#### **GENERAL NOTES:**

- 1. ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION APPROVAL. THE PRIMARY ENTRANCE MUST BE ACCESSIBLE.
- 2. ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
- ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
- ALL STEEL STRAPS REFERENCED ON FLOOR PLAN SHALL BE 1.5 INCH x 26 GA. WITH 7-15 Ga. x 7/16 inch crown x 1 inch staples each end of strap or equivalent from Ridge Beam to Column, and column to floor.
- PORTABLE FIRE EXTINGUISHER PER N.F.P.A. 10 INSTALLED BY OTHERS ON SITE, AND SUBJECT TO LOCAL JURISDICTION.
- 6. PROVISIONS FOR EXIT DISCHARGE LIGHTING ARE THE RESPONSIBILITY OF THE BUILDING OWNER AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN (INCLUDING EMERGENCY LIGHTING, WHEN REQUIRED).
- 7. WHEN LOW SIDES OF ROOF PROVIDE LESS THAN 6" OF OVERHANG, GUTTERS AND DOWN SPOUTS SHALL BE SITE INSTALLED, DESIGNED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
- 8. IN WIND-BORNE DEBRIS REGIONS, EXTERIOR GLAZING SHALL BE IMPACT RESISTANT OR PROTECTED WITH AN IMPACT RESISTANT COVERING MEETING THE REQUIRMENTS OF AN APPROVED IMPACT RESISTANT STANDARD, OR ASTM E1996. WIND-BORNE DEBRIS REGIONS ARE DESIGNATED IN SECTION 1609 OF THE NCBC.
- 9. WINDOWS AND DOORS MUST BE CERTIFIED FOR COMPLIANCE WITH THE WIND DESIGN PRESSURE FOR COMPONENTS AND CLADDING.
- 10. DESIGNED TO COMPLY WITH NC CLIMATE ZONE 3A.

#### ! ATTENTION LOCAL INSPECTIONS DEPARTMENT! SITE INSTALLED ITEMS:

THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED BY THE MANUFACTURER, HAVE NOT BEEN INSPECTED BY THIRD PARTY AND ARE NOT CERTIFIED BY THE STATE MODULAR LABEL NOTE THAT HIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIAL THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL. CODE COMPLIANCE MUST BE DETERMINED AT THE LOCAL LEVEL.

- 1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
- 1. THE COMPLETE FOOTBALL SPEND AND THE BUILDING.

  3. PORTABLE FIRE EXTINGUISHER(S).

  4. ELECTRICAL SERVICE HOOK—UP (INCLUDING FEEDERS) TO THE BUILDING.

  THE BUILDING.

STRUCTURAL LOAD LIMITATIONS:

C. CONCENTRATED LIVE LOAD = 2000 LB. OVER 30 INCH X 30 INCH

Pg = 20 PSF Pf = 20 PSF

ASCE 7-10

Vult = 130 MPH

ls = 1.0

AREA LOCATED ANYWHERE ON FLOOR. NOTE: UNIFORM AND CONCENTRATED LIVE LOADS ARE NOT SIMULTANEOUSLY APPLIED.

D. WIND IMPORTANCE FACTOR: Iw=1.0 E. INTERNAL PRESSURE COEFFICIENT: GCpi=0.18

ROOF ZONE 3: P = -92.9 PSF (Pasd = -55.8 PSF)

ROOF ZONE 2: P = -61.7 PSF (Past = -37.0 PSF)

ROOF ZONE 1: P = -36.8 PSF (Pasd = -22.1 PSF)

WALL ZONE 5: P = +/-49.2 PSF (Pasd = +/-29.5 PSF)

WALL ZONE 4: P = +/-39.9 PSF (Pasd = +/-24.0 PSF)

G. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER

HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT.

- INC. BUILDING.

  5. THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS

  6. CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE
  MATELINE(S) (MULTI-UNITS ONLY).

  7. STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES
- (MULTI-UNITS ONLY).
- (MOLTI-UNIT) ONLT):

  8. FIRE INSPECTION

  9. GLAZED OPENING PROTECTION (SEE GENERAL NOTE NO. 8)

  10. BUILDING DRAINS, CLEANOUTS, HOOK-UPS TO PLUMBING SYSTEM, & DRINKING FOUNTAIN.

FLOOR DEAD AND LIVE LOAD: A. DEAD LOAD = 12 PSF (AVERAGE).

ROOF DEAD AND LIVE LOAD:

R. FLAT-ROOF SNOW LOAD:

C. SNOW EXPOSURE FACTOR:

D. SNOW IMPORTANCE FACTOR:

C. WIND EXPOSURE CATEGORY:

A. RISK CATEGORY IS II.

R SEISMIC IMPORTANCE FACTOR IS 1.0 C. SEISMIC SITE CLASS IS D.

D. SPECTRAL RESPONSE COEFFICIENTS

Sds = 0.202 Sd1 = 0.14 E. SEISMIC DESIGN CATEGORY IS C.

F. SEISMIC FORCE RESISTING SYSTEM IS A15. G. EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE H. RESPONSE MODIFICATION FACTOR R = 6.5.

I. SEISMIC RESPONSE COEFFICIENT Cs = 0.04

J. DESIGN BASE SHEAR V = 1609 LBS

B. LIVE LOAD = 20 PSF.

ROOF SNOW LOAD: A. GROUND SNOW LOAD:

WIND LOAD:

A. WIND SPEED:

B. WIND SPEED:

B. UNIFORM LIVE LOAD = 50 PSF

A. DEAD LOAD = 13 PSF (AVERAGE).

1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
2. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES ARD ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES ARD ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "CLOSET STORAGE SPACE" AS DEFINED BY NEC ARTICLE 410.2.
3. WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT SHEAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.

**ELECTRICAL NOTES:** 

- IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.

  4. HYAC GOUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED OFF POSITION THAT IS A PART OF THE HYAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.

  PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH ARTICLES 110.9 & 110.10 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.

  6. THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.

  7. ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES, OR CABLE CONNECTORS.

  8. ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROCOF (WF) ENCLOSURES. THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT FULL GAPS. INSERTED REMOVED. 15 & 20 AMP EXTERIOR RECEPTS SHALL BE LISTED AS WEATHER RESISTANT.

  9. EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A

- 9. EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A

#### SPECIAL CONDITIONS & REQUIREMENTS:

- ANY SITE ADDED STRUCTURES MUST BE INDEPENDENT OF THE FACTORY BUILDING UNLESS THE ENTIRE BUILDING IS REVALUATED BY THE SITE ENGINEER
- TYPICAL FOLINDATION LAYOUT SHOWN IN THIS PACKAGE IS TO AID THE SITE ENGINEER/ARCHITECT FOR LOCATIONS OF REQUIRED SUPPORTS. ACTUAL FOUNDATION MUST BE DESIGNED TO SITE CONDITIONS FOR ALL APPLICABLE LOADS. THIS INCLUDES ATTACHING THE BUILDING TO THE FOUNDATION, ALONG WITH THE RESISTANCE TO LATERAL, LONGITUDINAL SHEAR, UPLIFT AND DOWNWARD FORCES IN BOTH DIRECTIONS. REFER TO BRACING PAGE FOR APPLICABLE BRACING/SEISMIC LOADS FOR ATTACHING
- ENGINEER SEAL APPLIES ONLY TO FACTORY MANUFACTURED STRUCTURAL PORTION OF THE BUILDING. SEAL DOES NOT APPLY TO SITE INSTALLED ELEMENTS OR PORTIONS BUILT ON SITE SUCH AS, BUT NOT LIMITED TO: FOUNDATION, BRACING TIE DOWN TO FOUNDATION, EXTERIOR STEPS, OR OTHER SITE WORKS, SITE WORK MUST BE DESIGNED BY OTHERS FOR SITE CONDITIONS, UNDER LOCAL JURISDICATION.

#### NC 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. REFER TO THE FOLLOWING SECTIONS OF THE PLAN SET AND INSTALLATION FOR IMPORTANT INFORMATION CONCERNING THE INSTALLATION OF THE MODULAR BUILDING.

- THE INTERCONNECTION BETWEEN BUILDING MODULES AT THE FLOOR AND ROOF SHALL BE SPECIFIED ON THE CROSS SECTION DRAWING ON THE PLAN SET.
- 2. BUILDING TIE DOWN AND ANCHORAGE REQUIREMENTS ARE AS INDICATED ON
- 3. ELECTRICAL INTERCONNECTIONS BETWEEN BUILDING MODULES SHALL BE PER PAGES E1.2, E2.0, E2.1, E2.2, E4.1 OF THE INSTALLATION INSTRUCTIONS (IF APPLICABLE).
- 4. MECHANICAL INTERCONNECTIONS BETWEEN BUILDING MODULES SHALL BE PER PAGES E1.0, E2.4, E2.5 OF THE INSTALLATION INSTRUCTIONS (IF APPLICABLE).
- 5. PLUMBING INTERCONNECTIONS BETWEEN BUILDING MODULES SHALL BE PER PAGES E1.1, E1.2, E2.3, E4.1 OF THE INSTALLATION INSTRUCTIONS (IF APPLICABLE).
- 6. FIRE BLOCKING SHALL BE PROVIDED PER SECTION 718.2 AND 1406.2.3 OF THE N.C. BUILDING CODE (AS APPLICABLE).
- AIR INFILTRATION AT MODULE MATE LINES SHALL BE LIMITED BY INSTALLING SILL TAPE ALONG THE MATE LINES DURING SET UP AND/OR BY INSTALLING CONTINUOUS SHEATHING ACROSS THE MATE LINE JOINTS AFTER SET UP.

BUILDING:

2018 NCBC

2018 NCFPC

#### **BUILDING DESIGN PARAMETERS:**

BUSINESS

VΒ

1494 S.F.

\_\_\_\_NOT\_RATED

< 15 FFFT

- USE/OCCUPANCY:
- 2. CONSTRUCTION TYPE: SPRINKLER SYSTEM:
- BUILDING AREA:
- 5. BUILDING HEIGHT:
- 6. NUMBER OF STORIES:
- 7. NUMBER OF MODULES:
- 8. OCCUPANT LOAD  $\underline{15}$  BASED ON  $\underline{100}$  SF/PERSON.
- 9. EXTERIOR WALL FIRE RATING:
- 10. THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY NCBC TABLE 602
  AND SECTION 705.3.
- 11. ENERGY CODE COMPLIANCE: SEE ATTACHED ENERGY
- 12. MANUFACTURERS DATA PLATE, STATE LABELS AND THIRD PARTY LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.

#### CODE SUMMARY: ELECTRICAL MECHANICAL PLUMBING: ACCESSIBILITY: **ENERGY** NCBC 2018 CH. 11 2020 NC 2018 NC 2018 NCMC 2018 NCPC AND ICC/ANSI ELEC. CODE ENERGY CODE A117.1 - 2009

#### MECHANICAL NOTES:

- . ALL SUPPLY AIR REGISTERS SHALL BE 10 INCHES  $\times$  10 INCHES ADJUSTABLE WITH 8 INCHES  $\times$  18 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT. UNLESS OTHERWISE SPECIFIED, DUCTS IN UNCONDITIONED SPACES SHALL DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS IN UNCONDITIONED SPACES SHALL
  HAVE R-6 MINIMUM INSULATION EXCEPT DUCTS EXPOSED TO VENTILATED ATTICS
  AND CRAWL SPACES SHALL HAVE R-8 INSULATION.

  2. INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR
  FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN (FOR UNRATED DOORS)

  3. HYAC EQUIPMENT SHALL BE EQUIPPED W/OUTSIDE FREASH AIR INTAKES PROVIDING
  5 CFM PER OCCUPANT & 0.06 CFM PER S.F OF BLDG. AREA PER SECTION 403.3 OF NCMC

- VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY WHEN BUILDING IS OCCUPIED.
- VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
- 6. THERMOSTATS MUST BE PROGRAMMABLE
- EXHAUST FANS SHALL PROVIDE A MINIMUM OF 70 CFM FOR EACH WATER CLOSET & URINAL AND SHALL VENT NO CLOSER THAN 10 FEET FROM MECHANICAL INTAKE.

#### WINDOW & DOOR SPECIFICATIONS:

- DOUBLE PANE WINDOWS ARE REQUIRED FOR ALL CLIMATE ZONES. SEE THE COMCHECK ENERGY CACULATIONS FOR THE MAXIMUM ALLOWED U-FACTOR AND SHCHC.
   THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR WINDOWS IS 0.3 CFM PER SQUARE FEET OF WINDOW AREA.
   THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR EXTERIOR DOORS IS 0.3 CFM PER SQUARE FEET OF DOOR AREA.

#### **PLUMBING NOTES:**

- TOILETS SHALL BE ELONGATED WITH NONABSORBENT OPEN FRONT SEATS.
  REST ROOM WALLS SHALL BE COVERED WITH NONABSORBENT MATERIAL
  TO A MINIMUM HEIGHT OF 48 INCHES A.F.F.
  FLOORS SHALL HAVEA SMOOTH, HARD, NONABSORBENT SURFACE THAT EXTENDS
  UPWARD ONTO THE WALLS AT LEAST 6 INCHES.
- THIS BUILDING SHALL BE CONNECTED TO A PUBLIC WATER SUPPLY AND SEWER SYSTEM IF THESE ARE AVAILABLE.

