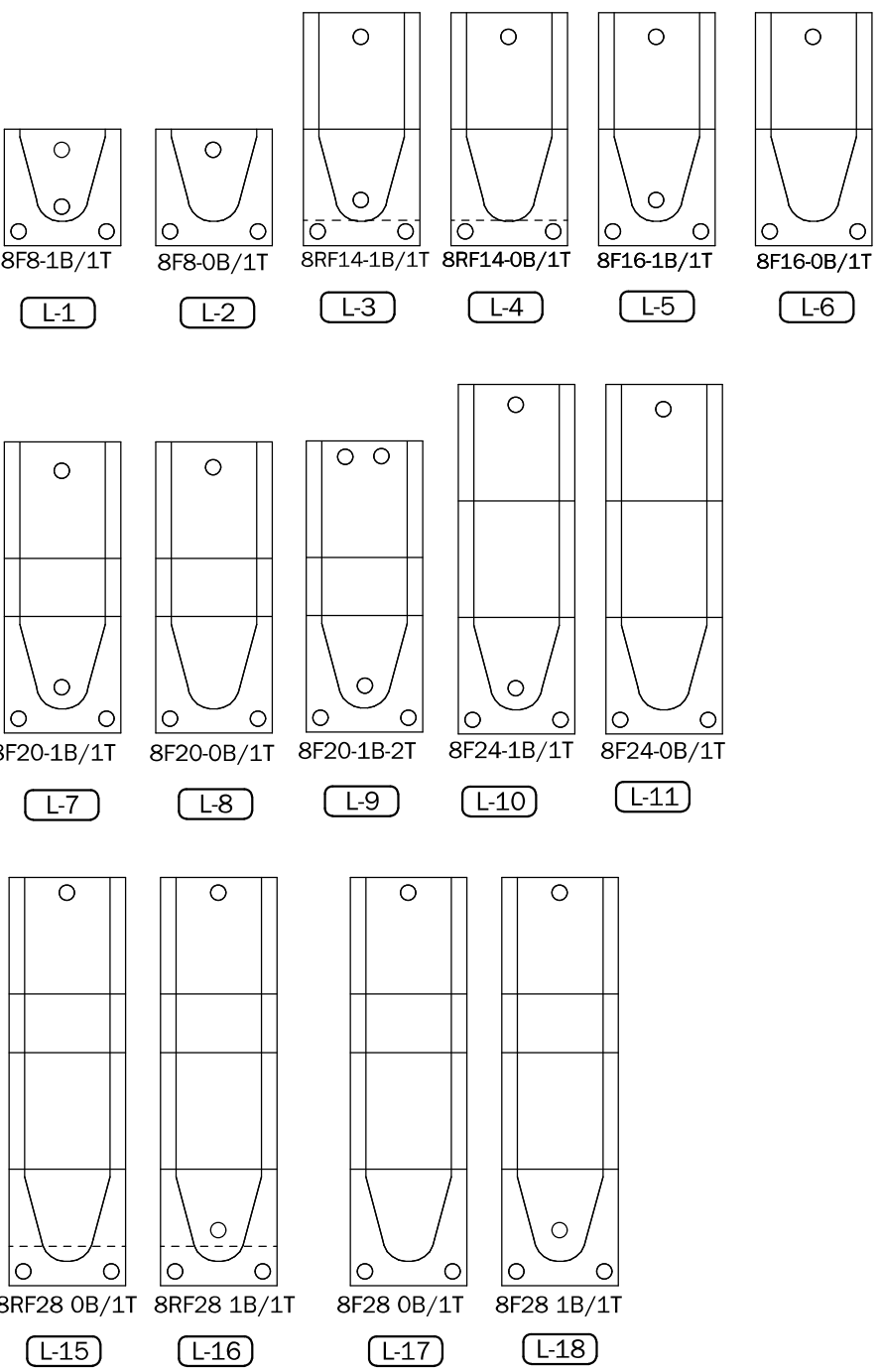




SAFE LOAD TABLES

FOR GRAVITY, UPLIFT & LATERAL LOADS

8" PRECAST & PRESTRESSED U-LINTELS		GRAVITY							
		BUB	#F8-08	#F12-08	#F16-08	#F20-08	#F24-08	#F28-08	#F32-08
LENGTH	TYPE	#F8-08	#F12-08	#F16-08	#F20-08	#F24-08	#F28-08	#F32-08	
2'-10" (34")	PRECAST	2302	1596	4215	6039	7526	9004	10472	11936
3'-6" (42")	PRECAST	2302	3166	4473	6039	7526	9004	10472	11936
4'-0" (48")	PRECAST	2029	2048	4473	6039	7526	9004	10472	11936
4'-6" (54")	PRECAST	1651	1787	1913	2657	3403	4149	4896	5644
5'-4" (64")	PRECAST	1184	1216	1407	1639	1756	2004	2172	2468
5'-10" (70")	PRECAST	972	1000	1059	1474	1889	2304	2721	3137
6'-6" (78")	PRECAST	937	1499	2484	4144	5458	6437	7386	8122
7'-6" (90")	PRECAST	767	1295	2101	3263	4246	5358	6371	7386
9'-4" (112")	PRECAST	573	1205	2101	3396	5260	7134	8995	10860
10'-6" (126")	PRECAST	456	1029	1875	2385	3194	4149	5198	6333
11'-4" (136")	PRECAST	445	1029	1875	2385	3194	4149	5198	6333
12'-0" (144")	PRECAST	414	1029	1875	2385	3194	4149	5198	6333
13'-4" (160")	PRECAST	362	1029	1875	2385	3194	4149	5198	6333
14'-0" (168")	PRECAST	338	1029	1875	2385	3194	4149	5198	6333
14'-8" (176")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
15'-4" (184")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
17'-4" (208")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
19'-4" (232")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
21'-4" (256")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
22'-0" (264")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
24'-0" (288")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR

