2019-11-018

CITY OF BELLE ISLE, FLORIDA

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313
COBIpermits@universalengineering.com

VOID

Building Plans Review Comments

Location: 5108 Mortier Avenue, City of Belle Isle. 20' x 15' Wood Shed
Plans Reviewer: Benjamin Suriel
Date: Nov. 08, 2019

VOID from no response H.O.

1. Original plan set signed and sealed by a Registered Engineer/Architect, State of Florida, or provide FL approval for the modular building.

    1.a_If signed and sealed drawings will be used, please provide Florida Product approvals for the roof system, door(s), and windows, if any.

    *For FL approved **modular building**, Product Approvals are not required.*

2. Sheet F-5 - please Indicate what foundation/ tie-downs will be used on this structure.

3. Sheet F-2 and F-3 - please indicate what tie-down schedule will be use on this structure.

4. Sheet F-4 – please indicate ground anchoring to be used on this structure.

RICK SINGH, CFA - ORANGE COUNTY PROPERTY APPRAISER

Searches | Sales Search | Results | Property Record Card | My Favorites | Sign up for e-Notify...

5108 Mortier Ave

< 17-23-30-4378-01-040 >

Name(s)
Weston Michael W Jr

Mailing Address On File
5108 Mortier Ave
Belle Isle, FL 32812-1053
Incorrect Mailing Address?

Physical Street Address
5108 Mortier Ave

Postal City and Zipcode
Orlando, Fl 32812

Property Use
0103 - Single Fam Class III

Municipality
Belle Isle

View 2019 Property Record Card

Property Features | Values, Exemptions and Taxes | Sales Analysis | Location Info | Market Stats | Update Information

2020 values will be available in August of 2020.

Property Description

View Plat

LAKE CONWAY ESTATES SECTION ONE X/37 LOT 4 BLK A

Total Land Area 10,626 sqft (+/-) | 0.24 acres (+/-) GIS Calculated Notice

Land

Land Use Code	Zoning	Land Units	Unit Price	Land Value	Class Unit Price	Class Value
0100 - Single Family	R-1-AA	1 LOT(S)	working...	working...	working...	working...

Page 1 of 1 (1 total records)

Buildings

Important Information		Structure			
Model Code:	01 - Single Fam Residence	Actual Year Built:	1959	Gross Area:	2673 sqft
Type Code:	0103 - Single Fam Class III	Beds:	4	Living Area:	2067 sqft
Building Value:	working...	Baths:	2.0	Exterior Wall:	Concrete/Cinder Block
Estimated New Cost:	working...	Floors:	1	Interior Wall:	Drywall

More Details

Page 1 of 1 (1 total records)

Extra Features

Description	Date Built	Units	XFOB Value
FPL2 - Fireplace 2	01/01/1959	1 Unit(s)	working...
PL2 - Pool 2	01/01/1959	1 Unit(s)	working...
SCR2 - Scrn Enc 2	01/01/1990	1 Unit(s)	working...

Page 1 of 1 (3 total records)

This Data Printed on 11/07/2019 and System Data Last Refreshed on 11/06/2019

UNIVERSAL ENGINEERING SCIENCES
Consultants In: Geotechnical Engineering • Environmental Sciences
Geophysical Services • Materials Testing • Threshold Inspection
Building Code Administration, Compliance Inspection & Plan Review
3532 Maggie Blvd, Orlando, FL 32811 - P: 407.423.0504 - F: 407.423.3106

Work Order No. 158512

Inspection Report

Project Name:	5108 Mortier Avenue ~ COBI	Date:	11/07/2019 Any any
Address:	5108 Mortier Avenue ~ COBI, Belle Isle, Orange County, FL	Permit No:	2019-11-018
Client:	City of Belle Isle	Lot No.:	
ProjectNo.:	0115.1900355.0000-0115-001	Contact:	Susan Manchester at 407
Scope of Inspection:	REVIEW app for shed - make list of deficiencies		
Inspection Type:			

Disposition of Inspection:

Comments:

I hereby affirm that to the best of my knowledge and belief, the above listed inspection was performed as indicated and the work was reviewed for compliance with the approved plans, and all pertinent sections of the Florida Building Code.

