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 PAN WITH 2" TO 6" AIR GAP AND A SHUT OFF VALVE WITHIN 3 FEET ON A COLD WATER SUPPLY LINE.
6. DWV SYSTEM SHALL BE PVC – DWV.
7. WATER SUPPLY LINES SHALL BE CPVC 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 RESPONSIBILTY FOR REQUIRED PLUMBING FACILITIES WHEN 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. PLUMBING VENTS (VTRS) MUST EXTEND 18"–24" ABOVE THE ROOF.

PIPING SUPPORTS. PIPING SHALL BE SUPPORTED WITH APPROPRIATE ANCHORS OR SUPPORTS AT THE FOLLOWING MAXIMUM INTERVALS:

MATERIAL	HORIZONTAL SPACING (FT)	VERTICAL SPACING (FT)
ABS	4	10*
CAST IRON	5	15
COPPER PIPE	12	10
CPVC	3	10*
PEX	2.67 (32 INCHES)	4
PVC	4	10*

*FOR SIZES 2 INCHES OR LESS A GUIDE SHALL BE INSTALLED MIDWAY BETWEEN THE REQUIRED VERTICAL SUPPORTS.

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 REQUIREMENTS
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. STRUCTURAL DETAILS NOT INCLUDED IN THIS PLAN SET ARE TO BE CONSTRUCTED ACCORDING TO THE APPROVED STRUCTRAL MANUAL.
8. PROVISIONS FOR EXIT DISCHARGE LIGHTING ARE THE RESPONSIBILITY OF THE GENRAL CONTRACTOR AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN (INCLUDING EMERGENCY LIGHTING, WHEN REQUIRED).
9. 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 REQUIRMENTS OF AN APPROVED IMPACT RESISTANT STANDARD, OR ASTM E1996. WIND–BORNE DEBRIS REGIONS ARE DESIGNATED IN SECTION 1609 OF THE IBC.

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 AS WEATHER RESISTANT AS PER NEC.
9. EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.
10. OCCUPANCY SENSOR SWITCHES SHALL PROVIDE A BI–LEVEL LIGHTING CONTROL TO PROVIDE EITHER CONTINUOUS DIMMING,, OR AT LEAST ONE INTERMEDIATE STEP IN LIGHTING POWER BETWEEN 30% & 70% OF FULL POWER IN ADDITION TO FULL ON AND FULL OFF.
11. AUTOMATIC RECEPTACLE CONTROLS IF REQUIRED SHALL BE PROVIDED AND SITE INSTALLED PER THE REQUIRMENTS OF 2021 IECC SECTION C405.1.11.1 SUBJECT TO THE REVIEW AND APPROVAL OF AUTHORITY HAVING JURISDICTION.
12. FEEDER CONDUCTOR AND BRANCH CIRCUITS COMBINED SHALL BE SIZED FOR A MAXIMUM OF 5% VOLTAGE DROP TOTAL.

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.
4. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
5. EXHAUST FANS SHALL PROVIDE A MINIMUM OF 70 CFM FOR EACH WATER CLOSET
6. THERMOSTAT MUST BE PROGRAMMABLE

WINDOW & DOOR SPECIFICATIONS

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

ACCESS

1. THE INTERNATIONAL SYMBOL OF AC ACCESSIBLE RESTROOM FACILITIES / ALL ENTRANCES ARE ACCESSIBLE. DIRECTIONAL SIGNS INDICATING THE
2. ACCESSIBLE DRINKING FOUNTAINS S INCHES ABOVE THE FLOOR AND EDI THE FLOOR FOR INDIVIDUALS IN WH SHALL BE MADE FOR INDIVIDUALS W
3. WHERE STORAGE FACILITIES SUCH A PROVIDED AT LEAST ONE TYPE PRC WITH THE FOLLOWING: DOORS ETC. LATCHES, U–SHAPED PULLS); SPAC MAXIMUM ABOVE THE FLOOR FOR F COAT HOOKS SHALL BE A MAXIMUM WHEN DISTANCE FROM WHEEL CHAIR OR TOILET ROOMS SHALL BE 40 IN
4. CONTROLS, DISPENSERS, RECEPTACI HIGHER THAN 48 INCHES ABOVE TH NO LESS THAN 15 INCHES ABOVE T APPLY WHERE THE USE OF SPECIAL RECEPTACLES ARE NOT NORMALLY
5. WHERE EMERGENCY WARNING SYSTE AND VISUAL ALARMS. THE VISUAL / 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 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. 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 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.
12. ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESIBLE FAUCETS (I.E. LEVER–OPERATED, PUSH TYPE, ELECTRONICALLY CONTROLLED).
13. MIRRORS LOCATED ABOVE LAVATORIES, SINKS OR COUNTERS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE A MAXIMUM OF 40 INCHES ABOVE THE FLOOR. OTHER MIRRORS IN TOILET ROOMS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FLOOR.
14. GRAB BARS HAVING A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1.25 INCHES MINIMUM AND 2.0 INCHES MAXIMUM. THE SPACE BETWEEN THE GRAB BAR AND THE 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 [illegible] HAVE ACCESSIBLE HARDWARE (I.E. LEVER – OPERRATED, PUSHTYPE, [illegible] BETWEEN 34 INCHES MINIMUM AND 48 INCHES [illegible] FLOOR.
17. TOILET STALL DOORS SH [illegible] SING TYPE
18. A TOWEL DISPENSER SH [illegible] CENT TO [illegible] ACCESSIBLE LAVTORIES.

PR2026BCC-002577

Approved For Permit
Approved
Date: 9/21/2026
CITY OF DETROIT
Buildings, Safety Engineering & Environmental Department
Permit Number: BLD2026-00154
Approved
Reviewed for Code Compliance

THE GREAT SEAL OF THE STATE OF MICHIGAN
1ST MICCCXXXV
FIRST MANUFACTURED
These documents are approved
STATE OF MICHIGAN
PREMANUFACTURED UNITS PROGRAM
subject to field inspection and the conditions of approval.

EMC APPROVED
06 26 2026

STRUCTURAL LOAD SPECIFICATIONS–ASCE 7–16

FLOOR DEAD AND LIVE LOAD:
A. DEAD LOAD = 12 PSF (AVERAGE).
B. UNIFORM LIVE LOAD = 50 PSF
C. CONCENTRATED LIVE LOAD = 2000 LB. OVER 30 INCH X 30 INCH AREA LOCATED ANYWHERE ON FLOOR. NOTE: UNIFORM AND CONCENTRATED LIVE LOADS ARE NOT SIMULTANEOUSLY APPLIED.

ROOF DEAD AND LIVE LOAD:
A. DEAD LOAD = 13 PSF (AVERAGE).
B. LIVE LOAD = 30 PSF.

ROOF SNOW LOAD:
A. GROUND SNOW LOAD: Pg = 40 PSF
B. FLAT–ROOF SNOW LOAD: Pf = 30.8 PSF
C. SNOW EXPOSURE FACTOR: Ce = 1.0
D. SNOW IMPORTANCE FACTOR: Is = 1.0
E. SNOW THERMAL FACTOR: Ct = 1.1
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 = 120 MPH
B. ASD WIND SPEED (3–SEC GUST): Vasd = 93 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 = +/– 42.0 PSF (Pasd = +/– 25.2 PSF)
WALL ZONE 4: P = +/– 34.0 PSF (Pasd = +/– 20.4 PSF)
ROOF ZONE 3: P = – 89.5 PSF (Pasd = – 53.9 PSF)
ROOF ZONE 2: P = – 65.8 PSF (Pasd = – 39.5 PSF)
ROOF ZONE 1: P = – 50.0 PSF (Pasd = – 30.0 PSF)
ROOF ZONE 1': P = – 28.7 PSF (Pasd = – 17.2 PSF)

SEISMIC LOAD:
A. RISK CATEGORY IS II
B. SEISMIC IMPORTANCE FACTOR IS 1.0
C. SEISMIC SITE CLASS IS D.
D. SPECTRAL RESPONSE COEFFICIENTS:
Ss = 0.537 S1 = 0.285
Sds = 0.49 Sd1 = 0.19
E. SEISMIC DESIGN CATEGORY IS C.
F. SEISMIC FORCE RESISTING SYSTEM IS A15.
G. EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE
H. RESPONSE MODIFICATION FACTOR R = 6.5.
I. SEISMIC RESPONSE COEFFICIENT Cs = 0.08
J. DESIGN BASE SHEAR V = 3259 LBS

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

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

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.

1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
3. PORTABLE FIRE EXTINGUISHER(S).
4. WINDOW AND DOOR HIGH WIND STORM COVERINGS (PER CODE) SEE GENERAL NOTE 10.
5. ELECTRICAL SERVICE HOOK–UP (INCLUDING FEEDERS) TO THE BUILDING.
6. THE MAIN ELECTRICAL PANEL AND SUB–FEEDERS
7. CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATELINE(S) – (MULTI–UNITS ONLY).
8. STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI–UNITS ONLY).
9. EXIT DISCHARGE LIGHTING (INCLUDING EMERGENCY)
10. BUILDING DRAINS, CLEANOUTS, DRINKING FOUNTAIN, AND HOOK–UP TO PLUMBING SYSTEM.

BUILDING DESIGN PARAMETERS

1. USE/OCCUPANCY: BUSINESS
2. CONSTRUCTION TYPE: VB
3. SPRINKLER SYSTEM: NO
4. BUILDING AREA: 1400 S.F.
5. BUILDING HEIGHT: ≤ 15 FEET
6. NUMBER OF STORIES: 1
7. NUMBER OF MODULES: 2
8. OCCUPANT LOAD 10 BASED ON 150 SF/PERSON
9. EXTERIOR WALL FIRE RATING: NOT RATED
10. THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY IBC 602 AND SECTION 705.3,
11. ENGERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCULATIONS.
12. MANUFACTURERS DATA PLATE, STATE LABELS AND EMC LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.

