

**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 HAVE A SMOOTH, HARD, NONABSORBENT SURFACE THAT EXTENDS UPWARD ONTO THE WALLS AT LEAST 6 INCHES.
- THIS UNIT MUST BE CONNECTED TO A PUBLIC WATER SUPPLY AND SEWER 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 EXTERIOR, AND A SHUT OFF VALVE WITH 3 FEET ON A COLD WATER ONLY LINE.
- DWV SYSTEM SHALL BE 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 AND URINALS ARE FLUSH 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 LET TEMPERATURE OF 120° (48.8°C).
- 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. WATER PIPING INSTALLED IN AN UNCONDITIONED ATTIC SHALL BE INSULATED WITH AN INSULATION OF R-5 MINIMUM.
- TEMPERATURE ACTUATED MIXING VALVES WHICH ARE INSTALLED TO REDUCE WATER TEMPERATURE TO DEFINE LIMITS SHALL COMPLY WITH ASSE 1017.
- WATER SOL AND WASTE PIPES IN UNCONDITIONED SPACE SHALL BE INSULATED AND PROTECTED FROM FREEZING.
- TEMPERED WATER SHALL BE SUPPLIED THROUGH A WATER TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070 AND SHALL LIMIT THE TEMPERED WATER TO MAXIMUM TEMPERATURE OF 110° (43°C).
- WHEN RESTROOM FACILITIES AND/OR PLUMBING FIXTURES REQUIRED PER IPC SECTION 403 ARE NOT PROVIDED WITHIN THE BUILDING, A HANDICAPPED ACCESSIBLE FACILITY MUST BE PROVIDED ON SITE WITHIN THE ALLOWABLE DISTANCE PER CODE. THE REQUIRED FACILITY SHALL BE THE RESPONSIBILITY OF THE BUILDING OWNER AND IS SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. THIS NOTE SHALL BE INDICATED ON THE DATA PLATE

**GENERAL NOTES:**

- 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.
- 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.
- 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).
- 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.
- 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.
- WINDOWS AND DOORS MUST BE CERTIFIED FOR COMPLIANCE WITH THE WIND DESIGN PRESSURE FOR COMPONENTS AND CLADDING.

**ELECTRICAL NOTES:**

- ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
- 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 "STORAGE AREA" AS DEFINED BY NEC 410-8(g).
- 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 LOOKED IN THE OPEN POSITION.
- 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.
- PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
- THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
- ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES, OR CABLE CONNECTORS.
- 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 NEG.
- EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.

**MECHANICAL NOTES:**

- ALL SUPPLY AIR REGISTERS SHALL BE 14 INCHES x 14 INCHES ADJUSTABLE WITH 8 INCHES x 18 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS IN UNCONDITIONED SPACES SHALL HAVE R-6 MINIMUM INSULATION AND R-8 INSULATION WHERE LOCATED OUTSIDE THE BUILDING.
- INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN.
- RESTROOM VENT FANS SHALL PROVIDE 70 CFM EXHAUST PER WATER CLOSET OR URINAL AND VENT TO EXTERIOR.
- HVAC EQUIPMENT SHALL BE EQUIPPED W/OUTSIDE FRESH AIR INTAKES PROVIDING 5 CFM PER OCCUPANT AND 0.06 CFM PER SQUARE FEET OF BUILDING AREA PER SECTION 403.3 OF IMC.
- EXHAUST FANS SHALL VENT NO CLOSER THAN 10 FEET FROM MECHANICAL AIR INTAKE.
- THERMOSTATS MUST BE PROGRAMMABLE

**WINDOW & DOOR SPECIFICATIONS**

- DBL. PANE WINDOWS ARE REQUIRED FOR ALL CLIMATE ZONES. SEE THE COMCHECK ENERGY CALCULATIONS FOR THE MAXIMUM ALLOWED U-FACTOR AND SHGC.
- 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.

**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.
- 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.
- WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS AND DRAWERS ARE PROVIDED AT LEAST ONE TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (I.E. TOUCH LATCHES, U-SHAPED PULLS) SPACES SHALL BE 15 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH OR SIDE REACH; CLOTHES RODS OR COAT HOOKS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH); SHELVES IN KITCHENS OR TOILET ROOMS SHALL BE 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE 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 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.
- ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM. THE MAXIMUM FORCE REQUIRED FOR PUSHING OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL NOT EXCEED 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR HINGED DOORS.
- 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.
- 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.
- ACCESSIBLE URINALS SHALL BE STALL-TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR.
- 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.
- HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. INSULATION OR PROTECTION MATERIALS MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.
- ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (I.E. LEVER-OPERATED, PUSH-TYPE, ELECTRONICALLY CONTROLLED).
- 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.
- 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.
- 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.
- DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (I.E. LEVER - OPERATED, PUSH-TYPE, U-SHAPED) MOUNTED WITH OPERABLE PARTS BETWEEN 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.
- TOILET STALL DOORS SHALL BE THE SELF-CLOSING TYPE.
- A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVATORIES.

**STRUCTURAL LOAD LIMITATIONS**

- BUILDING OCCUPANCY CATEGORY:** II
- FLOOR LIVE LOAD:**  
 A. 50 PSF  
 B. 2000 LB. CONCENTRATED LOAD OVER 30 INCH x 30 INCH AREA LOCATED ANYWHERE ON FLOOR
- ROOF LIVE LOAD:**  
 A. 30 PSF
- ROOF SNOW LOAD:**  
 A.  $P_g = 35$  PSF GROUND SNOW LOAD  
 B.  $P_f = 27.1$  PSF FLAT ROOF SNOW LOAD  
 C.  $C_e = 1.0$  SNOW EXPOSURE FACTOR  
 D.  $I_s = 1.0$  SNOW IMPORTANCE FACTOR  
 E.  $C_t = 1.1$  SNOW THERMAL FACTOR
- WIND LOAD:** ASCE 7-10  
 A. 140 MPH  $V_{ult}$  WIND SPEED  
 B. 109 MPH  $V_{oed}$  WIND SPEED  
 C.  $I_w = 1.0$  WIND IMPORTANCE FACTOR  
 D.  $C$  WIND EXPOSURE CATEGORY  
 E.  $G_c p_i = 0.18$  INTERNAL PRESSURE COEFFICIENT  
 F. Pr: ZONE 1: 22.1 PSF Pw: ZONE 4: 24.0 PSF  
 ZONE 2: 37.0 PSF ZONE 5: 29.5 PSF  
 ZONE 3: 55.8 PSF
- C. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT.

- SEISMIC LOAD:**  
 A.  $I_e = 1.0$  SEISMIC IMPORTANCE FACTOR  
 B. D SITE CLASS  
 C. A13 SEISMIC FORCE RESISTING SYSTEM.  
 D. SEISMIC DESIGN CATEGORY  
 E. EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE  
 F.  $S_a = 0.537$  MAPPED SPECTRAL RESPONSE COEF.  
 G.  $S_1 = 0.285$  MAPPED SPECTRAL RESPONSE COEF.  
 H.  $S_d5 = 0.49$  SPECTRAL RESPONSE COEFFICIENT  
 I.  $S_d1 = 0.34$  SPECTRAL RESPONSE COEFFICIENT  
 J.  $V = 6513$  LB DESIGN BASE SHEAR  
 K.  $R = 6.5$  RESPONSE MODIFICATION COEFFICIENT  
 L.  $C_s = 0.08$  SEISMIC RESPONSE COEFFICIENT

