MECHANICAL NOTES:

1. ALL SUPPLY AIR REGISTERS SHALL BE 24 INCHES x 24 INCHES ADJUSTABLE WITH 8 INCHES x 18 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS IN UNCONDITIONED SPACES SHALL HAVE R-6 MINIMUM INSULATION AND R-8 INSULATION WHERE LOCATED OUTSIDE THE BUILDING.
2. INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN (FOR UNRATED DOORS)
3. HVAC EQUIPMENT SHALL BE EQUIPPED W/OUTSIDE FRESH AIR INTAKES PROVIDING 5 CFM PER PERSON & 0.06 CFM PER S.F. BLDG. AREA PER SECTION 403.3 OF THE IMC, AND NCMC.
4. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
5. THERMOSTAT MUST BE PROGRAMMABLE
6. HEATING SYSTEM CONTROLS MUST BE CAPABLE TO BEING SET TO AUTOMATICALLY RESTART AND TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN TEMPERATURES ABOVE AN ADJUSTABLE HEATING SETPOINT AT LEAST 10° F. BELOW THE OCCUPIED HEATING SETPOINT. COOLING SYSTEM CONTROLS MUST BE CAPABLE OF BEING SET TO AUTOMATICALLY RESTART AND TEMPORARILY OPERATE THE MECHANICAL COOLING SYSTEM AS REQUIRED TO MAINTAIN TEMPERATURES BELOW AN ADJUSTABLE COOLING SETPOINT AT LEAST 5° F ABOVE THE OCCUPIED COOLING SET POINT OR TO PREVENT HIGH SPACE HUMIDITY LEVELS.
7. EXHAUST FANS SHALL PROVIDE A MINIMUM OF 70 CFM FOR EACH WATER CLOSET AND SHALL VENT NO CLOSER THAN 10 FEET FROM MECHANICAL INTAKE.

LIMITATIONS OF APPROVAL N.J.

1. THE APPROVAL OF THE PLAN UNDER THE INDUSTRIALIZED BUILDING COMMISSION PROGRAM IS PART OF THE MANUFACTURERS BUILDING SYSTEM APPROVAL.
2. A PLAN FOR EACH SPECIFIC LOCATION MAY NEED TO BE SUBMITTED TO THE LOCAL AUTHORITY HAVING JURISDICTION, AS MAY BE REQUIRED FOR PERMITTING PURPOSES. THE PERMIT SET MAY NEED TO INCLUDE A FOUNDATION PLAN FOR THE SPECIFIC BUILDING SITE, SIGNED AND SEALED BY A N.J. LICENSED ENGINEER OR ARCHITECT, IN ACCORDANCE WITH THE STATE AND LOCAL REQUIRMENTS.

SPECIAL CONDITIONS AND REQUIRMENTS

- ANY SITE ADDED STRUCTURES MUST BE INDEPENDENT OF THE FACTORY BUILDING UNLESS THE ENTIRE BUILDING IS REVALUATED BY THE SITE ENGINEER.
- TYPICAL FOUNDATION 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 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. REFER TO BRACING PAGE FOR APPLICABLE BRACING/SEISMIC LOADS FOR ATTACHING THE BUILDING TO FOUNDATIONS.
- 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.

PLUMBING NOTES:

1. TOILETS SHALL BE ELONGATED WITH NONABSORBENT OPEN FRONT SEATS.
2. REST ROOM WALLS SHALL BE COVERED WITH NONABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 48 INCHES A.F.F. FLOORS SHALL HAVEA SMOOTH, HARD, NONABSORBENT SURFACE THAT EXTENDS UPWARD ONTO THE WALLS AT LEAST 6 INCHES
3. THIS UNIT MUST BE CONNECTED TO A PUBLIC WATER SUPPLY AND SEWER SYSTEM IF THESE ARE AVAILABLE.
4. ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUTOFF VALVES.
5. WATER HEATER SHALL HAVE SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR, T & P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT OFF VALVE WITHIN 3 FEET ON A COLD WATER SUPPLY LINE.
6. DWV SYSTEM SHALL BE EITHER ABS OR PVC - DWV.
7. WATER SUPPLY LINES SHALL BE PEX AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LIMITATIONS AND INSTRUCTIONS.
8. WATER CLOSETS ARE TANK TYPE AND URINALS ARE FLUSH VALVE TYPE UNLESS OTHERWISE SPECIFIED.
9. BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
10. SHOWERS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE WITH A MAXIMUM WATER OUTLET TEMPERATURE OF 120°F (48.8°C).
11. 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.
12. WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION.
13. WATER, SOIL AND WASTE PIPES IN UNCONDITION SPACES SHALL BE INSULATED AND PROTECTED FROM FREEZING.
14. CUSTOMER ASSUMES ALL RESPONSIBLITY FOR REQUIRED PLUMBING FACILITIES WHICH NOT SHOWN ON THE PLANS.
15. 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 110°F(43°C).
16. WHEN RESTROOM FACILITIES AND/OR PLUMBING FIXTURES REQUIRED PER CODE ARE NOT PROVIDED WITHIN THE BITH DING, A HANDICAPPED ACCESSIBLE FACILITY MUST BE PROVIDED ON SITE WITHIN THE ALLOWABLE DISTANCE PER CODE. THE REQUIRED FACILITY SHALL BE THE RESPONSIBILITY OF THE BUILDING OWNER AND IS SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. THIS NOTE SHALL BE INDICATED ON THE DATA PLATE

GENERAL NOTES:

1. ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION APPROVAL. THE PRIMARY ENTRANCE MUST BE ACCESSIBLE.
2. ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
3. ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
4. SEE CROSS SECTION FOR ROOF TO WALL AND WALL TO FLOOR CONNECTIONS AND TIE DOWN REQUIRMENTS
5. STRAPPING MUST BE TESTED AND/OR CERTIFIED TO VERIFY THE STRUCTURAL CAPACITY. APPROPRIATE DOCUMENTATION MUST BE ON FILE AT THE MODULAR BUILDING FACTORY.
6. WINDOWS AND DOORS MUST BE CERTIFIED FOR COMPLIANCE WITH THE WIND DESIGN PRESSURE FOR COMPONENTS AND CLADDING.
7. A FIRE ALARM MUST BE SITE INSTALLED BY OTHERS, SUBJECT TO APPROVAL BY AUTHORITY HAVING JURISDICTION.
8. PROVISIONS FOR EXTERIOR DISCHARGE LIGHTING ARE THE RESPONSIBILITY OF THE GENRAL CONTRACTOR AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN (INCLUDING EMERGENCY LIGHTING, WHEN REQUIRED).
9. PORTABLE FIRE EXTINGUISHER PER N.F.P.A. - 10 INSTALLED BY OTHERS ON SITE, AND SUBJECT TO LOCAL JURISDICTION.
10. IN WIND-BORNE DEBRIS REGIONS, EXTERIOR GLAZING SHALL BE IMPACT RESISTANT OR PROTECTED WITH AN IMPACT RESISTANT COVERING MEETING THE REQUIREMENTS OF AN APPROVED IMPACT RESISTANT STANDARD, OR ASTM E1996. WIND-BORNE DEBRIS REGIONS ARE DESIGNATED IN SECTION 1609 OF THE IBC, NCBC.
11. THIS BUILDING IS DESIGNED FOR NORTH CAROLINA THERMAL ZONE 4a
12. FOR NC INSTALLATION, REQUIRED EGRESS WINDOWS SHALL HAVE BOTTOM OF CLEAR OPENING NOT GREATER THAN 44" MEASURED FROM THE FLOOR. FOR CLASSROOMS SERVING 5TH GRADE AND LOWER THE BOTTOM OF THE CLEAR OPENING SHALL NOT BE MORE THAN 32" MEASURED FROM THE FLOOR.

WINDOW & DOOR SPECIFICATIONS

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

ELECTRICAL NOTES:

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

MARYLAND NOTES:

1. REFER TO STATE PACKAGE PAGE NO. C34.0 FOR REQUIRED DUCT PROTECTION AT CONNECTION TO HVAC UNIT.
2. THE FOLLOWING NOTE SHALL BE ON THE BLDG. DATA PLATE: THIS BUILDING HAS NOT BEEN DESIGNED FOR AND IS NOT APPROVED FOR INSTALLATION IN THE FOLLOWING MARYLAND COUNTIES: ALLEGANY, BALTIMORE COUNTY, BALTIMORE CITY, CARROLL, FREDERICK, HARFORD, HOWARD, MONTGOMERY, PRINCE GEORGE'S, WASHINGTON
3. HVAC SYSTEM SHALL COMPLY WITH NFPA 90B WHEN BUILDING VOLUME DOES NOT EXCEED 25,000 CUBIC FEET, OTHERWISE HVAC SYSTEM SHALL COMPLY WITH NFPA 90A.
4. THESE PLANS ARE PREPARED TO FACILITATE CONSTRUCTION OF THE PRE-ENGINEERED FACTORY BUILT MODULAR BUILDING, AND THEY ARE COORDINATED WITH THE MINIMUM SITE WORK REQUIREMENTS FOR THE MODULAR BUILDING. THE PROJECT ARCHITECT OF RECORD IS RESPONSIBLE FOR INCORPORATION AND COORDINATION OF THESE PLANS INTO THE OVERALL PROJECT DESIGN.
5. TO LOCAL BUILDER AND/OR SITE DEVELOPER: ALL SITE WORK INCLUDING THE FOUNDATION FOR THE BUILDING, IS REQUIRED TO BE REVIEWED AND APPROVED BY A MD. REG. ARCH. OR ENG. TO VERIFY CODE COMPLIANCE INCLUDING BUT NOT LIMITED TO FIRE RESISTANCE RATINGS FOR EXTERIOR PROTECTION, MEANS OF EGRESS, HEIGHT AND AREA LIMITATIONS, OTHER PERTINENT SITE RELATED MATTERS. DOCUMENTS RELATED TO SITE WORK, INCLUDING SITE AND DEVELOPMENT DRAWINGS, SHALL BE SUBMITTED TO THE LOCAL GOVERMENT AGENCY FOR REVIEW AND APPROVAL.
6. INSTALL STATE INSIGNIA AND BUILDING DATA PLATE IN THE VICINITY OF ELECTRICAL DISTRIBUTION PANEL OR OTHER LOCATION AS MAY BE READILY ACCESSIBLE FOR INSPECTION, BUT NOT ON ANY READILY REMOVABLE FIXTURE.
7. WHEN THE 2018 ICCC IS THE APPLICABLE ENERGY CODE. SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHERE LOCATED IN UNCONDITIONED SPACES AND WHERE LOCATED OUTSIDE THE BUILDING WITH A MINIMUM OF R-8 INSULATION IN CLIMATE ZONES 1 THRU 4 AND A MINIMUM OF R-12 INSUL. IN CLIMATE ZONE 5. WHEN LOCATED WITHIN A BUILDING ENCLOSURE HAVING AT LEAST R-8 INSULATION SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-8 INSULATION IN CLIMATE ZONES 1 THRU 4 AND A MINIMUM OF R-12 INSULATION IN CLIMATE ZONE 5.

