

Walter E. Wood, P.E.

AL Lic. No. 36517-E

168 W. Longleaf Dr., Sylvester, GA 31791

229-878-8028

February 28, 2023

Danny White  
Alabama Manufactured Housing Commission  
350 South Decatur Street  
Montgomery, AL 36104

Re: TITAN MODULAR SYSTEMS, INC - PLAN NO.: TMS-AMS 7560 AB

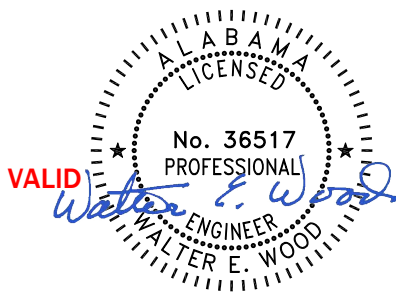
Dear Mr. White

This is to certify that the above referenced building plans have been designed in Accordance with the following applicable codes.

2021 IBC  
2021 IFC  
2015 IECC or 2013 ASHRAE 90.1  
2021 IPC  
2021 IMC  
2010 ADASAD  
2020 NEC

Should there be any questions, please feel free to contact the undersigned.

Sincerely,



Walter E. Wood, P.E.  
Lic. No. 36517-E

(file:Alabama Correspondence)

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.

PLUMBING NOTES:

- 1. TOILETS SHALL BE ELONGATED WITH NONABSORBENT OPEN FRONT SEATS. 2. REST ROOM WALLS SHALL BE COVERED WITH NONABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 48 INCHES A.F.F.

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.

ELECTRICAL NOTES:

- 1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).

MECHANICAL NOTES:

- 1. ALL SUPPLY AIR REGISTERS SHALL BE 24 INCHES X 24 INCHES ADJUSTABLE WITH 8 INCHES X 18 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT UNLESS OTHERWISE SPECIFIED.

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.

N.C. INSTALLATION INSTRUCTIONS

ATTENTION LOCAL INSPECTIONS DEPARTMENT

INSTALLATION INSTRUCTIONS FOR THIS MODULAR BUILDING ARE INCLUDED BY ATTACHMENT TO THESE PLANS. ANY PLANS SET WHICH DOES NOT CONTAIN AN ATTACHMENT ENTITLED "INSTALLATION INSTRUCTIONS" IS INCOMPLETE.

- 1. THE INTERCONNECTION BETWEEN BUILDING MODULES AT THE FLOOR AND ROOF SHALL BE SPECIFIED ON THE CROSS SECTION DRAWING ON THE PLAN SET.

ATTENTION LOCAL INSPECTIONS DEPARTMENT

SITE INSTALLED ITEMS

THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED BY THE MANUFACTURER, HAVE NOT BEEN INSPECTED BY RADCO AND ARE NOT CERTIFIED BY THE STATE MODULAR LABEL. NOTE THAT THIS LIST DOES NOT NECESSARILY DELETE THE ITEMS OF WORK AND MATERIAL THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION.

- 1. THE COMPLETE FOUNDATION SUPPORT AND THE DOWN SYSTEM. 2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING. 3. PORTABLE FIRE EXTINGUISHER(S).

SPECIAL CONDITIONS AND REQUIREMENTS

- ANY SITE ADDED STRUCTURES MUST BE INDEPENDENT OF THE FACTORY BUILDING UNLESS THE ENTIRE BUILDING IS REVALUATED BY THE SITE ENGINEER.

STRUCTURAL LOAD SPECIFICATIONS-ASCE 7-16

FLOOR DEAD AND LIVE LOAD: A. DEAD LOAD = 12 PSF (AVERAGE). B. UNIFORM LIVE LOAD = 50 PSF. C. CONCENTRATED LIVE LOAD = 2000 LB. OVER 30 INCH X 30 INCH AREA LOCATED ANYWHERE ON FLOOR.

STRUCTURAL LOAD SPECIFICATIONS-ASCE 7-10

FLOOR DEAD AND LIVE LOAD: A. DEAD LOAD = 12 PSF (AVERAGE). B. UNIFORM LIVE LOAD = 50 PSF. C. CONCENTRATED LIVE LOAD = 2000 LB. OVER 30 INCH X 30 INCH AREA LOCATED ANYWHERE ON FLOOR.

BUILDING DESIGN PARAMETERS

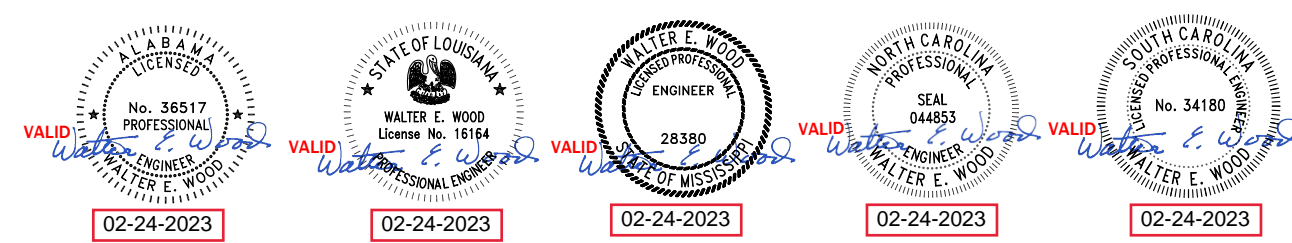
- 1. USE/OCCUPANCY: BUSINESS 2. CONSTRUCTION TYPE: III 3. SPRINKLER SYSTEM: NO

Electrical Brian Washko P-187 APPROVED RADCO 3-Mar-23 APPROVED James Slaght, MCP P-173, SMP 63 U02528

Table with columns: STATE, BUILDING, ELECTRICAL, MECHANICAL, PLUMBING, ACCESSIBILITY, ENERGY CODE. Rows include South Carolina, Alabama, LA, MISS., and N. Carolina.

SEISMIC LOAD: A. RISK CATEGORY IS II. B. SEISMIC IMPORTANCE FACTOR IS 1.0. C. SEISMIC SITE CLASS IS D.

SEISMIC LOAD: A. RISK CATEGORY IS II. B. SEISMIC IMPORTANCE FACTOR IS 1.0. C. SEISMIC SITE CLASS IS D.



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

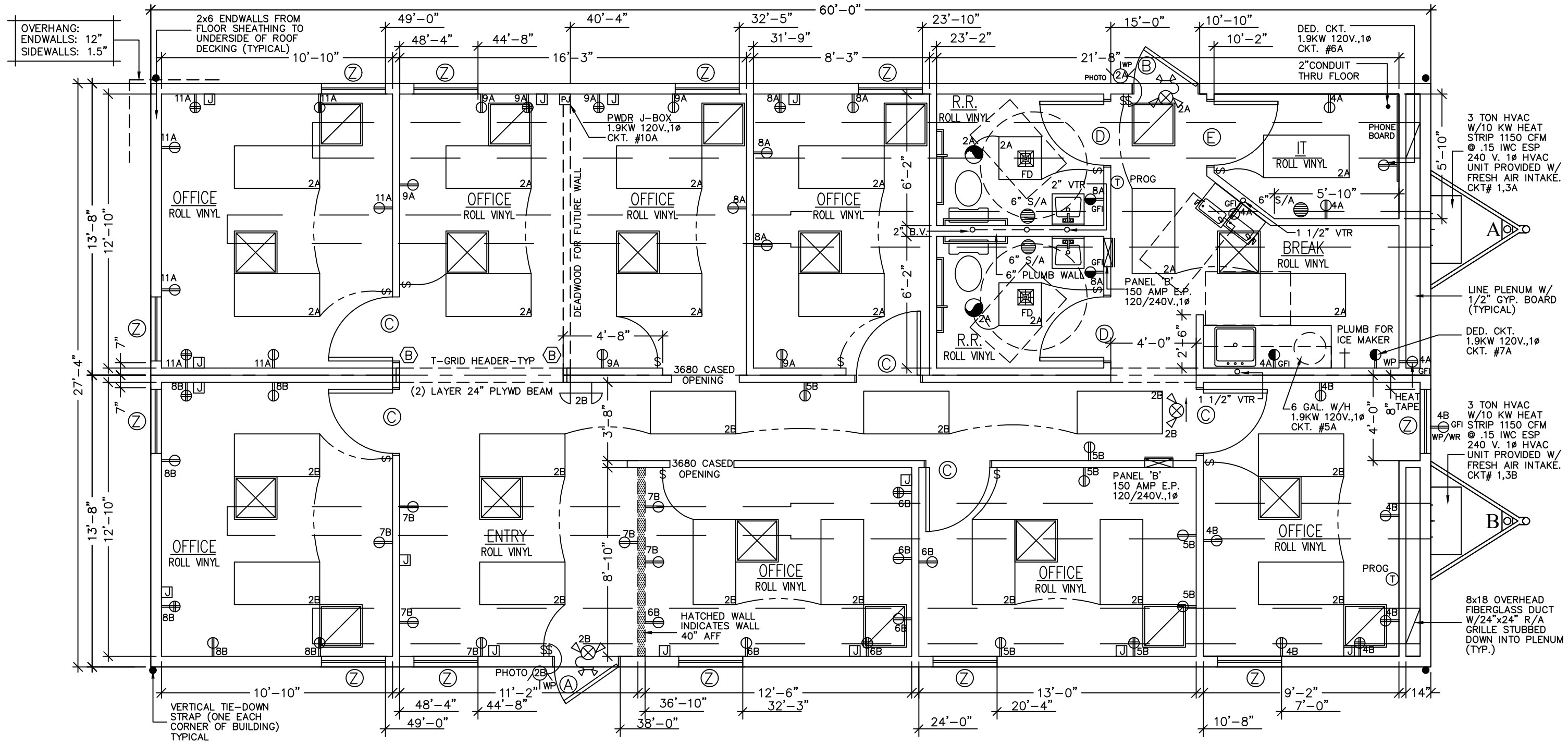
TITAN MODULAR SYSTEMS, INC. 182 INDUSTRIAL DRIVE ALMA, GA 31510 (912) 632-3344 APOLLO MODULAR SYSTEMS, INC. 2162 INDUSTRIAL BLVD. DOUGLAS, GA 31533 (912) 632-3344

| ELECTRICAL SCHEDULE 'A' |                         |                |              |
|-------------------------|-------------------------|----------------|--------------|
| CIRCUIT                 | NOMENCLATURE            | BREAKER (AMPS) | WIRE (CU.)   |
| 1, 3                    | HVAC                    | 60 A (2P) HACK | 6-2 #8 GRND. |
| 6, 7, 10                | DED. CKT. 1.9KW 120V.1Ø | 20 A (1P)      | 12-2 NM      |
| 5                       | WATER HEATER            | 30 A (2P)      | 10-2 NM      |
| 4, 8, 9, 11             | RECEPTACLES             | 20 A           | 12-2 NM      |
| 2                       | LIGHTING/FAN            | 20 A           | 12-2 MC      |

| ELECTRICAL PANEL SIZING:     |                |     |
|------------------------------|----------------|-----|
| DESCRIPTION                  | PANEL 'A'      | KVA |
| GENERAL LIGHTING             |                |     |
| .0035 KW/SF X 820 SF X 1.25= | 3.6            |     |
| 30 RECEPTS AT 180VA/1000=    | 5.4            |     |
| WATER HEATER 1.9 KW X 1.25=  | 2.4            |     |
| 2 FANS AT .3 KW X 1.25=      | .6             |     |
| HVAC                         | 10.5           |     |
| (3) DED. CKT. 1.9 KW X 1.25= | 7.2            |     |
| <b>TOTAL</b>                 | <b>29.9 KW</b> |     |
| TOTAL/240 X 1000=            | 125 AMPS       |     |
| INSTALL                      | 150 AMP PANEL  |     |
|                              | 120/240 V 1Ø   |     |

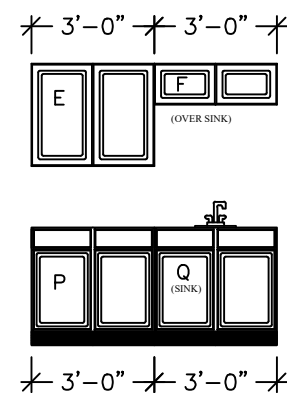
| ELECTRICAL SCHEDULE 'B' |              |                |              |
|-------------------------|--------------|----------------|--------------|
| CIRCUIT                 | NOMENCLATURE | BREAKER (AMPS) | WIRE (CU.)   |
| 1, 3                    | HVAC         | 60 A (2P) HACK | 6-2 #8 GRND. |
| 4, 5, 6, 7, 8           | RECEPTACLES  | 20 A           | 12-2 NM      |
| 2                       | LIGHTING     | 20 A           | 12-2 NM      |

| ELECTRICAL PANEL SIZING:     |                |     |
|------------------------------|----------------|-----|
| DESCRIPTION                  | PANEL 'B'      | KVA |
| GENERAL LIGHTING             |                |     |
| .0035 KW/SF X 820 SF X 1.25= | 3.6            |     |
| 41 RECEPTS AT 180VA/1000=    | 7.4            |     |
| DED. CKT. 1.9KW X 1.25 =     | -              |     |
| FANS AT .3 KW X 1.25=        | -              |     |
| HVAC                         | 10.5           |     |
| <b>TOTAL</b>                 | <b>21.5 KW</b> |     |
| TOTAL/240 X 1000=            | 90 AMPS        |     |
| INSTALL                      | 150 AMP PANEL  |     |
|                              | 120/240 V 1Ø   |     |



| SYMBOLS      |  |
|--------------|--|
| -BOXES ONLY- |  |
| [Symbol]     | FIRE ALARM PULL STATION                                |
| [Symbol]     | FIRE ALARM HORN/STROBE                                 |
| [Symbol]     | FIRE ALARM STROBE LIGHT                                |
| [Symbol]     | JUNCTION BOX (NON POWERED UNLESS CIRCUIT NO. IS SHOWN) |
| [Symbol]     | SMOKE DETECTOR   |
| [Symbol]     | DUPLEX RECEPTACLE 120 V.                               |
| [Symbol]     | SINGLE RECEPTACLE 240 V.                               |
| [Symbol]     | INCANDESCENT LIGHT WITH 1-60 W. BULB                   |
| [Symbol]     | LED PORCH LIGHT WITH 1-60 W. BULB                      |
| [Symbol]     | VENT FAN   |
| [Symbol]     | COMB. VENT FAN & LIGHT                                 |
| [Symbol]     | SUPPLY AIR REGISTER                                    |
| [Symbol]     | RETURN AIR REGISTER                                    |
| [Symbol]     | THERMOSTAT   |
| [Symbol]     | LED LIGHT FIXTURE WITH 1-25W TUBE                      |
| [Symbol]     | LED LIGHT FIXTURE WITH 2-22W TUBES                     |
| [Symbol]     | EXIT/EMERGENCY COMBO W/BATTERY BACKUP                  |
| [Symbol]     | EXIT/EMERGENCY COMBO W/REMOTE HEAD W/BATTERY BACKUP    |
| [Symbol]     | EMERGENCY LIGHT W/BATTERY BACKUP                       |
| [Symbol]     | EXIT SIGN W/BATTERY BACKUP                             |
| [Symbol]     | EMERGENCY LIGHT WITH BATTERY BACKUP                    |
| [Symbol]     | TELEPHONE JACK   |
| [Symbol]     | SWITCH & 3 WAY SWITCH                                  |
| [Symbol]     | OCCUPANCY SENSOR SWITCH                                |
| [Symbol]     | FIRE EXTINGUISHER                                      |

ROSE 101 ROLL VINYL THROUGH-OUT

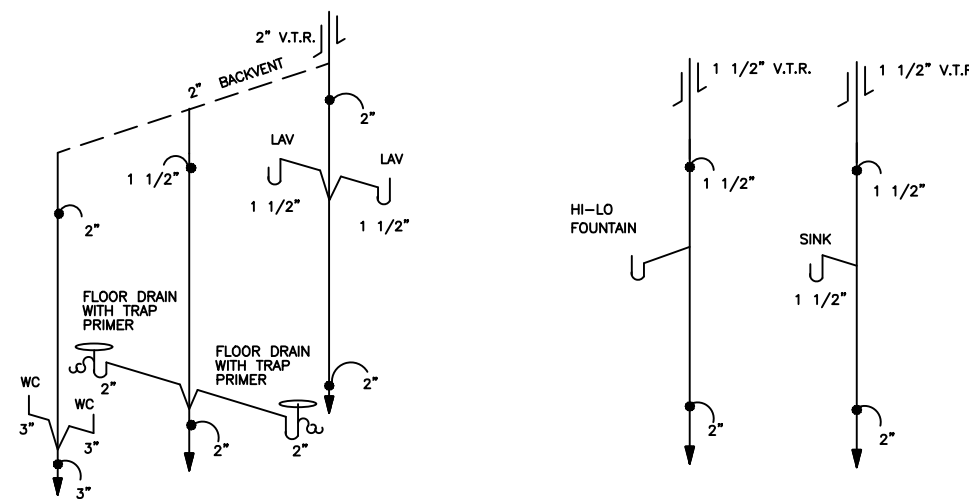


| WINDOW SCHEDULE |  |
|-----------------|--|
| Z               | 36W x 60H VERTICAL SLIDER DP 50 INSULATED LOW-E TINTED GLASS WHITE VINYL FRAME |

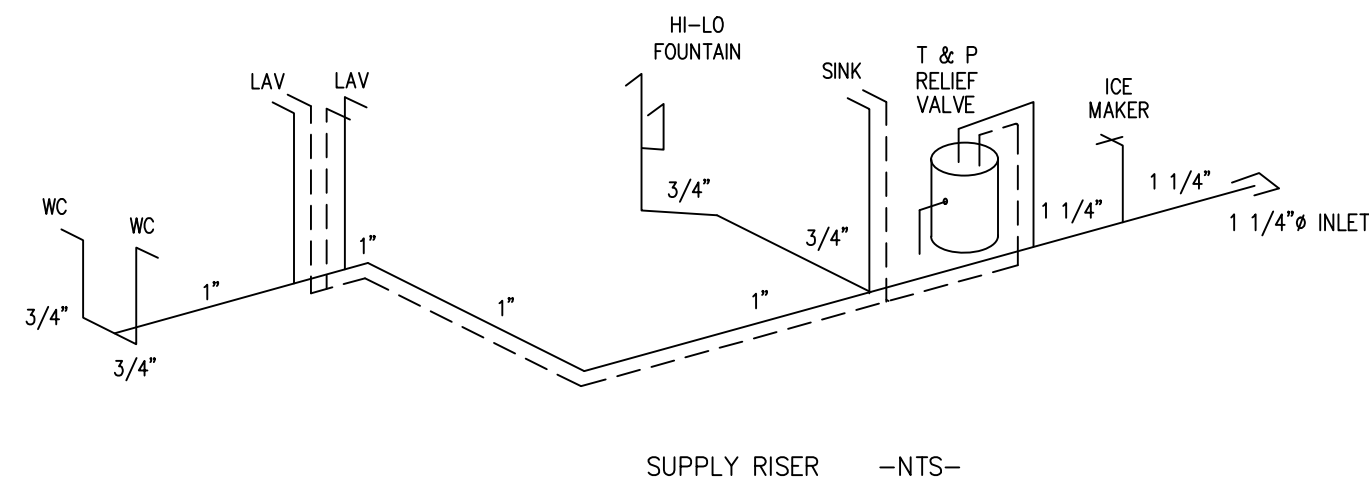
| DOOR SCHEDULE |  |
|---------------|--|
| A             | 3684 - STORE FRONT DOOR (SAFETY GLASS) STEEL JAMB - CLOSER - PANIC HARDWARE                                  |
| B             | 3680 - STEEL DOOR W/6"x30" SAFETY GLASS VIEW BLOCK - STEEL JAMB - CLOSER - PANIC HARDWARE                    |
| C             | 3680 - SOLID CORE - SIX PANEL DOOR IMP. OAK - TIMELY OR REDI FRAME JAMB PAINTED STD - KEYPED LEVER HARDWARE  |
| D             | 3680 - SOLID CORE - SIX PANEL DOOR IMP. OAK - TIMELY OR REDI FRAME JAMB PAINTED STD - PRIVACY LEVER HARDWARE |
| E             | 3680 - SOLID CORE - SIX PANEL DOOR IMP. OAK - TIMELY OR REDI FRAME JAMB PAINTED STD - PASSAGE LEVER HARDWARE |

SUPPLY LINE SIZING IS BASED ON AN ASSUMED AVAILABLE PRESSURE OF 46 TO 60 PSI AT MAIN INLET AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.

--- HOT  
--- COLD  
ALL SUPPLY LINES SHALL BE 3/4". ALL STUB-UPS SHALL BE 1/2" UNLESS OTHERWISE SPECIFIED.



DWV RISER NTS



SUPPLY RISER -NTS-

Electrical  
**Brian Washko P-187**  
**RADCO**  
 3-Mar-23  
 James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

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) | (2) 2x6 SYP #2 EACH HALF. |

WITH RIDGE BEAM BEARING STIFFENER

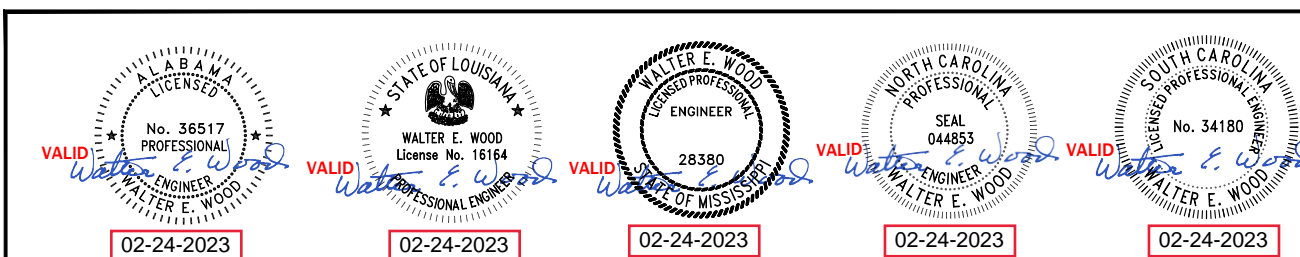
NOTES:  
 1. ALL COLUMN STUDS SHALL BE GLUE/NAILED TOGETHER. PVA GLUE WITH 100% COVERAGE SHALL BE USED.  
 2. INSTALL TWO STEEL STRAPS AT EACH STUD OF EACH COLUMN.  
 3. COLUMN STUDS SHALL NOT BE NOTCHED OR BORED.

