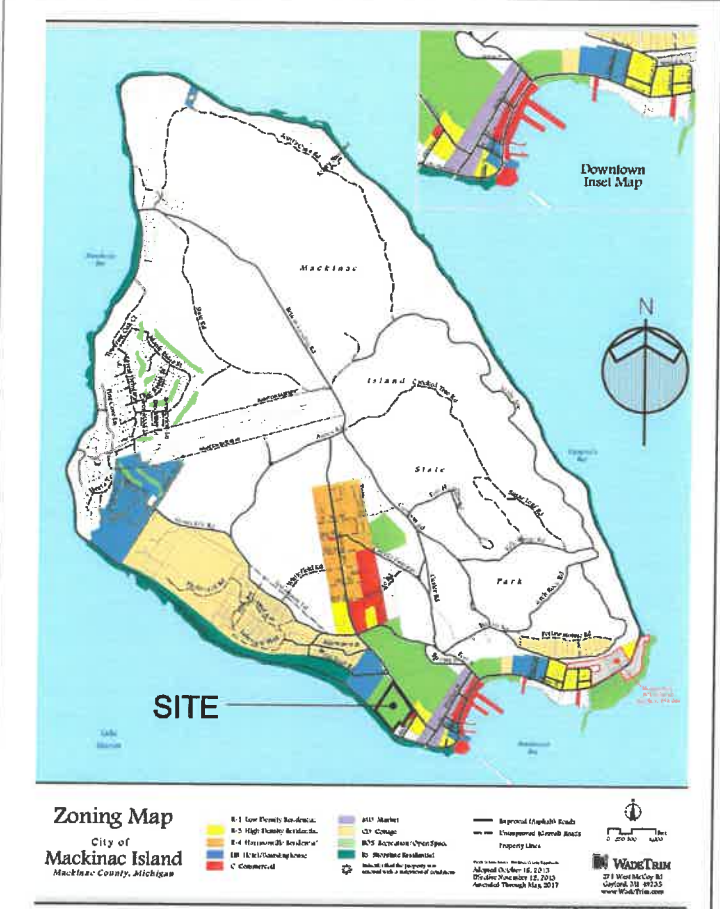




PARTIAL SITE PLAN
SCALE 1" = 20'-0"

FIRE SEPARATION NOTES:

DUPLEX FIRE SEPARATION DISTANCE DETERMINED FROM MICHIGAN RESIDENTIAL CODE TABLE R302.1(1). 5'-0" + w/ 0 HOUR EXTERIOR WALL REQUIRED.

EDUCATIONAL FIRE SEPARATION DISTANCE DETERMINED FROM MICHIGAN BUILDING CODE TABLE 705.5. USE GROUP: 'E' - EDUCATIONAL

SCHOOL BUILDING HAS 30'+ FIRE SEPARATION DISTANCE TAKEN AT RIGHT ANGLES OF EXTERIOR WALLS TO THE IMAGINARY LINE, w/ 0 HOUR REQUIRED & UNLIMITED OPENINGS PERMITTED.

SHOP BUILDING = 1,500 s.f., THUS 5B CONSTRUCTION IS PERMITTED, FIRE SEPARATION DISTANCE EXCEEDS 10' MIN. TO THE IMAGINARY LINE, w/ 0 HOUR REQUIRED & UNLIMITED OPENINGS PERMITTED.

PROPERTY DETAILS:

TAX I.D. #051-600-004-00

ASSESSOR'S PLAT NO. 5
OUTLOT 3, BLOCK 10, w/
EXCEPTION. CITY OF MACKINAC
ISLAND, MACKINAC COUNTY, MI

PROPERTY ADDRESS:
7846 MAIN ST.
MACKINAC ISLAND, MI, 49757

PROPERTY OWNER:
MACKINAC ISLAND SCHOOL
DISTRICT



Richard Clements Architect, PLLC 1525 Merry Lane Oshtemo, MI 49729 richard@rca240.com 989-370-3681	
MACKINAC ISLAND SCHOOL DISTRICT - NEW DUPLEX 7846 MAIN STREET MACKINAC ISLAND, MI 49757	
revised: date: Apr. 17, 2025 project: 2515	sheet: A1.0 copyright © 2025

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DRAWING INDEX — BAYVIEW DUPLEX					
FOUNDATION PLAN	FIRST FLOOR PLAN	SECOND FLOOR PLAN	EXTERIOR ELEVATION	EXTERIOR ELEVATIONS	EXTERIOR ELEVATION
A-1	A-2	A-3	A-4	A-5	A-6
ELECTRICAL PLAN	ELECTRICAL PLAN	NOT USED	NOT USED	CROSS SECTION	MECHANICAL/ ELECT./PLUMB. NOTES
A-7	A-8	A-9	A-10	A-11	A-12

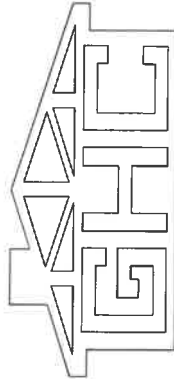
The Plans contained herein comply with the 2015 MICHIGAN RESIDENTIAL CODE,
(Building, Electrical, Mechanical, Plumbing & Energy)

DESIGN CRITERIA
1. USE GROUP R-3
2. CONST. TYPE: 5B
3. AREA: 3,304 Sq.Ft.
4. DESIGN LOADS: a. FL. LIVE= 40 PSF. b. FL. DEAD= 10 PSF.
5. SNOW LOAD: 70 PSF.
6. WIND LOAD: 115 MPH



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MODEL	TITLE
DUPLEX	BAYVIEW DUPLEX.
SHEET	CRAWLSPACE
INDEX	INDEX



GENERAL HOUSING CORPORATION
OFFICE: 4650 E. WILDER RD. 48706 BAY CITY, MI
PLANT: 4644 FRASER RD. 48706 BAY CITY, MI

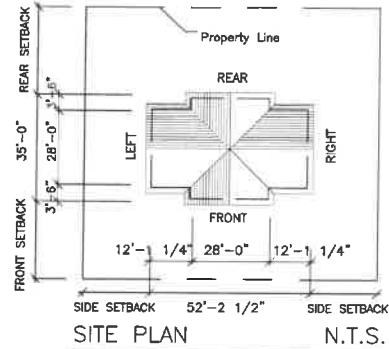
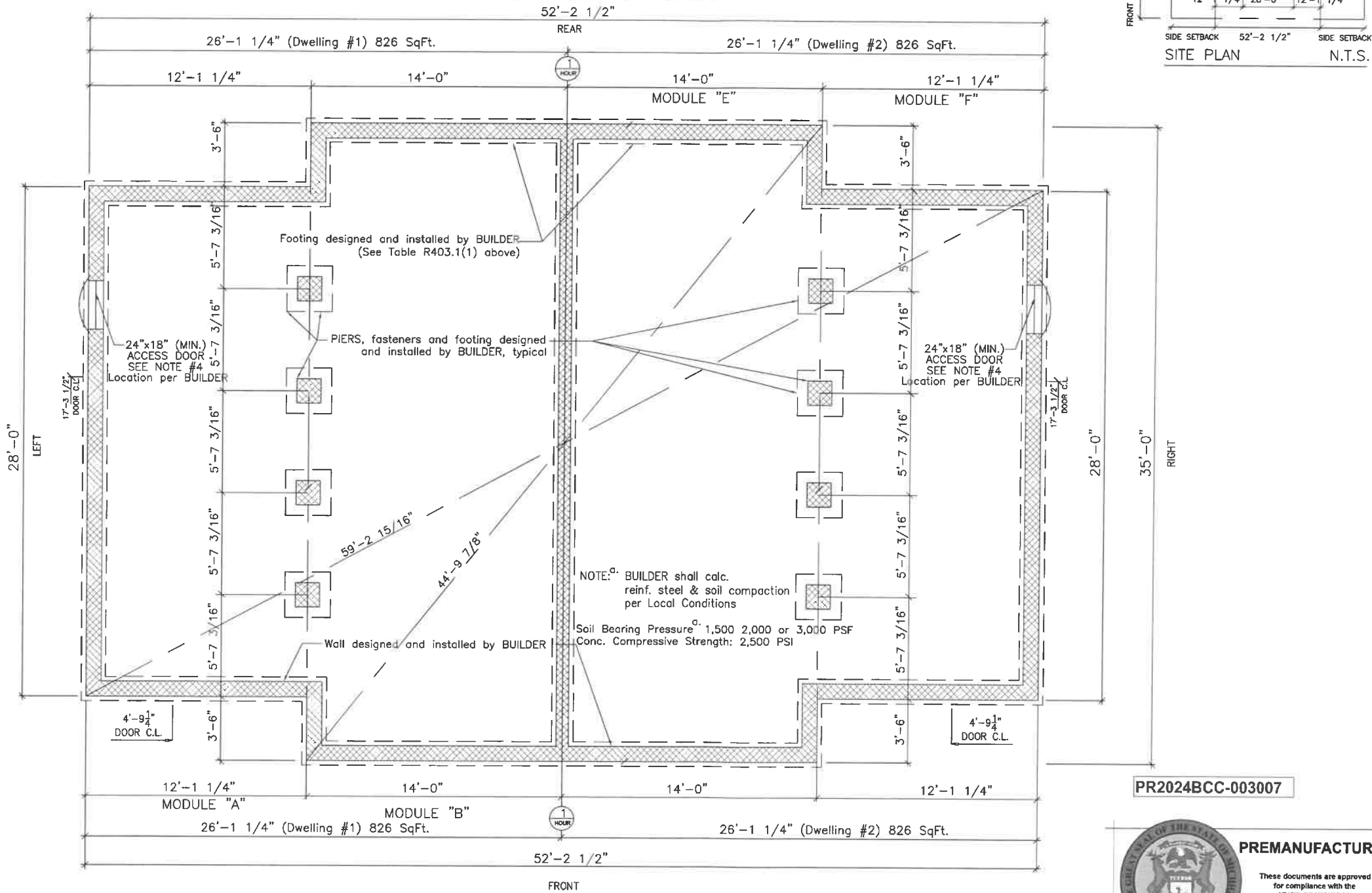
DRN 06/20/24 JLR
REV