**FLOOD LOAD:**  
 THIS BUILDING IS NOT DESIGNED TO BE LOCATED IN A FLOOD HAZARD AREA.

**MARYLAND NOTES:**

- REFER TO STATE PACKAGE PAGE NO. C32.0 FOR REQUIRED DUCT PROTECTION AT CONNECTION TO HVAC UNIT.
- 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: WASHINGTON, FREDERICK, CARROLL, BALTIMORE, GARRETT, ALLEGANY, CECIL, HARFORD, HOWARD, PRINCE GEORGE
- 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.
- THESE PLANS ARE PREPARED TO FACILITATE CONSTRUCTION OF THE PRE-ENGINEERED FACTORY BUILT MODULAR BUILDING, AND THEY INCLUDE MINIMUM ON-SITE SUPPORT AND TIE DOWN REQUIREMENTS FOR THE MODULAR BUILDING. THE PROJECT ARCHITECT OF RECORD IS RESPONSIBLE FOR INCORPORATION AND COORDINATION OF THESE PLANS INTO THE OVERALL PROJECT DESIGN.
- TO LOCAL BUILDER AND/OR SITE DEVELOPER: ALL SITE WORK INCLUDING THE LOCATION OF 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 GOVERNMENT AGENCY FOR REVIEW AND APPROVAL.
- INSTALL STATE INSIGNIA AND BUILDING DATA PLATE IN THE VICINITY OF ELECTRICAL DISTRIBUTION PANEL OR OTHER LOCATION THAT IS READILY ACCESSIBLE FOR INSPECTION, BUT NOT ON ANY READILY REMOVABLE FEATURE.
- WHEN THE 2015 IECC 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 ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPERATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF 5-8 INSULATION IN CLIMATE ZONES 1 THRU 4 AND A MINIMUM OF R-12 INSULATION IN CLIMATE ZONE 5.

**BUILDING DESIGN PARAMETERS**

- USE/OCCUPANCY: BUSINESS
- CONSTRUCTION TYPE: VB
- SPRINKLER SYSTEM: NO
- BUILDING AREA: 2800 S.F.
- BUILDING HEIGHT: 15 FEET
- NUMBER OF STORIES: 1
- NUMBER OF MODULES: 4
- OCCUPANT LOAD: 28 BASED ON 100 SF/PERSON
- EXTERIOR WALL FIRE RATING: NOT RATED
- THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY IBC TABLE 602 AND SECTION 705.3.
- ENERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCULATIONS.
- MANUFACTURERS DATA PLATE, STATE LABELS AND EMC LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.

MARYLAND SERIAL NO.: 7438A-7438B-7438C-7438D

CONSULTING ENGINEER JAMES BRADLEY, P.E. - 212 FOX TRAIL - PARKESBURG, PA. 19365 - (610) 857-2458

**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. 8588 EXPIRATION DATE: 6-6-18



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

DATE: 12-3-17	REVISIONS:
SCALE: AS NOTED	
CODES: SEE NOTES	
STATES: MD.	BY: J.B.
DBI7438 A-D 48x60 BUSINESS	
COVER SHEET	
MD PLAN NO. DBI 7438 MD	DESTINATION: ?
SHEET 1 OF 4	

**CODE SUMMARY:**

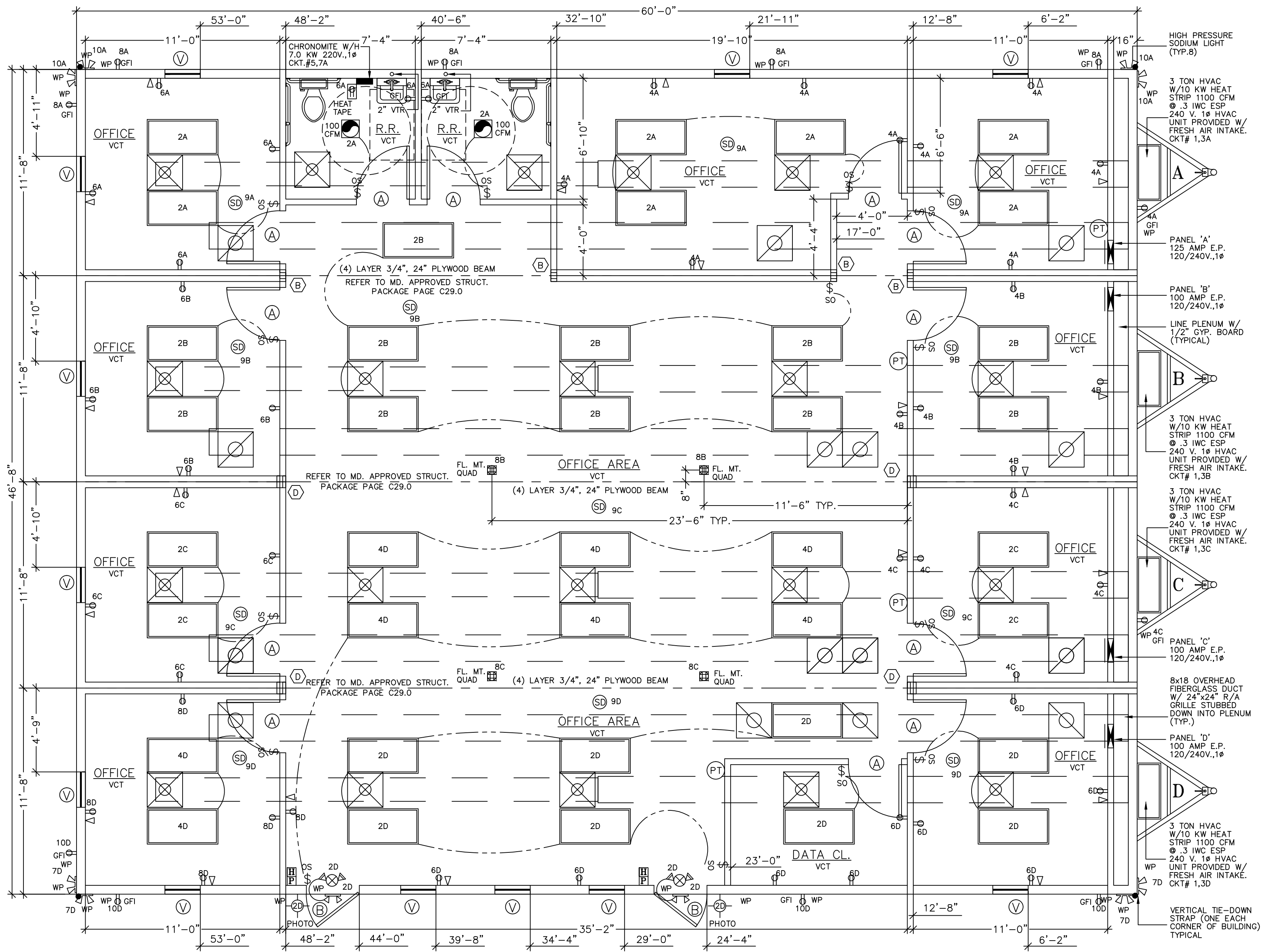
STATE	BUILDING	ELECT.	MECHANICAL	PLUMBING	ACCESSIBILITY	ENERGY CODE
MARYLAND	2015 IBC AND 2015 NFPA 101 W/ MD. AMENDMENTS	2014 NEC W/ MD. AMEND.	2015 IMC.	2015 IPC W/ MD. AMEND.	2010 ADASAD 2012 MARYLAND ACCESS. CODE (2012 M.A.C.)	2015 IECC W/ MD. AMEND.

**ATTENTION LOCAL INSPECTIONS DEPARTMENT**

**SITE INSTALLED ITEMS**

THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED BY THE MANUFACTURER, HAVE NOT BEEN INSPECTED BY EMC AND ARE NOT CERTIFIED BY THE STATE MODULAR LABEL. NOTE THAT THIS 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.

- THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
- RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
- PORTABLE FIRE EXTINGUISHER(S).
- BUILDING DRAINS, CLEANOUTS, DRINKING FOUNTAIN AND HOOK-UP TO PLUMBING SYSTEM.
- ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING.
- THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS
- CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATELINE(S) (MULTI-UNITS ONLY).
- STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI-UNITS ONLY).
- EXIT DISCHARGE LIGHTING (INCLUDING EMERGENCY)
- WINDOW AND DOOR HIGH WIND STORM COVERINGS (PER CODE) SEE GENERAL NOTE 8.