8" PRECAST & PRESTRESSED U-LINTELS		UPLIFT								LATERAL	
		#F8-08	#F12-08	#F16-08	#F20-08	#F24-08	#F28-08	#F32-08			
LENGTH	TYPE	#F8-08	#F12-08	#F16-08	#F20-08	#F24-08	#F28-08	#F32-08		BUB	#F8
2'-10" (34")	PRECAST	2727	2878	4105	5332	6669	7811	9055		2021	2021
3'-6" (42")	PRECAST	2727	2784	3943	5190	6467	7630	8857			
4'-0" (48")	PRECAST	2165	2299	3300	4237	5219	6204	7182		1257	1257
4'-6" (54")	PRECAST	1878	1989	2832	3680	4532	5387	6245		938	938
5'-4" (64")	PRECAST	1393	1484	2110	2741	3375	4010	4648		505	505
5'-10" (70")	PRECAST	1272	1315	1875	2441	3010	3583	4157		418	418
6'-6" (78")	PRECAST	1141	1200	1733	2250	2769	3290	3812		707	887
7'-6" (90")	PRECAST	990	1029	1466	1907	2351	2797	3245		591	657
9'-4" (112")	PRECAST	801	812	980	1269	1560	1852	2144		454	630
10'-6" (126")	PRECAST	666	686	793	1027	1265	1496	1731		396	493
11'-4" (136")	PRECAST	666	686	793	1027	1265	1496	1731		363	556
12'-0" (144")	PRECAST	631	646	818	1209	1514	1799	2086		340	494
13'-4" (160")	PRECAST	500	540	632	886	1041	1204	1368		302	398
14'-0" (168")	PRECAST	573	609	682	1004	1167	1337	1507		286	360
14'-8" (176")	PRESTRESSED	243	295	459	591	724	857	990		N.R.	357
15'-4" (184")	PRESTRESSED	228	329	542	791	1072	1381	1676		N.R.	327
17'-4" (208")	PRESTRESSED	188	236	361	454	567	670	774		N.R.	255
19'-4" (232")	PRESTRESSED	165	207	313	401	490	578	667		N.R.	204
21'-4" (256")	PRESTRESSED	145	186	278	356	433	512	590		N.R.	172
22'-0" (264")	PRESTRESSED	140	180	268	343	418	493	568		N.R.	161
24'-0" (288")	PRESTRESSED	137	165	244	312	380	447	513		N.R.	135

8" PRECAST W/ 2" RECESS DOOR U-LINTELS		GRAVITY							
		RRU6	#F8-08	#F12-08	#F16-08	#F20-08	#F24-08	#F28-08	#F32-08
4'-4" (52")	PRECAST	1489	1591	3053	4982	6472	7947	9416	10878
4'-6" (54")	PRECAST	1357	1449	2782	4714	6000	7487	8916	10378
5'-8" (68")	PRECAST	785	832	1602	2500	3058	3666	4274	4882
5'-10" (70")	PRECAST	735	779	1500	2349	2824	3307	3790	4273
6'-8" (80")	PRECAST	822	907	1877	2933	3576	4223	4870	5517
7'-6" (90")	PRECAST	665	764	1377	2252	2768	3284	3800	4316
9'-8" (116")	PRECAST	371	430	834	1253	1571	1889	2207	2525

8" PRECAST W/ 2" RECESS DOOR U-LINTELS		UPLIFT								LATERAL	
		RRU6	#F8-08	#F12-08	#F16-08	#F20-08	#F24-08	#F28-08	#F32-08		
4'-4" (52")	PRECAST	1244	1573	2413	3260	4112	4967	5825		932	932
4'-6" (54")	PRECAST	1192	1507	2341	3121	3977	4796	5617		853	853
5'-8" (68")	PRECAST	924	1172	1795	2423	3055	3689	4325		501	501
5'-10" (70")	PRECAST	896	1138	1742	2362	2995	3628	4261		469	469
6'-8" (80")	PRECAST	778	882	1513	2042	2573	3107	3642		830	1100
7'-6" (90")	PRECAST	688	809	1302	1762	2225	2690	3157		710	941
9'-8" (116")	PRECAST	533	633	1008	1369	1728	2088	2448		516	614

*REDUCE VALUE BY 15% FOR GRADE 40 FIELD REBAR

- MATERIALS**
- Fc precast lintels = 3500 psi.
 - Fc prestressed lintels = 6000 psi.
 - Fc grout = 3000 psi w/ maximum 3/8" aggregate.
 - Concrete masonry units (CMU) per ASTM C90 w/ minimum net area compressive strength = 1900 psi.
 - Rebar provided in precast lintel per ASTM A615 GR60.
 - Field rebar per ASTM A615 GR40 or GR60.
 - Prestressing strand per ASTM A416 grade 270 low relaxation.
 - 7/32 wire per ASTM A510.
 - Mortar per ASTM C270 type M or S.