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CONCRETE FOOTINGS						
Min. width and thickness for Concrete Footings for Light-Frame construction.						
SNOW LOAD	HOUSE TYPE	SOIL BEARING (psf)				
		1500	2000	2500	3000	4000
30	1-STORY...Crawlspace	13x6	12x6	12x6	12x6	12x6
	2-STORY...Crawlspace	19x6	14x6	12x6	12x6	12x6
40	1-STORY...Crawlspace	16x6	12x6	12x6	12x6	12x6
	2-STORY...Crawlspace	19x6	14x6	12x6	12x6	12x6
70	1-STORY...Crawlspace	18x6	13x6	12x6	12x6	12x6
	2-STORY...Crawlspace	21x6	16x6	13x6	12x6	12x6

TABLE R403.1(1)

- CRAWLSPACE NOTES**
- Crawlspace ventilation required per Michigan Residential Code
 - Foundations are not provided by GENERAL HOUSING CORPORATION. Basic Overall Dimensions Only are Provided on this Plan. Foundation Design & Specifications Shall be based on Local Conditions, & Subject to Local Codes and are the Responsibility of OTHERS.
 - When Required, Sump Pump Shall be provided for Crawlspace Drainage. (by OTHERS)
 - Crawlspace access required per Michigan Residential Code



PR2024BCC-003007



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MODEL

TITLE

DUPLEX
Crawlspace, 3-Bed, 2.5-Bath
FOUNDATION PLAN.....1/4"

SHEET

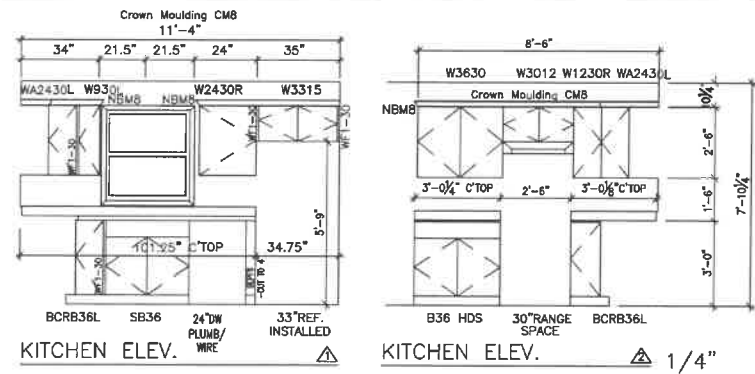
A-1 of 12

GENERAL HOUSING
CORPORATION

OFFICE: 4650 E. WILDER RD. 4844 FRASER RD.
BAY CITY, MI 48706 BAY CITY, MI 48706

DRN 5-15-17 ksl
REV 07/10/24 JLR

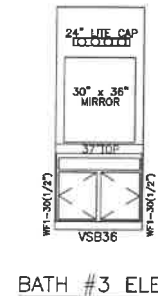
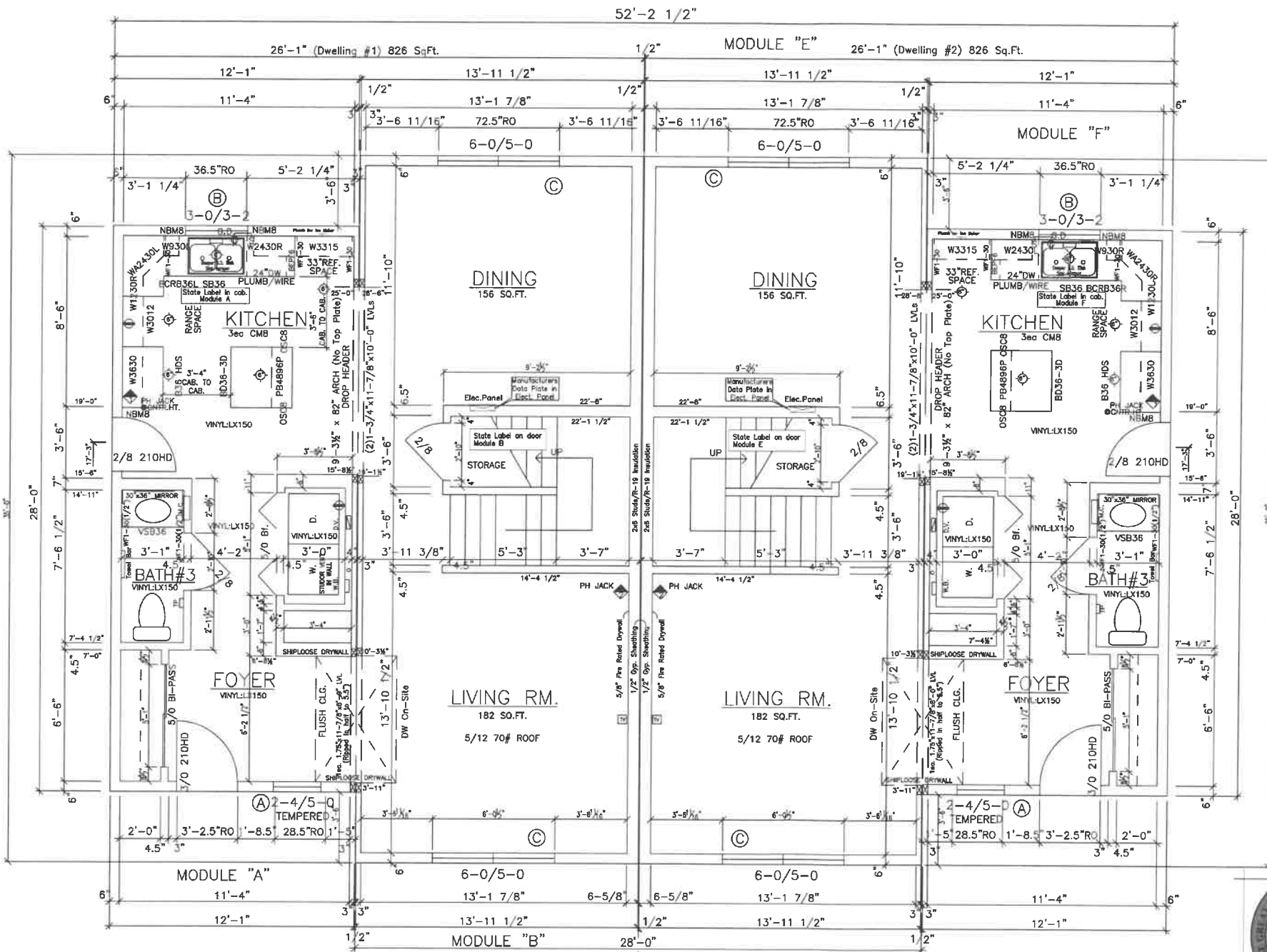
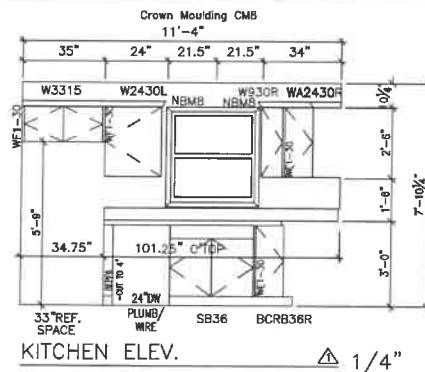
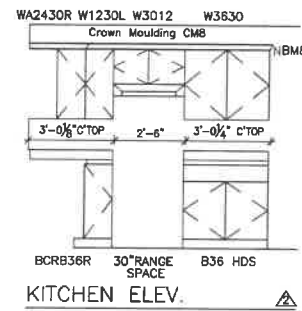
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VINYL		ENCOMPASS	
(A)	2-4/5-0	SH	28.5"x60.5"
(B)	3-0/3-2	SH	36.5"x38.5" KITCHEN
(C)	6-0/5-0	SHx2	72.5"x60.5" EGRESS

ADVANTAGE SPECS

- (partial listing)
- 2x10 Fl. Framing @ 16" o.c.
 - Stub all Plumbing
 - 2x6 Ext. Walls @ 16" o.c. (R-19)
 - DELTA Faucets
 - PELLA Vinyl SH Windows
 - No Kitchen Soffits
 - Dexter Locksets



FIRE RATED SEPARATION BETWEEN UNITS:
VERTICAL SEPARATION BETWEEN UNITS
SHALL MEET OR EXCEED UL U305 1 HOUR
RATED WALL ASSEMBLY.

FIRE-RESISTANCE RATED WALL ASSEMBLY
SHALL EXTEND FROM THE FOUNDATION TO
THE UNDERSIDE OF THE ROOF SHEATHING.

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1st. FLOOR PLAN

1652 Sq.Ft. (1st Fl.) + 1652 sq.Ft. (2nd Fl.) = 3304 Sq.Ft. TOTAL

CRAWLSPACE

DUPLEX

SCALE: 1/4"

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MODEL

TITLE
DUPLX
Crawlspace, 3-Bed, 2.5-Bath
1st. FLOOR PLAN.....1/4"

SHEET

A-2 of 12

GENERAL HOUSING
CORPORATION

OFFICE: 4650 E. WILDER RD. 4844 FRASER RD.
BAY CITY, MI 48706 BAY CITY, MI 48706

DRN 4/18/17 RMN
REV 07/10/24 JLR
07/17/24 RMN
7-19-24 JJS

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EXTERIOR ELEVATIONS ARE FOR ILLUSTRATION PURPOSES ONLY AND DO NOT REFLECT EXACT MEASUREMENTS OR ALIGNMENT.