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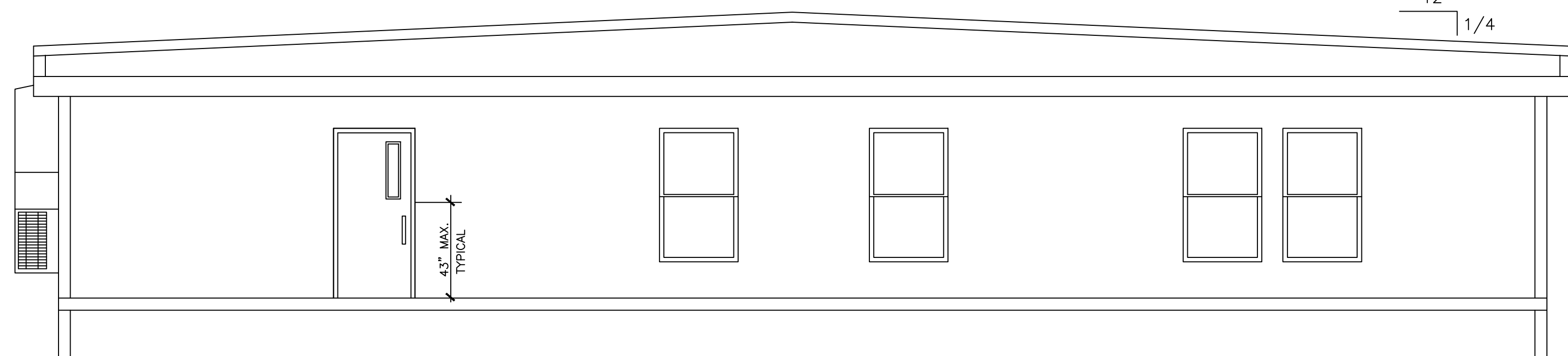
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 ALMA, GA 31510 (912) 632-3344

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

|                            |  |
|----------------------------|--|
| DATE: 2-21-23              | REVISIONS:                             |
| SCALE: 1/4"=1'-0"          |  |
| CODES: SEE SUMMARY         |  |
| LABELS: RADCO              |  |
| STATES: AL, NC, SC, AL, MS | BY: W.E.W.                             |
| TMS/AMS 7560 A/B           | SHEET                                  |
| 27'-4" x 60'-0" BUSINESS   | 2 OF 4                                 |
| FLOOR PLAN                 | REFERENCE: 7560 DESTINATION: ST. LOUIS |

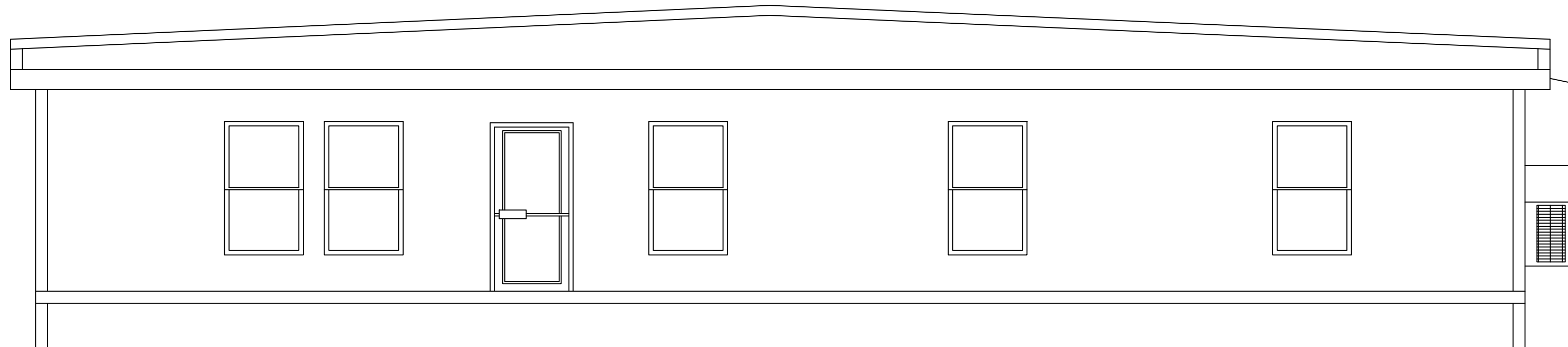


12  
1/4

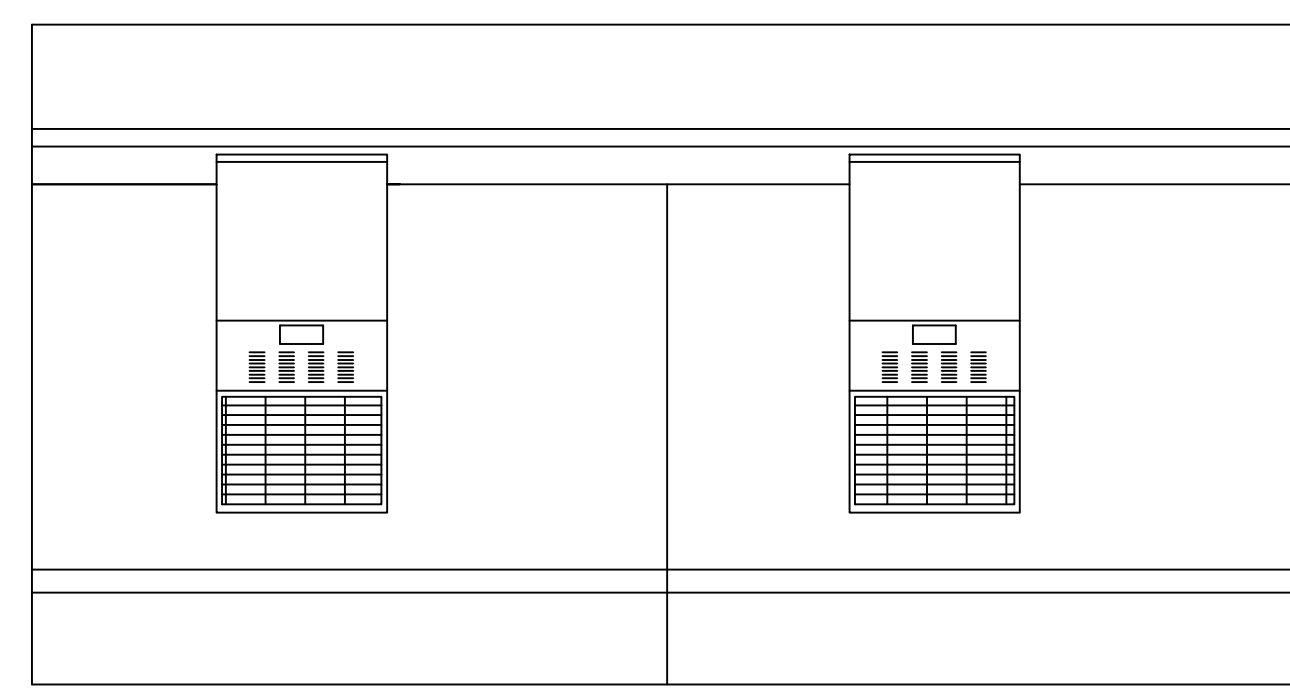


REAR ELEVATION

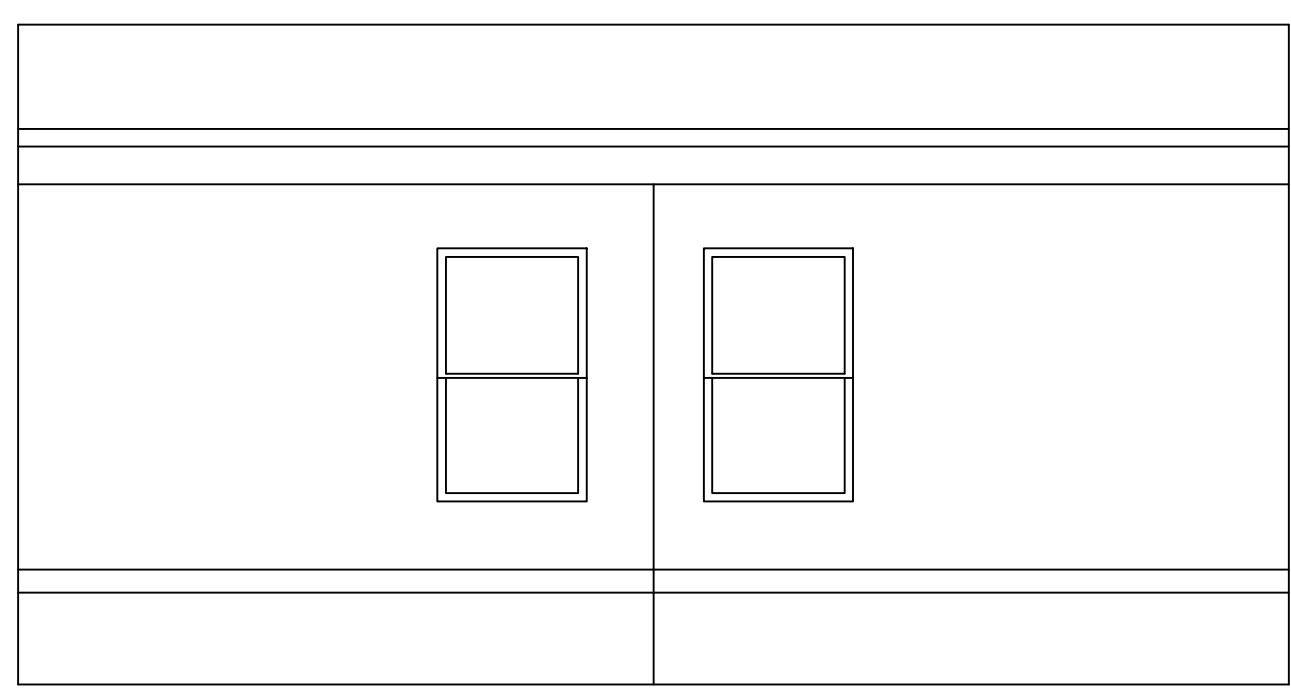
ELEVATION NOTES: TYPICAL  
 SEE—CROSS SECTION FOR METHOD OF ROOF VENTILATION  
 ACCESSIBLE RAMP(S), STAIR(S), AND HANDRAILS ARE SITE INSTALLED, DESIGNED BY OTHERS, AND SUBJECT TO LOCAL JURISDICTION.  
 FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150TH OF THE FLOOR 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 INTENDED TO BE ALL INCLUSIVE NOR DO THESE ELEVATIONS DETAIL EVERY CODE REQUIRED ASPECT OF THIS BLDG.. SITE BUILT STOODS, 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



FRONT ELEVATION



RIGHT ELEVATION



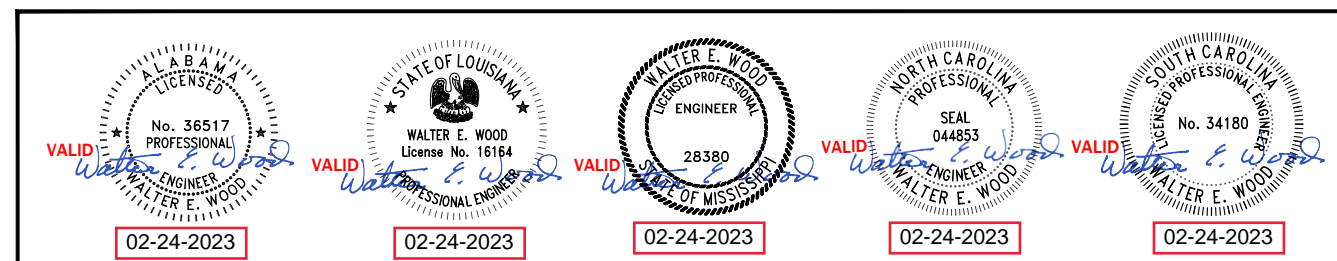
LEFT ELEVATION

OVERHANG: 12"  
 ENDWALLS: 12"  
 SIDEWALLS: 1.5"

Electrical  
**Brian Washko P-187**  
**RADCO**  
 3-Mar-23  
 APPROVED  
 James Slaght, MCP  
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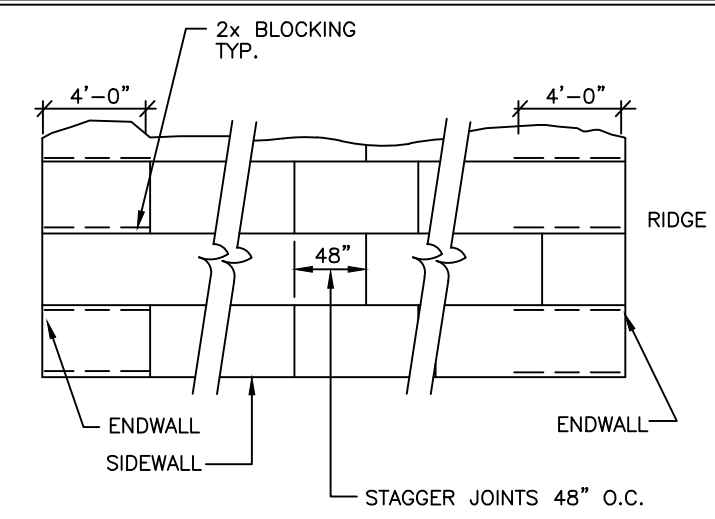
|  |  |
|--|--|
| DATE: 2-21-23                                | REVISIONS:                             |
| SCALE: NO SCALE                              |  |
| CODES: SEE SUMMARY                           |  |
| LABELS: RADCO                                |  |
| STATES: AL, NC, SC, AL, MS                   | BY: W.E.W.                             |
| TMS/AMS 7560 A/B<br>27'-4" x 60'-0" BUSINESS |  |
| ELEVATIONS                                   | REFERENCE: 7560 DESTINATION: ST. LOUIS |
| 3 OF 4                                       |  |

**INTERIOR FINISH MATERIAL:**

- CEILING - T-GRID CEILING INSTALLED PER MANUFACTURERS SPECS.
- WALL - 5/8" TYPE 'X' GYPSUM BOARD (VCG THROUGHOUT) INSTALLED PER MANUFACTURES 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'

**EXTERIOR FINISH MATERIAL:**

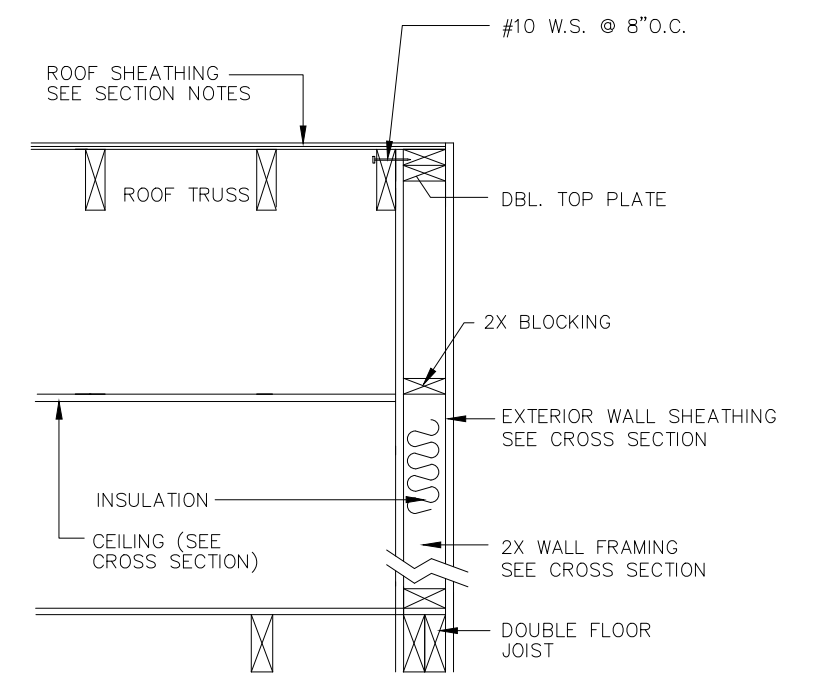
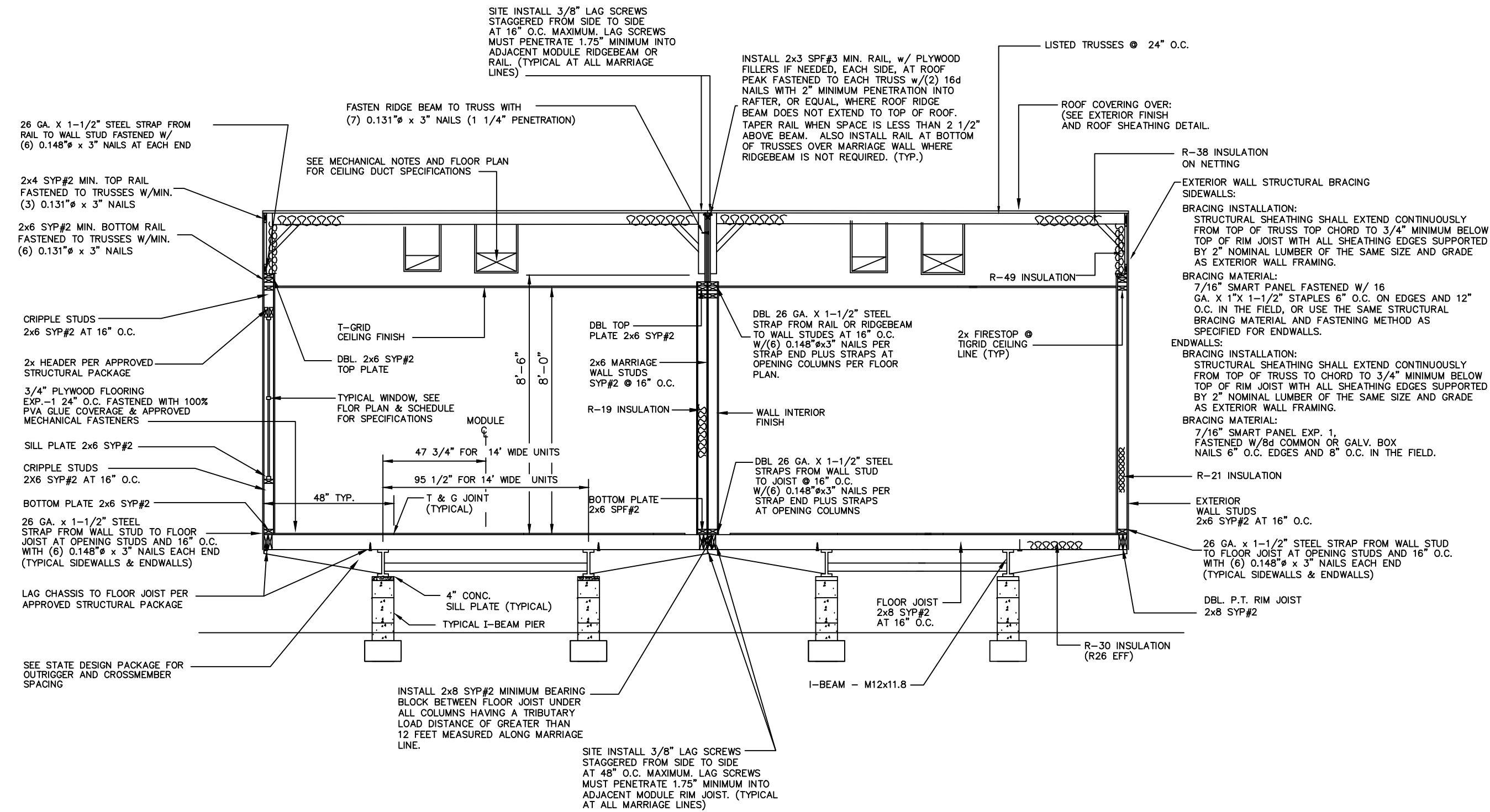
- ROOF - MULE-HIDE .045 MIL (WHITE) EPDM (ESR-1463) FULLY ADHERED TO 7/16" OSB OR 1/2" PLYWOOD WITH MULE-HIDE FR ADHESIVE IN ACCORDANCE WITH INTERTEK REPORT CCRR-1078 (CLASS C ROOF)
- WALL - 7/16" SMART PANEL SIDING OVER APPROVED MOISTURE BARRIER. (DUPONT TYVEK ESR 2375) INSTALLED PER MANUFACTURERS SPECIFICATIONS



**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/ 0.131"Ø x 2.5" NAILS 6" O.C. ON EDGES & 6" O.C. IN THE FIELD.

APPROVED TRUSS DESIGN:  
TRUSS MANUFACTURER: UNIVERSAL  
TRUSS DRAWING. # F0645604



**BALLOON END WALL DETAIL**  
NTS

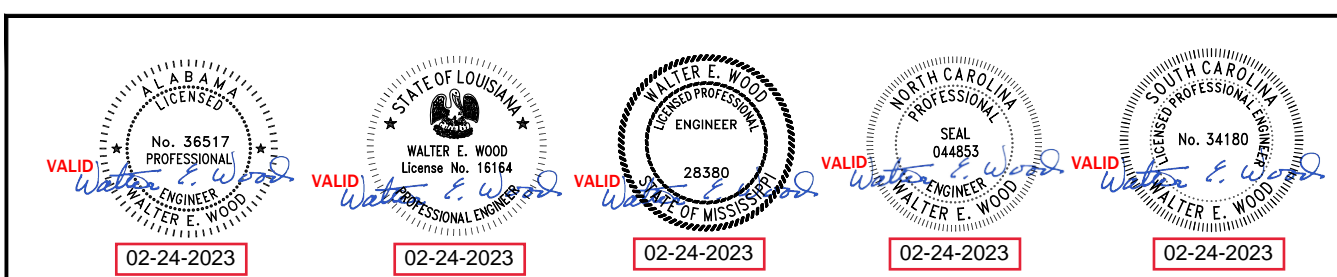
**GENERAL CROSS-SECTION NOTES:**

- UNLESS OTHERWISE SPECIFIED, ALL STEEL MUST COMPLY W/ ASTM A36, YIELD STRENGTH = 36 KSI.
- ALL LAG SCREWS MUST COMPLY W/ ANSI/ ASME B18.2.1. F<sub>y</sub> = 60 KSI MINIMUM
- SEE FOUNDATION PLAN FOR PIER AND TIE-DOWN STRAPPING LOCATIONS, ORIENTATIONS, AND SPECIFICATIONS.

**RIDGE BEAM CONSTRUCTION:**

- (SEE FLOOR PLAN) 3/4" PLYWOOD, RATED SHEATHING, EXP.-1, STRUCT.-1, 5 PLY/5 LAYER, 48/24 EACH HALF CONTINUOUS ENTIRE LENGTH OF CLEARSPAN.
- NOTES:
- PLYWOOD FACE GRAIN MUST BE PARALLEL TO THE RIDGE BEAM SPAN.
  - ALL PLYWOOD BUTT JOINTS MUST BE STAGGERED 24" MINIMUM.
  - ALL RIDGE BEAM PLYWOOD LAMINATIONS MUST BE THE SAME DEPTH, THICKNESS, AND GRADE OF PLYWOOD. NO LUMBER OR PLYWOOD FLANGES ARE PERMITTED.
  - PLYWOOD MUST BE MANUFACTURED IN ACCORDANCE W/ PS E-95.
  - 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 (SEE APPROVED PACKAGE FOR MECHANICAL FASTENER SPECIFICATIONS & SPACING REQUIREMENTS. PLYWOOD MUST NOT BE TREATED W/ A FIRE RETARDANT PROCESS.
  - MOISTURE CONTENT MUST BE LESS THAN 16%.
  - BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
  - 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.