**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)
- C.L.G. MT.
- SMOKE DETECTOR
- DUPLEX RECEPTACLE 120 V.
- SINGLE RECEPTACLE 240 V.
- INCANDESCENT LIGHT WITH 1-60 W. BULB
- COMPACT FLOURESCENT LIGHT 1-60 W. BULB
- C.L.G. MT. POWERED J-BOX
- VENT FAN
- COMB. VENT FAN & LIGHT
- SUPPLY AIR REGISTER
- RETURN AIR REGISTER
- FLOOD LIGHT 2-150W BULBS
- THERMOSTAT
- FLUORESCENT FIXTURE WITH 2-32W TUBES
- EXIT/EMERGENCY COMBO W/REMOTE HEAD W/BATTERY BACKUP
- 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
- FIRE EXTINGUISHER

**ELECTRICAL SCHEDULE 'A'**

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	60 A (2P)	#10 GRD.
9	SMOKE DETECTOR	20 A	12-2 NM
5, 7	WATER HEATER	30 A(2P)	10-2 NM
4, 6, 8	RECEPTACLES/FAN	20 A	12-2 NM
2, 10	LIGHTING/FAN	15 A	14-2 MC

**ELECTRICAL PANEL SIZING:**

DESCRIPTION PANEL 'A' KVA

GENERAL LIGHTING .0035 KW/SF X 700 SF X 1.25= 3.1  
 22 RECEPTS AT 180VA/1000= 4.0  
 WATER HEATER 6.5 KW = 7.0  
 1 FANS AT .3 KW X 1.25= .4  
 HVAC 3 SMOKE DET. .3 KW X 1.25= 0.4  
 TOTAL 26.8 KW  
 TOTAL/240 X 1000= 111 AMPS  
 INSTALL 100 AMP PANEL 120/240 V 1P

**ELECTRICAL SCHEDULE 'B'**

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	60 A (2P)	#10 GRD.
9	SMOKE DETECTOR	20 A	12-2 NM
4, 6, 8	RECEPTACLES/FAN	20 A	12-2 NM
2	LIGHTING	15 A	14-2 MC

**ELECTRICAL PANEL SIZING:**

DESCRIPTION PANEL 'B' KVA

GENERAL LIGHTING .0035 KW/SF X 700 SF X 1.25= 3.1  
 14 RECEPTS AT 180VA/1000= 2.6  
 WATER HEATER 6.5 KW = 7.0  
 1 FANS AT .3 KW X 1.25= .4  
 HVAC 3 SMOKE DET. .3 KW X 1.25= 0.4  
 TOTAL 17.1 KW  
 TOTAL/240 X 1000= 72 AMPS  
 INSTALL 100 AMP PANEL 120/240 V 1P

**ELECTRICAL SCHEDULE 'C'**

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	60 A (2P)	#10 GRD.
9	SMOKE DETECTOR	20 A	12-2 NM
4, 6, 8	RECEPTACLES/FAN	20 A	12-2 NM
2	LIGHTING	15 A	14-2 MC

**ELECTRICAL PANEL SIZING:**

DESCRIPTION PANEL 'C' KVA

GENERAL LIGHTING .0035 KW/SF X 700 SF X 1.25= 3.1  
 14 RECEPTS AT 180VA/1000= 2.6  
 WATER HEATER 6.5 KW = 7.0  
 1 FANS AT .3 KW X 1.25= .4  
 HVAC 3 SMOKE DET. .3 KW X 1.25= 0.4  
 TOTAL 17.4 KW  
 TOTAL/240 X 1000= 73 AMPS  
 INSTALL 100 AMP PANEL 120/240 V 1P

**ELECTRICAL SCHEDULE 'C'**

CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	60 A (2P)	#10 GRD.
9	SMOKE DETECTOR	20 A	12-2 NM
4, 6, 8	RECEPTACLES/FAN	20 A	12-2 NM
2, 7	LIGHTING	15 A	14-2 MC

**ELECTRICAL PANEL SIZING:**

DESCRIPTION PANEL 'C' KVA

GENERAL LIGHTING .0035 KW/SF X 700 SF X 1.25= 3.1  
 17 RECEPTS AT 180VA/1000= 3.1  
 WATER HEATER 6.5 KW = 7.0  
 1 FANS AT .3 KW X 1.25= .4  
 HVAC 3 SMOKE DET. .3 KW X 1.25= 0.4  
 TOTAL 17.9 KW  
 TOTAL/240 X 1000= 75 AMPS  
 INSTALL 100 AMP PANEL 120/240 V 1P

**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. 85888, EXPIRATION DATE: 6-6-18

SYMBOL	DOOR SCHEDULE	TOTAL
A	36"x80" HOLLOW CORE IMPERIAL OAK W/REDIFRAME	11
B	36"x80" STEEL/STEEL W/10"x10" VIEW PANEL	2
SYMBOL	WINDOW SCHEDULE	TOTAL
V	24"x54" VERTICAL SLIDE, INSULATED BRONZE/TINTED	12

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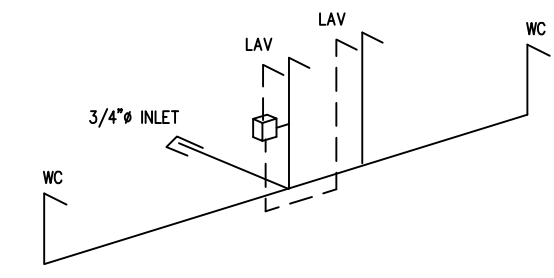
**DIAMOND BUILDERS INC.**  
 P.O. BOX 2200 DOUGLASS, GEORGIA 31534 440 THOMPSON DR. (912) 384-7080

DATE: 12-3-17 REVISIONS:  
 SCALE: 1/4"=1'-0"  
 CODES: SEE NOTES  
 STATES: MD. BY: J.B.

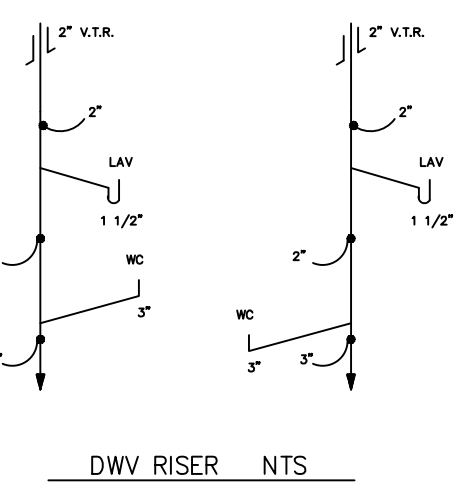
DBI7438 A-D 48x60 BUSINESS SHEET 2 OF 4  
 FLOOR PLAN MD PLAN NO. DESTINATION: DBI 7438 MD ?

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.

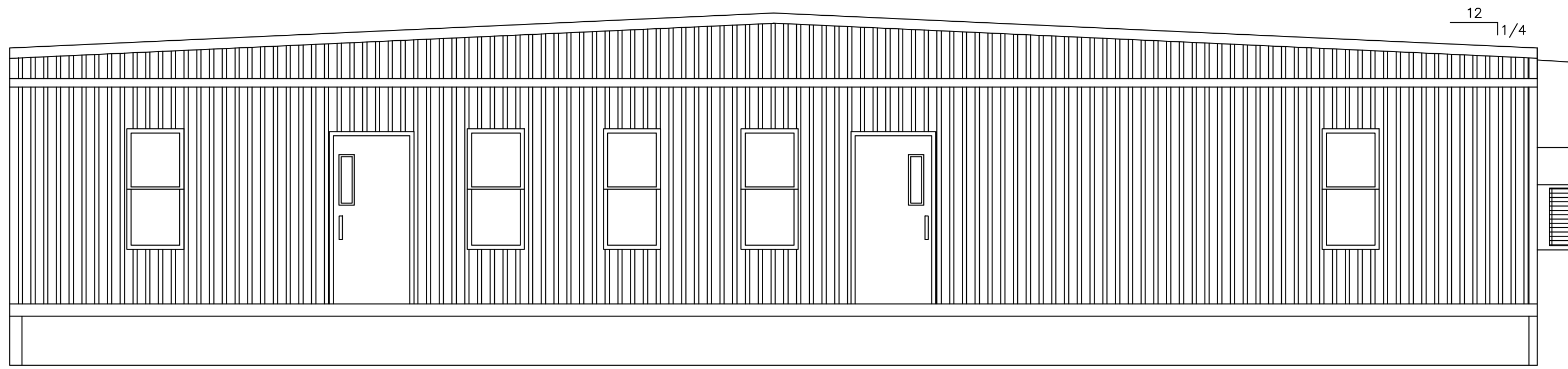
COLD  
 HOT  
 ALL SUPPLY LINES SHALL BE 3/4". ALL SUB-UPS SHALL BE 1/2" UNLESS OTHERWISE SPECIFIED.