GENERAL NOTES

- Provide full mortar head and bed joints.
- Shore filled lintels as required.
- Installation of lintel must comply with the architectural and/or structural drawings.
- Lintels are manufactured with 5/16" long notches at the ends to accommodate vertical cell reinforcing and grouting.
- All lintels meet or exceed L/360 vertical deflection, except lintels 17'-4" and longer with a nominal height of 8" meet or exceed L/180.
- Bottom field added rebar to be located at the bottom of the lintel cavity.
- 7/32" diameter wire stirrups are welded to the bottom steel for mechanical anchorage.
- Cast-in-place concrete may be provided in composite lintel in lieu of concrete masonry units.
- Safe load ratings based on rational design analysis per ACI 318 and ACI 530.

SAFE LOAD TABLE NOTES

- All values based on minimum 4" bearing. Exception: Safe loads for unfilled lintels must be reduced by 20% if bearing length is less than 6 1/2".
- N.R. = Not Rated.
- Safe loads are total superimposed allowable load on the section specified.
- Safe loads based on grade 40 or grade 60 field rebar.
- Additional lateral load capacity can be obtained by the designer by providing additional reinforced masonry above the precast lintel.
- One #7 rebar may be substituted for two #6 rebar in 8" lintels only.
- The designer may evaluate concentrated loads from the safe load tables by calculating the maximum resisting moment and shear at d-way from the face of support.
- For composite lintel heights not shown, use safe load from next lower height.
- All safe loads in units of pounds per linear foot.

WALL LEGEND	
FRAMED WALL	=====
BEARING WALL	=====
BEARING WALL (FLOOR SYSTEM ONLY)	=====
8" CMU WALL	=====

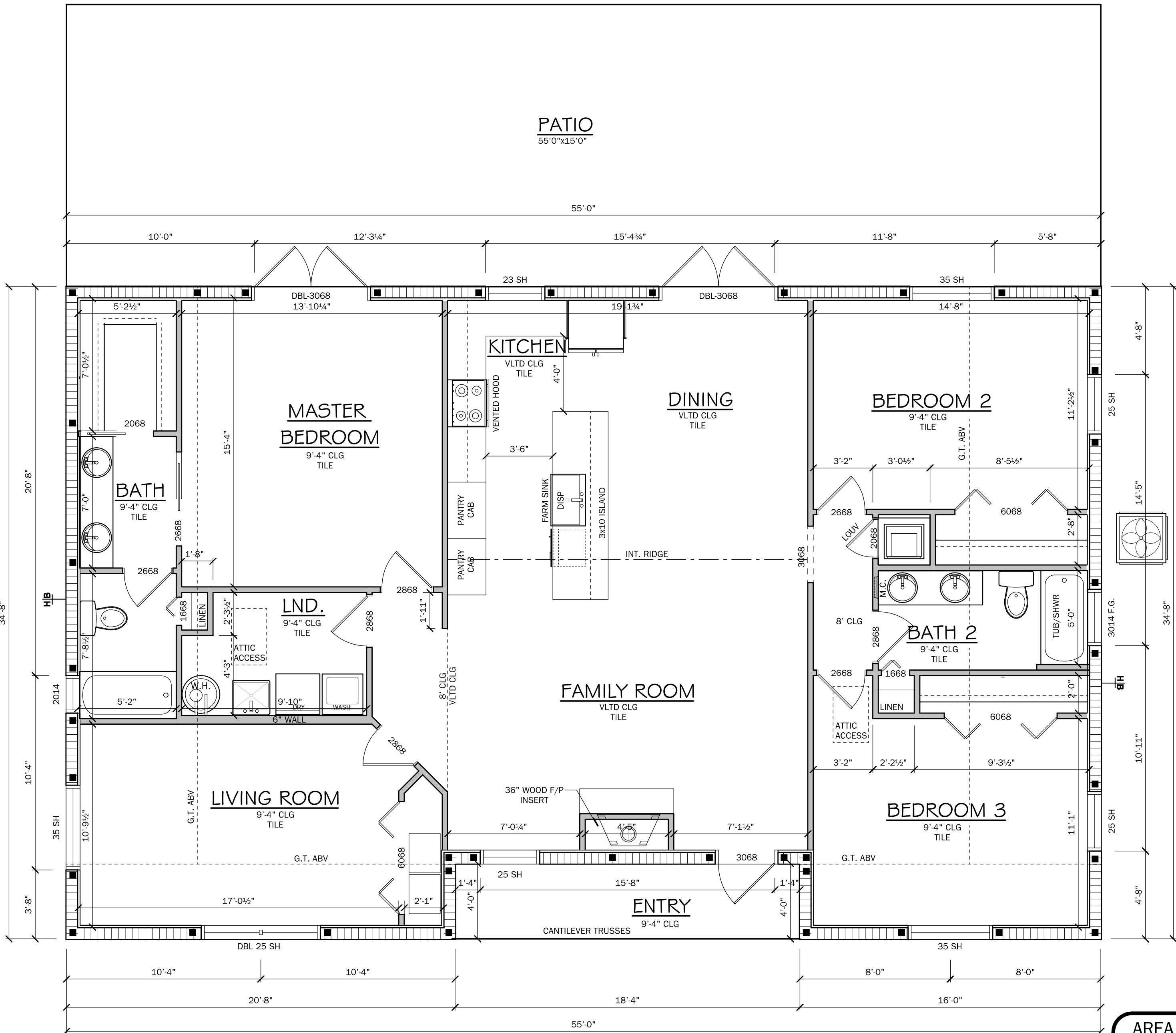
VENTILATION CALCULATION

FORMULA PER FBBC 2017 SEC 806.2+ S.F. / 300 (1/300) / 2 (INTAKE vs EXHAUST) * 144 (TO CONVERT TO SQ. INCHES) = NET SQ. INCH REQUIREMENT