- WATER, SOIL, AND WASTE PIPES IN UNCONDITION SPACES SHALL BE INSULATED AND PROTECTED FROM FREEZING.
- PROTECTED FROM FREZING.

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

- CUSTOMER ASSUMES ALL RESPONSIBILTY FOR REQUIRED PLUMBING FIXTURES WHEN NOT SHOWN ON PLAN.
  TEMPERATURE ACTUATED MIXING VALVES WHICH ARE INSTALLED TO REDUCE WATER TEMPERATURE TO DEFINE LIMITS SHALL COMPLY WITH ASSE 1017
  TEMPERED WATER SHALL BE SUPPLIED THROUGH A WATER TEMP LIMITING DEVICE THAT CONFORMS TO ASSE 1070 AND SHALL LIMIT THE TEMPERED WATER TO A MAX OF 110F(43C)

- SYSTEM IF THESE ARE AVAILABLE.

  ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUTOFF VALVES.

  WATER HEATER SHALL HAVE SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR,

  T & P RELIEF VALVE WITH DRAIN TO THROUGH AN AIR GAP 2" to 6" ABOVE PAN
  AND A SHUT OFF VALVE WITHIN 3 FEET ON A COLD WATER SUPPLY LINE.

  DWV SYSTEM SHALL BE EITHER ABS OR PVC DWV.

  WATER SUPPLY LINES SHALL BE CPVC, OR COPPER, AND SHALL BE INSTALLED IN
  ACCORDANCE WITH THE MANUFACTURERS LIMITATIONS AND INSTRUCTIONS.

  WATER CLOSETS ARE TANK TYPE UNLESS OTHERWISE SPECIFIED.

- WATER CLOSE'S ARE TANK TYPE UNLESS OTHERWISE SPECIFIED.

  BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS,

  SUBJECT TO LOCAL JURISDICTION APPROVAL.

  SHOWERS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE WITH A

  MAXIMUM WATER OUTLET TEMPERATURE OF 120F (48.8C).

  THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLED, AND IF

  NOT SHOWN ON PLUMBING PLAN, IS DESIGNED AND SITE INSTALLED BY OTHERS,

  SUBJECT TO LOCAL APPROVAL.

  WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED

  ON THE HEATED SIDE OF THE WALL INSULATION.



INIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.

17. TOILET STALL DOORS SHALL BE THE SELF-CLOSING TYPE.

ACCESSIBILITY NOTES

THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL
ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS
ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE
DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.

2. ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY BENDING.

SHALL BE MAJE FOR INDIVIDUALS WIN HAVE DIFFICULT BENDING.

WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS AND DRAWERS ARE
PROVIDED AT LEAST ONE TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING
WITH THE FOLLOWING: DOORS ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (I.E. TOUCH
LATCHES, U—SHAPED PULLS); SPACES SHALL BE 15 INCHES MINIMUM AND 48 INCHES
MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH OR SIDE REACH; CLOTHES ROOS OR
COAT HOOKS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM
WHEN DISTANCE FROM WHEEL CHAIR TO ROD EXCEEDS 10 INCHES). SHELVES IN KITCHENS
OR TOILET ROOMS SHALL BE 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ADVE IN FLOOR.

CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 48 INCHES ABOVE THE FLOOR, RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR, EXCEPTION; HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.

WHERE EMERGENCY WARNING SYSTEMS ARE PROVIED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGHOUT, INCLUDING RESTROOM, AND PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW CEILING, WHICHEVER IS LOWER.

6. ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM. THE MAXIMUM FORCE REQUIRED FOR PUSHING OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL NOT EXCEED 5 LBS. FOR ALL SLIDIK, FOLDING, AND INTERIOR HINGED DOORS.

EXCELD 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR HINGED DOORS.

FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. CHANGES IN LEVEL BETWEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2 CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.

FLOOR TO THE TOP OF THE SEAT, GRAB BARS SHALL BE 36 INCHES LONG MINIMUM WHEN LOCATED BEHIND WATER CLOSET AND 42 INCHES MINIMUM WHEN LOCATED ALONG SIDE OF WATER CLOSET, AND SHALL BE MOUNTED 33 INCHES TO 36 INCHES ABOVE THE FLOOR. IN ADDITION, A VERTICAL GRAB BAR 18 INCHES MINIMUM IN LENGTH SHALL BE MOUNTED ON THE SIDEWALL WITH THE BOTTOM OF THE BAR LOCATED BETWEEN 39 AND 41 INCHES ABOVE THE FLOOR, AND WITH THE CENTER LINE OF THE BAR LOCATED BETWEEN 39 INCHES AND 41 INCHES FROM THE REAR WALL.

8. ACCESSIBLE WATER CLOSETS SHALL BE 17 INCHES TO 19 INCHES, MEASURED FROM THE FLOOR TO THE TOP OF THE SEAT. GRAB BARS SHALL BE 36 INCHES LONG MINIMUM

ACCESSIBLE URINALS SHALL BE STALL—TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR.

10. ACCESSIBLE LAVATORIES AND SINKS SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR. KNEE CLEARANCE OF AT LEAST 27 INCHES HIGH MUST BE PROVIDED WITH A MINIMUM DEPTH OF 8 INCHES BENEATH THE FIXTURE, AND 9 INCHES HIGH MINIMUM WITH A MINIMUM DEPTH OF 11 INCHES BENEATH THE FIXTURE. THE KNEE SPACE MUST BE AT LEAST 30 INCHES WIDE.

PROTECTION MATERIALS MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.

12. ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESIBLE FAUCETS (I.E. LEVER-OPERATED, PUSH TYPE, ELECTRONICALLY CONTROLLED).

13. MIRRORS LOCATED ABOVE LAVATORIES, SINKS OR COUNTERS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE A MAXIMUM OF 40 INCHES ABOVE THE FLOOR. OTHER MIRRORS IN TOILET ROOMS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FLOOR.

14. GRAB BARS HAVING A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1.25 INCHES MINIMUM AND 2.0 INCHES MAXIMUM. THE SPACE BETWEEN THE GRAB BAR AND THE

15. WATER CLOSET FLUSH CONTROL SHALL BE INSTALLED A MAXIMUM OF 36 INCHES ABOVE THE FLOOR AND SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.

16. DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (I.E. LEVER - OPERRATED, PUSHTYPE, U-SHAPED) MOUNTED WITH OPERABLE PARTS BETWEEN 34 INCHES

18. A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVTORIES.

11. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. INSULATION OR

R. JOHNSON **APPROVED** 02 21 2023

COVER SHEET SHEET: 1 OF 5 FLOOR PLAN SHEET: 2 OF 5 |PANELS/RISERS|SHEET: 3 OF 5| ELEVATIONS SHEET: 4 OF 5 X-SECTION SHEET: 5 OF 5 FOUNDATION SHEET: 1 OF 1

CONSULTING ENGINEER: KENNETH EARL DUNMON P.E. PO BOX 6853 - AMERICUS, GA 31719 - 229-942-2020

> H CARO OFESSION . SEAL 017400

WALL SHALL BE 1.5 INCHES.

FIRST STRING SPACE, INC

OUR STRENGTH IS TEAMWORK

892 RAILROAD AVENUE EAST PEARSON, GA. 31642 TEL (912)422-6455

FAX (912)422-6466

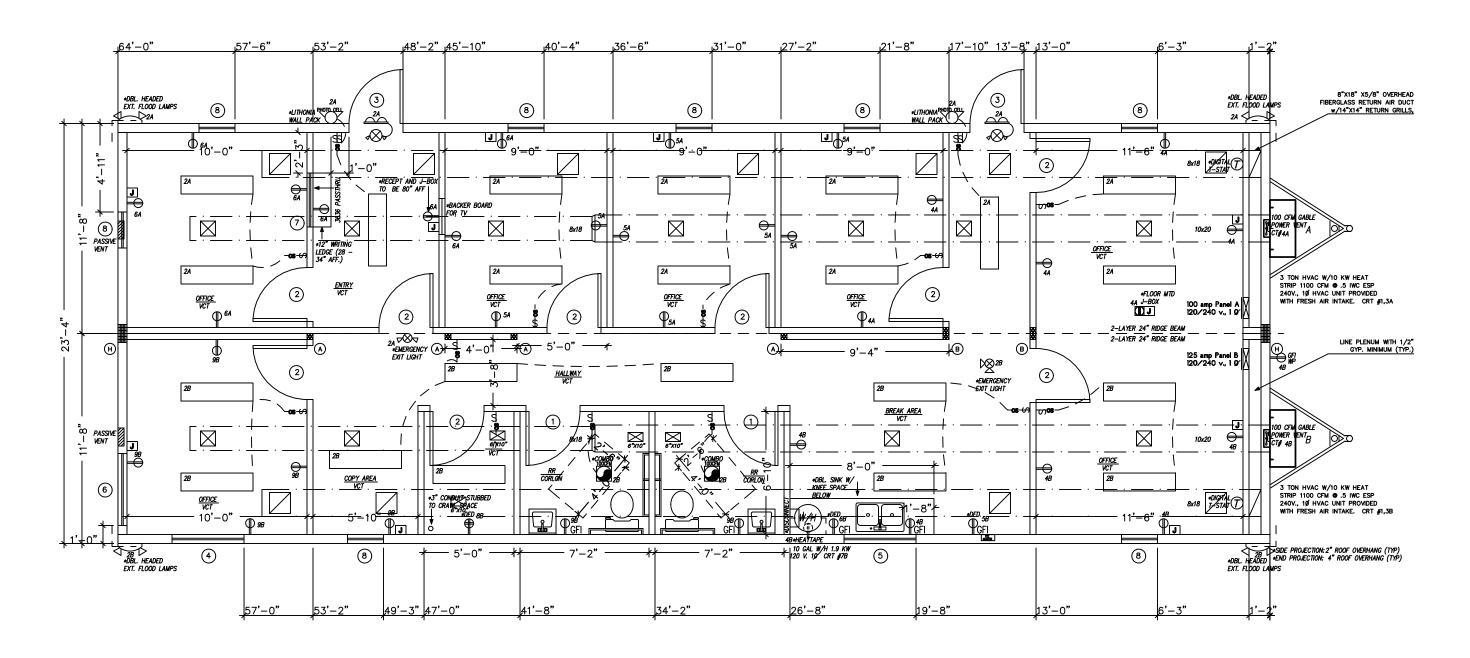


#### SERIAL NUMBER: FSSI-10911AB REFERENCE # FSS-1091IAB DATE: JANUARY 25, 2023 DESTINATION: BUNNLEVEL, NC DRAFTSMAN: BRANDON R. DOYLE SIZE: 23'-4" x 64' (DOUBLE-WIDE) SCALE: NO SCALE REVISIONS: N/A CODES: 2018 NCBC (2015 IBC W/ NC AMENDS) PLAN NO: ESS 10911AB (NC) COVER SHEET SHEET: 1 OF 5

FP: M:\Drafting\Shared DWG\BRANDON'S DRAWINGS\ENGINEERED PLANS\FSSI-10911AB (NC).aec

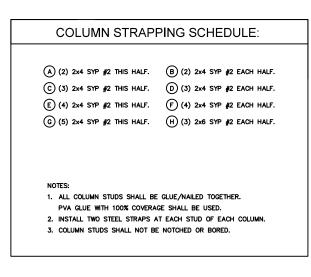
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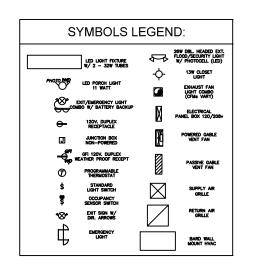
NORTH CAROLINA



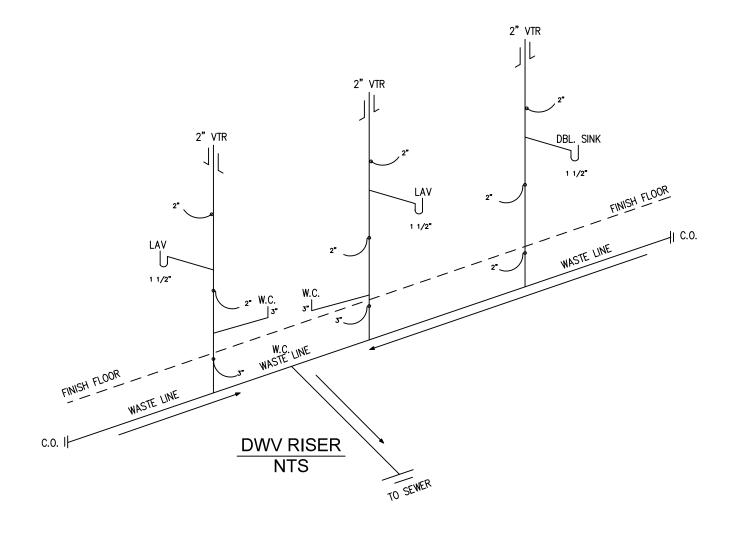


- (1) INTERIOR DOOR: 36"x80" SOLID CORE, FLUSH WITH STEEL JAMB
  REDI-FRAME WITH LEVER, IMPERIAL OAK FINISH WITH BRONZE, PRIVACY LOCK
- (2) INTERIOR DOOR: 36"x80" SOLID CORE, FLUSH WITH STEEL JAMB
  REDI-FRAME WITH LEVER, IMPERIAL OAK FINISH WITH BRONZE, PASSAGE LOCK
- (3) EXTERIOR DOOR: 36"x80" STEEL FRAME/DOOR WITH 6"x30" VIEW BLOCK, STANDARD TELL LEVER AND TELL CLOSURE
- 4 EXTERIOR WINDOW: CROFT 48"x44" SERVICE WINDOW, IMPACT/SMASH RESISTANT SLIDING, LOW E INSULATED GLASS
- (5) EXTERIOR WINDOW: CROFT 48"x28" BRONZE METAL FRAME WINDOW, HORIZONTAL SLIDING, LOW E INSULATED GLASS
- (6) EXTERIOR WINDOW: CROFT 48"x36" BRONZE METAL FRAME WINDOW, FIXED LOW E INSULATED GLASS
- (7) INTERIOR WINDOW: CROFT 36"x36" PASS-THRU/WALK-UP STYLE W/ 12" WRITING LEDGE
- (8) EXTERIOR WINDOW: CROFT 24"x54" BRONZE METAL FRAME WINDOW, VERTICAL SLIDING, LOW E INSULATED GLASS









