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FLAT ROOF (0°-7°)

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GABLE ROOF (1°-45°)

ROOF PLAN

SCALE 1/8" = 1'-0"

ROOF PLAN

SCALE 1/8" = 1'-0"

2025 FBC (6TH EDITION)
COMPONENTS & CLADDING TABLES FLAT / GABLE ROOF **Ш** ≪ ZONE POSITIVE (+) NEGATIVE (-) l, lg +10.5 -34.1 WD. +10.5 -51.8 +10.5 -665 1, 20 +17.8 -51.0 +17.8 2n, 2r, 3e -64.3 F Вr +IT.8 -T5.9 1, 20 +17.8 -39.3 တ် တ 2n, 2r, 3e +17.8 -55.0 3r +17.8 -62.8 l, 2e, 2r +22.5 -39.3 AS NOTED 2n, 3r +22.5 -45.6 NUARY 1, 2024 30 +22,5 -55.7 SHEET 4 +26.4 -28.7 5 +26.4 -34.5

PROVIDED BY APPLICAN

FBC 2023 (GABLE)

EE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT DIVISION OF CODES AND BUILDING SERVICES HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION PURSUANT TO 2023 FLORIDA BUILDING CODE

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OD FRAME BUILDING

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Reviewed by:DLA

FBC 2023 (HIP)

SCALE 1/8" = 1'-0"

FLOOR PLAN

SCALE 1/8" = 1'-0'

EE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT DIVISION OF CODES AND BUILDING SERVICES HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION PURSUANT TO 2023 FLORIDA BUILDING CODE

(N) 00 AS NOTED

JANUARY 1, 2024 SHEET

PRE-ENGINEERED ROOF TRUSSES REQUIRE NO COLLAR TIES.

PRE-ENGINEERED ROOF TRUSSES WITH GABLE ROOFS REQUIRE BLOCKING.

PRE-ENGINEERED ROOF TRUSSES WITH HIP ROOFS REQUIRE NO BLOCKING. GABLE ENDIVALLS WITH RAFTERS MUST BALLOONED FRAMED W (4) 2"X4" KING POST & EACH END OF RIDGE PRAMED W (4) 2"X4" KING POST & EACH END OF RIDGE

GABLE ENDWALLS WITH TRUSSES MAY BE BALLOONED FRAMED OR PLATFORM FRAMED.

HEADERS FOR 6'-9" HGT. OPENING SHALL BE (2) 2" \times 12" M I/2" FLITCH PLATE \ddag CONTINOUS TOP PLATE ABOYE HEADERS FOR 7'-0" HGT. OPENING SHALL BE (2) 2" X IO" N I I/2" FLITCH PLATE & CONTINOUS TOP PLATE ABOVE. UNLESS NOTED OTHERNISE, ALL ND. FRAME BEARING HEADERS ARE 2"x12" N/ I/2" FLITCH PLATES

UNLESS NOTED OTHERWISE, ALL WD. FRAME BEARING HEADERS LESS THAN 6' IN IN LENGTH SHALL HAVE (2) FULL LENGTH JACKS & (2) HEADER JACKS AT EACH END.

UNLESS NOTED OTHERWISE, ALL WD. FRAME BEARING HEADERS MORE THAN 6' IN IN LENGTH SHALL HAVE (3) FULL LENGTH JACKS & (2) HEADER JACKS AT EACH END.

ALL MD. FRAME BEARING WALLS TO BE NO. 2, 57P, INCLUDING, BUT NOT LIMITED TO: STUDS, JACKS, \$ HEADERS

ATTACH ROOF TRUSSES TO WOOD FRAMED DOUBLE TOP PLATE W "SIMPSON" HIO-A CONNECTORS

TWO LAYERS OF WATER RESISTIVE BARRIER BEHIND EXTERIOR WALL COVERING. R103.1.3

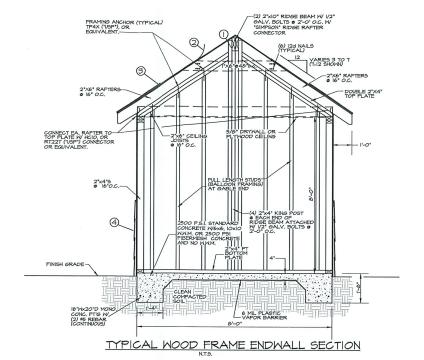
PROVIDE PAN FLASHING UNDER WINDOWS AND DOORS ON FRANCE CONSTRUCTION. OPENINGS USING PAN FLASHING SHALL ALSO INCORPORATE FLASHING OR PROTECTION AT THE HEAD AND SIDES ALL EXTERIOR MD. FRAME BEARING WALLS