FRONT ELEVATION

DUPLEX
SCALE: 1/4"

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MODEL

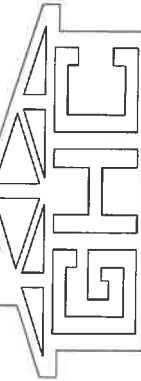
TITLE

DUPLEX

Crawl/Space, 3-Bed, 2.5-Bath
EXTERIOR ELEVATIONS.....1/4"

SHEET

A-4 of 12



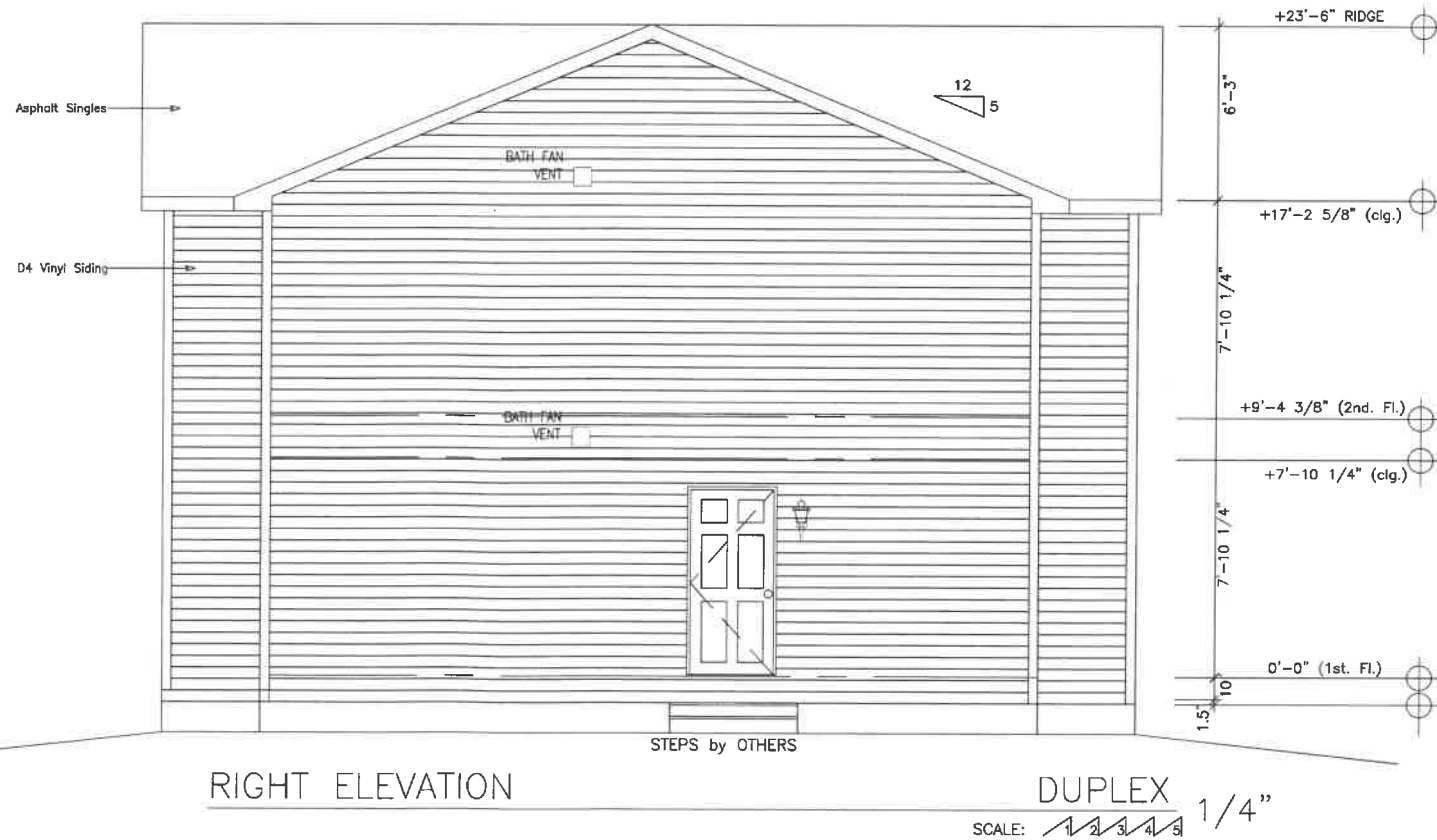
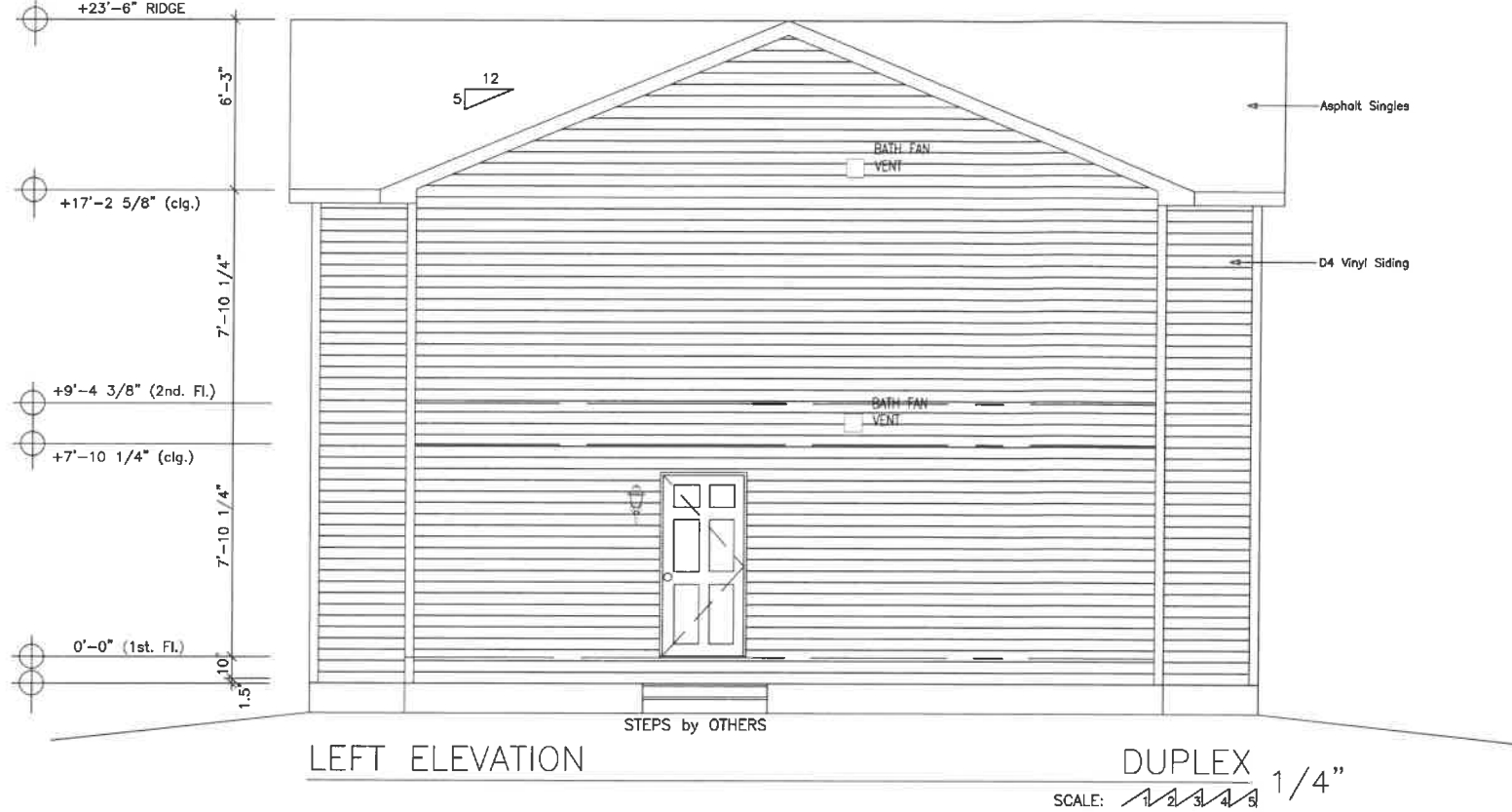
GENERAL HOUSING
CORPORATION

OFFICE: 4650 E. WILDER RD. 4844 FRASER RD.
BAY CITY, MI 48706

DRN 4-14-17 KSL
REV 07/10/24 JLR

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DRN 4-14-17 KSL
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GENERAL HOUSING CORPORATION
OFFICE: 4650 E. WILDER RD. 4844 FRASER RD.
BAY CITY, MI 48706 BAY CITY, MI 48706

TITLE
DUPLIX
Crawlspace, 3-Bed, 2.5-Bath,
EXTERIOR ELEVATIONS.....1/4"