(A) ELECTRICAL PANEL SCHEDULE:					
CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)		
1,3	HVAC (3 Ton)	60A (2P) HACR	6-2 SE w/#10 GRND		
2	LIGHTING, FANS	20A	12-2 NM		
4,5,6	RECEPTACLES & FANS	20A	12-2 NM		
-	WATER HEATER	20A	10-2 NM		
_	DED. RECEPTS	20A	12-2 NM		

# **ELECTRICAL PANEL SIZING:**

DESCRIPTION	KVA	
.0035 kW/SF x 747 SF x 1.25 22 RECEPTS @ 180 VA / 1000 1 FANS @ .3 kW x 1.25 0 WATER HEATER @ 6.5kW	= 3.3 = 4.0 = .4 = -	
0 DED. RECEPT <b>②</b> 1.9kW x 1.25 1 HVAC	= <u> </u>	
18.2 TOTAL kW		

\_\_\_\_\_\_\_\_ AMPS

TOTAL / 240 x 1000

120/240 V, 1 PHASE

INSTALL 100 AMP PANEL

` ′			
CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1,3	HVAC (3 Ton)	60A (2P) HACR	6-2 SE w/#10 GRND
2	LIGHTING, FANS	20A	12-2 NM
4,9	RECEPTACLES	20A	12-2 NM
7	WATER HEATER	20A	12-2 NM
5,6,8	DED. RECEPTS	20A	12-2 NM

## **ELECTRICAL PANEL SIZING:**

DESCRIPTION		KVA
.0035 kW/SF x 747 SF x 1.25	=	3.3
14 RECEPTS @ 180 VA / 1000	=	2.5
3 FANS @ .3 kW x 1.25	=	1.2
1 WATER HEATER @ 1.9kW x 1.25	=	2.4
2 DED. RECEPT @ 1.9kW x 1.25	=	4.8
1 DED. QUAD RECEPT @ 3.8kW x 1.25	=	4.8
1 HVAC	=	10.5
29.5 TOTAL kW		
TOTAL / 240 x 1000 = 123 AMPS		
INSTALL 125 AMP PANEL		
120/240 V, 1 PHASE		

## PLUMBING & SUPPLY LINE NOTES:

- 1. ALL SUPPLY LINES TO BE CPVC EXCEPT WHERE NOTED OTHERWISE.
  2. ALL JOINTS TO BE MANUFACTURER APPROVED METHODS.
  3. ALL STITINGS TO BE PLASTIC, CHROME, BRASS, OR OTHER APPROVED MATERIAL.
  4. ALL SUPPLY LINES TO HAVE APPROVED SHITOFT VALVES.
  5. LINES TO BE SUPPORTED VERTICALLY MANAMIAM 48° O.C.
  6. LINES TO BE SUPPORTED HORIZONTALLY MAXMAM 30° O.C.
  7. ALL PRING BELOW FLOOR NOT CONCEALED IN FLOOR COMITY TO BE INSULATED WITH IMMINIAUM R-4.
  8. INTERCONNECTION OF SEPARATE WAITER HEATERS TO BE DONE ON SITE BY LICENSED PLUMBER AND SUBJECT TO LOCAL CODE AUTHORITY.

SUPPLY LINE SIZING IS BASED ON AN ASSUMED AVAILABLE PRESSURE OF 46 TO 60 PSI. SHOULD BE VARIFIED PRIOR TO CONSTRUCTION.

# **DWV RISER NOTES:**

1. THE DWV RISER INDICATES ONE METHOD OF INSTALLATION BELOW THE FLOOR PIPING. OTHER APPROVED METHODS MAY BE USED AS NEEDED TO ACCOMMODATE THE ACTUAL SITE CONDITIONS.

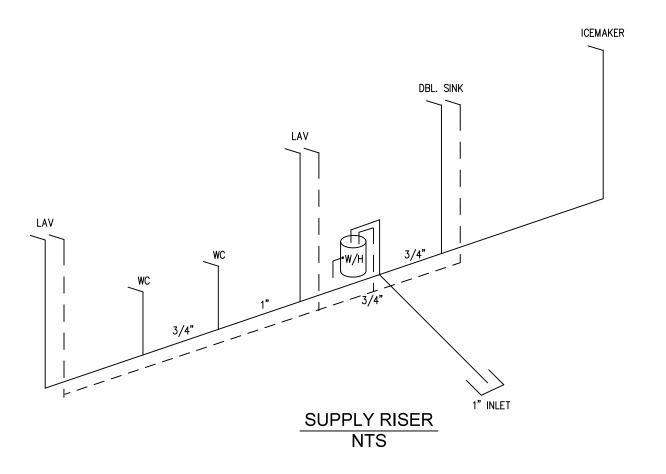
2. ALL BELOW FLOOR PIPING AND FITTINGS ARE TO BE SUPPLIED AND INSTALLED ON ISTE BY OTHERS.

3. 1–1/2" and 2 inch horizontal drain lines shall be installed with a slope of 1/4" per foot.

4. Below floor horizontal drain lines are 3 inch minimum diameter unless indicated otherwise.

5. A MAXIMUM OF 3 WATER CLOSETS MAY DISCHARGE INTO A 3 INCH LINE.

6. CHANGES IN DIRECTION SHALL BE MADE WITH FITTINGS AS INDICATED IN TABLE 706.3. VERTICAL TO HORIZONTAL AND HORIZONTAL TO VERTICAL CHANGES OF DIRECTION ARE TO BE MADE WITH LONG SWEEP FITTINGS.





CONSULTING ENGINEER: KENNETH EARL DUNMON P.E. PO BOX 6853 - AMERICUS, GA 31719 - 229-942-2020

# FIRST STRING SPACE, INC.

OUR STRENGTH IS TEAMWORK

892 RAILROAD AVENUE EAST PEARSON, GA. 31642

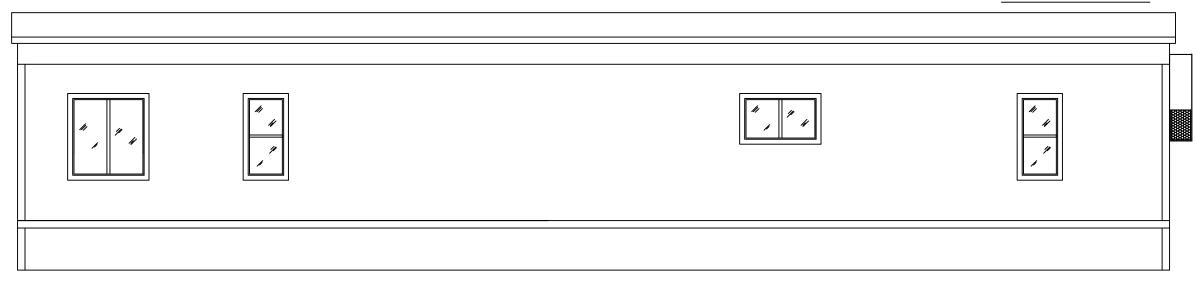
TEL (912)422-6455 FAX (912)422-6466



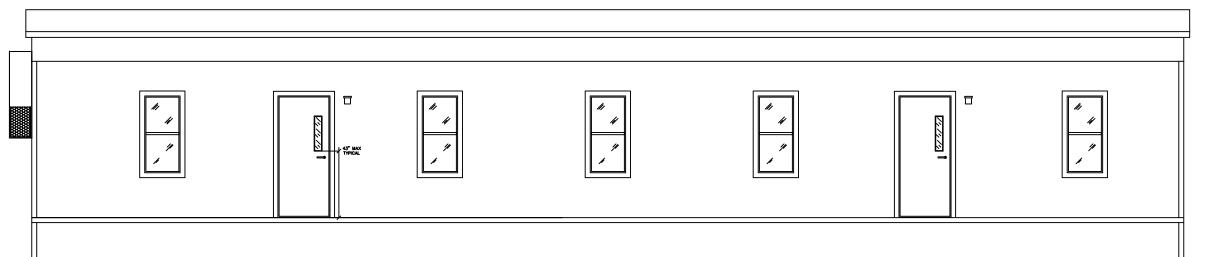
#### SERIAL NUMBER: FSSI-10911AB REFERENCE \* FSS-10911AB STATES: NC DATE: JANUARY 25, 2023 DESTINATION: BUNNLEVEL, NC DRAFTSMAN: BRANDON R. DOYLE SIZE: 23'-4" x 64' (DOUBLE-WIDE) SCALE: NO SCALE REVISIONS: N/A CODES: 2018 NCBC (2015 IBC W/ NC AMENDS) PLAN NO: FSS 10911AB (NC) PANEL CALCS & RISERS SHEET: 3 OF 5

FP: M:\Drafting\Shared DWG\BRANDON'S DRAWINGS\ENGINEERED PLANS\FSSI-1091IAB (NC).aec

## REAR ELEVATION



## FRONT ELEVATION



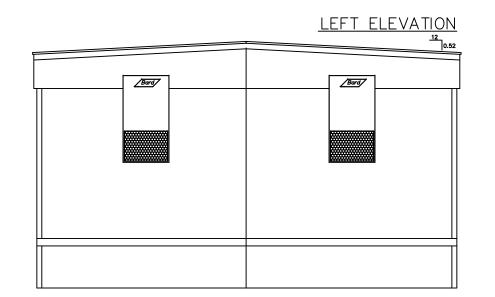
#### **ELEVATION NOTES (TYP.):**

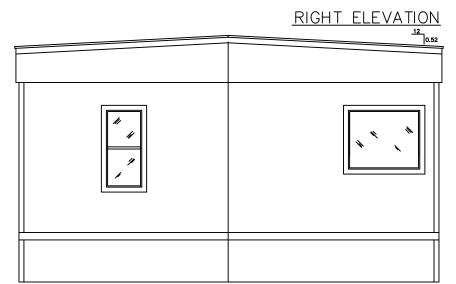
SEE-CROSS SECTION FOR METHOD OF ROOF VENTILATION

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.

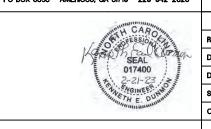
ELEVATIONS SHOWN ON THIS PAGE REPRESENT BASIC COMPONENTS & ARE NOT INTENDED TO BE ALL INCLUSIVE NOR DO THESE ELEVATIONS DETAIL EVERY CODE REQUIRED ASPECT OF THIS BLDG. SITE BUILT STOOPS, STEPS, DECKS PORCHES, HANDRAILS, AND/OR SIMILAR ITEMS MUST BE PROVIDED BY OTHERS ON SITE FOR COMPLIANCE WITH APPLICABLE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







CONSULTING ENGINEER: KENNETH EARL DUNMON P.E. PO BOX 6853 - AMERICUS, GA 31719 - 229-942-2020



# FIRST STRING SPACE, INC.

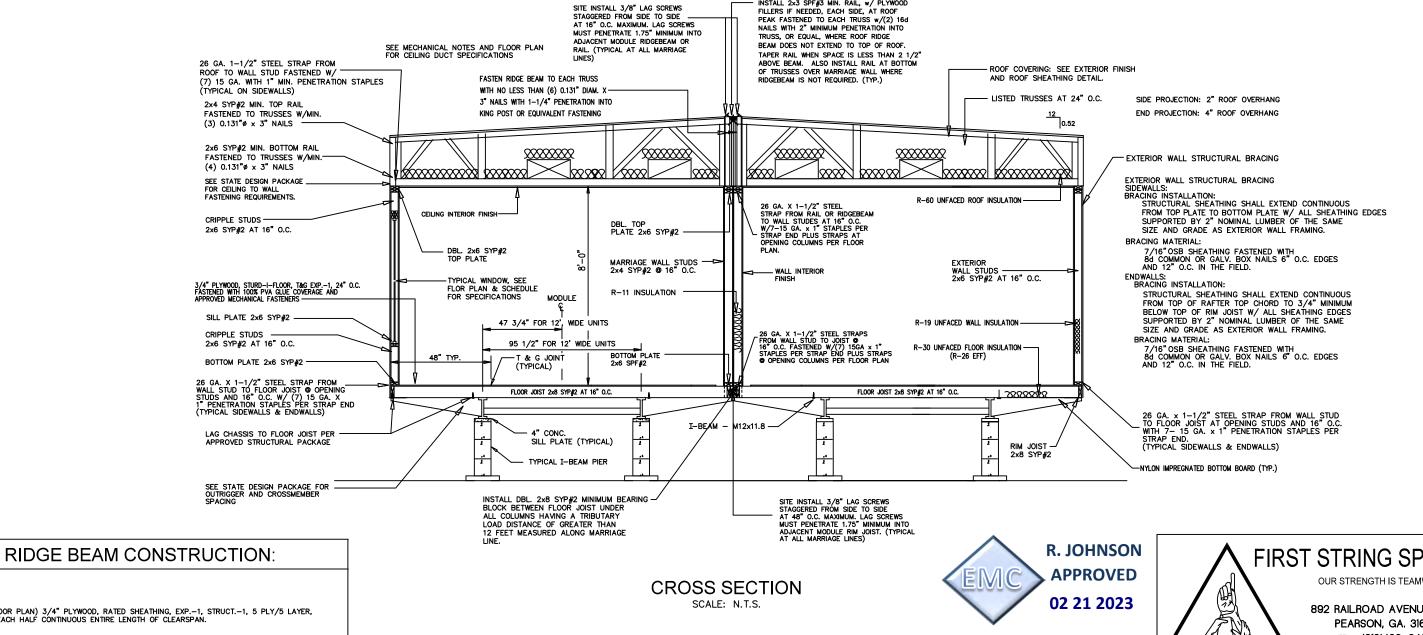
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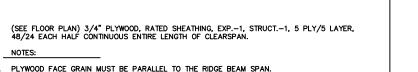
892 RAILROAD AVENUE EAST PEARSON, GA. 31642 TEL (912)422-6455 FAX (912)422-6466