SELF-ADHERED MEMBRANES USED AS FLASHING SHALL COMPLY WITH AAMA 711.

PROVIDE 2"X4" HORIZONTAL BLOCKING @ 4'-0" O.C. IN ALL WOOD FRAMED BEARING WALLS

PER SEC. R301.2.1.2 OF THE 2023 FLORIDA BUILDING HER SEC. RSOI.2.1.2 OF THE 2023 FLORIDA BUILDING CODE, STORAGE SHEDS THAT ARE NOT DESIGNED FOR HUMAN HABITATION AND HAVE A FLOOR AREA OF 120 SQFT. OR LESS AND ARE LOCATED IN EXPOSURE CATEGORY "B" ARE NOT REQUIRED TO COMPLY WITH THE MANDATORY WIND-BORNE DEBRIS IMPACT STANDARD OF THIS CODE.

FOR EXPOSURE CATAGORIES "C" AND "D" IMPACT RESISTANT GLAZING MUST BE UTILIZED FOR ALL DOORS AND MINDOWS PROVIDE A MINIMUM OF 2 LF OF WALL BETWEEN ALL DOORS AND MINDOWS AND CORNERS



FEMA NOTE:
WHEN BLDG, IS LOCATED WITHIN A FEMA FLOOD ZONE
AREA, HYDROSTATIC VENTING IS REQUD. HYDROSTATIC
VENTING SHALL BE 50 ARRANGED TO PERMIT THE
AUTOMATIC PASSAGE OF STORMMATER. ALL VENTING
SHALL BE LOCATED A MAXIMIM OF I"-0" ABOVE FF. I
50. IN. OF VENTING SHALL BE REQUD. FOR EA, 50, FT. OF
FLOOR AREA, VENTS REQUIRED ON AT LEAST 2 WALLS
PER R322,2,2,1.

PLANS ARE NOT TO BE UTILIZED IN ANY FEMA " \vee " ZONE DESIGNATION.



OPTIONAL ROOF PITCHES

5/8" CDX PLYWOOD

(2) LAYERS OF 15# FELT PAPER OR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MEETING ASTM 1970

(4) OPTIONAL STUCCO FINISH

- GENERAL

 I. This building/structure has been designed in accordance with the Eighth Edition of the 2023
 Florida Building Codes, and Section 1609 for design pressures generated by a three second gust design wind velocity of 150 mph, (116 mph fastest mile wind velocity). Structural calculations; including gravity loads, as necessary to confirm compliance with the Eighth Edition of the
- 2023 Florida Bullding Code, have been performed.

 2. The owner, his agent, or general contractor is responsible for field supervision, construction administration, review and approval of all shop drawings, verification on-site of all dimensions and elevations, and strict compliance with these construction documents as approved by Lee County.

 3. These plans are intended to be mastered. The repetitive use of these plans for permitting is
- approved.
 All windows, doors, and other such systems, components and cladding shall be designed in accordance with Section 1609 of the Eighth Edition of the 2023 Florida Building Code for design pressures generated by a three second gust design wind velocity of 150 mph, (116 mph fastest mile wind velocity), see "Design Parameters" for specific pressures.