Electrical  
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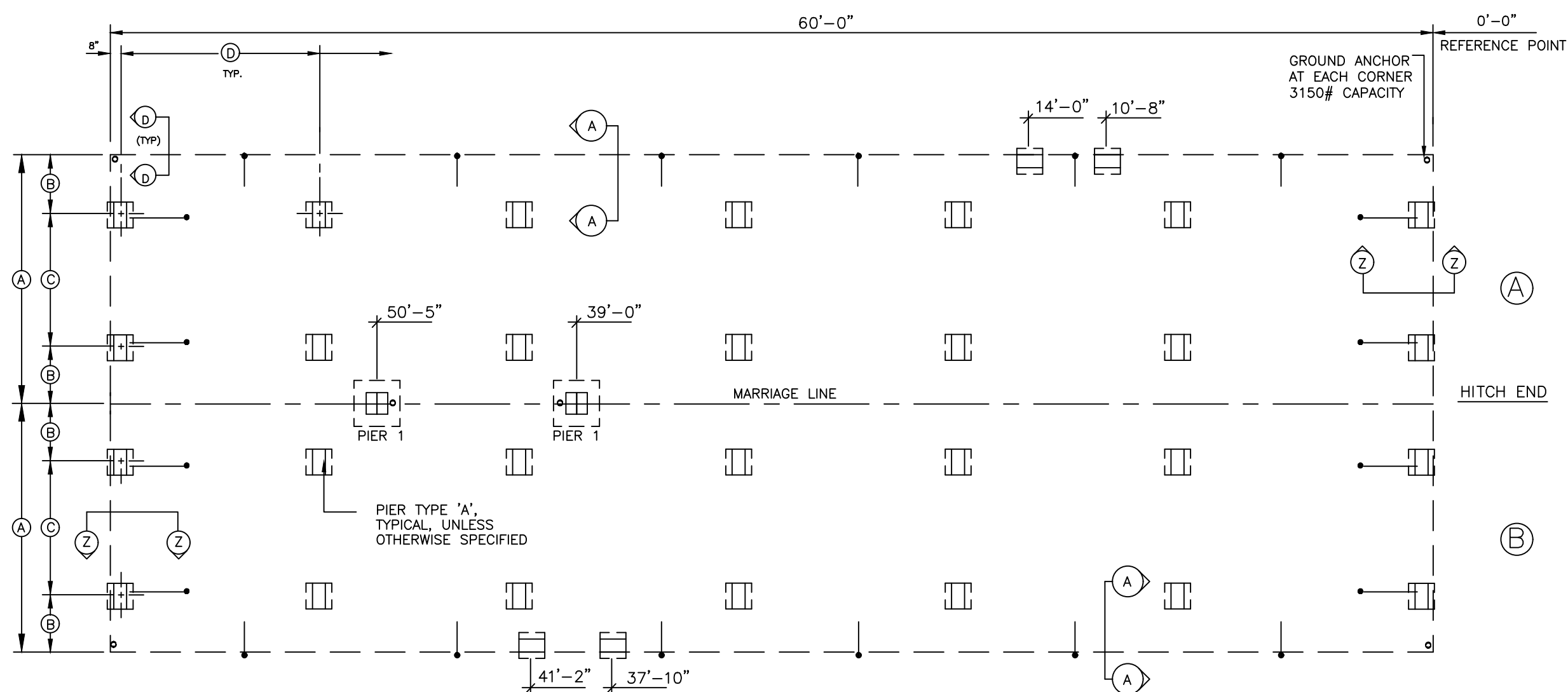
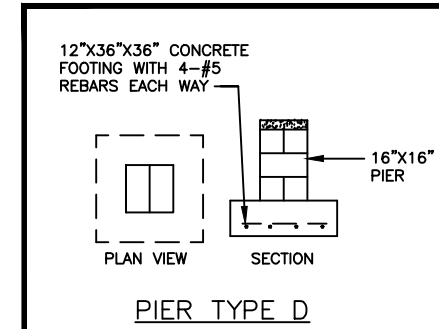
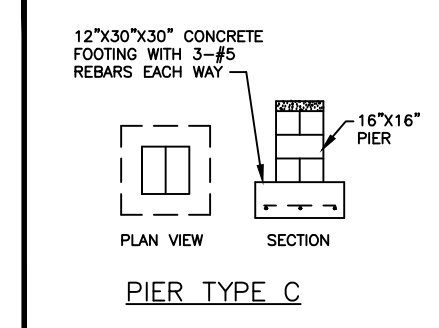
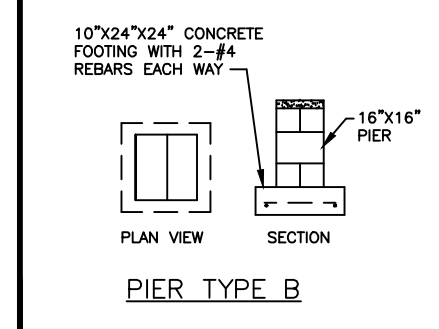
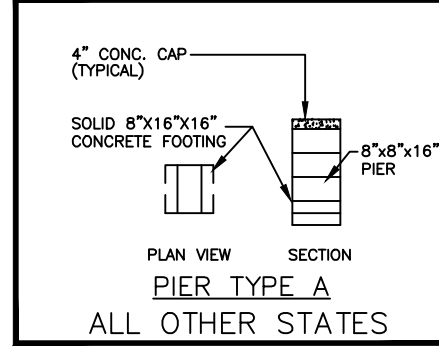
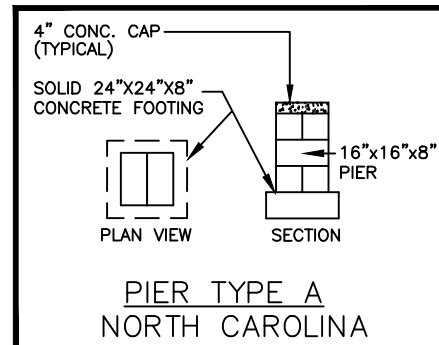
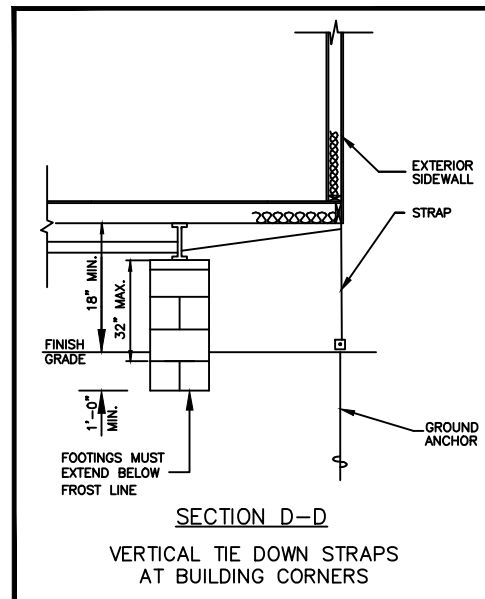
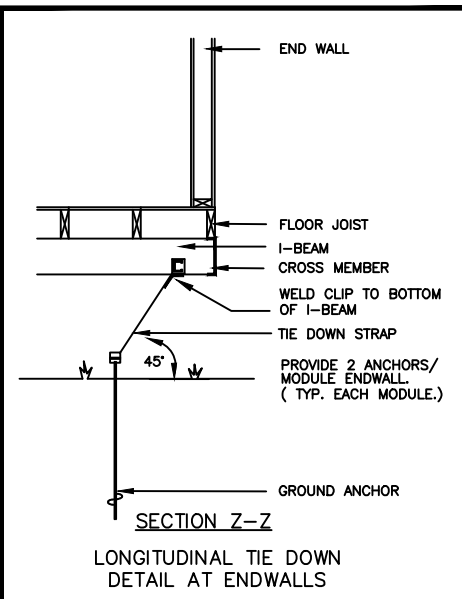
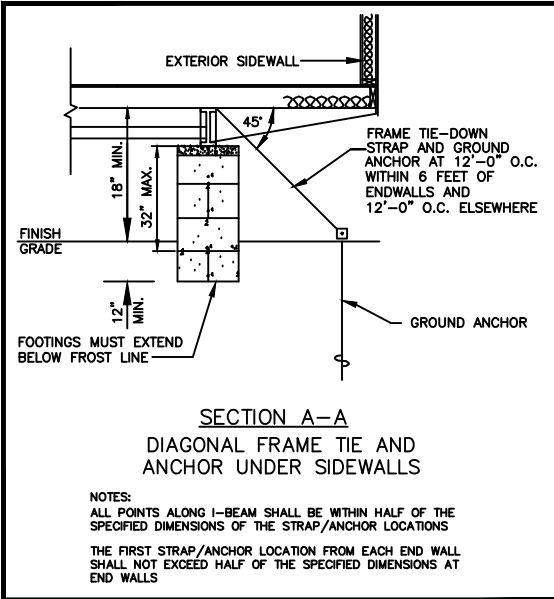
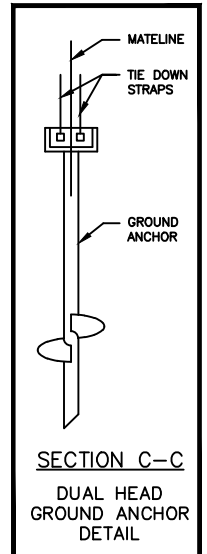
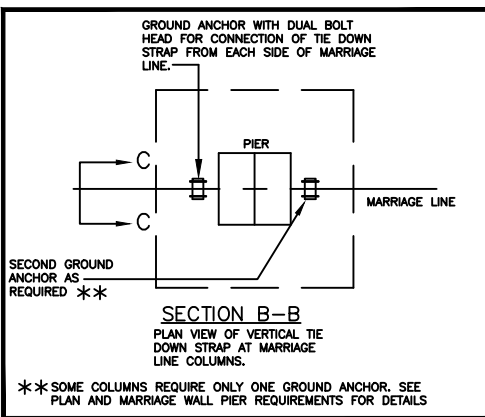
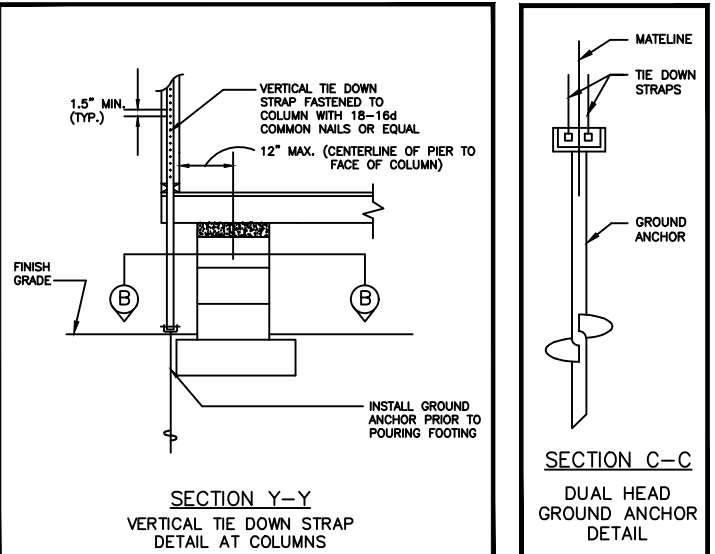


CONSULTING ENGINEER:  
WALTER E. WOOD, P.E.  
168 W. LONGLEAF DR.  
SYLVESTER, GA. 31791

TITAN MODULAR SYSTEMS, INC.  
ALMA, GA 31510 (912) 632-3344

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

|  |  |
|--|--|
| DATE: 2-21-23                                | REVISIONS:                             |
| SCALE: NO SCALE                              |  |
| CODES: SEE SUMMARY                           |  |
| LABELS: RADCO                                | BY: W.E.W.                             |
| STATES: AL, NC, SC, AL, MS                   |  |
| TMS/AMS 7560 A/B<br>27'-4" x 60'-0" BUSINESS | SHEET 4 OF 4                           |
| CROSS SECTION                                | REFERENCE: 7560 DESTINATION: ST. LOUIS |



NOTE: THE NUMBER OF PIERS SHOWN ON THIS FOUNDATION PLAN IS NO INDICATION OF THE AMOUNT OF PIERS REQUIRED AND NEEDED FOR THIS BUILDING. SEE MAXIMUM PIER SPACING CHART TO THE RIGHT FOR THE CORRECT NUMBER OF PIERS REQUIRED FOR EACH SOIL BEARING CAPACITY.

NOTE: THIS FOUNDATION PLAN IS PROVIDED FOR REFERENCE AS A TYPICAL STANDARD. ACTUAL FOUNDATION CONDITIONS MUST BE EVALUATED FOR APPLICABILITY IF THIS PLAN IS TO BE USED. ALTERNATE FOUNDATION PLANS MAY BE DESIGNED BY OTHERS IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTION HAVING AUTHORITY.

- FOUNDATION NOTES:**
- ALL FOUNDATION CONSTRUCTION, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
  - TIE-DOWN STRAPS TO BE 1-1/4\"/>

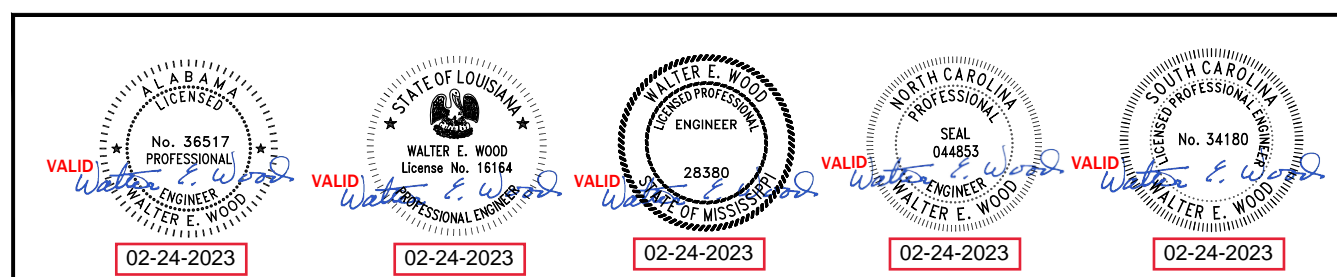
| MARRIAGE WALL PIER REQUIREMENTS |                               |           |  |
|---------------------------------|-------------------------------|-----------|--|
| PIER NUMBER                     | MINIMUM SOIL BEARING CAPACITY | PIER TYPE | NUMBER OF VERTICAL TIE DOWN STRAPS REQ'D (EACH MODULE) |
| 1                               | 2000 PSF                      | D         | 1  |
|                                 | 3000 PSF                      | C         |  |
|                                 | 2000 PSF                      |           |  |
|                                 | 3000 PSF                      |           |  |

**NOTICE TO FOUNDATION CONTRACTOR:**  
 ALL DIMENSIONS, DETAILS AND NOTES ON THIS FOUNDATION PLAN MUST BE REVIEWED AND VERIFIED BY THE FOUNDATION CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE FOUNDATION. ANY APPARENT CONFLICTS, ERRORS OR OMISSIONS MUST BE BROUGHT TO THE ATTENTION OF THE DESIGN PROFESSIONAL FOR RESOLUTION PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR MUST OBTAIN APPROVAL OF THE FOUNDATION PLAN FROM THE LOCAL BUILDING DEPARTMENT PRIOR TO COMMENCING CONSTRUCTION AND MUST COMPLY WITH ALL STATE AND LOCAL CODE, APPROVAL AND INSPECTION REQUIREMENTS. EMC IS NOT THE DESIGNER OF THE BUILDING OR THE FOUNDATION AND IS NOT RESPONSIBLE OR LIABLE FOR ANY CONFLICTS, ERRORS, OMISSIONS OR FAILURES TO COMPLY WITH STATE OR LOCAL CODES.

FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/10TH OF THE FLOOR AREA, AND AN 18\"/>

Electrical  
**Brian Washko P-187**  
**RADCO**  
 3-Mar-23  
 James Slaght, MCP  
 P-173, SMP 63  
 U02528

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



**FOUNDATION DIMENSIONS NORTH CAROLINA**

| A MODULE WIDTH | B PIER TO MODULE EDGE | C STEEL BEAM SPACING |
|----------------|-----------------------|----------------------|
| 13'-8"         | 34 1/4"               | 95 1/2"              |

| D MAXIMUM PIER SPACING | MINIMUM SOIL BEARING CAPACITY |
|------------------------|-------------------------------|
| 9'-0"                  | 2000 PSF                      |
| 9'-0"                  | 3000 PSF                      |

**FOUNDATION DIMENSIONS ALL OTHER STATES**

| A MODULE WIDTH | B PIER TO MODULE EDGE | C STEEL BEAM SPACING |
|----------------|-----------------------|----------------------|
| 13'-8"         | 34 1/4"               | 95 1/2"              |

| D MAXIMUM PIER SPACING | MINIMUM SOIL BEARING CAPACITY |
|------------------------|-------------------------------|
| 5'-0"                  | 2000 PSF                      |
| 7'-9"                  | 3000 PSF                      |

TITAN MODULAR SYSTEMS, INC.  
 162 INDUSTRIAL DRIVE  
 ALMA, GA 31510 (912) 632-3344

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

DATE: 2-21-23 REVISIONS:  
 SCALE: NO SCALE  
 CODES: SEE SUMMARY  
 LABELS: RADCO BY: W.E.W.  
 STATES: AL, NC, SC, AL, MS SHEET  
 TMS/AMS 7560 A/B 27'-4" x 60'-0" BUSINESS 1 OF 1  
 FOUNDATION REFERENCE: 7560 DESTINATION: ST. LOUIS



# COMcheck Software Version 4.1.5.5

## Envelope Compliance Certificate

### Project Information

Energy Code: 2015 IECC  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Location: Montgomery, Alabama  
 Climate Zone: 3a  
 Project Type: New Construction  
 Vertical Glazing / Wall Area: 12%

**APPROVED** **RADCO** **APPROVED**  
**Mar 03, 2023**

Construction Site: Owner/Agent: Designer/Contractor:  
 TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
 162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
 ALMA, GA 31510 SYLVESTER, GA 31791

### Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed  
 On-site Renewable Energy, 1.0 credit

### Building Area

### Floor Area

|                           |      |
|---------------------------|------|
| 1-Office : Nonresidential | 1640 |
|---------------------------|------|

### Envelope Assemblies

| Assembly   | Gross Area<br>or<br>Perimeter | Cavity<br>R-Value | Cont.<br>R-Value | Proposed<br>U-Factor | Budget U-<br>Factor <sup>(a)</sup> |
|--|-------------------------------|-------------------|------------------|----------------------|------------------------------------|
| Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Office]  | 1640                          | 38.0              | 0.0              | 0.027                | 0.027                              |
| Floor 1: Wood-Framed, [Bldg. Use 1 - Office]   | 1640                          | 26.0              | 0.0              | 0.038                | 0.033                              |
| <b>SOUTH</b>   |                               |                   |                  |                      |                                    |
| Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]   | 1484                          | 21.0              | 0.0              | 0.062                | 0.064                              |
| Window 1: Metal Frame with Thermal Break:Operable, Perf. Specs.:<br>Product ID NA, SHGC 0.25, [Bldg. Use 1 - Office] (b) | 180                           | ---               | ---              | 0.450                | 0.600                              |
| Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Office]  | 41                            | ---               | ---              | 0.292                | 0.610                              |

- (a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.  
 (b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

### Envelope PASSES: Design 11% better than code

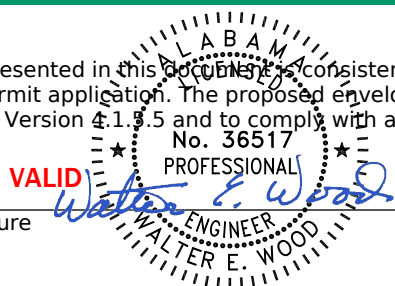
### Envelope Compliance Statement

*Compliance Statement:* The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

Date



02-24-2023

**APPROVED** **RADCO** **APPROVED**  
**Mar 03, 2023**



# Interior Lighting Compliance Certificate

### Project Information

Energy Code: 2015 IECC  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Project Type: New Construction

APPROVED

**RADCO**  
**Mar 03, 2023**

APPROVED

Construction Site: Owner/Agent: Designer/Contractor:  
 TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
 162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
 ALMA, GA 31510 SYLVESTER, GA 31791

### Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed  
 On-site Renewable Energy, 1.0 credit

### Allowed Interior Lighting Power

| A<br>Area Category    | B<br>Floor Area<br>(ft <sup>2</sup> ) | C<br>Allowed<br>Watts / ft <sup>2</sup> | D<br>Allowed Watts<br>(B X C) |
|-----------------------|---------------------------------------|---|-------------------------------|
| 1-Office              | 1640                                  | 0.82                                    | 1345                          |
| Total Allowed Watts = |                                       |   | 1345                          |

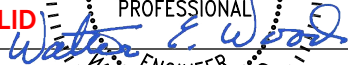
### Proposed Interior Lighting Power

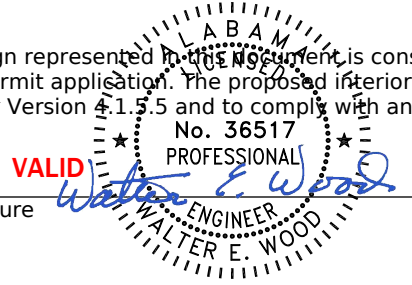
| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| 1-Office<br>LED 1: LED Linear 22W:                                | 2                      | 24                    | 44                    | 1056         |
| Total Proposed Watts =  |                        |                       |                       | 1056         |

**Interior Lighting PASSES: Design 21% better than code**

### Interior Lighting Compliance Statement

*Compliance Statement:* The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title \_\_\_\_\_ Signature  Date 02-24-2023









# Inspection Checklist

Energy Code: 2015 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID           | Plan Review   | Complies?  | Comments/Assumptions |
|------------------------------|---|--|----------------------|
| C103.2 [PR1] <sup>1</sup>    | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C103.2 [PR2] <sup>1</sup>    | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C103.2 [PR3] <sup>1</sup>    | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C103.2 [PR4] <sup>1</sup>    | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C103.2 [PR8] <sup>1</sup>    | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.4.1 [PR10] <sup>1</sup> | The vertical fenestration area <= 30 percent of the gross above-grade wall area.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

1 High Impact (Tier 1)    
  2 Medium Impact (Tier 2)    
  3 Low Impact (Tier 3)

| Section # & Req.ID           | Plan Review   | Complies?  | Comments/Assumptions |
|------------------------------|---|--|----------------------|
| C402.4.1 [PR11] <sup>1</sup> | The skylight area <= 3 percent of the gross roof area.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.4.2 [PR14] <sup>1</sup> | In enclosed spaces > 2,500 ft <sup>2</sup> directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

| Section # & Req.ID                        | Footing / Foundation Inspection   | Complies?  | Comments/Assumptions |
|---|---|--|----------------------|
| C303.2.1 [FO6] <sup>1</sup>               | Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.       | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.5, C403.2.4.6 [FO9] <sup>3</sup> | Snow/ice melting system sensors for future connection to controls. Freeze protection systems have automatic controls installed. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

| Section # & Req.ID                      | Framing / Rough-In Inspection   | Complies?  | Comments/Assumptions                          |
|---|---|--|---|
| C303.1.3 [FR12] <sup>2</sup>            | Fenestration products rated in accordance with NFRC.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C303.1.3 [FR13] <sup>1</sup>            | Fenestration products are certified as to performance labels or certificates provided.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C402.4.3 [FR10] <sup>1</sup>            | Vertical fenestration SHGC value.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| C402.4.3, C402.4.3.4 [FR8] <sup>1</sup> | Vertical fenestration U-Factor.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| C402.4.4 [FR14] <sup>2</sup>            | U-factor of opaque doors associated with the building thermal envelope meets requirements.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| C402.5.1 [FR16] <sup>1</sup>            | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C402.5.2, C402.5.4 [FR18] <sup>3</sup>  | Factory-built fenestration and doors are labeled as meeting air leakage requirements.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C402.5.7 [FR17] <sup>3</sup>            | Vestibules are installed on all building entrances. Doors have self-closing devices.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                            | Plumbing Rough-In Inspection  | Complies?  | Comments/Assumptions |
|---|---|--|----------------------|
| C404.5, C404.5.1, C404.5.2 [PL6] <sup>3</sup> | Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.5, C404.5.1, C404.5.2 [PL6] <sup>3</sup> | Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.6.1, C404.6.2 [PL3] <sup>1</sup>         | Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.6.3 [PL7] <sup>3</sup>                   | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.6.3 [PL7] <sup>3</sup>                   | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.7 [PL8] <sup>3</sup>                     | Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.7 [PL8] <sup>3</sup>                     | Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                      | Mechanical Rough-In Inspection   | Complies?  | Comments/Assumptions                        |
|---|--|--|---|
| C402.2.6 [ME41] <sup>3</sup>            | Thermally ineffective panel surfaces of sensible heating panels have insulation $\geq$ R-3.5.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C402.5.5, C403.2.4.3 [ME3] <sup>3</sup> | Stair and elevator shaft vents have motorized dampers that automatically close.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.12.1 [ME65] <sup>3</sup>         | HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| C403.2.12.3 [ME117] <sup>2</sup>        | Fans have efficiency grade (FEG) $\geq$ 67. The total efficiency of the fan at the design point of operation $\leq$ 15% of maximum total efficiency of the fan.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.13 [ME71] <sup>2</sup>           | Unenclosed spaces that are heated use only radiant heat.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.3 [ME55] <sup>2</sup>            | HVAC equipment efficiency verified.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| C403.2.6.1 [ME59] <sup>1</sup>          | Demand control ventilation provided for spaces $>500$ ft <sup>2</sup> and $>25$ people/1000 ft <sup>2</sup> occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow $>3,000$ cfm. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.6.2 [ME115] <sup>3</sup>         | Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.7 [ME57] <sup>1</sup>            | Exhaust air energy recovery on systems meeting Table C403.2.7(1) and C403.2.7(2).  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.8 [ME116] <sup>3</sup>           | Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.9 [ME60] <sup>2</sup>            | HVAC ducts and plenums insulated. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.9 [ME10] <sup>2</sup>            | Ducts and plenums sealed based on static pressure and location.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID                                 | Mechanical Rough-In Inspection   | Complies?  | Comments/Assumptions                        |
|--|--|--|---|
| C403.2.9.1.3<br>[ME11] <sup>3</sup>                | Ductwork operating >3 in. water column requires air leakage testing.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.4.4.6<br>[ME110] <sup>3</sup>                 | Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| C408.2.2.1<br>[ME53] <sup>3</sup>                  | Air outlets and zone terminal devices have means for air balancing.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.5, C403.5.1, C403.5.2<br>[ME123] <sup>3</sup> | Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2.. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                         | Rough-In Electrical Inspection  | Complies?  | Comments/Assumptions |
|--|---|--|----------------------|
| C405.2.1 [EL15] <sup>1</sup>               | Lighting controls installed to uniformly reduce the lighting load by at least 50%.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.1 [EL18] <sup>1</sup>               | Occupancy sensors installed in required spaces.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.1, C405.2.2.3 [EL23] <sup>2</sup>   | Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.2.1 [EL22] <sup>2</sup>             | Automatic controls to shut off all building lighting installed in all buildings.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.3 [EL16] <sup>2</sup>               | Daylight zones provided with individual controls that control the lights independent of general area lighting.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.3.1, C405.2.3.2 [EL20] <sup>1</sup> | Primary sidelighted areas are equipped with required lighting controls.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.3.1, C405.2.3.3 [EL21] <sup>1</sup> | Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.4 [EL4] <sup>1</sup>                | Separate lighting control devices for specific uses installed per approved lighting plans.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.4 [EL8] <sup>1</sup>                | Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.5 [EL25] <sup>null</sup>            | Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.3 [EL6] <sup>1</sup>                  | Exit signs do not exceed 5 watts per face.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                  | Insulation Inspection  | Complies?  | Comments/Assumptions                                 |
|-------------------------------------|--|--|--|
| C303.1 [IN3] <sup>1</sup>           | Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is $\leq 3$ in 12.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C303.1 [IN10] <sup>2</sup>          | Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C303.2 [IN7] <sup>1</sup>           | Above-grade wall insulation installed per manufacturer's instructions.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C303.2, C402.2.4 [IN9] <sup>2</sup> | Floor insulation installed per manufacturer's instructions. Cavity or structural slab insulation installed in permanent contact with underside of decking or structural slabs.                                   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C303.2.1 [IN14] <sup>2</sup>        | Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C402.2.1 [IN17] <sup>3</sup>        | Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.                          | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C104 [IN6] <sup>1</sup>             | Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| C104 [IN8] <sup>2</sup>             | Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| C402.2.6 [IN18] <sup>3</sup>        | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C402.3 [IN5] <sup>3</sup>           | High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance $\geq 0.55$ and thermal emittance $\geq 0.75$ or 3-year-aged solar reflectance index $\geq 64.0$ .                                 | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C104 [IN2] <sup>1</sup>             | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| C402.5.1.1 [IN1] <sup>1</sup>       | 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.                  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                             | Final Inspection  | Complies?  | Comments/Assumptions |
|--|---|--|----------------------|
| C303.3, C408.2.5.2 [FI17] <sup>3</sup>         | Furnished O&M instructions for systems and equipment to the building owner or designated representative.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C303.3, C408.2.5.3 [FI8] <sup>3</sup>          | Furnished O&M manuals for HVAC systems within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.5.3 [FI51] <sup>3</sup>                   | Where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening are located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms are sealed and insulated. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.5.6 [FI37] <sup>1</sup>                   | Weatherseals installed on all loading dock cargo doors.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.5.8 [FI26] <sup>3</sup>                   | Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.2 [FI27] <sup>3</sup>                   | HVAC systems and equipment capacity does not exceed calculated loads.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.1 [FI47] <sup>3</sup>                 | Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.1.2 [FI38] <sup>3</sup>               | Thermostatic controls have a 5 °F deadband.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.1.3 [FI20] <sup>3</sup>               | Temperature controls have setpoint overlap restrictions.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.2 [FI39] <sup>3</sup>                 | Each zone equipped with setback controls using automatic time clock or programmable control system.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.2.1, C403.2.4.2.2 [FI40] <sup>3</sup> | Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID             | Final Inspection  | Complies?  | Comments/Assumptions  |
|--------------------------------|---|--|---|
| C404.3 [FI11] <sup>3</sup>     | Heat traps installed on supply and discharge piping of non-circulating systems.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C404.4 [FI25] <sup>2</sup>     | All piping insulated in accordance with section details and Table C403.2.10.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C405.4.1 [FI18] <sup>1</sup>   | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Interior Lighting fixture schedule for values.</i> |
| C405.5.1 [FI19] <sup>1</sup>   | 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.                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Exterior Lighting fixture schedule for values.</i> |
| C408.2.1 [FI28] <sup>1</sup>   | Commissioning plan developed by registered design professional or approved agency.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C408.2.3.1 [FI31] <sup>1</sup> | HVAC equipment has been tested to ensure proper operation.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C408.2.3.2 [FI10] <sup>1</sup> | HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C408.2.4 [FI29] <sup>1</sup>   | Preliminary commissioning report completed and certified by registered design professional or approved agency.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C408.2.5.1 [FI7] <sup>3</sup>  | Furnished HVAC as-built drawings submitted within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C408.2.5.1 [FI16] <sup>3</sup> | Furnished as-built drawings for electric power systems within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C408.2.5.3 [FI43] <sup>1</sup> | An air and/or hydronic system balancing report is provided for HVAC systems.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C408.2.5.4 [FI30] <sup>1</sup> | Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID         | Final Inspection  | Complies?  | Comments/Assumptions |
|----------------------------|---|--|----------------------|
| C408.3 [FI33] <sup>1</sup> | Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|