SERIAL NUMBER: FSSI-10911AB STATES: NC REFERENCE \* FSS-1091IAB

DATE: JANUARY 25, 2023 DESTINATION: BUNNLEVEL, NC SIZE: 23'-4" x 64' (DOUBLE-WIDE) DRAFTSMAN: BRANDON R. DOYLE SCALE: NO SCALE REVISIONS: N/A CODES: 2018 NCBC (2015 IBC W/ NC AMENDS) PLAN NO: FSS 1091IAB (NC) SHEET: 4 OF 5 **ELEVATIONS** 

#### GENERAL CROSS-SECTION NOTES: **EXTERIOR FINISH MATERIAL: ROOF SHEATHING DETAIL:** INTERIOR FINISH MATERIAL: UNLESS OTHERWISE SPECIFIED, ALL STEEL MUST COMPLY w/ASTM A36.YIFLD STRENGTH = 36 KSL CEILING: 1/2" HIGH STRENGTH GYPSUM BOARD w/ SEA-SPRAY FINISH INSTALLED PER MANUFACTURER'S SPECIFICATIONS ROOF: MULE-HIDE 45 MIL (BLACK) EPDM (ESR-1463) FULLY ADHERED TO 7/16" OSB OR 2. ALL LAG SCREWS MUST COMPLY WITH ANSI/ASME B18.2.1. 1/2" PLYWOOD WITH MULE-HIDE FR ADHESIVE IN ACCORDANCE WITH INTERTEK REPORT CCRR-1078 (CLASS C ROOF) Fvb = 60 K.S.I. MIN.5/8" TYPE 'X'. GYP. BOARD (VCG) INSTALLED PER MANUFACTURERS SPECIFICATIONS RIDGE 3. SEE FOUNDATION PLAN FOR PIER AND TIE-DOWN STRAPPING LOCATIONS. 48" ORIENTATIONS, AND SPECIFICATIONS. ARMSTRONG CORLON COMMERICAL ROLL VINYL INSTALLED IN RESTROOMS AND JANITOR'S CLOSET VINYL COMPOSITE TILE (ARMSTRONG) INSTALLED THROUGHOUT REMAINDER OF FLOORPLAN. 26 GAUGE HI-RIB STEEL SIDING OVER APPROVED MOISTURE BARRIER FLOOR: FOUNDATION PIERS AND FOOTINGS SHOWN ARE FOR REPRESENTATION OVER 7/16" OSB INSTALLED PER MANUFACTURER'S SPECIFICATIONS ONLY. REFER TO FOUNDATION PLAN FOR DESIGN DETAILS. FNDWALL-∽ ENDWALί - SIDEWÁLL RESTROOM VENTILATION IS PROVIDED BY (2) 100CFM FANS/LIGHT COMBOS INTERIOR WALL & CEILING FINISH SHALL BE CLASS B OR BETTER - STAGGER JOINTS 48" O.C. ROOF SHEATHING IN CORRIDORS & CLASS C OR BETTER IN ROOMS AND ENCLOSED FASTENED TO TRUSSES W/0.131"ø x 2 1/2" NAILS AT 6" O.C. ON EDGES & 6" O.C. IN THE FIELD SPACES, FLOOR FINISHES SHALL BE CLASS II OR BETTER. 6. OSB OR PLYWOOD BEARING STRIP IS THE SAME THICKNESS AS THE CEILING MATERIAL. TO BE INSTALLED AS NECESSARY AT BEARING WALLS & COLUMNS. INSTALL 2x3 SPF#3 MIN. RAIL, w/ PLYWOOD





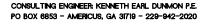
- PLYWOOD FACE GRAIN MUST BE PARALLEL TO THE RIDGE BEAM SPAN.
  ALL PLYWOOD BUTT JOINTS MUST BE STAGGERED 24" MINIMUM.
  ALL RIDGE BEAM PLYWOOD LAMINATIONS MUST BE THE SAME DEPTH, THICKNESS, AND GRADE OF PLYWOOD. NO LUMBER OR PLYWOOD LANGES ARE PERMITTED.
  PLYWOOD MUST BE MANUFACTURED IN ACCORDANCE W/ PS I—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 REQUIRMENTS PLYWOOD MUST NOT BE TREATED W/ A FIRE RETARDANT PROCESS.
  MOISTURE CONTENT MUST BE LESS THAN 16%.
  PEAMS SUPPORTED BY FONDWAIL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO

- BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO
- BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
  INSTALL (2X4) X 20" SPF<sub>8</sub>\*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.

# APPROVED TRUSS DESIGN:

TRUSS MANUF # : UNIVERSAL TRUSS DRAWING. # SF351201

SEE ATTACHED DWG.

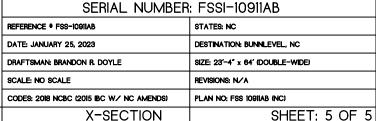


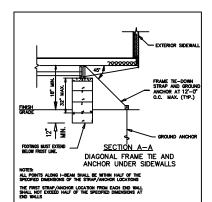


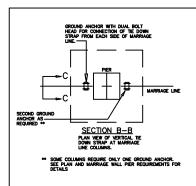
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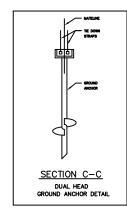
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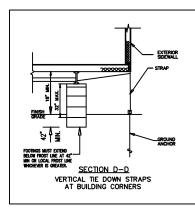
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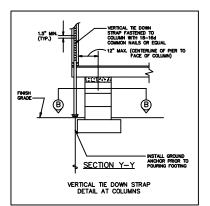


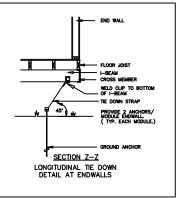


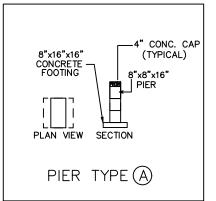


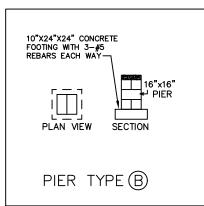


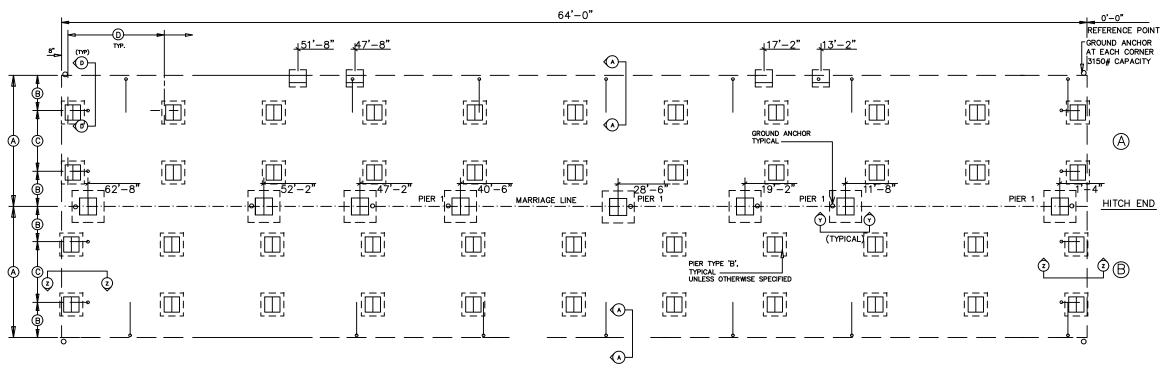


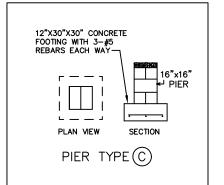


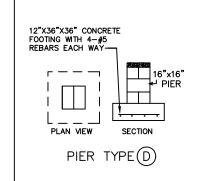












MARRIAGE WALL PIER REQUIREMENTS					
PIER MINIMUM SOIL PIER TYPE NUMBER OF VERTICAL TIE DOWN STRAPS REO'D (EACH MODULE)					
1	2000 PSF	С	1		
·	3000 PSF	С	1		

#### FOUNDATION NOTES:

- I. ALL FOUNDATION CONSTRUCTION, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.

  2. TIE—DOWN STRAPS TO BE 1-1/4"x. 0.35" TYPE—1, FINISH B, GRADE 1 ZINC COATED STELL STRAPPING CERTIFIED BY A REGISTERED ENGINEER OR ARCHITECT AS CONFORMING WITH ASTM D3953—91. TIE DOWN STRAPS AND CONNECTING HARDWARE SHALL HAVE 3150# MINIMUM WORKING CAPACITY.

  3. EACH GROUND ANCHOR SHALL HAVE A WORKING CAPACITY NO LESS THAN THE SUM OF THE REQUIRED WORKING CAPACITES OF ALL TIE DOWN STRAPS CONNECTED TO THE GROUND ANCHOR, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURETS SPECIFICATIONS. DESIGN OF GROUND ANCHOR, INCLUDING SHAPT LENGTH, NUMBER AND DIAMETER OF HELIXES, ETC., TO BE AS SPECIFIED BY THE GROUND ANCHOR MANUFACTURER FOR THE ACTUAL SOIL TYPE ENCOUNTERED. IF THE HOLDING OR PULLOUT CAPACITIES OF GROUND ANCHOR ARE BELOW THE ASSUMED DESIGN VALUES, THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR AN ALTERNATE ANCHORAGE DESIGN.
- ANCHORAGE DESIGN.
  THE FIRST TIE-DOWN STRAP FROM ENDWALLS SHALL NOT EXCEED 1/2 THE MAXIMUM SPACING INDICATED.
- MAXIMUM SPACING INDICATED.

  ALL PIERS SHALL BE CONSTRUCTED OF CONCRETE MASONRY UNITS CONFORMING TO ASTM C90. MASONRY UNITS SHALL BE LAID IN TYPE M OR S MORTAR OR COVERED WITH SURFACE BONDING CEMENT INSTALLED IN ACCORDANCE WITH ITS LISTING. PIER FOOTINGS SHALL BE AS DESCRIBED ABOVE.

  MINIMUM CONCRETE FOOTING COMPRESSIVE STRENGTH 2,500 PSI AT 28 DAYS.

  ALL REINFORCEMENT BARS SHALL BE GUALLY SPACED AND PLACED WITH 3" CLEARANCE FROM BOTTOM AND SIDES OF THE FOOTING.

- REINFORCEMENT BARS SHALL BE EQUALLY SPACED AND PLACED WITH 3
  CLEARANCE FROM BOTTOM AND SIDES OF THE FOOTING.

  8. SEE SHEET 1 OF 5 FOR BUILDING DESIGN LOADS.
  9. I-BEAM SUPPORT PIERS MAY BE INSTALLED LATERALLY (90° FROM THE
  ORIENTATION SHOWN ON THE FOUNDATION PLAN). CENTERLINE OF EACH PIER
  MUST BE LOCATED DIRECTLY BELOW THE I-BEAM CENTERLINE.
  10. SOIL BEARING CAPACITY SHOWN ON THIS PLAN IS ASSUMED. IF THE ACTUAL SOIL
  BEARING CAPACITY IS LESS THAN 2,000 PSF, THE ARCHITECT/ENGINEER MUST BE
  CONSULTED FOR REQUIRED ALTERNATE FOUNDATION DESIGN. FOOTINGS SHALL BE
  PLACED ON NON-EXPANSIVE SOILS ONLY.
  11. INISTALL BLOCK PIER ON EACH SIDE OF ALL EXTERIOR DOOR OPENINGS.
  (MANUFACTURER'S RECOMMENDATION ONLY OPTIONAL WHEN NOT SHOWN)
  SLIGHT ADJUSTMENT MAY BE REQUIRED TO INSURE OPENABILITY AFTER
  INSTALLATION OF BUILDING IS COMPLETE.
  12. THE FOUNDATION DIMENSIONS SHOWN ON THE ABOVE LAYOUT ARE NOMINAL
  DIMENSIONS OF THE FACTORY BUILT MODULARS AND DO NOT ACCOUNT FOR GAPS
  BETWEEN MODULES THAT MAY OCCUR DURING INSTALLATION. THE FOUNDATION
  DESIGNER, FOUNDATION CONTRACTOR AND MODULAR BUILDING INSTALLER MUST
  CONSULT TO DETERMINE IF ADJUSTMENTS TO PIER LOCATIONS ARE NEEDED TO
  ACCOUNT FOR TOLERANCES NEEDED DURING INSTALLATION. OF THE BUILDING MODULES

  13. THE, AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION.
- 13. THE AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.