MODEL
A-5 of 12

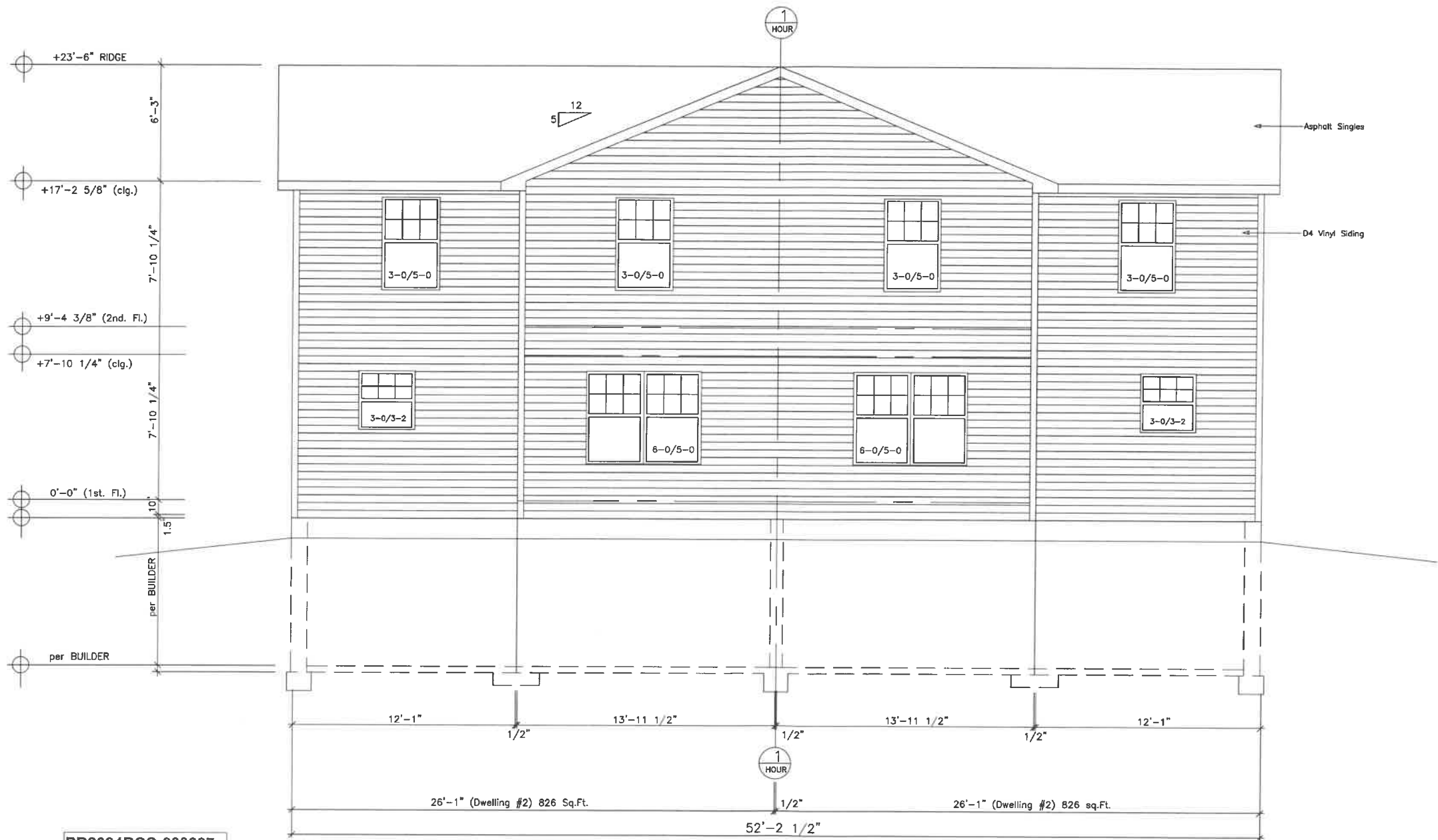
SHEET

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REAR ELEVATION

DUPLEX

SCALE: 1/2" = 1'-0" 1/4"

EXTERIOR ELEVATIONS ARE FOR ILLUSTRATION PURPOSES ONLY AND DO NOT REFLECT EXACT MEASUREMENTS OR ALIGNMENT.

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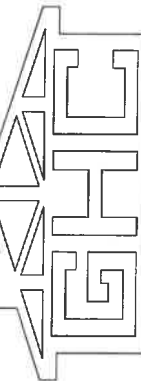
TITLE

DUPLEX

Crawlspace, 3-Bed, 2.5-Bath
EXTERIOR ELEVATIONS.....1/4"

MODEL

SHEET
A-6 of 12



**GENERAL HOUSING
CORPORATION**

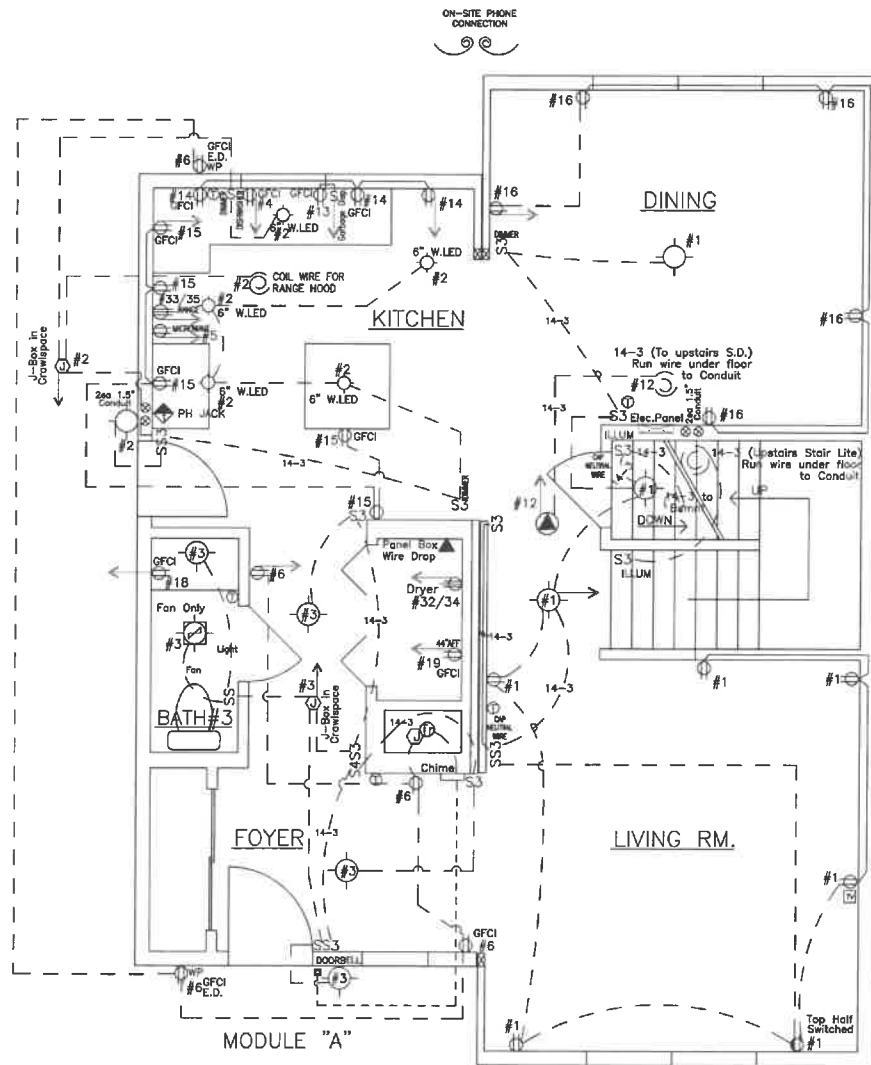
OFFICE: 4650 E. WILDER RD. 4844 FRASER RD.
BAY CITY, MI 48706 BAY CITY, MI 48706

DRN 4-14-17 KSL
REV 07/10/24 JLR

October 2, 2024 H:\CUSTOM FPF\FLOORPLANS\63XX-SERIES\6318\STATE SUBMITTAL\6318 PLAN SET.dwg

ELECTRIC PANEL SCHEDULE (40 SPACE - 200 AMP)									
NO	CIRCUIT	VOLT	AMP	WIRE (W/G)	WIRE (W/G)	AMP	VOLT	CIRCUIT	NO
1	Living Room/Dining Lighting	120	15	14-2	14-2	15	120	Kitchen Lighting	2
3	Foyer/Hall/Bath#3	120	15	14-2	14-2	15	120	Dishwasher	4
5	Microwave	120	15	14-2	14-2	15	120	Hall/Exterior Recepts.	6
7	Bedroom #3	120	15	14-2	14-2	15	120	Upstairs Hall/Stairs	8
9	Bedroom #1	120	15	14-2	14-2	15	120	Bedroom #2	10
11	Bath#1/Bath#2	120	15	14-2	14-2	15	120	Smoke Detectors	12
13	Garbage Disp.	120	15	14-2	12-2	20	120	Kitchen Recepts.	14
15	Kitchen Recepts.	120	20	12-2	12-2	20	120	Dining Recepts.	16
17	Bath#1/Bath#2 Recepts.	120	20	12-2	12-2	20	120	Bath#3 Recept.	18
19	Laundry	120	20	12-2				Spare	20
21	Spare							Spare	22
23	Spare							Spare	24
25	Spare							Spare	26
27	Spare							Spare	28
29	Spare							Spare	30
31	Spare							Spare	32
33	Range	240	50	6-3	10-3	30	240	Dryer	34
35									36
37	Spare							Surge Protection Device	38
39	Spare							Spare	40

Emergency disconnect shall be installed on site by Licensed Electrician in accordance with NEC, Article 230.85 Rule 870



1st. FLOOR PLAN

(Dwelling Unit #1)

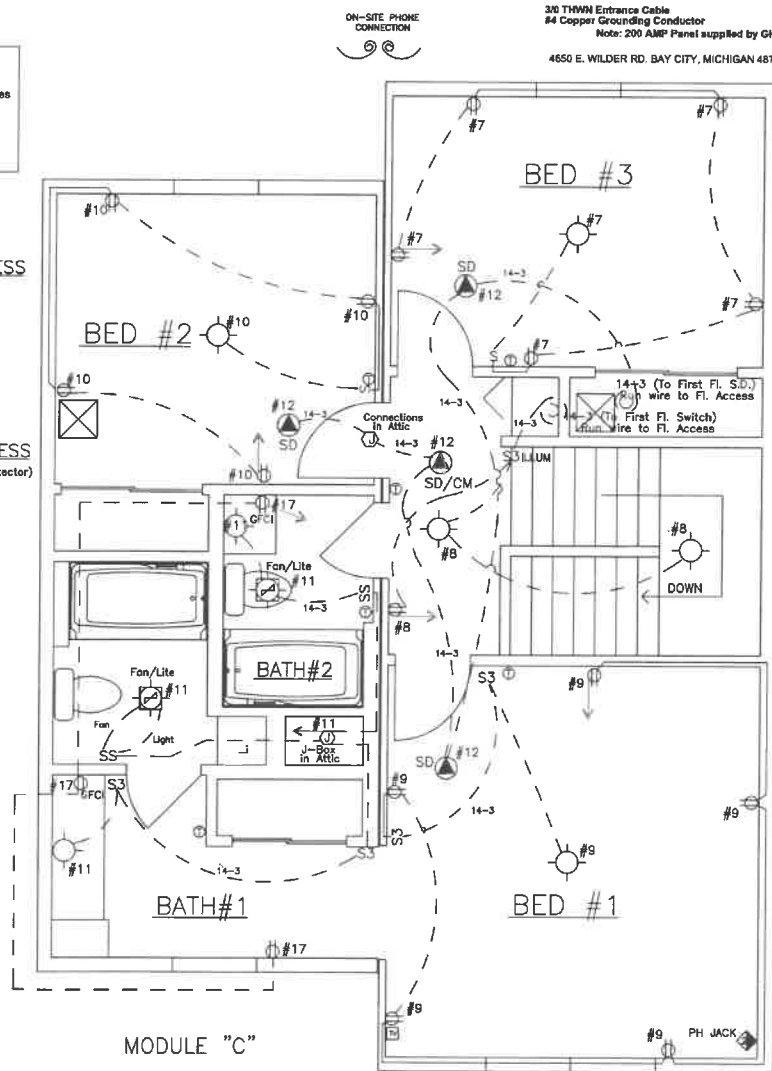
- ELECTRICAL NOTES**
1. Basement ELECTRICAL: GHC will stub all wires at the 1st. and 2nd. floors with enough wire coiled up to reach the panel box.
 2. All basement wiring, switches, light fixtures, smoke detectors, etc. are by OTHERS on-site.