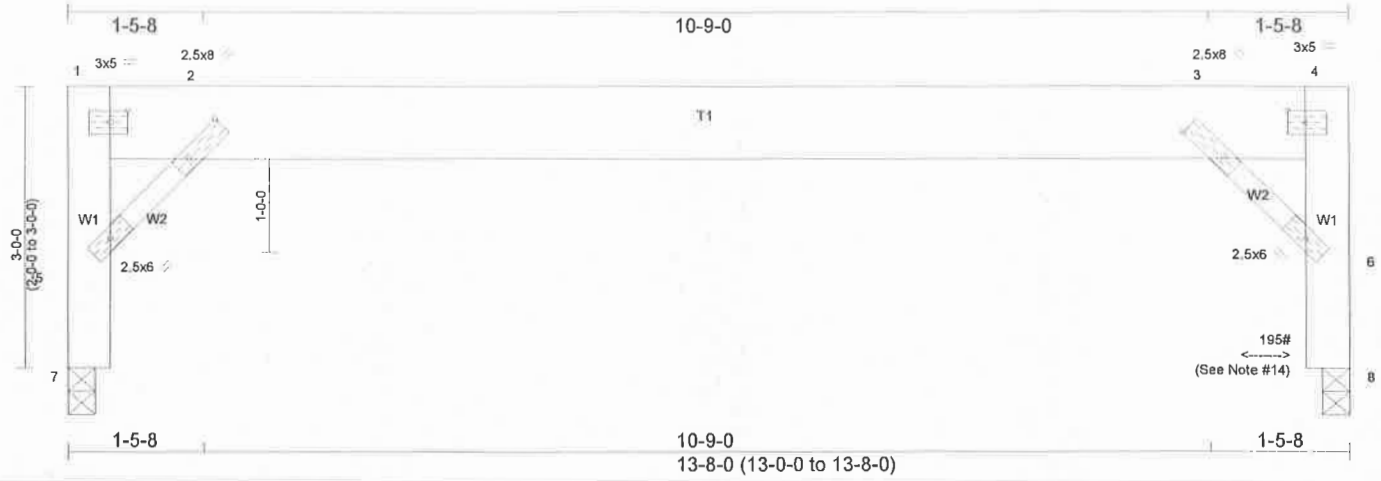


Plate Offsets (X,Y)-- [1:0-2-4,0-1-8], [2:0-6-0,0-1-4], [3:0-6-0,0-1-4], [4:0-2-4,0-1-8]

| LOADING (psf)      | SPACING-        | 1-0-0           | CSI.     | DEFL.    | in (loc) | l/defl | L/d  | PLATES | GRIP    |
|--------------------|-----------------|-----------------|----------|----------|----------|--------|------|--------|---------|
| TCLL 23.1          | Plate Grip DOL  | 1.15            | TC 0.66  | Vert(LL) | 0.35     | 2-3    | >456 | MT20   | 244/190 |
| (Ground Snow=30.0) | Lumber DOL      | 1.15            | BC 0.00  | Vert(CT) | 0.32     | 2-3    | >499 |        |         |
| TCDL 15.0          | Rep Stress Incr | YES             | WB 0.17  | Horz(CT) | -0.51    | 8      | n/a  |        |         |
| BCLL 0.0 *         | Code            | IBC2018/TPI2014 | Matrix-R |          |          |        |      |        |         |
| BCDL 0.0           | Code            | IBC2015/TPI2014 |          |          |          |        |      |        |         |

**LUMBER-**  
 TOP CHORD 2x10 SP No.2  
 WEBS 2x6 SP No.2 \*Except\*  
 W2: 2x3 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied for 5'-0" purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc spacing.

**REACTIONS.** (lb/size) 7=252/0-3-8 (min. 0-1-8), 8=252/0-3-8 (min. 0-1-8)  
 Max Horz 7=-66(LC 7)  
 Max Uplift 7=-146(LC 7), 8=-146(LC 8)

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 5-7=-252/325, 1-5=-261/856, 1-2=-181/203, 2-3=-269/269, 3-4=-181/203, 6-8=-252/325, 4-6=-261/856  
 WEBS 2-5=-710/677, 3-6=-710/677

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=-1.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 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
  - 2) TCLL: ASCE 7-16; Pg=30.0 psf; Ps=23.1 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
  - 3) Roof design snow load has been reduced to account for slope.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) The bottom chord dead load shown is sufficient only to cover the truss weight itself and does not allow for any additional load to be added to the bottom chord.
  - 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) Bearing at joint(s) 7, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 7 and 146 lb uplift at joint 8.
  - 9) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 12) This truss is designed in accordance with the 2015 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
  - 13) When adjusting the variable span dimension, adjust the post placement dimensions proportional to the change in span.
  - 14) This design has been checked for a horizontal wind load as shown.
  - 15) Based on: F0645603
  - 16) Revision: Decreased height!

Electrical  
 Brian Washko P-187  
**RADCO**  
 3-Mar-23  
 James Slaght, MCP  
 P-173, SMP 63  
 U02528



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.

**WARNING - Verify design parameters and READ NOTES**

UFP Industries, Inc. 2801 EAST BELTLINE RD, NE  
 PHONE (616)-364-6161 FAX (616)-365-0060 GRAND RAPIDS, MI 49525

Truss shall not be cut or modified without approval of the truss design engineer. This component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe





# UFP INDUSTRIES

| Job    | Truss    | MFG | Customer              |
|--------|----------|-----|-----------------------|
| 104721 | F0645604 | 316 | TITAN MODULAR SYSTEMS |

The professional engineering seal indicates that a licensed professional has reviewed the design under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use a design 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.



Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
 James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

APPROVED

APPROVED



# Envelope Compliance Certificate

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
 James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

### Project Information

Energy Code: 90.1 (2007) Standard  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Location: Hodge, Louisiana  
 Climate Zone: 3a  
 Project Type: New Construction  
 Vertical Glazing / Wall Area: 12%

Construction Site: Owner/Agent: Designer/Contractor:  
 TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
 162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
 ALMA, GA 31510 SYLVESTER, GA 31791

| Building Area             | Floor Area |
|---------------------------|------------|
| 1-Office : Nonresidential | 1640       |

### Envelope Assemblies

| Assembly  | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | Proposed U-Factor | Budget U-Factor <sup>(a)</sup> |
|---|-------------------------|----------------|---------------|-------------------|--------------------------------|
| Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Office]   | 1640                    | 38.0           | 0.0           | 0.027             | 0.027                          |
| Floor 1: Wood-Framed, [Bldg. Use 1 - Office]  | 1640                    | 26.0           | 0.0           | 0.038             | 0.051                          |
| <b>SOUTH</b>  |                         |                |               |                   |                                |
| Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]  | 1484                    | 21.0           | 0.0           | 0.062             | 0.089                          |
| Window 1: Metal Frame with Thermal Break:Operable, Perf. Specs.: Product ID NA, SHGC 0.25, [Bldg. Use 1 - Office] (b) | 180                     | ---            | ---           | 0.450             | 0.650                          |
| Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Office]   | 41                      | ---            | ---           | 0.292             | 0.700                          |

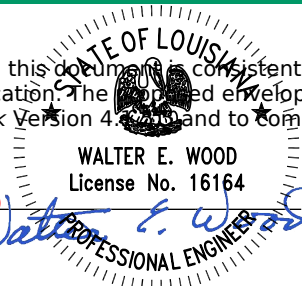
- (a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
- (b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

**Envelope PASSES: Design 4% better than code**

### Envelope Compliance Statement

*Compliance Statement:* The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title \_\_\_\_\_ Signature **VALID** *Walter E. Wood* Date **02-24-2023**





# Interior Lighting Compliance Certificate

Electrical  
**Brian Washko P-187**  
**RADCO**  
3-Mar-23  
APPROVED  
James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

### Project Information

Energy Code: 90.1 (2007) Standard  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction

Construction Site: Owner/Agent: TITAN MODULAR SYSTEMS, INC  
162 INDUSTRIAL DRIVE  
ALMA, GA 31510  
Designer/Contractor: WALTER E. WOOD P.E.  
168 W. LONGLEAF DRIVE  
SYLVESTER, GA 31791

### Allowed Interior Lighting Power

| A<br>Area Category    | B<br>Floor Area<br>(ft2) | C<br>Allowed<br>Watts / ft2 | D<br>Allowed Watts<br>(B X C) |
|-----------------------|--------------------------|-----------------------------|-------------------------------|
| 1-Office              | 1640                     | 1.00                        | 1640                          |
| Total Allowed Watts = |                          |                             | 1640                          |

### Proposed Interior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| 1-Office<br>LED 1: LED Linear 22W:                                | 2                      | 24                    | 44                    | 1056         |
| Total Proposed Watts =  |                        |                       |                       | 1056         |

**Interior Lighting PASSES: Design 36% better than code**

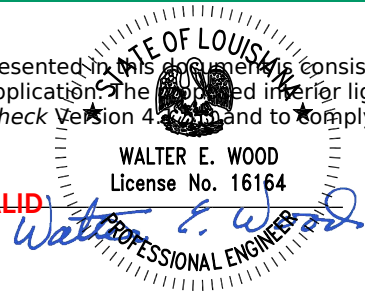
### Interior Lighting Compliance Statement

*Compliance Statement:* The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

VALID



Date

02-24-2023



# Exterior Lighting Compliance Certificate

Electrical  
Brian Washko P-187

**RADCO**  
APPROVED  
3-Mar-23  
APPROVED

James Slaght, MCP  
P-173, SMP 63  
U02528

## Project Information

Energy Code: 90.1 (2007) Standard  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction

Construction Site: Owner/Agent: TITAN MODULAR SYSTEMS, INC  
162 INDUSTRIAL DRIVE  
ALMA, GA 31510  
Designer/Contractor: WALTER E. WOOD P.E.  
168 W. LONGLEAF DRIVE  
SYLVESTER, GA 31791

## Allowed Exterior Lighting Power

| A<br>Area/Surface Category             | B<br>Quantity | C<br>Allowed<br>Watts / Unit | D<br>Tradable<br>Wattage | E<br>Allowed Watts<br>(B X C) |
|--|---------------|------------------------------|--------------------------|-------------------------------|
| Main entry/exit                        | 3 ft of door  | 30                           | Yes                      | 90                            |
| Other entry/exit                       | 3 ft of door  | 20                           | Yes                      | 60                            |
| Total Tradable Watts (a) =             |               |                              |                          | 150                           |
| Total Allowed Watts =                  |               |                              |                          | 150                           |
| Total Allowed Supplemental Watts (b) = |               |                              |                          | 8                             |

- (a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
- (b) A supplemental allowance equal to 8 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

## Proposed Exterior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast         | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| <u>Main entry (3 ft of door width): Tradable Wattage</u>                  |                        |                       |                       |              |
| Incandescent 1: Incandescent 60W:   | 1                      | 1                     | 60                    | 60           |
| <u>Other door (not main entry) (3 ft of door width): Tradable Wattage</u> |                        |                       |                       |              |
| Incandescent 2: Incandescent 60W:   | 1                      | 1                     | 60                    | 60           |
| Total Tradable Proposed Watts =   |                        |                       |                       | 120          |

**Exterior Lighting PASSES: Design 24% better than code**

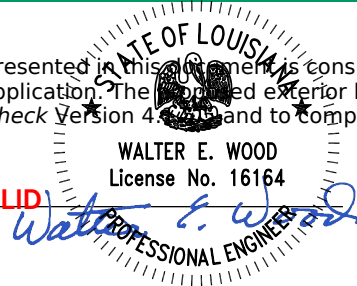
## Exterior Lighting Compliance Statement

*Compliance Statement:* The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

VALID



Date

02-24-2023



# Mechanical Compliance Certificate

## Project Information

Energy Code: 90.1 (2007) Standard  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Location: Hodge, Louisiana  
 Climate Zone: 3a  
 Project Type: New Construction

Electrical  
 Brian Washko P-187

**RADCO**  
 3-Mar-23  
 James Slaght, MCP  
 P-173, SMP 63  
 U02528

APPROVED

APPROVED

Construction Site: Owner/Agent: Designer/Contractor:  
 TITAN MODULAR SYSTEMS, INC. WALTER E. WOOD P.E.  
 162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
 ALMA, GA 31510 SYLVESTER, GA 31791

## Mechanical Systems List

### Quantity System Type & Description

- 2 HVAC System 1 (Single Zone):  
 Heating: 1 each - Other, Electric, Capacity = 34120 kBtu/h  
 No minimum efficiency requirement applies  
 Cooling: 1 each - Single Package Vertical AC Unit, Capacity = 36000 kBtu/h, Air-Cooled Condenser  
 Proposed Efficiency = 10.00 EER, Required Efficiency: 8.60 EER  
 Fan System: None
- 1 Water Heater 1:  
 Electric Storage Water Heater, Capacity: 6 gallons w/ Heat Trace Tape Installed  
 No minimum efficiency requirement applies

## Mechanical Compliance Statement

*Compliance Statement:* The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

**VALID**  
 WALTER E. WOOD  
 License No. 16164  
 PROFESSIONAL ENGINEER

Date

02-24-2023



# Inspection Checklist

Energy Code: 90.1 (2007) Standard

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID                  | Plan Review  | Complies?  | Comments/Assumptions |
|-------------------------------------|--|--|----------------------|
| 4.2.2 [PR1] <sup>1</sup>            | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2, 6.4.2 [PR2] <sup>1</sup>     | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2, 7.4.1 [PR3] <sup>1</sup>     | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2 [PR4] <sup>1</sup>            | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.7.2.4 [PR5] <sup>1</sup>          | Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft <sup>2</sup> .   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 8.4.1.1, 8.4.1.2 [PR6] <sup>2</sup> | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID           | Footing / Foundation Inspection  | Plans Verified Value  | Field Verified Value  | Complies?  | Comments/Assumptions                          |
|------------------------------|--|---|---|--|---|
| 5.5.3.3 [FO1] <sup>1</sup>   | Below-grade wall insulation R-value.   | R-_____   | R-_____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.3.5 [FO3] <sup>1</sup>   | Slab edge insulation R-value.  | R-_____<br><input type="checkbox"/> Unheated<br><input type="checkbox"/> Heated | R-_____<br><input type="checkbox"/> Unheated<br><input type="checkbox"/> Heated | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.3.5 [FO5] <sup>1</sup>   | Slab edge insulation depth/length.   | _____ ft  | _____ ft  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.7.3 [FO7] <sup>1</sup> | Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.    |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.8 [FO9] <sup>3</sup>   | Freeze protection and snow/ice melting system sensors for future connection to controls. |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                   | Framing / Rough-In Inspection   | Plans Verified Value  | Field Verified Value  | Complies?  | Comments/Assumptions                          |
|--------------------------------------|---|---|---|--|---|
| 5.4.3.2 [FR1] <sup>3</sup>           | Factory-built fenestration and doors are labeled as meeting air leakage requirements.   | Fenestration _____<br>_ cfm/ft <sup>2</sup><br>Doors _____<br>cfm/ft <sup>2</sup>     | Fenestration _____<br>_ cfm/ft <sup>2</sup><br>Doors _____<br>cfm/ft <sup>2</sup>     | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.4.3.4 [FR4] <sup>3</sup>           | Vestibules are installed where building entrances separate conditioned space from the exterior, and meet exterior envelope requirements. Doors have self-closing devices, and are >=7 ft apart. |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.4.3a [FR8] <sup>1</sup>          | Vertical fenestration U-Factor.   | U- _____  | U- _____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.3b [FR9] <sup>1</sup>          | Skylight fenestration U-Factor.   | U- _____  | U- _____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.4.1 [FR10] <sup>1</sup>        | Vertical fenestration SHGC value.   | SHGC: _____   | SHGC: _____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.4.2 [FR11] <sup>1</sup>        | Skylight SHGC value.  | SHGC: _____   | SHGC: _____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.2.1, 5.8.2.4 [FR12] <sup>2</sup> | Fenestration products rated in accordance with NFRC.  |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.2.2 [FR13] <sup>1</sup>          | Fenestration products are certified as to performance labels or certificates provided.  |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.2.3, 5.5.3.6 [FR14] <sup>2</sup> | U-factor of opaque doors associated with the building thermal envelope meets requirements.  | U- _____<br><input type="checkbox"/> Swinging<br><input type="checkbox"/> Nonswinging | U- _____<br><input type="checkbox"/> Swinging<br><input type="checkbox"/> Nonswinging | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID         | Plumbing Rough-In Inspection   | Complies?  | Comments/Assumptions |
|----------------------------|--|--|----------------------|
| 7.4.3 [PL1] <sup>2</sup>   | Service hot-water piping systems insulated. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.4.1 [PL2] <sup>3</sup> | Temperature controls installed on service water heating systems (<=120°F to maximum temperature for intended use).                                     | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.4.2 [PL3] <sup>1</sup> | Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.6 [PL4] <sup>3</sup>   | Heat traps installed on non-circulating storage water tanks.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                        | Mechanical Rough-In Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions                        |
|---|--|----------------------|----------------------|--|---|
| 6.4.1.4,<br>6.4.1.5<br>[ME1] <sup>2</sup> | HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.  | Efficiency: _____    | Efficiency: _____    | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| 6.4.3.4.1<br>[ME3] <sup>3</sup>           | Stair and elevator shaft vents have motorized dampers that automatically close.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.4.5<br>[ME5] <sup>3</sup>           | Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.9<br>[ME6] <sup>1</sup>             | Demand control ventilation provided for spaces >500 ft <sup>2</sup> and >40 people/1000 ft <sup>2</sup> occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.1<br>[ME7] <sup>3</sup>           | Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.2<br>[ME8] <sup>2</sup>           | HVAC ducts and plenums insulated.  | R- _____             | R- _____             | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.3<br>[ME9] <sup>2</sup>           | HVAC piping insulation thickness.  | _____ in.            | _____ in.            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.2.1<br>[ME10] <sup>2</sup>          | Ducts and plenums sealed based on static pressure and location.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.2.2<br>[ME11] <sup>3</sup>          | Ductwork operating >3 in. water column requires air leakage testing.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.2.3<br>[ME19] <sup>3</sup>            | Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.4.1<br>[ME25] <sup>3</sup>            | HVAC pumping systems >10 hp designed for variable fluid flow.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.6.1<br>[ME30] <sup>1</sup>            | Exhaust air energy recovery on systems >=5,000 cfm and 70% of design supply air.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID          | Mechanical Rough-In Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions |
|-----------------------------|--|----------------------|----------------------|--|----------------------|
| 6.5.7.1 [ME32] <sup>2</sup> | Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.5.7.2 [ME33] <sup>1</sup> | Fume hoods exhaust systems >=15,000 cfm have VAV hood exhaust and supply systems, direct make-up air or heat recovery. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.5.8.1 [ME34] <sup>3</sup> | Unenclosed spaces that are heated use only radiant heat.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.2 [ME36] <sup>2</sup>   | Service water heating equipment meets efficiency requirements.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID            | Rough-In Electrical Inspection  | Complies?  | Comments/Assumptions |
|-------------------------------|---|--|----------------------|
| 9.4.1.1<br>[EL1] <sup>2</sup> | Automatic controls to shut off all building lighting installed in buildings >5,000 ft <sup>2</sup> .  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.2<br>[EL2] <sup>2</sup> | Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.                              | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.3<br>[EL3] <sup>2</sup> | Automatic lighting controls for exterior lighting installed.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.4<br>[EL4] <sup>1</sup> | Separate lighting control devices for specific uses installed per approved lighting plans.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.2<br>[EL5] <sup>3</sup>   | Ballasted one and three lamp fixtures with >30 W/lamp have two lamp tandem wired ballasts when >=2 fixtures in same space on same control.                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.3<br>[EL6] <sup>1</sup>   | Exit signs do not exceed 5 watts per face.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.4<br>[EL7] <sup>1</sup>   | Exterior grounds lighting over 100 W provides >60 lm/W unless on motion sensor or fixture is exempt from scope of code or from external LPD.                          | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.6.2<br>[EL8] <sup>1</sup>   | Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 10.4.1<br>[EL9] <sup>2</sup>  | Electric motors meet requirements where applicable.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                  | Insulation Inspection   | Plans Verified Value   | Field Verified Value   | Complies?  | Comments/Assumptions                          |
|-------------------------------------|---|--|--|--|---|
| 5.4.3.1 [IN1] <sup>1</sup>          | 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. |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.1 [IN2] <sup>1</sup>          | Roof R-value. For some ceiling systems, verification may need to occur during Framing Inspection.   | R-____<br><input type="checkbox"/> Above deck<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Attic                            | R-____<br><input type="checkbox"/> Above deck<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Attic                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2, 5.8.1.3 [IN3] <sup>1</sup> | Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the ceiling slope is <= 3:12.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.1.1 [IN5] <sup>3</sup>        | High-albedo roofs meet solar reflectance of 0.70 and thermal emittance of 0.75 or SRI of 82.  | SR:____<br>SRI:____  | SR:____<br>SRI:____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.2 [IN6] <sup>1</sup>          | Above-grade wall insulation R-value.  | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2 [IN7] <sup>1</sup>          | Above-grade wall insulation installed per manufacturer's instructions.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.4 [IN8] <sup>1</sup>          | Floor insulation R-value.   | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood                                   | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood                                   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2 [IN9] <sup>1</sup>          | Floor insulation installed per manufacturer's instructions.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.1.1 [IN10] <sup>2</sup>         | Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.1.4 [IN11] <sup>2</sup>         | Eaves are baffled to deflect air to above the insulation.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.1.5 [IN12] <sup>2</sup>         | Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID               | Insulation Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions |
|----------------------------------|---|----------------------|----------------------|--|----------------------|
| 5.8.1.6<br>[IN13] <sup>2</sup>   | Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7<br>[IN14] <sup>2</sup>   | Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.                 |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7.1<br>[IN15] <sup>2</sup> | Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7.2<br>[IN16] <sup>2</sup> | Foundation vents do not interfere with insulation.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.8<br>[IN17] <sup>3</sup>   | Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID   | Final Inspection  | Complies?  | Comments/Assumptions                                   |
|--|---|--|--|
| 5.4.3.3 [FI1] <sup>1</sup>   | Weatherseals installed on all loading dock cargo doors in Climate Zones 4-8.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.4.3.1.1 [FI2] <sup>2</sup>   | Heating and cooling to each zone is controlled by a thermostat control.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.4.3.1.2, 6.4.3.2, 6.4.3.3, 6.4.3.3.1, 6.4.3.3.2 [FI3] <sup>2</sup> | Thermostatic controls have a 5 °F deadband.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.4.3.7 [FI6] <sup>3</sup>   | When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.7.2.1 [FI7] <sup>3</sup>   | Furnished HVAC as-built drawings submitted within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.7.2.2 [FI8] <sup>3</sup>   | Furnished O&M manuals for HVAC systems within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.7.2.3 [FI9] <sup>1</sup>   | An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft <sup>2</sup> of conditioned area.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.7.2.4 [FI10] <sup>1</sup>  | HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 7.4.4.3 [FI11] <sup>3</sup>  | Public lavatory faucet water temperature <=110°F.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 8.7.1 [FI16] <sup>3</sup>  | Furnished as-built drawings for electric power systems within 30 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 8.7.2 [FI17] <sup>3</sup>  | Furnished O&M instructions for systems and equipment to the building owner or designated representative.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 9.2.2.3 [FI18] <sup>1</sup>  | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Interior Lighting fixture schedule for values. |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID            | Final Inspection   | Complies?  | Comments/Assumptions                                   |
|-------------------------------|--|--|--|
| 9.4.5 [FI19] <sup>1</sup>     | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Exterior Lighting fixture schedule for values. |
| 6.4.3.2 [FI20] <sup>1</sup>   | Temperature controls have setpoint overlap restrictions.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.4.3.3.1 [FI21] <sup>1</sup> | HVAC systems equipped with at least one automatic shutdown control.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.4.3.3.2 [FI22] <sup>1</sup> | Setback controls allow automatic restart and temporary operation as required for maintenance.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|





# COMcheck Software Version 4.1.5.5

## Envelope Compliance Certificate

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
 James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