FOUNDATION ENCLOSURE 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
WIREPORTOR JURISDICTION.

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 CHARTS ABOVE FOR
THE CORRECT NUMBER OF PIERS REQUIRED FOR
EACH SOIL BEARING CAPACITY. ALSO THE NUMBER
STRAPS (SPACING) WILL BE DETERMIND IN SECTION
A—A. THE NUMBER OF ALL COMPONENTS OF THIS
FOUNDATION PLAN CAN BE FOUND IN THE CHARTS
AND DTAILS ABOVE.

#### 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.

 TYPICAL FOUNDATION LAYOUT SHOWN IS TO AID THE SITE ENGINEER/ARCHITECT FOR ENGINEER/ARCHITECT FOR LOCATIONS OF REQUIRED SUPPORTS. ACTUAL FOUNDATION MUST BE DESIGNED TO SITE CONDITIONS FOR ALL APPLICABLE LOADS. THIS INCLUDES BUT IS NOT LIMITED TO CONSTRUCTION OF THE FOUNDATION, SEISMIC DESIGN AND ATTACHING THE BUILDING TO THE FOUNDATION, ALONG WITH THE RESISTANCE TO LATERAL, LONGITUDINAL SHEAR, UPLIFT AND DOWNWARD FORCES IN BOTH DIRECTIONS.

#### NOTICE TO FOUNDATION CONTRACTOR:

ALL DIMENSIONS, DETAILS AND NOTES ON THIS FOUNDATION PLAN MUST BE REVIEWED AND VERIFIED BY THE ALL DIMENSIONS, DETAILS AND NOTES ON THIS FOUNDATION PLAN MUST BE REVIEWED AND VERIFIED BY 1 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 AND INSPECTION REQUIREMENTS. EMC IS NOT THE DESIGNER OF THE BUILDING OR THE FOUNDATION AND IS NOT RESPONSIBLE OR LIABLE FOR ANY CONFLICTS, ERRORS, OMMISSIONS OR FAILURES TO COMPLY WITH STATE OR LOCAL CODES.

FOUNDATION DIMENSIONS				
MODULE o WIDTH	B PIER TO BOODULE EDGE	C STEEL BEAM SPACING	D MAXIMUM PIER SPACING	MINIMUM SOIL BEARING CAPACITY
11'–8"	22 1/4"	95 1/2"	9'-0"	2000 PSF
11 -0	22 1/4	95 1/2	9'-0"	3000 PSF



**R. JOHNSON APPROVED** 02 21 2023

CONSULTING ENGINEER: KENNETH EARL DUNMON P.E.

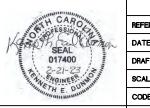
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# FIRST STRING SPACE, INC.

OUR STRENGTH IS TEAMWORK

892 RAILROAD AVENUE EAST PEARSON, GA. 31642 TEL (912)422-6455 FAX (912)422-6466



SERIAL NUMBER: FSSI-10911AB				
FERENCE * FSS-1091IAB	STATES: NC			
ATE: JANUARY 25, 2023	DESTINATION: BUNNLEVEL, NC			
RAFTSMAN: BRANDON R. DOYLE	SIZE: 23'-4" x 64' (DOUBLE-WIDE)			
CALE: NO SCALE	REVISIONS: N/A			
ODES: 2018 NCBC (2015 IBC W/NC AMENDS)	PLAN NO: FSS 1091IAB (NC)			
FOUNDATION	SHEET: 1 OF 1			

FP: M:\Drafting\Shared DWG\BRANDON'S DRAWINGS\ENGINEERED PLANS\FSSI-10911AB (NC),aec

# COMcheck Software Version 4.1.5.1 Envelope Compliance Certificate

#### **Project Information**

Energy Code: 90.1 (2016) Standard

Project Title: FSS-10911

Location: Dunn, North Carolina

Climate Zone: 3a

Project Type: New Construction

Vertical Glazing / Wall Area: 8%

Performance Sim. Specs: EnergyPlus 8.1.0.009 (EPW: USA\_NC\_Raleigh-Durham.Intl.AP.723060\_TMY3.epw)

Construction Site: Owner/Agent:

Designer/Contractor: First String Space 892 Railroad Avenue East Pearson, GA 31642

R. JOHNSON

**APPROVED** 

02 21 2023

Building Area Floor Area

1-Office: Nonresidential 1494

#### **Envelope Assemblies**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor <sub>(a)</sub>
Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Office]	1494	60.0	0.0	0.017	0.027
Floor 1: Wood-Framed, [Bldg. Use 1 - Office]	1494	26.0	0.0	0.038	0.033
<u>NORTH</u>					
Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]	512	19.0	0.0	0.067	0.089
Window 1: Vinyl/Fiberglass Frame:Operable, Perf. Specs.: Product ID LABEL, SHGC 0.24, VT 0.51, [Bldg. Use 1 - Office] (b)	45			0.340	0.350
Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	40			0.153	0.370
EAST Exterior Wall 1 copy 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]	186	19.0	0.0	0.067	0.089
SOUTH					
Exterior Wall 1 copy 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]	512	19.0	0.0	0.067	0.089
Window 1 copy 1: Vinyl/Fiberglass Frame:Operable, Perf. Specs.: Product ID LABEL, SHGC 0.24, VT 0.51, [Bldg. Use 1 - Office] (b)	18			0.340	0.350
Window 3: Vinyl/Fiberglass Frame:Operable, Perf. Specs.: Product ID LABEL, SHGC 0.24, VT 0.51, [Bldg. Use 1 - Office] (b)	15			0.340	0.350
Window 4: Vinyl/Fiberglass Frame:Fixed, Perf. Specs.: Product ID LABEL, SHGC 0.24, VT 0.51, [Bldg. Use 1 - Office] (b)	10			0.340	0.350
WEST					
Exterior Wall 1 copy 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]	186	19.0	0.0	0.067	0.089
Window 5: Vinyl/Fiberglass Frame:Operable, Perf. Specs.: Product ID LABEL, SHGC 0.24, VT 0.51, [Bldg. Use 1 - Office] (b)	12			0.340	0.350
Window 1 copy 1: Vinyl/Fiberglass Frame:Operable, Perf. Specs.: Product ID LABEL, SHGC 0.24, VT 0.51, [Bldg. Use 1 - Office] (b)	9			0.340	0.350

Project Title: FSS-10911 Report date: 02/20/23

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- (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 5% 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 (2016) Standard requirements in COM*check* Version 4.1.5.1 and to comply with any applicable

mandatory requirements listed in the Inspection Checklist.

Name - Title Signat Date



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# **COM***check* **Software Version 4.1.5.1**



# **Interior Lighting Compliance Certificate**

#### **Project Information**

Energy Code: 90.1 (2016) Standard

Project Title: FSS-10911
Project Type: New Construction

Construction Site: Owner/Agent:



Designer/Contractor: First String Space 892 Railroad Avenue East Pearson, GA 31642

Date

#### **Allowed Interior Lighting Power**

	Α	В	С	D
	Area Category	Floor Area (ft2)	Allowed Watts / ft2	Allowed Watts (B X C)
1-Office		1494	0.79	1180
			Total Allowed Watts =	1180

#### **Proposed Interior Lighting Power**

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Office				
LED 1: LED Linear 33W:	1	22	33	726
LED 2: LED A Lamp 13W:	1	2	13	26
		Total Propos	sed Watts =	752

#### 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 (2016) Standard requirements in COMcheck Version 4.1.5.1 and to comply with any applicable

mandatory requirements listed in the Inspection Checklist.

Name - Title Signature

Project Title: FSS-10911 Report date: 02/20/23

## **COMcheck Software Version 4.1.5.1**



# **Exterior Lighting Compliance Certificate**

#### **Project Information**

Energy Code: 90.1 (2016) Standard Project Title: FSS-10911

Project Type: **New Construction** 

Exterior Lighting Zone 1 (Developed rural area) R. JOHNSON **APPROVED** 02 21 2023

Construction Site: Owner/Agent: Designer/Contractor: First String Space 892 Railroad Avenue East Pearson, GA 31642

#### **Allowed Exterior Lighting Power**

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Pedestrian and vehicular entrances and exits	3 ft of door	14	Yes	42
Pedestrian and vehicular entrances and exits	3 ft of door	14	Yes	42
Illuminated length of facade wall or surface	64 ft	0	No	0
Illuminated length of facade wall or surface	64 ft	0	No	0
		Total Tradab	ole Watts (a) =	84
		Total All	lowed Watts =	84
	Total All	Total Allowed Supplemental Watts (b) =		

- (a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
- (b) A supplemental allowance equal to 350 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

#### **Proposed Exterior Lighting Power**

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	(C X D)
Pedestrian and vehicular entrances and exits (3 ft of door width): Tradable Wattage				
LED 1: LED A Lamp 11W:	1	1	11	11
LED 1 copy 1: LED A Lamp 11W:	1	1	11	11
Illuminated length of facade wall or surface (64 ft): Non-tradable Wattage				
LED 3: Other:	2	2	26	52
LED 3 copy 1: Other:	2	2	26	52
	Total Trad	dable Propos	sed Watts =	22

#### Exterior Lighting PASSES: Design 95% 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 (2016) Standard requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title	Signatur

Signature

**Project Title:** FSS-10911

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Date

# **COMcheck Software Version 4.1.5.1**



#### **Project Information**

**Energy Code:** 90.1 (2016) Standard

FSS-10911 Project Title:

Location: Dunn, North Carolina

Climate Zone:

Project Type: **New Construction** 

Construction Site: Owner/Agent:



Designer/Contractor: First String Space 892 Railroad Avenue East Pearson, GA 31642

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#### **Mechanical Systems List**

#### **Quantity System Type & Description**

HVAC System 1 (Single Zone):

Heating: 1 each - Other, Electric, Capacity = 34 kBtu/h

No minimum efficiency requirement applies

Cooling: 1 each - Single Package Vertical AC Unit, Capacity = 36 kBtu/h, Air-Cooled Condenser

Proposed Efficiency = 11.00 EER, Required Efficiency: 10.00 EER

Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP method): Passes

FAN 1 Supply, Constant Volume, 1100 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade

Water Heater 1:

Electric Storage Water Heater, Capacity: 10 gallons 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 (2016) Standard requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date



**Project Title:** FSS-10911 Report date: 02/20/23

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# **COMcheck Software Version 4.1.5.1 Inspection Checklist** Energy Code: 90.1 (2016) 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, 5.4.3.1.1, 5.7 [PR1] <sup>1</sup>		□Complies □Does Not □Not Observable □Not Applicable	
4.2.2, 6.4.4.2.1, 6.7.2 [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.	□Complies □Does Not □Not Observable □Not Applicable	
4.2.2, 7.7.1, 10.4.2 [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.	□Complies □Does Not □Not Observable □Not Applicable	
4.2.2, 9.4.3, 9.7 [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.	□Complies □Does Not □Not Observable □Not Applicable	
9.7 [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.	□Complies □Does Not □Not Observable □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 ft2.	□Complies □Does Not □Not Observable □Not Applicable	
	1 High Impact (Tier 1)	2 Medium Impa	act (Tier 2) 3 Low Impact (Tier 3)

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

Project Title: FSS-10911 Report date: 02/20/23

Section # & Req.ID	Footing / Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
4.2.4 [FO1] <sup>2</sup>	Installed below-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R	R	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
4.2.4 [FO3] <sup>2</sup>	Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R Unheated Heated	R Unheated Heated	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
5.5.3.5 [FO5] <sup>2</sup>	Slab edge insulation depth/length.	ft	ft	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
5.8.1.7 [FO6] <sup>1</sup>	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.			□Complies □Does Not □Not Observable □Not Applicable	
5.8.1.7.3 [FO7] <sup>1</sup>	Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.			□Complies □Does Not □Not Observable □Not Applicable	
6.4.3.7 [FO9] <sup>3</sup>	Freeze protection and snow/ice melting system sensors for future connection to controls.			□Complies □Does Not □Not Observable □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	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.