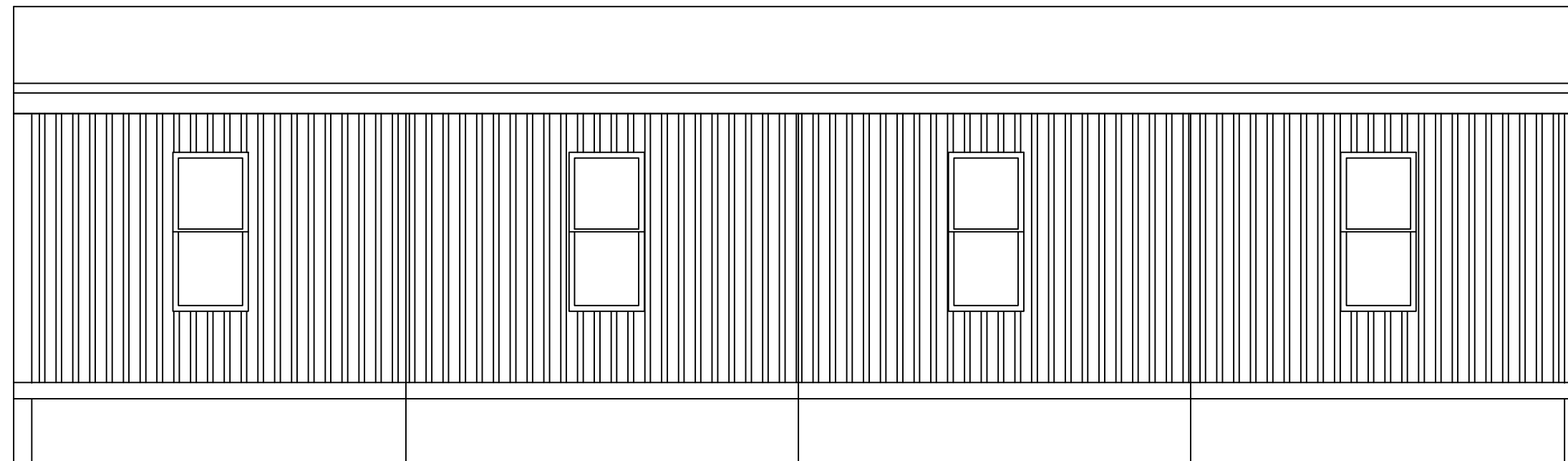
SUPPLY RISER -NTS-



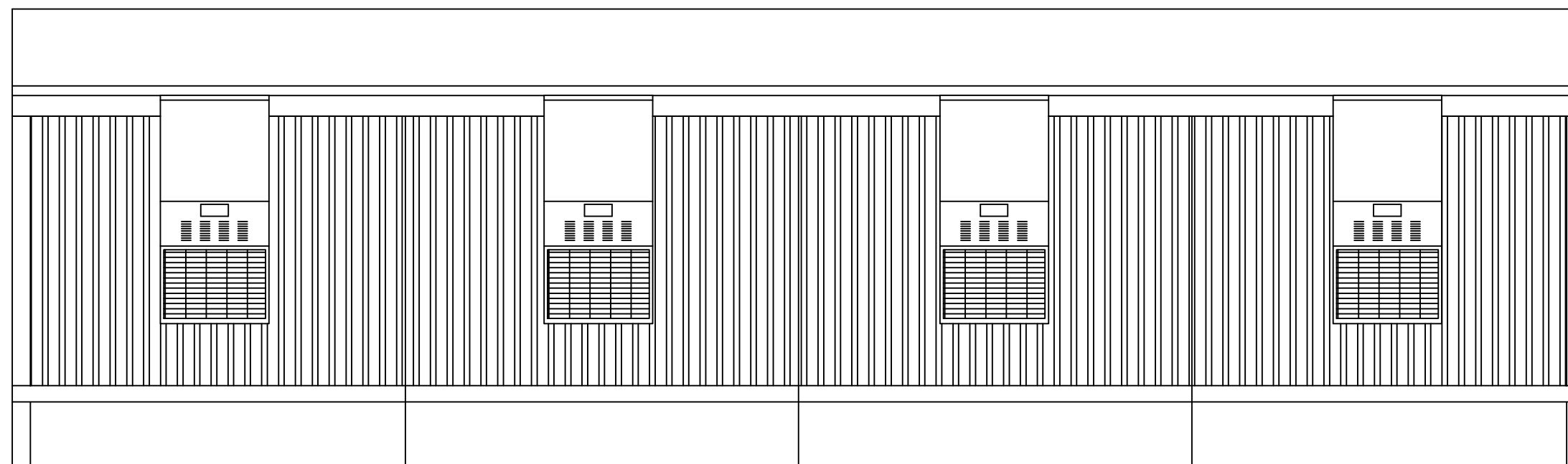
DWV RISER NTS



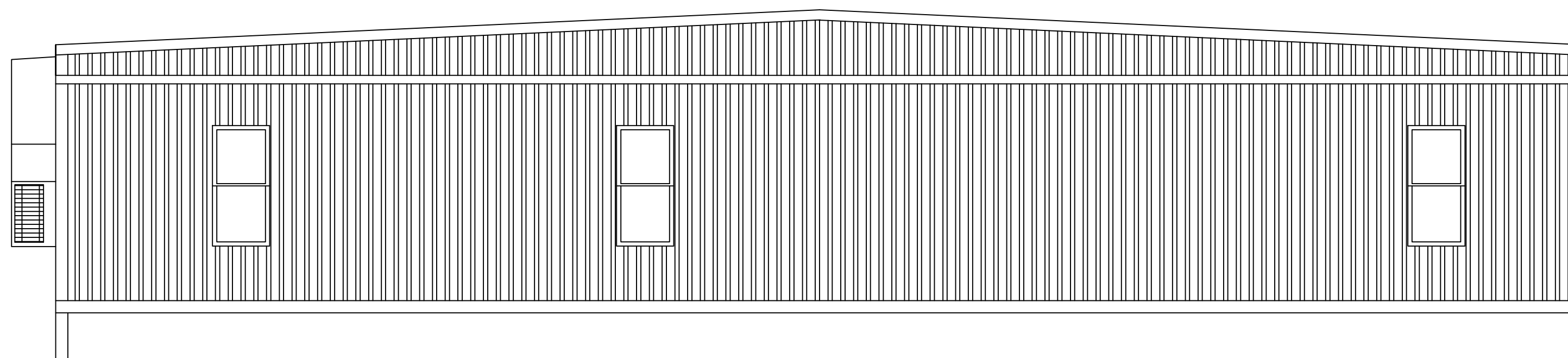
FRONT ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



REAR ELEVATION

ELEVATION NOTES: TYPICAL  
 SEE-CROSS SECTION FOR  
 METHOD OF ROOF VENTILATION  
 ACCESSIBLE RAMP(S), STAIR(S),  
 AND HANDRAILS ARE SITE  
 INSTALLED, DESIGNED BY OTHERS,  
 AND SUBJECT TO LOCAL JURISDICTION.  
 FOUNDATION ENCLOSURE  
 (WHEN PROVIDED) MUST HAVE  
 1 SQUARE FOOT NET VENT AREA  
 PER 1/150TH OF THE FLOOR AREA,  
 AND AN 18" X 24" MINIMUM CRAWL  
 SPACE ACCESS, SITE INSTALLED BY  
 OTHERS SUBJECT TO LOCAL  
 JURISDICTION.