### Project Information

Energy Code: 90.1 (2007) Standard  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Location: Hodge, Louisiana  
 Climate Zone: 3a  
 Project Type: New Construction  
 Vertical Glazing / Wall Area: 12%

Construction Site: Owner/Agent: Designer/Contractor:  
 TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
 162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
 ALMA, GA 31510 SYLVESTER, GA 31791

### Building Area

### Floor Area

1-Office : Nonresidential 1640

### Envelope Assemblies

| Assembly   | Gross Area<br>or<br>Perimeter | Cavity<br>R-Value | Cont.<br>R-Value | Proposed<br>U-Factor | Budget U-<br>Factor <sup>(a)</sup> |
|--|-------------------------------|-------------------|------------------|----------------------|------------------------------------|
| Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Office]  | 1640                          | 38.0              | 0.0              | 0.027                | 0.027                              |
| Floor 1: Wood-Framed, [Bldg. Use 1 - Office]   | 1640                          | 26.0              | 0.0              | 0.038                | 0.051                              |
| <b>SOUTH</b>   |                               |                   |                  |                      |                                    |
| Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]   | 1484                          | 21.0              | 0.0              | 0.062                | 0.089                              |
| Window 1: Metal Frame with Thermal Break:Operable, Perf. Specs.:<br>Product ID NA, SHGC 0.25, [Bldg. Use 1 - Office] (b) | 180                           | ---               | ---              | 0.450                | 0.650                              |
| Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Office]  | 41                            | ---               | ---              | 0.292                | 0.700                              |

- (a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
- (b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

**Envelope PASSES: Design 4% better than code**

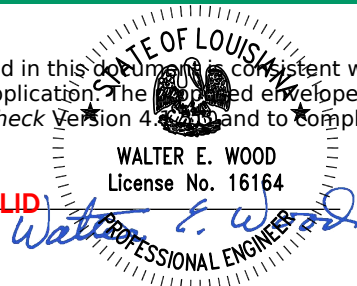
### Envelope Compliance Statement

*Compliance Statement:* The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

VALID



Date

02-24-2023



# Interior Lighting Compliance Certificate

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
**James Slaght, MCP**  
**P-173, SMP 63**  
**U02528**

### Project Information

Energy Code: 90.1 (2007) Standard  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction

Construction Site: Owner/Agent: TITAN MODULAR SYSTEMS, INC  
162 INDUSTRIAL DRIVE  
ALMA, GA 31510  
Designer/Contractor: WALTER E. WOOD P.E.  
168 W. LONGLEAF DRIVE  
SYLVESTER, GA 31791

### Allowed Interior Lighting Power

| A<br>Area Category    | B<br>Floor Area<br>(ft2) | C<br>Allowed<br>Watts / ft2 | D<br>Allowed Watts<br>(B X C) |
|-----------------------|--------------------------|-----------------------------|-------------------------------|
| 1-Office              | 1640                     | 1.00                        | 1640                          |
| Total Allowed Watts = |                          |                             | 1640                          |

### Proposed Interior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| 1-Office<br>LED 1: LED Linear 22W:                                | 2                      | 24                    | 44                    | 1056         |
| Total Proposed Watts =  |                        |                       |                       | 1056         |

**Interior Lighting PASSES: Design 36% better than code**

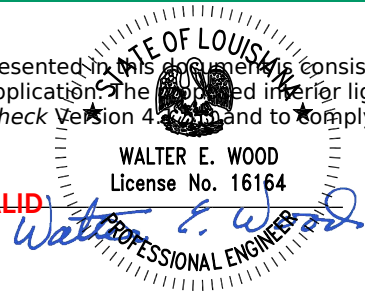
### Interior Lighting Compliance Statement

*Compliance Statement:* The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

VALID



Date

02-24-2023



# Exterior Lighting Compliance Certificate

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
APPROVED  
James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

### Project Information

Energy Code: 90.1 (2007) Standard  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction

Construction Site: Owner/Agent: TITAN MODULAR SYSTEMS, INC  
162 INDUSTRIAL DRIVE  
ALMA, GA 31510  
Designer/Contractor: WALTER E. WOOD P.E.  
168 W. LONGLEAF DRIVE  
SYLVESTER, GA 31791

### Allowed Exterior Lighting Power

| A<br>Area/Surface Category             | B<br>Quantity | C<br>Allowed<br>Watts / Unit | D<br>Tradable<br>Wattage | E<br>Allowed Watts<br>(B X C) |
|--|---------------|------------------------------|--------------------------|-------------------------------|
| Main entry/exit                        | 3 ft of door  | 30                           | Yes                      | 90                            |
| Other entry/exit                       | 3 ft of door  | 20                           | Yes                      | 60                            |
| Total Tradable Watts (a) =             |               |                              |                          | 150                           |
| Total Allowed Watts =                  |               |                              |                          | 150                           |
| Total Allowed Supplemental Watts (b) = |               |                              |                          | 8                             |

- (a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
- (b) A supplemental allowance equal to 8 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

### Proposed Exterior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast         | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| <u>Main entry (3 ft of door width): Tradable Wattage</u>                  |                        |                       |                       |              |
| Incandescent 1: Incandescent 60W:   | 1                      | 1                     | 60                    | 60           |
| <u>Other door (not main entry) (3 ft of door width): Tradable Wattage</u> |                        |                       |                       |              |
| Incandescent 2: Incandescent 60W:   | 1                      | 1                     | 60                    | 60           |
| Total Tradable Proposed Watts =   |                        |                       |                       | 120          |

**Exterior Lighting PASSES: Design 24% better than code**

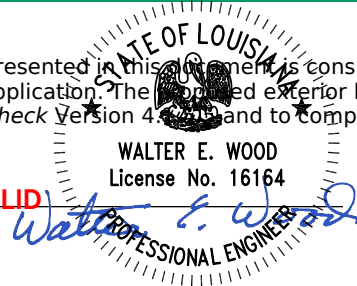
### Exterior Lighting Compliance Statement

*Compliance Statement:* The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

VALID



Date

02-24-2023



# Mechanical Compliance Certificate

## Project Information

Energy Code: 90.1 (2007) Standard  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Location: Hodge, Louisiana  
 Climate Zone: 3a  
 Project Type: New Construction

Electrical  
 Brian Washko P-187

**RADCO**  
 3-Mar-23  
 James Slaght, MCP  
 P-173, SMP 63  
 U02528

APPROVED

APPROVED

Construction Site: Owner/Agent: Designer/Contractor:  
 TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
 162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
 ALMA, GA 31510 SYLVESTER, GA 31791

## Mechanical Systems List

### Quantity System Type & Description

- 2 HVAC System 1 (Single Zone):  
 Heating: 1 each - Other, Electric, Capacity = 34120 kBtu/h  
 No minimum efficiency requirement applies  
 Cooling: 1 each - Single Package Vertical AC Unit, Capacity = 36000 kBtu/h, Air-Cooled Condenser  
 Proposed Efficiency = 10.00 EER, Required Efficiency: 8.60 EER  
 Fan System: None
- 1 Water Heater 1:  
 Electric Storage Water Heater, Capacity: 6 gallons w/ Heat Trace Tape Installed  
 No minimum efficiency requirement applies

## Mechanical Compliance Statement

*Compliance Statement:* The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 90.1 (2007) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

**VALID**  
 WALTER E. WOOD  
 License No. 16164  
 PROFESSIONAL ENGINEER

Date

02-24-2023



# Inspection Checklist

Energy Code: 90.1 (2007) Standard

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID                  | Plan Review  | Complies?  | Comments/Assumptions |
|-------------------------------------|--|--|----------------------|
| 4.2.2 [PR1] <sup>1</sup>            | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2, 6.4.2 [PR2] <sup>1</sup>     | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2, 7.4.1 [PR3] <sup>1</sup>     | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2 [PR4] <sup>1</sup>            | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.7.2.4 [PR5] <sup>1</sup>          | Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft <sup>2</sup> .   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 8.4.1.1, 8.4.1.2 [PR6] <sup>2</sup> | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |  |  |
|---|--|--|
| <input type="checkbox"/> 1 High Impact (Tier 1) | <input checked="" type="checkbox"/> 2 Medium Impact (Tier 2) | <input type="checkbox"/> 3 Low Impact (Tier 3) |
|---|--|--|

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID           | Footing / Foundation Inspection  | Plans Verified Value  | Field Verified Value  | Complies?  | Comments/Assumptions                          |
|------------------------------|--|---|---|--|---|
| 5.5.3.3 [FO1] <sup>1</sup>   | Below-grade wall insulation R-value.   | R-_____   | R-_____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.3.5 [FO3] <sup>1</sup>   | Slab edge insulation R-value.  | R-_____<br><input type="checkbox"/> Unheated<br><input type="checkbox"/> Heated | R-_____<br><input type="checkbox"/> Unheated<br><input type="checkbox"/> Heated | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.3.5 [FO5] <sup>1</sup>   | Slab edge insulation depth/length.   | _____ ft  | _____ ft  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.7.3 [FO7] <sup>1</sup> | Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.    |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.8 [FO9] <sup>3</sup>   | Freeze protection and snow/ice melting system sensors for future connection to controls. |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                   | Framing / Rough-In Inspection   | Plans Verified Value  | Field Verified Value  | Complies?  | Comments/Assumptions                          |
|--------------------------------------|---|---|---|--|---|
| 5.4.3.2 [FR1] <sup>3</sup>           | Factory-built fenestration and doors are labeled as meeting air leakage requirements.   | Fenestration _____<br>_ cfm/ft <sup>2</sup><br>Doors _____<br>cfm/ft <sup>2</sup>     | Fenestration _____<br>_ cfm/ft <sup>2</sup><br>Doors _____<br>cfm/ft <sup>2</sup>     | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.4.3.4 [FR4] <sup>3</sup>           | Vestibules are installed where building entrances separate conditioned space from the exterior, and meet exterior envelope requirements. Doors have self-closing devices, and are >=7 ft apart. |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.4.3a [FR8] <sup>1</sup>          | Vertical fenestration U-Factor.   | U- _____  | U- _____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.3b [FR9] <sup>1</sup>          | Skylight fenestration U-Factor.   | U- _____  | U- _____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.4.1 [FR10] <sup>1</sup>        | Vertical fenestration SHGC value.   | SHGC: _____   | SHGC: _____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.4.2 [FR11] <sup>1</sup>        | Skylight SHGC value.  | SHGC: _____   | SHGC: _____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.2.1, 5.8.2.4 [FR12] <sup>2</sup> | Fenestration products rated in accordance with NFRC.  |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.2.2 [FR13] <sup>1</sup>          | Fenestration products are certified as to performance labels or certificates provided.  |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.2.3, 5.5.3.6 [FR14] <sup>2</sup> | U-factor of opaque doors associated with the building thermal envelope meets requirements.  | U- _____<br><input type="checkbox"/> Swinging<br><input type="checkbox"/> Nonswinging | U- _____<br><input type="checkbox"/> Swinging<br><input type="checkbox"/> Nonswinging | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID         | Plumbing Rough-In Inspection   | Complies?  | Comments/Assumptions |
|----------------------------|--|--|----------------------|
| 7.4.3 [PL1] <sup>2</sup>   | Service hot-water piping systems insulated. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.4.1 [PL2] <sup>3</sup> | Temperature controls installed on service water heating systems (<=120°F to maximum temperature for intended use).                                     | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.4.2 [PL3] <sup>1</sup> | Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.6 [PL4] <sup>3</sup>   | Heat traps installed on non-circulating storage water tanks.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

| Section # & Req.ID                        | Mechanical Rough-In Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions                        |
|---|--|----------------------|----------------------|--|---|
| 6.4.1.4,<br>6.4.1.5<br>[ME1] <sup>2</sup> | HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.  | Efficiency: _____    | Efficiency: _____    | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| 6.4.3.4.1<br>[ME3] <sup>3</sup>           | Stair and elevator shaft vents have motorized dampers that automatically close.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.4.5<br>[ME5] <sup>3</sup>           | Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.9<br>[ME6] <sup>1</sup>             | Demand control ventilation provided for spaces >500 ft <sup>2</sup> and >40 people/1000 ft <sup>2</sup> occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.1<br>[ME7] <sup>3</sup>           | Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.2<br>[ME8] <sup>2</sup>           | HVAC ducts and plenums insulated.  | R- _____             | R- _____             | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.3<br>[ME9] <sup>2</sup>           | HVAC piping insulation thickness.  | _____ in.            | _____ in.            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.2.1<br>[ME10] <sup>2</sup>          | Ducts and plenums sealed based on static pressure and location.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.2.2<br>[ME11] <sup>3</sup>          | Ductwork operating >3 in. water column requires air leakage testing.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.2.3<br>[ME19] <sup>3</sup>            | Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.4.1<br>[ME25] <sup>3</sup>            | HVAC pumping systems >10 hp designed for variable fluid flow.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.6.1<br>[ME30] <sup>1</sup>            | Exhaust air energy recovery on systems >=5,000 cfm and 70% of design supply air.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID          | Mechanical Rough-In Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions |
|-----------------------------|--|----------------------|----------------------|--|----------------------|
| 6.5.7.1 [ME32] <sup>2</sup> | Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.5.7.2 [ME33] <sup>1</sup> | Fume hoods exhaust systems >=15,000 cfm have VAV hood exhaust and supply systems, direct make-up air or heat recovery. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.5.8.1 [ME34] <sup>3</sup> | Unenclosed spaces that are heated use only radiant heat.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.2 [ME36] <sup>2</sup>   | Service water heating equipment meets efficiency requirements.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID            | Rough-In Electrical Inspection  | Complies?  | Comments/Assumptions |
|-------------------------------|---|--|----------------------|
| 9.4.1.1<br>[EL1] <sup>2</sup> | Automatic controls to shut off all building lighting installed in buildings >5,000 ft <sup>2</sup> .  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.2<br>[EL2] <sup>2</sup> | Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.                              | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.3<br>[EL3] <sup>2</sup> | Automatic lighting controls for exterior lighting installed.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.4<br>[EL4] <sup>1</sup> | Separate lighting control devices for specific uses installed per approved lighting plans.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.2<br>[EL5] <sup>3</sup>   | Ballasted one and three lamp fixtures with >30 W/lamp have two lamp tandem wired ballasts when >=2 fixtures in same space on same control.                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.3<br>[EL6] <sup>1</sup>   | Exit signs do not exceed 5 watts per face.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.4<br>[EL7] <sup>1</sup>   | Exterior grounds lighting over 100 W provides >60 lm/W unless on motion sensor or fixture is exempt from scope of code or from external LPD.                          | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.6.2<br>[EL8] <sup>1</sup>   | Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 10.4.1<br>[EL9] <sup>2</sup>  | Electric motors meet requirements where applicable.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                  | Insulation Inspection   | Plans Verified Value   | Field Verified Value   | Complies?  | Comments/Assumptions                          |
|-------------------------------------|---|--|--|--|---|
| 5.4.3.1 [IN1] <sup>1</sup>          | 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. |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.1 [IN2] <sup>1</sup>          | Roof R-value. For some ceiling systems, verification may need to occur during Framing Inspection.   | R-____<br><input type="checkbox"/> Above deck<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Attic                            | R-____<br><input type="checkbox"/> Above deck<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Attic                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2, 5.8.1.3 [IN3] <sup>1</sup> | Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the ceiling slope is <= 3:12.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.1.1 [IN5] <sup>3</sup>        | High-albedo roofs meet solar reflectance of 0.70 and thermal emittance of 0.75 or SRI of 82.  | SR:____<br>SRI:____  | SR:____<br>SRI:____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.2 [IN6] <sup>1</sup>          | Above-grade wall insulation R-value.  | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2 [IN7] <sup>1</sup>          | Above-grade wall insulation installed per manufacturer's instructions.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.4 [IN8] <sup>1</sup>          | Floor insulation R-value.   | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood                                   | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood                                   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2 [IN9] <sup>1</sup>          | Floor insulation installed per manufacturer's instructions.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.1.1 [IN10] <sup>2</sup>         | Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.1.4 [IN11] <sup>2</sup>         | Eaves are baffled to deflect air to above the insulation.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.1.5 [IN12] <sup>2</sup>         | Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID               | Insulation Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions |
|----------------------------------|---|----------------------|----------------------|--|----------------------|
| 5.8.1.6<br>[IN13] <sup>2</sup>   | Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7<br>[IN14] <sup>2</sup>   | Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.                 |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7.1<br>[IN15] <sup>2</sup> | Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7.2<br>[IN16] <sup>2</sup> | Foundation vents do not interfere with insulation.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.8<br>[IN17] <sup>3</sup>   | Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID   | Final Inspection  | Complies?  | Comments/Assumptions  |
|--|---|--|---|
| 5.4.3.3 [FI1] <sup>1</sup>   | Weatherseals installed on all loading dock cargo doors in Climate Zones 4-8.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.1.1 [FI2] <sup>2</sup>   | Heating and cooling to each zone is controlled by a thermostat control.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.1.2, 6.4.3.2, 6.4.3.3, 6.4.3.3.1, 6.4.3.3.2 [FI3] <sup>2</sup> | Thermostatic controls have a 5 °F deadband.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.7 [FI6] <sup>3</sup>   | When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.7.2.1 [FI7] <sup>3</sup>   | Furnished HVAC as-built drawings submitted within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.7.2.2 [FI8] <sup>3</sup>   | Furnished O&M manuals for HVAC systems within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.7.2.3 [FI9] <sup>1</sup>   | An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft <sup>2</sup> of conditioned area.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.7.2.4 [FI10] <sup>1</sup>  | HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 7.4.4.3 [FI11] <sup>3</sup>  | Public lavatory faucet water temperature <=110°F.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 8.7.1 [FI16] <sup>3</sup>  | Furnished as-built drawings for electric power systems within 30 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 8.7.2 [FI17] <sup>3</sup>  | Furnished O&M instructions for systems and equipment to the building owner or designated representative.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 9.2.2.3 [FI18] <sup>1</sup>  | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Interior Lighting fixture schedule for values.</i> |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID            | Final Inspection   | Complies?  | Comments/Assumptions                                   |
|-------------------------------|--|--|--|
| 9.4.5 [FI19] <sup>1</sup>     | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Exterior Lighting fixture schedule for values. |
| 6.4.3.2 [FI20] <sup>1</sup>   | Temperature controls have setpoint overlap restrictions.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.4.3.3.1 [FI21] <sup>1</sup> | HVAC systems equipped with at least one automatic shutdown control.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 6.4.3.3.2 [FI22] <sup>1</sup> | Setback controls allow automatic restart and temporary operation as required for maintenance.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|





# COMcheck Software Version 4.1.5.5

## Envelope Compliance Certificate

### Project Information

Energy Code: 2018 IECC  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Location: Charlotte, North Carolina  
 Climate Zone: 3a  
 Project Type: New Construction  
 Vertical Glazing / Wall Area: 12%

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
 APPROVED  
 APPROVED  
**James Slaght, MCP**  
**P-173, SMP 63**  
**U02528**

Construction Site: Owner/Agent: Designer/Contractor:  
 TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
 162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
 ALMA, GA 31510 SYLVESTER, GA 31791

### Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed  
 On-site Renewable Energy, 1.0 credit

### Building Area

### Floor Area

1-Office : Nonresidential 1640

### Envelope Assemblies

| Assembly   | Gross Area<br>or<br>Perimeter | Cavity<br>R-Value | Cont.<br>R-Value | Proposed<br>U-Factor | Budget U-<br>Factor <sup>(a)</sup> |
|--|-------------------------------|-------------------|------------------|----------------------|------------------------------------|
| Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Office]  | 1640                          | 38.0              | 0.0              | 0.027                | 0.027                              |
| Floor 1: Wood-Framed, [Bldg. Use 1 - Office]   | 1640                          | 26.0              | 0.0              | 0.038                | 0.033                              |
| <b>SOUTH</b>   |                               |                   |                  |                      |                                    |
| Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]   | 1484                          | 21.0              | 0.0              | 0.062                | 0.064                              |
| Window 1: Metal Frame with Thermal Break:Operable, Perf. Specs.:<br>Product ID NA, SHGC 0.25, [Bldg. Use 1 - Office] (b) | 180                           | ---               | ---              | 0.450                | 0.600                              |
| Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Office]  | 41                            | ---               | ---              | 0.292                | 0.610                              |

- (a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
- (b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

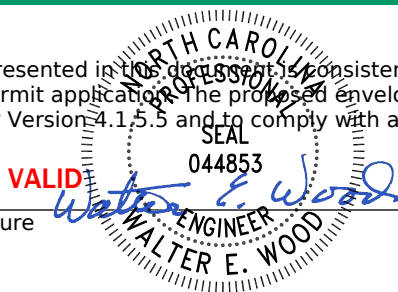
### Envelope PASSES: Design 11% better than code

### Envelope Compliance Statement

*Compliance Statement:* The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature



Date

Electrical  
Brian Washko P-187  
**RADCO**  
3-Mar-23  
James Slaght, MCP  
P-173, SMP 63  
U02528



# Interior Lighting Compliance Certificate

Electrical  
Brian Washko P-187

**RADCO**  
APPROVED 3-Mar-23 APPROVED

James Slaght, MCP  
P-173, SMP 63  
U02528

## Project Information

Energy Code: 2018 IECC  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction

Construction Site: Owner/Agent:  
TITAN MODULAR SYSTEMS, INC  
162 INDUSTRIAL DRIVE  
ALMA, GA 31510

Designer/Contractor:  
WALTER E. WOOD P.E.  
168 W. LONGLEAF DRIVE  
SYLVESTER, GA 31791

## Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed  
On-site Renewable Energy, 1.0 credit

## Allowed Interior Lighting Power

| A<br>Area Category    | B<br>Floor Area<br>(ft <sup>2</sup> ) | C<br>Allowed<br>Watts / ft <sup>2</sup> | D<br>Allowed Watts<br>(B X C) |
|-----------------------|---------------------------------------|---|-------------------------------|
| 1-Office              | 1640                                  | 0.79                                    | 1296                          |
| Total Allowed Watts = |                                       |   | 1296                          |

## Proposed Interior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| 1-Office<br>LED 1: LED Linear 22W:                                | 2                      | 24                    | 44                    | 1056         |
| Total Proposed Watts =  |                        |                       |                       | 1056         |

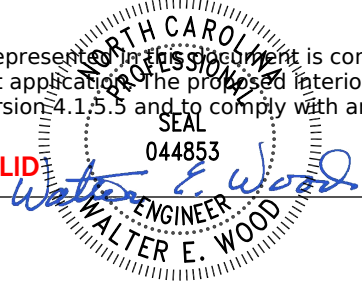
**Interior Lighting PASSES: Design 18% better than code**

## Interior Lighting Compliance Statement

*Compliance Statement:* The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature



02-24-2023

Date



# Exterior Lighting Compliance Certificate

Electrical  
Brian Washko P-187

**RADCO**  
APPROVED  
3-Mar-23  
APPROVED

James Slaght, MCP  
P-173, SMP 63  
U02528

## Project Information

Energy Code: 2018 IECC  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction  
Exterior Lighting Zone: 2 (Residential mixed use area (LZ2))

Construction Site: Owner/Agent: Designer/Contractor:  
TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
ALMA, GA 31510 SYLVESTER, GA 31791

## Allowed Exterior Lighting Power

| A<br>Area/Surface Category             | B<br>Quantity | C<br>Allowed<br>Watts / Unit | D<br>Tradable<br>Wattage | E<br>Allowed Watts<br>(B X C) |
|--|---------------|------------------------------|--------------------------|-------------------------------|
| Parking near 24-hour retail entrance   | 3 main        | 400                          | No                       | 1200                          |
| Outdoor sales area/lot                 | 3 ft2         | 0.2                          | Yes                      | 1                             |
| Total Tradable Watts (a) =             |               |                              |                          | 1                             |
| Total Allowed Watts =                  |               |                              |                          | 1201                          |
| Total Allowed Supplemental Watts (b) = |               |                              |                          | 400                           |

- (a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
- (b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

## Proposed Exterior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast                 | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| <u>Parking near 24-hour retail entrance (3 main entrys): Non-tradable Wattage</u> |                        |                       |                       |              |
| Incandescent 1: Incandescent 60W:   | 1                      | 1                     | 60                    | 60           |
| <u>Outdoor sales area/lot (3 ft2): Tradable Wattage</u>                           |                        |                       |                       |              |
| Incandescent 2: Incandescent 60W:   | 1                      | 1                     | 60                    | 60           |
| Total Tradable Proposed Watts =   |                        |                       |                       | 60           |

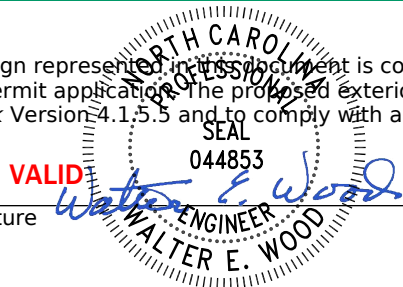
**Exterior Lighting PASSES: Design 85% better than code**

## Exterior Lighting Compliance Statement

*Compliance Statement:* The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature



02-24-2023

Date



# Mechanical Compliance Certificate

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

### Project Information

Energy Code: 2018 IECC  
Project Title: TMS 7560 27-4X60 BUSINESS  
Location: Charlotte, North Carolina  
Climate Zone: 3a  
Project Type: New Construction

Construction Site: Owner/Agent: Designer/Contractor:  
TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
ALMA, GA 31510 SYLVESTER, GA 31791

### Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed  
On-site Renewable Energy, 1.0 credit