STATEMENT OF SPECIAL INSPECTIONS (IBC SECTION 1704.3)

THE FOLLOWING MATERIALS, SYSTEMS COMPONENTS OR WORK REQUIRE SPECIAL INSPECTIONS IN ACCORDANCE WITH IBC SECTION 1705.

1. SOILS-PERIODIC
2. CONCRETE FOOTINGS-EXEMPT PER 1705.3 EXCEPTION #1
3. MASONRY PIERS-PERIODIC
4. BUILDING ANCHORAGE SYSTEM-PERIODIC
5. ON SITE STRUCTURAL INTERCONNECTIONS BETWEEN BUILDING MODULES-PERIODIC.
6. SPECIAL INSPECTIONS OF THE FACTORY BUILT MODULAR UNITS IS NOT REQUIRED DURING PRODUCTION IN THE FACTORY PER IBC SECTION 1704.2.5.1. THE MODULAR BUILDING MANUFACTURER IS AN APPROVED FABRICATOR OF PREMANUFACTURED BUILDINGS UNDER THE MARYLAND INDUSTRIALIZED BUILDING PROGRAM AND IS THEREFORE APPROVED TO MANUFACTURE WITHOUT SPECIAL INSPECTIONS

MD, NJ, SC, VA STRUCTURAL LOAD LIMITATIONS:

FLOOR DEAD AND LIVE LOAD:
A. DEAD LOAD = 12 PSF (AVERAGE).
B. CONCENTRATED LIVE LOAD = 100 PSF CORRIDOR
C. CONCENTRATED LIVE LOAD = 1000 LB OVER 30 INCH X 30 INCH AREA LOCATED ANYWHERE ON FLOOR. NOTE: UNIFORM AND CONCENTRATED LIVE LOADS ARE NOT SIMULTANEOUSLY APPLIED.

ROOF DEAD AND LIVE LOAD:
A. DEAD LOAD = 13 PSF (AVERAGE).
B. LIVE LOAD = 20 PSF.

ROOF SNOW LOAD:
A. GROUND SNOW LOAD: Pg = 30 PSF
B. FLAT-ROOF SNOW LOAD: Pf = 23.8 PSF
C. EXPOSURE FACTOR: Ce = 1.0
D. SNOW IMPORTANCE FACTOR: Is = 1.1
E. SNOW THERMAL FACTOR: Ct = 1.0
F. ROOF SLOPE FACTOR: Cs = 1.0
G. SLOPED ROOF SNOW LOAD: Ps = Pf x Cs
H. DESIGN IS BASED ON FULL OR PARTIALLY EXPOSED ROOF PER ASCE 7-16.

WIND LOAD:
A. BASIC WIND SPEED (3-SEC GUST): V = 150 MPH
B. ASD WIND SPEED (3-SEC GUST): Vasd = 116 MPH
C. RISK CATEGORY: II
D. WIND EXPOSURE CATEGORY: C
E. INTERNAL PRESSURE COEFFICIENT: GCpi = 0.18
F. COMPONENT & CLADDING BASIC DESIGN PRESSURES (ASD DESIGN PRESSURE) FOR ROOF ANGLES 0 TO 7 DEGREES.
WALL ZONE 5: P = +/- 65.6 PSF (Pnet = +/-39.3 PSF)
WALL ZONE 4: P = +/- 53.1 PSF (Pnet = +/-31.8 PSF)
ROOF ZONE 3: P = - 140.2 PSF (Pnet = - 84.1 PSF)
ROOF ZONE 2: P = - 103.0 PSF (Pnet = - 61.8 PSF)
ROOF ZONE 1: P = - 78.0 PSF (Pnet = - 46.8 PSF)
ROOF ZONE 1': P = - 44.8 PSF (Pnet = - 26.9 PSF)

SEISMIC LOAD:
A. RISK CATEGORY: II /II.
B. SEISMIC IMPORTANCE FACTOR: Ie 1.25
C. SEISMIC SITE CLASS: D.
D. SPECTRAL RESPONSE COEFFICIENTS:
Ss = 0.189 Sds = 0.252
Sm = 0.49 Sd1 = 0.318
E. SEISMIC DESIGN CATEGORY: B. C.
F. SEISMIC FORCE RESISTING SYSTEM IS A13.
G. EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE
H. SEISMIC RESPONSE COEFFICIENT: Cs = 0.09
I. SEISMIC RESPONSE COEFFICIENT: Cs = 0.09
J. DESIGN BASE SHEAR V = 3610T LBS

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

ROOF RAIN LOAD (IPC APPENDIX B):
A. RAIN INTENSITY: I = 4.3 INCHES/HOUR

NC STRUCTURAL LOAD LIMITATIONS:

FLOOR DEAD AND LIVE LOAD:
A. DEAD LOAD = 12 PSF (AVERAGE).
B. CONCENTRATED LIVE LOAD = 100 PSF CORRIDOR
C. CONCENTRATED LIVE LOAD = 1000 LB OVER 30 INCH X 30 INCH AREA LOCATED ANYWHERE ON FLOOR. NOTE: UNIFORM AND CONCENTRATED LIVE LOADS ARE NOT SIMULTANEOUSLY APPLIED.

ROOF DEAD AND LIVE LOAD:
A. DEAD LOAD = 13 PSF (AVERAGE).
B. LIVE LOAD = 20 PSF.

ROOF SNOW LOAD:
A. GROUND SNOW LOAD: Pg = 20 PSF
B. FLAT-ROOF SNOW LOAD: Pf = 15.4 PSF
C. EXPOSURE FACTOR: Ce = 0.9
D. SNOW IMPORTANCE FACTOR: Is = 1.1
E. SNOW THERMAL FACTOR: Ct = 1.0
F. ROOF SLOPE FACTOR: Cs = 1.0
G. SLOPED ROOF SNOW LOAD: Ps = Pf x Cs
H. DESIGN IS BASED ON FULL OR PARTIALLY EXPOSED ROOF PER ASCE 7-16.

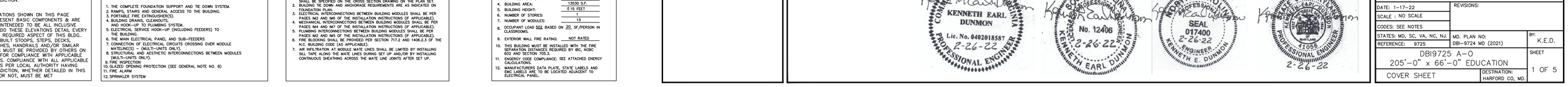
WIND LOAD:
A. BASIC WIND SPEED (3-SEC GUST): V = 150 MPH
B. ASD WIND SPEED (3-SEC GUST): Vasd = 116 MPH
C. RISK CATEGORY: II
D. WIND EXPOSURE CATEGORY: C
E. INTERNAL PRESSURE COEFFICIENT: GCpi = 0.18
F. COMPONENT & CLADDING BASIC DESIGN PRESSURES (ASD DESIGN PRESSURE) FOR ROOF ANGLES 0 TO 7 DEGREES.
WALL ZONE 5: P = +/- 65.6 PSF (Pnet = +/-38.3 PSF)
WALL ZONE 4: P = +/- 53.1 PSF (Pnet = +/-31.8 PSF)
ROOF ZONE 3: P = - 123.7 PSF (Pnet = - 74.2 PSF)
ROOF ZONE 2: P = - 82.2 PSF (Pnet = - 49.3 PSF)
ROOF ZONE 1: P = - 49.0 PSF (Pnet = - 29.4 PSF)

SEISMIC LOAD:
A. RISK CATEGORY: II /II.
B. SEISMIC IMPORTANCE FACTOR: Ie 1.25
C. SEISMIC SITE CLASS: D.
D. SPECTRAL RESPONSE COEFFICIENTS:
Ss = 0.189 Sds = 0.252
Sm = 0.49 Sd1 = 0.318
E. SEISMIC DESIGN CATEGORY: B. C.
F. SEISMIC FORCE RESISTING SYSTEM IS A15.
G. EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE
H. SEISMIC RESPONSE COEFFICIENT: Cs = 0.09
I. SEISMIC RESPONSE COEFFICIENT: Cs = 0.09
J. DESIGN BASE SHEAR V = 3610T LBS

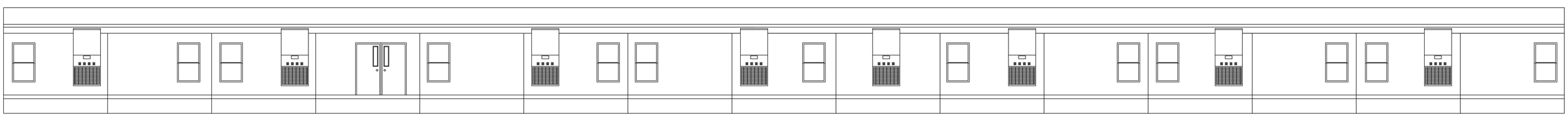
FLOOD LOAD:
THE MODULAR BUILDING UNITS ARE NOT DESIGNED TO BE SUBMERGED OR SUBJECT TO WAVE ACTION. IF INSTALLED IN A FLOOD HAZARD AREA THE MODULAR BUILDING UNITS MUST BE INSTALLED ABOVE THE MINIMUM BASE FLOOD ELEVATION DERIVED FROM APPROPRIATE FLOOD ELEVATION MAPS FOR THE BUILDING SITE OR SET ON A FOUNDATION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

ACCESSIBILITY NOTES:

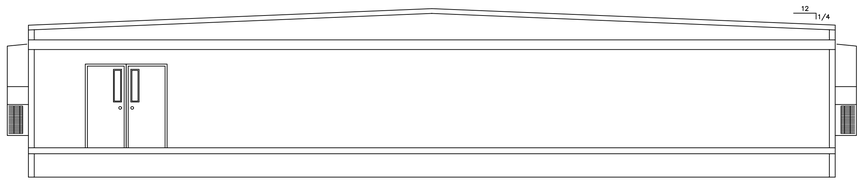
1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
2. ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY BENDING.
3. WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS AND DRAWERS ARE PROVIDED AT LEAST ONE TYPE SHALL BE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS: ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (I.E. TOUCH LATCHES, U-SHAPED PULLS):. SPACES SHALL BE 15 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH OR SIDE REACH: CLOTHES RODS OR COAT HOOKS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM WHEN DISTANCE FROM WHEEL CHAIR TO ROD EXCEEDS 10 INCHES). SHELVES IN KITCHENS OR TOILET ROOMS SHALL BE: 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE IN FLOOR.
4. CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 48 INCHES ABOVE THE FLOOR. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE, OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
5. WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED, 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,WHICH-EVER 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 FOR OTHER THAN FIRE DOORS SHALL NOT EXCEED 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR HINGED DOORS.
7. FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. CHANGES IN LEVEL BET-WEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2 CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
8. 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 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.
9. 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 (THIS EXCLUDES SINKS IN CABINETRY). 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.
11. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE PROTECTED AGAINST CONTACT. 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 ACCESSIBLE 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 AT 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 WALL SHALL BE 1.5 INCHES.
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 MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.
17. TOILET STALL DOORS SHALL BE THE SELF-CLOSING TYPE.
18. A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVTORIES.



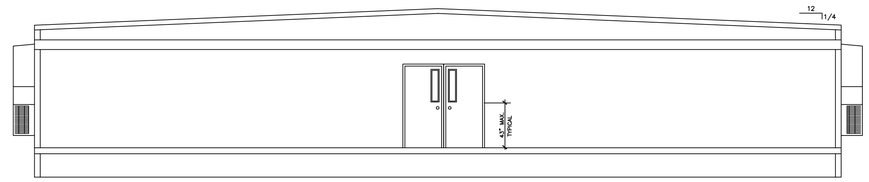
RIGHT ELEVATION



LEFT ELEVATION



REAR ELEVATION



FRONT ELEVATION

CODE SUMMARY:						
STATE	BUILDING	ELECTRICAL	MECHANICAL	PLUMBING	ACCESSIBILTY	ENERGY CODE
SOUTH CAROLINA	2018 IBC AND 2018 IFC WITH SC MODS.	2017 NEC W/SC MODS.	2018 IMC W/ SC MODS.	2018 IPC	ICC/ANSI A117.1-2017	2009 IECC
	FUEL AND GAS 2018 FUEL & GAS W/SC MODS.					
NEW JERSEY	2018 IBC W/ N.J. AMENDS	2017 NEC W/N.J. AMEND

SYMBOL	DOOR SCHEDULE	TOTAL
A	36"x80" SOLID CORE IMPERIAL OAK W/REDIFRAME WITH 4"x24" VIEW BLOCK SAFETY GLASS	11
B	36"x80" SOLID CORE IMPERIAL OAK W/REDIFRAME	16
C	36"x96" SOLID CORE IMPERIAL OAK W/REDIFRAME PUSH/PULL WITH LATCH	2
D	72"x80" STEEL/STEEL W/4"x24" VIEW PANEL WITH PANIC HARDWARE	4
E	36"x80" SOLID CORE IMPERIAL OAK W/REDIFRAME WITH CLOSER	1
SYMBOL	WINDOW SCHEDULE	TOTAL
X	36"x60" VERTICAL SLIDE, INSULATED BRONZE/TINTED	27

DOOR HARDWARE:

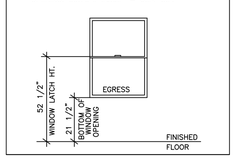
LEVER PRIVACY: RESTROOMS
KEYED LEVER LOCKSET (EXTERIOR DOORS)
LEVER PASSGE: CLASSROOMS

WINDOW SCHEDULE

EXTERIOR:

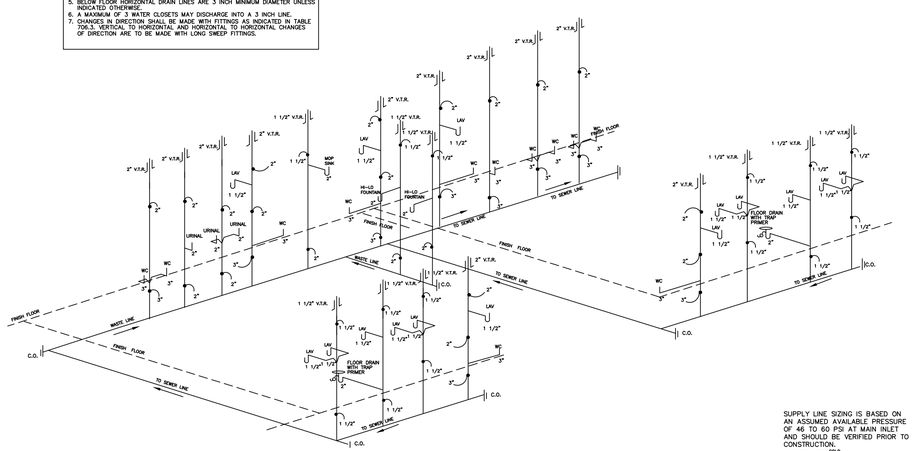
36"x60" VERTICAL SLIDER +50/-50 DP INSULATED LOW-E, WHITE VINYL FRAME, TINTED GLASS

OPENING: 33.75"x 26.62" = 6.24 S.F.

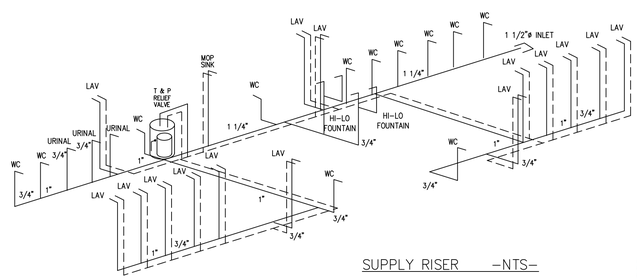


DWV RISER NOTES:

1. THE DWV RISER INDICATES ONE METHOD OF INSTALLING THE 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 CH DWV PER MPC.
3. 1 1/2 INCH AND 2 INCH HORIZONTAL DRAIN LINES SHALL BE INSTALLED WITH A SLOPE OF 1/4 INCH PER FOOT.
4. 3 AND 4 INCH HORIZONTAL DRAIN LINES SHALL BE INSTALLED WITH A SLOPE OF 1/8 INCH PER FOOT.
5. BELOW FLOOR HORIZONTAL DRAIN LINES ARE 3 INCH MINIMUM DIAMETER UNLESS INDICATED OTHERWISE.
6. A MAXIMUM OF 3 WATER CLOSETS MAY DISCHARGE INTO A 3 INCH LINE.
7. CHANGES IN DIRECTION SHALL BE MADE WITH FITTINGS AS INDICATED IN TABLE 706.3. VERTICAL TO HORIZONTAL AND HORIZONTAL TO HORIZONTAL CHANGES OF DIRECTION ARE TO BE MADE WITH LONG SWEEP FITTINGS.



DWV RISER NTS



SUPPLY RISER —NTS—

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

— — — — COLD
— — — — HOT

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

COLUMN STRAPPING SCHEDULE:

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

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

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 41056 Expiration Date: 10-17-23

EMC APPROVED 02 27 2022

CONSULTING ENGINEER | KENNETH EARL DUNMON — P.O. BOX 6853 — AMERICUS, GEORGIA 31719 — 229-942-2020

NEW JERSEY

CONSULTING ARCHITECT
ROBERT E. GREGG R.A. LIC.#15414
19167 US 19 NORTH–SUITE 120
CLEARWATER, FL 33764 (727) 644-8193

COMMONWEALTH OF VIRGINIA — KENNETH EARL DUNMON — Lic. No. 0402018587 — 2-26-22 — PROFESSIONAL ENGINEER

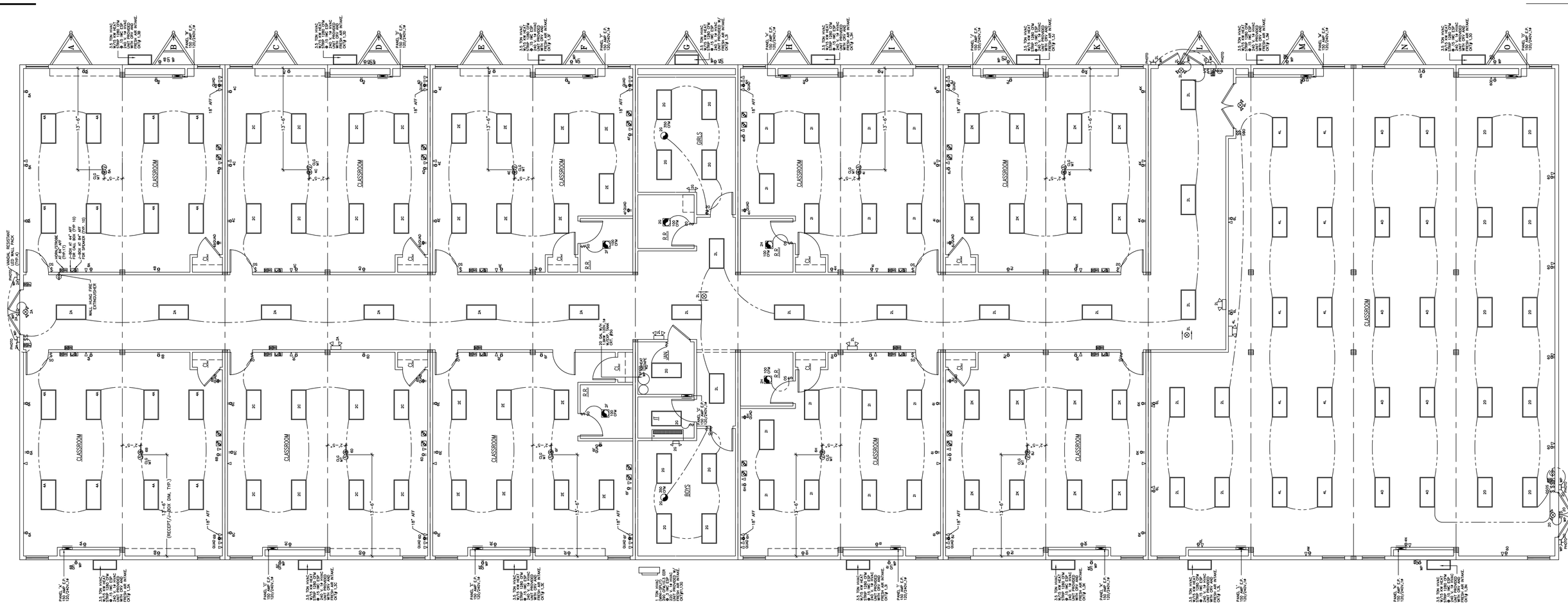
SOUTH CAROLINA PROFESSIONAL ENGINEER — No. 12406 — 2-26-22 — KENNETH EARL DUNMON

