R-8 INSULATION WHERE LOCATED OUTSIDE THE BUILDING.
2. INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN (FOR UNRATED DOORS)
3. HVAC EQUIPMENT SHALL BE EQUIPPED W/OUTSIDE FRESH AIR INTAKES PROVIDING 10 CFM PER PERSON & 0.12 CFM PER S.F. BLDG. AREA PER SECTION 403.3 OF THE FMC.
4. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
5. EXHAUST FANS SHALL PROVIDE A MINIMUM OF 50 CFM FOR EACH WATER CLOSET, URINAL AND SHOWERS.
6. THERMOSTAT MUST BE PROGRAMMABLE

PLUMBING NOTES:

1. WHEN RESTROOM FACILITIES AND/OR PLUMBING FIXTURES REQUIRED PER FPC SECTION 403 ARE NOT PROVIDED WITHIN THE BUILDING, A HANDICAPPED ACCESSIBLE FACILITY MUST BE PROVIDED ON SITE WITHIN THE ALLOWABLE DISTANCE PER CODE. THE REQUIRED FACILITY SHALL BE THE RESPONSIBILITY OF THE BUILDING OWNER AND IS SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. THIS NOTE SHALL BE INDICATED ON THE DATA PLATE

WINDOW & DOOR SPECIFICATIONS

1. DBL. PANE WINDOWS ARE REQUIRED FOR ALL CLIMATE ZONES. SEE THE COMCHECK ENERGY CALCULATIONS FOR THE MAXIMUM ALLOWED U-FACTOR AND SHGC.
2. THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR WINDOWS IS 0.3 CFM PER SQUARE FEET OF WINDOW AREA.
3. THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR EXTERIOR DOORS IS 0.3 CFM PER SQUARE FEET OF DOOR AREA.

ACCESSIBILITY NOTES:

1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
2. ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY BENDING.
3. WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS AND DRAWERS ARE PROVIDED AT LEAST ONE TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (I.E. TOUCH LATCHES, U-SHAPED PULLS); SPACES SHALL BE 15 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH OR SIDE REACH; CLOTHES RODS OR COAT HOOKS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM WHEN DISTANCE FROM WHEEL CHAIR TO ROD EXCEEDS 10 INCHES). SHELVES IN KITCHENS OR TOILET ROOMS SHALL BE 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE IN FLOOR.
4. CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 48 INCHES ABOVE THE FLOOR. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION; HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
5. WHERE EMERGENCY WARNING SYSTEMS ARE PROVIED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGHOUT, INCLUDING RESTROOM, AND PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW CEILING, WHICHEVER IS LOWER.
6. ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM. THE MAXIMUM FORCE REQUIRED FOR PUSHING OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL NOT EXCEED 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR HINGED DOORS.
7. FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. CHANGES IN LEVEL BETWEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2 CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
8. DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (I.E. LEVER - OPERRATED, PUSHTYPE, U-SHAPED) MOUNTED WITH OPERABLE PARTS BETWEEN 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.

SITE INSTALLED ITEMS:

NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL.

1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
3. PORTABLE FIRE EXTINGUISHER(S).
4. BUILDING DRAINS, CLEANOUTS, DRINKING FOUNTAIN, HOOK-UP TO PLUMBING SYSTEM.
5. ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING.
6. GLAZING OPENING PROTECTION-SEE GENERAL NOTE 10
7. GUTTER AND DOWN SPOUTS.
8. LIGHT FRAMED TRUSS SIGNAGE
9. TACTILE SIGNAGE
10. FLORIDA FIRE PREVENTION CODE PLAN REVIEW & INSPECTION. SHALL BE PREFORMED ON SITE BY OTHERS, SUBJECT TO LOCAL APPROVAL.
11. THE FLOOR AND ROOF DESIGN OF THIS PLAN IS "LIGHT FRAME TRUSS-TYPE CONSTRUCTION" AS REFERENCED IN FAC RULE 69A-3.012(6). POSTING OF NOTICE SIGN(S) AS REQUIRED BY FAC 69A-3.012(6), 69A-3.012(6) SHALL BE SITE INSTALLED AND IS THE RESPONSIBILITY OF THE BUILDING OWNER.
12. ALL METAL FRAMING MEMBERS SHALL BE BONDED TO THE BUILDING ELECTRICAL SYSTEM AND IS THE RESPONSIBILITY OF THE BUILDING OWNER.
13. FIRE ALARM

FOUNDATION:

IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA DEPT. OF BUSINESS & PROFESSIONAL REGULATION, THESE BUILDING PLANS DO NOT CONTAIN FOUNDATION SUPPORT AND TIE DOWN DETAILS AND SPECIFICATIONS. THE ARCHITECT /ENGINEER OF BUILDING PLANS SHOULD BE CONTACTED TO OBTAIN APPROPRIATE FOUNDATION PLANS. IF FOUNDATION PLANS ARE DESIGNED BY OTHERS, THE ARCHITECT/ENGINEER OF BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND THE CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURE'S STRUCTURAL COMPONENTS AND SYSTEMS RELATING THERETO.

REVIEWED BY

MICHAEL A. FREY

Michael a. Frey

FLORIDA MODULAR PLANS EXAMINER

NO. SMP 37

GCMC LLC

12749 PLACID RD.

HUIDSON FL. 34667

PH (727) 226-3730

BUILDING DESIGN PARAMETERS

1.	USE/OCCUPANCY:	EDUCATION
	AGE GROUP:	5 YRS AND OLDER
2.	CONSTRUCTION TYPE:	VB
3.	SPRINKLER SYSTEM:	NO
4.	BUILDING AREA:	840 S.F.
5.	BUILDING HEIGHT:	≤15 FEET
6.	NUMBER OF STORIES:	1
7.	NUMBER OF MODULES:	2
8.	OCCUPANT LOAD 38 BASED ON 20 NET SF/PERSON	
9.	EXTERIOR WALL FIRE RATING:	NOT RATED
10.	THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY FBC TABLE TABLE 602 AND SECTION 705.3.	
11.	ENGERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCULATIONS.	
12.	MANUFACTURERS DATA PLATE, STATE LABELS AND GCMC LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.	

DRAWING INDEX

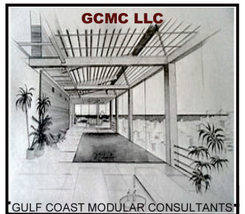
LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA

CONST. TYPE	VB
OCCUPANCY	E
FLOOR LL	40 PSF
WIND VELOCITY	160/124 MPH
FIRE RATING OF EXT. WALLS	0 HRS
ALLOWABLE NO. OF FLOORS	1
MANUFACTURER	AMS
PLAN NUMBER	8075-77
APPROVAL DATE	05/28/2023
HIGH VELOCITY HURRICANE ZONE	NO

GCMC

GCMC
2019
APPROVED
May 28 2023



GULF COAST MODULAR CONSULTANTS

GCMC LLC
12749 PLACID RD.
HUDSON FL 34667
PH: (727) 226-3730
Michael A. Frey CEO

CODE SUMMARY:

STATE	BUILDING	ELECTRICAL	MECHANICAL	PLUMBING	ACCESSIBILTY	ENERGY CODE
FLORIDA	FBC 7TH ED. (2020) BLDG. 2021 SUPP. & 2022 SUPP. 1 & 2 FFPC 7TH ED. (2020)	2017 NEC	FBC 7TH ED. (2020) MECHANICAL	FBC 7TH ED. (2020) PLUMBING	FBC 7TH ED. (2020) ACCESSIBILTY	FBC 7TH ED. (2020) ENERGY CONSERVATION 2021 SUPP. & 2022 SUPP. 1

CONSULTING ENGINEER: WALTER E. WOOD, P.E. - 168 W. LONGLEAF DR. - SYLVESTER, GA. 31791

WALTER E. WOOD
LICENSE
No. 61323
STATE OF FLORIDA
PROFESSIONAL ENGINEER

VALID
Walter E. Wood
05-25-2023

APOLLO MODULAR SYSTEMS, INC.
2162 INDUSTRIAL BLVD.
DOUGLAS, GA 31533 (912) 632-3344

DATE: 5-9-23		
SCALE: NO SCALE		
CODES: SEE NOTES		
STATES: FL.	REVISIONS:	BY:
REFERENCE: 8075		W.E.W.
AMS 8075-77 A/B 23'-4" x 36'-0" PRIVATE EDUCATION		SHEET
COVER SHEET	DESTINATION: ORLANDO	1 OF 4