1906/300 = 6.4 / 2 = 3.2 * 144 = 460

460 SQ. INCHES OF VENTILATION REQUIRED

NOTE: SOFFITS ARE TO BE PERFORATED AND THE NET FREE SQUARE INCHES SHALL MEET OR EXCEED THE CALCULATED AMOUNT OF VENTILATION REQUIRED



FLOOR PLAN

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

AREA CALCULATIONS

TOTAL LIVING	1833 S.F.
ENTRY PORCH	73 S.F.
TOTAL AREA UNDER ROOF	1906 S.F.

Residential Design

1431 E. Wade Street
Trenton, FL 32693
352-274-3006
tchdesigns@gmail.com

RANDOLPH WIGGINS, P.E.
1431 E. Wade Street, Suite B Trenton, FL 32693
No. 15721
STATE OF FLORIDA
PROFESSIONAL ENGINEER
STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE
MINIMUM STANDARD ON PLANS AND SPECIFICATIONS
FOR THE STRUCTURAL DESIGN
RANDOLPH WIGGINS, P.E. FL # 15721
DATE: September 10, 2021

PROJECT:
Newton Residence
Lot 53 Rum Island Terrace
Fort White, FL
Columbia County

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DATE: September 10, 2021
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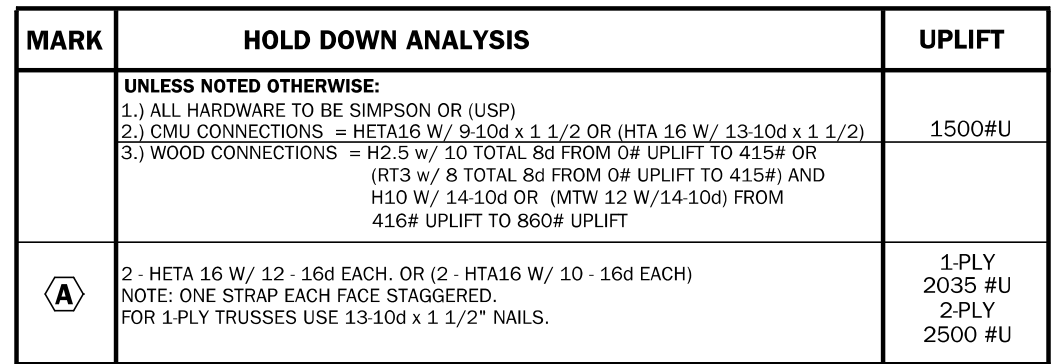
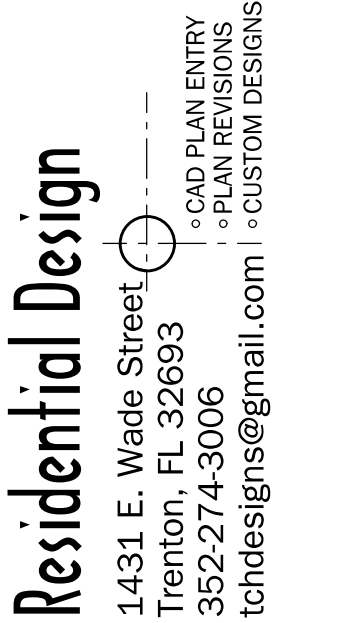


Figure 10: Details of Single Story FTG. (3) THICKENED EDGE: A cross-section of a thickened edge showing a 4-inch slab on top of an 8-inch thickened edge. The thickened edge contains 8-inch x 8-inch mono FTG with #5 rebar at 16 inches on center, with a minimum lap of 25 inches. The total width of the thickened edge is 16 inches. The slab is 8 inches wide. (1) SINGLE STORY FTG: A cross-section of a single story FTG showing a 4-inch slab on top of a 16-inch wide FTG. The FTG contains 16-inch x 18-inch mono FTG with #5 rebar at 16 inches on center, with a minimum lap of 25 inches. The total width of the FTG is 16 inches. The slab is 8 inches wide. Both details show a 4-inch slab on top of the FTG. The scale for both is 1/2 inch = 1 foot 0 inch.



RANDOLPH WIGGINS, P.E.
4311 E. Wads Street, Suite B Terton, FL 32693

**STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE
2020 FLORIDA RESIDENTIAL BUILDING CODE.
SIGNATURE OF PROFESSIONAL ENGINEER ONLY
FOR THE STRUCTURAL DESIGN**