**WIRES AT FLOOR ACCESS
MODULE "C"**

14-2 WIRE: Circuit #10,11
12-2 WIRE: Circuit #17,25/27
LEAVE 25' WIRE PER CIRCUIT

WIRES AT ATTIC ACCESS

14-3 WIRE: Circuit #12 (Smoke Detector)



2nd. FLOOR PLAN

ELECTRICAL LOAD CALCULATION

DATE:	8/22/2024
Model:	BAYVIEW DUPLEX
By:	GHC
Watts or Volt-Amps	
Air Conditioning (100%)	
Use the larger of the air-conditioning load or the electric space heating load.	
N/A	
Other Loads:	
Watts or Volt-Amps	
General Lighting - First Story	2478
General Lighting - Second Story	2478
Small Appliances	3000
Laundry (1500 Watts)	1500
Boiler	700
Dryer	5600
Water Heater	4500
Range	9300
Dishwasher	1450
Garbage Disposal	900
Surge Protection Device	0
Other: Baseboard Elec. Heat	250
Total:	31806
First 10KW of other Loads @ 100%	10,000
Remainder of other Loads @ 40%	8722.4
Total Calculated Load	18722.4
Service Size (Total Calculated Load / 230)	81.4017

30 THWN Entrance Cable
#4 Copper Grounding Conductor
Note: 200 AMP Panel supplied by GHC
4650 E. WILDER RD. BAY CITY, MICHIGAN 48706 PHONE:(989) 684-8078

**WIRES AT FLOOR ACCESS
MODULE "D"**

14-2 WIRE: Circuit #7,8,9
14-3 WIRE: Circuit #8 (Stair Light Switch)
14-3 WIRE: Circuit #12 (Smoke Detector)
12-2 WIRE: Circuit #25/30, #26/31
1eo. T.V. & Phone Wire
LEAVE 50' WIRE PER CIRCUIT

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MODEL

TITLE
DUPLEX
Crawlspace, 3-Bed, 2.5-Bath
1st & 2nd. FLOOR ELEC. PLAN.....

SHEET
A-7 of 12

GENERAL HOUSING
CORPORATION
OFFICE: 4650 E. WILDER RD.
BAY CITY, MI 48706

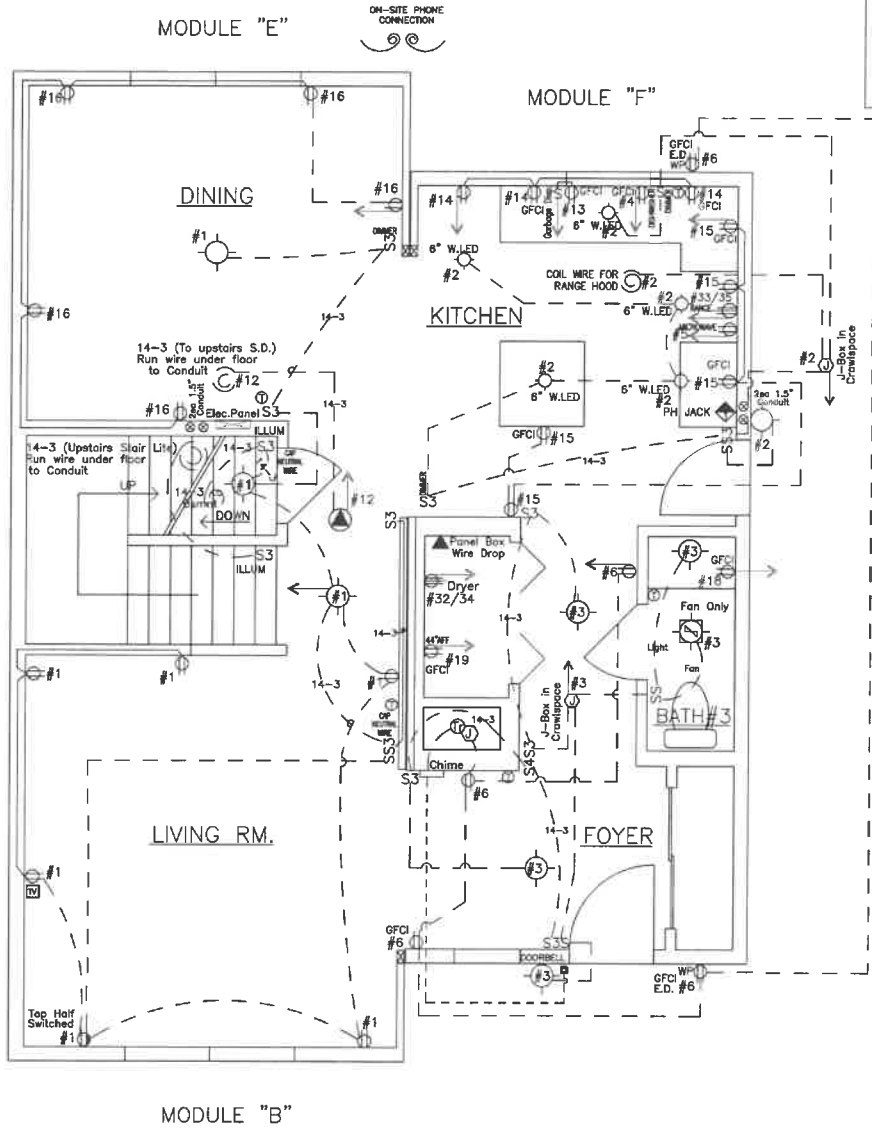
PLANT:
4644 FRASER RD.
BAY CITY, MI 48706

DRN 4/11/17 RMN
REV 5/5/24 RMN
7/23/24 KRG

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ELECTRIC PANEL SCHEDULE (40 SPACE - 200 AMP)									
NO	CIRCUIT	VOLT	AMP	WIRE (W/G)	WIRE (W/G)	AMP	VOLT	CIRCUIT	NO.
1	Living Room/Dining Lighting	120	15	14-2	14-2	15	120	Kitchen Lighting	2
3	Foyer/Hall/Bath#3	120	15	14-2	14-2	15	120	Dishwasher	4
5	Microwave	120	15	14-2	14-2	15	120	Hall/Exterior Recepts.	6
7	Bedroom #3	120	15	14-2	14-2	15	120	Upstairs Hall/Stairs	8
9	Bedroom #1	120	15	14-2	14-2	15	120	Bedroom #2	10
11	Bath#1/Bath#2	120	15	14-2	14-2	15	120	Smoke Detectors	12
13	Garbage Disp.	120	15	14-2	12-2	20	120	Kitchen Recepts.	14
15	Kitchen Recepts.	120	20	12-2	12-2	20	120	Dining Recepts.	16
17	Bath#1/Bath#2 Recepts.	120	20	12-2	12-2	20	120	Bath#3 Recept.	18
19	Laundry	120	20	12-2				Spare	20
21	Spare							Spare	22
23	Spare							Spare	24
25	Spare							Spare	26
27	Spare							Spare	28
29	Spare							Spare	30
31	Spare							Spare	32
33	Range	240	50	6-3			240	Dryer	34
35						35		Surge Protection Device	36
37	Spare								38
39	Spare							Spare	40

Emergency disconnect shall be installed on site by Licensed Electrician in accordance with NEC, Article 230.85 Rule 870



1st. FLOOR PLAN

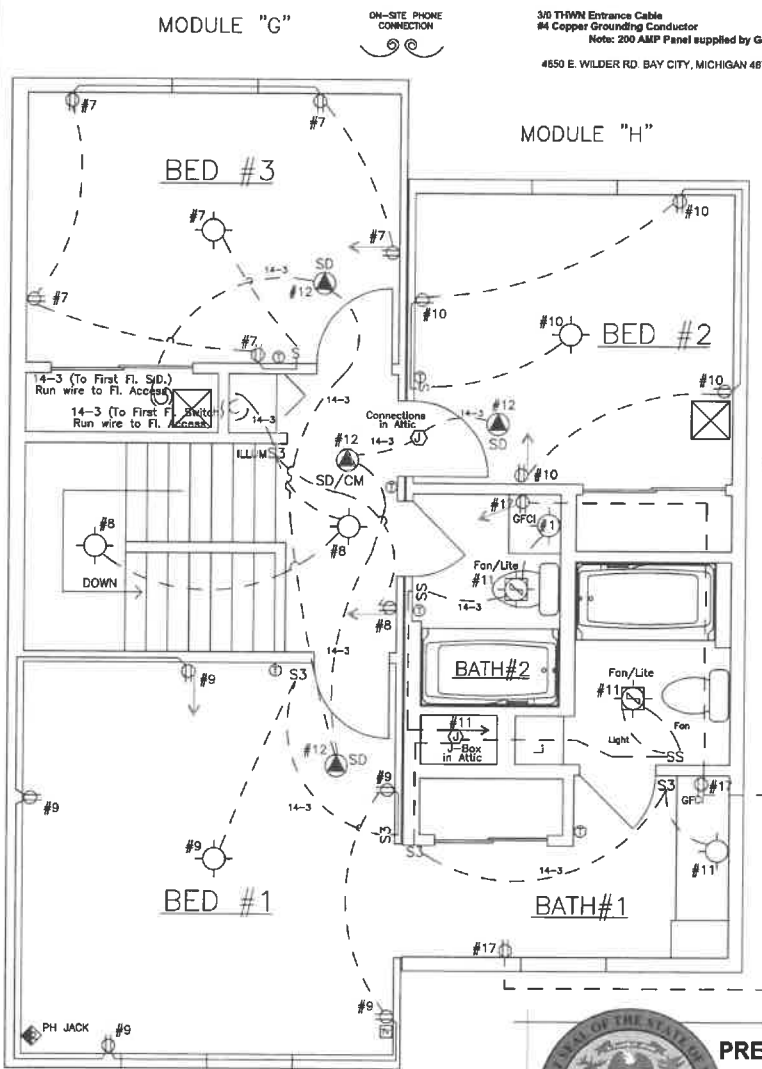
(Dwelling Unit #2)

ELECTRICAL NOTES

1. Basement ELECTRICAL: GHC will stub all wires at the 1st. and 2nd. floors with enough wire coiled up to reach the panel box.
2. All basement wiring, switches, light fixtures, smoke detectors, etc. are by OTHERS on-site.