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 DOUGLASS, GEORGIA 31534 (912) 384-7080

DATE: 12-3-17	REVISIONS:	BY: J.B.
SCALE : 1/4"=1'-0"		
CODES: SEE NOTES		
STATES: MD.		
DBI7438 A-D 48x60 BUSINESS		SHEET 3 OF 4
ELEVATIONS	MD PLAN NO. DESTINATION: DBI 7438 MD ?	

**EXTERIOR FINISH MATERIAL:**

ROOF - MULE-HIDE 45 MIL (BLACK) EPDM FULLY ADHERED IN ACCORDANCE WITH ESR-1776 OVER 7/16" MULE-HIDE FR DECK PANEL 'C' INSTALLED PER MANUFACTURERS SPECIFICATIONS.

OPTIONAL MULE-HIDE 45 MIL (BLACK) EPDM FULLY ADHERED IN ACCORDANCE WITH ESR-1776 OVER 15/32" FIRE RATED PLYWOOD INSTALLED PER MANUFACTURERS SPECIFICATIONS.

WALL - 26 GAUGE HI-RIB STEEL SIDING OVER APPROVED MOISTURE BARRIER. INSTALLED PER MANUFACTURERS SPECIFICATIONS

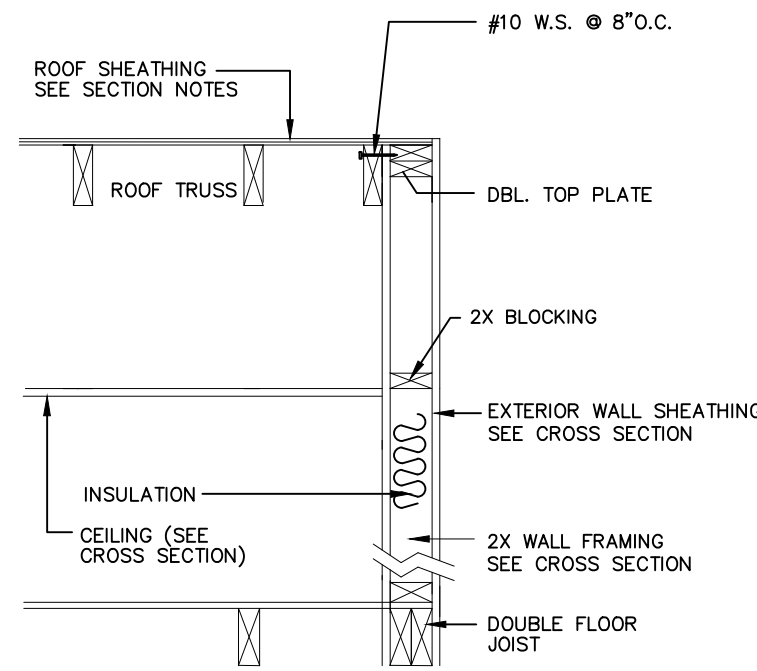
**INTERIOR FINISH MATERIAL:**

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

WALL - 5/8" TYPE 'X' GYP. BOARD (VCG THROUGHOUT) OVER 7/16" OSB SHEATHING INSTALLED PER MANUFACTURERS SPECIFICATIONS

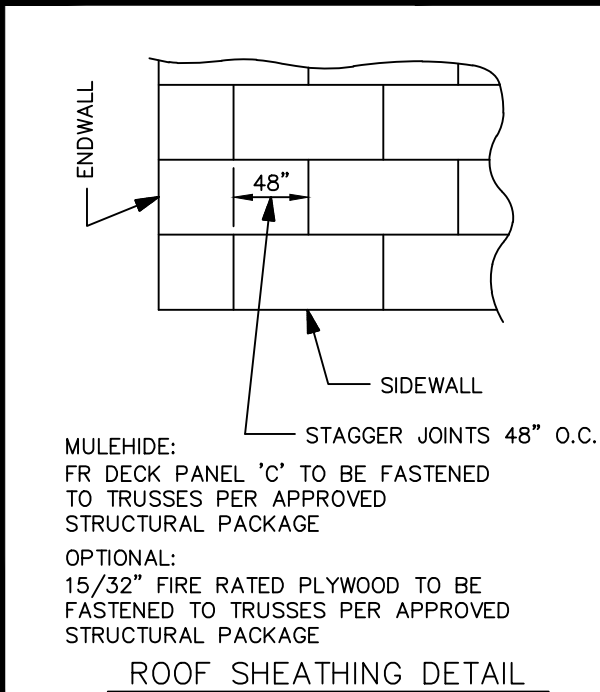
FLOOR - AS NOTED ON PLAN

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



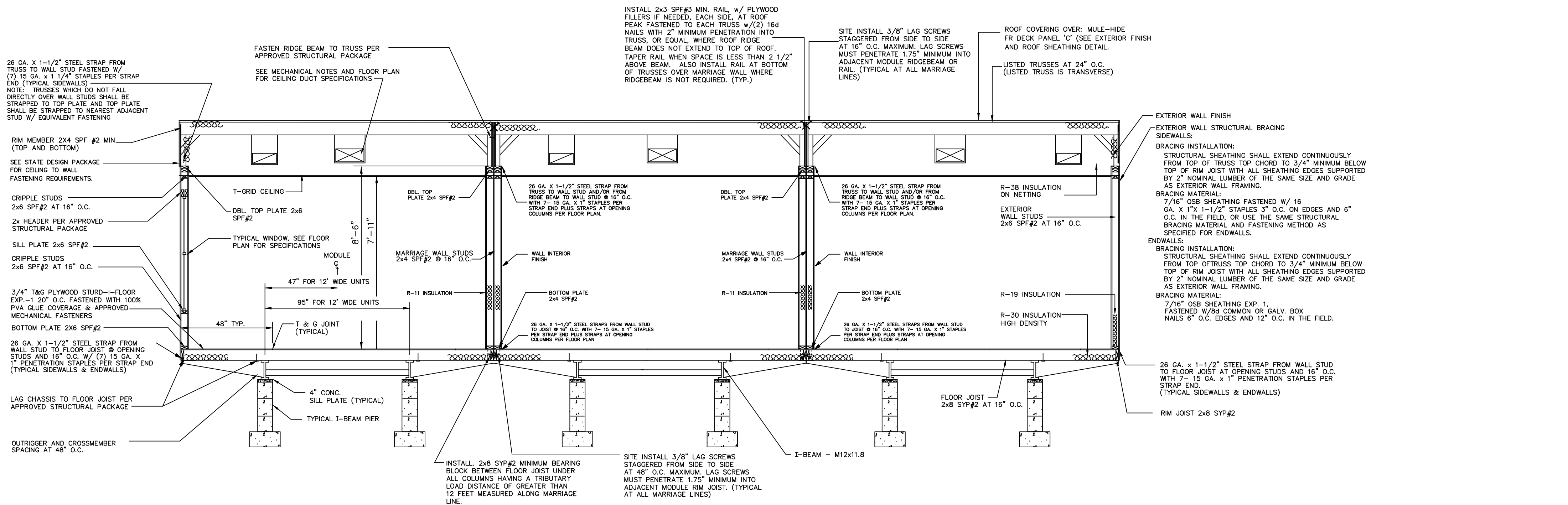
**BALLOON END WALL DETAIL**

NTS



MULEHIDE: FR DECK PANEL 'C' TO BE FASTENED TO TRUSSES PER APPROVED STRUCTURAL PACKAGE  
 OPTIONAL: 15/32" FIRE RATED PLYWOOD TO BE FASTENED TO TRUSSES PER APPROVED STRUCTURAL PACKAGE  
**ROOF SHEATHING DETAIL**

APPROVED TRUSS DESIGN:  
 TRUSS MANUFACTURER: \_\_\_\_\_  
 TRUSS DRAWING. # \_\_\_\_\_



26 GA. X 1-1/2" STEEL STRAP FROM TRUSS TO WALL STUD FASTENED W/ (7) 15 GA. X 1" STAPLES PER STRAP END (TYPICAL SIDEWALLS)  
 NOTE: TRUSSES WHICH DO NOT FALL DIRECTLY OVER WALL STUDS SHALL BE STRAPPED TO TOP PLATE AND TOP PLATE SHALL BE STRAPPED TO NEAREST ADJACENT STUD W/ EQUIVALENT FASTENING

RIM MEMBER 2x4 SPF #2 MIN. (TOP AND BOTTOM)  
 SEE STATE DESIGN PACKAGE FOR CEILING TO WALL FASTENING REQUIREMENTS.