NORTH CAROLINA PROFESSIONAL SEAL 017400 — ENGINEER — KENNETH E. DUNMON — 2-26-22

STATE OF MARYLAND — KENNETH EARL DUNMON — No. 41056 — PROFESSIONAL ENGINEER — 2-26-22

DIAMOND BUILDERS INC.
P.O. BOX 2200 440 THOMPSON DR.
DOUGLASS, GEORGIA 31534 (912) 384-7080

DATE: 1-17-22	REVISIONS:	
SCALE : NO SCALE		
CODES: SEE NOTES		
STATES: MD, SC, VA, NC, NJ.	MD. PLAN NO: DBI-9724 MD (2021)	BY: K.E.D.
REFERENCE: 9725		
DBI9725 A-O 205'-0" x 66'-0" EDUCATION		SHEET 2 OF 5
FLOOR PLAN	DESTINATION: HARFORD CO, MD.	



ELECTRICAL SCHEDULE 'F'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'F'	KVA
GENERAL LIGHTING .0030 KW/SF X 102 SF X 1.25=		1.0
18_RECEPTS AT 180VA/1000=		3.2
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 19.8 KW		
TOTAL/240 X 1000= 84 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'E'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'E'	KVA
GENERAL LIGHTING .0030 KW/SF X 1420 SF X 1.25=		5.4
12_RECEPTS AT 180VA/1000=		2.2
WATER HEATER 4.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 23.5 KW		
TOTAL/240 X 1000= 98 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'D'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'D'	KVA
16_RECEPTS AT 180VA/1000=		2.9
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 18.8 KW		
TOTAL/240 X 1000= 77 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'C'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'C'	KVA
GENERAL LIGHTING .0030 KW/SF X 1538 SF X 1.25=		5.8
12_RECEPTS AT 180VA/1000=		2.2
WATER HEATER 4.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 23.9 KW		
TOTAL/240 X 1000= 100 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'B'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
2, 4	RECEPTACLES	20 A	12-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'B'	KVA
16_RECEPTS AT 180VA/1000=		2.9
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 18.8 KW		
TOTAL/240 X 1000= 80 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'A'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
5, 10	RECEPTACLES	20 A	12-2 NM
2, 4, 6	LIGHTING	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'A'	KVA
GENERAL LIGHTING .0030 KW/SF X 2353 SF X 1.25=		8.9
12_RECEPTS AT 180VA/1000=		2.2
WATER HEATER 4.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 27 KW		
TOTAL/240 X 1000= 113 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'O'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
5	RECEPTACLES	20 A	12-2 NM
2, 4	LIGHTING	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'O'	KVA
GENERAL LIGHTING .0030 KW/SF X 1804 SF X 1.25=		6.8
2__RECEPTS AT 180VA/1000=		1.3
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 24 KW		
TOTAL/240 X 1000= 100 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'N'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6, 8	RECEPTACLES	20 A	12-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'N'	KVA
3__RECEPTS AT 180VA/1000=		1.0
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 16.9 KW		
TOTAL/240 X 1000= 71 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'M'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6, 8	RECEPTACLES	20 A	12-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'M'	KVA
3__RECEPTS AT 180VA/1000=		1.0
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 16.9 KW		
TOTAL/240 X 1000= 71 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'L'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
5	RECEPTACLES	20 A	12-2 NM
2, 4	LIGHTING	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'L'	KVA
GENERAL LIGHTING .0030 KW/SF X 2590 SF X 1.25=		9.8
6__RECEPTS AT 180VA/1000=		1.1
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 26.7 KW		
TOTAL/240 X 1000= 112 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'K'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'K'	KVA
GENERAL LIGHTING .0030 KW/SF X 1530 SF X 1.25=		5.8
12_RECEPTS AT 180VA/1000=		2.2
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 23.7 KW		
TOTAL/240 X 1000= 99 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'J'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
6, 8	RECEPTACLES	20 A	12-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'J'	KVA
16_RECEPTS AT 180VA/1000=		2.9
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 18.8 KW		
TOTAL/240 X 1000= 79 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'I'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'I'	KVA
GENERAL LIGHTING .0030 KW/SF X 1410 SF X 1.25=		5.4
12_RECEPTS AT 180VA/1000=		2.2
WATER HEATER 4.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 23.5 KW		
TOTAL/240 X 1000= 98 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'H'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
4, 6	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'H'	KVA
GENERAL LIGHTING .0030 KW/SF X 124 SF X 1.25=		1.0
15_RECEPTS AT 180VA/1000=		2.8
WATER HEATER 6.5 KW =		–
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
TOTAL 20.5 KW		
TOTAL/240 X 1000= 86 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

ELECTRICAL SCHEDULE 'G'

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (SIZ.)
1, 3	HVAC	90 A (2P) HACR	4-2 AL (8 GRND.)
11, 13	MIN SPLIT UNIT	15 A(2P)	12-2 NM
5	WATER HEATER	20 A(1P)	12-2 NM
4	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 MC

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'G'	KVA
GENERAL LIGHTING .0030 KW/SF X 655 SF X 1.25=		2.5
2__RECEPTS AT 180VA/1000=		1.0
WATER HEATER 1.8 KW x 1.25 =		2.3
__FANS AT .3 KW X 1.25=		–
HVAC		15.9
MIN SPLIT UNIT		2.3
TOTAL 25.3 KW		
TOTAL/240 X 1000= 106 AMPS		
INSTALL 150__ AMP PANEL		
120/240 V 1Ø		

SYMBOLS

J-BOXES ONLY.

- FIRE ALARM PULL STATION 44" AFF
- FIRE ALARM HORN/STROBE 80" AFF
- FIRE ALARM STROBE LIGHT 80" AFF
- JUNCTION BOX (NON POWERED UNLESS CIRCUIT NO. IS SHOWN)
- O.S. MT. J-BOX
- SMOKE DETECTOR
- DUPLEX RECEPTACLE 120 V.
- SINGLE RECEPTACLE 240 V.
- QUAD RECEPTACLE 120 V.
- O.S. MT. POWERED J-BOX
- VENT FAN
- COMB. VENT FAN & LED LIGHT
- VANDEL RESISTANT LED WALL PACK
- THERMOSTAT
- LED LIGHT FIXTURE WITH HOM. PANEL
- EXIT/EMERGENCY COMBO W/REMOTE HEAD W/BATTERY BACKUP
- LED EXIT/EMERGENCY COMBO W/BATTERY BACKUP
- EXIT SIGN W/BATTERY BACKUP
- EMERGENCY LIGHT WITH BATTERY BACKUP
- TELEPHONE JACK
- SWITCH & 3 WAY SWITCH
- OCCUPANCY SENSOR SWITCH
- F.E. FIRE EXTINGUISHER

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 41056 Expiration Date: 10-17-23

EMC APPROVED 02 27 2022

CONSULTING ENGINEER	KENNETH EARL DUNMON — P.O. BOX 6853 — AMERICUS, GEORGIA 31719 — 229-942-2020

NEW JERSEY

CONSULTING ARCHITECT
ROBERT E. GREGG R.A. LIC.#15414
18167 US 19 NORTH–SUITE 120
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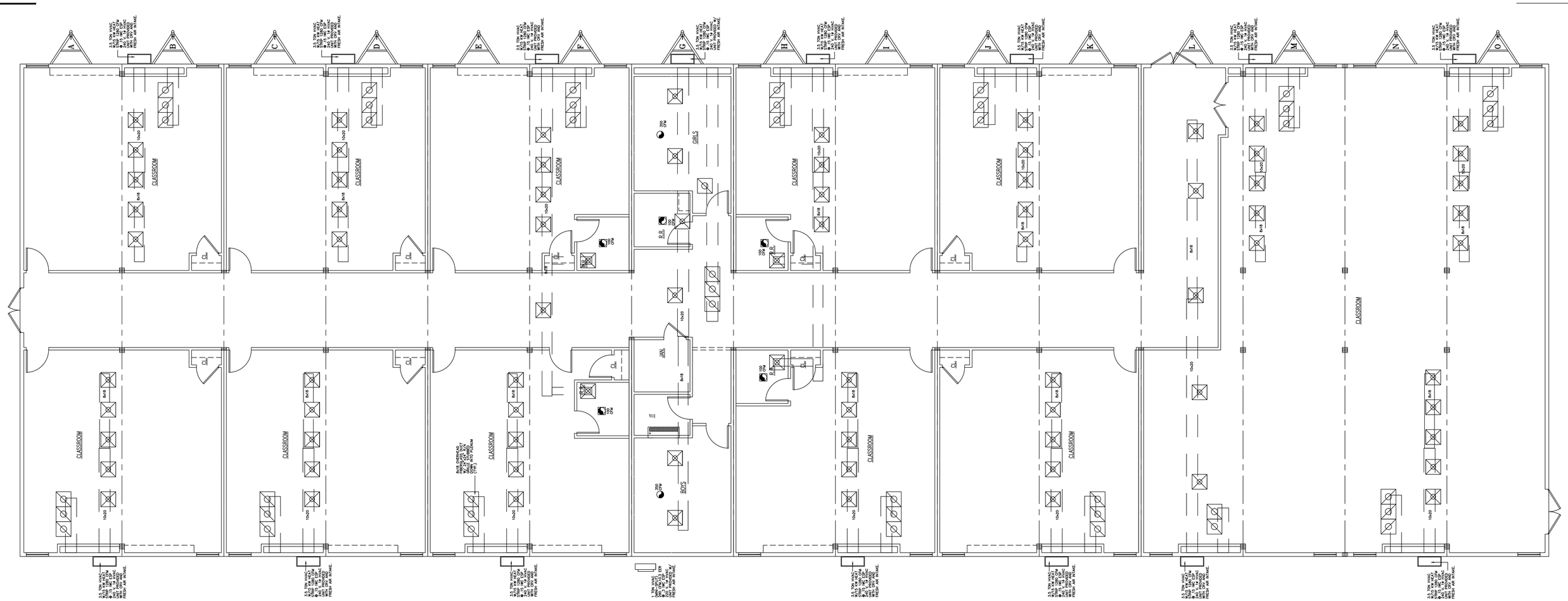
SOUTH CAROLINA PROFESSIONAL ENGINEER — No. 12406 — KENNETH EARL DUNMON — 2-26-22