WIRES AT FLOOR ACCESS MODULE "G"

- 14-2 WIRE: Circuit #7,8,9
- 14-3 WIRE: Circuit #8 (Stair Light Switch)
- 14-3 WIRE: Circuit #12 (Smoke Detector)
- 12-2 WIRE: Circuit #28/30, #29/31
- 1ea. T.V. & Phone Wire
- LEAVE 50' WIRE PER CIRCUIT



2nd. FLOOR PLAN



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ELECTRICAL LOAD CALCULATION

DATE: 8/22/2024
Model: BAYVIEW DUPLEX
By: GHE

Air Conditioning (100%)
*Use the larger of the air-conditioning load or the electric space heating load.

Other Loads:

	Watts or Volt-Amps	Watts or Volt-Amps
General Lighting - First Story	1 826 3	2478
General Lighting - Second Story	1 826 3	2478
Small Appliances	2 1500	3000
Laundry (1500 Watts)	1 1500	1500
Boiler	1 700	700
Dryer	1 5600	5600
Water Heater	1 4500	4500
Range	1 9300	9300
Dishwasher	1 1450	1450
Garbage Disposal	1 800	800
Surge Protection Device	1 0	0
Other: Baseboard Elec. Heat	0 280	280
Total:		31806

First 10KW of other Loads @ 100%:

Remainder of other Loads @ 40%:

Total Calculated Load:

Service Size: (Total Calculated Load / 230)

3/0 THWN Entrance Cable
#4 Copper Grounding Conductor
Note: 200 AMP Panel supplied by GHE

4650 E. WILDER RD. BAY CITY, MICHIGAN 48706 PHONE(616) 684-8078

WIRES AT FLOOR ACCESS MODULE "H"

- 14-2 WIRE: Circuit #10,11
- 12-2 WIRE: Circuit #17,25/27
- LEAVE 25' WIRE PER CIRCUIT

WIRES AT ATTIC ACCESS

- 14-3 WIRE: Circuit #12 (Smoke Detector)

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TITLE

DUPLEX

Crawlspace, 3-Bed, 2.5-Bath
1st & 2nd. FLOOR ELEC. PLAN.....

MODEL

SHEET

A-8 of 12

DRN 4/11/17 RMN
REV 5/5/24 RMN
7/25/24 KRG
GENERAL HOUSING CORPORATION
OFFICE: 4650 E. WILDER RD. 4644 FRASER RD.
BAY CITY, MI 48706 BAY CITY, MI 48706

ON SITE: Raise Roof, install King Post & nail thru Gusset Plates & Roof Sheathing to secure Assembly

FLOOR JOISTS: LAMINATED BAND JOIST:
2.5"x9.25" Open-Web @ 16" o.c.
SPF #1/#2 F_b = 875 psi E = 1,200,000
2x10 SYP#2 F_b = 1200 psi E = 1,600,000

JOIST HANGER CAPACITY:
900# Hanger Rating
(8)-1.5" T-Nail @ 50# per = 400# per Hanger

2x10 FL JOISTS

FLOOR JOISTS: LAMINATED BAND JOIST:
2x10 SPF#2 @ 16" o.c.
F_b = 875 psi E = 1,200,000
2x10 SYP#2 F_b = 1200 psi E = 1,600,000

JOIST HANGER CAPACITY:
900# Hanger Rating
(8)-1.5" T-Nail @ 50# per = 400# per Hanger

FLOOR JOIST DETAILS N.T.S.

CEILING JOISTS:
2x6 SPF#2 @ 16" o.c.
F = 875
E = 1,300,000
1st.FLOOR CEILING N.T.S.

TRUSS DESIGN CALCULATIONS

TOP CHORD LIVE	81 PSF
TOP CHORD DEAD	7 PSF
BOTTOM CHORD DEAD	10 PSF
BOTTOM CHORD LIVE*	20 PSF
TOTAL DESIGN LOAD	118 PSF

FIRE RATED SEPARATION BETWEEN UNITS:
VERTICAL SEPARATION BETWEEN UNITS SHALL MEET OR EXCEED UL U305 1 HOUR RATED WALL ASSEMBLY.

FIRE-RESISTANCE RATED WALL ASSEMBLY SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE ROOF SHEATHING.

DETAIL
One Hour fire separation NTS

TYPICAL FLOOR FRAMING PLAN N.T.S.

See Floor Plan For Size

Verify 10"

SCALE: 1/4"

SCALE:

PR2024BCC-003007



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conditions of approval.

GENERAL NOTES (2015 Michigan Residential Code)

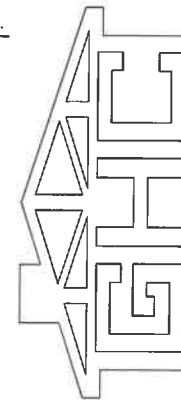
1. Cont. Ridge Vent provides 18 Sq.in. of Net Free Vent Area PLF.
2. Perforated Vinyl Soffit provides 6.07 Sq.in. plf (per Side)
6.07x1.5x2 = 18.21Sq.in. PLF
3. ATTIC ACCESS: An opening not less than 22"x30" shall be provided to any Attic area having a clear height of over 30".
4. FLAME SPREAD: All interior finishes meet Class III
Flame Spread 76-200 as determined by ASTM E84.
5. STAIRWAY HANDRAIL: Open Guardrails shall have balusters to prevent passage of a 4" diameter sphere.
6. STAIRWAY HANDRAIL: Height shall be 34"-38" above tread nosing.
7. On stairways with solid risers, a 1" nosing shall be provided.
8. GUARDRAIL: Guardrails along open-sided floor areas, mezzanines and landings shall not be less than 36" in height. (R-3)
9. The floor cut-out for the bathtub plumbing lines shall be firestopped.
10. The DATA PLATE is located on the Elec. Panel Door.
11. Temporary Approval Labels are located on the windows of Modules
12. Silver APPROVAL LABELS are located:
"A" Module.....Kitchen Sink cabinet
"B" Module.....Basement door
"C" Module.....Bath #2 vanity cabinet
"D" Module.....Bed #3 Closet door
"E" Module.....Basement door
"F" Module.....Kitchen Sink cabinet
"G" Module.....Bed #3 Closet door
"H" Module.....Bath#2 Vanity cabinet

House Length	30'	32'	34'	36'
House Sq.Ft.	840	896	952	1008
RIDGE VENT CALCULATIONS (Sq.Ft.)				
Ventilation Req'd ¹	5.6	6.0	6.4	6.7
Ventilation Provided ²	6.5	6.4	6.8	7.2

¹ House Sq.Ft./150²Cont. Ridge Vent provides 18 Sq.in. PLF.² Perf. Soffit provides 6.07 Sq.in. PLF.

DRN	KSL
DATE	4-14-17
REV	

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BAY CITY, MICHIGAN 48706



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TITEL

TWO STORY.....DUPLEX

Typical Basement & Crawlspace Details
Cross Section & Floor Framing

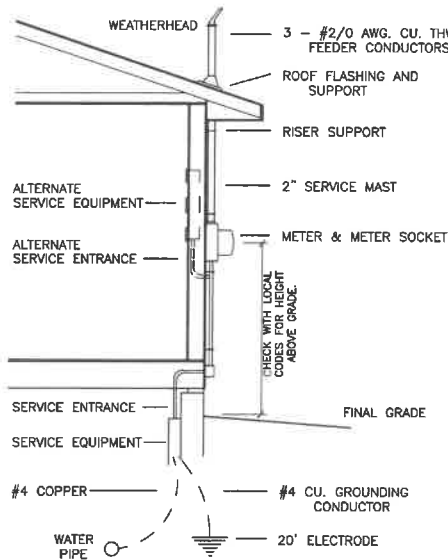
MODEL

SHEET 133

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ELECTRICAL NOTES (2015 MRC)