CRIPPLE STUDS 2x6 SPF#2 AT 16" O.C.  
 2x HEADER PER APPROVED STRUCTURAL PACKAGE

SILL PLATE 2x6 SPF#2  
 CRIPPLE STUDS 2x6 SPF#2 AT 16" O.C.

3/4" T&G PLYWOOD STURD-I-FLOOR EXP.-1 20" O.C. FASTENED WITH 100% PVA GLUE COVERAGE & APPROVED MECHANICAL FASTENERS  
 BOTTOM PLATE 2x6 SPF#2

26 GA. X 1-1/2" STEEL STRAP FROM TRUSS TO WALL STUD AND/OR FROM RIDGE BEAM TO WALL STUD @ 16" O.C. WITH 7-15 GA. X 1" STAPLES PER STRAP END PLUS STRAPS AT OPENING COLUMNS PER FLOOR PLAN.

LAG CHASSIS TO FLOOR JOIST PER APPROVED STRUCTURAL PACKAGE

OUTRIGGER AND CROSSMEMBER SPACING AT 48" O.C.

FASTEN RIDGE BEAM TO TRUSS PER APPROVED STRUCTURAL PACKAGE  
 SEE MECHANICAL NOTES AND FLOOR PLAN FOR CEILING DUCT SPECIFICATIONS

TYPICAL WINDOW, SEE FLOOR PLAN FOR SPECIFICATIONS

47" FOR 12' WIDE UNITS  
 95" FOR 12' WIDE UNITS

MARRIAGE WALL STUDS 2x4 SPF#2 @ 16" O.C.

WALL INTERIOR FINISH

R-11 INSULATION

BOTTOM PLATE 2x4 SPF#2

26 GA. X 1-1/2" STEEL STRAPS FROM WALL STUD TO JOIST @ 16" O.C. WITH 7-15 GA. X 1" STAPLES PER STRAP END PLUS STRAPS AT OPENING COLUMNS PER FLOOR PLAN.

4" CONC. SILL PLATE (TYPICAL)  
 TYPICAL I-BEAM PIER

INSTALL 2x8 SYP#2 MINIMUM BEARING BLOCK BETWEEN FLOOR JOIST UNDER ALL COLUMNS HAVING A TRIBUTARY LOAD DISTANCE OF GREATER THAN 12 FEET MEASURED ALONG MARRIAGE LINE.

INSTALL 2x3 SPF#3 MIN. RAIL, W/ PLYWOOD FILLERS IF NEEDED, EACH SIDE, AT ROOF PEAK FASTENED TO EACH TRUSS W/(2) 16d NAILS WITH 2" MINIMUM PENETRATION INTO TRUSS, OR EQUAL, WHERE ROOF RIDGE BEAM DOES NOT EXTEND TO TOP OF ROOF. TAPER RAIL WHEN SPACE IS LESS THAN 2 1/2" ABOVE BEAM. ALSO INSTALL RAIL AT BOTTOM OF TRUSSES OVER MARRIAGE WALL WHERE RIDGE BEAM IS NOT REQUIRED. (TYP.)

DBL. TOP PLATE 2x4 SPF#2

26 GA. X 1-1/2" STEEL STRAP FROM TRUSS TO WALL STUD AND/OR FROM RIDGE BEAM TO WALL STUD @ 16" O.C. WITH 7-15 GA. X 1" STAPLES PER STRAP END PLUS STRAPS AT OPENING COLUMNS PER FLOOR PLAN.

DBL. TOP PLATE 2x4 SPF#2

MARRIAGE WALL STUDS 2x4 SPF#2 @ 16" O.C.

WALL INTERIOR FINISH

R-11 INSULATION

BOTTOM PLATE 2x4 SPF#2

26 GA. X 1-1/2" STEEL STRAPS FROM WALL STUD TO JOIST @ 16" O.C. WITH 7-15 GA. X 1" STAPLES PER STRAP END PLUS STRAPS AT OPENING COLUMNS PER FLOOR PLAN.

I-BEAM - M12x11.8

SITE INSTALL 3/8" LAG SCREWS STAGGERED FROM SIDE TO SIDE AT 48" O.C. MAXIMUM. LAG SCREWS MUST PENETRATE 1.75" MINIMUM INTO ADJACENT MODULE RIM JOIST OR RAIL. (TYPICAL AT ALL MARRIAGE LINES)

ROOF COVERING OVER: MULE-HIDE FR DECK PANEL 'C' (SEE EXTERIOR FINISH AND ROOF SHEATHING DETAIL.)

LISTED TRUSSES AT 24" O.C. (LISTED TRUSS IS TRANSVERSE)

EXTERIOR WALL FINISH

EXTERIOR WALL STRUCTURAL BRACING SIDEWALLS:

BRACING INSTALLATION: STRUCTURAL SHEATHING SHALL EXTEND CONTINUOUSLY FROM TOP OF TRUSS TOP CHORD TO 3/4" MINIMUM BELOW TOP OF RIM JOIST WITH ALL SHEATHING EDGES SUPPORTED BY 2" NOMINAL LUMBER OF THE SAME SIZE AND GRADE AS EXTERIOR WALL FRAMING.

BRACING MATERIAL: 7/16" OSB SHEATHING FASTENED W/ 16 GA. X 1" X 1-1/2" STAPLES 3" O.C. ON EDGES AND 6" O.C. IN THE FIELD, OR USE THE SAME STRUCTURAL BRACING MATERIAL AND FASTENING METHOD AS SPECIFIED FOR ENDWALLS.

ENDWALLS: BRACING INSTALLATION: STRUCTURAL SHEATHING SHALL EXTEND CONTINUOUSLY FROM TOP OF TRUSS TOP CHORD TO 3/4" MINIMUM BELOW TOP OF RIM JOIST WITH ALL SHEATHING EDGES SUPPORTED BY 2" NOMINAL LUMBER OF THE SAME SIZE AND GRADE AS EXTERIOR WALL FRAMING.

BRACING MATERIAL: 7/16" OSB SHEATHING EXP. 1, FASTENED W/8d COMMON OR GALV. BOX NAILS 6" O.C. EDGES AND 12" O.C. IN THE FIELD.

R-38 INSULATION ON NETTING  
 EXTERIOR WALL STUDS 2x6 SPF#2 AT 16" O.C.  
 R-19 INSULATION  
 R-30 INSULATION HIGH DENSITY

26 GA. X 1-1/2" STEEL STRAP FROM WALL STUD TO FLOOR JOIST AT OPENING STUDS AND 16" O.C. WITH 7-15 GA. X 1" PENETRATION STAPLES PER STRAP END. (TYPICAL SIDEWALLS & ENDWALLS)  
 RIM JOIST 2x8 SYP#2

**GENERAL CROSS-SECTION NOTES:**

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

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**RIDGE BEAM CONSTRUCTION:**  
 (SEE FLOOR PLAN) PLYWOOD, RATED SHEATHING, EXP.-1, STRUCT.-1, 5 PLY/5 LAYER, 48/24 EACH HALF CONTINUOUS ENTIRE LENGTH OF CLEARSPAN.