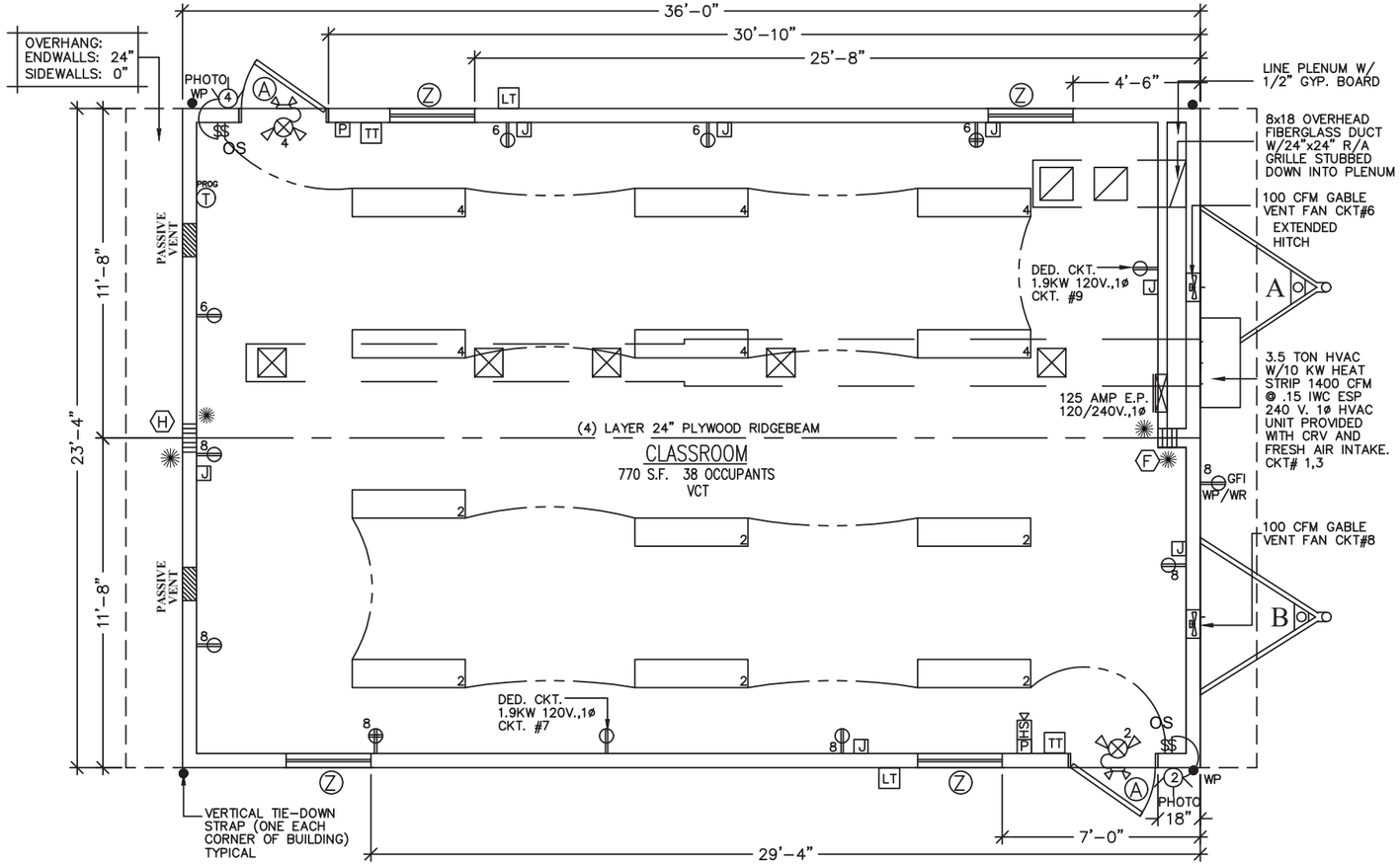
ELECTRICAL SCHEDULE

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	60 A (2P) HACR	6-2 #10 GRND.
7, 9	DED. CKT. 1.9KW 120V.,1ø	20 A(1P)	12-2 NM
6, 8	RECEPTACLES/FAN	20 A	12-2 NM
2, 4	LIGHTING/FAN & SMOKE DETECTOR	20 A	12-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	KVA
GENERAL LIGHTING	
.0030 KW/SF X840 SF X 1.25=	2.5
12 RECEPTS AT 180VA/1000=	2.2
(2) DED. CKT. 1.9KW x 1.25 =	4.8
2 FANS AT .3 KW X 1.25=	.8
HVAC	10.5

TOTAL 20.8 KW
TOTAL/240 X 1000= 87 AMPS
INSTALL 125 AMP PANEL
120/240 V 1ø



TT TACTILE SIGNAGE SHALL BE LOCATED ON EITHER SIDE OF DOORS AT ALL EXITS, INSTALLED ON SITE BY OTHERS.

LT THE FLOOR AND ROOF DESIGN OF THIS PLAN IS "LIGHT FRAME TRUSS-TYPE CONSTRUCTION" AS REFERENCED IN FAC RULE 69A-3.012(6). POSTING OF NOTICE SIGN(S) AS REQUIRED BY FAC 69A-3.012(6) SHALL BE INSTALLED ON SITE BY OTHERS. THE SYMBOLS MUST BE INSTALLED WITHIN 24" TO THE LEFT SIDE OF THE MAIN ENTRANCE OF THE FACILITY. IT MUST BE LOCATED BETWEEN 4 FEET AND 6 FEET ABOVE THE FINISHED FLOOR.

DOOR SCHEDULE

A	3680 - STEEL DOOR w/6"x30" SAFETY GLASS VIEW BLOCK - STEEL JAMB - CLOSER - LEVER/DEADBOLT HARDWARE

WINDOW SCHEDULE

Z	36W x 60H VERTICAL SLIDER DP 50 INSULATED LOW-E TINTED GLASS WHITE VINYL FRAME

SYMBOLS

J-BOXES ONLY

- P, H, S — FIRE ALARM PULL STATION / HORN/STROBE / STROBE LIGHT
- J — JUNCTION BOX (NON POWERED UNLESS CIRCUIT NO. IS SHOWN)
- S — SMOKE DETECTOR
- DUPLEX RECEPTACLE 120 V.
- SINGLE RECEPTACLE 240 V.
- PORCH LIGHT WITH 1- 60 W. BULB
- COMPACT FLOURESENT LIGHT 1-60 W. BULB
- HIGH PRESSURE SODIUM LIGHT
- METAL HALIDE WALL PACK
- VENT FAN
- COMB. VENT FAN & LIGHT
- SUPPLY AIR REGISTER
- RETURN AIR REGISTER
- FLOOD LIGHT 2-150W BULBS
- T — PROG. THERMOSTAT
- LED LIGHT FIXTURE WITH 25W. PANEL
- EMERGENCY COMBO W/BATTERY BACKUP
- EXIT/EMERGENCY COMBO W/REMOTE HEAD W/BATTERY BACKUP
- EXIT — EXIT/EMERGENCY COMBO W/BATTERY BACKUP
- EXIT SIGN W/BATTERY BACKUP
- EMERGENCY LIGHT WITH BATTERY BACKUP
- TELEPHONE JACK
- $ $3 — SWITCH & 3 WAY SWITCH
- OS — OCCUPANCY SENSOR SWITCH
- FIRE EXTINGUISHER

COLUMN STRAPPING SCHEDULE:

- A — (2) 2x4 SYP #2 THIS HALF.
- B — (2) 2x4 SYP #2 EACH HALF
- C — (3) 2x4 SYP #2 THIS HALF.
- D — (3) 2x4 SYP #2 EACH HALF.
- E — (4) 2x4 SYP #2 THIS HALF.
- F — (4) 2x4 SYP #2 EACH HALF.
- G — (5) 2x4 SYP #2 THIS HALF.
- H — (3) 2x6 SYP #2 EACH HALF.
- ✹ WITH RIDGE BEAM BEARING STIFFENER

NOTES:
1. ALL COLUMN STUDS SHALL BE GLUE/NAILED TOGETHER. PVA GLUE WITH 100% COVERAGE SHALL BE USED.
2. INSTALL TWO STEEL STRAPS AT EACH STUD OF EACH COLUMN.
3. COLUMN STUDS SHALL NOT BE NOTCHED OR BORED.

GCMC 2019 APPROVED May 28 2023

"GULF COAST MODULAR CONSULTANTS"

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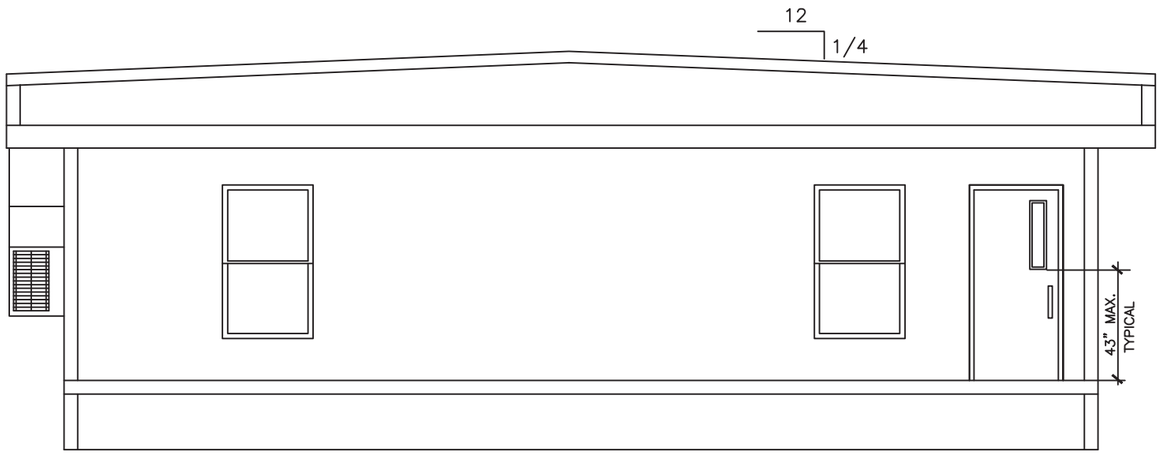
Michael A. Frey CEO

CONSULTING ENGINEER: WALTER E. WOOD, P.E. - 168 W. LONGLEAF DR. - SYLVESTER, GA. 31791

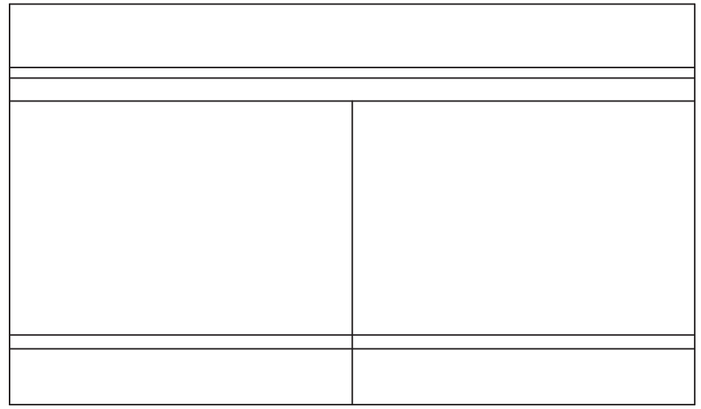
WALTER E. WOOD LICENSE No. 61323 STATE OF FLORIDA PROFESSIONAL ENGINEER
VALID
05-25-2023

APOLLO MODULAR SYSTEMS, INC.
2162 INDUSTRIAL BLVD.
DOUGLAS, GA 31533 (912) 632-3344

DATE: 5-9-23		
SCALE: 3/16"=1'-0"		
CODES: SEE NOTES		
STATES: FL.	REVISIONS:	BY: W.E.W.
REFERENCE: 8075		
AMS 8075-77 A/B 23'-4" x 36'-0" PRIVATE EDUCATION		SHEET 2 OF 4
FLOOR PLAN	DESTINATION: ORLANDO	