RANDOLPH WIGGINS, P.E. FL # 15721
DATE: September 10, 2021

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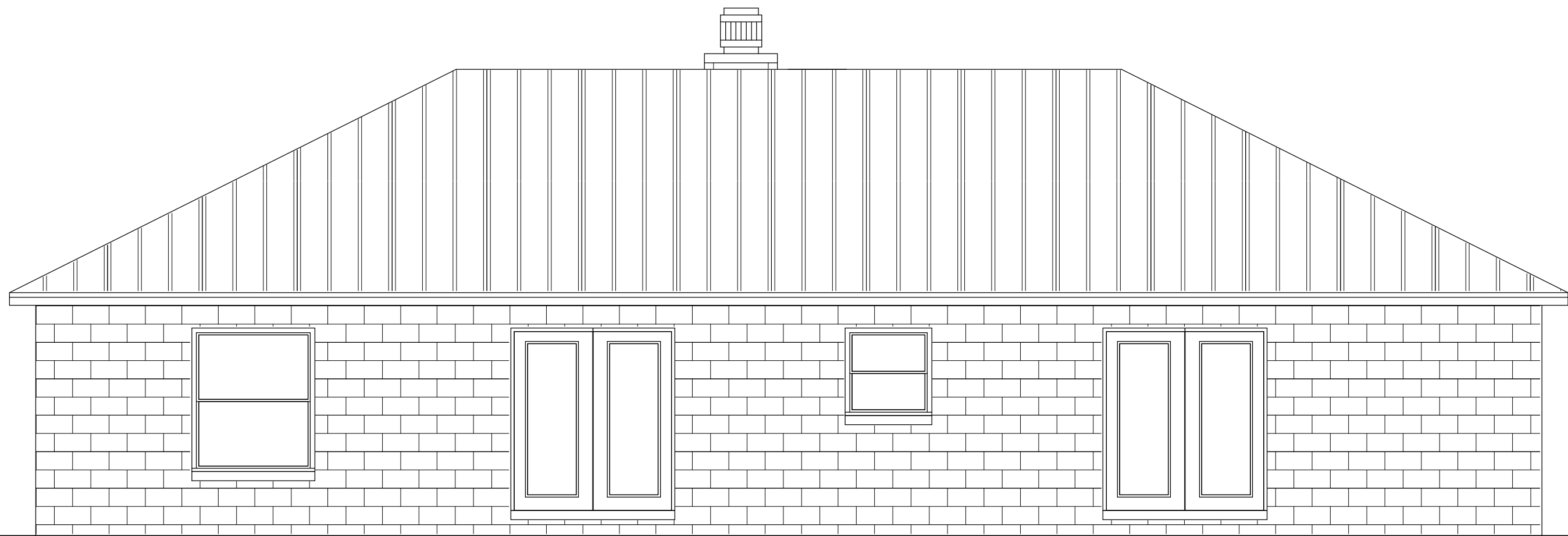
STEVE SMITH
CONSTRUCTION INCORPORATED