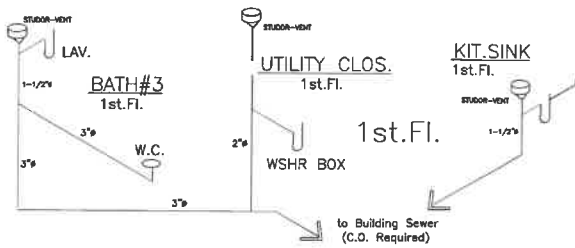
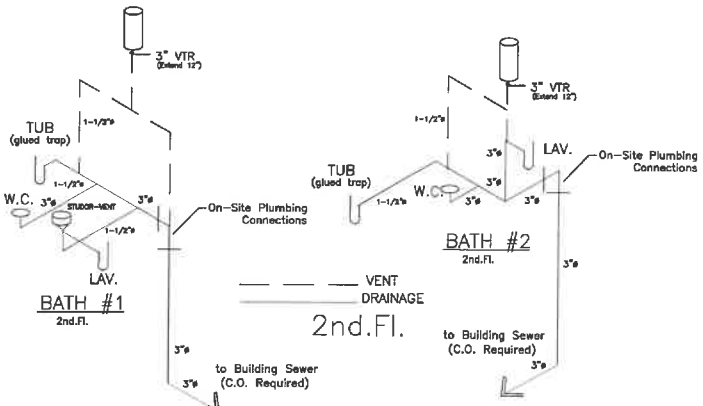
1. Labeled Service Panel has 200 AMP Main Breaker Disconnect.
2. Feeder Conductors Shown are for 200 AMP Service.
3. All Service Hook-Ups shall be performed by OTHERS.
4. An intersystem bonding termination at the Service Equipment shall be provided. (by Others)
5. A concrete-encased electrode, the foundation reinforcing steel shall be connected to the grounding electrode system. (by others)
6. Electrode shall be either: A. Iron or Steel Galv. Pipe (3/4" min.) 8' in length, or B. Iron or Steel Rod (5/8" min.) 8' in length.
7. Wiring is Non-Metallic Sheathed Copper - 90° Type NMB
8. A 3-Way Switch is provided at top of Stairs (by GHC)
9. ATTICS are not appropriate for Storage.
10. All Electrical Devices are (U) Listed
11. A Recept. is Req'd within 25' of ea. Heating, A/C, and (or) Refrig. Unit. If Located in a Crawlspace, or Below Grade Level, or in an unfinished Basement, the Recept. must be G.F.C.I. PROTECTED.
12. Receptacle outlets serving countertops in kitchen, dining, island, or peninsula areas shall be located so that no point is more than 24" from a receptacle and be installed above or within 12" of countertop.
13. Dwelling units require at least one receptacle in bathrooms, outdoors at grade level, laundry areas, basements, garages, and hallways of 10' or more. Recept. outlets in bathrooms shall be installed adjacent to each basin location.
14. All 125-Volt 15 and 20 Amp recepts. shall be listed Tamper-Resistant.
15. Ceiling fan supports boxes shall be Labeled and approved.
16. Boxes used @ lighting fixtures shall be designed for that purpose. Device boxes shall not be used for support of fixtures.
17. All recessed incandescent fixtures shall have thermal protection & be so identified, shall be properly installed, be of proper construction and provide adequate clearances. This includes Fan/Light combinations.
18. Fixtures in clothes closets shall have proper clearances from incandescent fixtures with open or partially enclosed lamps and pendent fixtures or lampholders shall not be permitted.
19. In addition to an AC primary power source, Smoke Detectors shall receive power from a battery backup in case of power loss.
20. Smoke detectors shall be provided in the immediate vicinity of ea. Bedrm. within each bedroom, and in each story within a dwelling. (R-2,R-3)
21. Actuation of one Smoke Detector will actuate all of the Alarms.
22. Openings @ elec. penetrations shall be firestopped On-Site by OTHERS once inter-module connections have been made.
23. Any ATTIC or CRAWLSPACE Equipment installed by BUILDER shall have a switched lighting (G.F.C.I. Protected) outlet within the immediate vicinity of that Equipment.
24. Proper thermal overload protection shall be required for all motors. A disconnecting means shall be located in sight from the motor location and the driven machinery location and each motor shall be provided with an individual disconnecting means.
25. An Electrode encased by at least 2" of concrete, in direct contact with Earth, consisting of at least 20' of 1/2" Steel Rod or bare Copper (4AWG) conductor shall be considered as a grounding electrode.
26. Emergency disconnect shall be installed on site by Licensed Electrician in accordance with NEC, Article 230.85 Rule 870



SUGGESTED SERVICE CONNECTION
240 VOLT - SINGLE PHASE - 200 AMP - DWELLING SERVICE

MECHANICAL NOTES (2015 MRC)

1. Bathroom Ventilation Rate = 50 cfm Kitchen Ventilation Rate = 100 cfm
2. Bathroom Exhaust Fans ducted to Outside via a Soffit Vent. Exhaust openings shall not terminate within 3' of a vented section of Soffit.
3. The standard GHC Range Hood is Ductless. The Optional Vented Range Hood shall discharge to the outside thru a single-wall Duct with a backdraft damper.
4. Optional ELEC. Baseboards: (H-040): "Q-MARK" (std. density 250 WPF)
5. Factory-Built Chimneys, installed by GHC, carry the UL label and shall be installed according to the Manufacturer's specification.
6. Heat Loss is calculated @ -10°F (outside temp.) & +72°F (inside temp.), 15MPH Wind, & 8" Masonry Foundation (2 Blocks above Grade)
7. Factory built chimneys shall be protected from physical damage and supported to handle the load of the chimney. Floor and ceiling penetrations shall be firestopped in accordance with the building code.
8. Combustion-Air for Opt. Fireplace via a Vent stubbed thru the floor. NOTE: Basement Houses must be ducted to Outside. (by BLDR.)
9. Underfloor spaces containing equip. requiring access shall be provide with an access opening large enough to allow removal of the largest equipment, but not less than 30"x30" in size. A 24"x36" opening is also approved.
10. GHC installs a pull wire in the wall cavity in order for onsite HVAC contractor to install a thermostat wire. A programmable thermostat is provided and installed onsite by Others.
11. Whole House Mechanical Ventilation Systems shall be designed in accordance with Sections M1507.3.1 through M1507.3.3.



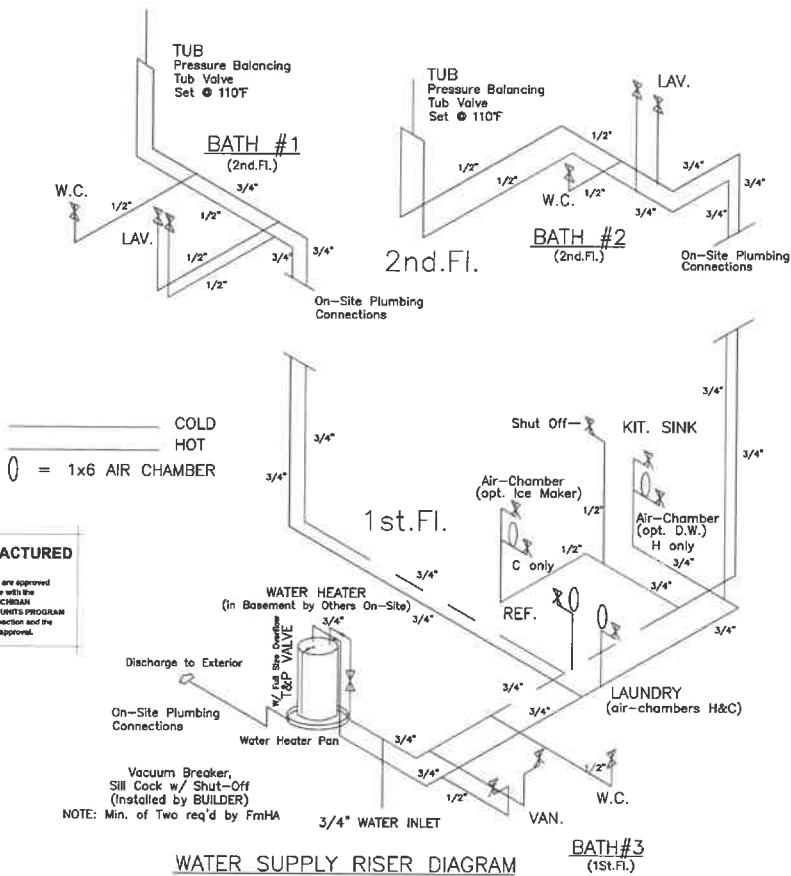
PLUMBING RISER DIAGRAM

PR2024BCC-003007

TABLE P3105.1				
Trap	Drain	Slope	Distance from Trap	
1-1/4"	1-1/2"	1/4"	5'	
1-1/2"	1-1/2"	1/4"	6'	
1-1/2"	2"	1/4"	8'	
2"	2"	1/4"	8'	
3"	3"	1/8"	12'	



1. Water Supply pipes and risers are "VANEX PEX" cross-linked polyethylene tubing. Specifications: SDR9 Wall Thickness, ASTM F-876, 100 psi @ 180°.
2. WATER HEATER: Transition from Metallic Pipe to PEX shall be located a min. 12" developed length of Copper Pipe from the Water Heater.
3. Supports for Horiz. Pipe runs shall not exceed 32"oc. Supports for Vert. runs shall not exceed 48"oc.
4. PEX Piping installed adjacent to a source of excessive heat (Boiler Vent) shall have 6" min. clearance.
5. Air Chambers are 1"x6" in compliance w/ ASSE-1010
6. In concealed locations where piping is installed thru holes or notches in studs, joists, rafters or sim. members less than 1.5" from the nearest edge of the member, the pipe shall be protected by shield plates. Shield plates shall be a min. of 1/16"-thick-steel, shall cover the area of the pipe where the member is notched, and shall extend a min. of 2" above sole and below top plates.
7. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water hammer arrestor shall be installed where quick closing valves are utilized (dishwasher & washer-box). Water hammer arrestors shall conform to ASSE 1010. Access shall be provided.
8. Service and hose bibb valves shall be identified. All other valves installed in locations that are not adjacent to the fixture or appliance identified, indicating the fixture/appliance served.
9. Individual Shwr. and tub/shwr. combo-valves shall be equipped with combination pressure-balance/thermostatic/mixing valve types with a high limit stop in accordance with ASSE 1016 or CSA B125. The high limit stop shall be set to limit water temp. to a max. of 120°F.
10. The hot water supplied to bathtubs and whirlpool bathtubs shall be limited to a max. temp. of 120°F by a water-temperature-limiting device that conforms to ASSE 1070.
11. WHIRLPOOL TUB: Access shall be provided to circulation pumps with a 12"x12" min. opening.
12. Drainage Pipe & Fittings smaller than 3" are Schedule 40 PVC Pipe (3" pipe is Schedule 30).
13. 1/2" wire pipe supports @ 48" O.C. max.
14. Horiz. to Vert. fittings are Sanitary Tees; all others are Long-Turn Fittings.
15. Pipe & fittings are NSF Listed.
16. WATER HEATERS: The discharge from the relief valve shall be piped full-size separately to the outside of the building. In areas subject to freezing, the relief valve shall discharge thru air gap into an indirect waste receptor located within a heated space.
17. Where water heaters are installed in locations where leakage of the tanks or connections will cause damage, the water heater shall be installed in a pan.
18. The pan drain shall extend full-size and terminate over a suitably located indirect waste receptor or floor drain or extend to the exterior of the building and terminate not less than 6" or more than 24" above the adjacent ground surface.
19. The discharge from an automatic clothes washer shall be thru an air-break.
20. Standpipes shall be individually trapped. Standpipes shall extend 18"(min.) and 42"(max.) above the trap. Access shall be provided to standpipe traps & drains for rodding.
21. Each fixture trap shall have a vent located so that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are per Table P3105.1
22. Fixtures with concealed Joints shall be cemented so as to form a solid connection. (Capes & Two-Story Plans)