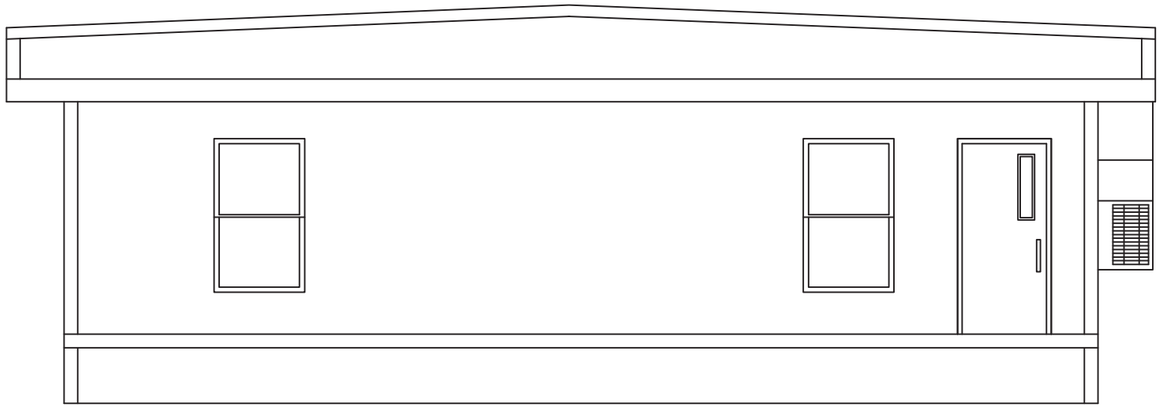


REAR ELEVATION

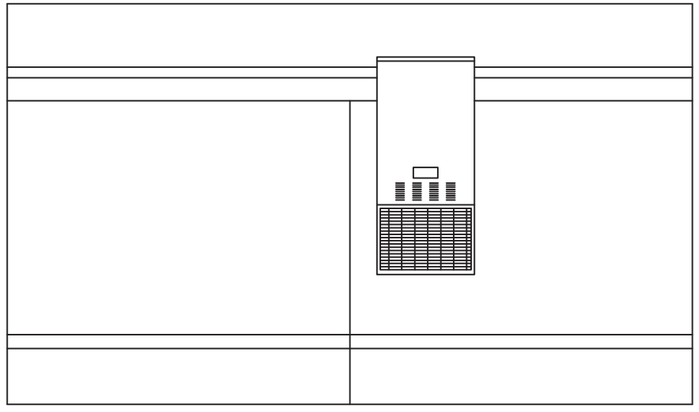


LEFT ELEVATION

OVERHANG:
ENDWALLS: 24"
SIDEWALLS: 0"



FRONT ELEVATION



RIGHT ELEVATION

ELEVATION NOTES: TYPICAL

SEE–CROSS SECTION FOR METHOD OF ROOF VENTILATION

ACCESSIBLE RAMP(S), STAIR(S), AND HANDRAILS ARE SITE INSTALLED, DESIGNED BY OTHERS, AND SUBJECT TO LOCAL JURISDICTION.

FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150TH OF THE FLOOR AREA, AND AN 18" X 24" MINIMUM CRAWL SPACE ACCESS, SITE INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.

ELEVATIONS SHOWN ON THIS PAGE REPRESENT BASIC COMPONENTS & ARE NOT INTENEDED TO BE ALL INCLUSIVE NOR DO THESE ELEVATIONS DETAIL EVERY CODE REQUIRED ASPECT OF THIS BLDG.. SITE BUILT STOOPS, STEPS, DECKS, PORCHES, HANDRAILS AND/OR SIMILAR ITEMS MUST BE PROVIDED BY OTHERS ON SITE FOR COMPLIANCE WITH APPLICABLE CODES. COMPLIANCE WITH ALL APPLICABLE CODES PER LOCAL AUTHORITY HAVING JURISDICTION, WHETHER DETAILED IN THIS SET OR NOT, MUST BE MET

GCMC
2019
APPROVED
May 28 2023

GCMC LLC
"GULF COAST MODULAR CONSULTANTS"
GCMC LLC
12749 PLACID RD.
HUDSON FL 34667
PH: (727) 226-3730
Michael A. Frey CEO

CONSULTING ENGINEER: WALTER E. WOOD, P.E. – 168 W. LONGLEAF DR. – SYLVESTER, GA. 31791

WALTER E. WOOD
LICENSE
No. 61323
STATE OF FLORIDA
PROFESSIONAL ENGINEER
VALID
05-25-2023

APOLLO MODULAR SYSTEMS, INC.
2162 INDUSTRIAL BLVD.
DOUGLAS, GA 31533 (912) 632–3344

DATE: 5–9–23		
SCALE: NO SCALE		
CODES: SEE NOTES		
STATES: FL.	REVISIONS:	BY: W.E.W.
REFERENCE: 8075		
AMS 8075–77 A/B 23'–4" x 36'–0" PRIVATE EDUCATION		SHEET 3 OF 4
ELEVATIONS	DESTINATION: ORLANDO	

GENERAL CROSS–SECTION NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL STEEL MUST COMPLY W/ ASTM A36, YIELD STRENGTH = 36 KSI.
2. ALL LAG SCREWS MUST COMPLY W/ ANSI/ ASME B18.2.1. F_{YB} = 60 KSI MINIMUM.
3. SEE FOUNDATION PLAN FOR PIER AND TIE–DOWN STRAPPING LOCATIONS, ORIENTATIONS, AND SPECIFICATIONS.

EXTERIOR FINISH MATERIAL:

ROOF – MULE–HIDE 45 MIL (BLACK) EPDM (ESR–1463) FULLY ADHERED TO 7/16" OSB OR 1/2" PLYWOOD WITH MULE–HIDE FR ADHESIVE IN ACCORDANCE WITH INTERTEK REPORT CCRR–1078 (CLASS C ROOF)

WALL – 7/16" SMART PANEL SIDING OVER APPROVED MOISTURE BARRIER OVER INSTALLED PER MANUFACTURERS SPECIFICATIONS

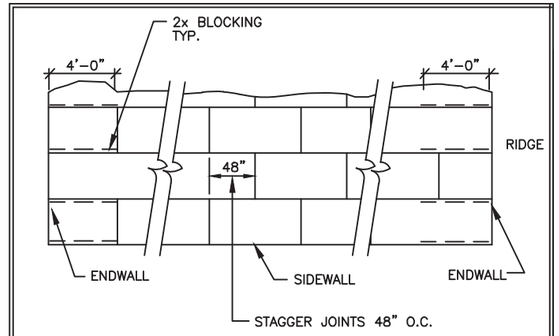
INTERIOR FINISH MATERIAL:

CEILING – 1/2 INCH MINIMUM GYPSUM BOARD INSTALLED PER MANUFACTURER'S SPECIFICATIONS. (SEASPRAY FINISH)

WALL – 1/2" GYP. BOARD (VINYL COVERED) INSTALLED PER MANUFACTURERS SPECIFICATIONS.

FLOOR – FLOOR FINISHES SHALL BE NO LESS THAN CLASS II LISTED PRODUCT

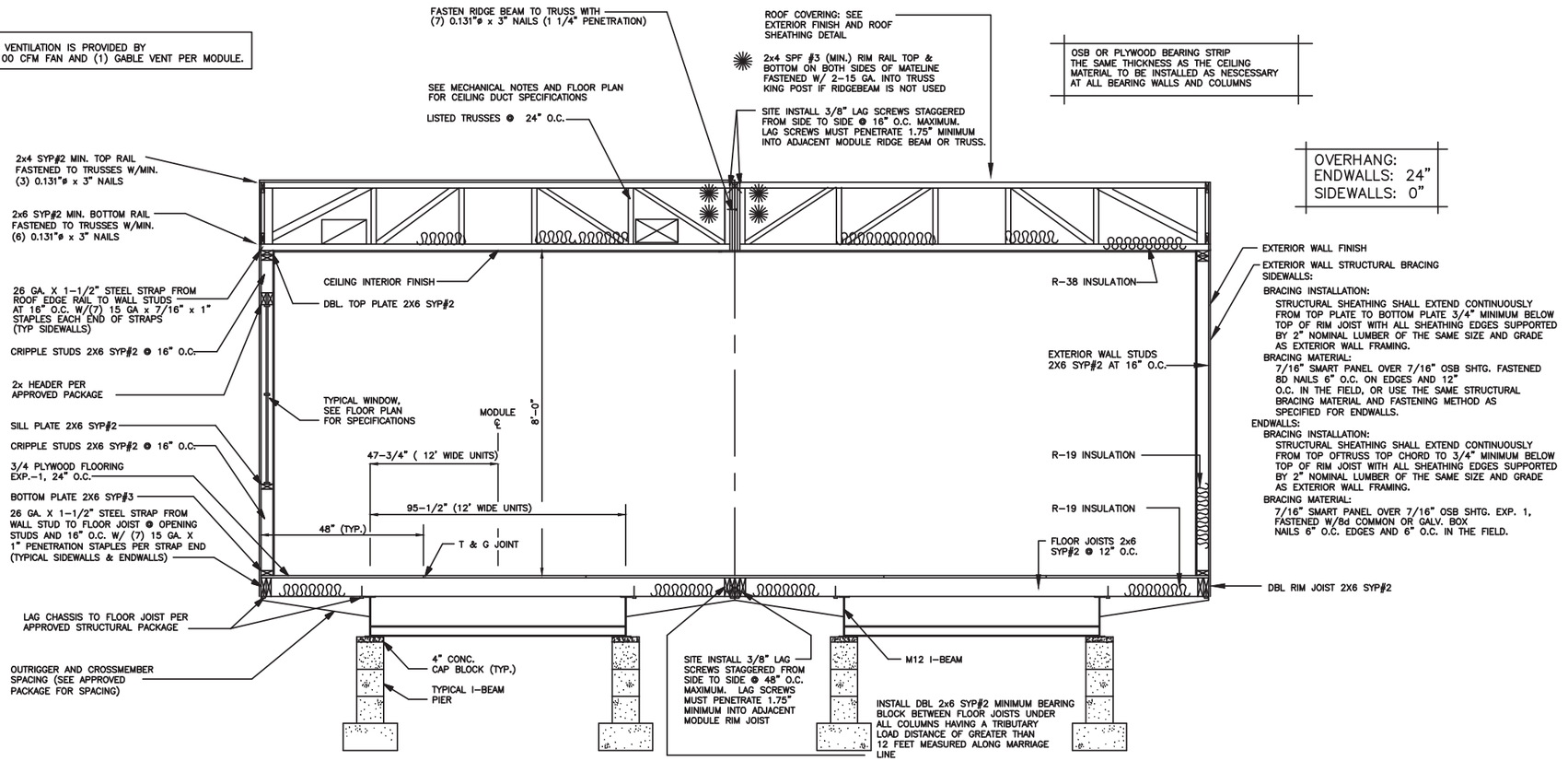
NOTE: – INTERIOR FINISHES SHALL BE CLASS 'A' FOR EXITS AND OTHER THAN EXITS SHALL BE 'A' OR 'B'



ROOF SHEATHING DETAIL

ROOF SHEATHING DIAPHRAGM SHALL BE BLOCKED WITH 2XSPF#2 NOM. LUMBER FOR A DISTANCE OF 4–0" FROM EACH ENDWALL. FASTENED TO TRUSSES W/ 8D SINKER NAILS @ 6" O.C. ON EDGES & 6" O.C. IN THE FIELD.

ATTIC VENTILATION IS PROVIDED BY (1) 100 CFM FAN AND (1) GABLE VENT PER MODULE.