#CBC1256817
190 E. Thrasher Drive, Bronson FL 32624
(352) 538-3141

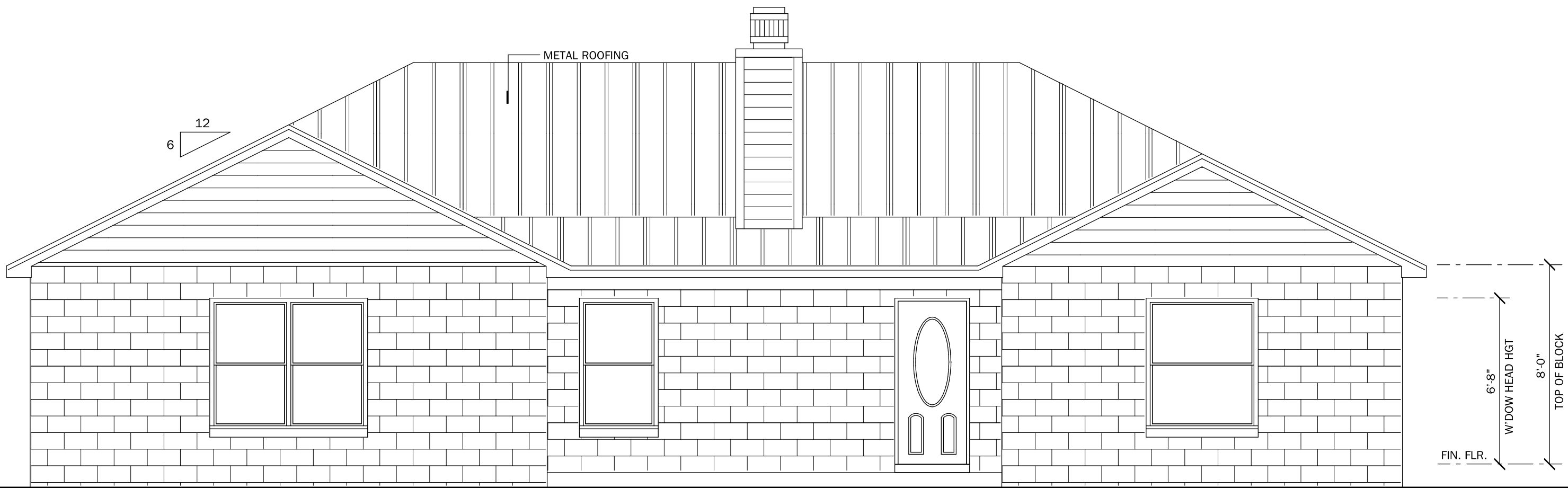
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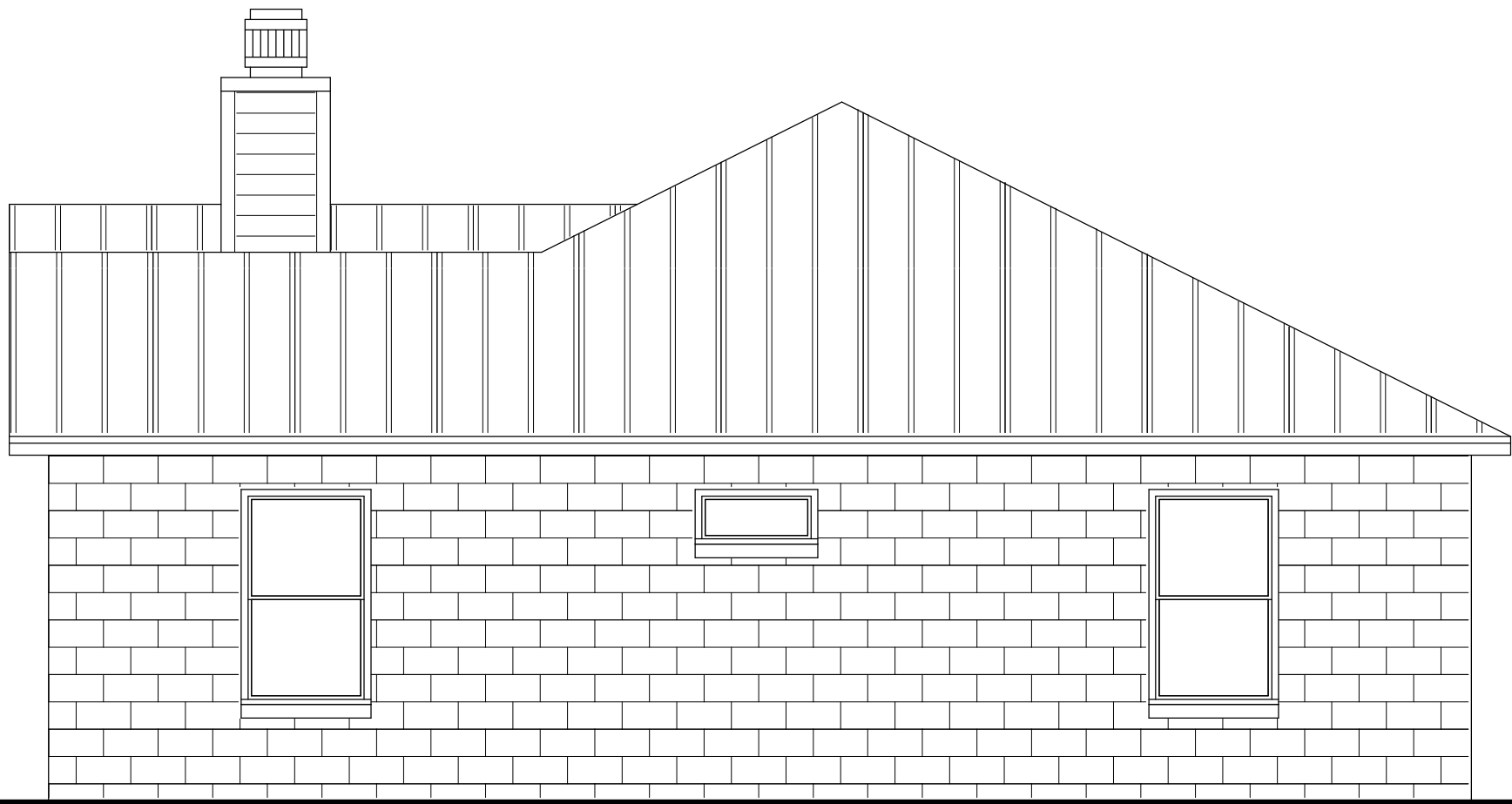
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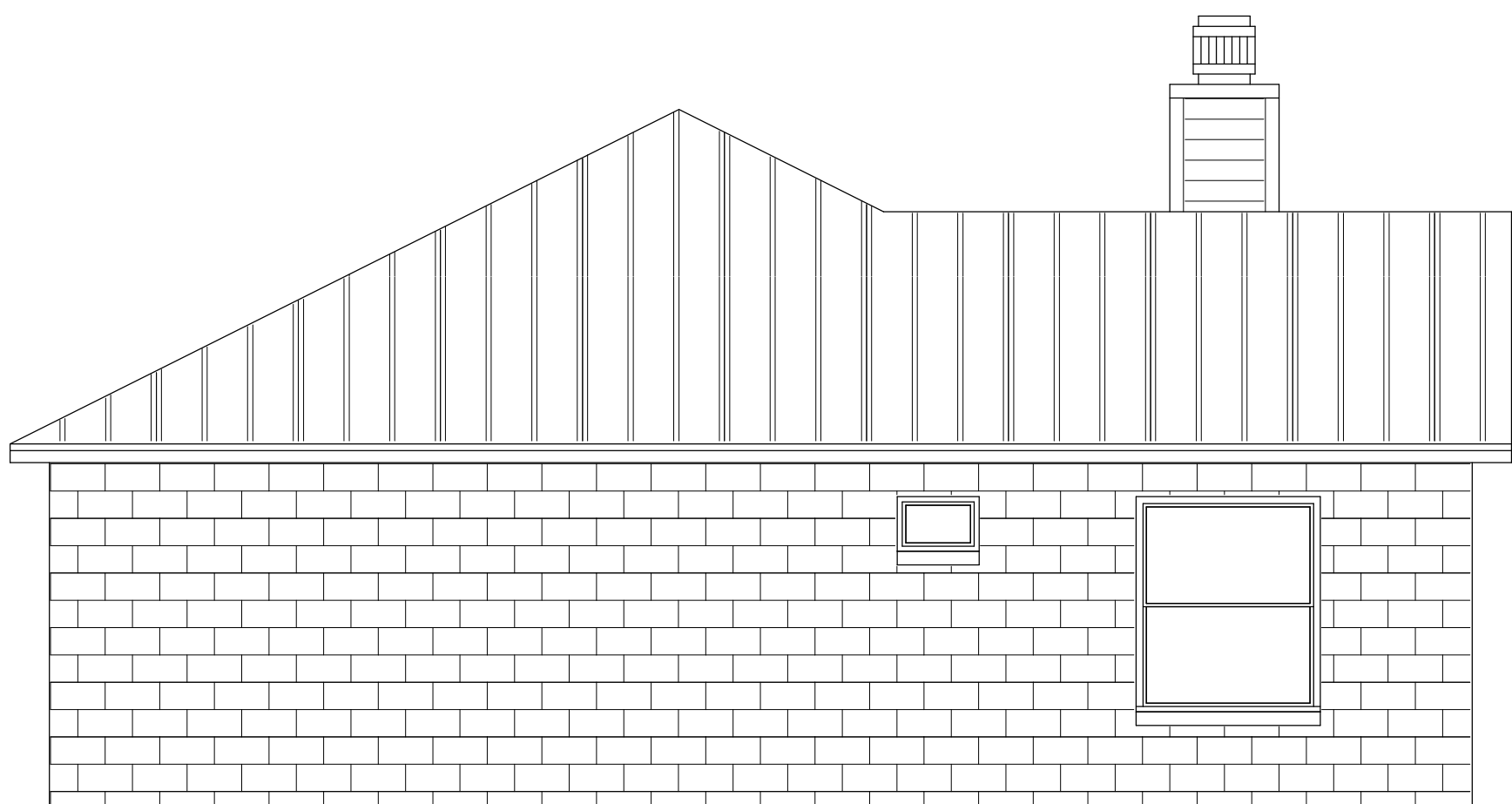
REAR ELEVATION
SCALE: 1/4" = 1'-0"