FASTENERS & CONNECTORS

- I. Approved connectors, anchors and other fastening devices not included in the Florida Building Code shall be installed in accordance with the manufacturer's recommendations.
- 2. Where fasteners are not otherwise specified fasteners shall be provided in accordance with Table 2304.9.1 of the Eighth Edition of the 2023 Florida Building Code. Nails, screws, or bolts shall be able to resist the forces in this Code.
- 3. Unless otherwise stated, sizes given for nails are common wire nails. For example, 8d = 2 1/2 inches long x 0.131-inch diameter. See Table 12.3B, columns 2, 3, and 4, in the National Design Specifications for Wood Construction. Metal plates, connectors, screms, bolts and nails exposed directly to the weather or subject to salt corrosion in coastal areas, as determined by the Building Official, shall be stainless steel, or not dipped galvanized after the fastener or connector is fabricated to form a zinc coating not less than I oz per sq ft, or not dipped galvanized with a minimum coating of 1.8 oz per sq ft of steel meeting the requirements of ASTM A 90 Triple Spot Test.

FOOTINGS AND FOUNDATIONS

- GENERAL

 I. All exterior walls, bearing walls, columns, and piers shall be supported on continuous concrete footings, piles, or other approved structural systems which shall be a sufficient design to support safely the loads imposed as determined from the character of the soil.

 2. Refer to standard details for typical foundation details.
- 3. Fill shall be placed and compacted in one foot lifts.
- Concrete shall have a minimum specified compressive strength of 3000 psi at 28 days Reinforcing Steel shall be minimum Grade 40 and identified in accordance with ASTM Å
- 615, A 616, A 617, or A 706.

 Metal Accessories: Joint reinforcement, anchors, ties, and wire fabric shall conform to the following standards:
 - ASTM 82 for joint reinforcement and wire anchors and ties.
 - ASTM 36 for plate, headed and bent bar anchors. ASTM 366 for sheet metal anchors and ties.
- 7. Metal accessories for use in interior wall construction shall be mill galyanized in accordance with ASTM A 641, Class I.

 Minimum concrete cover over reinforcing bars shall be 3 inches. In narrow footings where
- insufficient which is available to accommodate a standard 90 degree hook and provide the required concrete cover, the hook shall be rotated in the horizontal direction until the required concrete cover is achieved.
- Masonry Units shall be hollow or solid concrete units in accordance with ASTM C 90 or C 145 and shall have a minimum net area compressive strength of 1900 psi 10. Mortar shall be either Type M or S in accordance with ASTM C 270.
- II. Grout shall have a maximum coarse aggregate size of 3/8 inch placed at an 8 to II inch slump and have a minimum specified compressive strength of 2,000 psi at 28 days when tested in accordance with ASTM C 1019, or shall be in accordance with ASTM C 476.
- All mortar joints for hollow unit masonry shall extend the full width of face shells. Mortar joints for solid masonry shall be full head and bed joints.
 1/4 inch) thick.
- 13. Bed joints shall be 3/8 inch (% 1/8 inch) thick. Head joints shall be 3/8 inch (+ 3/8 inch or -
- 14. The bed joint of the starting course placed over footings shall be permitted to vary in thickness from a minimum of 1/4 inch to a maximum of 3/4 inch. 15. Masonry walls shall be running bond or stack bond construction. Walls of stack bond
- construction, in addition to required vertical reinforcement, shall be provided with a minimum of 9 gage horizontal joint reinforcement placed in bed joints not more than 16 inches on center
- 16. Longitudinal wires of joint reinforcement shall be fully embedded in mortar or grout with a minimum cover of 5/8 inch when exposed to earth or weather and 1/2 inch when not exposed to earth or weather.
- 17. Reinforcing bar used in masonry walls shall have a masonry cover (including grout) not less 18. All concrete is to be mixed, transported, and placed in accordance with the latest ACI
- Specifications and Recommendations.

 19. Foundations have been designed for an allowable soil bearing pressure of 2,000 PSF, and the
- existing soil being a granular material should poor soil conditions be found it is the contractor's responsibility to notify the engineer prior to commencing.
- Provide granular fill, clay materials are unacceptable. Existing soil under footing and slabs shall be compacted to 95% of AASHTO T-99.
- Provide (I) #5 electrical ground to foundation steel.
- 22. A 6 mil minimium polyethylene dampproofing vapor barrier shall be provided, per FBC R320.1.4. and R506.2.3.
- 23. Fill shall be termite treated and a "Certificate for Termite Treatment" is required on the permit board pursuant to FBC SEc. 105.10 and FBC R320.1.
- All footings shall be a minimum of 12" below finished grade.
- The top of slab shall be a minimum of 8" above finished grade for wood frame construction. The top of slab shall be a minimum of 4" above finished grade for masonry veneer and a minimum of 6" elsewhere.