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

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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 and site-assembled fenestration and doors are labeled or certified as meeting air			□Complies □Does Not □Not Observable	
	leakage requirements.			□Not Observable □Not Applicable	 
5.5.4.3a [FR8] <sup>1</sup>	Vertical fenestration U-Factor.	U	U	□Complies □Does Not	See the Envelope Assemblies table for values.
				□Not Observable □Not Applicable	
5.5.4.3b [FR9] <sup>1</sup>	Skylight fenestration U-Factor.	U	U	$\square$ Complies $\square$ Does Not	See the Envelope Assemblies table for values.
				□Not Observable □Not Applicable	
5.5.4.4.1 [FR10] <sup>1</sup>	Vertical fenestration SHGC value.	SHGC:	SHGC:	$\square$ Complies $\square$ Does Not	See the Envelope Assemblies table for values.
			 	□Not Observable □Not Applicable	
5.5.4.4.2 [FR11] <sup>1</sup>	Skylight SHGC value.	SHGC:	SHGC:	$\square$ Complies $\square$ Does Not	See the Envelope Assemblies table for values.
			1 1 1 1	□Not Observable □Not Applicable	 
5.8.2.1, 5.8.2.3,	Fenestration products rated (U- factor, SHGC, and VT) in			□Complies □Does Not	
5.8.2.4, 5.8.2.5 [FR12] <sup>2</sup>	accordance with NFRC or energy code defaults are used.			□Not Observable □Not Applicable	
5.8.2.2 [FR13] <sup>1</sup>	Fenestration and door products are labeled, or a signed and			□Complies □Does Not	
	dated certificate listing the U- factor, SHGC, VT, and air leakage rate has been provided by the manufacturer.			□Not Observable □Not Applicable	
5.5.3.6 [FR14] <sup>2</sup>	U-factor of opaque doors associated with the building	U Swinging	U Swinging	□Complies □Does Not	See the Envelope Assemblies table for values.
	thermal envelope meets requirements.	Nonswinging	Nonswinging	□Not Observable □Not Applicable	
5.4.3.1 [FR15] <sup>1</sup>	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an			□Complies □Does Not □Not Observable	
	approved manner, except in semiheated spaces in climate zones 1-6.			Not Applicable	

	1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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	Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
- 1		service water heating systems	□Complies □Does Not	
		(<=120°F to maximum temperature for intended use).	□Not Observable □Not Applicable	
- 1	7.4.6 [PL4] <sup>3</sup>	Heat traps installed on non-circulating storage water tanks.	□Complies □Does Not	
			□Not Observable □Not Applicable	

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

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Section #	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
& Req.ID	-				
6.4.1.4, 6.4.1.5	HVAC equipment efficiency verified. Non-NAECA HVAC	Efficiency:	Efficiency:	$\square$ Complies $\square$ Does Not	See the Mechanical Systems list for values.
[ME1] <sup>2</sup>	equipment labeled as meeting 90.1.			□Not Observable □Not Applicable	
6.4.3.4.1 [ME3] <sup>3</sup>	Stair and elevator shaft vents have motorized dampers that			□Complies □Does Not	
	automatically close.			□Not Observable □Not Applicable	1 1 1 1 1
6.4.3.4.5 [ME39] <sup>3</sup>	Enclosed parking garage ventilation has automatic			□Complies □Does Not	
	contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.			□Not Observable □Not Applicable	
6.4.3.4.4 [ME5] <sup>3</sup>	Ventilation fans >0.75 hp have automatic controls to shut off fan			□Complies □Does Not	
	when not required.			□Not Observable □Not Applicable	
6.4.3.8	Demand control ventilation			□Complies	
[ME6] <sup>1</sup>	provided for spaces >500 ft2 and			Does Not	1 
	>25 people/1000 ft2 occupant density and served by systems			□Not Observable	
	with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.			□Not Applicable	
6.5.3.2.1 [ME40] <sup>2</sup>	DX cooling systems >= 75 kBtu/h (>= 65 kBtu/h effective 1/2016)			□Complies □Does Not	See the Mechanical Systems list for values.
[11240]	and chilled-water and			□Not Observable	 
	evaporative cooling fan motor hp $>= \frac{1}{4}$ designed to vary supply			□Not Applicable	 
	fan airflow as a function of load and comply with operational requirements.				
6.4.4.1.1 [ME7] <sup>3</sup>	Insulation exposed to weather protected from damage.			□Complies □Does Not	 
[[V] [[ / ] -	insulation outside of the			□ Does Not □ Not Observable	 
	conditioned space and associated with cooling systems is vapor retardant.			□Not Observable □Not Applicable	
6.4.4.1.2 [ME8] <sup>2</sup>	HVAC ducts and plenums insulated per Table 6.8.2. Where	R	R	□Complies □Does Not	1 1 1 1 1
	ducts or plenums are installed in or under a slab, verification may		 	□Not Observable	 
	need to occur during Foundation Inspection.			□Not Applicable	
6.4.4.1.3 [ME9] <sup>2</sup>	HVAC piping insulation thickness. Where piping is installed in or	in.	in.	□Complies □Does Not	
	under a slab, verification may need to occur during Foundation Inspection.			□Not Observable □Not Applicable	
6.4.4.1.4 [ME41] <sup>3</sup>	Thermally ineffective panel surfaces of sensible heating			□Complies □Does Not	
	panels have insulation $\geq R-3.5$ .			□Not Observable □Not Applicable	
6.4.4.2.1	Ducts and plenums having			☐Complies	! 
[ME10] <sup>2</sup>	pressure class ratings are Seal			□Does Not	: 
	Class A construction.			□Not Observable	 
				□Not Applicable	1

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2 Medium Impact (Tier 2)

3 Low Impact (Tier 3)

1 High Impact (Tier 1)

Section	Mechanical Rough-In	Plans Verified	Field Verified		
# & Req.ID	Inspection	Value	Value	Complies?	Comments/Assumptions
6.8.1-15, 6.8.1-16 [ME110] <sup>2</sup>	Electrically operated DX-DOAS units meet requirements per Tables 6.8.1-15 or 6.8.1-16.			□Complies □Does Not □Not Observable	
				□Not Applicable	 
6.4.4.2.2 [ME11] <sup>3</sup>	Ductwork operating >3 in. water column requires air leakage testing.			□Complies □Does Not	
				□Not Observable □Not Applicable	
6.5.2.3 [ME19] <sup>3</sup>	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold			☐Complies ☐Does Not ☐Not Observable	
	airstreams or concurrent heating and cooling of the same airstream.			□Not Applicable	
6.5.2.4.1 [ME68] <sup>3</sup>	Humidifiers with airstream mounted preheating jackets have preheat auto-shutoff value set to			☐Complies ☐Does Not ☐Not Observable	
	activate when humidification is not required.			□Not Observable □Not Applicable	
6.5.2.4.2 [ME69] <sup>3</sup>	Humidification system dispersion tube hot surfaces in the airstreams of ducts or air-			□Complies □Does Not	
	handling units insulated >= R- 0.5.			□Not Observable □Not Applicable	
6.5.2.5 [ME70] <sup>3</sup>	Preheat coils controlled to stop heat output whenever mechanical cooling, including			□Complies □Does Not	
	economizer operation, is active.			□Not Observable □Not Applicable	
6.5.2.6 [ME106] <sup>3</sup>	Units that provide ventilation air to multiple zones and operate in conjunction with zone heating and cooling systems are prevented from using heating or heat recovery to warm supply air above 60°F when representative building loads or outdoor air temperature indicate that most zones demand cooling.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.3.6 [ME72] <sup>2</sup>	Motors for fans >= 1/12 hp and < 1 hp are electronically-commutated motors or have a minimum motor efficiency of 70%. These motors are also speed adjustable for either balancing or remote control.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.3.4 [ME108] <sup>2</sup>	Parallel-flow fan-powered VAV air terminals have automatic controls to a) turn off the terminal fan except when space heating is required or if required for ventilation; b) turn on the terminal fan as the first stage of heating before the heating coil is activated; and c) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or reverse the terminal damper logic and provide heating from the central air handler through primary air.			□Complies □Does Not □Not Observable □Not Applicable	
	1 High Impact (Tier	1) 2 Medium	Impact (Tier 2)	3 Low Impact (Ti	er 3)

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Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.5.3.7 [ME109] <sup>2</sup>	Required minimum outdoor air rate is the larger of minimum outdoor air rate or minimum exhaust air rate required by Standard 62.1, Standard 170, or applicable codes or accreditation standards. Outdoor air ventilation systems shall comply with one of the following: a) design minimum system outdoor air provided < 135% of the required minimum outdoor air rate, b) dampers, ductwork, and controls allow the system to supply <= the required minimum outdoor air rate with a single set-point adjustment., or c) system includes exhaust air energy recovery complying with Section 6.5.6.1.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.3.3 [ME42] <sup>3</sup>	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	See the Mechanical Systems list for values.
6.5.4.2 [ME25] <sup>3</sup>	HVAC pumping systems with >= 3 control values designed for variable fluid flow (see section details).			□Complies □Does Not □Not Observable □Not Applicable	
6.5.6.1 [ME56] <sup>1</sup>	Exhaust air energy recovery on systems meeting Tables 6.5.6.1-1, and 6.5.6.1-2.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.7.1 [ME100] <sup>2</sup>	Conditioned supply air to space with mechanical exhaust <= the greater of criteria of supply flow, required ventilation rate, exhaust flow minu the available transffer air (see section details).			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.7.2.1 [ME32] <sup>2</sup>	Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.7.2.4 [ME49] <sup>3</sup>	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.8.1 [ME34] <sup>2</sup>	Unenclosed spaces that are heated use only radiant heat.			□Complies □Does Not □Not Observable □Not Applicable	
7.4.2 [ME36] <sup>2</sup>	Service water heating equipment meets efficiency requirements.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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

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Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.4.3.9 [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.			□Complies □Does Not □Not Observable □Not Applicable	
6.5.10 [ME73] <sup>3</sup>	Doors separating conditioned space from the outdoors have controls that disable/reset heating and cooling system when open.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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

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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
9.4.1.1 [EL1] <sup>2</sup>	Automatic control requirements prescribed in Table 9.6.1, for the appropriate space type, are installed. Mandatory lighting controls (labeled as 'REQ') and optional choice controls (labeled as 'ADD1' and 'ADD2') are implemented.	□Complies □Does Not □Not Observable □Not Applicable	
9.4.1.1 [EL2] <sup>2</sup>	per approved lighting plans and all	□Complies □Does Not □Not Observable □Not Applicable	
9.4.1.1f [EL13] <sup>1</sup>	Daylight areas under skylights and roof monitors that have more than 150 W combined input power for general lighting are controlled by photocontrols.	□Complies □Does Not □Not Observable □Not Applicable	
9.4.1.4 [EL3] <sup>2</sup>	Automatic lighting controls for exterior lighting installed.	□Complies □Does Not □Not Observable □Not Applicable	
9.4.1.3 [EL4] <sup>1</sup>	Separate lighting control devices for specific uses installed per approved lighting plans.	□Complies □Does Not □Not Observable □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.	□Complies □Does Not □Not Observable □Not Applicable	
10.4.1 [EL9] <sup>2</sup>	Electric motors meet requirements where applicable.	□Complies □Does Not □Not Observable □Not Applicable	

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

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Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
4.2.4 [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.	R Above deck Metal Attic	R Above deck Metal Attic	□Complies □Does Not □Not Observable □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.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.4 [IN6] <sup>1</sup>	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R Mass Metal Steel Wood	R Mass Metal Steel Wood	□Complies □Does Not □Not Observable □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.			□Complies □Does Not □Not Observable □Not Applicable	
4.2.4 [IN8] <sup>2</sup>	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R Mass Steel Wood	R Mass Steel Wood	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	See the Envelope Assemblies table for values.
5.8.1.2 [IN9] <sup>2</sup>	Floor insulation installed per manufacturer's instructions.			Complies Does Not Not Observable Not Applicable	
5.8.1.1 [IN10] <sup>2</sup>	Building envelope insulation is labeled with R-value or insulation certificate has been provided listing R-value and other relevant data.			□Complies □Does Not □Not Observable □Not Applicable	
5.8.1.9 [IN18] <sup>2</sup>	Building envelope insulation extends over the full area of the component at the proposed rated R or U value.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.4 [IN11] <sup>2</sup>	Eaves are baffled to deflect air to above the insulation.			☐Complies ☐Does Not ☐Not Observable ☐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.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.6 [IN13] <sup>2</sup>	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.			□Complies □Does Not □Not Observable □Not Applicable	

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

Project Title: FSS-10911 Report date: 02/20/23 Data filename: C:\Users\BobJohnson\OneDrive - Expert Modular Consultants LLC\Documents\COMcheck\FSS-10911 NC.cck Page 16 of 20

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.8.1.7.1 [IN15] <sup>2</sup>	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment			□Complies □Does Not	
	access.			□Not Observable □Not Applicable	
5.8.1.7.2 [IN16] <sup>2</sup>	Foundation vents do not interfere with insulation.			□Complies □Does Not	
				□Not Observable □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			□Complies □Does Not	
	suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.			□Not Observable □Not Applicable	