### Mechanical Systems List

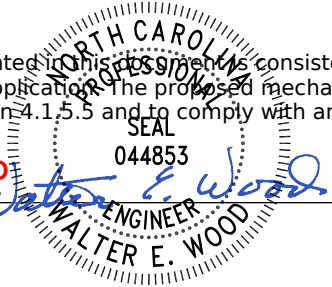
#### Quantity System Type & Description

- 2 HVAC System 1 (Single Zone):  
Heating: 1 each - Other, Electric, Capacity = 34120 kBtu/h  
No minimum efficiency requirement applies  
Cooling: 1 each - Single Package Vertical AC Unit, Capacity = 36000 kBtu/h, Air-Cooled Condenser, Air Economizer  
Proposed Efficiency = 9.00 EER, Required Efficiency: 8.60 EER  
Fan System: None
- 1 Water Heater 2:  
Electric Storage Water Heater, Capacity: 6 gallons w/ Heat Trace Tape Installed  
Proposed Efficiency: 4.80 SL, %/h (if > 12 kW), Required Efficiency: 4.80 SL, %/h (if > 12 kW)

### Mechanical Compliance Statement

*Compliance Statement:* The proposed mechanical design represented in this permit is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

VALID



02-24-2023

Name - Title

Signature

Date



# Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID           | Plan Review   | Complies?  | Comments/Assumptions |
|------------------------------|---|--|----------------------|
| C103.2 [PR1] <sup>1</sup>    | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C103.2 [PR2] <sup>1</sup>    | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C103.2 [PR3] <sup>1</sup>    | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C103.2 [PR4] <sup>1</sup>    | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C103.2 [PR8] <sup>1</sup>    | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.4.1 [PR10] <sup>1</sup> | The vertical fenestration area <= 30 percent of the gross above-grade wall area.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

1 High Impact (Tier 1)   
  2 Medium Impact (Tier 2)   
  3 Low Impact (Tier 3)

| Section # & Req.ID           | Plan Review   | Complies?  | Comments/Assumptions |
|------------------------------|---|--|----------------------|
| C402.4.1 [PR11] <sup>1</sup> | The skylight area <= 3 percent of the gross roof area.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.4.2 [PR14] <sup>1</sup> | In enclosed spaces > 2,500 ft <sup>2</sup> directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

| Section # & Req.ID                       | Footing / Foundation Inspection  | Complies?  | Comments/Assumptions |
|--|--|--|----------------------|
| C303.2.1 [FO6] <sup>1</sup>              | Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.12.2 , C403.12.3 [FO9] <sup>3</sup> | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

| Section # & Req.ID                      | Framing / Rough-In Inspection   | Complies?  | Comments/Assumptions                          |
|---|---|--|---|
| C303.1.3 [FR12] <sup>2</sup>            | Fenestration products rated in accordance with NFRC.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C303.1.3 [FR13] <sup>1</sup>            | Fenestration products are certified as to performance labels or certificates provided.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C402.4.3 [FR10] <sup>1</sup>            | Vertical fenestration SHGC value.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| C402.4.3, C402.4.3.4 [FR8] <sup>1</sup> | Installed vertical fenestration U-factor and SHGC consistent with label specifications and as reported in plans and COMcheck reports.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| C402.5.1 [FR16] <sup>1</sup>            | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C402.5.2, C402.5.4 [FR18] <sup>3</sup>  | Factory-built fenestration and doors are labeled as meeting air leakage requirements.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C402.5.7 [FR17] <sup>3</sup>            | Vestibules are installed on all building entrances. Doors have self-closing devices.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                            | Plumbing Rough-In Inspection  | Complies?  | Comments/Assumptions |
|---|---|--|----------------------|
| C404.5, C404.5.1, C404.5.2 [PL6] <sup>3</sup> | Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.5, C404.5.1, C404.5.2 [PL6] <sup>3</sup> | Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.6.1, C404.6.2 [PL3] <sup>1</sup>         | Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.6.3 [PL7] <sup>3</sup>                   | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.6.3 [PL7] <sup>3</sup>                   | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.7 [PL8] <sup>3</sup>                     | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.7 [PL8] <sup>3</sup>                     | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID                      | Mechanical Rough-In Inspection   | Complies?  | Comments/Assumptions                        |
|---|--|--|---|
| C402.2.6 [ME41] <sup>3</sup>            | Thermally ineffective panel surfaces of sensible heating panels have insulation $\geq$ R-3.5.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C402.5.5, C403.2.4.3 [ME3] <sup>3</sup> | Stair and elevator shaft vents have motorized dampers that automatically close. Refernece section C403.7.7 for operational details.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.8.1 [ME65] <sup>3</sup>            | HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| C403.8.3 [ME117] <sup>2</sup>           | Fans have efficiency grade (FEG) $\geq$ 67. The total efficiency of the fan at the design point of operation $\leq$ 15% of maximum total efficiency of the fan.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.12.1 [ME71] <sup>2</sup>           | Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.2.3 [ME55] <sup>2</sup>            | HVAC equipment efficiency verified.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| C403.2.2 [ME59] <sup>1</sup>            | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.7.1 [ME59] <sup>1</sup>            | Demand control ventilation provided for spaces $>500$ ft <sup>2</sup> and $>25$ people/1000 ft <sup>2</sup> occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow $>3,000$ cfm. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.7.2 [ME115] <sup>3</sup>           | Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.7.6 [ME141] <sup>3</sup>           | 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 C403.7.6.1 and C403.7.6.2).                         | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| C403.7.4 [ME57] <sup>1</sup>            | Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID                                       | Mechanical Rough-In Inspection   | Complies?  | Comments/Assumptions |
|--|--|--|----------------------|
| C403.7.5<br>[ME116] <sup>3</sup>                         | Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.11.1<br>,<br>C403.11.2<br>[ME60] <sup>2</sup>       | HVAC ducts and plenums insulated in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to occur during Foundation Inspection.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.4.1.4<br>[ME63] <sup>2</sup>                        | Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C408.2.2.1<br>[ME53] <sup>3</sup>                        | Air outlets and zone terminal devices have means for air balancing.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.5,<br>C403.5.1,<br>C403.5.2<br>[ME123] <sup>3</sup> | Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2..                       | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                                      | Rough-In Electrical Inspection   | Complies?  | Comments/Assumptions |
|---|--|--|----------------------|
| C405.2.2.2<br>[EL22] <sup>1</sup>                       | 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 $\geq 50$ percent.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.1, C405.2.1.1<br>[EL18] <sup>1</sup>             | 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 $\leq 300$ 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.1.2<br>[EL19] <sup>1</sup>                       | Occupancy sensors control function in warehouses: In warehouses, the lighting in aiseways 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.1.3<br>[EL20] <sup>1</sup>                       | Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces $\geq 300$ sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas $\leq 600$ 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 $\geq 80\%$ 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.2, C405.2.2.1, C405.2.2.2<br>[EL21] <sup>2</sup> | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID                                   | Rough-In Electrical Inspection  | Complies?  | Comments/Assumptions |
|--|---|--|----------------------|
| C405.2.3, C405.2.3.1, C405.2.3.2 [EL23] <sup>2</sup> | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.4 [EL26] <sup>1</sup>                         | Separate lighting control devices for specific uses installed per approved lighting plans.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.4 [EL27] <sup>1</sup>                         | Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.5 [EL28] <sup>null</sup>                      | Manual controls required by the energy code are in a location with ready access to occupants and located where the controlled lights are visible, or identify the area served and their status.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.2.6 [EL30] <sup>null</sup>                      | Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C405.3 [EL6] <sup>1</sup>                            | Exit signs do not exceed 5 watts per face.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                  | Insulation Inspection  | Complies?  | Comments/Assumptions                                 |
|-------------------------------------|--|--|--|
| C303.1 [IN3] <sup>1</sup>           | Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is $\leq 3$ in 12.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C402.2.1 [IN20] <sup>1</sup>        | Insulation installed on a suspended ceiling having ceiling tiles is not being specified for roof/ceiling assemblies. Continuous insulation board installed in 2 or more layers with edge joints offset between layers. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C303.1 [IN10] <sup>2</sup>          | Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C303.2 [IN7] <sup>1</sup>           | Above-grade wall insulation installed per manufacturer's instructions.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C303.2, C402.2.4 [IN9] <sup>2</sup> | Floor insulation installed per manufacturer's instructions. Cavity or structural slab insulation installed in permanent contact with underside of decking or structural slabs.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C303.2.1 [IN14] <sup>2</sup>        | Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C105 [IN6] <sup>1</sup>             | Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| C402.2.3 [IN8] <sup>2</sup>         | Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| C402.2.6 [IN18] <sup>3</sup>        | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C402.3 [IN5] <sup>3</sup>           | High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance $\geq 0.55$ and thermal emittance $\geq 0.75$ or 3-year-aged solar reflectance index $\geq 64.0$ .                                       | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C105 [IN2] <sup>1</sup>             | 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.       | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| C402.5.1.1 [IN1] <sup>1</sup>       | 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.                        | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                             | Final Inspection  | Complies?  | Comments/Assumptions |
|--|---|--|----------------------|
| C303.3, C408.2.5.2 [FI17] <sup>3</sup>         | Furnished O&M instructions for systems and equipment to the building owner or designated representative.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C303.3, C408.2.5.3 [FI8] <sup>3</sup>          | Furnished O&M manuals for HVAC systems within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.5.6 [FI37] <sup>1</sup>                   | Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.              | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C402.5.8 [FI26] <sup>3</sup>                   | Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.                    | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.2 [FI27] <sup>3</sup>                   | HVAC systems and equipment capacity does not exceed calculated loads.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.1 [FI47] <sup>3</sup>                 | Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.4.1.2 [FI38] <sup>3</sup>                 | Thermostatic controls have a 5 °F deadband.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.1.3 [FI20] <sup>3</sup>               | Temperature controls have setpoint overlap restrictions.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.2 [FI39] <sup>3</sup>                 | Each zone equipped with setback controls using automatic time clock or programmable control system.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C403.2.4.2.1, C403.2.4.2.2 [FI40] <sup>3</sup> | Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.3 [FI11] <sup>3</sup>                     | Heat traps installed on supply and discharge piping of non-circulating systems.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| C404.4 [FI25] <sup>2</sup>                     | All piping insulated in accordance with section details and Table C403.11.3.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

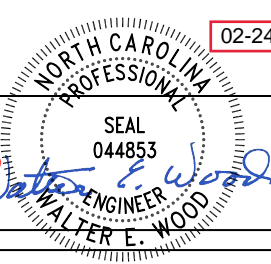
| Section # & Req.ID             | Final Inspection  | Complies?  | Comments/Assumptions                                   |
|--------------------------------|---|--|--|
| C405.4.1 [FI18] <sup>1</sup>   | Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Interior Lighting fixture schedule for values. |
| C405.5.1 [FI19] <sup>1</sup>   | 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.                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Exterior Lighting fixture schedule for values. |
| C408.2.1 [FI28] <sup>1</sup>   | Commissioning plan developed by registered design professional or approved agency.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C408.2.3.1 [FI31] <sup>1</sup> | HVAC equipment has been tested to ensure proper operation.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C408.2.3.2 [FI10] <sup>1</sup> | HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C408.2.4 [FI29] <sup>1</sup>   | Preliminary commissioning report completed and certified by registered design professional or approved agency.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C408.2.5.1 [FI7] <sup>3</sup>  | Furnished HVAC as-built drawings submitted within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C408.2.5.1 [FI16] <sup>3</sup> | Furnished as-built drawings for electric power systems within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C408.2.5.3 [FI43] <sup>1</sup> | An air and/or hydronic system balancing report is provided for HVAC systems.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C408.2.5.4 [FI30] <sup>1</sup> | Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| C408.3 [FI33] <sup>1</sup>     | Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|



VALID



Calculations for  
**Titan Modular Systems, Inc.**  
 162 Industrial Drive  
 Alma, GA 31510

Page 1 of 2  
 Date 2/24/2023  
 TMS 7560 AB 27-4x60

Reference: ACCA Manual N Fourth Edition

**Variables:**

|                                |                       |                                |                                 |
|--------------------------------|-----------------------|--------------------------------|---------------------------------|
| Building destination:          | Ashville, NC          | Occupant content:              | OC := 28                        |
| Outside summer DB (degree F.): | OS := 93              | Outside air CFM from HVAC:     | OA := 560                       |
| Inside summer DB (degree F.):  | IS := 90              | Heat recovery reduction:       | HR := 1.0                       |
| Outside winter DB (degree F.): | OW := 14              | No. of exterior doors:         | EX := 2                         |
| Inside winter DB (degree F.):  | IW := 57              | Winter CFM/door:               | WCFM := 0                       |
| Design grains at 50% RH:       | DG := 46              | Summer CFM/door:               | SCFM := 0                       |
| Daily range (Degree F.):       | DR := 20              | Wall height in feet:           | WH := 8                         |
| Summer attic deg. F. increase: | AT := 0               | Incandescent lighting (watts): | IL := 120                       |
| Glass area (SF):               | Gross wall area (SF): | LED lighting (watts):          | FL := 1836                      |
| North N := 18                  | NW := 420             | U-values:                      |                                 |
| East E := 36                   | EW := 540             | UG := 0.45 Glass               |                                 |
| South S := 36                  | SW := 420             | UW := 0.053 Wall               |                                 |
| West W := 18                   | WW := 540             | Gross areas (SF):              | U-values:                       |
| Wood/metal doors:              | WD := 38.5            | WU := 0.153                    | Glass shading factor: SF := 0.7 |
| Glass/french doors:            | GD := 1.5             | GU := 0.45                     | Equipment load: EL := 15        |
| Roof:                          | R := 2800             | RU := 0.02                     |                                 |
| Floor:                         | F := 2800             | FU := 0.032                    |                                 |

**Heat Gains (Cooling Loads):**

Sensible heat gain:

A. Solar radiation through glass:

|        |                             |       |                |        |                |       |                 |
|--------|-----------------------------|-------|----------------|--------|----------------|-------|-----------------|
| North: | SRN := N·30·SF              | East: | SRE := E·44·SF | South: | SRS := S·56·SF | West: | SRW := W·158·SF |
| Total: | SR := SRN + SRE + SRS + SRW |       |                |        |                |       | SR = 4889       |

B. Transmission gains:

|                         |                               |                       |                        |         |
|-------------------------|-------------------------------|-----------------------|------------------------|---------|
| Glass:                  | GA := N + E + S + W           | TG := GA·UG·(OS - IS) | TG = 146               |         |
| Doors:                  | TWG := WD·WU·(OS - IS)        | TWG = 18              | TGD := GD·GU·(OS - IS) | TGD = 2 |
| Walls:                  | Temperature correction:       | TC := OS - IS - 20    |                        |         |
| Daily range correction: | DRC := 0.5·(20 - DR)          | ETD := TC + DRC       | ETD = -17              |         |
| North:                  | TWN := (NW - N)·UW·(ETD + 15) |                       |                        |         |
| East:                   | TWE := (EW - E)·UW·(ETD + 36) |                       |                        |         |
| South:                  | TWS := (SW - S)·UW·(ETD + 23) |                       |                        |         |
| West:                   | TWW := (WW - W)·UW·(ETD + 17) |                       |                        |         |
| Total:                  | TW := TWN + TWE + TWS + TWW   |                       | TW = 587               |         |

Electrical  
 Brian Washko P-187  
**RADCO**  
 3-Mar-23  
 James Slaght, MCP  
 P-173, SMP 63  
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|                           |  |             |
|---------------------------|--|-------------|
| Roof:                     | $TR := R \cdot RU \cdot [(OS - IS) + AT]$  | TR = 168    |
| Floor:                    | $FR := F \cdot FU \cdot (OS - IS)$   | FR = 269    |
| Total transmission gains: | $T := TG + TWG + TGD + TW + TR + FR$   | T = 1189    |
| C. Occupants:             | $SO := OC \cdot 230$   | SO = 6440   |
| D. Lights:                | $L := (IL \cdot 3.4) + (FL \cdot 4.1)$   | L = 7936    |
| E. Equipment:             | $EQ := EL \cdot F$   | EQ = 42000  |
| F. Infiltration:          | $ICFM := WH \cdot F \cdot \frac{0.4}{60}$ $SI := (ICFM + SCFM \cdot EX) \cdot (OS - IS) \cdot 1.1$ | SI = 493    |
| G. Ducts:                 | $SD := (SR + T + SO + L + EQ + SI) \cdot 0.05$   | SD = 3147   |
| H. Ventilation:           | $SV := OA \cdot HR \cdot (OS - IS) \cdot 1.1$  | SV = 1848   |
| Total sensible heat gain: | $SHG := SR + T + SO + L + EQ + SI + SD + SV$   | SHG = 67942 |
| Latent heat gain:         |  |             |
| A. Occupants:             | $LO := OC \cdot 190$   | LO = 5320   |
| B. Ventilation:           | $LV := OA \cdot HR \cdot DG \cdot 0.68$  | LV = 17517  |
| C. Infiltration:          | $LI := (ICFM + SCFM \cdot EX) \cdot DG \cdot 0.68$   | LI = 4671   |
| Total latent heat gain:   | $LHG := LO + LV + LI$  | LHG = 27508 |
| <u>Total heat gain:</u>   | $HG := SHG + LHG$ $HG = 95450$ BTUH  |             |

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
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**P-173, SMP 63**  
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**Heat Loss (Heating Loads):**

|                          |  |            |
|--------------------------|--|------------|
| A. Transmission loss:    |  |            |
| Glass:                   | $LTG := GA \cdot UG \cdot (IW - OW)$   | LTG = 2090 |
| Doors:                   | $LTWD := WD \cdot WU \cdot (IW - OW)$  | LTWD = 253 |
|                          | $LTGD := GD \cdot GU \cdot (IW - OW)$  | LTGD = 29  |
| Walls:                   | $LTW := (NW + EW + SW + WW - GA) \cdot UW \cdot (IW - OW)$   | LTW = 4130 |
| Roof:                    | $LR := R \cdot RU \cdot (IW - OW)$   | LR = 2408  |
| Floor:                   | $LF := F \cdot FU \cdot (IW - OW)$   | LF = 3853  |
| Total transmission loss: | $LT := LTG + LTWD + LTGD + LTW + LR + LF$  | LT = 12762 |
| B. Infiltration:         | $ICFM := WH \cdot F \cdot \frac{0.6}{60}$ $LI := (ICFM + WCFM \cdot EX) \cdot (IW - OW) \cdot 1.1$ | LI = 10595 |
| C. Ducts:                | $LD := (LT + LI) \cdot 0.05$   | LD = 1168  |
| D. Ventilation:          | $LV := OA \cdot HR \cdot (IW - OW) \cdot 1.1$  | LV = 26488 |
| <u>Total heat loss:</u>  | $HL := LT + LI + LD + LV$ $HL = 51014$ BTUH  |            |

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)**

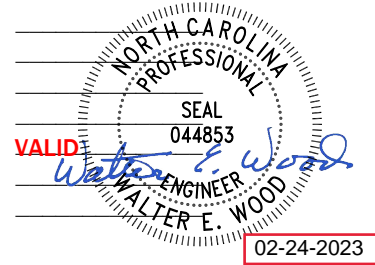
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: TMS 7560 AB Business Factory-built modular building  
 Address: \_\_\_\_\_  
 Owner/Authorized Agent: \_\_\_\_\_ Phone # (\_\_\_\_) \_\_\_\_ - \_\_\_\_  
 Owned By: Private  
 Code Enforcement Jurisdiction: City

Electrical  
~~Brian Washko P-187~~  
**RADCO**  
**3-Mar-23**  
 James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

**CONTACT:**

| DESIGNER                 | FIRM                             | NAME                       | LICENSE #     | TELEPHONE #          | E-MAIL |
|--------------------------|----------------------------------|----------------------------|---------------|----------------------|--------|
| Architectural            |                                  |                            |               | ( )                  |        |
| Civil                    | <u>Walter Wood P.E.</u>          |                            | <u>044853</u> | ( )                  |        |
| Electrical               |                                  |                            |               | ( )                  |        |
| Fire Alarm               |                                  |                            |               | ( )                  |        |
| Plumbing                 |                                  |                            |               | ( )                  |        |
| Mechanical               |                                  |                            |               | ( )                  |        |
| Sprinkler-Standpipe      |                                  |                            |               | ( )                  |        |
| Structural               |                                  |                            |               | ( )                  |        |
| Retaining Walls >5' High |                                  |                            |               | ( )                  |        |
| Other                    | <u>Universal Forest Products</u> | <u>Kevin Freeman, P.E.</u> | <u>026074</u> | <u>(616)364-6161</u> |        |



("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

**2018 NC BUILDING CODE:** New Building

**2018 NC EXISTING BUILDING CODE:** Select one      Select one      Select one  
**CONSTRUCTED:** (date) \_\_\_\_\_ **CURRENT OCCUPANCY(S)** (Ch. 3): \_\_\_\_\_  
**RENOVATED:** (date) \_\_\_\_\_ **PROPOSED OCCUPANCY(S)** (Ch. 3): \_\_\_\_\_

**OCCUPANCY CATEGORY** (Table 1604.5): **Current:** N/A      **Proposed:** II

**BASIC BUILDING DATA**

**Construction Type:** V-B  
**Sprinklers:** No N/A  
**Standpipes:** No  
**Primary Fire District:** No      **Flood Hazard Area:** No  
**Special Inspections Required:** No

**Gross Building Area Table**

| FLOOR                 | EXISTING (SQ FT) | NEW (SQ FT) | SUB-TOTAL |
|-----------------------|------------------|-------------|-----------|
| 3 <sup>rd</sup> Floor |                  |             |           |
| 2 <sup>nd</sup> Floor |                  |             |           |
| Mezzanine             |                  |             |           |
| 1 <sup>st</sup> Floor |                  | 1640        |           |
| Basement              |                  |             |           |
| <b>TOTAL</b>          |                  | 1640        |           |

**ALLOWABLE AREA**

**Primary Occupancy Classification(s):** Business    Select one    Select one    Select one    Select one    Select one

**Accessory Occupancy Classification(s):** \_\_\_\_\_

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
 James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

**Incidental Uses (Table 509):** \_\_\_\_\_  
**Special Uses (Chapter 4 – List Code Sections):** \_\_\_\_\_  
**Special Provisions: (Chapter 5 – List Code Sections):** \_\_\_\_\_  
**Mixed Occupancy:** No Separation: Select one Exception: \_\_\_\_\_

Select one

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

$$\text{_____} + \text{_____} + \dots = \text{_____} \leq 1.00$$

| STORY NO. | DESCRIPTION AND USE | (A)<br>BLDG AREA PER STORY (ACTUAL) | (B)<br>TABLE 506.2 <sup>4</sup><br>AREA | (C)<br>AREA FOR FRONTAGE INCREASE <sup>1,5</sup> | (D)<br>ALLOWABLE AREA PER STORY OR UNLIMITED <sup>2,3</sup> |
|-----------|---------------------|-------------------------------------|---|--|---|
| 1         | Office              | 1640                                | 9000                                    | Not needed                                       | 9000  |
|           |                     |                                     |   |  |   |
|           |                     |                                     |   |  |   |
|           |                     |                                     |   |  |   |

<sup>1</sup> Frontage area increases from Section 506.2 are computed thus:

- a. Perimeter which fronts a public way or open space having 20 feet minimum width = \_\_\_\_\_ (F)
- b. Total Building Perimeter = \_\_\_\_\_ (P)
- c. Ratio (F/P) = \_\_\_\_\_ (F/P)
- d. W = Minimum width of public way = \_\_\_\_\_ (W)
- e. Percent of frontage increase  $I_f = 100[F/P - 0.25] \times W/30 = \text{_____} (\%)$

<sup>2</sup> Unlimited area applicable under conditions of Section 507.

<sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).

<sup>4</sup> The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.

<sup>5</sup> Frontage increase is based on the unsprinklered area value in Table 506.2.