CODE SUMMARY:

STATE	BUILDING	ELECTRICAL	MECHANICAL	PLUMBING	ACCESSIBILTY	ENERGY CODE
MICHIGAN	2021 MI–BC (2021 IBC W/AMENDS)	2023 MEC 2023 NEC	2021 MMC 2021 IMC W/AMENDS	2021 MPC 2021 IPC W/AMENDS	ICC/ANSI A117.1–2017	2021 MUEC (Part 10A) 2019 ASHRAE 90.1 W/AMENDS COMMERCIAL BLDGS

CONSULTING ENGINEER: NADER TOMASBI, P.E. – 58665 GLENRIVER DRIVE – GOSHEN, IN. 46528 – 574–370–3419

STATE OF MICHIGAN
NADER TOMASBI
ENGINEER
No. 6201052208
LICENSED PROFESSIONAL ENGINEER
06/25/2026

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

DATE: 5–4–26		
SCALE : NO SCALE		
CODES: SEE NOTES		
STATES: MI.	REVISIONS:	BY: N.T.
REFERENCE: 14079		
DBI14166 A/B 23'–4" x 60'–0" BUSINESS		SHEET 1 OF 4
COVER SHEET	DESTINATION: MICHIGAN	

ELECTRICAL SCHEDULE 'A'			
CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	60 A (2P) HACR	6-2 #8 GRND.
4, 6, 8	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'A' KVA
.0035 KW/SF X 700 SF X 1.25=	3.1
19 RECEPTS AT 180VA/1000=	3.4
WATER HEATER 7.2 KW =	--
1 FANS @ .3 KW X 1.25=	.4
HVAC	10.5

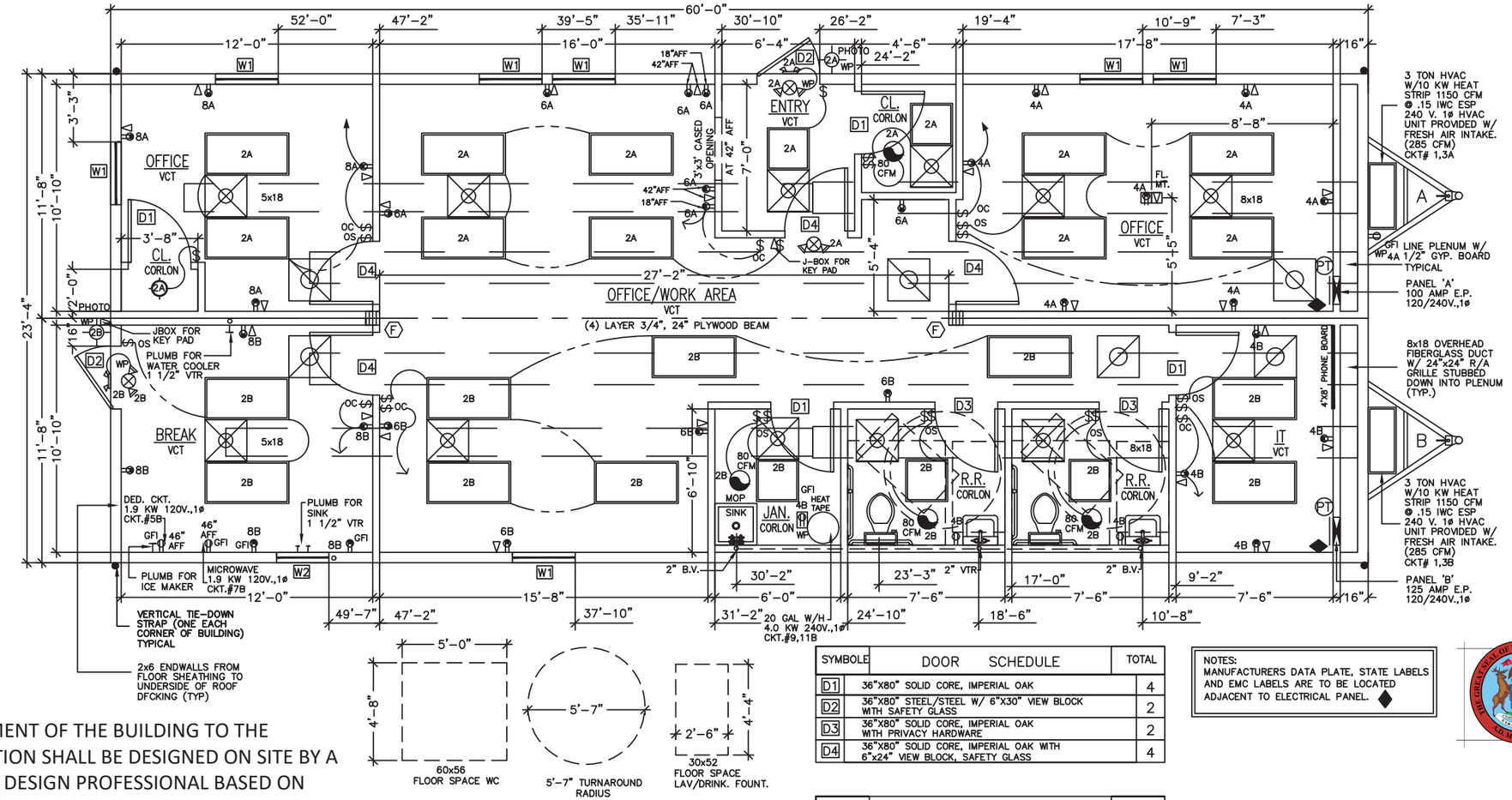
TOTAL 16.4 KW
TOTAL/240 X 1000= 69 AMPS
INSTALL 100 AMP PANEL
120/240 V 1Ø

ELECTRICAL SCHEDULE 'B'			
CIRCUIT	NOMENCLATURE	BREAKER (AMPS)	WIRE (CU.)
1, 3	HVAC	60 A (2P) HACR	6-2 #8 GRND.
9, 11	WATER HEATER	20 A(2P)	12-2 NM
5, 7	DED. CKT. 1.9 KW 120V.,1ø	20 A(1P)	12-2 NM
4, 6, 8	RECEPTACLES	20 A	12-2 NM
2	LIGHTING/FAN	15 A	14-2 NM

ELECTRICAL PANEL SIZING:

DESCRIPTION	PANEL 'B' KVA
.0035 KW/SF X 700 SF X 1.25=	3.1
16 RECEPTS AT 180VA/1000=	1.9
WATER HEATER 4.0KW x 1.25=	5.0
3 FANS @ .3 KW X 1.25=	1.2
HVAC	10.5
(2) DED. CKT. 1.9KW x 1.25=	4.8

TOTAL 26.5 KW
TOTAL/240 X 1000= 110 AMPS
INSTALL 125 AMP PANEL
120/240 V 1Ø



SYMBOL	DOOR SCHEDULE	TOTAL
D1	36"X80" SOLID CORE, IMPERIAL OAK	4
D2	36"X80" STEEL/STEEL W/ 6"X30" VIEW BLOCK WITH SAFETY GLASS	2
D3	36"X80" SOLID CORE, IMPERIAL OAK WITH PRIVACY HARDWARE	2
D4	36"X80" SOLID CORE, IMPERIAL OAK WITH 6"x24" VIEW BLOCK, SAFETY GLASS	4

SYMBOL	WINDOW SCHEDULE	TOTAL
W1	36"X60" VERTICAL SLIDE, INSULATED BRONZE/TINTED	7
W2	36"X36" VERTICAL SLIDE, INSULATED BRONZE/TINTED	1

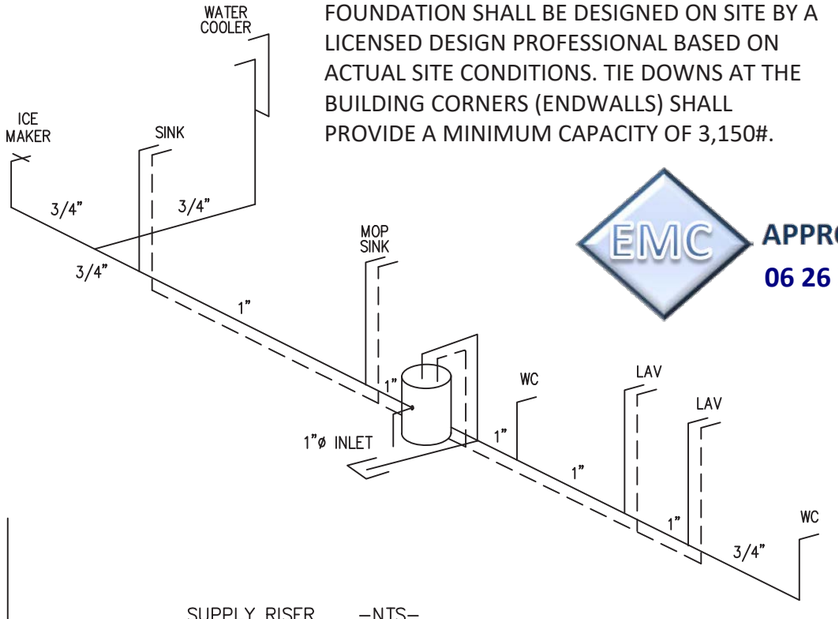
NOTES:
MANUFACTURERS DATA PLATE, STATE LABELS AND EMC LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.

SINGLE RECEPTACLE 240 V.
LED PORCH LIGHT LIGHT 1-13 W. BULB
INCAN. LIGHT (CLOSET) 1-60 W. BULB
COMPACT FLUOR. WALL PACK
CLG. MT. POWERED J-BOX
VENT FAN
COMB. VENT FAN & 13W. LED LIGHT
SUPPLY AIR REGISTER
RETURN AIR REGISTER
FLOOD LIGHT 2-150W BULBS
THERMOSTAT
LED LIGHT FIXTURE 22W. PANEL
LED EXIT/EMERGENCY COMBO W/REMOTE HEAD W/BATTERY BACKUP
LED EXIT/EMERGENCY COMBO W/BATTERY BACKUP
EXIT SIGN W/BATTERY BACKUP
LED EMERGENCY LIGHT WITH BATTERY BACKUP
TELEPHONE JACK
SWITCH & 3 WAY SWITCH
OCCUPANCY SENSOR SWITCH
DOOR CONTACT RECEPT SWITCH
FIRE EXTINGUISHER F.E.

PREMANUFACTURED
These documents have been reviewed for compliance with the STATE OF MICHIGAN CONSTRUCTION CODE. PREMANUFACTURED CONSTRUCTION is subject to field inspection and the conditions of approval.

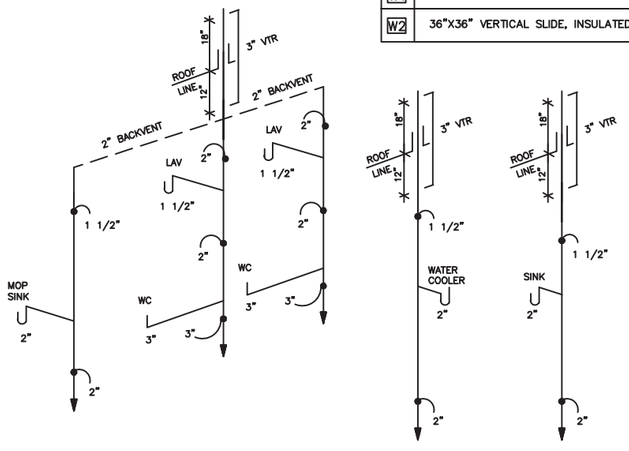
Approved For Permit
Approved
Date: 9/21/2026
City of Detroit Buildings, Safety Engineering & Environmental Department
Permit Number: BLD2026-00154
Approved
Reviewed for Code Compliance

ATTACHMENT OF THE BUILDING TO THE FOUNDATION SHALL BE DESIGNED ON SITE BY A LICENSED DESIGN PROFESSIONAL BASED ON ACTUAL SITE CONDITIONS. TIE DOWNS AT THE BUILDING CORNERS (ENDWALLS) SHALL PROVIDE A MINIMUM CAPACITY OF 3,150#.