APPROVED TRUSS DESIGN:
TRUSS MANUF.: UNIVERSAL
TRUSS NO. F0667104
SEE ATTACHED DWG.

GCMC
2019
APPROVED
May 28 2023

RIDGE BEAM CONSTRUCTION:

4 LAYERS 3/4"X 24" PLYWOOD, RATED SHEATHING, EXP.–1, STRUCT.–1, 5 PLY/5 LAYER, 48/24 EACH HALF CONTINUOUS ENTIRE LENGTH OF BUILDING.

NOTES:

1. PLYWOOD FACE GRAIN MUST BE PARALLEL TO THE RIDGE BEAM SPAN.
2. ALL PLYWOOD BUTT JOINTS MUST BE STAGGERED 24" MINIMUM.
3. ALL RIDGE BEAM PLYWOOD LAMINATIONS MUST BE THE SAME DEPTH, THICKNESS, AND GRADE OF PLYWOOD. NO LUMBER OR PLYWOOD FLANGES ARE PERMITTED.
4. PLYWOOD MUST BE MANUFACTURED IN ACCORDANCE W/ PS I–95.
5. PLYWOOD LAMINATIONS IN EACH HALF OF THE UNITS MUST BE GLUE NAILED TO ADJACENT LAYERS IN ACCORDANCE W/ PDS SUPPLEMENT #5, W/ AN ADHESIVE COMPLYING W/ ASTM D2559, OR CA25–4.
6. PLYWOOD MUST NOT BE TREATED W/ A FIRE RETARDANT PROCESS.
7. MOISTURE CONTENT MUST BE LESS THAN 16%.
8. BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
9. INSTALL (2X4) X 20" SPF#3 RIDGE BEAM BEARING STIFFENER OVER SUPPORT COLUMNS, WHEN SPECIFIED ON FLOOR PLAN; FASTEN THE FACE OF THE STIFFENER TO THE RIDGE BEAM W/ 100% GLUE COVERAGE AND (6) 16 GA. X 2–1/2" STAPLES.

PRODUCT APPROVAL INFORMATION:

1.	CECO DOORS	– FLA.#	4553–R13
2.	JELD–WEN WINDOWS	– FLA.#	11120–R15
3.	SMART PANEL SIDING	– FLA#	13223.2–R6
4.	(MULEHIDE) ROOF	– FLA.#	19566.1–R3
5.	LIPPERT STRAPS	– RADCO LISTING#	1235

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AMS 8075–77 A/B 23'–4" x 36'–0" PRIVATE EDUCATION		SHEET	4 OF 4
CROSS SECTION		DESTINATION: ORLANDO	

Florida Building Code, Seventh Edition (2020) - Energy Conservation

EnergyGauge Summit® Fla/Com-2020, Effective Date: Dec 31, 2020

C401.2.3: FBC Total Building Performance Compliance Option

Compliance applying the requirements of Sections C402.5, C403.2, C404,C405.2, C405.4, C405.5, C407 and C408. The building energy cost shall be equal to or less than 85 percent of the standard reference design building.

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- ☐ This Checklist
- ☐ The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports.
- ☐ The compliance report must include the full input report generated by the software as contigous part of the compliance report.
- ☐ Boxes appropriately checked in the Mandatory Section of the complaince report.

WARNING: INPUT REPORT NOT GENERATED.
To include input report in final submission, go to the Project Form, Settings Tab and check the box - "Append Input Report to Compliance Output Report"
Then rerun your calculation

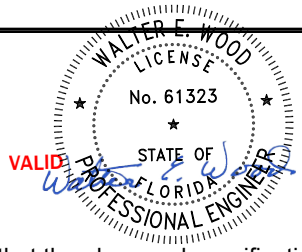
PROJECT SUMMARY

Short Desc:	AMS-8075-77	**Description:**	AMS-8075-77 FL PRIVATE ED
Owner:	APOLLO MODULAR SYSTEMS INC.		
Address1:	UNKNOWN AT THIS TIME	**City:**	ORLANDO
Address2:	Enter Address here	**State:**	FLORIDA
		Zip:	0
Type:	School/University	**Class:**	New Finished building
Jurisdiction:	ORLANDO, ORANGE COUNTY, FL (582100)		
Conditioned Area:	840 SF	**Conditioned & UnConditioned Area:**	840 SF
No of Stories:	1	**Area entered from Plans**	840 SF
Permit No:	0	**Max Tonnage**	3.5
		If different, write in:	_____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in $)	453.0	624.0	**PASSED**
LIGHTING CONTROLS			**PASSES**
EXTERNAL LIGHTING			**PASSES**
HVAC SYSTEM			**PASSES**
PLANT			**PASSES**
WATER HEATING SYSTEMS			**No Entry**
PIPING SYSTEMS			**No Entry**
Met all required compliance from Check List?			**Yes/No/NA**

IMPORTANT MESSAGE
Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report



CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: WALTER E. WOOD P.E.

Date: 05-25-2023

Building Official: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____ Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____ Reg No: _____ Signature_____

Electrical Designer: _____ Reg No: _____ Signature_____

Lighting Designer: _____ Reg No: _____ Signature_____

Mechanical Designer: _____ Reg No: _____ Signature_____

Plumbing Designer: _____ Reg No: _____ Signature_____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals per C103.1.1.1.2

Project: AMS-8075-77
Title: AMS-8075-77 FL PRIVATE EDUCATION
Type: School/University
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	*28.70*	*46.40*
	$453	*$734*
ELECTRICITY(MBtu/kWh/$)	28.70	46.40
	8393	13586
	$453	*$734*
AREA LIGHTS	3.10	7.10
	919	2083
	$50	*$112*
MISC EQUIPMT	8.40	8.40
	2461	2461
	$133	*$133*
PUMPS & MISC	0.10	0.10
	18	15
	$1	*$1*
SPACE COOL	14.90	16.30
	4355	4773
	$235	*$258*
SPACE HEAT	1.00	1.30
	289	388
	$16	*$21*
VENT FANS	1.20	13.20
	351	3866
	$19	*$209*

Credits Applied: None
Passing Criteria = 624
Design (including any credits) = 453
Passing requires Proposed Building cost to be at most 85% of Baseline cost. This Proposed Building is at 61.8%

PASSES

Project: AMS-8075-77
Title: AMS-8075-77 FL PRIVATE EDUCATION
Type: School/University
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 1	Main entries	Yes	21.00	6.0	126	

Tradable Surfaces: 0 (W) Allowance for Tradable: 626 (W) **PASSES**
All External Lighting: 0 (W)
Complicance check includes a excess/Base allowance of 500.00(W)

Project: AMS-8075-77
Title: AMS-8075-77 FL PRIVATE EDUCATION
Type: School/University
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	14	Classroom/Lecture Hall	840	2	1	**PASSES**

PASSES

Project: AMS-8075-77
Title: AMS-8075-77 FL PRIVATE EDUCATION
Type: School/University
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

Pr0Sy1 **System 1** **Constant Volume Air Cooled Split System < 65000 Btu/hr** **No. of Units 1**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp-liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	42000	15.00	13.00	11.20		**PASSES**
Heating System	Electric Furnace	42000	1.00	1.00			**PASSES**
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	1000	0.10	0.82			**PASSES**
Air Distribution System (Sup)	Not in Check list - Compliance Ignored		6.00	6.00			**N/A**

PASSES

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
Electric domestic hot-water heater	1	2	100.000	100.000			Electric Water heater	PASSES

PASSES

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance

None

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance

None

Mandatory Requirements (as applicable)

Requirements compiled by US Department of Energy and Pacific Northwest National Laboratory. Adopted for FBC with permission. Not all may be applicable

Topic	Section	Component	Description	Yes	N/A	Exempt
1. To be checked by Designer or Engineer						
Insulation	C303.2	Envelope	Below-grade wall insulation installed per manufacturer's instructions.	☐	☐	☐
Insulation	C303.2	Envelope	Slab edge insulation installed per manufacturer's instructions.	☐	☐	☐
Insulation	C303.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.	☐	☐	☐
Insulation	C402.3	Envelope	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance >= 0.55 and thermal emittance >= 0.75 or 3-year-aged solar reflectance index >= 64.0.	☐	☐	☐
Fenestration	C402.4.4	Envelope	U-factor of opaque doors associated with the building thermal envelope meets requirements.	☐	☐	☐
HVAC	C403.2.7	Mechanical	Exhaust air energy recovery on systems meeting Table C403.2.7(1) and C403.2.7(2).	☐	☐	☐
HVAC	C403.2.4.8	Mechanical	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.2.4.8.1 and C403.2.4.8.2).	☐	☐	☐
SYSTEM_SPECIFIC	C403.3, C403.3.1, C403.3.2	Mechanical	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	☐	☐	☐
SYSTEM_SPECIFIC	C403.3.2	Mechanical	Economizer operation will not increase heating energy use during normal operation.	☐	☐	☐
SYSTEM_SPECIFIC	C403.3.3.3	Mechanical	Air economizers automatically reduce outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will not reduce cooling energy usage. See Table C403.3.3.3 for applicable device types and climate zones.	☐	☐	☐
SYSTEM_SPECIFIC	C403.3.3.4	Mechanical	System capable of relieving excess outdoor air during air economizer operation to prevent overpressurizing the building. The relief air outlet located to avoid recirculation into the building.	☐	☐	☐
SYSTEM_SPECIFIC	C403.3.3.5	Mechanical	Return, exhaust/relief and outdoor air dampers used in economizers have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Reference section C403.2.4.3 for details.	☐	☐	☐
SYSTEM_SPECIFIC	C403.3.4, C403.3.4.1, C403.3.4.2, C403.3.1	Mechanical	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.3.1	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.3.2	Mechanical	Multiple-cell heat rejection equipment with variable speed fan drives are controlled to operate the maximum number of fans allowed and so that all fans operate at the same fan speed required for the instantaneous cooling duty. The minimum fan speed will be the minimum allowable speed of the fan drive system in accordance with the manufacturer's recommendations.	☐	☐	☐