CONCRETE FLOORS

- Concrete floors shall be cast in place.
- Concrete shall have a minimum compressive strength of not less than 3,000 psi at 28 days. The top of a monolithic slab-on-grade shall be at least 8 inches above finished grade.
- The slab shall be 4 inches thick
- The slab shall have 6x6 No. 10 welded wire fabric at mid-height or synthetic fiber
- A double layer of welded wire fabric shall be provided around the perimeter of the slab of a distance of 3 ft. from the edge. See Standard Details.

7. Welded wire fabric shall conform to ASTM A-185 and free of oil and rust. It shall be installed in lengths as long as possible lapped a minimum of six inches

MOOD GENERAL

- 1. All wood construction shall comply with the latest NFPA and AITC Specifications and
- 2. Lumber standard shall be American Softwood Lumber Standard PS 20-70, 545, 19%
- moisture or as required by structural design.

 3. Structural lumber (roof beams, headers, columns, exterior wall studs to be Southern Pine No. 2 KD 15 with a Fb=1,300 PSI E=1,600,000 PSI, and Fv = 95 PSI.
- 4. Give laminated timber shall conform with ASTM D-3737 and AITC IIT. Roof beams shall be designated 24F-VI or 24F-EI.
- Plywood for sheathing shall be APA rated sheathing as per plans and shall bear the APA
- 6. Wood in contact with concrete, masonry and/or exposed to weather shall be protected or

EXTERIOR WALL FRAMING

- Studs shall be placed with the wide face perpendicular to the wall.
- Header Beams' shall be provided and sixed in accordance with Section R602.7. of the Eighth Edition of the 2023 Florida Building Code.
- Eight Euron of the 2023 Florida Building Code.

 The minimum number of header studs supporting each end of a header beam shall be 2.

 The minimum number of full-length wall studs at each end of a header beam shall be 2 for openings of 6 feet or less, and 3 feet for all other openings.

 Uplift connectors shall be provided at the top and bottom of cripple studs, of header studs, and at least one wall stud at each side of opening.

CONNECTIONS FOR EXTERIOR WALL FRAMING

- Framing members in exterior wall systems shall be fastened together in accordance with Section 2305 of the Eighth Edition of the 2023 Florida Building Code.
- Uplift connectors shall be provided to resist the uplift loads.
 Uplift load resistance shall be continuous from roof to foundation.
- Studs shall be connected to plates and plates to floor framing with connectors designed, rated, and approved for each individual location and condition. See Windload Connectors
- 5. Where Anchor down connectors occur connectors required for uplift resistance may be

EXTERIOR WALLS

- Exterior wall segments shall not contain openings which when added together will exceed 144 sq in (1 sq ft) in any individual segment.
 Each corner shall be sheated for a least 3 feet and may be counted as a shearwall segment.
 Minimum length of a shearwall segment shall be 2"-5". The tops of all shearwall segments.
- in any wall shall be connected by drag struts.

 Studs shall be doubled at each end of each shearmall segment.

 Joints shall be lap-spliced. Within the center third of a wall length, the minimum lap shall be
- 4 feet. Lap splices shall be connected with 14 led common nails. Provide bridging/blocking at mid-span of exterior wall studs.

PLYWOOD SHEATING USED FOR UPLIFT RESISTANCE

- 1. Panels shall be 15/32" exposure I C-D sheating grade plywood and shall be installed as
 - Panels shall be installed with face grain parallel to studs.
 All horizontal joints hall occur over framing and shall be attached per Detail
 - Flatwise blocking shall be used at all horizontal panel joints.
 - Panels shall be attached to bottom plates and top member of the double top plate.

 Lowest plates shall be attached to foundation with bolts or connectors of sufficient capacity to resist the uplift forces developed in the plywood sheated walls.
 - Panel attachment to framing shall be as illustrated in the Detail Sheets.
 Where windows and doors interrupt plywood sheating, framing anchors or connectors shall be used to resist the appropriate uplift loads.