NORTH CAROLINA PROFESSIONAL SEAL 017400 ENGINEER KENNETH E. DUNMON — 2-26-22

STATE OF MARYLAND — KENNETH EARL DUNMON — 41056 — PROFESSIONAL ENGINEER — 2-26-22

DIAMOND BUILDERS INC.
P.O. BOX 2200
DOUGLASS, GEORGIA 31534
440 THOMPSON DR.
(912) 384-7080

DATE: 1-17-22	REVISIONS:
SCALE : NO SCALE	
CODES: SEE NOTES	
STATES: MD, SC, VA, NC, NJ.	MD. PLAN NO: DBI-9724 MD (2021)
REFERENCE: 9725	BY: K.E.D.
DBI9725 A-O 205'-0" x 66'-0" EDUCATION	SHEET 3 OF 5
ELECTRICAL	DESTINATION: HARFORD CO, MD.


A
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CLASSROOM
CLASSROOM

EXTERIOR FINISH MATERIAL:

ROOF – MULE-HIDE 60 MIL (WHITE) EPDM (ESR-1463) FULLY ADHERED TO 7/16" OSB OR 1/2" PLYWOOD WITH MULE-HIDE FR ADHESIVE IN ACCORDANCE WITH INTERTEK REPORT CCRR-1078 (CLASS C ROOF)

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

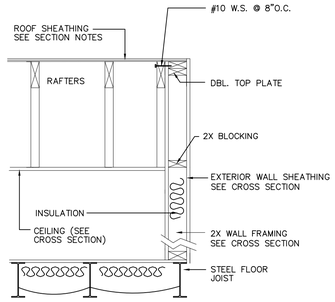
INTERIOR FINISH MATERIAL:

CEILING – T-GRID CEILING INSTALLED PER MANUFACTURER'S SPECIFICATIONS

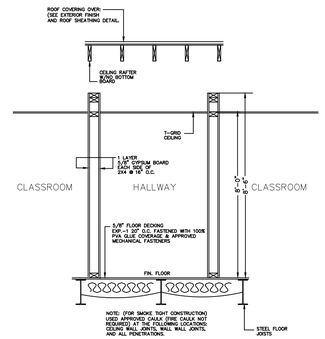
WALL – 5/8" TYPE 'X' GYP. BOARD (VCG THROUGHOUT) INSTALLED PER MANUFACTURERS SPECIFICATIONS

FLOOR – AS NOTED ON FLOOR PLAN

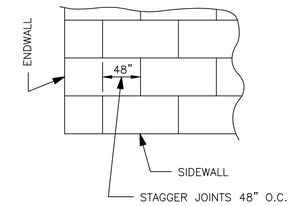
NOTE:
INTERIOR WALL AND CEILING FINISH SHALL BE CLASS B OR BETTER IN IN CORRIDORS AND CLASS C OR BETTER IN ROOMS AND ENCLOSED SPACES. FLOOR FINISHES SHALL BE CLASS II OR BETTER.



BALLOON END WALL DETAIL



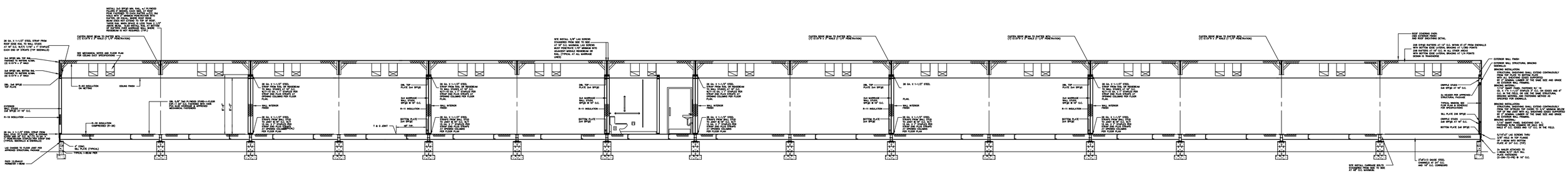
2 SECTION
NTS



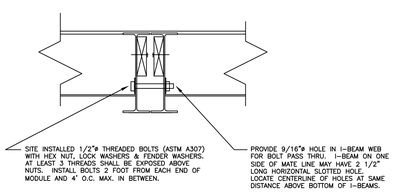
ROOF SHEATHING
FASTENED TO RAFTERS W/0.099"ø x 2" NAILS AT 6" O.C. ON EDGES & 6" O.C. IN THE FIELD ON ALL ZONES

ROOF SHEATHING DETAIL

SEE DBI DESIGN PACKAGE PAGES FOR DIAGONAL BRACING AND ROOF JOIST GUSSET DETAILS.
C36.0-36.3 (2018 IBC)
C34.0-34.3 (2015 IBC)



NOTE:
FOUNDATION PIERS AND FOOTINGS SHOWN ARE FOR REPRESENTATION ONLY. REFER TO FOUNDATION PLAN FOR DESIGN DETAILS



MATE LINE FLOOR CONNECTION
NTS

- 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. TYPICAL FOUNDATION IS NOT INTENDED TO BE ALL INCLUSIVE, NOR DOES THIS SET DETAIL EVERY CODE REQUIRED ASPECT OF THIS BUILDING. COMPLIANCE WITH ALL APPLICATED CODES PER LOCAL AUTHORITY HAVING JURISDICTION WHETHER DETAILED IN THIS SET OR NOT MUST BE MET.

RIDGE BEAM CONSTRUCTION:

(SEE FLOOR PLAN) 3/4" PLYWOOD, RATED SHEATHING, EXP.-1, STRUCT.-1, 5 PLY/5 LAYER, 48/24 EACH HALF CONTINUOUS ENTIRE LENGTH OF CLEARSPAN.

NOTES:

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

GENERAL CROSS-SECTION NOTES:

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

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 41056 Expiration Date: 10-17-23

EMC APPROVED 02 27 2022

NEW JERSEY

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COMMONWEALTH OF VIRGINIA – KENNETH EARL DUNMON – Lic. No. 0402018587 – 2-26-22 – PROFESSIONAL ENGINEER

SOUTH CAROLINA PROFESSIONAL ENGINEER – No. 12406 – 2-26-22 – KENNETH EARL DUNMON

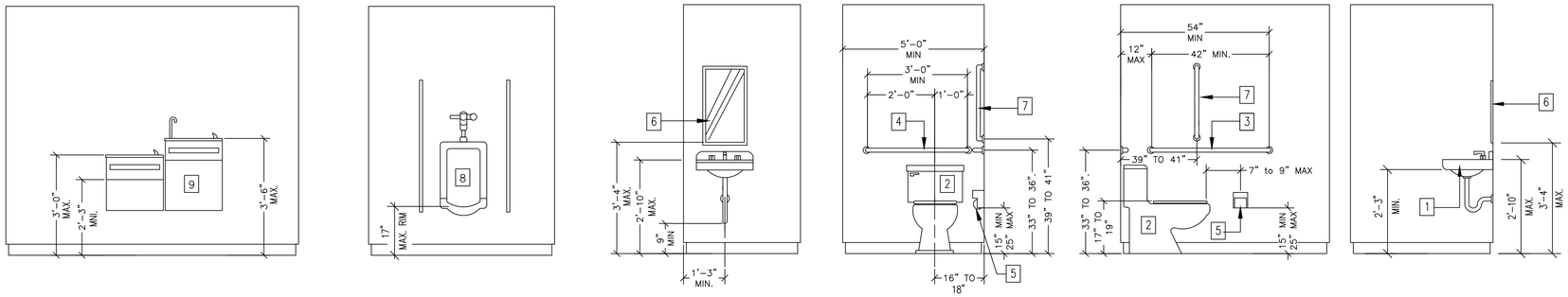
NORTH CAROLINA PROFESSIONAL SEAL 017400 – ENGINEER – KENNETH E. DUNMON – 2-26-22

STATE OF MARYLAND – KENNETH EARL DUNMON – REGISTERED PROFESSIONAL ENGINEER – No. 41056 – 2-26-22

CONSULTING ENGINEER | KENNETH EARL DUNMON – P.O. BOX 6853 – AMERICUS, GEORGIA 31719 – 229-942-2020

DIAMOND BUILDERS INC.
P.O. BOX 2200 DOUGLASS, GEORGIA 31534
440 THOMPSON DR. (912) 384-7080

DATE: 1-11Rev22SCALE	REVISIONS:	
SCALE :		
CODES: SEE NOTES		
STATES: MD, SC, VA, NC, NJ.	MD. PLAN NO:	BY:
REFERENCE: 9725	DBI-9724 MD (2021)	K.E.D.
DBI9725 A-O 205'-0" x 66'-0" EDUCATION		SHEET
CROSS SECTION	DESTINATION: HARFORD CO, MD.	5 OF 5

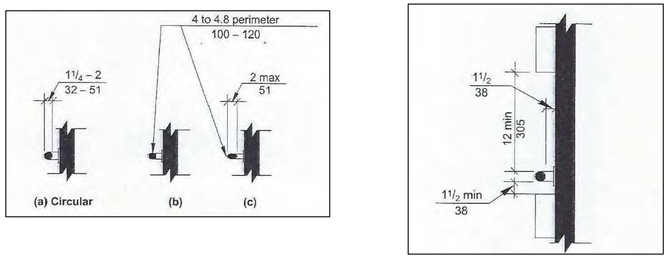


LEGEND:

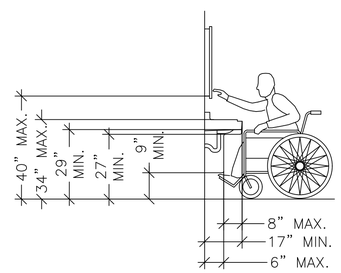
1	LAVATORY
2	H/C WATER CLOSET
3	42" GRAB BAR 12 INCHES MAXIMUM FROM REAR WALL
4	36" GRAB BAR
5	TOILET PAPER HOLDER
6	MIRROR
7	18" VERT GRAB BAR
8	URINAL
9	HI-LO FOUNTAIN

TYP. INTERIOR ELEVATIONS

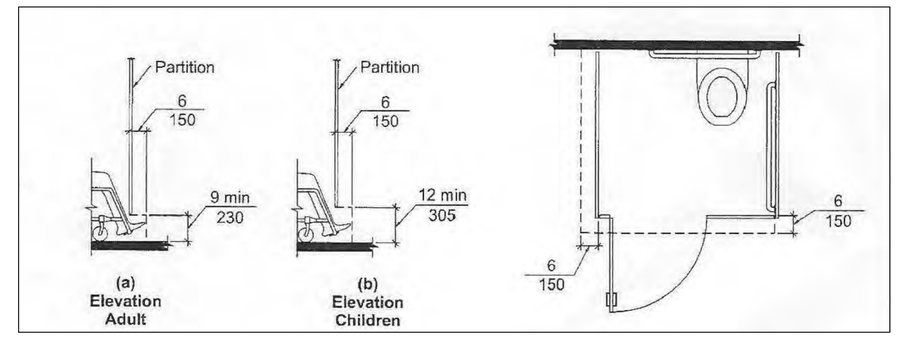
SCALE: 1/4"=1'-0"



GRAB BAR DETAIL

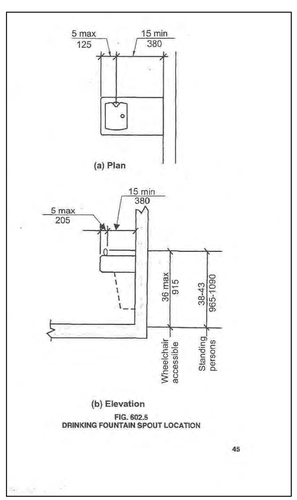


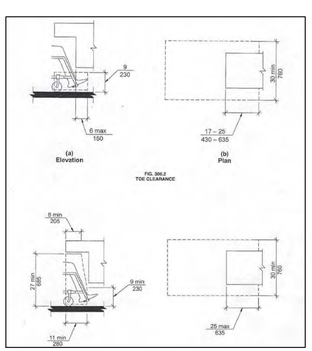
ADA ACCESSIBLE SINK ELEVATION



TYP. TOE CLEARENCE

TOILET AND STALL





TYP. DRINKING FOUNT. ELEVATIONS

HEIGHTS AND CLEARENCES

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 41056 Expiration Date: 10-17-23

THESE DETAILS ARE BASED ON 20210 ADA REQUIRMENTS

FOR BUILDINGS THAT UTILIZES OTHER ACCESSIBILITY CODES. REFER TO APPLICABLE CODES SPECIFIC REQUIRMENTS

ALL IDEAS, DESIGNS, ARRANGEMENTS, DRAWINGS AND PLANS SET FORTH ON THIS SHEET ARE THE ORIGINAL WORK PRODUCT OF, ARE OWNED BY AND ARE THE PROPERTY OF DESIGNER/DRAFTER OF RECORD" (FINE LINE DRAFTING) AND USE OF THIS SAID WORK PRODUCT IS LIMITED TO A SPECIFIED PROJECT OF THE PURCHASER, AND FOR THE CONSTRUCTION OF ONE BUILDING. ANY USE, REUSE, DISCLOSURE, COPYING, OR ADAPTATION OF SAID PLANS REPRODUCTION, IDEAS, DESIGNS AND/OR ARRANGEMENTS, OTHER THAN BY "DESIGNER DRAFTER OF RECORD" (FINE LINE DRAFTING) IS STRICTLY PROHIBITED BY LAW WITHOUT THE WRITTEN PERMISSION OF THE SAID"DESIGNER/DRAFTERS." (FINE LINE DRAFTING)

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02 27 2022

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NEW JERSEY

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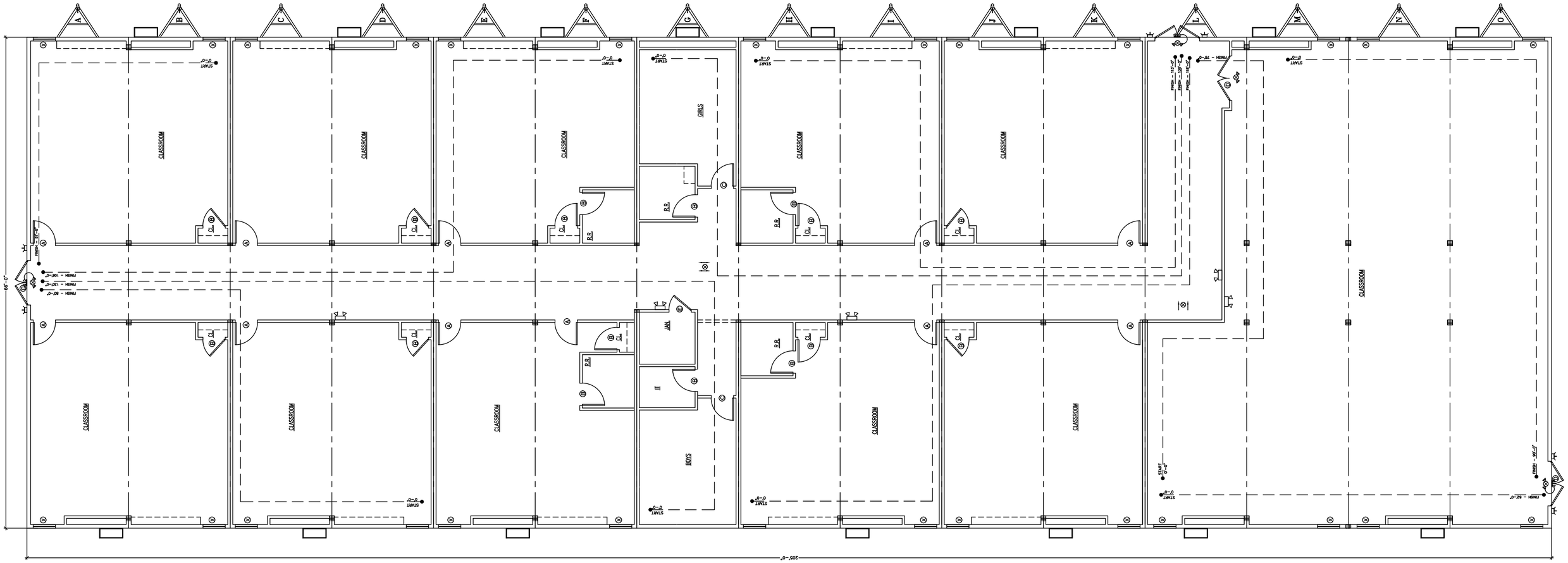
STATE OF MARYLAND — KENNETH EARL DUNMON — 41056 — PROFESSIONAL ENGINEER — 2-26-22

DIAMOND BUILDERS INC.
P.O. BOX 2200 440 THOMPSON DR.
DOUGLASS, GEORGIA 31534 (912) 384-7080

DATE: 1-17-22	REVISIONS:	
SCALE : NTS		
CODES: SEE NOTES		
STATES: MD, SC, VA, NC, NJ.	MD. PLAN NO: DBI-9724 MD (2021)	BY: K.E.D.
REFERENCE: 9725		
DBI9725 A-0 205'-0" x 66'-0" EDUCATION		SHEET AD-1
ACCESSIBILITY DETAILS	DESTINATION: HARFORD CO. MD.	



SYMBOL	DOOR SCHEDULE	TOTAL
A	36"x80" SOLID CORE IMPERIAL OAK W/REDIFRAME WITH 4"x24" VIEW BLOCK, SAFETY GLASS	11
B	36"x80" SOLID CORE IMPERIAL OAK W/REDIFRAME	16
C	36"x80" SOLID CORE IMPERIAL OAK W/REDIFRAME PUSH/PULL WITH LATCH	2
D	72"x80" STEEL/STEEL W/4"x24" VIEW PANEL WITH PANIC HARDWARE	4
E	36"x80" SOLID CORE IMPERIAL OAK W/REDIFRAME WITH CLOSER	1
SYMBOL	WINDOW SCHEDULE	TOTAL
X	36"x60" VERTICAL SLIDE, INSULATED BRONZE/TINTED	27

DOOR HARDWARE:

LEVER PRIVACY: RESTROOMS
KEYED LEVER LOCKSET (EXTERIOR DOORS)
LEVER PASSGE: CLASSROOMS

LIFE SAFETY PARAMETERS

1. USE/OCCUPANCY: EDUCATION
2. BUILDING AREA 13530 S.F.

OCCUPANT LOAD 502 BASED ON 20 SF/PERSON IN CLASSROOMS.