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

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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-	□Complies □Does Not	
	8.	□Not Observable □Not Applicable	
6.4.3.1.2 [FI3] <sup>3</sup>	Thermostatic controls have a 5 °F deadband.	□Complies □Does Not	
		□Not Observable □Not Applicable	
6.4.3.2 [FI20] <sup>3</sup>	Temperature controls have setpoint overlap restrictions.	□Complies □Does Not	
		□Not Observable □Not Applicable	
6.4.3.3.1 [FI21] <sup>3</sup>	HVAC systems equipped with at least one automatic shutdown control.	□Complies □Does Not	
		□Not Observable □Not Applicable	
6.4.3.3.2 [FI22] <sup>3</sup>	Setback controls allow automatic restart and temporary operation as	□Complies □Does Not	
	required for maintenance.	□Not Observable □Not Applicable	
6.4.3.6 [FI6] <sup>3</sup>	When humidification and dehumidification are provided to a	□Complies □Does Not	
	zone, simultaneous operation is prohibited. Humidity control prohibits the use of fossil fuel or electricity to produce RH > 30% in the warmest zone humidified and RH < 60% in the coldest zone dehumidified.	□Not Observable □Not Applicable	
6.7.2.1 [FI7] <sup>3</sup>	Furnished HVAC as-built drawings submitted within 90 days of system	□Complies □Does Not	
	acceptance.	□Not Observable □Not Applicable	
6.7.2.2 [FI8] <sup>3</sup>	Furnished O&M manuals for HVAC systems within 90 days of system	□Complies □Does Not	
	acceptance.	□Not Observable □Not Applicable	
6.7.2.3 [FI9] <sup>1</sup>	An air and/or hydronic system balancing report is provided for HVAC	□Complies □Does Not	
	systems serving zones >5,000 ft2 of conditioned area.	□Not Observable □Not Applicable	
6.7.2.4 [FI10] <sup>1</sup>	HVAC control systems have been tested to ensure proper operation,	□Complies □Does Not	
	calibration and adjustment of controls.	□Not Observable □Not Applicable	
7.4.4.3 [FI11] <sup>3</sup>	Public lavatory faucet water temperature <=110°F.	□Complies □Does Not	
		□Not Observable □Not Applicable	
8.7.1 [FI16] <sup>3</sup>		□Complies □Does Not	
	of system acceptance.	□Not Observable □Not Applicable	

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

Project Title: FSS-10911 Report date: 02/20/23

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
8.7.2 [FI17] <sup>3</sup>	Furnished O&M instructions for systems and equipment to the	$\square$ Complies $\square$ Does Not	
	building owner or designated representative.	□Not Observable □Not Applicable	
9.2.2.3 [FI18] <sup>1</sup>	Interior installed lamp and fixture lighting power is consistent with what	□Complies □Does Not	See the Interior Lighting fixture schedule for values.
	is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	□Not Observable □Not Applicable	
9.4.2 [FI19] <sup>1</sup>	Exterior lighting power is consistent with what is shown on the approved	□Complies □Does Not	See the Exterior Lighting fixture schedule for values.
	lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	□Not Observable □Not Applicable	
9.4.4 [FI20] <sup>1</sup>	At least 75% of all permanently installed lighting fixtures in dwelling units have >= 55 lm/W efficacy or a >= 45 lm/W total luminaire efficacy.	□Complies □Does Not	
		□Not Observable □Not Applicable	
10.4.3 [FI24] <sup>2</sup>		□Complies □Does Not	
	standby mode.	□Not Observable □Not Applicable	
7.4.3 [FI45] <sup>2</sup>	First 8 ft of outlet piping in nonrecirculating storage system, or	□Complies □Does Not	
	branch piping connected to recirculated, heat traced, or impredance heated piping is insulated.	□Not Observable □Not Applicable	

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

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#### PAGE 1 OF 3

#### **HEAT LOSS AND GAIN ANALYSIS**

FIRST STRING SPACE MANUFACTURER:

DESTINATION: North Carolina

B := 5

A := 7.5

**Outside Summer** 

PLAN NO. FSS-10911

E := 10

Occupant Load OC := 15

**BUILDING SIZE** 

TEMPERATURES(DEGREE F.)

OS := 93**Outside Winter** OW = 20

Width := 23.34

Length := 64

Inside Summer IS := 78Inside Winter IW := 72

OCCUPANCY := B

WallHeight := 8.00

Outside Air (Fresh Air) Reqs.(cfm/occ) OA := OCCUPANCY

L := Length

W := Width

DESIGN GRAINS AT 50% RH DAILY RANGE(DEGREE F.)

DG = 35

DR := 20

WH := WallHeight

TYPICAL WINDOW SIZE (inches)

ww := 24

hw := 54

 $Awin := ww \cdot \frac{hw}{}$ 

No. OF WINDOWS ALONG EACH FACE

OA = 5

GROSS WALL AREA(SF)

**U-VALUES** 

Nface := 5

 $Nglass := Nface \cdot Awin$ 

Nglass = 45

NW = 187

UG := 0.81GLASS

Eface := 2

 $Eglass := Eface \cdot Awin$ 

 $EW := L \cdot WH$ 

 $NW := W \cdot WH$ 

EW = 512

WALL UW := 0.09

Sface := 5

 $Sglass := Sface \cdot Awin$ 

Eglass = 18Sglass = 45

 $SW := W \cdot WH$  $WW := L \cdot WH$  SW = 187WW = 512

Wface := 0

 $Wglass := Wface \cdot Awin$ 

Wglass = 0

WOOD/METAL DOOR AREAGLASS/FRENCH DOOR AREA

LIGHTING WATTAGE

# of Solid Doors -

Sdr := 2

# of Glass Doors -

Gdr := 0

QtyIncandescent := 2

 $WD := 20 \cdot Sdr$ 

 $GD := 20 \cdot Gdr$ 

 $IL := 11 \cdot OtyIncandescent$ 

QtyFluorescent := 22

APPPLICABLE

WU := 0.56

GU := 1.13

FU := 0.08

**U-VALUES** 

SF := 0.64

EL := 15

 $FL := 64 \cdot OtyFluorescent$ 

**GLASS SHADING FACTOR** EQUIPMENT LOAD(BTUH/SF)

RU := 0.05

ROOF AREA / FLOOR AREA

 $R := L \cdot W$ 

 $F := L \cdot W$ 

R = 1494

F = 1494





#### **HEAT GAINS (COOLING LOADS)**

PAGE 2 OF 3

#### SENSIBLE HEAT GAINS:

# A. SOLAR RADIATION THROUGH GLASS: NORTHEASTSOUTHWEST



 $SRN := Nglass \cdot 30 \cdot SF$ 

 $SRE := Eglass \cdot 44 \cdot SF$ 

 $SRS := Sglass \cdot 56 \cdot SF$ 

 $SRW := Wglass \cdot 158 \cdot SF$ 

TOTAL

SR := SRN + SRE + SRS + SRW

SR = 2984

#### **B. TRANSMISSION GAINS:**

1. GLASS:

GA := Nglass + Eglass + Sglass + Wglass

GA = 108

2. DOORS:

 $TG := GA \cdot WU \cdot (OS - IS)$ 

TG = 907

 $TWG := WD \cdot WU \cdot (OS - IS)$ 

TWG = 336

 $TGD := GD \cdot GU \cdot (OS - IS)$ 

TGD = 0

3. WALLS: FIND EQUIVALENT TEMPERATURE DIFFERENCE (ETD)
TEMPERATURE CORRECTION / DAILY RANGE CORRECTION:

TC := OS - IS - 20

 $DRC := 0.5 \cdot (20 - DR)$ 

ETD := TC + DRC

ETD = -5

#### NORTH / EAST / SOUTH / WEST

 $TWN := (NW - Nglass) \cdot UW \cdot (ETD + 15)$ 

 $TWE := (EW - Eglass) \cdot UW \cdot (ETD + 36)$ 

 $TWS := (SW - Sglass) \cdot UW \cdot (ETD + 23)$ 

 $TWW := (WW - Wglass) \cdot UW \cdot (ETD + 17)$ 

TOTAL

TW := TWN + TWE + TWS + TWW

TW = 2288

4. ROOF:

 $TR := R \cdot RU \cdot (OS - IS)$ 

TR = 1120

5. FLOOR:

 $FR := F \cdot FU \cdot (OS - IS)$ 

FR = 1793

TOTAL TRANSMISSION GAIN

T := TG + TWG + TGD + TW + TR + FR

T = 6444

C. OCCUPANTS:

 $SO := OC \cdot 230$ 

SO = 3450

D. LIGHTS:

 $L := (IL \cdot 3.4) + (FL \cdot 4.1)$ 

L = 5848

E. VENTILATION:

 $SV := OC \cdot OA \cdot (OS - IS) \cdot 1.1$ 

SV = 1238

F. DUCTS:

 $SD := (SR + T + SO + L + SV) \cdot 0.05$ 

SD = 998

G. EQUIPMENT:

 $EQ := EL \cdot F$ 

EQ = 22406

TOTAL SENSIBLE HEAT GAIN

SHG := SR + T + SO + L + SV + SD + EQ

SHG = 43368

**LATENT HEAT GAINS:** 

PAGE 3 OF 3

A. OCCUPANTS:

 $LO := OC \cdot 190$ 

LO = 2850

**B. VENTILATION:** 

 $LV := OC \cdot OA \cdot DG \cdot 0.68$ 

LV = 1785

TOTAL LATENT HEAT GAIN

LHG := LO + LV

 $LTW := (NW + EW + SW + WW - GA) \cdot UW \cdot (IW - OW)$ 

LHG = 4635

**TOTAL HEAT GAIN** 

HG := SHG + LHG

HG = 48003

**BTUH** 

#### **HEAT LOSS (HEATING LOADS)**

#### A. TRANSMISSION LOSS:

1. GLASS:

 $LTG := GA \cdot UG \cdot (IW - OW)$ 

LTG = 4549

2. DOORS:

 $LTWD := WD \cdot WU \cdot (IW - OW)$ 

LTWD = 1165

3. WALLS:

 $LTGD := GD \cdot GU \cdot (IW - OW)$ 

LTGD = 0

4. ROOF:

 $LR := R \cdot RU \cdot (IW - OW)$ 

LTW = 6035LR = 3884

5. FLOOR:

 $LF := F \cdot FU \cdot (IW - OW)$ 

LF = 6214

TOTAL TRANSMISSION LOSS

LT := LTG + LTWD + LTGD + LTW + LR + LF

LT = 21846

B. DUCTS:

 $LD := LT \cdot 0.05$ 

LD = 1092

C. VENTILATION:

 $LV := OC \cdot OA \cdot (IW - OW) \cdot 1.1$ 

LV = 4290

TOTAL HEAT LOSS

HL := LT + LD + LV

HL = 27228

**BTUH** 

REFERENCE: ACCA MANUAL FOURTH EDITION



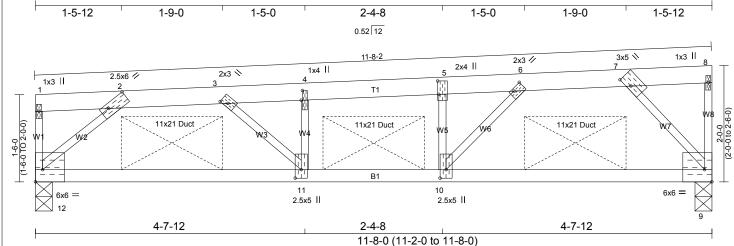


Job Truss Type Truss Qty Specialized Structures 316 GA 95531 SF351201 SLOPING FLAT 1 Ref. #10002714

Universal Forest Products Inc., Grand Rapids, MI 49525, Weston Gorby

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[2:0-4-5,0-1-0], [3:0-1-8,0-0-12], [4:0-2-0,0-0-4], [5:0-2-12,0-0-4], [6:0-2-1,0-0-8], [7:0-2-8,0-0-12], [9:Edge,0-2-8], [10:0-1-12,0-1-4] Plate Offsets (X.Y)--[11:0-1-12,0-1-4], [12:Edge,0-2-8]

	SPACING:       2-0-0         LOADING (psf)       1         TCLL 23.1 (Ground Snow=30.0)       7.0         TCDL 7.0       8CLL 0.0	SPACING-: 1-4-0 LOADING (psf) TCLL 34.7 (Ground Snow=45.0) TCDL 10.5 BCLL 0.0	SPACING-         2-0-0           Plate Grip DOL         1.15           Lumber DOL         1.15           Rep Stress Incr         YES           Code IBC2018/TPI2014           IBC2015/TPI2014	CSI. TC 0.99 BC 0.50 WB 0.86 Matrix-R	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) 0.23 10-11 0.22 10-11 -0.03 9	l/defl L/d >592 240 >634 180 n/a n/a	PLATES GRIP MT20 244/190 Weight: 38 lb
- 1	BCDL 7.0	BCDL 10.5	IBC2012/TPI2007					FT = 0%

LUMBER-**BRACING-**

TOP CHORD 2x4 SP No.1 TOP CHORD Structural wood sheathing directly applied, except end BOT CHORD 2x3 SP No.2 verticals.

WFRS 2x2 SP No.2 BOT CHORD Rigid ceiling directly applied or 3-1-6 oc bracing.

REACTIONS. (lb/size) 12=428/0-3-8 (min. 0-1-8), 9=428/0-3-8 (min. 0-1-8)

Max Horz 12=166(LC 8)

Max Uplift 12=-518(LC 7), 9=-513(LC 9) Max Grav 12=490(LC 13), 9=490(LC 13)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-12=-248/117, 1-2=-25/61, 2-3=-644/1641, 3-4=-925/2249, 4-5=-929/2275, 5-6=-939/2319,

6-7=-505/1313, 7-8=-26/93, 8-9=-331/143

**BOT CHORD** 11-12=-1535/630, 10-11=-2167/927, 9-10=-1202/515

4-11=-253/669, 5-10=-417/1109, 2-12=-834/2078, 3-11=-886/417, 6-10=-1458/623, 7-9=-783/1996 **WEBS** 

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=177mph (3-second gust) Vasd=140mph @24in o.c.; TCDL=2.8psf; BCDL=2.8psf; (Alt. 180mph @16in o.c., TCDL=4.2psf; BCDL=4.2psf); h=30ft; 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
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 518 lb uplift at joint 12 and 513 lb uplift at joint 9.
- 8) Fixity of members 12 1, 9 8 have been changed.
- 9) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 10) This truss is designed in accordance with the 2012 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
- 11) This truss is designed in accordance with the 2015 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
- 12) When adjusting the variable span dimension, adjust the post placement dimensions proportional to the change in span.