ANCHOR DOWN CONNECTORS

- Exterior walls require anchor downs to resist overturning moment.
 Two studs and anchor down are required at each end of each shearwall segment.
 The anchor down shall be fastened through the doubled studs and to the construction below in accordance with the manufacturer's recommendations. See Windload Connectors

ROOF & TRUSSES

- TRUSS FRAMING SYSTEMS

 I. Trusses shall be designed in accordance with TPI Design Specification for Metal Plate
 Connected Wood Trusses.

 Pagallal Chard Peak Trusses.
- 2. Parallel Chord Roof Trusses shall be in accordance with TPI Design Specifications for Metal Plate Connected Parallel Chord Wood Trusses.
- 3. Truss design submittals shall indicate design wind speed, height above ground, and amount of uplift at bearings.

 Metal plate connected wood trusses shall be spaced no more than 24 inches on center and
- designed for live loads and Mindloads for an enclosed building based on Sections 2304.4, R502.II.4., and R802.IO.I, of the Eighth Edition of the 2023 Florida Building Codes.
- 5. Girder trusses shall be designed to function also as drag struts. Truss design submittals and erection instructions shall show both uplift and lateral connection load requirements at end of airder truss. Top chords of trusses shall be of Group II species lumber.
- Uplift connectors shall be provided at truss bearing to resist the uplift loads. Where trusses are used to form a hipped roof, a step down hip system shall be used. See detail sheets.
- Provide blocking at ends and mid-spans of roof trusses.
- Roof trusses shall be pre-engineered and designed by a Florida Registered Engineer. Truss manufacturer shall provide shop drawings signed and sealed by a Florida Registered Engineer. Roof trusses shall be placed in accordance with the truss manufacturers drawings and specifications.

ROOF SHEATHING

- Roof sheating shall be 5/8 inch Exposure I C-D sheating grade plynood (mood structural
- panels), or equivalent.
 The sheating shall be installed in accordance with Detail Sheets.
- Long dimension shall be perpendicular to framing and end joints shall be staggered.

 Sheathing shall be fastened to roof framing with 8d ring-shank nails at 6 inches on center at edges and 6 inches on center at intermediate framing. (pursuant to the Florida Building Code.)

Rina-shank nails shall have the following minimum dimensions

- a. O.113-inch nominal shank diameter
- b. Ring diameter of 0.012 over shank diameter
- c. 16-20 rings per inch
- d. 0.280 inch full round head diameter e. 2-inch nail length

Where roof diaphragm requirements may necessitate a closer fastener spacing.

ASPHALT SHINGLE ROOF COVERING

- I. Roof coverings shall be applied in accordance with the applicable provisions of FBC Sec. 1507 and the manufacturer's installation instructions.
- 2. The installation of asphalt shinales shall comply with the provisions of the Sec. 15013
- The installation or aspiral shingles shall comply with the provisions of fbc Sec. ISO7.3.
 Asphalt shingles shall be solidly sheathed decks.
 Asphalt shingles shall be used only on roof slopes of 3:12 or greater. For roof slopes from 3:12 up to 4:12, double underlayment application is required in accordance with ISO7.3.8.
 Unless otherwise noted, required underlayment shall conform with ASTM D 226, type I, or ASTM D 4869, type I.

- ASIM D 4004, type 1. 6. Self-adhering polymer modified bitumen sheet shall comply with ASTM 1970. 7. Asphalt shingles shall have self-seal strips or be interlocking, and comply with ASTM D 225
- 8. Fasteners for asphalt shingles shall be galvanized, stainless steel, aluminum or copper roofing nalls, minimum 12 gauge shank with a minimum 3/8 Inch diameter head, of a length to penetrate through the roofing materials and a minimum of 3/4 Inch into the roof sheathing. Where the roof sheathing is less than 3/4 Inch thick, the nalls shall penetrate through the sheathing. 9. Asphalt shingles shall be secured to the roof with not less than four fasteners per strip shingle or two fasteners per individual shingle.
- 10. For roof slopes from 3:12 up to 4:12, underlayment shall be a minimum of two layers applied
 - a. Starting at the eave, a 19-inch strip of underlayment shall be applied parallel with the eave and fastened sufficiently to stay in place.
- eave and fastened sufficiently to stay in place.

 b. Starting at the eave, 36-inch-wide strips of underlayment felt shall be applied overlapping successive sheets 19 inches and fastened sufficiently to stay in place.