NOTES:

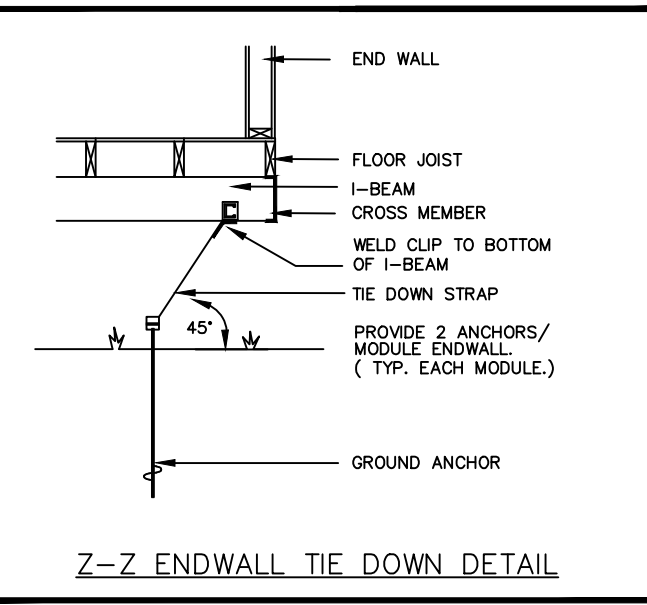
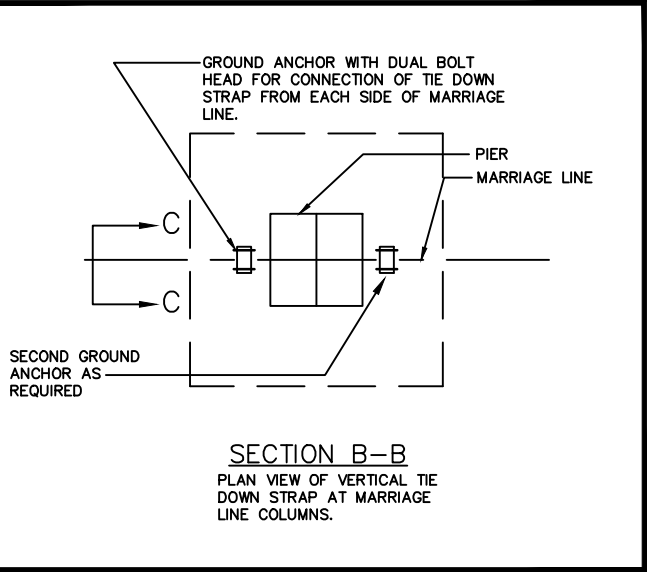
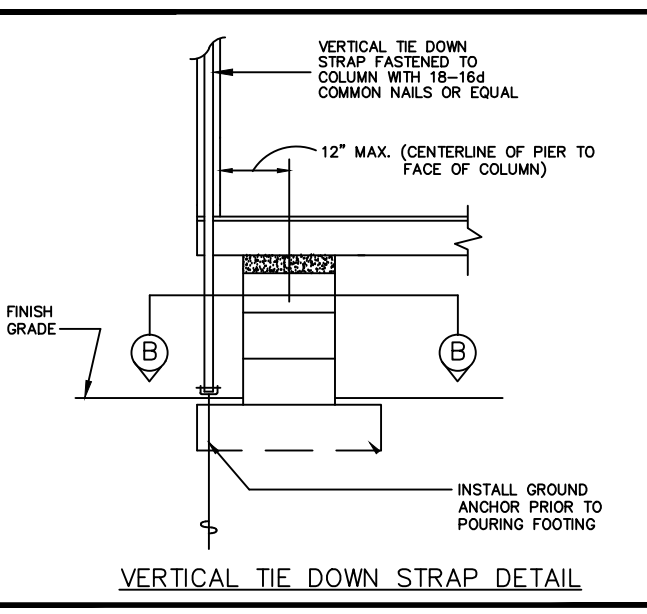
- PLYWOOD FACE GRAIN MUST BE PARALLEL TO THE RIDGE BEAM SPAN.
- ALL PLYWOOD BUTT JOINTS MUST BE STAGGERED 24" MINIMUM.
- ALL RIDGE BEAM PLYWOOD LAMINATIONS MUST BE THE SAME DEPTH, THICKNESS, AND GRADE OF PLYWOOD. NO LUMBER OR PLYWOOD FLANGES ARE PERMITTED.
- PLYWOOD MUST BE MANUFACTURED IN ACCORDANCE W/ PS 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, OR CA25-4.
- PLYWOOD MUST NOT BE TREATED W/ A FIRE RETARDANT PROCESS.
- MOISTURE CONTENT MUST BE LESS THAN 16%.
- BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
- INSTALL (2x4) X 20" SPF#3 RIDGE BEAM BEARING STIFFENER OVER SUPPORT COLUMNS, WHEN SPECIFIED ON FLOOR PLAN; FASTEN THE FACE OF THE STIFFENER TO THE RIDGE BEAM W/ 100% GLUE COVERAGE AND (6) 16 GA. X 2-1/2" STAPLES.
- REFER TO PAGE 029.4 OF MARYLAND STRUCTURAL PACKAGE.