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





3/2/2022

# WARNING - Verify design parameters and READ NOTES Universal Forest Products, Inc. PHONE (616)-364-6161 FAX (616)-365-0060

2801 EAST BELTLINE RD, NE 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







Job Truss MFG Customer
95531 SF351201 316 SPECIALIZED STRUCTURES

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.







<u> </u>							
Job	Truss	MFG	Customer				
95531	SF351201	316	SPECIALIZED STRUCTURES				

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





Job	Truss	MFG	Customer
95531	SF351201	316	SPECIALIZED STRUCTURES

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.











## 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) MODULAR BUILDING PLAN NUMBER: FSS-10911

Name of Project:						
Address:		Zip Code				
Owner/Authorized Agent: Phone # (	) -	E-Mail				
	Private	☐ State				
Code Enforcement Jurisdiction: City						
code Emoreement Jurisdiction.						
CONTACT: KENNETH EARL DUNMON - NC PE # 017400 - FOR	R MODULAR UNITS ONLY					
DESIGNER FIRM NAME Architectural Civil Electrical Fire Alarm	LICENSE # TELE	PHONE # E-MAIL ) ) )				
Plumbing		)				
Mechanical		)				
Sprinkler-Standpipe						
Structural Retaining Walls >5' High		)				
Other		)				
("Other" should include firms and individuals such as truss, p	recast, pre-engineered, in	nterior designers, etc.)				
2018 NC BUILDING CODE:  New Building						
Standpipes:       ■ No       Yes       Class       I       II         Fire District:       No       Yes       Flood Hazard A         Special Inspections Required:       ■ No       Yes (Contact the Contact	☐ III-A ☐ IV☐ III-B  PA 13 ☐ NFPA 13F☐ III ☐ Wet ☐ D  PARE: ☐ No ☐ Y  Re local inspection jurisds  and requirements.)	V-B  NFPA 13D  Ory				

Gross Building Area Table								
FLOOR	EXISTING (SQ FT)		NEW (SQ FT		SUB-TOTAL			
3 <sup>rd</sup> Floor	, -							
2 <sup>nd</sup> Floor								
Mezzanine								
1st Floor			1494					
Basement								
TOTAL			1494					
		AL	LOWABLE AR	E <b>A</b>				
Primary Occupa	nev Classification(s): S	elect or	ne Selectione Se	elect one Select	tone Select one Select one			
Assembly	$\square$ A-1 $\square$ A-2 $\square$ A			<u> </u>	<u> </u>			
Business		15 [						
Educational								
Factory	F-1 Moderate F-	2 Low						
Hazardous	H-1 Detonate H			umbuat □ II 4:	Haalth			
	I-1 Condition 1	-2 Den	•	illioust n-4 l	Health    H-3 HFW			
Histitutional	I-1 Condition I 1	$\square^2$						
	I-2 Condition 1	$\square^2$		□ 5				
		□ 2	2	5				
3.6 (1	∐ I-4							
Mercantile			<b></b>					
Residential	$\square$ R-1 $\square$ R-2 $\square$ I	_	R-4					
Storage	S-1 Moderate							
	Parking Garage	)pen [	Enclosed F	Repair Garage				
Utility and M	Iscellaneous							
Accessory Occup	pancy Classification(s):							
<b>Incidental Uses</b> (	(Table 509):							
Special Uses (Ch	napter 4 – List Code Sec	tions):						
Special Provision	ns: (Chapter 5 – List Co	de Sec	tions):					
Mixed Occupan	cy: No Y	s	Separation: 0	_ Hr. Exce	eption:			
☐ Non-	Separated Use (508.3) -	The rea	quired type of con	struction for the	building shall be determined by			
			-		for each of the applicable			
					most restrictive type of			
		constru	action, so determin	ned, shall apply t	to the entire building.			
☐ Sepa	rated Use (508.4) - See b	elow fo	or area calculation	s for each story,	the area of the occupancy shall			
	be su	ch that		ios of the actual	floor area of each use divided by			
Actua	l Area of Occupancy A	+	Actual Area of C	Occupancy B	<b>≤</b> 1			
	le Area of Occupancy A		Allowable Area of					
				- •				
		+		+	$= \leq 1.00$			

STORY	DESCRIPTION AND	(A)	(B)	(C)	(D)
NO.	USE	BLDG AREA PER	TABLE $506.2^4$	AREA FOR FRONTAGE	ALLOWABLE AREA PER
		STORY (ACTUAL)	AREA	INCREASE <sup>1,5</sup>	STORY OR UNLIMITED <sup>2,3</sup>
1	OFFICE	1494	9000	NOT USED	9000

<sup>&</sup>lt;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 =(I	()
--	----------------------------------	----

b. Total Building Perimeter

c. Ratio (F/P) = \_\_\_\_ (F/P)
d. W = Minimum width of public way = \_\_\_\_ (W)

e. Percent of frontage increase  $I_f = 100[F/P - 0.25] \times W/30 =$  \_\_\_\_\_(%)

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



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

<sup>&</sup>lt;sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2).

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

#### FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING PROVIDED (W/* REDUCTION)	DETAIL # AND SHEET #	DESIGN# FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		N/A					
Bearing Walls							
Exterior		N/A					
North		N/A					
East		N/A					
West		N/A					
South		N/A					
Interior		N/A					
Nonbearing Walls and Partitions Exterior walls							
North		N/A					
East		N/A					
West		N/A					
South		N/A					
Interior walls and partitions		N/A					
Floor Construction Including supporting beams and joists		N/A					
Floor Ceiling Assembly		N/A					
Columns Supporting Floors		N/A					
Roof Construction, including supporting beams and joists		N/A					
Roof Ceiling Assembly		N/A					
Columns Supporting Roof		N/A					
Shaft Enclosures - Exit		N/A					
Shaft Enclosures - Other		N/A					
Corridor Separation		N/A					
Occupancy/Fire Barrier Separat	ion	N/A					
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Smoke Partition		N/A					
Tenant/Dwelling Unit/ Sleeping Unit Separation		<b>N</b> /A					
Incidental Use Separation		N/A					

<sup>\*</sup> Indicate section number permitting reduction

#### PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	Degree of openings Protection (Table 705.8)	Allowable area (%)	ACTUAL SHOWN ON PLANS (%)
30'	N/A		

Exit Fire Smo	LIFE SAFETY SYSTEM REQUIREMENTS  ergency Lighting:  No Yes St Signs:  No Yes Alarm:  No Yes Oke Detection Systems:  No Yes Partial  No Yes  No Yes  No Yes  No Yes  No Yes
	LIFE SAFETY PLAN REQUIREMENTS
Life Sa	afety Plan Sheet #: NOT INCLUDED WITHIN THE MODULAR BLDG PLAN SET. TO BE PROVIDED BY PERMIT APPLICANT
	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)  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) NOT APPLICABLE

TOTAL	ACCESSIBLE	ACCESSIBLE	TYPE A	TYPE A	Түре В	Түре В	TOTAL
Units	Units	Units	Units	Units	Units	Units	ACCESSIBLE UNITS
	Required	PROVIDED	Required	PROVIDED	REQUIRED	Provided	PROVIDED

#### ACCESSIBLE PARKING

(SECTION 1106) NOT APPLICABLE: PROVIDED BY SITE DESIGNER

LOT OR PARKING	TOTAL # OF PA		# OF AC	TOTAL#		
AREA	REQUIRED	PROVIDED	REGULAR WITH	VAN SPAC	ES WITH	ACCESSIBLE
			5' ACCESS AISLE	132" ACCESS	8' ACCESS	PROVIDED
				AISLE	AISLE	
TOTAL						

#### PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE		W	ATERCLOSI	ETS	URINALS	LAVATORIES		SHOWERS	DRINKING	FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX	/TUBS	REGULAR	ACCESSIBLE
SPACE	EXIST'G										
	NEW	2	1		1	2	1			0	0
	REQ'D	1	1			1	1			1	1

DRINKING FACILITIES TO BE PROVIDED ON SITE SUBJECT TO APPROVAL OF THE AHJ

#### **SPECIAL APPROVALS**

special approval: (Local Jurisdiction, Department of histrance, Or	SC, DF1, DHHS, etc., describe below)

#### **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 env	elope complies with code	e: No No	Yes (The remainder of this se	ection is not applicable)	
Exempt Building:	No Yes (Provide co	ode or statutory reference):			
Climate Zon	e: <b>a</b> 3A <b>b</b> 4A <b>b</b>	5A			
Method of C		Performance 1 Performance specify source here)	☐ Prescriptive ☐ Prescriptive		_
THERMAL ENVEL	OPE (Prescriptive method	l only)			
Desc U-V R-V Skyl	Assembly (each assembly cription of assembly: alue of total assembly: alue of insulation: ights in each assembly:  U-Value of skylight: square footage of skylight	ATTIC WITH WOOD  0.017  R-60  N/A  N/A	) JOIST/TRUSS N/A		
Exterior Wa	lls (each assembly)				
U-V R-V	eription of assembly: alue of total assembly: alue of insulation: nings (windows or doors w U-Value of assembly: Solar heat gain coeffice projection factor: Door R-Values:	: 0.34	16" O.C.		
Walls below	grade (each assembly)				
U-V	eription of assembly: alue of total assembly: alue of insulation:	N/A			
Floors over u	unconditioned space (eacl	h assembly)			
U-V	eription of assembly: alue of total assembly: alue of insulation:	0.038 R-30			
Floors slab o	n grade				1011112022
U-V R-V Hori	eription of assembly: alue of total assembly: alue of insulation: zontal/vertical requiremen heated:	N/A  nt:	•	EMC A	JOHNSON PPROVED 2 21 2023

## 2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

STRUCTURAL DESIGN (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

(PROVID	E ON THE STF	RUCTURA	AL SHEETS	IF APPLICABL	LE)
DESIGN LOADS:					,
Importance Factors:	Snow $(I_S)$	1.0			
	Seismic (I <sub>E</sub> )	1.0			
Live Loads:	Roof	20	psf		
	Mezzanine	400	psf		
	Floor	100	psf		
Ground Snow Load:	<u>20</u> ps	f			
Wind Load: U	Itimate Wind Spe	eed	130	mph (ASCE-7	)
E	xposure Category	y <u>C</u>		· ·	
SEISMIC DESIGN CATEGOI	RY: 🗌 A	□B [	<b>■</b> C □ D		
Provide the following Seismic D	esign Parameters:	:			
Risk Category (Table 1		■ II	III 🔲 IA		
Spectral Response Acc	eleration S	S <sub>S</sub> 0.19	%g	S <sub>1</sub> 0.088	%g
Site Classification (AS	CE 7) 🗌 A	□ B	C D	□ E □ F	7
Data S	ource: 🔲 Field	Test [	Presumptive	ve Historical	Data
Basic structural system	n 🔳 Bearin	ng Wall	□ D	ual w/Special Mo	ment Frame
	☐ Buildi	ing Frame	□ D	ual w/Intermedia	te R/C or Special Stee
	☐ Mome	ent Frame	☐ In	verted Pendulum	
Analysis Procedure:	☐ Simp	lified	Equivale	nt Lateral Force	Dynamic
Architectural, Mechan	ical, Componen	ts anchor	ed? 🔳 Y	es 🗌 No	
LATERAL DESIGN CONTRO	<b>DL:</b> Earthquake	e 🗌	Wind		
COIL DEADING CADACITIE	c.				
SOIL BEARING CAPACITIE Field Test (provide copy			n	sf	
Presumptive Bearing ca		2,0		sf	
Pile size, type, and capa			r		



## 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: 20	
summer dry bulb: 93	
Interior design conditions	
winter dry bulb: 72	
summer dry bulb: 78	
relative humidity: 50	
Building heating load: 27228	_
Building cooling load: 48003	
Mechanical Spacing Conditioning S	ystem
Unitary	
description of unit:	
heating efficiency:	
cooling efficiency:	
size category of unit:	
Boiler	
Size category. If oversize	ed, state reason.:
Chiller	
Size category. If oversize	ed, state reason.:
List equipment efficiencies: 1	1.0 EER (SPVAC)



## 2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

#### **ELECTRICAL SUMMARY**

#### ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:       Energy Code       ☐ Performance       ☐ Prescriptive         ASHRAE 90.1       ☐ Performance       ☐ Prescriptive
Lighting schedule (each fixture type)
lamp type required in fixture number of lamps in fixture ballast type used in the fixture number of ballasts in fixture total wattage per fixture total interior wattage specified vs. allowed (whole building or space by space) total exterior wattage specified vs. allowed
Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)
<ul> <li>□ C406.2 More Efficient HVAC Equipment Performance</li> <li>□ C406.3 Reduced Lighting Power Density</li> <li>□ C406.4 Enhanced Digital Lighting Controls</li> <li>□ C406.5 On-Site Renewable Energy</li> <li>□ C406.6 Dedicated Outdoor Air System</li> <li>□ C406.7 Reduced Energy Use in Service Water Heating</li> </ul>