SUPPLY RISER -NTS-

EMC APPROVED 06 26 2026



DWV 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.

CONSULTING ENGINEER: NADER TOMASBI, P.E. – 58665 GLENRIVER DRIVE – GOSHEN, IN. 46528 – 574-370-3419

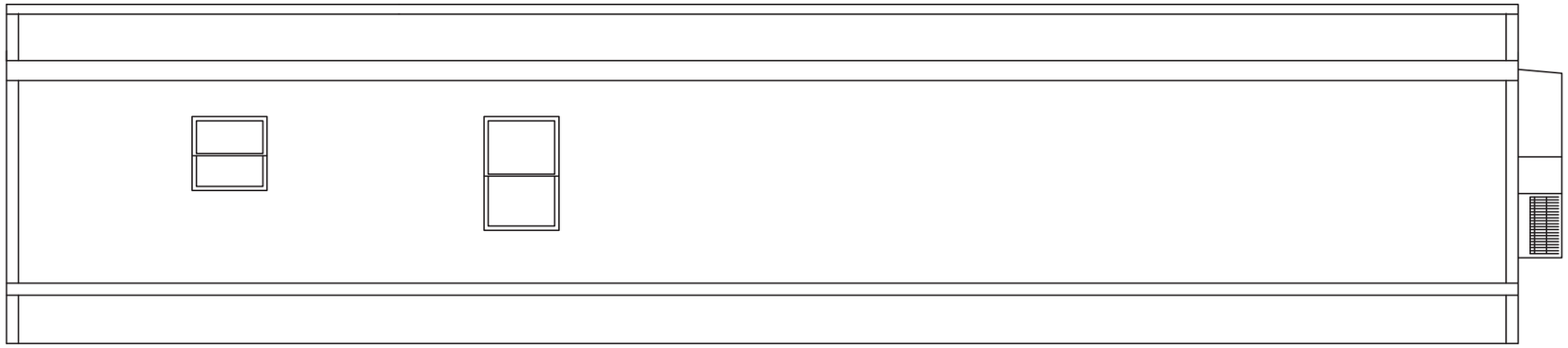
STATE OF MICHIGAN
NADER TOMASBI
ENGINEER
No. 6201052208
LICENSED PROFESSIONAL ENGINEER
06/25/2026

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

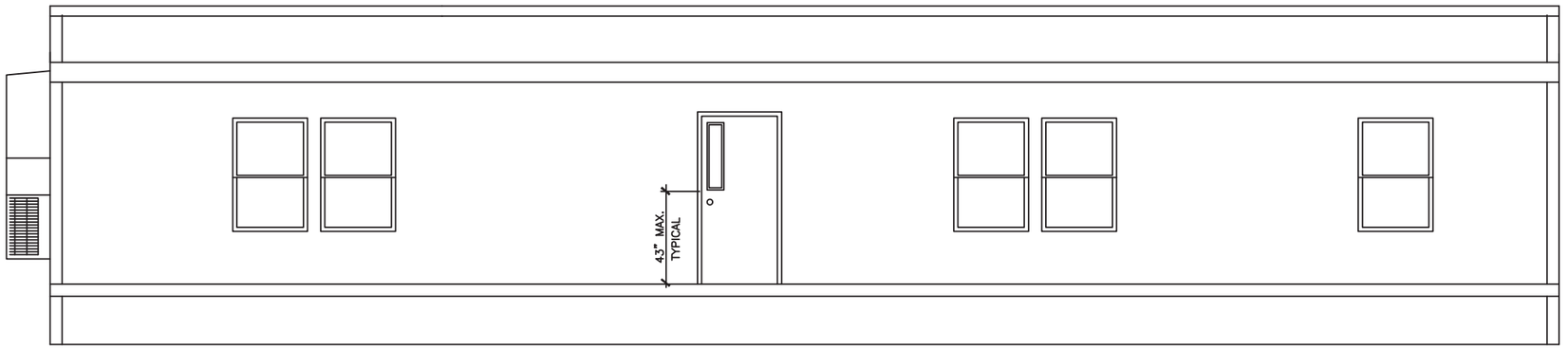
DATE: 5-4-26		
SCALE : NO SCALE		
CODES: SEE NOTES		
STATES: MI.	REVISIONS:	BY: N.T.
REFERENCE: 14079		
DBI14166 A/B 23'-4" x 60'-0" BUSINESS		SHEET 2 OF 4
FLOOR PLAN	DESTINATION: MICHIGAN	

PR2026BCC-002577

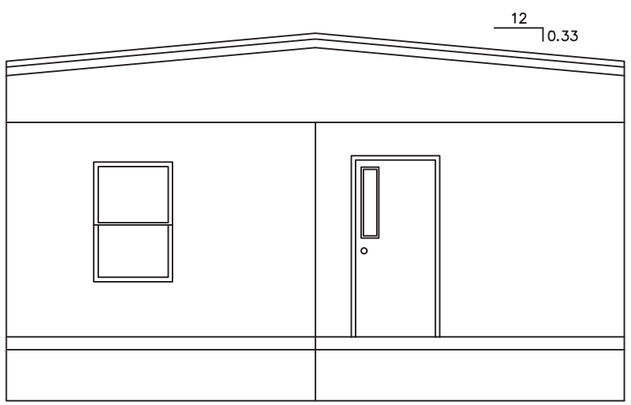
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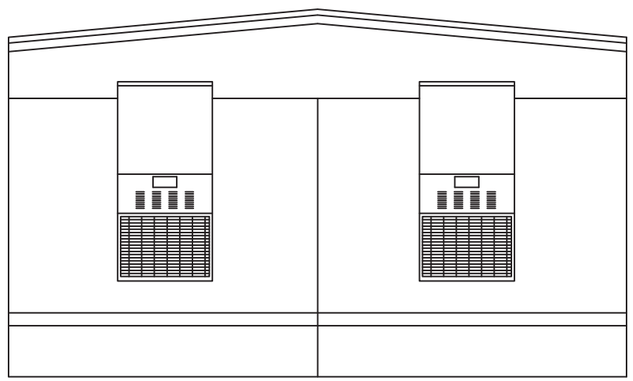
REAR ELEVATION



FRONT ELEVATION



RIGHT ELEVATION



LEFT ELEVATION

SEE–(
METH(

ACCES
AND H
INSTAI
AND S

FOUND
(WHEN
1 SQU
PER 1,
AND AN 18" X 24" MINIMUM CRAWL SPACE ACCESS, SITE INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.

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

Approved For Permit
Approved
Date: 9/21/2026
Buildings, Safety Engineering & Environmental Department
CITY OF DETROIT
Permit Number: BLD2026-00154
Approved
Reviewed for Code Compliance

PREMANUFACTURED
These documents are approved for compliance with the STATE OF MICHIGAN PREMANUFACTURED UNITS PROGRAM subject to field inspection and the conditions of approval.

EMC APPROVED
06 26 2026

CONSULTING ENGINEER: NADER TOMASBI, P.E. – 58665 GLENRIVER DRIVE – GOSHEN, IN. 46528 – 574–370–3419

STATE OF MICHIGAN
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DBI14166 A/B 23'–4" x 60'–0" BUSINESS		SHEET 3 OF 4
ELEVATIONS	DESTINATION: MICHIGAN	

INTERIOR FINISH MATERIAL:

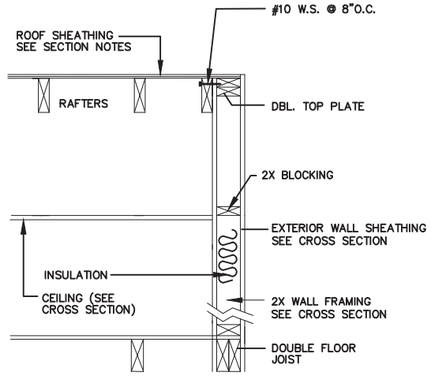
CEILING	–	T–GRID CEILING INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
WALLS	–	1/2" GYPSUM BOARD (THROUGH OUT) INSTALLED PER MANUFACTURERS SPECIFICATIONS
RESTROOM JAN, CL. CLOSETS	–	FRP OVER 1/2" GYPSUM BOARD (FULL HEIGHT) INSTALLED PER MANUFACTURERS SPECIFICATIONS

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.

EXTERIOR FINISH MATERIAL:

ROOF – MULE–HIDE 45 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)

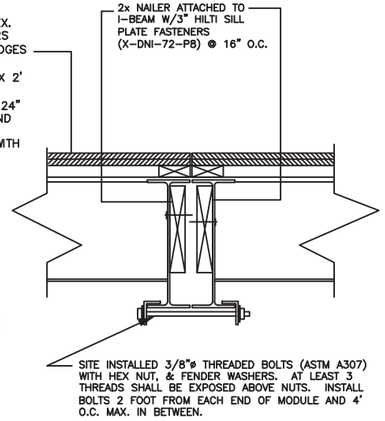
WALL – 26 GAUGE HI–RIB STEEL SIDING OVER APPROVED MOISTURE BARRIER INSTALLED PER MANUFACTURERS SPECIFICATIONS



BALLOON END WALL DETAIL

NTS

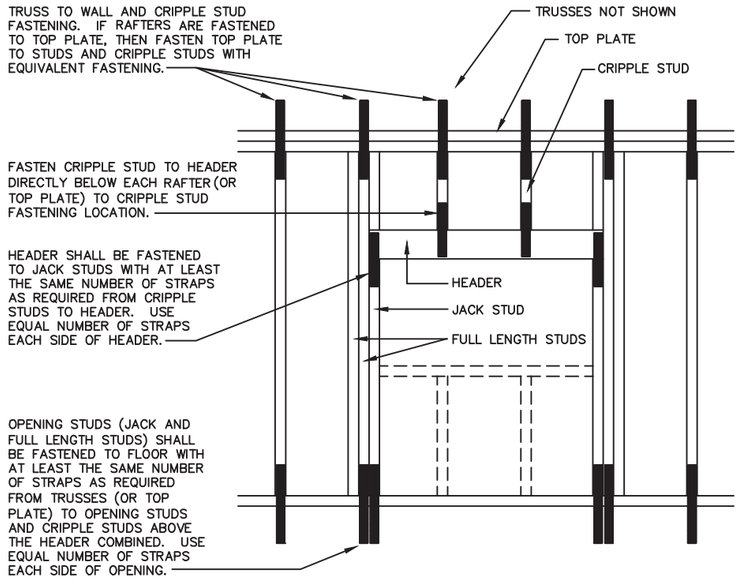
5/8" APA RATED PLYWOOD STURD–I–FLOOR, EXP. 1, 20" O.C. INDEX. FASTEN LOWER LAYER TO 2X3 SLEEPERS WITH 0.113"ø X 2" NAILS AT 6" O.C. EDGES AND 12" O.C. FIELD. FASTEN UPPER LAYER TO LOWER LAYER WITH 0.113"ø X 2' NAILS AT 6" O.C. EDGES AND 12" O.C. FIELD. OFF–SET UPPER LAYER EDGES 24" FROM LOWER LAYER EDGES. UPPER AND LOWER LAYERS & LOWER LAYER AND SLEEPERS ALSO FASTENED TOGETHER WITH 100% PVA GLUE COVERAGE.