### ALLOWABLE HEIGHT

|  | ALLOWABLE | SHOWN ON PLANS | CODE REFERENCE |
|--|-----------|----------------|----------------|
| Building Height in Feet (Table 504.3)    | 40        | < 15           |                |
| Building Height in Stories (Table 504.4) | 2         | 1              |                |

<sup>1</sup> Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

### FIRE PROTECTION REQUIREMENTS

| BUILDING ELEMENT                                      | FIRE SEPARATION DISTANCE (FEET) | RATING |                               | DETAIL # AND SHEET # | DESIGN # FOR RATED ASSEMBLY | SHEET # FOR RATED PENETRATION | SHEET # FOR RATED JOINTS |
|---|---------------------------------|--------|-------------------------------|----------------------|-----------------------------|-------------------------------|--------------------------|
|   |                                 | REQ'D  | PROVIDED (w/_____* REDUCTION) |                      |                             |                               |                          |
| Structural Frame, including columns, girders, trusses | 10 or more                      | 0      | 0                             |                      |                             |                               |                          |
| Bearing Walls   |                                 |        |                               |                      |                             |                               |                          |
| Exterior  | 10 or more                      | 0      | 0                             |                      |                             |                               |                          |
| North   | 10 or more                      | 0      | 0                             |                      |                             |                               |                          |
| East  | 10 or more                      | 0      | 0                             |                      |                             |                               |                          |
| West  | 10 or more                      | 0      | 0                             |                      |                             |                               |                          |
| South   | 10 or more                      | 0      | 0                             |                      |                             |                               |                          |
| Interior  | 10 or more                      | 0      | 0                             |                      |                             |                               |                          |
| Nonbearing Walls and Partitions                       | 10 or more                      | 0      | 0                             |                      |                             |                               |                          |
| Exterior walls  |                                 |        |                               |                      |                             |                               |                          |

|  |            |     |     |  |  |  |  |
|--|------------|-----|-----|--|--|--|--|
| North  | 10 or more | 0   | 0   |  |  |  |  |
| East   | 10 or more | 0   | 0   |  |  |  |  |
| West   | 10 or more | 0   | 0   |  |  |  |  |
| South  | 10 or more | 0   | 0   |  |  |  |  |
| Interior walls and partitions                                  | 10 or more | 0   | 0   |  |  |  |  |
| Floor Construction<br>Including supporting beams<br>and joists |            | 0   | 0   |  |  |  |  |
| Floor Ceiling Assembly   |            | 0   | 0   |  |  |  |  |
| Columns Supporting Floors                                      |            | N/A | N/A |  |  |  |  |
| Roof Construction, including<br>supporting beams and joists    |            | 0   | 0   |  |  |  |  |
| Roof Ceiling Assembly  |            | 0   | 0   |  |  |  |  |
| Columns Supporting Roof  |            | 0   | 0   |  |  |  |  |
| Shaft Enclosures - Exit  |            | N/A | N/A |  |  |  |  |
| Shaft Enclosures - Other                                       |            | N/A | N/A |  |  |  |  |
| Corridor Separation  |            | N/A | N/A |  |  |  |  |
| Occupancy/Fire Barrier Separation                              |            | N/A | N/A |  |  |  |  |
| Party/Fire Wall Separation                                     |            | N/A | N/A |  |  |  |  |
| Smoke Barrier Separation                                       |            | N/A | N/A |  |  |  |  |
| Smoke Partition  |            | N/A | N/A |  |  |  |  |
| Tenant/Dwelling Unit/<br>Sleeping Unit Separation              |            | N/A | N/A |  |  |  |  |
| Incidental Use Separation                                      |            | 0   | 0   |  |  |  |  |

\* Indicate section number permitting reduction

### PERCENTAGE OF WALL OPENING CALCULATIONS

| FIRE SEPARATION DISTANCE<br>(FEET) FROM PROPERTY LINES | DEGREE OF OPENINGS<br>PROTECTION<br>(TABLE 705.8) | ALLOWABLE AREA<br>(%) | ACTUAL SHOWN ON PLANS<br>(%) |
|--|---|-----------------------|------------------------------|
| 10 or more   | 705.8.1 exception 2                               | unlimited             | N/A                          |
|  |   |                       |                              |
|  |   |                       |                              |

### LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: Yes  
Exit Signs: Yes  
Fire Alarm: No  
Smoke Detection Systems: No  
Carbon Monoxide Detection: No

### LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #:   3  

- Fire and/or smoke rated wall locations (Chapter 7)
- Assumed and real property line locations (if not on the site plan)
- Exterior wall opening area with respect to distance to assumed property lines (705.8)
- Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)

**Electrical**  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
**James Slaght, MCP**  
**P-173, SMP 63**  
**U02528**

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- Occupant loads for each area
- Exit access travel distances (1017)
- Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
- Dead end lengths (1020.4)
- Clear exit widths for each exit door
- Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- Actual occupant load for each exit door
- A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- Location of doors with panic hardware (1010.1.10)
- Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
- Location of doors with electromagnetic egress locks (1010.1.9.9)
- Location of doors equipped with hold-open devices
- Location of emergency escape windows (1030)
- The square footage of each fire area (202)
- The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
- Note any code exceptions or table notes that may have been utilized regarding the items above

**ACCESSIBLE DWELLING UNITS**  
(SECTION 1107)

| TOTAL UNITS | ACCESSIBLE UNITS REQUIRED | ACCESSIBLE UNITS PROVIDED | TYPE A UNITS REQUIRED | TYPE A UNITS PROVIDED | TYPE B UNITS REQUIRED | TYPE B UNITS PROVIDED | TOTAL ACCESSIBLE UNITS PROVIDED |
|-------------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------------|
|             |                           |                           |                       |                       |                       |                       |                                 |

**ACCESSIBLE PARKING**  
(SECTION 1106) BY OTHERS

| LOT OR PARKING AREA | TOTAL # OF PARKING SPACES |          | # OF ACCESSIBLE SPACES PROVIDED |                   |                 | TOTAL # ACCESSIBLE PROVIDED |
|---------------------|---------------------------|----------|---------------------------------|-------------------|-----------------|-----------------------------|
|                     | REQUIRED                  | PROVIDED | REGULAR WITH 5' ACCESS AISLE    | VAN SPACES WITH   |                 |                             |
|                     |                           |          |                                 | 132" ACCESS AISLE | 8' ACCESS AISLE |                             |
|                     |                           |          |                                 |                   |                 |                             |
|                     |                           |          |                                 |                   |                 |                             |
| TOTAL               |                           |          |                                 |                   |                 |                             |

**PLUMBING FIXTURE REQUIREMENTS**  
(TABLE 2902.1)

| USE   |         | WATERCLOSETS |        |        | URINALS | LAVATORIES |        |        | SHOWERS /TUBS | DRINKING FOUNTAINS |            |
|-------|---------|--------------|--------|--------|---------|------------|--------|--------|---------------|--------------------|------------|
|       |         | MALE         | FEMALE | UNISEX |         | MALE       | FEMALE | UNISEX |               | REGULAR            | ACCESSIBLE |
| SPACE | EXIST'G |              |        |        |         |            |        |        |               |                    |            |
|       | NEW     | 1            | 1      |        | 0       | 1          | 1      |        | 0             | 1                  | 1          |
|       | REQ'D   | 1            | 1      |        | 0       | 1          | 1      |        | 0             | 1                  | 1          |

**SPECIAL APPROVALS**

**Special approval:** (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

NC DOI Modular Construction \_\_\_\_\_

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## ENERGY SUMMARY

### ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

**Existing building envelope complies with code:**     No     Yes (The remainder of this section is not applicable)

**Exempt Building:**     No     Yes (Provide code or statutory reference): \_\_\_\_\_

**Climate Zone:**     3A     4A     5A

**Method of Compliance:** Energy Code     Performance     Prescriptive  
ASHRAE 90.1     Performance     Prescriptive  
(If "Other" specify source here) \_\_\_\_\_

### THERMAL ENVELOPE (Prescriptive method only)

#### Roof/ceiling Assembly (each assembly)

Description of assembly:    Wood Frame Truss Plywood Decking Insulated Roof  
U-Value of total assembly:    0.027  
R-Value of insulation:    49  
Skylights in each assembly:    N/A  
    U-Value of skylight:    N/A  
total square footage of skylights in each assembly:    N/A

#### Exterior Walls (each assembly)

Description of assembly:    Wood Studs @16" O.C. OSB/Gypsum  
U-Value of total assembly:    0.067  
R-Value of insulation:    19  
Openings (windows or doors with glazing)  
    U-Value of assembly:    \_\_\_\_\_  
    Solar heat gain coefficient:    \_\_\_\_\_  
    projection factor:    \_\_\_\_\_  
    Door R-Values:    \_\_\_\_\_

#### Walls below grade (each assembly)

Description of assembly:    N/A  
U-Value of total assembly:    N/A  
R-Value of insulation:    N/A

#### Floors over unconditioned space (each assembly)

Description of assembly:    Wood Joists W/ Plywood Decking @ 16" O.C. OSB  
U-Value of total assembly:    0.04  
R-Value of insulation:    25

#### Floors slab on grade

Description of assembly:    N/A  
U-Value of total assembly:    N/A  
R-Value of insulation:    N/A  
Horizontal/vertical requirement:    N/A  
slab heated:    N/A

Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

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**2018 APPENDIX B**  
**BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS**  
**STRUCTURAL DESIGN**  
**(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)**

**DESIGN LOADS:**

**Importance Factors:** Snow (I<sub>S</sub>) 1.0  
Seismic (I<sub>E</sub>) 1.0

**Live Loads:** Roof 20 psf  
Mezzanine N/A psf  
Floor 100 psf

**Ground Snow Load:** 30 psf

**Wind Load:** Ultimate Wind Speed 140 mph (ASCE-7)  
Exposure Category C

**SEISMIC DESIGN CATEGORY:**  A  B  C  D

Provide the following Seismic Design Parameters:

**Risk Category** (Table 1604.5)  I  II  III  IV

**Spectral Response Acceleration** S<sub>s</sub> 14.8 %g S<sub>1</sub> 7.0 %g

**Site Classification** (ASCE 7)  A  B  C  D  E  F

Data Source:  Field Test  Presumptive  Historical Data

**Basic structural system**  Bearing Wall  Dual w/Special Moment Frame  
 Building Frame  Dual w/Intermediate R/C or Special Steel  
 Moment Frame  Inverted Pendulum

**Analysis Procedure:**  Simplified  Equivalent Lateral Force  Dynamic

**Architectural, Mechanical, Components anchored?**  Yes  No

**LATERAL DESIGN CONTROL:** Earthquake  Wind

**SOIL BEARING CAPACITIES:**

Field Test (provide copy of test report) \_\_\_\_\_ psf

Presumptive Bearing capacity 2,000 psf

Pile size, type, and capacity \_\_\_\_\_

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Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

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**2018 APPENDIX B**  
**BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS**  
**MECHANICAL DESIGN**  
**(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)**

**MECHANICAL SUMMARY**

**MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**

**Thermal Zone**

winter dry bulb: 25

summer dry bulb: 95

**Interior design conditions**

winter dry bulb: 70

summer dry bulb: 75

relative humidity: 47

**Building heating load:** 114,912

**Building cooling load:** 147,947

**Mechanical Spacing Conditioning System**

Unitary

description of unit: Wall mount package HVAC

heating efficiency: Resistance heat strips

cooling efficiency: 10 EER

size category of unit: (2) 3 Ton W/ 10 KW Heat

Boiler

Size category. If oversized, state reason.: \_\_\_\_\_

Chiller

Size category. If oversized, state reason.: Multi-State Coded Building

**List equipment efficiencies:** NA

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Electrical  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
James Slaght, MCP  
**P-173, SMP 63**  
**U02528**

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# Interior Lighting Compliance Certificate

### Project Information

Energy Code: 90.1 (2010) Standard  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Project Type: New Construction

APPROVED

**RADCO**  
**Mar 03, 2023**

APPROVED

Construction Site: Owner/Agent: TITAN MODULAR SYSTEMS, INC  
 162 INDUSTRIAL DRIVE  
 ALMA, GA 31510

Designer/Contractor: WALTER E. WOOD P.E.  
 168 W. LONGLEAF DRIVE  
 SYLVESTER, GA 31791

### Allowed Interior Lighting Power

| A<br>Area Category    | B<br>Floor Area<br>(ft <sup>2</sup> ) | C<br>Allowed<br>Watts / ft <sup>2</sup> | D<br>Allowed Watts<br>(B X C) |
|-----------------------|---------------------------------------|---|-------------------------------|
| 1-Office              | 1640                                  | 0.90                                    | 1476                          |
| Total Allowed Watts = |                                       |   | 1476                          |

### Proposed Interior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| 1-Office<br>LED 1: LED Linear 22W:                                | 2                      | 24                    | 44                    | 1056         |
| Total Proposed Watts =  |                        |                       |                       | 1056         |

**Interior Lighting PASSES: Design 28% better than code**

### Interior Lighting Compliance Statement

*Compliance Statement:* The proposed interior lighting design represented in this permit application is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2010) Standard requirements in COMcheck version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

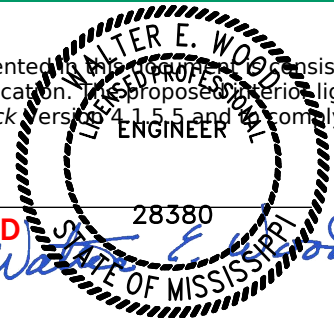
Signature

VALID

28380

Date

02-24-2023





# Exterior Lighting Compliance Certificate

## Project Information

Energy Code: 90.1 (2010) Standard  
 Project Title: TMS 7560 27-4X60 BUSINESS  
 Project Type: New Construction  
 Exterior Lighting Zone: 2 (Residential mixed use area (LZ2))

APPROVED

**RADCO**  
**Mar 03, 2023**

APPROVED

Construction Site: Owner/Agent: Designer/Contractor:  
 TITAN MODULAR SYSTEMS, INC WALTER E. WOOD P.E.  
 162 INDUSTRIAL DRIVE 168 W. LONGLEAF DRIVE  
 ALMA, GA 31510 SYLVESTER, GA 31791

## Allowed Exterior Lighting Power

| A<br>Area/Surface Category             | B<br>Quantity | C<br>Allowed<br>Watts / Unit | D<br>Tradable<br>Wattage | E<br>Allowed Watts<br>(B X C) |
|--|---------------|------------------------------|--------------------------|-------------------------------|
| Main entry                             | 3 ft of door  | 20                           | Yes                      | 60                            |
| Other door (not main entry)            | 3 ft of door  | 20                           | Yes                      | 60                            |
| Total Tradable Watts (a) =             |               |                              |                          | 120                           |
| Total Allowed Watts =                  |               |                              |                          | 120                           |
| Total Allowed Supplemental Watts (b) = |               |                              |                          | 600                           |

- (a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
- (b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

## Proposed Exterior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast         | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| <u>Main entry (3 ft of door width): Tradable Wattage</u>                  |                        |                       |                       |              |
| Incandescent 1: Incandescent 60W:   | 1                      | 1                     | 60                    | 60           |
| <u>Other door (not main entry) (3 ft of door width): Tradable Wattage</u> |                        |                       |                       |              |
| Incandescent 2: Incandescent 60W:   | 1                      | 1                     | 60                    | 60           |
| Total Tradable Proposed Watts =   |                        |                       |                       | 120          |

**Exterior Lighting PASSES: Design 83% better than code**

## Exterior Lighting Compliance Statement

*Compliance Statement:* The proposed exterior lighting design represented by this proposal is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 90.1 (2010) Standard requirements in COMcheck version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title: \_\_\_\_\_ Signature: **VALID**  Date: 02-24-2023





# Inspection Checklist

Energy Code: 90.1 (2010) Standard

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID                                  | Plan Review   | Complies?  | Comments/Assumptions |
|---|---|--|----------------------|
| 4.2.2,5.4.<br>3.1.1,5.7<br>[PR1] <sup>1</sup>       | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2,6.4.<br>4.2.1,6.7.<br>2<br>[PR2] <sup>1</sup> | 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.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2,7.7.<br>1,10.4.2<br>[PR3] <sup>1</sup>        | 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.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 4.2.2,9.4.<br>4.9.7<br>[PR4] <sup>1</sup>           | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.7<br>[PR8] <sup>1</sup>                           | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.7.2.4<br>[PR5] <sup>1</sup>                       | Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft <sup>2</sup> .  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

1 High Impact (Tier 1)    
  2 Medium Impact (Tier 2)    
  3 Low Impact (Tier 3)

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID            | Footing / Foundation Inspection  | Plans Verified Value  | Field Verified Value  | Complies?  | Comments/Assumptions                          |
|-------------------------------|--|---|---|--|---|
| 5.5.3.3 [FO1] <sup>2</sup>    | Below-grade wall insulation R-value.   | R-_____   | R-_____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.3.5 [FO3] <sup>2</sup>    | Slab edge insulation R-value.  | R-_____<br><input type="checkbox"/> Unheated<br><input type="checkbox"/> Heated | R-_____<br><input type="checkbox"/> Unheated<br><input type="checkbox"/> Heated | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.3.5 [FO5] <sup>2</sup>    | Slab edge insulation depth/length.   | _____ ft  | _____ ft  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.7.3 [FO7] <sup>1</sup>  | Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.    |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.8 [FO9] <sup>3</sup>    | Freeze protection and snow/ice melting system sensors for future connection to controls. |   |   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.5 [FO11] <sup>3</sup> | Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.   | R-_____   | R-_____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                | Framing / Rough-In Inspection   | Plans Verified Value   | Field Verified Value   | Complies?  | Comments/Assumptions                          |
|-----------------------------------|---|--|--|--|---|
| 5.4.3.2 [FR1] <sup>3</sup>        | Factory-built fenestration and doors are labeled as meeting air leakage requirements.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.4.3.4 [FR4] <sup>3</sup>        | Vestibules are installed where building entrances separate conditioned space from the exterior, and meet exterior envelope requirements. Doors have self-closing devices, and are >=7 ft apart. |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.4.3a [FR8] <sup>1</sup>       | Vertical fenestration U-Factor.   | U- ____  | U- ____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.3b [FR9] <sup>1</sup>       | Skylight fenestration U-Factor.   | U- ____  | U- ____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.4.1 [FR10] <sup>1</sup>     | Vertical fenestration SHGC value.   | SHGC: ____   | SHGC: ____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.5.4.4.2 [FR11] <sup>1</sup>     | Skylight SHGC value.  | SHGC: ____   | SHGC: ____   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.2.1 [FR12] <sup>2</sup>       | Fenestration products rated in accordance with NFRC.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.2.2 [FR13] <sup>1</sup>       | Fenestration products are certified as to performance labels or certificates provided.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.2.3,5.3.6 [FR14] <sup>2</sup> | U-factor of opaque doors associated with the building thermal envelope meets requirements.  | U- ____<br><input type="checkbox"/> Swinging<br><input type="checkbox"/> Nonswinging | U- ____<br><input type="checkbox"/> Swinging<br><input type="checkbox"/> Nonswinging | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.4.3.1 [FR15] <sup>1</sup>       | Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner, except in semiheated spaces and in climate zones 1-6.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID         | Plumbing Rough-In Inspection   | Complies?  | Comments/Assumptions |
|----------------------------|--|--|----------------------|
| 7.4.4.1 [PL2] <sup>3</sup> | Temperature controls installed on service water heating systems (<=120°F to maximum temperature for intended use). | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.4.2 [PL3] <sup>1</sup> | Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.    | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.6 [PL4] <sup>3</sup>   | Heat traps installed on non-circulating storage water tanks.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|                        |                          |                       |
|------------------------|--------------------------|-----------------------|
| 1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3) |
|------------------------|--------------------------|-----------------------|

| Section # & Req.ID                  | Mechanical Rough-In Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions                        |
|-------------------------------------|--|----------------------|----------------------|--|---|
| 6.4.1.4, 6.4.1.5 [ME1] <sup>2</sup> | HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.  | Efficiency: _____    | Efficiency: _____    | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| 6.4.3.4.1 [ME3] <sup>3</sup>        | Stair and elevator shaft vents have motorized dampers that automatically close.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.4.5 [ME39] <sup>3</sup>       | Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.4.4 [ME5] <sup>3</sup>        | Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.9 [ME6] <sup>1</sup>          | Demand control ventilation provided for spaces >500 ft <sup>2</sup> and >40 people/1000 ft <sup>2</sup> occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.3.10 [ME40] <sup>2</sup>        | Single zone HVAC systems with fan motors >=5 hp have variable airflow controls. Air conditioning equipment with a cooling capacity >=110,000 Btu/h has variable airflow controls.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| 6.4.4.1.1 [ME7] <sup>3</sup>        | Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.2 [ME8] <sup>2</sup>        | HVAC ducts and plenums insulated. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.  | R- _____             | R- _____             | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.3 [ME9] <sup>2</sup>        | HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.   | _____ in.            | _____ in.            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.1.4 [ME41] <sup>3</sup>       | Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.4.4.2.1 [ME10] <sup>2</sup>       | Ducts and plenums sealed based on static pressure and location.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID                           | Mechanical Rough-In Inspection  | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions                        |
|--|---|----------------------|----------------------|--|---|
| 6.4.4.2.2<br>[ME11] <sup>3</sup>             | Ductwork operating >3 in. water column requires air leakage testing.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.1,6.5.1.1,6.5.1.3<br>[ME12] <sup>1</sup> | 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. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.2.3<br>[ME19] <sup>3</sup>               | Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.3.3<br>[ME42] <sup>3</sup>               | Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Mechanical Systems list for values. |
| 6.5.4.1<br>[ME25] <sup>3</sup>               | HVAC pumping systems >10 hp designed for variable fluid flow.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.6.1<br>[ME56] <sup>1</sup>               | Exhaust air energy recovery on systems meeting Table 6.5.6.1.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.7.1.1<br>[ME32] <sup>2</sup>             | Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.7.1.5<br>[ME49] <sup>3</sup>             | Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.7.2<br>[ME33] <sup>1</sup>               | Fume hoods exhaust systems >=15,000 cfm have VAV hood exhaust and supply systems, direct make-up air or heat recovery.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 6.5.8.1<br>[ME34] <sup>2</sup>               | Unenclosed spaces that are heated use only radiant heat.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 7.4.2<br>[ME36] <sup>2</sup>                 | Service water heating equipment meets efficiency requirements.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID          | Rough-In Electrical Inspection  | Complies?  | Comments/Assumptions |
|-----------------------------|---|--|----------------------|
| 9.4.1.1 [EL1] <sup>2</sup>  | Automatic controls to shut off all building lighting.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.2 [EL2] <sup>2</sup>  | Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.                              | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.3 [EL11] <sup>2</sup> | Parking garage lighting is equipped with required lighting controls and daylight transition zone lighting.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.4 [EL12] <sup>1</sup> | Primary sidelighted areas $\geq 250 \text{ ft}^2$ are equipped with required lighting controls.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.5 [EL13] <sup>1</sup> | Enclosed spaces with daylight area under skylights and rooftop monitors $>900 \text{ ft}^2$ are equipped with required lighting controls.                             | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.7 [EL3] <sup>2</sup>  | Automatic lighting controls for exterior lighting installed.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.1.6 [EL4] <sup>1</sup>  | Separate lighting control devices for specific uses installed per approved lighting plans.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.2 [EL6] <sup>1</sup>    | Exit signs do not exceed 5 watts per face.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.4.3 [EL7] <sup>1</sup>    | Exterior grounds lighting over 100 W provides $>60 \text{ lm/W}$ unless on motion sensor or fixture is exempt from scope of code or from external LPD.                | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 9.6.2 [EL8] <sup>1</sup>    | Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 10.4.1 [EL9] <sup>2</sup>   | Electric motors meet requirements where applicable.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                 | Insulation Inspection   | Plans Verified Value   | Field Verified Value   | Complies?  | Comments/Assumptions                          |
|------------------------------------|---|--|--|--|---|
| 5.4.3.1 [IN1] <sup>1</sup>         | 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.                 |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.1 [IN2] <sup>1</sup>         | Roof R-value. For some ceiling systems, verification may need to occur during Framing Inspection.   | R-____<br><input type="checkbox"/> Above deck<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Attic                            | R-____<br><input type="checkbox"/> Above deck<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Attic                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2,5.8.1.3 [IN3] <sup>1</sup> | Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the ceiling slope is <= 3:12.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.1.1 [IN5] <sup>3</sup>       | High-albedo roofs satisfy one of the following: Solar reflectance >= 0.55 and thermal emittance >= 0.75, Solar reflectance index >= 64.0, or increased insulation (assembly <= U-0.03 or >= R-33.0 insulation). | SR:____<br>SRI:____  | SR:____<br>SRI:____  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.2 [IN6] <sup>1</sup>         | Above-grade wall insulation R-value.  | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2 [IN7] <sup>1</sup>         | Above-grade wall insulation installed per manufacturer's instructions.  |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.5.3.4 [IN8] <sup>2</sup>         | Floor insulation R-value.   | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood                                   | R-____<br><input type="checkbox"/> Mass<br><input type="checkbox"/> Steel<br><input type="checkbox"/> Wood                                   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values. |
| 5.8.1.2 [IN9] <sup>2</sup>         | Floor insulation installed per manufacturer's instructions.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.1.1 [IN10] <sup>2</sup>        | Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |
| 5.8.1.4 [IN11] <sup>2</sup>        | Eaves are baffled to deflect air to above the insulation.   |  |  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |   |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID            | Insulation Inspection   | Plans Verified Value | Field Verified Value | Complies?  | Comments/Assumptions |
|-------------------------------|---|----------------------|----------------------|--|----------------------|
| 5.8.1.5 [IN12] <sup>2</sup>   | Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.6 [IN13] <sup>2</sup>   | Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7 [IN14] <sup>2</sup>   | Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.                 |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7.1 [IN15] <sup>2</sup> | Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.7.2 [IN16] <sup>2</sup> | Foundation vents do not interfere with insulation.  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 5.8.1.8 [IN17] <sup>3</sup>   | Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