SYSTEM_SPECIFIC	C403.4.3.4	Mechanical	Open-circuit cooling towers having water cooled chiller systems and multiple or vairable speed condenser pumps, are designed so that tower cells can run in parallel with larger of flow crtieria.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4	Mechanical	Supply air systems serving multiple zones have VAV systems with controls configured to reduce the volume of air that is reheated, recooled or mixed in each zone. See section for details.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.1	Mechanical	Single-duct VAV systems use terminal devices configured to reduce the supply of primary supply air before reheating or recooling takes place.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.2	Mechanical	Systems that have 1 warm air duct and 1 cool air duct use terminal devices configured to reduce the flow from one duct to a minimum before mixing of air from the other duct takes place.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.3	Mechanical	Individual dual-duct or mixing heating and cooling systems with a single fan and with total capacities > 90,000 Btu/h not equipped with air economizers.	☐	☐	☐
SYSTEM_SPECIFIC	C404.2	Mechanical	Service water heating equipment meets efficiency requirements.	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)a	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=40.2 gpm/hp .	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)b	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=20.0 gpm/hp.	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)c	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=16.1 gpm/hp.	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)d	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=7.0 gpm/hp	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)e	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=134 kBtu/h-hp w/ Ammonia test fluid.	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)f	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=110 kBtu/h-hp w/ Ammonia test fluid.	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)g	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=157 kBtu/h-hp w/ R-507A test fluid.	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)h	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=135 kBtu/h-hp w/ R-507A test fluid.	☐	☐	☐
SYSTEM_SPECIFIC	Table_C403.3.2(8)i	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=176 kBtu/h-hp.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.1	Mechanical	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.2	Mechanical	HVAC fan motors not oversized beyond allowable limits.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.3	Mechanical	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.4	Mechanical	Motors for fans that are not less than 1/12 hp and less than 1 hp are electronically commutated motors or have a minimum motor efficiency of 70 percent. These motors have the means to adjust motor speed.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.5	Mechanical	Each DX cooling system > 65 kBtu and chiller water/evaporative cooling system with fans > 1/4 hp are designed to vary the indoor fan airflow as a function of load and comply with detailed requirements of this section.	☐	☐	☐
2. To be checked by Plan Reviewer						
Plan Review	C103.2	Envelope	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐	☐	☐

Plan Review	C103.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐	☐	☐
Plan Review	C103.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☐	☐	☐
Plan Review	C103.2	Interior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐	☐	☐
Plan Review	C103.2	Exterior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐	☐	☐
Insulation	C402.2.5	Envelope	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or >= 10 inches of soil.	☐	☐	☐
Insulation	C402.2.4	Envelope	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐	☐	☐
Insulation	C402.2.6	Project	Radiant heating systems panels insulated to >=R-3.5 on face opposite space being heated.	☐	☐	☐
HVAC	C402.2.6	Mechanical	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐	☐	☐
Insulation	C402.2.6	Envelope	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	☐	☐	☐
Air Leakage	C402.5.7	Envelope	Vestibules are installed on all building entrances. Doors have self-closing devices.	☐	☐	☐
HVAC	C403.2.13	Mechanical	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	☐	☐	☐
HVAC	C403.2.4.2	Mechanical	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐	☐	☐
HVAC	C403.2.4.2	Mechanical	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐	☐	☐
HVAC	C403.2.4.2	Mechanical	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.4	Mechanical	Zone isolation devices and controls installed where applicable.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.4	Mechanical	Zone isolation devices and controls installed where applicable.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.7	Mechanical	Fault detection and diagnostics installed with air-cooled unitary DX units having economizers.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.5	Mechanical	Hot water boilers supplying heat via one- or two-pipe systems include outdoor setback control.	☐	☐	☐
HVAC	C403.2.6	Mechanical	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4.	☐	☐	☐

HVAC	C403.2.6.1	Mechanical	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.5.1	Mechanical	Hydronic and multizone HVAC system controls are VAV fans driven by mechanical or electrical variable speed drive per Table C403.2.12.5.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.5.3	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2	Mechanical	The heating of fluids in hydronic systems that have been previously mechanically cooled, and the cooling of fluids that have been previously mechanically heated are limited in accordance with Sections C403.4.2.1-C403.4.2.3. Single boiler systems >500,000 Btu/h have multistaged or modulating burner.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.3.2	Mechanical	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or closed-circuit cooling towers used in conjunction with a separate heat exchanger have heat loss by shutting down the circulation pump on the cooling tower loop. Open- or closed circuit cooling towers have a separate heat exchanger to isolate the cooling tower from the heat pump loop, and heat loss is controlled by shutting down the circulation pump on the cooling tower loop.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.4	Mechanical	Hydronic systems greater than 500,000 Btu/h designed for variable fluid flow. See section language for full details.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.5	Mechanical	System turndown requirement met through multiple single-input boilers, one or more modulating boilers, or a combination of single-input and modulating boilers. Boiler input between 1.0 MBtu/h and 5 MBtu/h has 3:1 turndown ratio, boiler input between 5.0 MBtu/h and 10 MBtu/h has 4:1 turndown ratio, boiler input > 10.0 MBtu/h has 5:1 turndown ratio.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.6	Mechanical	Chilled water plants with multiple chillers have capability to reduce flow automatically through the chiller plant when a chiller is shut down. Boiler plants with multiple boilers have the capability to reduce flow automatically through the boiler plant when a boiler is shut down.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.3.1	Mechanical	Fan systems with total system motor capacity >=5 hp associated with heat rejection equipment configured to automatically modulate the fan speed to control the leaving fluid temperature or condensing temp/pressure of heat rejection device.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.3.3	Mechanical	Centrifugal fan open-circuit cooling towers having combined rated capacity >= 1100 gpm meets minimum efficiency requirement: >=40.2 gpm/hp.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.5	Mechanical	Multiple zone HVAC systems have supply air temperature reset controls.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.6	Mechanical	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐	☐	☐

SYSTEM_SPECIFIC	C404.2.1	Mechanical	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment >= 1,000 kBtu/h serves the entire building, thermal efficiency >= 90 Et. Where multiple pieces of water-heating equipment serve the building with combined rating >= 1,000 kBtu/h, the combined input-capacity-weighted-average thermal efficiency >= 90 Et. Exclude input rating of equipment in individual dwelling units and equipment <= 100 kBtu/h.	☐	☐	☐
SYSTEM_SPECIFIC	C404.2.1	Mechanical	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment >= 1,000 kBtu/h serves the entire building, thermal efficiency >= 90 Et. Where multiple pieces of water-heating equipment serve the building with combined rating >= 1,000 kBtu/h, the combined input-capacity-weighted-average thermal efficiency >= 90 Et. Exclude input rating of equipment in individual dwelling units and equipment <= 100 kBtu/h.	☐	☐	☐
SYSTEM_SPECIFIC	C404.4	Mechanical	All piping insulated in accordance with section details and Table C403.2.10.	☐	☐	☐
SYSTEM_SPECIFIC	C404.5, C404.5.1, C404.5.2	Mechanical	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐	☐	☐
SYSTEM_SPECIFIC	C404.6.3	Mechanical	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐	☐	☐
SYSTEM_SPECIFIC	C404.7	Mechanical	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐	☐	☐
Wattage	C405.4.1	Exterior Lighting	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐	☐	☐
Plan Review	C405.5.2	Project	Group R-2 dwelling units have separate electrical meters.	☐	☐	☐
Plan Review	C406	Project	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐	☐	☐
SYSTEM_SPECIFIC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.	☐	☐	☐
3. To be checked by Inspector						
Insulation	C303.1	Envelope	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	☐	☐	☐
Insulation	C303.1	Envelope	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	☐	☐	☐
Insulation	C402.2.2	Envelope	Insulation installed on a suspended ceiling having ceiling tiles is not being specified for roor/ceiling assemblies. Continuous insulation board installed in 2 or more layers with edge joints offset between layers.	☐	☐	☐
Insulation	C402.2.2	Envelope	Skylight curbs are insulated to the level of roofs with insulation above deck or R-5.	☐	☐	☐
Fenestration	C303.1.3	Envelope	Fenestration products rated in accordance with NFRC.	☐	☐	☐
Insulation	C303.2, C402.2.5	Envelope	Floor insulation installed per manufacturer's instructions. Cavity or structural slab insulation installed in permanent contact with underside of decking or structural slabs.	☐	☐	☐

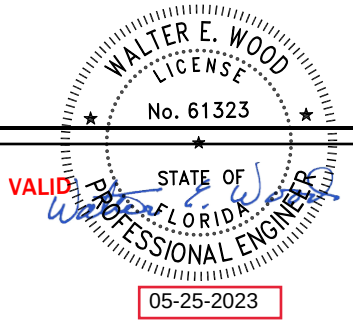
Insulation	C303.2.1	Envelope	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐	☐	☐
Insulation	C303.2.1	Envelope	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	☐	☐	☐
Insulation	C402.1.3	Envelope	Non-swinging opaque doors have R-4.75 insulation.	☐	☐	☐
Insulation	C104	Envelope	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐	☐	☐
Insulation	C104	Envelope	Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐	☐	☐
Insulation	C104	Envelope	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	☐	☐	☐
Air Leakage	C402.5	Envelope	Building envelope contains a continuous air barrier that has been tested and deemed to limit air leakage <= 0.40 cfm/ft2.	☐	☐	☐
Air Leakage	C402.5.1	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner.	☐	☐	☐
Air Leakage	C402.5.1.1	Envelope	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐	☐	☐
Air Leakage	C402.5.1.2.1	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and material permeability <= 0.004 dfm/ft2. Air barrier penetrations are sealed in an approved manner.	☐	☐	☐
Air Leakage	C402.5.1.2.2	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and average assembly air leakage <= 0.04 cfm/ft2. Air barrier penetrations are sealed in an approved manner.	☐	☐	☐
Air Leakage	C402.5.2, C402.5.4	Envelope	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	☐	☐	☐
Air Leakage	C402.5.5, C403.2.4.3	Envelope	Stair and elevator shaft vents have motorized dampers that automatically close. Refernece section C403.2.4.3 for operational details.	☐	☐	☐
Air Leakage	C402.5.6	Envelope	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	☐	☐	☐
Air Leakage	C402.5.6	Envelope	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	☐	☐	☐
Air Leakage	C402.5.8	Envelope	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	☐	☐	☐
HVAC	C403.2.1	Mechanical	HVAC systems and equipment design loads calculated in accordance with ANSI/ASHRAE/ACCA Standard 183 or by an approved equivalent computational procedure	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.10	Mechanical	HVAC piping insulation insulated in accordance with Table C403.2.10. Insulation exposed to weather is protected from damage and is provided with shielding from solar radiation.	☐	☐	☐
HVAC	C403.2.3	Mechanical	HVAC equipment efficiency verified.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.3	Mechanical	PTAC and PTHP with sleeves 16 in. by 42 in. labeled for replacement only as per Footnote b to Table C403.2.3(3).	☐	☐	☐