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SEE DBI DESIGN PACKAGE PAGES FOR DIAGONAL BRACING AND ROOF JOIST GUSSET DETAILS.
C36.0–36.3 (2021 IBC)



NOTES

1. DESIGNER OF MODEL PLANS SHALL SPECIFY REQUIRED STRAP SPECIFICATIONS BASED ON APPLICABLE DESIGN LOADS.
2. EACH STRAP FROM CRIPPLE STUD TO HEADER AND FROM HEADER TO JACK STUD AND FROM OPENING STUD TO FLOOR SHALL HAVE EQUIVALENT CAPACITY AS RAFTER(OR TOP PLATE) TO CRIPPLE STUD REQUIRED STRAP CAPACITY UNLESS OTHERWISE SPECIFIED.
3. FOR MINIMUM REQUIRED QUANTITY OF JACK AND FULL LENGTH OPENING STUDS SEE OPENING STUD DETAILS. FOR MINIMUM REQUIRED HEADER SIZE AND FASTENING TO OPENING STUDS SEE HEADER OPENING DETAILS.
4. FOR INTERCONNECTION OF OPENING STUDS TO EACH OTHER AND HEADER MEMBERS TO EACH OTHER SEE FASTENING SCHEDULE.
5. ONE OR MORE HEADER TO JACK STUD STRAPS MAY BE REPLACED WITH FASTENERS FROM THE FULL LENGTH STUD TO END OF HEADER WHICH HAVE EQUIVALENT CAPACITY AS STRAP OR STRAPS BEING REPLACED. FOR EXAMPLE, EACH 0.131"ø X 3" NAIL IS GOOD FOR 87.9# LATERAL CAPACITY, THEREFORE 6 = 527# AND 11 = 966#. (COMPARE TO STRAP CAPACITIES)

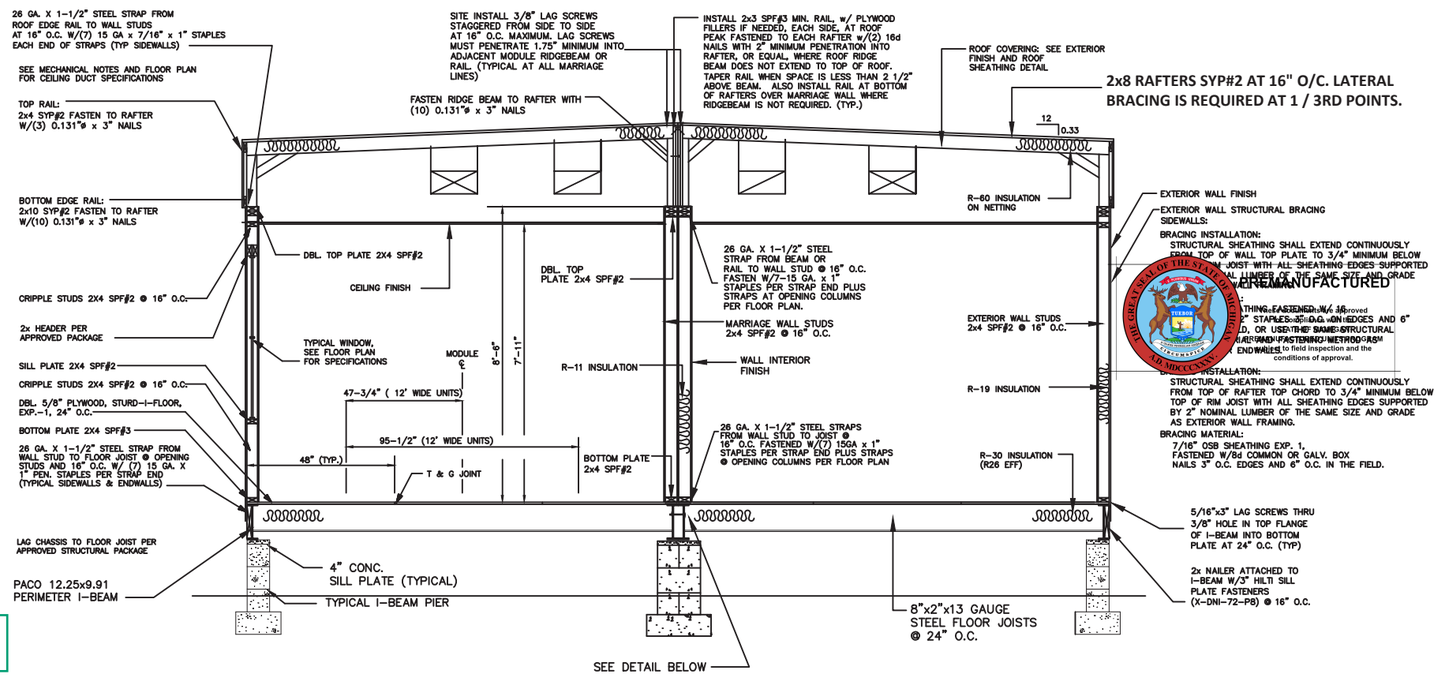
2 DETAIL

BEAM LATERAL SUPPORT AND DIAPHRAGM LOAD TRANSFER BETWEEN UNITS REQUIRE THAT NO GAPS BE PRESENT BETWEEN SECTIONS AT THE ROOF AND FLOOR AREAS. ALL GAPS BETWEEN SECTIONS IN THESE AREAS SHALL BE FULLY ELIMINATED PRIOR TO THE APPLICATION OF SPECIFIED LAGS TO ENSURE CONTINUOUS CONTACT WITH SUPPORTING BEAMS DURING THE SET UP PROCESS. IN CASES WHERE GAPS CANNOT BE ELIMINATED, FULL OSB SHALL BE INSTALLED BETWEEN SECTIONS TO FILL ALL ROOF AND FLOOR GAPS PRIOR TO THE INSTALLATION OF SPECIFIED LAGS AND FINAL SET. INCREASE THE LENGTH OF THE LAGS BY AN AMOUNT EQUAL TO THE SIZE OF THE GAP.

- 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.

MATE LINE FLOOR CONNECTION

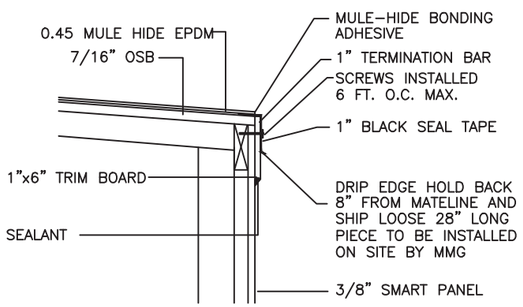
NTS



2x8 RAFTERS SYP#2 AT 16" O/C. LATERAL BRACING IS REQUIRED AT 1 / 3RD POINTS.

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FLASHING DETAIL

NTS

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.

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 1–95.
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" SYP#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 (8) 16 GA. X 2–1/2" STAPLES.

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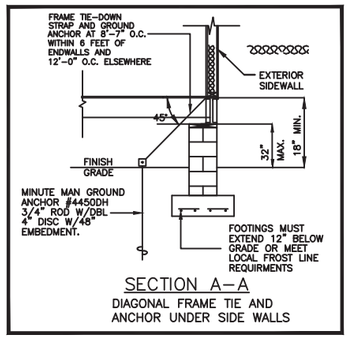
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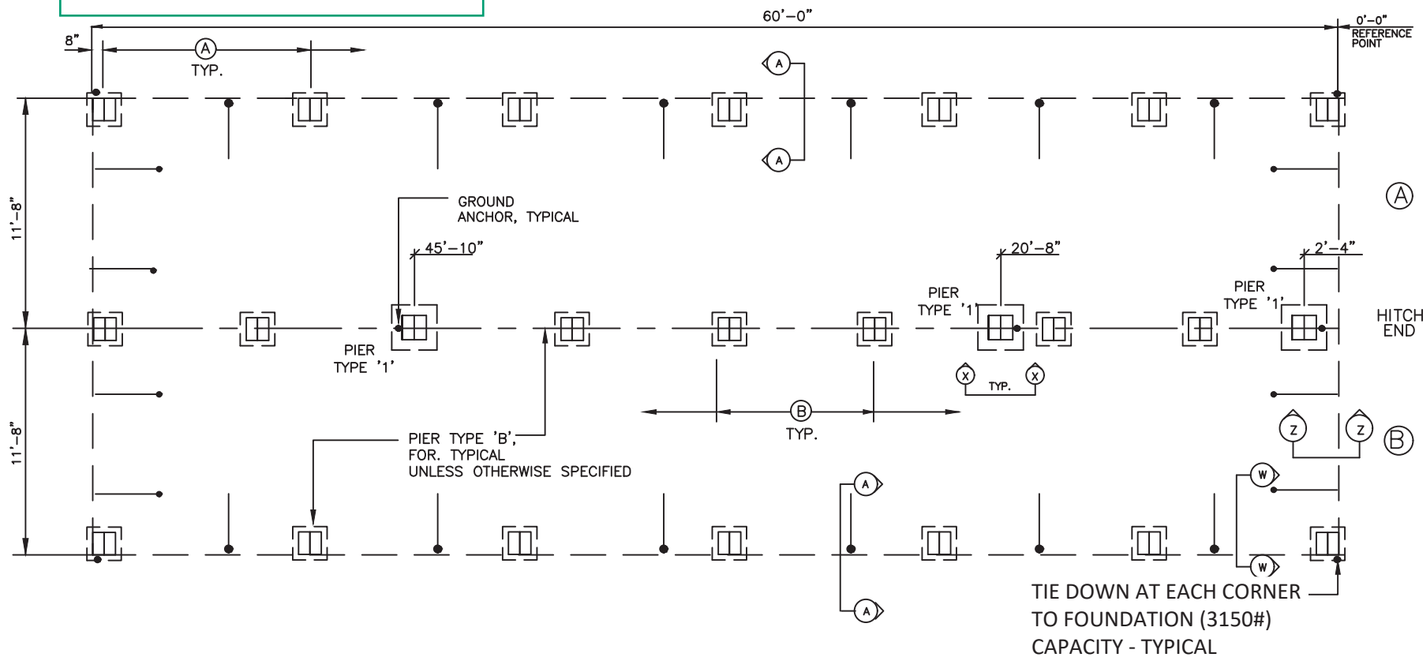
DIAMOND BUILDERS INC.
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DOUGLASS, GEORGIA 31534 (912) 384–7080