 II. For roof slopes 4:12 or greater, underlayment shall be a minimum of one layer of underlayment felt as follows: starting at the eave, underlayment shall be applied shingle fashion parallel to the eave, lapped 2 inches, and fastened sufficiently to stay in place.

- CEILING DIAPHRAGMS

 I. In those cases where a gable endwall is not build using full-height studs continuouse from floor to roof (balloon framing) a ceiling diaphragm shall be used to resist the lateral loads at the horizontal joint between the top plate of a platform-framed endwall and the gable construction above.
- 2. Where there is no ceiling diaphragm at the height, such as a cathedral ceiling condition, the entire endwall, including the gable, must be constructed using full length studs from the floor.
- to the roof deck (balloon framing), see detail sheets.

 Where a gypsym wallboard ceiling is used to create the required diaphragm, the diaphragm length must be at least two times the width of the building.

 The gypsym board must be a .omo.i, pf 5/8 inch thick and must be fastened directly to the
- ceiling joists or bottom chards of trusses (no furring) with 5d cooler nails or GMB-54 | 1/2 inch nails at 7 inches on center.

 Ceiling framing shall be braced with full depth blocking at 4 feet on center in the first four
- framing spaces from each end at top and bottom chords.

 Lateral loads at the endwall top plate shall be resisted by connecting the top plate to a 2x ceiling nailer with IOd nails at 6 inches on center. See detail sheet

EXTERIOR WALL VENEERS

- Exterior wall veneers shall be installed in accordance with Section 1405 of the Eighth Edition of the 2023 Florida Building Code.
- Application of stucco (portland cement plaster) shall be in accordance with ASTM C 926, Application of Portland Cement Based Plaster. Shall be in accordance with 2023 Florida Building Code, sec. R703.7.

| TYPICAL WINDLOAD CONNECTORS AND FASTENING SCHEDULE | | | | |
|--|--------------|---------|--|-------------------------|
| | MANUFACTURER | | | |
| | USP | SIMPSON | DESCRIPTION | FASTENERS |
| 1 | DTG | HETAL20 | EMBEDDED TRUSS/RAFTER ANCHOR W SEAT PLATE | (14) 0.148 X I-1/2" |
| 2 | TA22 | HETA20 | EMBEDDED TRUSS/RAFTER ANCHOR | (10) 10d X 1-1/2" |
| 3 | SPTH4 | SPH4 | TOP/BOTT, PLATE ANCHORS | (IO) IOd |
| 4 | RTI6A | HIOA | HURRICANE CLIP | (9) IOd - (8) IOd |
| 5 | MTW24C | HTS24 | WOOD TO WOOD CONNECTION TWIST STRAP | (14) 10d |
| 6 | TDX2-TZ | HD3B | ANCHOR DOWN | (2) %"MB - (1) %" AB |
| 7 | MSTA24 | MSTA24 | TRUSS/RAFTER TIES | (IB) IOd |
| 8 | SHA6 | N/A | MAS, UPLIFT CONNECTOR | (2) ¾"MB - (4) ½"AB |
| 9 | HTW20 | HT520 | TRUSS ANCHOR, HIGH UPLIFT | (24) IOd X I-I/2" |
| 10 | RTI6-2 | HIOA-2 | HURRICANE CLIP (2-PLY) | (24) IOd X I-I/2" |
| Ш | TDX5 | - | ANCHOR DOWN | (2) \$" MB - (1) \$" AB |
| 12 | PA23 | PA23 | PURLIN ANCHOR | (18) 16d |

Reviewed by:DLA

IANUARY 1, 2024

EE COUNTY DEPARTMENT OF DIVISION OF CODES AND HURRICANE RESISTANT RESIL PURSUANT TO 2023 FLO TEE RAME DING œ

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