NOTE:
EACH EXIT DOOR IS ABLE TO ACCOMMODATE:

(3) 72x80 DOOR: 64" CLEAR WIDTH EACH
64/0.20 = 320 320 PERSON CAPACITY EACH
(3) AT 320 = 960 PERSON CAPACITY

NOTE:
MAXIMUM TRAVAL DISTANCE SHALL NOT EXCEED 200 FEET

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

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SCALE : NO SCALE		
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STATES: MD, SC, VA, NC, NJ.	MD. PLAN NO: DBI-9724 MD (2021)	BY: K.E.D.
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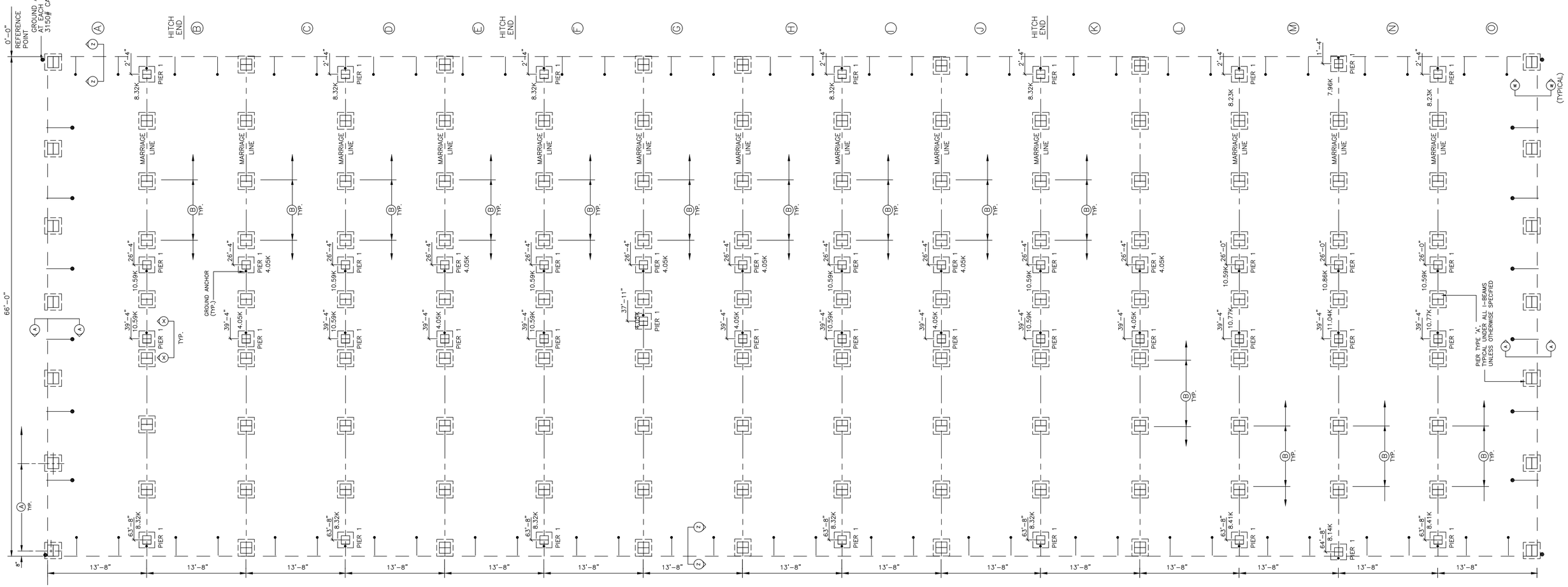

NOTE:
THIS FOUNDATION PLAN IS FOR REFERENCE ONLY AND IS NOT PART OF THE STATE OF MARYLAND APPROVAL

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.

NOTICE TO FOUNDATION CONTRACTOR:
ALL DIMENSIONS, DETAILS AND NOTES ON THIS FOUNDATION PLAN MUST BE REVIEWED AND VERIFIED BY THE FOUNDATION CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE FOUNDATION. ANY APPARENT CONFLICTS, ERRORS OR OMISSIONS MUST BE BROUGHT TO THE ATTENTION OF THE DESIGN PROFESSIONAL FOR RESOLUTION PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR MUST OBTAIN APPROVAL OF THE FOUNDATION PLAN FROM THE LOCAL BUILDING DEPARTMENT PRIOR TO COMMENCING CONSTRUCTION AND MUST COMPLY WITH ALL STATE AND LOCAL CODE, APPROVAL AND 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.

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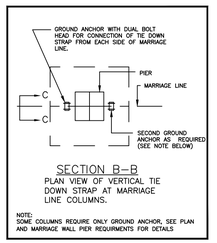
MARRIAGE WALL PIER REQUIREMENTS

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

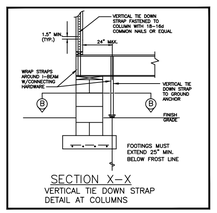
FOUNDATION NOTES:

1. 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 .035" TYPE-1, FINISH B, GRADE 1 ZINC COATED STEEL 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. GROUND ANCHORS SHALL HAVE 3150# MINIMUM WORKING CAPACITY, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DESIGN OF GROUND ANCHOR, INCLUDING SHAFT 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 ANCHORS ARE BELOW THE VALUES SPECIFIED ABOVE THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR AN ALTERNATE ANCHORAGE DESIGN.
4. THE FIRST TIE-DOWN STRAP FROM ENDWALLS SHALL NOT EXCEED 1/2 THE MAXIMUM SPACING INDICATED.
5. 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.
6. MINIMUM CONCRETE FOOTING COMPRESSIVE STRENGTH 2,500 PSI AT 28 DAYS.
7. ALL REINFORCEMENT BARS SHALL COMPLY WITH ASTM A615, GRADE 60. 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. INSTALL 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 AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.
13. THE FOUNDATION DIMENSIONS SHOWN ARE NOMINAL. AN INCREASE IN MODULE WIDTH SHOULD BE EXPECTED DUE TO MODULE EXPANSION, SETTING TOLERANCES, ETC. THE FOUNDATION CONTRACTOR SHOULD CONSULT WITH THE MANUFACTURER OF THE MODULES PRIOR TO CONSTRUCTION OF THE FOUNDATION TO DETERMINE THE AMOUNT OF INCREASED WIDTH TO BE ADDED TO THE NOMINAL DIMENSIONS SHOWN ABOVE.

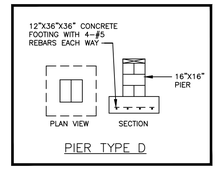


SECTION B–B
PLAN VIEW OF VERTICAL TIE DOWN STRAP AT MARRIAGE LINE COLUMNS.

NOTE:
SOME COLUMNS REQUIRE ONLY GROUND ANCHOR, SEE PLAN AND MARRIAGE WALL PIER REQUIRMENTS FOR DETAILS



SECTION X–X
VERTICAL TIE DOWN STRAP DETAIL AT COLUMNS



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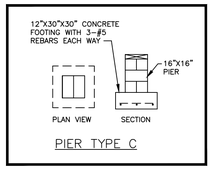

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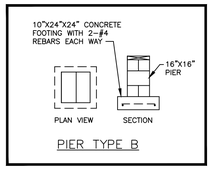

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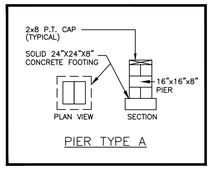
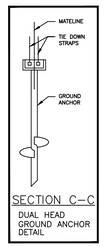
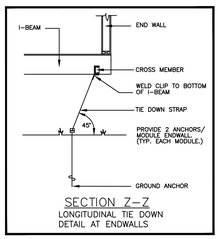


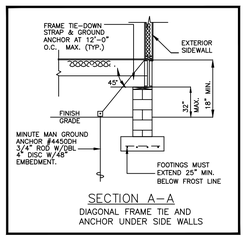
PIER TYPE A



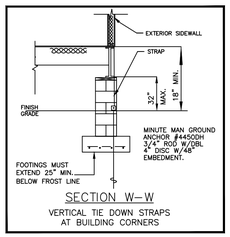
SECTION C–C
DUAL HEAD GROUNDANCHOR DETAIL



SECTION Z–Z
LONGITUDINAL TIE DOWN DETAIL AT ENDWALLS



SECTION A–A
DIAGONAL FRAME TIE AND ANCHOR UNDER SIDE WALLS



SECTION W–W
VERTICAL TIE DOWN STRAPS AT BUILDING CORNERS

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

FOUNDATION DIMENSIONS

MAXIMUM PIER SPACING				MINIMUM SOIL BEARING CAPACITY
Ⓐ SIDEWALLS	KIPP	Ⓑ MATELINE	KIPP	
9'-0"	6.57	5'-0"	6.79	2000 PSF
9'-0"	6.57	8'-0"	10.87	3000 PSF

EMC APPROVED 02 27 2022

NEW JERSEY

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COMMONWEALTH OF VIRGINIA — KENNETH EARL DUNMON — Lic. No. 0402018587 — 2-26-22 — PROFESSIONAL ENGINEER

SOUTH CAROLINA — PROFESSIONAL ENGINEER — No. 12406 — 2-26-22 — KENNETH EARL DUNMON

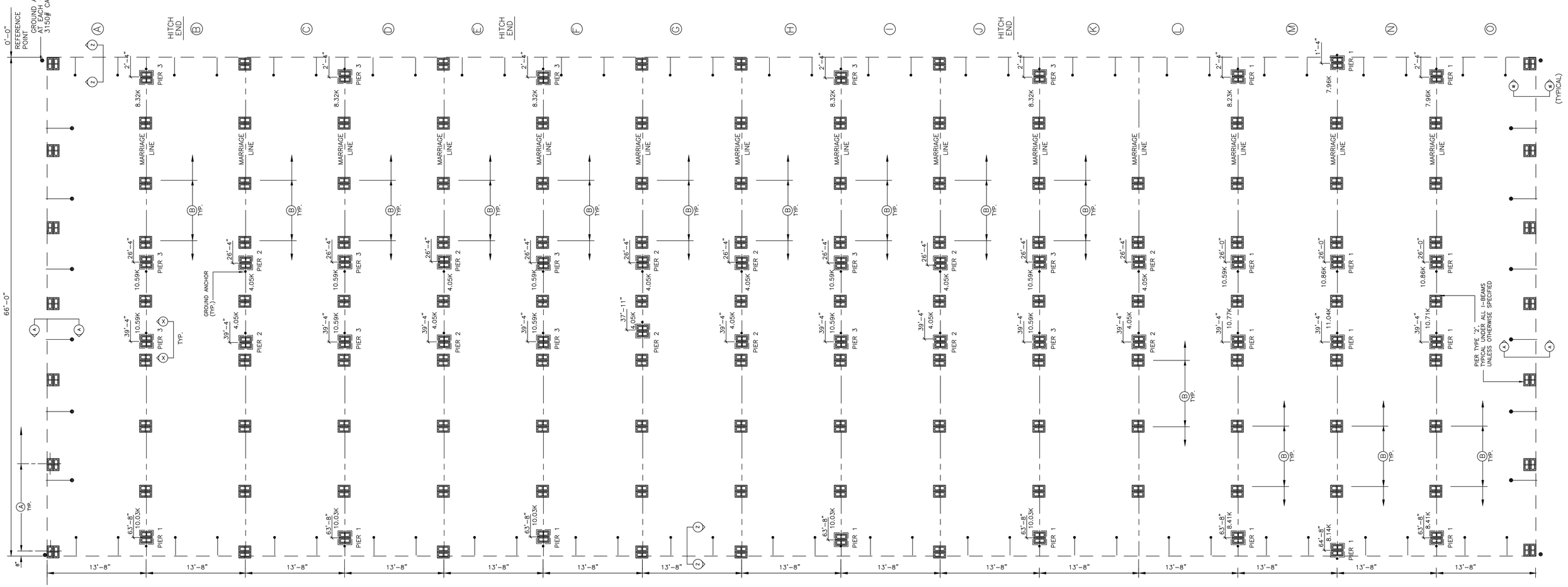
NORTH CAROLINA — PROFESSIONAL SEAL 017400 — 2-26-22 — ENGINEER — KENNETH E. DUNMON