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DBI14166 A/B 23'–4" x 60'–0" BUSINESS		SHEET 4 OF 4
CROSS SECTION	DESTINATION: MICHIGAN	

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

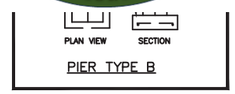


NOTE:
THIS FOUNDATION PLAN IS PROVIDED FOR REFERENCE AS A TYPICAL STANDARD. ACTUAL FOUNDATION CONDITIONS MUST BE EVALUATED FOR APPLICABILITY IF THIS PLAN IS TO BE USED. ALTERNATE FOUNDATION PLANS MAY BE DESIGNED BY OTHERS IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTION HAVING AUTHORITY.

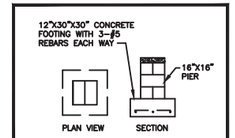
- TYPICAL FOUNDATION LAYOUT SHOWN IS TO AID THE SITE ENGINEER/ARCHITECT FOR ENGINEER/ARCHITECT FOR LOCATIONS OF REQUIRED SUPPORTS. ACTUAL FOUNDATION MUST BE DESIGNED TO SITE CONDITIONS FOR ALL APPLICABLE LOADS. THIS INCLUDES BUT IS NOT LIMITED TO CONSTRUCTION OF THE FOUNDATION, SEISMIC DESIGN AND ATTACHING 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.

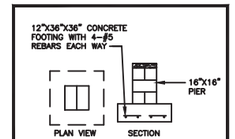
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PIER TYPE B

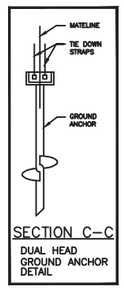


PIER TYPE C



PIER TYPE D

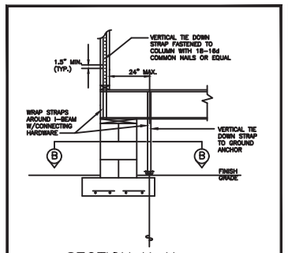
MARRIAGE WALL PIER REQUIREMENTS			
PIER NUMBER	MINIMUM SOIL BEARING CAPACITY	PIER TYPE	NUMBER OF VERTICAL TIE DOWN STRAPS REQ'D (EACH MODULE)
1	2000 PSF	C	1
	3000 PSF	D	1



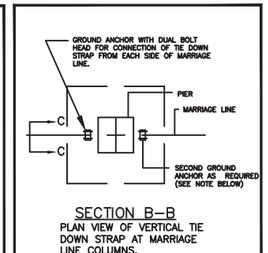
SECTION C–C
DUAL HEAD GROUND ANCHOR DETAIL

FOUNDATION NOTES:

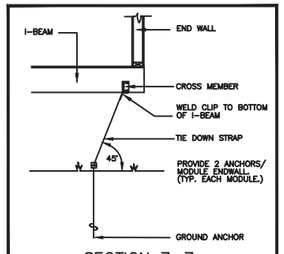
1. ALL FOUNDATION CONSTRUCTION, MATERIALS, AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
2. TIE-DOWN STRAPS TO BE 1-1/4"x .035" TYPE-1, FINISH B, GRADE 1 ZINC COATED STEEL STRAPPING CERTIFIED BY A REGISTERED ENGINEER OR ARCHITECT AS CONFORMING WITH ASTM D3953-91. TIE DOWN STRAPS AND CONNECTING HARDWARE SHALL HAVE 3150# MINIMUM WORKING CAPACITY.
3. 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 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 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. 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 7 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 OPERABILITY 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.



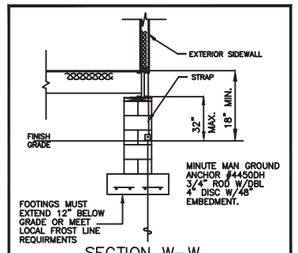
SECTION X–X
VERTICAL TIE DOWN STRAP DETAIL AT COLUMNS



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 Z–Z
LONGITUDINAL TIE DOWN DETAIL AT ENDWALLS



SECTION W–W
VERTICAL TIE DOWN STRAPS AT BUILDING CORNERS

ATTACHMENT OF THE BUILDING TO THE FOUNDATION SHALL BE DESIGNED AND SPECIFIED ON SITE BY A LICENSED DESIGN PROFESSIONAL BASED ON ACTUAL SITE CONDITIONS. TIEDOWNS AT THE BUILDING CORNERS (ENDWALLS) AND INTERIOR SHEAR WALLS SHALL PROVIDE A MINIMUM CAPACITY OF 3,150 LBS UNLESS A HIGHER CAPACITY IS SPECIFIED

FOUNDATION DIMENSIONS		
MAXIMUM PIER SPACING		MINIMUM SOIL BEARING CAPACITY
(A) SIDEWALLS	(B) MATELINE	
9'-0"	5'-4"	2000 PSF
9'-0"	8'-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. 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
06 26 2026

PREMANUFACTURED
These documents are approved for compliance with the STATE OF MICHIGAN PREMANUFACTURED UNITS PROGRAM subject to field inspection and the conditions of approval.

CONSULTING ENGINEER: NADER TOMASBI, P.E. – 58665 GLENRIVER DRIVE – GOSHEN, IN. 46528 – 574–370–3419

STATE OF MICHIGAN
NADER TOMASBI
ENGINEER
No. 6201052208
LICENSED PROFESSIONAL ENGINEER
06/25/2026

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

DATE: 5–4–26		
SCALE : NO SCALE		
CODES: SEE NOTES		
STATES: MI.	REVISIONS:	BY: N.T.
REFERENCE: 14079		
DBI14166 A/B 23'–4" x 60'–0" BUSINESS		SHEET 1 OF 1
FOUNDATION	DESTINATION: MICHIGAN	

Application for Premanufactured Unit or Modification to Premanufactu

Michigan Department of Licensing and Regulatory Affairs
Bureau of Construction Codes
P.O. Box 30255, Lansing, MI 48909
517-241-9313
bccpermits@michigan.gov
www.michigan.gov/bcc



This form can be completed by tabbing to each field and typing in the required information.

☐ New Building System ☐ Modification to New Building System

Authority: 1972 PA 230 Penalty: Failure to provide information may result in denial of your request.	LARA is an equal opportunity employer/program. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

Note: The applicant is responsible for all fees applicable to this application.

MANUFACTURER

PRIMARY MANUFACTURER NAME (Note: Building Systems Approval Report and approved plans will be sent to this address)	C.A. NUMBER
DIAMOND BUILDERS, INC.	PRCA-000559
MANUFACTURER NAME	C.A. NUMBER
MANUFACTURER NAME	C.A. NUMBER

BUILDING DATA

DESCRIPTION OF MANUFACTURED MODEL OR MODIFICATION
DBI-14166 - 23'-4"x56'-0" - Business

MODEL NUMBER, NAME AND SIZE (For modifications only)	PREVIOUS BSAR NUMBER (If applicable)
DBI-14166 - 23'-4"x56'-0" - Business	

USE GROUP	CONSTRUCTION TYPE	OCCUPANT LOAD	TYPE OF UNIT
Business	VB	☐ ACTUAL ■ CALC. 10 PERSONS	■ MODULAR ☐ CORE ☐ COMPONENT

ROOF LIVE / SNOW LOAD	FLOOR LIVE LOAD	GROUND SNOW LOAD
30 PSF	50 PSF	40 PSF

WIND SPEED	ROOF DEAD LOAD	FLOOR DEAD LOAD	HEATING DEGREE DAYS
120 MPH	13 PSF	12 PSF	6909

PLAN REVIEW

Applicant must submit a detailed statement in writing, verified by affidavit of the individual making it, of the specifications for the building or structure, and full and complete copies of the plans drawn to scale of the proposed work.

■ BUILDING ■ ELECTRICAL ■ MECHANICAL ■ PLUMBING

PROJECT ARCHITECT / ENGINEER

NAME OF COMPANY	LICENSED INDIVIDUAL	MICHIGAN LICENSE NUMBER
	Nader Tomabsi	6201052208

ADDRESS	CITY	STATE	ZIP CODE	TELEPHONE NUMBER (Include Area Code)
58665 Glenriver Drive	Goshen	IN	46528	574 370 3419

APPLICANT INFORMATION (Note: All correspondence, except approval, will be sent to this address)

NAME OF COMPANY	APPLICANT NAME	LAST 4 DIGITS OF FEIN OR SS NO.
Diamond Builders, Inc.	Kaylee Gilliard	

ADDRESS	CITY	STATE	ZIP CODE	TELEPHONE NUMBER (Include Area Code)
440 Thompson Drive	Douglas	GA	31535	(912)384-7080

AFFIDAVIT

I, _____ (name), _____ (title), attest that the statements, specifications, and plans submitted with this application are true and complete and contain a correct description of the building or structure, lot or parcel, and proposed work. I further attest that this application complies with the requirements of MCL 125.1510 and that I am a person authorized under MCL 125.1510(2) to make the statements and attestations contained in this application under MCL 125.1510(2).