SYSTEM_SPECIFIC	C403.2.3	Mechanical	Centrifugal fan open-circuit cooling towers having combined rated capacity >= 1100 gpm meets minimum efficiency requirement: >=38.2 gpm/hp.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.1	Mechanical	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.1.1	Mechanical	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐	☐	☐
HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 °F deadband.	☐	☐	☐
HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 °F deadband.	☐	☐	☐
HVAC	C403.2.4.1.3	Mechanical	Temperature controls have setpoint overlap restrictions.	☐	☐	☐
HVAC	C403.2.4.2.1, C403.2.4.2.2	Mechanical	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.2.3	Mechanical	Systems include optimum start controls.	☐	☐	☐
HVAC	C403.2.4.5, C403.2.4.6	Mechanical	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature and outdoor temperature. future connection to controls.	☐	☐	☐
HVAC	C403.2.6.2	Mechanical	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐	☐	☐
Air Leakage	C403.2.4.3	Mechanical	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed. Reference section language for operational details.	☐	☐	☐
HVAC	C403.2.9.1, C403.2.9.2	Mechanical	HVAC ducts and plenums insulated in accordance with C403.2.9.1 and constructed in accordance with C403.2.9.2, verification may need to occur during Foundation Inspection.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.5.2	Mechanical	VAV fans have static pressure sensors located so controller setpoint <=1.2 w.c..	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.2	Mechanical	Two-pipe hydronic systems using a common distribution system have controls to allow a deadband >=15 ºF, allow operation in one mode for at least 4 hrs before changeover, and have rest controls to limit heating and cooling supply temperature to <=30 ºF.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.3.3	Mechanical	Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with pumping system >10 hp is off.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.7	Mechanical	Parallel-flow fan-powered VAV air terminals have automatic controls configured to 1) turn off the terminal fan except when space heating is required or where required for ventilation, 2) turn on the terminal fan as the first stage of heating before the heating coil is activated, and 3) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or, reverse the terminal damper logic and provide heating from the central air handler by primary air.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.5.3	Mechanical	Systems with DDC of individual zones reporting to the central control panel configured to reset the static pressure setpoint based on zone requiring the most pressure. The DDC is capable of monitoring zone damper positions or have an alternative method of indicating the need for static pressure. See section for details.	☐	☐	☐

SYSTEM_SPECIFIC	C403.2.12.5.2	Mechanical	Static pressure sensors used to control VAV fans located such that the controller setpoint is <= 1.2 inches w.c.. Where this results in one or more sensors being located downstream of major duct splits, not less than one sensor located on each major branch.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.5	Mechanical	Condenser heat recovery system that can heat water to 85 ºF or provide 60% of peak heat rejection is installed for preheating of service hot water.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.6	Mechanical	Hot gas bypass limited to: <=240 kBtu/h – 50% >240 kBtu/h – 25%	☐	☐	☐
SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on supply and discharge piping of non-circulating systems.	☐	☐	☐
SYSTEM_SPECIFIC	C404.6.1	Mechanical	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank. System return pipe is a dedicated return pipe or a cold water supply pipe.	☐	☐	☐
SYSTEM_SPECIFIC	C404.6.1, C404.6.2	Mechanical	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐	☐	☐
SYSTEM_SPECIFIC	C404.9.1	Mechanical	Pool heaters are equipped with on/off switch and no continuously burning pilot light.	☐	☐	☐
SYSTEM_SPECIFIC	C404.9.2	Mechanical	Time switches are installed on all pool heaters and pumps.	☐	☐	☐
SYSTEM_SPECIFIC	C404.9.3	Mechanical	Vapor retardant pool covers are provided for heated pools and permanently installed spas.	☐	☐	☐
Controls	C405.2.1, C405.2.1.1	Interior Lighting	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐	☐	☐
Controls	C405.2.1.2	Interior Lighting	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	☐	☐	☐
Controls	C405.2.1.3	Interior Lighting	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	☐	☐	☐
Controls	C405.2.2, C405.2.2.1, C405.2.2.2	Interior Lighting	Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	☐	☐	☐

Controls	C405.2.2.2	Interior Lighting	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐	☐	☐
Controls	C405.2.3, C405.2.3.1, C405.2.3.2	Interior Lighting	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐	☐	☐
Controls	C405.2.4	Interior Lighting	Separate lighting control devices for specific uses installed per approved lighting plans.	☐	☐	☐
Wattage	C405.2.4	Interior Lighting	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐	☐	☐
Controls	C405.2.6	Exterior Lighting	Exterior lighting systems shall be provided with controls that comply with Sections C405.2.6.1 through C405.2.6.4. Decorative lighting systems shall comply with Sections C405.2.6.1, C405.2.6.2, and C405.2.6.4.	☐	☐	☐
Wattage	C405.3.1	Interior Lighting	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐	☐	☐
Mandatory Additional Eff	C406.4	Project	Enhanced digital lighting controls efficiency package: Interior lighting has following enhanced lighting controls in accordance with Section C405.2.2: Luminaires capable of continuous dimming and being addressed individually, <= 8 luminaires controlled in combination in a daylight zone, digital control system for fixtures, "Sequence of Operations" documentation, and functional testing per Section C408.	☐	☐	☐
Mandatory Additional Eff	C406.6	Project	Dedicate outdoor air system efficiency package: Buildings with hydronic and/or multiple-zone HVAC systems are equipped with an independent ventilation system designed to provide >= 100-percent outdoor air to each individual occupied space, as specified by the IMC. The ventilation system is capable of total energy recovery and includes HVAC system controls that manage temperature resets >= 25 percent of delta design supply-air / room-air temp. Reference section C406.6 for qualifying systems/equipment.	☐	☐	☐
Mandatory Additional Eff	C406.7, C406.7.1	Project	Enhanced Service Water Heat System efficiency package. One of the following SWH system enhancements must satisfy 60 percent of buildings annual hot water requirements, or 100 percent if the building requirements otherwise complies with heat recovery per Section C403.9.5: Waste heat recovery (from SWH, process equipment, OR on-site renewable water-heating.	☐	☐	☐
HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing.	☐	☐	☐
Testing	C408.2.3.2	Mechanical	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐	☐	☐

HVAC	C403.2.14, C403.2.14.1, C403.2.14.2	Mechanical	Commercial refrigerators, freezers, refrigerator-freezers and refrigeration equipment, defined in U.S. 10 CFR part 431.62, shall have an energy use in kWh/day not greater than the values of Table C403.2.14.1(1) when tested and rated in accordance with AHRI Standard 1200. Walk-in cooler and walk-in freezer refrigeration systems, except for walk-in process cooling refrigeration systems as defined in U.S. 10 CFR 431.302, shall meet the requirements of Tables C403.2.14.2(1), C403.2.14.2(2) and C403.2.14.2(3).	☐	☐	☐
4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy						
Post Construction	C408.1.1, C408.2.5.2	Interior Lighting	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐	☐	☐
Post Construction	C408.1.1, C408.2.5.3	Mechanical	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐	☐	☐
Fenestration	C402.4.2.2	Envelope	Skylights in office, storage, automotive service, manufacturing, non-refrigerated warehouse, retail store, and distribution/sorting area have a measured haze value > 90 percent unless designed to exclude direct sunlight.	☐	☐	☐
Post Construction	C408.1.1	Project	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐	☐	☐
Post Construction	C408.2.1	Mechanical	Commissioning plan developed by registered design professional or approved agency.	☐	☐	☐
Post Construction	C408.2.3.1	Mechanical	HVAC equipment has been tested to ensure proper operation.	☐	☐	☐
Post Construction	C408.2.3.3	Mechanical	Economizers have been tested to ensure proper operation.	☐	☐	☐
Post Construction	C408.2.4	Mechanical	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐	☐	☐
Post Construction	C408.2.5.1	Mechanical	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐	☐	☐
Post Construction	C408.2.5.3	Mechanical	An air and/or hydronic system balancing report is provided for HVAC systems.	☐	☐	☐
Post Construction	C408.2.5.4	Mechanical	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐	☐	☐
Post Construction	C408.3	Interior Lighting	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐	☐	☐
Post Construction	C405.6	Project	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐	☐	☐
Post Construction	C405.7	Project	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐	☐	☐
Post Construction	C405.8.2, C405.8.2.1	Project	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐	☐	☐
Post Construction	C405.5.3	Project	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐	☐	☐



EnergyGauge Summit® v7.00

INPUT DATA REPORT

Project Information

Project Name: AMS-8075-77

Project Title: AMS-8075-77 FL PRIVATE EDUCATION

Address: UNKNOWN AT THIS TIME

Enter Address here

State: FLORIDA

Zip: 0

Owner: APOLLO MODULAR SYSTEMS INC.

Orientation: 0 Deg Clockwise. Walls & Windows will be rotated accordingly

Building Type: School/University

Building Classification: New Finished building

No.of Stories: 1

GrossArea: 840 SF

Zones

No	Acronym	Description	Type	Area [sf]	Multiplier	Total Area [sf]	
1	Pr0Zo1	Zone 1	CONDITIONED	839.9	1	839.9	☐

Spaces

No	Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multiplier	Total Area [sf]	Total Volume [cf]

In Zone:	**Pr0Zo1**									
1	Pr0Zo1Sp1	Zo0Sp1	Classroom/Lecture Hall	23.33	36.00	8.00	1	839.9	6719.0	☐

Lighting

	No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No.of Ctrl pts	
In Zone:	**Pr0Zo1**								
In Space:	**Pr0Zo1Sp1**								
	1	Recessed Fluorescent - No vent	General Lighting	12	25	300	Occupancy sensor with Daylighting On/Off	2	☐

Walls (Walls will be rotated clockwise by building rotation value)

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Orientation	Conductance [Btu/hr. sf. F]	Heat Capacity [Btu/sf.F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone:	**Pr0Zo1**											
1	Pr0Zo1Wa1	0.75 in. stucco, 2x4x16" oc, R11Batt, 0.5 in. gyp	23.33	36.00	1	839.9	North	0.0526	0.025	0.30	19.0	☐

Windows (Windows will be rotated clockwise by building rotation value)

	No	Description	Orientation	Shaded	U [Btu/hr sf F]	SHGC	Vis.Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]	
In Zone:	**Pr0Zo1**											
In Wall:	**Pr0Zo1Wa1**											
	1	Pr0Zo1Wa1Wi1	North	Yes	1.2500	0.82	0.76	3.00	5.00	4	60.0	☐

Doors

No	Description	Type	Shaded?	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Dens. [lb/cf]	Heat Cap. [Btu/sf. F]	R-Value [h.sf.F/Btu]

In Zone:	**Pr0Zo1**											
In Wall:	**Pr0Zo1Wa1**											
1	Pr0Zo1Wa1Dr1	Aluminum door, 1.25 in. polystyrene	Yes	3.00	6.70	2	20.1	0.1919	43.67	0.53	5.21	☐