STATE OF MARYLAND — KENNETH EARL DUNMON — No. 41056 — MARYLAND — PROFESSIONAL ENGINEER — 2-26-22

CONSULTING ENGINEER | KENNETH EARL DUNMON – P.O. BOX 6853 – AMERICUS, GEORGIA 31719 – 229–942–2020

DIAMOND BUILDERS INC.
P.O. BOX 2200 DOUGLASS, GEORGIA 31534
440 THOMPSON DR. (912) 384–7080

DATE: 1–17–22	REVISIONS:	
SCALE : NO SCALE		
CODES: SEE NOTES		
STATES: MD, SC, VA, NC, NJ.	MD. PLAN NO: DBI–9724 MD (2021)	BY: K.E.D.
REFERENCE: 9725		
DBI9725 A–O 205'–0" x 66'–0" EDUCATION		SHEET 1 OF 1
FOUNDATION	DESTINATION: HARFORD CO, MD.	



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 41056, Expiration Date: 01-17-23

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. TYPICAL FOUNDATION IS NOT INTENDED TO BE ALL INCLUSIVE, NOR DOES THIS SET DETAIL EVERY CODE REQUIRED ASPECT OF THIS BUILDING. COMPLIANCE WITH ALL APPLICATED CODES PER LOCAL AUTHORITY HAVING JURISDICTION WHETHER DETAILED IN THIS SET OR NOT MUST BE MET.

NOTICE TO FOUNDATION CONTRACTOR:
ALL DIMENSIONS, DETAILS AND NOTES ON THIS FOUNDATION PLAN MUST BE REVIEWED AND VERIFIED BY THE FOUNDATION CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE FOUNDATION. ANY APPARENT CONFLICTS, ERRORS OR OMISSIONS MUST BE BROUGHT TO THE ATTENTION OF THE DESIGN PROFESSIONAL FOR RESOLUTION PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR MUST OBTAIN APPROVAL OF THE FOUNDATION PLAN FROM THE LOCAL BUILDING DEPARTMENT PRIOR TO COMMENCING CONSTRUCTION AND MUST COMPLY WITH ALL STATE AND LOCAL CODE, APPROVAL AND 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.

NOTE:
ALL REQUIRED BUILDING AND/OR CONSTRUCTION PERMITS MUST BE APPLIED FOR AND OBTAINED FROM THE LOCAL AUTHORITIES HAVING JURISDICTION PRIOR TO ANY WORK BEING DONE ON THE ABOVE SHOWN FOUNDATION DESIGN. THE ABOVE FOUNDATION DESIGN IS DESIGNED FOR A TEMPORARY BUILDING. APPROVAL OF THIS PLAN SHALL BE SUBJECT TO LOCAL JURISDICTION APPROVAL.
IF THE ABOVE BUILDING FOUNDATION DOES NOT MEET THE QUALIFICATIONS OF A "TEMPORARY BUILDING" THAN AN ALTERNATE FOUNDATION DESIGN SHALL BE REQUIRED IN ACCORDANCE WITH THE IBC.

FOUNDATION NOTES:

NOTE: ALL REQUIRED BUILDING AND/OR CONSTRUCTION PERMITS MUST BE APPLIED FOR AND OBTAINED FROM THE LOCAL AUTHORITIES HAVING JURISDICTION PRIOR TO ANY WORKED BEING DONE ON THE ABOVE SHOWN FOUNDATION DESIGN.

THE ABOVE FOUNDATION DESIGN IS DESIGNED FOR A TEMPORARY BUILDING. APPROVAL OF THIS PLAN SHALL BE SUBJECT TO LOCAL JURISDICTION APPROVAL.

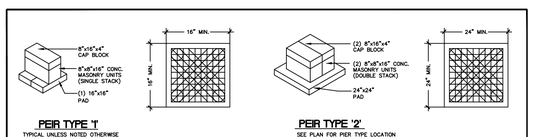
IF THE ABOVE BUILDING DOES NOT MEET THE QUALIFICATIONS OF A "TEMPORARY BUILDING" THEN AN ALTERNATIVE FOUNDATION DESIGN MAY BE REQUIRED IN ACCORDANCE WITH THE IBC.

1. 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 .035" TYPE-1, FINISH B, GRADE 1 ZINC COATED STEEL 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 CONCRETE ANCHOR SHALL HAVE A WORKING CAPACITY NO LESS THAN THE SUM OF THE REQUIRED WORKING CAPACITIES OF ALL TIE DOWN STRAPS CONNECTED TO THE CONCRETE ANCHOR, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DESIGN OF CONCRETE ANCHOR, INCLUDING SHAFT LENGTH, NUMBER AND DIAMETER OF HELIXES, ETC., TO BE AS SPECIFIED BY THE CONCRETE ANCHOR MANUFACTURER FOR THE ACTUAL SOIL TYPE ENCOUNTERED. IF THE HOLDING OR PULLOUT CAPACITIES OF CONCRETE ANCHORS ARE BELOW THE ASSUMED DESIGN VALUES, THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR AN ALTERNATE ANCHORAGE DESIGN.
4. THE FIRST TIE-DOWN STRAP FROM ENDWALLS SHALL NOT EXCEED 1/2 THE MAXIMUM SPACING INDICATED.
5. INSTALL 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.
6. THE AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.
7. SEE SHEET 1 OF 6 FOR BUILDING DESIGN LOADS
8. 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.
9. SOIL BEARING CAPACITY SHOWN ON THIS PLAN IS ASSUMED. IF THE ACTUAL SOIL BEARING CAPACITY IS LESS THAN 3,000 PSF, THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR REQUIRED ALTERNATE FOUNDATION DESIGN. FOOTINGS SHALL BE PLACED ON NON-EXPANSIVE SOILS ONLY.
10. 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

PIER TYPE SCHEDULE

PIER TYPE	ABS PAD SIZE	MAX. PAD CAPACITY (LBS) 2000 PSF	MAX. PAD CAPACITY (LBS) 3000 PSF
PIER TYPE 1	16 x 16 ABS PAD	3,556 SQ. STACK	5,333 SQ. STACK
PIER TYPE 2	24 x 24 ABS PAD	8,000 DBL. STACK	8,000 DBL. STACK
PIER TYPE 3	34 x 22 ABS MULTI-PAD	10,000 DBL. STACK	
PIER TYPE 4	35 x 25.5 ABS MULTI-PAD	12,000 DBL. STACK	
PIER TYPE 5	24 x 24 PPG**	8,000 DBL. STACK	12,000 DBL. STACK

** POLYROPLYENE & FIBERGLASS PAD BY POLYVULC USA, INC



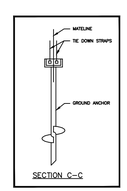
PIER TYPE '1'
TYPICAL UNLESS NOTED OTHERWISE

PIER TYPE '2'
SEE PLAN FOR PIER TYPE LOCATION

PERIMETER PIERS ALONG I-BEAMS

FOUNDATION DIMENSIONS

MAXIMUM PIER SPACING					MINIMUM SOIL BEARING CAPACITY
(A) SIDEWALLS	KIPP LOAD	(B) MATELINE	KIPP LOAD		
8'-0"	5.84	5'-9"	7.81		2000 PSF
8'-0"	5.84	5'-9"	7.81		3000 PSF



SECTION C–C

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.

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.

EMC APPROVED 02 27 2022

NEW JERSEY

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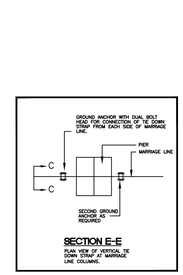
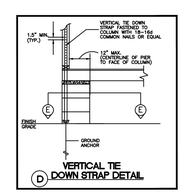
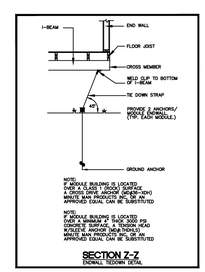


SECTION E–E
PLAN VIEW OF VERTICAL TIE DOWN STRAP AT MARRIAGE LINE COLUMNS.



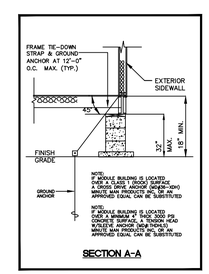
D VERTICAL TIE DOWN STRAP DETAIL



NOTE:
IF MODULE BUILDING IS LOCATED OVER A CLASS 1 (ROCK) SURFACE A CROSS DRIVE ANCHOR (MFG#-1DHV) MINUTE MAN PRODUCTS INC. OR AN APPROVED EQUAL CAN BE SUBSTITUTED

NOTE:
IF MODULE BUILDING IS LOCATED OVER A MINIMUM 4" THICK 3000 PSI CONCRETE SLAB A TIE DOWN STRAP WITH WEDGE ANCHOR (MFG#-WEDGE-HD) MINUTE MAN PRODUCTS INC. OR AN APPROVED EQUAL CAN BE SUBSTITUTED

SECTION Z–Z
SIGNAL TECHNICAL



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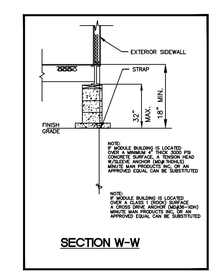
SECTION A–A



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SECTION W–W

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DOUGLASS, GEORGIA 31534 (912) 384–7080

DATE: 1–17–22	REVISIONS:	
SCALE : NO SCALE		
CODES: SEE NOTES		
STATES: MD, SC, VA, NC, NJ.	MD. PLAN NO:	BY:
REFERENCE: 9725	DBI–9724 MD (2021)	K.E.D.
DBI9725 A–O 205'–0" x 66'–0" EDUCATION		SHEET
ALT. FOUNDATION	DESTINATION: HARFORD CO, MD.	1 OF 1