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



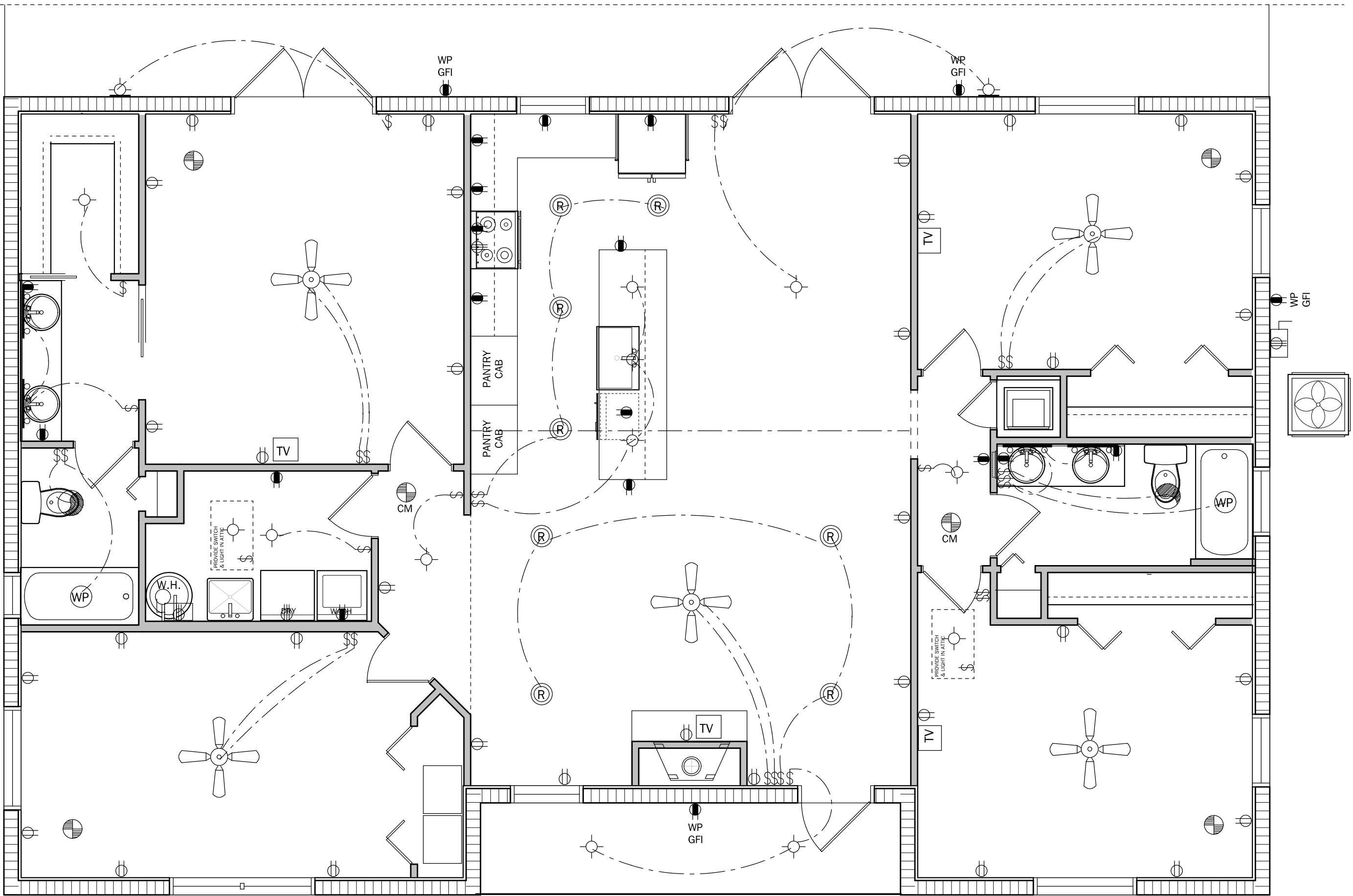
RIGHT ELEVATION
SCALE: 1/4" = 1'-0"