Roofs

No	Description	Type	Width [ft]	H (Effec) [ft]	Multiplier	Area [sf]	Tilt [deg]	Cond. [Btu/hr. Sf. F]	Heat Cap [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone:	**Pr0Zo1**											
1	Pr0Zo1Rf1	Shngl/1/2"WD Deck/WD Truss/9" Batt/Gyp Brd	23.33	36.00	1	839.9	0.00	0.0320	1.50	8.22	31.2	☐

Skylights

No	Description	Type	U [Btu/hr sf F]	SHGC	Vis.Trans	W [ft]	H (Effec) [ft]	Multiplier	Area [Sf]	Total Area [Sf]	
In Zone:											
In Roof:											☐

Floors

No	Description	Type	Width [ft]	H (Effec) [ft]	Multiplier	Area [sf]	Cond. [Btu/hr. sf. F]	Heat Cap. [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone:	**Pr0Zo1**										
1	Pr0Zo1Fl1	1 ft. soil, concrete floor, carpet and rubber pad	23.33	36.00	1	839.9	0.2681	34.00	113.33	3.73	☐

Systems

Pr0Sy1 **System 1** **Constant Volume Air Cooled Split System < 65000 Btu/hr** **No. Of Units 1**

Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	42000.00	15.00	11.20	☐
2	Heating System	42000.00	1.00		☐
3	Air Handling System -Supply	1000.00	0.10		☐
4	Air Distribution System (Sup)		6.00		☐

Plant

	Equipment	Category	Size	Inst.No	Eff.	IPLV	
1	Electric domestic hot-water heater	Water Heating Equipment	2.0 [Million Btu/h]	1	100.00 [Et]	100.00	☐

Water Heaters

W-Heater Description	Capacity Cap.Unit	I/P Rt.	Efficiency	Loss	
					☐

Ext-Lighting

	Description	Category	No. of Luminaires	Watts per Luminaire	Area/Len/No. of units [sf/ft/No]	Control Type	Wattage [W]	
1	Ext Light 1	Main entries	2	0	6.00	Photo Sensor control	0.00	☐

Piping

No	Type	Operating Temperature [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in]	Insulation Thickness [in]	Is Runout?

Fenestration Used

Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT
ASHULSglClrAll Frm	User Defined	1	1.2500	0.8200	0.7600

Materials Used

Mat No	Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu]	Thickness [ft]	Conductivity [Btu/h.ft.F]	Density [lb/cf]	SpecificHeat [Btu/lb.F]
264	Matl264	ALUMINUM, 1/16 IN	No	0.0002	0.0050	26.0000	480.00	0.1000
214	Matl214	POLYSTYRENE, EXP., 1-1/4IN,	No	5.2100	0.1042	0.0200	1.80	0.2900
187	Matl187	GYP OR PLAS BOARD,1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000
178	Matl178	CARPET W/RUBBER PAD	Yes	1.2300				
265	Matl265	Soil, 1 ft	No	2.0000	1.0000	0.5000	100.00	0.2000
48	Matl48	6 in. Heavyweight concrete	No	0.5000	0.5000	1.0000	140.00	0.2000
266	Matl266	2x6@16" oc + R19 Batt	Yes	0.0100				
12	Matl12	3 in. Insulation	No	10.0000	0.2500	0.0250	2.00	0.2000
23	Matl23	6 in. Insulation	No	20.0000	0.5000	0.0250	5.70	0.2000
81	Matl81	ASPHALT-ROOFING, ROLL	Yes	0.1500				

244	Matl244	PLYWOOD, 1/2IN	No	0.6318	0.0417	0.0660	34.00	0.2900	☐
1001	ApLbMat1001	R-19 Generic Insulation	No	19.0000	0.4147	0.0218	0.30	0.2000	☐

Constructs Used

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1002	Aluminum door, 1.25 in. polystyrene	No	No	0.19	0.53	43.67	5.2	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	264	ALUMINUM, 1/16 IN	0.0050	0.000	☐
2	214	POLYSTYRENE, EXP., 1-1/4IN,	0.1042	0.000	☐
3	264	ALUMINUM, 1/16 IN	0.0050	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1005	1 ft. soil, concrete floor, carpet and rubber pad	No	No	0.27	34.00	113.33	3.7	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	265	Soil, 1 ft	1.0000	0.000	☐
2	48	6 in. Heavyweight concrete	0.5000	0.000	☐
3	178	CARPET W/RUBBER PAD		0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1009	0.75 in. stucco, 2x4x16" oc, R11Batt, 0.5 in. gyp	No	No	0.05	0.02	0.30	19.0	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	1001	R-19 Generic Insulation	0.4147	0.000	☐
2	266	2x6@16" oc + R19 Batt	0.2917	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1038	Shngl/1/2"WD Deck/WD Truss/9" Batt/Gyp Brd	No	No	0.03	1.50	8.22	31.2	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	81	ASPHALT-ROOFING, ROLL		0.000	☐
2	244	PLYWOOD, 1/2IN	0.0417	0.000	☐
3	12	3 in. Insulation	0.2500	0.000	☐
4	23	6 in. Insulation	0.5000	0.000	☐
5	187	GYP OR PLAS BOARD,1/2IN	0.0417	0.000	☐

Profiles

0	0	No Classification	No Classification		
	201	People	2	Fractional Null Schedule
	202	Lighting	2	Fractional Null Schedule
	203	Infiltration	2	Fractional Null Schedule
	204	Equipment	2	Fractional Null Schedule
	205	Sources	2	Fractional Null Schedule
	206	HeatTemp	202	Set Point 55
	207	CoolTemp	201	Set Point 99
	208	Hot Water Schedule	2	Fractional Null Schedule
	1,001	Heating Schedule	1	ON-OFF Null Schedule
	1,002	Cooling Schedule	1	ON-OFF Null Schedule
	1,003	Fan Operation Schedule	1	ON-OFF Null Schedule
501	501	ACM-NonRes	ACM Nonres		
	201	People	519	ACM Nonres People
	202	Lighting	507	ACM Nonres Lights
	203	Infiltration	516	ACM Nonres Infiltration
	204	Equipment	510	ACM Nonres Equipment
	205	Sources	2	Fractional Null Schedule
	206	HeatTemp	501	ACM Nonres Heating
	207	CoolTemp	504	ACM Nonres Cooling
	208	Hot Water Schedule	522	ACM Nonres Hot Water
	1,001	Heating Schedule	410	Always ON
	1,002	Cooling Schedule	410	Always ON
	1,003	Fan Operation Schedule	513	ACM Nonres Fans

Schedules

1 1 On/Off ON-OFF Null Schedule

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr1	ShHr1	ShHr1	ShHr1	ShHr1	ShHr1	ShHr1	ShHr1

2 2 Fraction Fractional Null Schedule

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr2	ShHr2	ShHr2	ShHr2	ShHr2	ShHr2	ShHr2	ShHr2

44 44 Absolute SetPt78

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr179	ShHr179	ShHr179	ShHr179	ShHr179	ShHr179	ShHr179	ShHr179

45 45 Absolute Set Point 70

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr180	ShHr180	ShHr180	ShHr180	ShHr180	ShHr180	ShHr180	ShHr180

201 201 Absolute Set Point 99

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr201	ShHr201	ShHr201	ShHr201	ShHr201	ShHr201	ShHr201	ShHr201

202 202 Absolute Set Point 55

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr202	ShHr202	ShHr202	ShHr202	ShHr202	ShHr202	ShHr202	ShHr202

410 410 On/Off Always ON

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr410	ShHr410	ShHr410	ShHr410	ShHr410	ShHr410	ShHr410	ShHr410

412 412 Absolute Florida Commercial Electric Rate

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
3/31/1989	ShHr413	ShHr413	ShHr413	ShHr413	ShHr413	ShHr415	ShHr415	ShHr415
10/31/1989	ShHr412	ShHr412	ShHr412	ShHr412	ShHr412	ShHr412	ShHr414	ShHr414
12/31/1989	ShHr413	ShHr413	ShHr413	ShHr413	ShHr413	ShHr415	ShHr415	ShHr415

501 501 Absolute ACM Nonres Heating

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr501	ShHr501	ShHr501	ShHr501	ShHr501	ShHr502	ShHr503	ShHr503

504 504 Absolute ACM Nonres Cooling

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr504	ShHr504	ShHr504	ShHr504	ShHr504	ShHr505	ShHr506	ShHr506

507 507 Fraction ACM Nonres Lights

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr507	ShHr507	ShHr507	ShHr507	ShHr507	ShHr508	ShHr509	ShHr509

510 510 Fraction ACM Nonres Equipment

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr510	ShHr510	ShHr510	ShHr510	ShHr510	ShHr511	ShHr512	ShHr512

513 513 On/Off ACM Nonres Fans

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr513	ShHr513	ShHr513	ShHr513	ShHr513	ShHr514	ShHr515	ShHr515

516 516 Fraction ACM Nonres Infiltration

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr516	ShHr516	ShHr516	ShHr516	ShHr516	ShHr517	ShHr518	ShHr518

519 519 Fraction ACM Nonres People

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr519	ShHr519	ShHr519	ShHr519	ShHr519	ShHr520	ShHr521	ShHr521

522 522 Fraction ACM Nonres Hot Water

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr522	ShHr522	ShHr522	ShHr522	ShHr522	ShHr523	ShHr524	ShHr524

1,001 1,001 Absolute Absolute null schedule

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr10001	ShHr10001	ShHr10001	ShHr10001	ShHr10001	ShHr10001	ShHr10001	ShHr10001

1,002 1,002 Absolute Absolute null schedule

Hourly Sch. for:	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Holiday
12/31/1989	ShHr10002	ShHr10002	ShHr10002	ShHr10002	ShHr10002	ShHr10002	ShHr10002	ShHr10002

Hourly Schedules

Id	Acronym	Type	Values	Hours 1 thru 8							
				Hours 9 - 16							
				Hours 17 - 24							
1	ShHr1	On/Off	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
On-Off Null Schedule			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
2	ShHr2	Fraction	0	0	0	0	0	0	0	0	
Fraction Null Schedule			0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	
3	ShHr3	Absolute	0	0	0	0	0	0	0	0	
Absolute Null Schedule			0	0	0	0	0	0	0	0	
			0	0	0	0	0	0	0	0	
179	ShHr179	Absolute	78	78	78	78	78	78	78	78	
Set point 78 F All Day			78	78	78	78	78	78	78	78	
			78	78	78	78	78	78	78	78	
180	ShHr180	Absolute	70	70	70	70	70	70	70	70	
Set Point 70 F All Day			70	70	70	70	70	70	70	70	
			70	70	70	70	70	70	70	70	
201	ShHr201	Absolute	99	99	99	99	99	99	99	99	
Set point 99			99	99	99	99	99	99	99	99	
			99	99	99	99	99	99	99	99	
202	ShHr202	Absolute	45	45	45	45	45	45	45	45	
Set Point 55			45	45	45	45	45	45	45	45	
			45	45	45	45	45	45	45	45	
410	ShHr410	On/Off	ON	ON	ON	ON	ON	ON	ON	ON	
Always On schedule			ON	ON	ON	ON	ON	ON	ON	ON	
			ON	ON	ON	ON	ON	ON	ON	ON	
411	ShHr411	On/Off	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
Always Off Schedule			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
412	ShHr412	Absolute	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	
Florida Avg. Week Day Summer Elec			0.03804	0.03804	0.03804	0.0686	0.0686	0.0686	0.0686	0.0686	
			0.0686	0.0686	0.0686	0.0686	0.0686	0.03804	0.03804	0.03804	