CONSULTING ENGINEER JAMES BRADLEY, P.E. — 212 FOX TRAIL — PARKESBURG, PA. 19365 — (610) 857-2458

**DIAMOND BUILDERS INC.**  
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 DOUGLASS, GEORGIA 31534 (912) 384-7080

DATE: 12-3-17 REVISIONS:  
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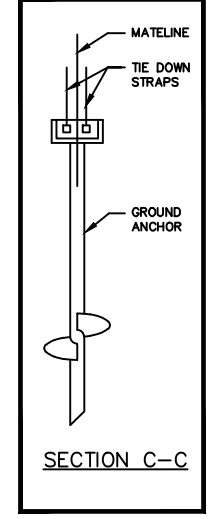
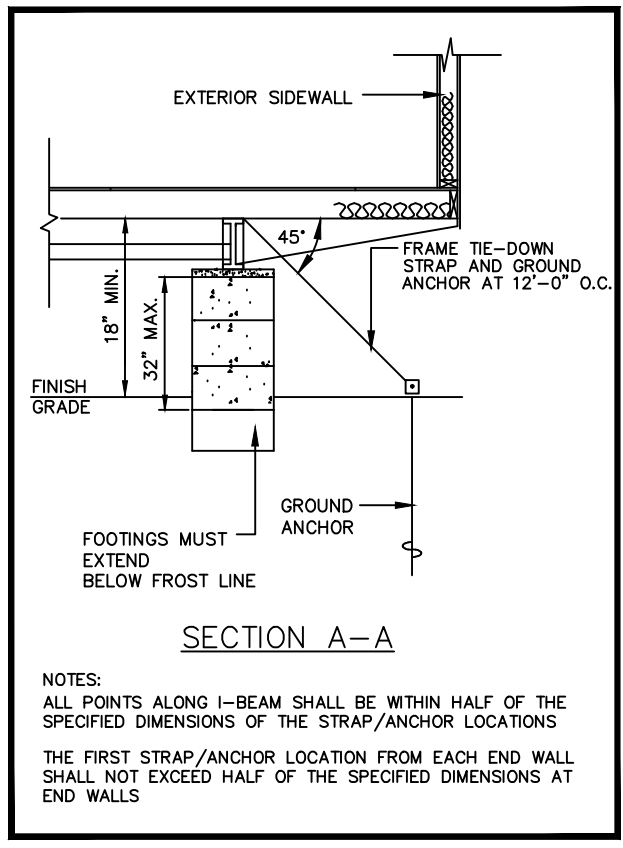
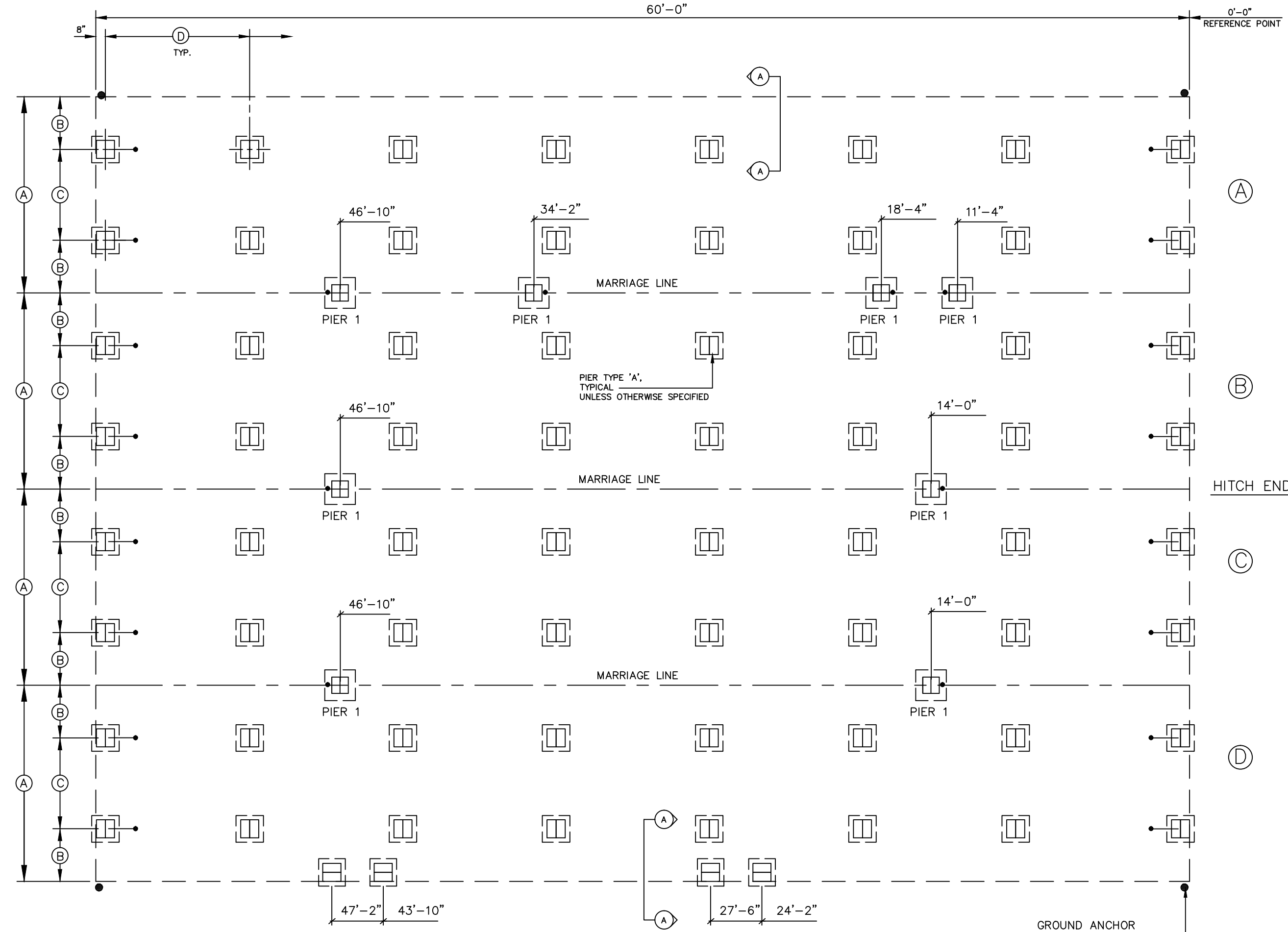
DBI7438 A-D 48x60 BUSINESS SHEET  
 CROSS SECTION MD PLAN NO. DESTINATION: 4 OF 4  
 DBI 7438 MD ?



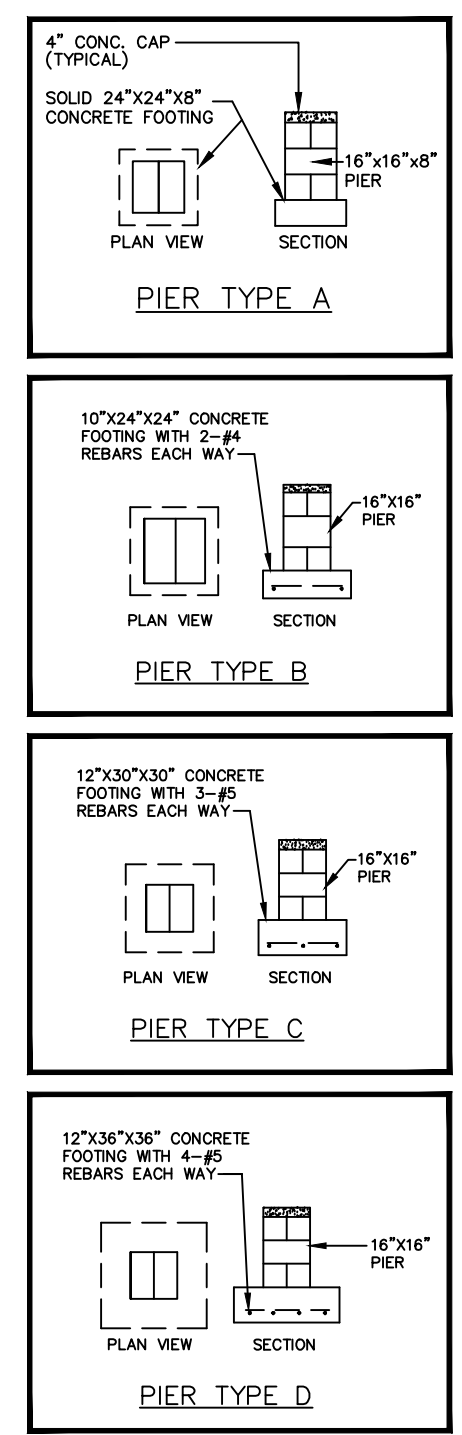
**MARRIAGE WALL PIER REQUIREMENTS**

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:**
- ALL FOUNDATION CONSTRUCTION, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
  - TIE-DOWN STRAPS TO BE 1-1/4" 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.
  - EACH GROUND ANCHOR SHALL HAVE A WORKING CAPACITY NO LESS THAN THE SUM OF THE REQUIRED WORKING CAPACITIES OF ALL TIE DOWN STRAPS CONNECTED TO THE GROUND ANCHOR, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DESIGN OF GROUND ANCHOR, INCLUDING SHAFT LENGTH, NUMBER AND DIAMETER OF HELICES, 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 ASSUMED DESIGN VALUES, THE ARCHITECT/ENGINEER MUST BE CONSULTED FOR AN ALTERNATE ANCHORAGE DESIGN.
  - THE FIRST TIE-DOWN STRAP FROM ENDWALLS SHALL NOT EXCEED 1/2 THE 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 COMPLY WITH ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL BE EQUALLY SPACED AND PLACED WITH 3" CLEARANCE FROM BOTTOM AND SIDES OF THE FOOTING.
  - SEE SHEET 1 OF 7 FOR BUILDING DESIGN LOADS.
  - 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.
  - 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.
  - 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.
  - 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
  - THE AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.



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



**FOUNDATION DIMENSIONS**

A	B	C
MODULE WIDTH	PIER TO MODULE EDGE	STEEL BEAM SPACING
11'-8"	22 1/4"	95 1/2"

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

**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.

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DBI7438 A-D 48x60 BUSINESS SHEET  
FOUNDATION MD PLAN NO. DESTINATION: DBI 7438 MD ? 1 OF 1