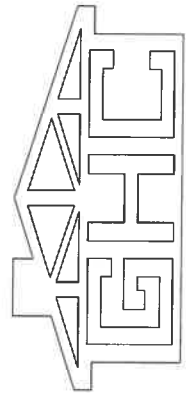


WATER SUPPLY RISER DIAGRAM

PLUMBING NOTES (2015 MRC)

KSL
4-14-17
DRN
DATE
CHK
REV

GENERAL HOUSING
CORPORATION
4650 E. WILDER RD.
BAY CITY, MICHIGAN 48706



TITLE
BAYVIEW DUPLEX.....16024
Basement, 3-Bed, 2.5-Bath
Electrical, Mechanical & Plumbing Notes

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MODEL
SHEET
A-12 of 12

Generated by REScheck-Web Software

Compliance Certificate

Project BAYVIEW DUPLEX

Energy Code:
Location:
Construction Type:
Project Type:
Conditioned Floor Area:
Glazing Area
Climate Zone:
Permit Date:
Permit Number:

All Electric
Is Renewable
Has Charger
Has Battery:
Has Heat Pump:

2009 IECC
Mackinac Island, Michigan
Single-family
New Construction
3,304 ft2
10%
7 (8350 HDD)

PR2024BCC-003007



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

Construction Site:

Owner/Agent:

Designer/Contractor:

Compliance: Passes using UA trade-off

Compliance: **1.0% Better Than Code** Maximum UA: **415** Your UA: **411**
The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Req. UA
Ceiling: Flat Ceiling or Scissor Truss	1,652	49.0	0.0	0.026	0.026	43
Wall: Wood Frame, 16" o.c.	3,132	19.0	0.0	0.060	0.057	165
Door: Solid Door (under 50% glazing)	78			0.140	0.350	11
Window: Vinyl Frame	309			0.330	0.350	102
Crawl Wall: Solid Concrete or Masonry						
Wall height: 4.0'						
Depth below grade: 3.0'	1,652	14.0	0.0	0.073	0.065	90
Insulation depth: 3.0'						81

Project Title: BAYVIEW DUPLEX

Data filename:

Report date: 08/19/24

Page 1 of 2

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2009 IECC requirements in REScheck Version : REScheck-Web and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title

Signature

Date

PR2024BCC-003007



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Project Name: GH 2-6- General Housing Design Catalog 2 of 6

Customer: General Housing Corporation

Qty: 1

Truss: T-11

SID: 0000358585
TID: 73100
Date: 11 / 05 / 18
Page: 1 of 1

Truss Mfr. Contact: Send for

1. CONNECTION 1 AND CONNECTION 2 INDICATE REQUIRED FIELD CONNECTIONS. HINGE 1 INDICATES REQUIRED HINGE PLATE LOCATIONS. SEE SCHEDULE FOR FIELD CONNECTION, HINGE CONNECTION LOADS AND INSTALLATION REQUIREMENTS.
2. TIGHT FIT IS REQUIRED BETWEEN ALL MEMBERS AT THE JOINT.
3. ALL FIELD CONNECTIONS SHALL BE DESIGNED BY THE PROJECT ENGINEER AND CONFORM TO THE HOME MANUFACTURER'S INSTALLATION DETAILS.
4. WARNING: FAILURE TO PROVIDE PROPER FIELD CONNECTIONS MAY RESULT IN INADEQUATE STRUCTURAL PERFORMANCE.
5. CONTACT SIMPSON STRONG-TIE FOR CONNECTION OPTIONS.

FIELD CONNECTION SCHEDULE AND DESIGN LOADS:

TYPE	MAXIMUM LOAD (lbs)
CONNECTION 1	165T / 528C
CONNECTION 2	205T / 233C

HINGE CONNECTION SCHEDULE:

TYPE	MAXIMUM LOAD (lbs)
HINGE 1	136T / 259C

CONNECTION SCHEDULE NOTES:

- ALL CONNECTIONS SHALL BE DESIGNED TO RESIST THE COMBINED AXIAL - SREAR LOAD SPECIFIED ABOVE.
- HINGE PLATE PRODUCTS USED IN THIS DESIGN SHALL HAVE A TESTED/EVALUATED ALLOWABLE CAPACITY THAT EXCEEDS THE DESIGN FORCES SPECIFIED IN THE HINGE CONNECTION SCHEDULE AND BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- HINGE PLATE PRODUCTS USED IN THIS DESIGN SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, TEST REPORT AND/OR PRODUCT EVALUATION REPORT.
- HINGE CONNECTION JOINTS SHALL HAVE NO GAP AND PROVIDE A MINIMUM OF 2" WOOD TO WOOD CONTACT BETWEEN HINGED MEMBERS WHEN HINGED SECTION IS RAISED TO ITS FINAL POSITION.

Plates -- Simpson Strong-Tie 20 ga (AS20) or 18 ga (AS18S), or 18 ga (AS18S), or 18 ga (AS18S) indicated by "-18"

Code/Design: IBC-2015/TPI-2014

PSF Live Dead	7.0	Live Wind Snow	1.15
TC 53.9	7.0	Lum 1.15	1.60
BC 10.0	10.0	Plt 1.15	1.60
Total	80.9	Plt 1.15	1.60
Spacing:	2'-00"-00" o.c.	Piles:	1
Repetitive Member Increase:	Yes		
Green Lumber:	No	Wet Service:	Yes
Fab Tolerance:	20% Creep (Kcr) = 2.0		
OR Soffit Load:	2.0 PSF		

-----Snow Load Specs-----
ASCE7-10 Ground Snow (Pg) = 70.0 psf
Risk Cat: II Terrain Cat: C
Roof Exposure: Sheltered
Thermal Condition: All Others (1.0)
Unobstructed Slippery Roof: No
Low-Slope Minimums (Pfmin): No
Unbalanced Snow Loads: Yes
Rain Surcharge: No Ice Dam Chk: No

-----Wind Load Specs-----
ASCE7-10 Wind Speed (V) = 115 mph
Risk Cat: II Exposure Cat: C
Bldg Dims: L = 0.0 ft B = 0.0 ft
M.R.H(h) = 30.0 ft Kzt = 1.0
Bldg Enclosure: Enclosed
Wind Dir (psf): FC = 4.2 BC = 6.0
End Vertical Exposure: L = Yes R = No
Wind Uplift Reporting: HybridMW

-----Additional Design Checks-----
10 psf Non-Concurrent BCLL: Yes
20 psf BC Limited Storage: Yes
200 lb BC Accessible Ceiling: No
300 lb TC Maintenance Load: No
2000 lb TC Safe Load: No
Unbalanced TCLL: Yes

Material Summary

TC	2x4	SPF	2100/1.8
	2x6	SPF	1650/1.3
	2x6	SPF	#2 4'-6"
BC	2x6	SPF	1650/1.3
Webs	2x4	SPF	#2
	2x6	SPF	#2 2'-8"
Other	2x6	SPF	#2

Member Forces Summary

TC	OH	Ten	Comp	CSI
1-2	1	75	0	0.17
2-3	3	195	1764	0.40
3-4	4	3	254	0.39
4-5	117	220	0.55	
5-6	139	68	0.25	
6-OH	424	1008	0.18	
7-8	1567	410	0.26	
8-OH	0	0	0.31	
2-7	335	0	0.09	
2-8	401	1565	0.35	
5-8	1324	3098	0.45	
6-8	2584	1104	0.46	

Bracing Data Summary

-----Bracing Data-----
Chords: continuous except where shown
Web Bracing -- CLR
Single: Web2Brac
6-8

Plate offsets (X, Y):

(None unless indicated below)
Jnt2(100-06,-00-08), Jnt9(-02-04,-00-01),
Jnt10(02-10,00-13)

Continuous Restraint Bracing Req'd
See BCSI-B3 3.0

Reaction Summary

Jnt	--X--	Loc-	React	--Up--	--Width--	--Reqd--	--Mat	PSI
1	02-12	1166	125	03-08	01-13	SPF	425	
8	13-07-04	968	176	02-12	01-08	SPF	425	
Max Horiz	= +0 /		+242 at Joint 1					

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [131000] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.
Dead Loads may be slope adjusted: > 12.0/12

Notes

Gable webs are attached with min. 1x3 20 ga. plates. The max. rake overhang = 1/2 the truss spacing. If this truss is exposed to wind loads perpendicular to the plane of the truss, it must be braced according to a standard detail matching the wind criteria shown, or according to the Construction Documents and/or BCSI - B3.
Plates designed for Cq at 0.80 and Rotational Tolerance of 1C.0 degrees

A "pm" next to the plate size indicates that the plate has been user modified; see Plate Offsets for any special positioning requirements.

* = Plate designed with different Cq and/or Angle.

Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBREINFORCE. Alternatively, see D-WEBREINFORCE.

Deflection Summary

TrussSpan Limit	Actual(in)	Location
Vert LL	L/240	L/999(-0.08)
Vert DL	L/120	L/999(-0.07)
Vert CR	L/180	L/999(-0.15)
Horz LL	0.75in	(0.02) @Jt 8
Horz CR	1.25in	(0.02) @Jt 8

Vert CR and Horz CR are the vertical and horizontal deflections due to live load plus the creep component of deflection due to dead load, computed as Defl LL + (Kcr - 1) x Defl DL in accordance with ANSI/TPI 1.



DANSCO ENGINEERING, LLC

P.O. Box 3400

Apollo Beach, FL 33572

Date: 11/06/2018

DE Job# 62304-W1

PR2024BCC-003007



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NOTICE: A copy of this design shall be furnished to the erection contractor. The design of this individual truss is based on design criteria and requirements supplied by the Truss Manufacturer and relies upon the accuracy and completeness of the information set forth by the Building Designer. A seal on this drawing indicates acceptance of professional engineering responsibility solely for the truss component design shown. See the cover page and the 'Important Information & General Notes' page for additional information. All connector plates shall be manufactured by Simpson Strong-Tie Company, Inc. in accordance with ESR-2762. All connector plates are 20 gauge, unless the specified plate size is followed by a "-18" which indicates an 18 gauge plate, or "S# 18" which indicates a high tension 18 gauge plate.

SIMPSON

Strong-Tie

Component Solutions
Truss Studio V
2018.7.1.4
Helpdesk: 1-866-252-8606
CSHelp@strongtie.com