SIGNATURE	DATE



ITEM	LOCATI		
	PLANS Sheet No.	SPECIFICA Page N	
BUILDING			
MATING DETAILS	4 of 4		
FOUNDATION CONNECTION DETAILS	FD 1 of 1		
EXTERIOR ELEVATIONS	3 of 4		
MAJOR CROSS SECTIONS	4 of 4		
WALL SECTION	4 of 4		
FLASHING DETAILS	4 of 4		
ATTIC ACCESS	n/a		
ATTIC VENTILATION	n/a		
EXTERIOR MATERIALS & FINISHES	4 of 4		
INTERIOR MATERIALS & FINISHES	4 of 4		
FIRE SEPARATION ASSEMBLY LOCATIONS	n/a		
DOOR / WINDOW SCHEDULES	2 of 4		
FOUNDATION PLANS	FD 1 of 1		
CRAWL SPACE VENTING	FD 1 of 1		
ENERGY CONSERVATION CALCULATIONS	COMCHECK		
ACCESSIBILITY DETAILS	2 of 4		
LOCATION OF SMOKE DETECTORS	n/a		
FIRE RESISTANCE RATING / DETAILS	n/a		
FIRESTOPPING / DRAFTSTOPPING DETAILS	2 of 4		
STAIR DETAILS	n/a		
TOXICITY & FLAME SPREAD RATING FOR INTERIOR FINISHES	4 of 4		
DESIGN SOIL BEARING CAPACITY	FD 1 of 1		
FOUNDATION LOADS	FD 1 of 1, Structural Calcs		
FOUNDATION SIZES & DETAILS	FD 1 of 1		
STRUCTURAL FRAMING DETAILS	4 of 4		
HEADER / LINTEL SCHEDULES	4 of 4		
TRUSS DESIGN	n/a		
FASTENER SCHEDULE	4 of 4		
LABEL & DATA PLATE LOCATION	2,3,4 of 4		
SITE INSTALLED ITEMS	1 of 4		
ELECTRICAL			
PANEL SCHEDULE(S)	2 of 4		
SERVICE EQUIPMENT PLAN OR RISER DIAGRAM	SITE WORK		



ITEM	LOCATI		
	PLANS Sheet No.	SPECIFICA Page N	
GROUNDING METHOD AND DETAILS	SITE WORK		
LOAD CALCULATIONS	2 of 4		
SIZE OF FEEDERS AND BRANCH CIRCUIT	2 of 4		
LOCATION OF MAIN DISCONNECT	SITE WORK		
METHOD OF INTERCONNECTION BETWEEN UNITS	4 of 4		
LOCATION OF OUTLETS AND JUNCTION BOXES	2 of 4		
FIXTURE MOUNTING METHOD	2 of 4		
SPECIAL EQUIPMENT OR APPLIANCE LOCATIONS	n/a		
OPTIONAL EQUIPMENT PLANS OR DETAILS	n/a		
SITE INSTALLED ITEMS	1 of 4		
MECHANICAL			
IS HEATING SYSTEM INSTALLED IN THE FACTORY? ■ YES ☐ NO	2 of 4		
IS HEATING EQUIPMENT SUPPLIED? ■ YES ☐ NO	2 of 4		
HEATING AND COOLING EQUIPMENT LOCATIONS	2 of 4		
EQUIPMENT LOAD CALCULATIONS	2 of 4		
DUCT DESIGN CALCULATIONS	2 of 4		
DUCT AND REGISTER LAYOUTS	2 of 4		
LOCATIONS OF EXHAUST GRILLS IN BATHROOMS	2 of 4		
EXHAUST DUCT MATERIAL	2 of 4		
COMBUSTION AIR REQUIREMENTS	n/a		
VENTILATING AIR REQUIREMENTS	2 of 4		
VENTING SYSTEMS	2 of 4		
FIRE DAMPER LOCATIONS	n/a		
AIR BALANCING DEVICE LOCATIONS	n/a		
SMOKE DETECTORS IN DUCTWORK	n/a		
SPRINKLER SYSTEM	n/a		
SPRINKLER PLANS	n/a		
SPRINKLER CALCULATIONS	n/a		
MANUFACTURED FIREPLACE SPECIFICATION	n/a		
SITE INSTALLED ITEMS	1 of 4		
PLUMBING			
WATER PIPING SYSTEM	2 of 4		
AIR CHAMBERS	n/a		
VACUUM BREAKER ON HOSEBIBBS	n/a		



ITEM	LOCAT		
	PLANS Sheet No.	SPECIFICA Page N	
SHOWER VALVES, TYPE AND TEMPERATURE SETTING	n/a		
INDIRECT WASTE	n/a		
CLEANOUTS	SITE WORK		
SUBMIT RISER DIAGRAM	2 of 4		
MATERIAL - SPECIFICATIONS	2 of 4		
WATER HEATER DETAILS	2 of 4		
PIPE HANGER SPACING	2 of 4		
ACCESS PANEL LOCATION	n/a		
SITE INSTALLED ITEMS	1 of 4		

FEE CALCULATION			
ITEM	**FEE (each)**	**NUMBER**	**TOTAL**
ONE- AND TWO-FAMILY DWELLINGS			
NEW MODEL (ONE FOUNDATION SYSTEM)	$375.00		$ 0.00
FOUNDATION OPTIONS/MODIFICATION	$125.00		$ 0.00
REVERSE PLAN/MODIFICATION	$125.00		$ 0.00
VARIOUS OPTIONS	$125.00		$ 0.00
ADDITIONAL MANUFACTURER(S) SUBMITTAL (NOT PRIMARY)	$125.00		$ 0.00
OTHER THAN ONE- AND TWO-FAMILY DWELLINGS			
NEW MODEL (ONE FOUNDATION SYSTEM) **$125 Minimum**			$ 0.00
ADDITIONAL MANUFACTURER(S) SUBMITTAL (NOT PRIMARY)	$125.00		$ 0.00
		GRAND TOTAL $	$ 0.00

Instructions for Application for Premanufactured Unit or Modification to Premanufactured Unit

Manufacturer: Multiple plants may be listed. Provide manufacturer name and compliance assurance (C.A.) number for each plant. The information provided must match the information on file.

Building Data: Provide all requested information. The building use, construction type and number of occupants shall be as prescribed by the building code.

Plan Review: Mark all plan reviews desired or required.

Project Architect / Engineer: Provide all requested information.

Applicant Information: Provide all requested information with an original signature. All correspondence, except approval, will be sent to this address and this entity will be responsible for all fees.

Required Submittals for Plan Review

For each model, submit completed application, the appropriate fee made payable to the **State of Michigan** and three (3) sets of plans and/or specifications with **original seals and signatures** in accordance with 1980 PA 299. The first $125.00 of an application is non-refundable. Also, modifications require one (1) copy of the original approved floor plan bearing the Construction Code Commission approval stamp and one (1) copy of the original Building Systems Approval Report to compare the modification requested to the original model.

Upon Receipt of All Applications

Written confirmation will be sent to the applicant. Further correspondence, concerning the requested plan reviews, will be sent to the applicant and the inspection agency. A copy of the Building Systems Approval Report(s) and two (2) sets of approved plans will be shipped to the primary manufacturer for appropriate distribution to any additional listed plants and inspection agency(ies).

U.S. Postal Service
MI Dept. of Licensing and Regulatory Affairs
Bureau of Construction Codes
P.O. Box 30255
Lansing, MI 48909

Courier Other Than U.S. Postal Service
MI Dept. of Licensing and Regulatory Affairs
Bureau of Construction Codes
2407 N. Grand River Avenue
Lansing, MI 48906

BUILDING SYSTEM APPROVAL REPORT

Michigan Department of Licensing and Regulatory Affairs
Bureau of Construction Codes
P.O. Box 30254
Lansing, MI 48909
(517) 241-9313



Authority: 1972 PA 230 Completion: Mandatory Penalty: Approval shall be revoked	LARA is an equal opportunity empolyer/program. Auxillary aids, services a reasonable accommodations are available upon request to individual with d

This document shall be considered the building system approval report by the constuction code commission and sh accepted by any jurisdiction within the state of Michigan subject to that jurisdiction's determination of compliance with the state construction code.

MANUFACTURER DATA

DIAMOND BUILDERS INC
439 THOMPSON DR
DOUGLAS, GA 31535

COMPLIANCE ASSURANCE PROGRAM NO.:
559

BUILDING SYSTEM APPROVAL REPORT NO.:
PR2026BCC-002577

TYPE OF APPROVAL:
New

DESIGN DATA

DESCRIPTION OF MANUFACTURED MODEL:
DBI 14166 Business with pier foundation
MODEL NUMBER NAME AND SIZE:
DBI 14166 23'-4"X56'-0"

USE GROUP:	B,	GROUND SNOW:	40
CONSTRUCTION TYPE:	5B	WIND SPEED:	120
OCCUPANT LOAD:		ROOF DEAD LOAD:	50
TYPE OF UNIT:	Modular	FLOOR DEAD LOAD:	12
ROOF LIVE/SNOW LOAD:	30	HEATING DEGREE DAYS:	6909
FLOOR LIVE LOAD:	50		

APPLICABLE STATE CODES

Building: 2021 Michigan Building Code
Electrical: 2023 Michigan Electrical Code
Mechanical: 2021 Michigan Mechanical Code
Plumbing: 2021 Michigan Plumbing Code

LIMITATIONS OF APPROVAL (IF ANY)
The specific options must be shown as a part of the approved set of plans and each unit manufactured shall be identified for each manufactured unit.

REVIEWED BY:
Brian Hamilton, Plan Reviewer

AGENCY OFFICIAL:
Sheila Hartfield, Chief, Building Section

ISSUED DATE:
07/29/2026

COMcheck Software Version COMcheckWeb

Envelope Compliance Certificate



Project Information

Energy Code:	90.1 (2019) Standard
Project Title:	DBI 14166 MI
Location:	Detroit, Michigan
Climate Zone:	5a
Project Type:	New Construction
Vertical Glazing / Wall Area:	8%
Performance Sim. Specs:	EnergyPlus 8.1.0.009 (EPW: USA_MI_Detroit.Metro.AP.725370_TMY3.epw)

Construction Site:

Owner/Agent:

Designer/Contractor:
Diamond Builders Inc.
440 Thompson DR.
Douglas, Georgia 31534



APPROVED
06 26 2026

Building Area	Floor Area
1-Office : Nonresidential	1400

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof: Attic Roof, Wood Joists, [Bldg. Use 1 - Office]	1400	60.0	0.0	0.017	0.021
Floor: Steel Joist, [Bldg. Use 1 - Office]	1400	30.0	0.0	0.038	0.038
NORTH					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Office]	480	19.0	0.0	0.067	0.051
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	40	---	---	0.153	0.370
Window: Vinyl Frame, Perf. Specs.: Product ID label, SHGC 0.25, VT 0.52, [Bldg. Use 1 - Office] (b)	75	---	---	0.340	0.450
EAST					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Office]	187	19.0	0.0	0.067	0.051
SOUTH					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Office]	480	19.0	0.0	0.067	0.051
Window: Vinyl Frame, Perf. Specs.: Product ID label, SHGC 0.25, VT 0.52, [Bldg. Use 1 - Office] (b)	24	---	---	0.340	0.450
WEST					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Office]	187	19.0	0.0	0.067	0.051
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	40	---	---	0.153	0.370
Window: Vinyl Frame, Perf. Specs.: Product ID label, SHGC 0.25, VT 0.52, [Bldg. Use 1 - Office] (b)	15	---	---	0.340	0.450