413	ShHr413	Absolute	0.03804	0.03804	0.03804	0.03804	0.03804	0.0686	0.0686	0.0686
Florida Avg. Week Day Winter Electr			0.0686	0.0686	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
			0.03804	0.0686	0.0686	0.0686	0.0686	0.0686	0.03804	0.03804
414	ShHr414	Absolute	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
Florida Avg. Week End Summer Elec			0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
			0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
415	ShHr415	Absolute	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
Florida Avg. Week End Winter Electri			0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
			0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804	0.03804
501	ShHr501	Absolute	60	60	60	60	60	65	65	70
ACM Nonres Heating Weekday			70	70	70	70	70	70	70	70
			70	70	65	60	60	60	60	60
502	ShHr502	Absolute	60	60	60	60	60	65	65	65
ACM Nonres Heating Saturday			65	65	65	65	65	65	65	65
			60	60	60	60	60	60	60	60
503	ShHr503	Absolute	60	60	60	60	60	65	65	65
ACM Nonres Heating Sunday			65	65	65	65	65	65	65	65
			60	60	60	60	60	60	60	60
504	ShHr504	Absolute	77	77	77	77	77	73	73	73
ACM Nonres Cooling Weekday			73	73	73	73	73	73	73	73
			73	73	77	77	77	77	77	77
505	ShHr505	Absolute	77	77	77	77	77	73	73	73
ACM Nonres Cooling Saturday			73	73	73	73	73	73	73	73
			73	73	77	77	77	77	77	77
506	ShHr506	Absolute	77	77	77	77	77	73	73	73
ACM Nonres Cooling Sunday			73	73	73	73	73	73	73	73
			73	73	77	77	77	77	77	77
507	ShHr507	Fraction	0.05	0.05	0.05	0.05	0.1	0.2	0.4	0.7
ACM Nonres Lights Weekday			0.8	0.85	0.85	0.85	0.85	0.85	0.85	0.85
			0.85	0.8	0.35	0.1	0.1	0.1	0.1	0.1
508	ShHr508	Fraction	0.05	0.05	0.05	0.05	0.05	0.1	0.15	0.25
ACM Nonres Lights Saturday			0.25	0.25	0.25	0.25	0.25	0.25	0.2	0.2
			0.2	0.15	0.1	0.1	0.1	0.1	0.1	0.1
509	ShHr509	Fraction	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.15
ACM Nonres Lights Sunday			0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
			0.15	0.1	0.1	0.1	0.05	0.05	0.05	0.05

510 ShHr510 Fraction	0.15	0.15	0.15	0.15	0.15	0.2	0.35	0.6
ACM Nonres Equipment Weekday	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	0.65	0.45	0.3	0.2	0.2	0.15	0.15	0.15
511 ShHr511 Fraction	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2
ACM Nonres Equipment Saturday	0.25	0.25	0.25	0.25	0.25	0.25	0.2	0.2
	0.2	0.15	0.15	0.15	0.15	0.15	0.15	0.15
512 ShHr512 Fraction	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2
ACM Nonres Equipment Sunday	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	0.15	0.15	0.15	0.15	0.15	0.15	0.15
513 ShHr513 On/Off	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
ACM Nonres Fans Weekday	ON	ON	ON	ON	ON	ON	ON	ON
	ON	ON	ON	ON	OFF	OFF	OFF	OFF
514 ShHr514 On/Off	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
ACM Nonres Fans Saturday	ON	ON	ON	ON	ON	ON	ON	OFF
	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
515 ShHr515 On/Off	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ACM Nonres Fans Sunday	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
516 ShHr516 Fraction	1	1	1	1	1	0	0	0
ACM Nonres Infiltration Weekday	0	0	0	0	0	0	0	0
	0	0	0	0	1	1	1	1
517 ShHr517 Fraction	1	1	1	1	1	0	0	0
ACM Nonres Infiltration Saturday	0	0	0	0	0	0	0	1
	1	1	1	1	1	1	1	1
518 ShHr518 Fraction	1	1	1	1	1	1	1	1
ACM Nonres Infiltration Sunday	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1
519 ShHr519 Fraction	0	0	0	0	0.05	0.1	0.25	0.65
ACM Nonres People Weekday	0.65	0.65	0.65	0.6	0.6	0.65	0.65	0.65
	0.65	0.4	0.25	0.1	0.05	0.05	0.05	0
520 ShHr520 Fraction	0	0	0	0	0	0	0.05	0.15
ACM Nonres People Saturday	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	0.15	0.05	0.05	0.05	0	0	0	0
521 ShHr521 Fraction	0	0	0	0	0	0	0	0.05
ACM Nonres People Sunday	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	0.05	0.05	0.05	0.05	0	0	0	0

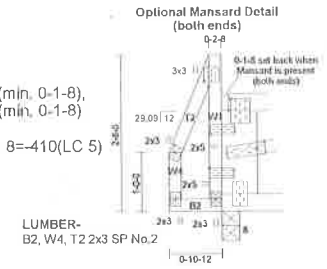
522 ShHr522 Fraction	0	0	0	0	0.1	0.1	0.5	0.5
ACM Nonres Hot Water Weekday	0.5	0.5	0.7	0.9	0.9	0.5	0.5	0.7
	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1
523 ShHr523 Fraction	0	0	0	0	0	0	0.1	0.2
ACM Nonres Hot Water Saturday	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	0.1	0.1	0.1	0	0	0	0
524 ShHr524 Fraction	0	0	0	0	0	0	0	0.1
ACM Nonres Hot Water Sunday	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	0	0	0	0
),001 ShHr10001 Absolute	0	0	0	0	0	0	0	0
Absolute Null Schedule	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
),002 ShHr10002 Absolute	0	0	0	0	0	0	0	0
Absolute Null Schedule	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0

Job	Truss	Truss Type	Qty	Ply	Titan Modular Systems 316 GA
104727	F0667104	FLAT	1	1	Ref. #10011163

UFP Industries Inc., Grand Rapids, MI 49525, Weston Gorby — 8.420 e Sep 14 2020 MiTek Industries, Inc. Fri Jan 29 09:28:08 2021 Page 1 of 1

REACTIONS. (lb/size) 5=429/0-3-8 (min. 0-1-8), 8=429/0-3-8 (min. 0-1-8)
Max Horz 8=247(LC 6)
Max Uplift 5=-417(LC 6), 8=-410(LC 5)

LUMBER-
B2, W4, T2 2x3 SP No.2



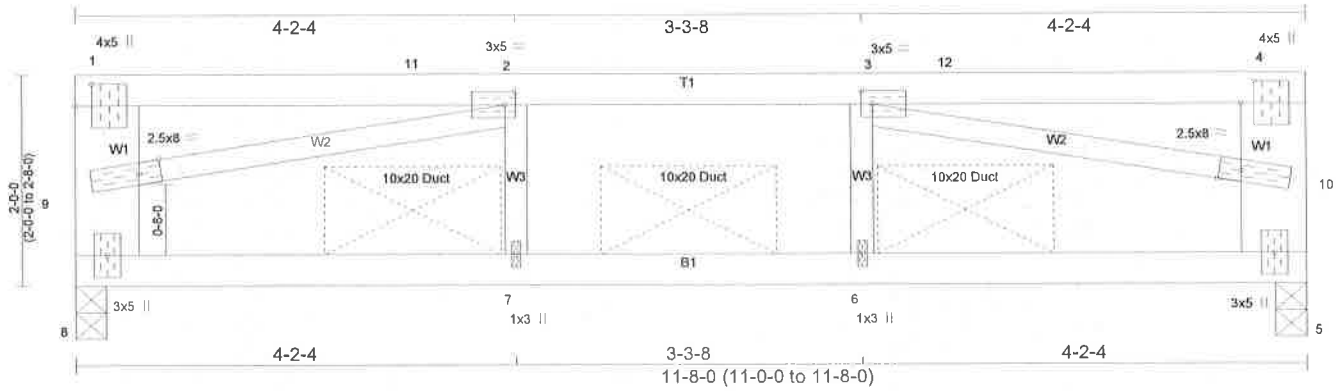


Plate Offsets (X,Y)-- [1:0-2-8,0-1-14], [2:0-1-4,0-1-8], [3:0-1-4,0-1-8], [4:0-2-8,0-1-6], [5:0-2-12,0-1-8], [8:0-2-12,0-1-8], [9:0-1-12,0-1-4], [10:0-1-12,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	0.11	6-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.36	Vert(CT)	0.09	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	-0.01	5	n/a	n/a		
BCDL	7.0	Code FBC2020/TPI2014		Matrix-R							Weight: 54 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x3 SP No.2 *Except*
W1: 2x8 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-11-7 oc bracing.

REACTIONS. (lb/size) 8=376/0-3-8 (min. 0-1-8), 5=376/0-3-8 (min. 0-1-8)
Max Horz 8=-113(LC 5)
Max Uplift 8=-308(LC 5), 5=-308(LC 6)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 8-9=-315/633, 1-9=-132/331, 1-11=-418/300, 2-11=-418/300, 2-3=-549/981, 3-12=-418/300, 4-12=-418/300, 5-10=-315/633, 4-10=-132/331
BOT CHORD 7-8=-868/549, 6-7=-868/549, 5-6=-868/549
WEBS 2-7=0/97, 3-6=0/97, 2-9=-868/1431, 3-10=-868/1431

NOTES-
1) This truss has been checked for uniform roof live load only, except as noted.
2) Wind: ASCE 7-16; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3) 0-3-10 to 3-3-10, Exterior(2) 3-3-10 to 8-4-6, Corner(3) 8-4-6 to 11-4-6 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 308 lb uplift at joint 8 and 308 lb uplift at joint 5.
8) When adjusting the variable span dimension, adjust the post placement dimensions proportional to the change in span.
9) Based on: F0667102
10) Revision: FBC2020 version

The professional engineering seal indicates that a licensed professional engineer has designed the truss under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.

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