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

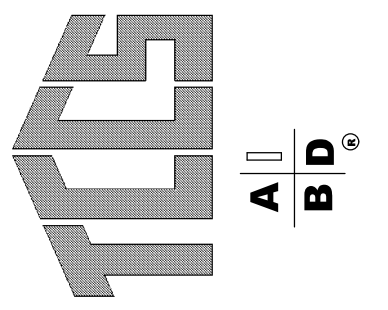
- NOTES:**
UNLESS OTHERWISE NOTED
- ELECTRICAL OUTLET HEIGHTS AS MEASURED FROM FINISHED FLOOR TO CENTERED LINE OF THE BOX TO BE: 12" AFF (GENERAL)
KITCHEN 48" AFF
BATHROOM 36" AFF
LAUNDRY ROOM 36" AFF
EXTERIOR WATERPROOF 12" AFF
GARAGE GENERAL PURPOSE 42" AFF
RANGE 2" AFF
 - ALL TRIM PLATES & DEVICES TO BE GANGED, WHERE POSSIBLE.
 - ELECTRICAL SWITCHES TO BE AT 42" CENTERLINE ABOVE FINISHED FLOOR.
 - ELECTRICAL PLAN IS INTENDED FOR BID PURPOSES ONLY. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, LATEST EDITION, BY A LICENSED ELECTRICAL CONTRACTOR WHO SHALL BE RESPONSIBLE FOR THE INSTALLATION & SIZING OF ALL ELECTRICAL, WIRING & ACCESSORIES.
 - SMOKE DETECTORS SHALL BE IN ACCORDANCE WITH FLORIDA BUILDING CODE, SECTION 907.
 - KEEP ALL SMOKE DETECTORS MINIMUM OF 36" FROM BATHROOM DOORS
 - IN NEW CONSTRUCTION, SMOKE DETECTORS SHALL BE HARDWIRED INTO AN A/C ELECTRICAL POWER SOURCE AND SHALL BE EQUIPPED WITH A MONITORED BATTERY BACKUP.
 - BATHROOM EXHAUST FANS MUST VENT TO THE EXTERIOR OF THE BUILDING, ATTIC SPACE AND SOFFITS ARE NOT ACCEPTABLE.
 - ALL DOORS AND WINDOWS PROVIDING DIRECT ACCESS FROM THE HOME TO THE POOL SHALL BE EQUIPPED WITH AN EXIT ALARM COMPLYING WITH UL 2017 THAT HAS A MINIMUM SOUND PRESSURE RATING OF 85 dBA AT 10 FEET, AND EITHER HARDWIRED OR OF THE PLUG-IN TYPE. THE EXIT ALARM SHALL PRODUCE A CONTINUOUS AUDIBLE WARNING WHEN THE DOOR OR WINDOW ARE OPENED.
 - STOVE AND DRYER TO HAVE NEUTRAL
 - PROVIDE TAMPER RESISTANT RECEPTACLES WHERE APPLICABLE
 - PROVIDE AFC FAULT RECEPTACLES ON ALL 15 & 20 AMP NON GFCI PROTECTED CIRCUITS

ELECTRICAL LEGEND	
\$	SINGLE POLE SWITCH
\$2	DOUBLE POLE SWITCH
\$3	THREE-WAY SWITCH
\$4	FOUR-WAY SWITCH
\$DM	DIMMER SWITCH
⊙	CEILING FIXTURE
⊙	SCOUNCE (WALL MOUNTED) FIXTURE
⊕	110 VOLT DUPLEX OUTLET
⊕	110 VOLT SPLIT SWITCHED OUTLET
⊕	GROUND FAULT INTERRUPT
⊕	WP WATER PROOF W/ GROUND FAULT
⊕	220 VOLT OUTLET
⊕	SPECIAL SERVICES OUTLET
TV	T.V. CABLE OUTLET
⬆	TELEPHONE CABLE OUTLET
⊙	RECESSED LIGHTING
⊙	5'-6" L.E.D. SURFACE MOUNT
⊙	BATH FAN
⊙	BATH FAN W/ LIGHT
⊙	CARBON MONOXIDE DETECTOR
⊙	SMOKE DETECTOR
⊙	FLOOD LIGHT
⊙	L.E.D STRIP LIGHT
⊙	CEILING FAN
⊙	DISPOSAL
⊙	DISCONNECT SWITCH
⊙	PREWIRE SPEAKER
⊙	JUNCTION BOX
⊙	THERMOSTAT
⊙	LOW VOLTAGE LIGHTING
⊙	INTERCOM SYSTEM
⊙	GARAGE DOOR PUSH BUTTON



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

Residential Design
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• CAD PLAN ENTRY
• PLAN REVISIONS
• CUSTOM DESIGNS



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STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE
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Randolph Wiggins
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LAST PLOT DATE: September 10, 2021 09:47 AM

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