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

Envelope PASSES: Design 1% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent w specifications, and other calculations submitted with this permit application. The proposed envelope designed to meet the 90.1 (2019) Standard requirements in COM*check* Version COMcheckWeb and t mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature





COM*check* Software Version COMcheckWe

Interior Lighting Compliance Ce



Project Information

Energy Code:	90.1 (2019) Standard
Project Title:	DBI 14166 MI
Project Type:	New Construction

Construction Site:

Owner/Agent:

Designer/Contractor:
Diamond Builders Inc.
440 Thompson DR.
Douglas, Georgia 31534

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Office	1400	0.64	896
		Total Allowed Watts =	896

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-Office				
LED: LED Panel 33W:	1	19	22	418
LED: LED Panel 33W:	1	5	11	55
			Total Proposed Watts =	473

Interior Lighting PASSES: Design 47% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2019) Standard requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

Date

COM*check* Software Version COMcheckWe

Exterior Lighting Compliance Ce



Project Information

Energy Code:	90.1 (2019) Standard
Project Title:	DBI 14166 MI
Project Type:	New Construction
Exterior Lighting Zone	3 (Other (LZ3))

Construction Site:

Owner/Agent:

Designer/Contractor:
Diamond Builders Inc.
440 Thompson DR.
Douglas, Georgia 31534

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Pedestrian and vehicular entrances and exits	3 ft of door	21	Yes	63
			Total Tradable Watts (a) =	126
			Total Allowed Watts =	126
			Total Allowed Supplemental Watts (b) =	500

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 500 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Pedestrian and vehicular entrances and exits (3 ft of door width): Tradable Wattage				
LED: LED A Lamp 13W:	1	1	13	13
LED: LED A Lamp 13W:	1	1	13	13
			Total Tradable Proposed Watts =	26

Exterior Lighting PASSES: Design 96% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 90.1 (2019) Standard requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

Date

COM*check* Software Version COMcheckWe

Mechanical Compliance Certifica



Project Information

Energy Code:	90.1 (2019) Standard
Project Title:	DBI 14166 MI
Location:	Detroit, Michigan
Climate Zone:	5a
Project Type:	New Construction

Construction Site:

Owner/Agent:

Designer/Contractor:
Diamond Builders Inc.
440 Thompson DR.
Douglas, Georgia 31534

Mechanical Systems List

Quantity	System Type & Description
2	HVAC System (Single Zone): Single Package Vertical Unit Heat Pump Heating Mode: Capacity = 34 kBtu/h, Proposed Efficiency = 3.30 COP, Required Efficiency = 3.30 COP Cooling Mode: Capacity = 36 kBtu/h, Proposed Efficiency = 11.00 EER, Required Efficiency = 10.00 EER Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00 Fan System: FAN SYSTEM 1 | office -- Compliance (Motor nameplate HP and fan efficiency method) : Passes Fans: FAN 1 Supply, Constant Volume, 1150 CFM, 0.3 motor nameplate hp, 0.00 fan energy index , fan exception: Fan array <= 5 total HP or <= 4.1 kW
1	Water Heater: Electric Storage Water Heater, Capacity: 20 gallons No minimum efficiency requirement applies

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 90.1 (2019) Standard requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____



COM*check* Software Version COMcheckWe

Inspection Checklist

Energy Code: 90.1 (2019) Standard

Requirements: 0.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Re
requirement, the user certifies that a code requirement will be met and how that is docur
is being claimed. Where compliance is itemized in a separate table, a reference to that ta

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
4.2.2, 5.4.3.1.1, 5.7 [PR1][1]	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.2, 6.4.4.2.1, 6.7.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.2, 7.7.1, 10.4.2 [PR3][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.2, 8.4.1.1, 8.4.1.2, 8.7 [PR6][2]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.2, 9.4.3, 9.7 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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



Section # & Req.ID	Plan Review	Complies?	Comments/
9.7 [PR8][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.5.2 [PR5][1]	Commissioning shall be performed as stated in Sections 5.9.2, 6.9.2, 7.9.2, 8.9.2, 9.9.2, 10.9.2, 11.2(d), and G1.2.1(c). Commissioning must utilize ASHRAE/IES Standard 202 or other generally accepted engineering standards acceptable to the building official. FPT and verification requirements for commissioning are as stated in Section 4.2.5.1. Commissioning shall document compliance of the building systems, controls, and building envelope with required provisions of this standard. Commissioning requirements shall be incorporated into the construction documents.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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



Section # & Req.ID	Footing / Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	
4.2.4 [FO1][2]	Installed below-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
4.2.4 [FO3][2]	Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-_____ ☐ Unheated ☐ Heated	R-_____ ☐ Unheated ☐ Heated	☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
5.8.1.7 [FO6][1]	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.7.3 [FO7][1]	Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.7 [FO9][3]	Freeze protection and snow/ice melting system sensors for future connection to controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.4.1.5 [FO11][3]	Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*

Additional Comments/Assumptions:

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



Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	
5.4.3.2 [FR1][3]	Factory-built and site-assembled fenestration and doors are labeled or certified as meeting air leakage requirements.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
5.5.4.3a [FR8][1]	Vertical fenestration U-Factor.	U-_____	U-_____	☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
5.5.4.3b [FR9][1]	Skylight fenestration U-Factor.	U-_____	U-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.5.4.4.1 [FR10][1]	Vertical fenestration SHGC value.	SHGC:_____	SHGC:_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.5.4.4.2 [FR11][1]	Skylight SHGC value.	SHGC:_____	SHGC:_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.2.1, 5.8.2.3, 5.8.2.4, 5.8.2.5 [FR12][2]	Fenestration products rated (U-factor, SHGC, and VT) in accordance with NFRC or energy code defaults are used.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.2.2 [FR13][1]	Fenestration and door products are labeled, or a signed and dated certificate listing the U-factor, SHGC, VT, and air leakage rate has been provided by the manufacturer.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.5.3.6 [FR14][2]	U-factor of opaque doors associated with the building thermal envelope meets requirements.	U-_____ ☐ Swinging ☐ Nonswinging	U-_____ ☐ Swinging ☐ Nonswinging	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.4.3.1 [FR15][1]	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner, except in semiheated spaces in climate zones 1-6.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/
7.4.4.1 [PL2][3]	Temperature controls installed on service water heating systems (<=120ºF to maximum temperature for intended use).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
7.4.6 [PL4][3]	Heat traps installed on non-circulating storage water tanks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	



Additional Comments/Assumptions:

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



Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	
6.4.1.4, 6.4.1.5 [ME1][2]	HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.	Efficiency:_____	Efficiency:_____	☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
6.4.3.4.1 [ME3][3]	Stair and elevator shaft vents have motorized dampers that automatically close.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
6.4.3.4.2, 6.4.3.4.3 [ME4][3]	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.4.5 [ME39][3]	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.4.4 [ME5][3]	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.8 [ME6][1]	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.3.2.1 [ME40][2]	DX cooling systems >= 75 kBtu/h (>= 65 kBtu/h effective 1/2016) and chilled-water and evaporative cooling fan motor hp >= ¼ designed to vary supply fan airflow as a function of load and comply with operational requirements.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values.*
6.4.4.1.1 [ME7][3]	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.4.1.2 [ME8][2]	HVAC ducts and plenums insulated per Table 6.8.2. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	R-_____	R-_____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.4.1.3 [ME9][2]	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	_____ in.	_____ in.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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



Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	
6.4.4.1.4 [ME41][3]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
6.4.4.2.1 [ME10][2]	Ducts and plenums having pressure class ratings are Seal Class A construction.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
6.8.1-15, 6.8.1-16 [ME110][2]	Electrically operated DX-DOAS units meet requirements per Tables 6.8.1-15 or 6.8.1-16.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.4.2.2 [ME11][3]	Ductwork operating >3 in. water column requires air leakage testing.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.2.3 [ME19][3]	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.2.4.1 [ME68][3]	Humidifiers with airstream mounted preheating jackets have preheat auto-shutoff value set to activate when humidification is not required.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.2.4.2 [ME69][3]	Humidification system dispersion tube hot surfaces in the airstreams of ducts or air-handling units insulated >= R-0.5.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.2.5 [ME70][3]	Preheat coils controlled to stop heat output whenever mechanical cooling, including economizer operation, is active.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.2.6 [ME106][3]	Units that provide ventilation air to multiple zones and operate in conjunction with zone heating and cooling systems are prevented from using heating or heat recovery to warm supply air above 60°F when representative building loads or outdoor air temperature indicate that most zones demand cooling.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.3.6 [ME72][2]	Motors for fans >= 1/12 hp and < 1 hp are electronically-commutated motors or have a minimum motor efficiency of 70%. These motors are also speed adjustable for either balancing or remote control.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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



Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	
6.5.3.4 [ME108][2]	Parallel-flow fan-powered VAV air terminals have automatic controls to a) turn off the terminal fan except when space heating is required or if required for ventilation; b) turn on the terminal fan as the first stage of heating before the heating coil is activated; and c) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or reverse the terminal damper logic and provide heating from the central air handler through primary air.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
6.5.3.7 [ME109][2]	Required minimum outdoor air rate is the larger of minimum outdoor air rate or minimum exhaust air rate required by Standard 62.1, Standard 170, or applicable codes or accreditation standards. Outdoor air ventilation systems shall comply with one of the following: a) design minimum system outdoor air provided < 135% of the required minimum outdoor air rate, b) dampers, ductwork, and controls allow the system to supply <= the required minimum outdoor air rate with a single set-point adjustment., or c) system includes exhaust air energy recovery complying with Section 6.5.6.1.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.3.3 [ME42][3]	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values.*
6.5.4.2 [ME25][3]	HVAC pumping systems with >= 3 control values designed for variable fluid flow (see section details).			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.7.1 [ME100][2]	Conditioned supply air to space with mechanical exhaust <= the greater of criteria of supply flow, required ventilation rate, exhaust flow minu the available transffer air (see section details).			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.7.2.1 [ME32][2]	Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.7.2.4 [ME49][3]	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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



Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	
6.5.8.1 [ME34][2]	Unenclosed spaces that are heated use only radiant heat.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
7.4.2 [ME36][2]	Service water heating equipment meets efficiency requirements.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
6.4.3.9 [ME63][2]	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.5.10 [ME73][3]	Doors separating conditioned space from the outdoors have controls that disable/reset heating and cooling system when open.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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



Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/
8.4.2 [EL10][2]	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by an automatic control device.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
8.4.3 [EL11][2]	New buildings have electrical energy use measurement devices installed. Where tenant spaces exist, each tenant is monitored separately. In buildings with a digital control system the energy use is transmitted to to control system and displayed graphically.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
9.4.1.1 [EL1][2]	Automatic control requirements prescribed in Table 9.6.1, for the appropriate space type, are installed. Mandatory lighting controls (labeled as 'REQ') and optional choice controls (labeled as 'ADD1' and 'ADD2') are implemented.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
9.4.1.1 [EL2][2]	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
9.4.1.1f [EL13][1]	Daylight areas under skylights and roof monitors that have more than 150 W combined input power for general lighting are controlled by photocontrols.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
9.4.1.4 [EL3][2]	Automatic lighting controls for exterior lighting installed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
9.4.1.3 [EL4][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
9.6.2 [EL8][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
10.4.1 [EL9][2]	Electric motors meet requirements where applicable.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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



Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	
4.2.4 [IN2][1]	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	R-____ ☐ Above deck ☐ Metal ☐ Attic	R-____ ☐ Above deck ☐ Metal ☐ Attic	☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
5.8.1.2, 5.8.1.3 [IN3][1]	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the ceiling slope is <= 3:12.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.4 [IN6][1]	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-____ ☐ Mass ☐ Metal ☐ Steel ☐ Wood	R-____ ☐ Mass ☐ Metal ☐ Steel ☐ Wood	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.2 [IN7][1]	Above-grade wall insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.4 [IN8][2]	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-____ ☐ Mass ☐ Steel ☐ Wood	R-____ ☐ Mass ☐ Steel ☐ Wood	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.2 [IN9][2]	Floor insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.1 [IN10][2]	Building envelope insulation is labeled with R-value or insulation certificate has been provided listing R-value and other relevant data.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.9 [IN18][2]	Building envelope insulation extends over the full area of the component at the proposed rated R or U value.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.4 [IN11][2]	Eaves are baffled to deflect air to above the insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.5 [IN12][2]	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.6 [IN13][2]	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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



Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	
5.8.1.7.1 [IN15][2]	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
5.8.1.7.2 [IN16][2]	Foundation vents do not interfere with insulation.			☐Complies ☐Does Not ☐Not Observab ☐Not Applicabl	
5.8.1.8 [IN17][3]	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

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



Section # & Req.ID	Final Inspection	Complies?	Comments/
5.4.3.3 [FI1][1]	Weatherseals installed on all loading dock cargo doors in Climate Zones 4-8.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.1.2 [FI3][3]	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.2 [FI20][3]	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.3.1 [FI21][3]	HVAC systems equipped with at least one automatic shutdown control.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.3.2 [FI22][3]	Setback controls allow automatic restart and temporary operation as required for maintenance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.5 [FI5][3]	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.3.6 [FI6][3]	When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited. Humidity control prohibits the use of fossil fuel or electricity to produce RH > 30% in the warmest zone humidified and RH < 60% in the coldest zone dehumidified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.7.2.1 [FI7][3]	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.7.2.2 [FI8][3]	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.7.2.3 [FI9][1]	An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft2 of conditioned area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
7.4.4.3 [FI11][3]	Public lavatory faucet water temperature <=110°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
8.7.1 [FI16][3]	Furnished as-built drawings for electric power systems within 30 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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



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

Additional Comments/Assumptions:

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



HEAT LOSS AND GAIN ANALYSIS

MANUFACTURER: DIAMOND BUILDERS INC. PLAN NO. DBI-

DESTINATION: Michigan

$A := 7.5$ $B := 5$ $E := 10$ $OCCUPANCY := B$ Occupant Load $OC := 10$

TEMPERATURES(DEGREE F.)

Outside Summer $OS := 85$ Outside Winter $OW := 1$

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

Outside Air (Fresh Air) Reqs.(cfm/occ) $OA := OCCUPANCY$ $OA = 10$

DESIGN GRAINS AT 50% RH $DG := 35$

DAILY RANGE(DEGREE F.) $DR := 20$

TYPICAL WINDOW SIZE (inches) $ww := 36$ $hw := 60$ $Awin := ww \cdot \frac{hw}{144}$

$Width := 23.34$

$WallHeight := 8.0$

$L := Length$

$W := Width$

$WH := WallHeight$

GROSS WALL AREA(SF) U-VALUES

$NW := W \cdot WH$ $NW = 187$ $GLASS$ $UG := 0.81$

$EW := L \cdot WH$ $EW = 480$ $WALL$ $UW := 0.09$

$SW := W \cdot WH$ $SW = 187$

$WW := L \cdot WH$ $WW = 480$

No. OF WINDOWS ALONG EACH FACE

$Nface := 5$ $Nglass := Nface \cdot Awin$ $Nglass = 75$

$Eface := 0$ $Eglass := Eface \cdot Awin$ $Eglass = 0$

$Sface := 2$ $Sglass := Sface \cdot Awin$ $Sglass = 30$

$Wface := 1$ $Wglass := Wface \cdot Awin$ $Wglass = 15$

WOOD/METAL DOOR AREAGLASS/FRENCH DOOR AREA

# of Solid Doors - $Sdr := 2$ $WD := 20 \cdot Sdr$

# of Glass Doors - $Gdr := 0$ $GD := 20 \cdot Gdr$

APPPLICABLE U-VALUES $WU := 0.56$ $GU := 1.13$ $RU := 0.05$ $FU := 0.08$

GLASS SHADING FACTOR $SF := 0.64$

EQUIPMENT LOAD(BTUH/SF) $EL := 15$

LIGHTING WATTAGE

$QtyLED := 5$

$IL := 13 \ QtyLED$

$QtyFluorescent := 19$

$FL := 40 \cdot QtyFluorescent$

ROOF AREA / FLOOR AREA

$R := L \cdot W$ $F := L \cdot W$

$R = 1400$ $F = 1400$



Created with PTC Mathcad Express. See www.mathcad.com for more information.

Approved For Permit
Approved
Date:
9/21/2026
Buildings, Safety Engineering & Environmental Department
Permit Number:
BLD2026-00154
Approved
Reviewed for Code Compliance

EMC
APPROVED
06 26 2026

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HEAT GAINS (COOLING LOADS)

SENSIBLE HEAT GAINS:

A. SOLAR RADIATION THROUGH GLASS:
NORTHEASTSOUTHWEST

$SRN := Nglass \cdot 30 \cdot SF$ $SRE := Eglass \cdot 44 \cdot SF$ $SRS := Sglass \cdot 56 \cdot SF$ $SRW := Wglass \cdot 158 \cdot SF$

TOTAL $SR := SRN + SRE + SRS + SRW$ $SR = 4032$

B. TRANSMISSION GAINS:

1. GLASS:

$GA := Nglass + Eglass + Sglass + Wglass$ $GA = 120$

2. DOORS:

$TG := GA \cdot WU \cdot (OS - IS)$ $TG = 470$

$TWG := WD \cdot WU \cdot (OS - IS)$ $TWG = 157$

$TGD := GD \cdot GU \cdot (OS - IS)$ $TGD = 0$

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

$TC := OS - IS - 20$ $DRC := 0.5 \cdot (20 - DR)$ $ETD := TC + DRC$ $ETD = -13$

NORTH / EAST / SOUTH / WEST

$TWN := (NW - Nglass) \cdot UW \cdot (ETD + 15)$ $TWE := (EW - Eglass) \cdot UW \cdot (ETD + 36)$

$TWS := (SW - Sglass) \cdot UW \cdot (ETD + 23)$ $TWW := (WW - Wglass) \cdot UW \cdot (ETD + 17)$

TOTAL $TW := TWN + TWE + TWS + TWW$ $TW = 1322$

4. ROOF:

$TR := R \cdot RU \cdot (OS - IS)$ $TR = 490$

5. FLOOR:

$FR := F \cdot FU \cdot (OS - IS)$ $FR = 784$

TOTAL TRANSMISSION GAIN $T := TG + TWG + TGD + TW + TR + FR$ $T = 3224$

C. OCCUPANTS: $SO := OC \cdot 230$ $SO = 2300$

D. LIGHTS: $L := (IL \cdot 3.4) + (FL \cdot 4.1)$ $L = 3337$

E. VENTILATION: $SV := OC \cdot OA \cdot (OS - IS) \cdot 1.1$ $SV = 770$

F. DUCTS: $SD := (SR + T + SO + L + SV) \cdot 0.05$ $SD = 683$

G. EQUIPMENT: $EQ := EL \cdot F$ $EQ = 21006$

TOTAL SENSIBLE HEAT GAIN $SHG := SR + T + SO + L + SV + SD + EQ$ $SHG = 35352$

Approved For Permit
Approved
Date:
9/21/2026
Buildings, Safety Engineering & Environmental Department
CITY OF DETROIT
Permit Number:
BLD2026-00154
Approved
Reviewed for Code Compliance

LATENT HEAT GAINS:

A. OCCUPANTS: $LO := OC \cdot 190$ $LO = 1900$

B. VENTILATION: $LV := OC \cdot OA \cdot DG \cdot 0.68$ $LV = 2380$

TOTAL LATENT HEAT GAIN $LHG := LO + LV$ $LHG = 4280$

TOTAL HEAT GAIN $HG := SHG + LHG$ $HG = 39632$

HEAT LOSS (HEATING LOADS)

A. TRANSMISSION LOSS:

1. GLASS: $LTG := GA \cdot UG \cdot (IW - OW)$ $LTG = 6901$
2. DOORS: $LTWD := WD \cdot WU \cdot (IW - OW)$ $LTWD = 1590$
3. WALLS: $LTGD := GD \cdot GU \cdot (IW - OW)$ $LTGD = 0$

$LTW := (NW + EW + SW + WW - GA) \cdot UW \cdot (IW - OW)$ $LTW = 7754$

4. ROOF: $LR := R \cdot RU \cdot (IW - OW)$ $LR = 4971$
5. FLOOR: $LF := F \cdot FU \cdot (IW - OW)$ $LF = 7954$

TOTAL TRANSMISSION LOSS $LT := LTG + LTWD + LTGD + LTW + LR + LF$ $LT = 29171$

B. DUCTS: $LD := LT \cdot 0.05$ $LD = 1459$

C. VENTILATION: $LV := OC \cdot OA \cdot (IW - OW) \cdot 1.1$ $LV = 7810$

TOTAL HEAT LOSS $HL := LT + LD + LV$ $HL = 38440$ BTUH

REFERENCE: ACCA MANUAL FOURTH EDITION

EMC APPROVED
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