**Additional Comments/Assumptions:**

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID            | Final Inspection  | Complies?  | Comments/Assumptions |
|-------------------------------|---|--|----------------------|
| 5.4.3.3 [FI1] <sup>1</sup>    | Weatherseals installed on all loading dock cargo doors in Climate Zones 4-8.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.4.3.1.2 [FI3] <sup>3</sup>  | Thermostatic controls have a 5 °F deadband.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.4.3.2 [FI20] <sup>3</sup>   | Temperature controls have setpoint overlap restrictions.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.4.3.3.1 [FI21] <sup>3</sup> | HVAC systems equipped with at least one automatic shutdown control.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.4.3.3.2 [FI22] <sup>3</sup> | Setback controls allow automatic restart and temporary operation as required for maintenance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.4.3.7 [FI6] <sup>3</sup>    | When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited.                                | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.7.2.1 [FI7] <sup>3</sup>    | Furnished HVAC as-built drawings submitted within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.7.2.2 [FI8] <sup>3</sup>    | Furnished O&M manuals for HVAC systems within 90 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.7.2.3 [FI9] <sup>1</sup>    | An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft <sup>2</sup> of conditioned area. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 6.7.2.4 [FI10] <sup>1</sup>   | HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.                             | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 7.4.4.3 [FI11] <sup>3</sup>   | Public lavatory faucet water temperature ≤110°F.  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 8.7.1 [FI16] <sup>3</sup>     | Furnished as-built drawings for electric power systems within 30 days of system acceptance.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |
| 8.7.2 [FI17] <sup>3</sup>     | Furnished O&M instructions for systems and equipment to the building owner or designated representative.                              | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |                      |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID          | Final Inspection  | Complies?  | Comments/Assumptions                                   |
|-----------------------------|---|--|--|
| 9.2.2.3 [FI18] <sup>1</sup> | 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. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Interior Lighting fixture schedule for values. |
| 9.4.3 [FI19] <sup>1</sup>   | 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.                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Exterior Lighting fixture schedule for values. |
| 10.4.3 [FI24] <sup>2</sup>  | Elevators are designed with the proper lighting, ventilation power, and standby mode.   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 7.4.3 [FI45] <sup>2</sup>   | First 8 ft of outlet piping is insulated  | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |
| 7.4.3 [FI46] <sup>2</sup>   | All heat traced or externally heated piping insulated   | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable |  |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|





# Envelope Compliance Certificate

**APPROVED** **RADCO** **APPROVED**  
**Mar 03, 2023**

## Section 1: Project Information

Energy Code: **2009 IECC**  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction

|                                       |  |   |
|---------------------------------------|--|---|
| Construction Site:                    | Owner/Agent:   | Designer/Contractor:  |
|                                       | TITAN MODULAR SYSTEMS, INC<br>162 INDUSTRIAL DRIVE<br>ALMA, GA 31510 | WALTER E. WOOD P.E.<br>168 W. LONGLEAF DRIVE<br>SYLVESTER, GA 31791 |
| Building Location (for weather data): | Lexington, South Carolina  |   |
| Climate Zone:                         | 3a   |   |
| Vertical Glazing / Wall Area Pct.:    | 12%  |   |

| <u>Building Use: Activity Type(s)</u> | <u>Floor Area</u> |
|---------------------------------------|-------------------|
| 1-Office : Nonresidential             | 1640              |

## Section 2: Envelope Assemblies and Requirements Checklist

**Envelope PASSES:** Design 5% better than code.

### Envelope Assemblies:

| Component Name/Description  | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | Proposed U-Factor | Budget U-Factor <sup>(a)</sup> |
|---|-------------------------|----------------|---------------|-------------------|--------------------------------|
| Orientation: SOUTH  |                         |                |               |                   |                                |
| Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]  | 1484                    | 21.0           | 0.0           | 0.062             | 0.089                          |
| Window 1: Metal Frame with Thermal Break: Operable, Perf. Specs.:<br>Product ID NA, SHGC 0.25, [Bldg. Use 1 - Office] (b) | 180                     | ---            | ---           | 0.450             | 0.650                          |
| Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Office]   | 41                      | ---            | ---           | 0.292             | 0.700                          |
| Orientation: UNSPECIFIED ORIENTATION  |                         |                |               |                   |                                |
| Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Office]   | 1640                    | 38.0           | 0.0           | 0.027             | 0.027                          |
| Floor 1: Wood-Framed, [Bldg. Use 1 - Office]  | 1640                    | 26.0           | 0.0           | 0.038             | 0.052                          |

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

(b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

### Air Leakage, Component Certification, and Vapor Retarder Requirements:

- 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- 2. Windows, doors, and skylights certified as meeting leakage requirements.
- 3. Component R-values & U-factors labeled as certified.
- 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- 5. 'Other' components have supporting documentation for proposed U-Factors.
- 6. Insulation installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.
- 7. Stair, elevator shaft vents, and other outdoor air intake and exhaust openings in the building envelope are equipped with motorized dampers.
- 8. Cargo doors and loading dock doors are weather sealed.
- 9. Recessed lighting fixtures installed in the building envelope are Type IC rated as meeting ASTM E283, are sealed with gasket or caulk.
- 10. Building entrance doors have a vestibule equipped with self-closing devices.

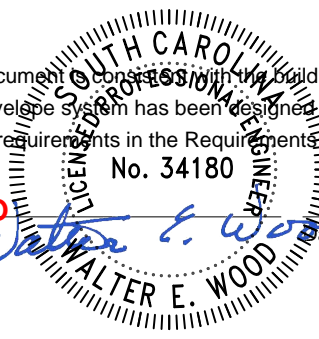
*Exceptions:*

- Building entrances with revolving doors.

- Doors not intended to be used as a building entrance.
- Doors that open directly from a space less than 3000 sq. ft. in area.
- Doors used primarily to facilitate vehicular movement or materials handling and adjacent personnel doors.
- Doors opening directly from a sleeping/dwelling unit.

### Section 3: Compliance Statement

*Compliance Statement:* The proposed envelope design represented in this document conforms with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2009 IECC requirements in COMcheck Version 4.1.5.5 and to comply with the mandatory requirements in the Requirements Checklist.



02-24-2023

\_\_\_\_\_  
Name - Title

**VALID**  
Signature

*Walter E. Wood*

**APPROVED**  
**RADCO**  
**Mar 03, 2023**  
**APPROVED**



# Interior Lighting Compliance Certificate

**APPROVED** **RADCO** **APPROVED**  
**Mar 03, 2023**

## Section 1: Project Information

Energy Code: **2009 IECC**  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction

Construction Site:

Owner/Agent:  
TITAN MODULAR SYSTEMS, INC  
162 INDUSTRIAL DRIVE  
ALMA, GA 31510

Designer/Contractor:  
WALTER E. WOOD P.E.  
168 W. LONGLEAF DRIVE  
SYLVESTER, GA 31791

## Section 2: Interior Lighting and Power Calculation

| A<br>Area Category    | B<br>Floor Area<br>(ft <sup>2</sup> ) | C<br>Allowed<br>Watts / ft <sup>2</sup> | D<br>Allowed Watts<br>(B x C) |
|-----------------------|---------------------------------------|---|-------------------------------|
| Office                | 1640                                  | 1                                       | 1640                          |
| Total Allowed Watts = |                                       |   | 1640                          |

## Section 3: Interior Lighting Fixture Schedule

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|---|------------------------|-----------------------|-----------------------|--------------|
| Office (1640 sq.ft.)  |                        |                       |                       |              |
| LED 1: LED Linear 22W:  | 2                      | 24                    | 44                    | 1056         |
| Total Proposed Watts =  |                        |                       |                       | 1056         |

## Section 4: Requirements Checklist

Interior Lighting **PASSES**: Design 36% better than code.

### Lighting Wattage:

- 1. Total proposed watts must be less than or equal to total allowed watts.

| Allowed Watts | Proposed Watts | Complies |
|---------------|----------------|----------|
| 1640          | 1056           | YES      |

### Controls, Switching, and Wiring:

- 2. Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.
- 3. Daylight zones have individual lighting controls independent from that of the general area lighting.

*Exceptions:*

- Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.
- Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.

- 4. Independent controls for each space (switch/occupancy sensor).

*Exceptions:*

- Areas designated as security or emergency areas that must be continuously illuminated.
- Lighting in stairways or corridors that are elements of the means of egress.

- 5. Master switch at entry to hotel/motel guest room.

- 6. Individual dwelling units separately metered.
- 7. Medical task lighting or art/history display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.
- 8. Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.

*Exceptions:*

- Only one luminaire in space.
- An occupant-sensing device controls the area.
- The area is a corridor, storeroom, restroom, public lobby or sleeping unit.
- Areas that use less than 0.6 Watts/sq.ft.
- 9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

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**Mar 03, 2023**

*Exceptions:*

- Sleeping units, patient care areas; and spaces where automatic shutoff would endanger safety or security.
- 10. Photocell/astronomical time switch on exterior lights.

*Exceptions:*

- Lighting intended for 24 hour use.
- 11. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

*Exceptions:*

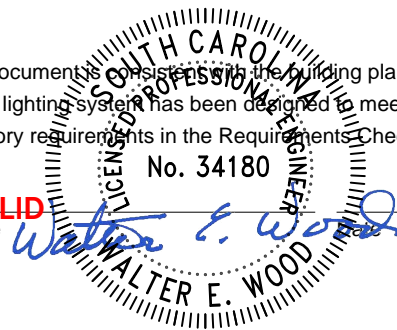
- Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

## Section 5: Compliance Statement

*Compliance Statement:* The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2009 IECC requirements in COMcheck Version 4.1.5.5 and to comply with the mandatory requirements in the Requirements Checklist.

\_\_\_\_\_  
Name - Title

**VALID**  
Signature



02-24-2023



# Exterior Lighting Compliance Certificate

**APPROVED** **RADCO** **APPROVED**  
**Mar 03, 2023**

## Section 1: Project Information

Energy Code: **2009 IECC**  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction  
Exterior Lighting Zone: 2 (Residential mixed use area (LZ2))

Construction Site:

Owner/Agent:  
TITAN MODULAR SYSTEMS, INC  
162 INDUSTRIAL DRIVE  
ALMA, GA 31510

Designer/Contractor:  
WALTER E. WOOD P.E.  
168 W. LONGLEAF DRIVE  
SYLVESTER, GA 31791

## Section 2: Exterior Lighting Area/Surface Power Calculation

| A<br>Exterior Area/Surface           | B<br>Quantity      | C<br>Allowed<br>Watts<br>/ Unit | D<br>Tradable<br>Wattage | E<br>Allowed<br>Watts<br>(B x C) | F<br>Proposed<br>Watts |
|--------------------------------------|--------------------|---------------------------------|--------------------------|----------------------------------|------------------------|
| Main entry                           | 3 ft of door width | 20                              | Yes                      | 60                               | 60                     |
| Other door (not main entry)          | 3 ft of door width | 20                              | Yes                      | 60                               | 60                     |
| Total Tradable Watts* =              |                    |                                 |                          | 120                              | 120                    |
| Total Allowed Watts =                |                    |                                 |                          | 120                              |                        |
| Total Allowed Supplemental Watts** = |                    |                                 |                          | 600                              |                        |

\* Wattage tradeoffs are only allowed between tradable areas/surfaces.

\*\* A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

## Section 3: Exterior Lighting Fixture Schedule

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast  | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures | D<br>Fixture<br>Watt. | E<br>(C X D) |
|--|------------------------|-----------------------|-----------------------|--------------|
| Main entry (3 ft of door width): Tradable Wattage                  |                        |                       |                       |              |
| Incandescent 1: Incandescent 60W:                                  | 1                      | 1                     | 60                    | 60           |
| Other door (not main entry) (3 ft of door width): Tradable Wattage |                        |                       |                       |              |
| Incandescent 2: Incandescent 60W:                                  | 1                      | 1                     | 60                    | 60           |
| Total Tradable Proposed Watts =                                    |                        |                       |                       | 120          |

## Section 4: Requirements Checklist

### Lighting Wattage:

- 1. Within each non-tradable area/surface, total proposed watts must be less than or equal to total allowed watts. Across all tradable areas/surfaces, total proposed watts must be less than or equal to total allowed watts.  
**Compliance:** Passes.

### Controls, Switching, and Wiring:

- 2. All exemption claims are associated with fixtures that have a control device independent of the control of the nonexempt lighting.
- 3. Lighting not designated for dusk-to-dawn operation is controlled by either a photosensor (with time switch), or an astronomical time switch.
- 4. Lighting designated for dusk-to-dawn operation is controlled by an astronomical time switch or photosensor.
- 5. All time switches are capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

### Exterior Lighting Efficacy:

- 6. All exterior building grounds luminaires that operate at greater than 100W have minimum efficacy of 60 lumen/watt.

*Exceptions:*

- Lighting that has been claimed as exempt and is identified as such in Section 3 table above.
- Lighting that is specifically designated as required by a health or life safety statute, ordinance, or regulation.
- Emergency lighting that is automatically off during normal building operation.
- Lighting that is controlled by motion sensor.

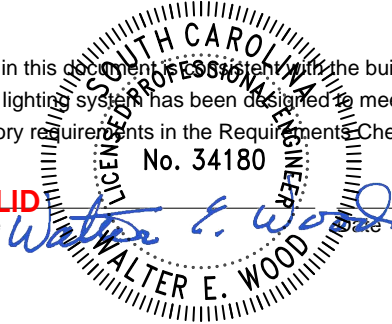
**Exterior Lighting PASSES:** Design 83% better than code.

### Section 5: Compliance Statement

*Compliance Statement:* The proposed exterior lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2009 IECC requirements in COMcheck Version 4.1.5.5 and to comply with the mandatory requirements in the Requirements Checklist.

\_\_\_\_\_  
Name - Title

**VALID**  
Signature



02-24-2023

**APPROVED** **RADCO** **APPROVED**  
**Mar 03, 2023**



# Mechanical Compliance Certificate

## Section 1: Project Information

Energy Code: **2009 IECC**  
Project Title: TMS 7560 27-4X60 BUSINESS  
Project Type: New Construction

**APPROVED** **RADCO** **APPROVED**  
**Mar 03, 2023**

Construction Site:

Owner/Agent:

TITAN MODULAR SYSTEMS, INC  
162 INDUSTRIAL DRIVE  
ALMA, GA 31510

Designer/Contractor:

WALTER E. WOOD P.E.  
168 W. LONGLEAF DRIVE  
SYLVESTER, GA 31791

## Section 2: General Information

Building Location (for weather data): Lexington, South Carolina  
Climate Zone: 3a

## Section 3: Mechanical Systems List

### Quantity System Type & Description

- 2 HVAC System 1 (Single Zone) :  
Heating: 1 each - Other, Electric, Capacity = 34120 kBtu/h  
No minimum efficiency requirement applies  
Cooling: 1 each - Single Package Vertical AC Unit, Capacity = 36000 kBtu/h, Air-Cooled Condenser, Air Economizer  
Proposed Efficiency = 10.00 EER, Required Efficiency: 9.70 EER + 9.4 IPLV  
Fan System: None
- 1 Water Heater 1:  
Electric Storage Water Heater, Capacity: 6 gallons w/ Heat Trace Tape Installed  
No minimum efficiency requirement applies

## Section 4: Requirements Checklist

### Requirements Specific To: HVAC System 1 :

- 1. Equipment minimum efficiency: Single Package Unit: 9.70 EER + 9.4 IPLV
- 2. Discharge dampers prohibited with fan motors > 25 hp
- 3. Integrated economizer is required for this location and system.
- 4. Cooling system provides a means to relieve excess outdoor air during economizer operation.

### Requirements Specific To: Water Heater 1 :

- 1. Water heating equipment meets minimum efficiency requirements: No efficiency requirements for water heater with storage capacity less than 20 gallons.
- 2. First 8 ft of outlet piping is insulated
- 3. All heat traced or externally heated piping insulated
- 4. Hot water storage temperature controls that allow setpoint of 90°F for non-dwelling units and 110°F for dwelling units.
- 5. Automatic time control of heat tapes and recirculating systems present
- 6. Heat traps provided on inlet and outlet of storage tanks

### Generic Requirements: Must be met by all systems to which the requirement is applicable:

- 1. Plant equipment and system capacity no greater than needed to meet loads  
*Exception(s):*
  - Standby equipment automatically off when primary system is operating
  - Multiple units controlled to sequence operation as a function of load
- 2. Minimum one temperature control device per system

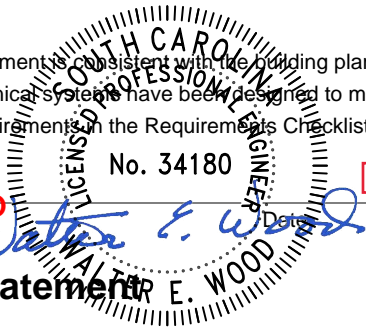
- 3. Minimum one humidity control device per installed humidification/dehumidification system
- 4. Load calculations per ASHRAE/ACCA Standard 183.
- 5. Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup  
*Exception(s):*
  - Continuously operating zones
- 6. Outside-air source for ventilation; system capable of reducing OSA to required minimum
- 7. R-5 supply and return air duct insulation in unconditioned spaces  
R-8 supply and return air duct insulation outside the building  
R-8 insulation between ducts and the building exterior when ducts are part of a building assembly  
*Exception(s):*
  - Ducts located within equipment
  - Ducts with interior and exterior temperature difference not exceeding 15°F.
- 8. Mechanical fasteners and sealants used to connect ducts and air distribution equipment
- 9. Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics
- 10. Hot water pipe insulation: 1.5 in. for pipes ≤1.5 in. and 2 in. for pipes >1.5 in.  
Chilled water/refrigerant/brine pipe insulation: 1.5 in. for pipes ≤1.5 in. and 1.5 in. for pipes >1.5 in.  
Steam pipe insulation: 1.5 in. for pipes ≤1.5 in. and 3 in. for pipes >1.5 in.  
*Exception(s):*
  - Piping within HVAC equipment.
  - Fluid temperatures between 55 and 105°F.
  - Fluid not heated or cooled with renewable energy.
  - Piping within room fan-coil (with AHRI440 rating) and unit ventilators (with AHRI840 rating).
  - Runouts <4 ft in length.
- 11. Operation and maintenance manual provided to building owner
- 12. Thermostatic controls have 5°F deadband  
*Exception(s):*
  - Thermostats requiring manual changeover between heating and cooling
  - Special occupancy or special applications where wide temperature ranges are not acceptable and are approved by the authority having jurisdiction.
- 13. Balancing devices provided in accordance with IMC 603.17
- 14. Demand control ventilation (DCV) present for high design occupancy areas (>40 person/1000 ft<sup>2</sup> in spaces >500 ft<sup>2</sup>) and served by systems with any one of 1) an air-side economizer, 2) automatic modulating control of the outdoor air damper, or 3) a design outdoor airflow greater than 3000 cfm.  
*Exception(s):*
  - Systems with heat recovery.
  - Multiple-zone systems without DDC of individual zones communicating with a central control panel.
  - Systems with a design outdoor airflow less than 1200 cfm.
  - Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1200 cfm.
- 15. Motorized, automatic shutoff dampers required on exhaust and outdoor air supply openings  
*Exception(s):*
  - Gravity dampers acceptable in buildings <3 stories
- 16. Automatic controls for freeze protection systems present
- 17. Exhaust air heat recovery included for systems 5,000 cfm or greater with more than 70% outside air fraction or specifically exempted  
*Exception(s):*
  - Hazardous exhaust systems, commercial kitchen and clothes dryer exhaust systems that the International Mechanical Code prohibits the use of energy recovery systems.
  - Systems serving spaces that are heated and not cooled to less than 60°F.
  - Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.
  - Heating systems in climates with less than 3600 HDD.
  - Cooling systems in climates with a 1 percent cooling design wet-bulb temperature less than 64°F.
  - Systems requiring dehumidification that employ energy recovery in series with the cooling coil.
  - Laboratory fume hood exhaust systems that have either a variable air volume system capable of reducing exhaust and makeup air volume to 50 percent or less of design values or, a separate make up air supply meeting the following makeup air requirements:
    - a) at least 75 percent of exhaust flow rate, b) heated to no more than 2°F below room setpoint temperature, c) cooled to no lower than 3°F above room setpoint temperature, d) no humidification added, e) no simultaneous heating and cooling.

**RADCO**  
**Mar 03, 2023**

APPROVED

## Section 5: Compliance Statement

*Compliance Statement:* The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2009 IECC requirements in COMcheck Version 4.1.5.5 and to comply with the mandatory requirements in the Requirements Checklist.



\_\_\_\_\_  
Name - Title

\_\_\_\_\_  
Signature

**VALID**

*Walter E. Wood*

\_\_\_\_\_  
Date

02-24-2023

## Section 6: Post Construction Compliance Statement

- HVAC record drawings of the actual installation, system capacities, calibration information, and performance data for each equipment provided to the owner.
- HVAC O&M documents for all mechanical equipment and system provided to the owner by the mechanical contractor.
- Written HVAC balancing and operations report provided to the owner.

The above post construction requirements have been completed.

\_\_\_\_\_  
Principal Mechanical Designer-Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**APPROVED**  
**RADCO**  
**Mar 03, 2023**  
**APPROVED**

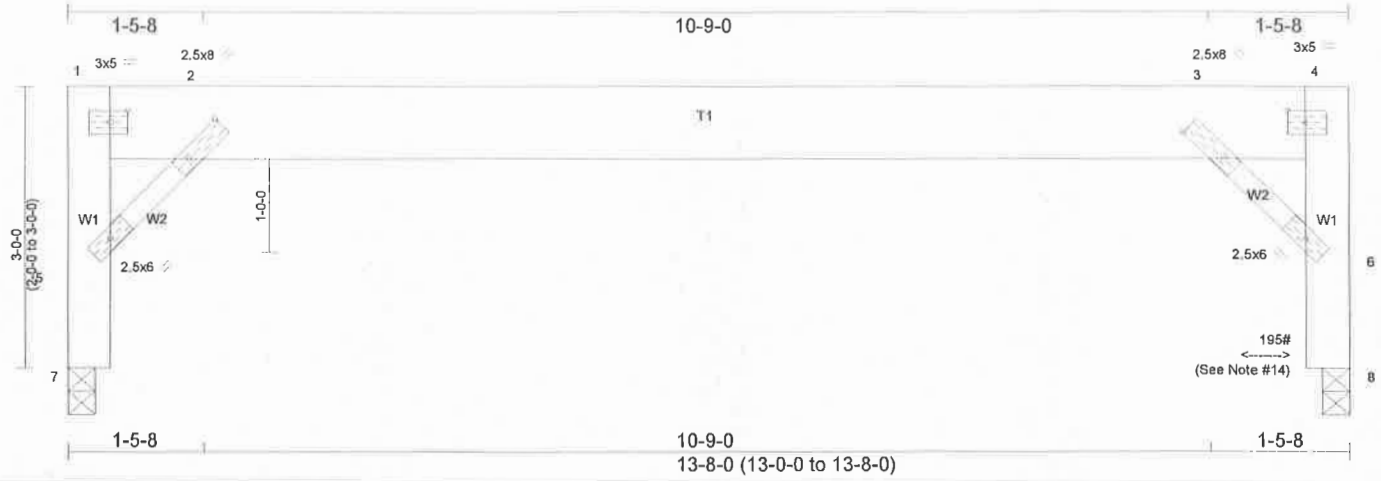


Plate Offsets (X,Y)-- [1:0-2-4,0-1-8], [2:0-6-0,0-1-4], [3:0-6-0,0-1-4], [4:0-2-4,0-1-8]

| LOADING (psf)      | SPACING-        | 1-0-0           | CSI.     | DEFL.    | in (loc) | l/defl | L/d  | PLATES | GRIP    |
|--------------------|-----------------|-----------------|----------|----------|----------|--------|------|--------|---------|
| TCLL 23.1          | Plate Grip DOL  | 1.15            | TC 0.66  | Vert(LL) | 0.35     | 2-3    | >456 | MT20   | 244/190 |
| (Ground Snow=30.0) | Lumber DOL      | 1.15            | BC 0.00  | Vert(CT) | 0.32     | 2-3    | >499 |        |         |
| TCDL 15.0          | Rep Stress Incr | YES             | WB 0.17  | Horz(CT) | -0.51    | 8      | n/a  |        |         |
| BCLL 0.0 *         | Code            | IBC2018/TPI2014 | Matrix-R |          |          |        |      |        |         |
| BCDL 0.0           | Code            | IBC2015/TPI2014 |          |          |          |        |      |        |         |

**LUMBER-**  
 TOP CHORD 2x10 SP No.2  
 WEBS 2x6 SP No.2 \*Except\*  
 W2: 2x3 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied for 5'-0" purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc spacing.

**REACTIONS.** (lb/size) 7=252/0-3-8 (min. 0-1-8), 8=252/0-3-8 (min. 0-1-8)  
 Max Horz 7=-66(LC 7)  
 Max Uplift 7=-146(LC 7), 8=-146(LC 8)

**FORCES.** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 5-7=-252/325, 1-5=-261/856, 1-2=-181/203, 2-3=-269/269, 3-4=-181/203, 6-8=-252/325, 4-6=-261/856  
 WEBS 2-5=-710/677, 3-6=-710/677

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=6.0psf; BCDL=-1.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 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
  - 2) TCLL: ASCE 7-16; Pg=30.0 psf; Ps=23.1 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
  - 3) Roof design snow load has been reduced to account for slope.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) The bottom chord dead load shown is sufficient only to cover the truss weight itself and does not allow for any additional load to be added to the bottom chord.
  - 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) Bearing at joint(s) 7, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 7 and 146 lb uplift at joint 8.
  - 9) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - 12) This truss is designed in accordance with the 2015 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
  - 13) When adjusting the variable span dimension, adjust the post placement dimensions proportional to the change in span.
  - 14) This design has been checked for a horizontal wind load as shown.
  - 15) Based on: F0645603
  - 16) Revision: Decreased height!

Electrical Weight: 67 lb FT = 0%  
**Brian Washko P-187**  
**RADCO**  
**3-Mar-23**  
**James Slaght, MCP**  
**P-173, SMP 63**  
**U02528**



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.



# UFP INDUSTRIES

| Job    | Truss    | MFG | Customer              |
|--------|----------|-----|-----------------------|
| 104721 | F0645604 | 316 | TITAN MODULAR SYSTEMS |

The professional engineering seal indicates that a licensed professional has reviewed the design under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use a design 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.



Electrical  
**Brian Washko P-187**  
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**3-Mar-23**  
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APPROVED

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