Inspector: Benjamin Suriel

Susan Manchester

From: Susan Manchester
Sent: Tuesday, November 12, 2019 7:49 AM
To: Benjamin Suriel
Cc: CobiPermits; Michael Weston; David Olivieri
Subject: RE: 5108 Mortier Ave - Shed permit 2019-11-018 cannot be approved as submitted - By Owner Michael Weston

Hello Ben,

David was not able to contact Michael Weston yesterday. Would you please reach out to him today?

Mike Weston
321-615-7858

Thank you,

Susan Manchester
Permit Administration for the City of Belle Isle
Building Inspections and
Code Compliance Department
407-423-0504 X23309 or 407-581-8161 option permits
E-mail: smanchester@universalengineering.com
Website: www.universalengineering.com

UNIVERSAL ENGINEERING SCIENCES, INC.
3532 Maggie Blvd. | Orlando, FL 32811
Tel: (407) 423-0504 | Fax: (407-423-3106

From: Susan Manchester
Sent: Monday, November 11, 2019 7:49 AM
To: David Olivieri <DOlivieri@universalengineering.com>
Cc: CobiPermits <CobiPermits@universalengineering.com>; Benjamin Suriel <BSuriel@universalengineering.com>; Michael Weston <mweston81@gmail.com>
Subject: RE: 5108 Mortier Ave - Shed permit 2019-11-018 cannot be approved as submitted - By Owner Michael Weston

Hello David,

Can you please call Michael and explain to him why we need the plans in the format that has been requested?

Mike Weston

321-615-7858

Thank you,

UES will be open regular business hours on Monday, November 11, 2019
Inspections will also be scheduled and performed status quo

Susan Manchester
Permit Administration for the City of Belle Isle
Building Inspections and
Code Compliance Department
407-423-0504 X23309 or 407-581-8161 option permits
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Website: www.universalengineering.com

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From: Michael Weston [mailto:mweston81@gmail.com]
Sent: Friday, November 8, 2019 5:31 PM
To: Susan Manchester <SManchester@universalengineering.com>
Cc: CobiPermits <CobiPermits@universalengineering.com>; Benjamin Suriel <BSuriel@universalengineering.com>
Subject: Re: 5108 Mortier Ave - Shed permit 2019-11-018 cannot be approved as submitted - By Owner Michael Weston

Ben / Susan,

What exactly is the issue with the first set of plans? They are master plans for Lee county, which is in a much higher wind speed zone according to the Florida building code when compared to Belle Isle. They are not address specific plans and are intended for repetitive use. They are also 2017 code compliant.

If the issue is you are having trouble reading it, I will go get them printed on a plotter and drop them off at your office.

Let me know. Otherwise, I will submit the app with the same plans, which are intended for repetitive use, and are not address specific.

Mike Weston
321-615-7858

On Fri, Nov 8, 2019 at 3:43 PM Susan Manchester <SManchester@universalengineering.com> wrote:

Please make sure all email is forwarded/replied/sent not only to the sender but ALSO to cobipermits@universalengineering.com

Otherwise – your payment or info may not get processed

Hello Michael,

Our plans examiner Ben Suriel has reviewed the second set of plans that you submitted. He was unable to approve the first set and he cannot approve these, either.

These plans were drawn for and already reviewed for another address. I have been advised they need to be address specific. Attached are some additional comments from Ben. These are being included as an advisory only as to what must appear on the new set of plans that must be submitted – address specific and signed and sealed with a wet signature.

When you submit the new plans – please make sure they are accompanied by the application that is attached. We reviewed these plans as a courtesy without the app – but all further submittals must include the completed application.

Thank you,

UES will be open regular business hours on Monday, November 11, 2019

Inspections will also be scheduled and performed status quo

Susan Manchester

Permit Administration for the City of Belle Isle

Building Inspections and

Code Compliance Department

407-423-0504 X23309 or 407-581-8161 option permits

E-mail: smanchester@universalengineering.com

Website: www.universalengineering.com

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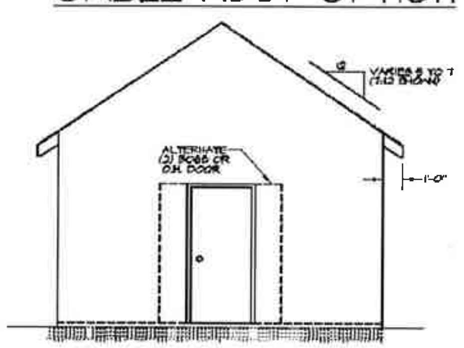
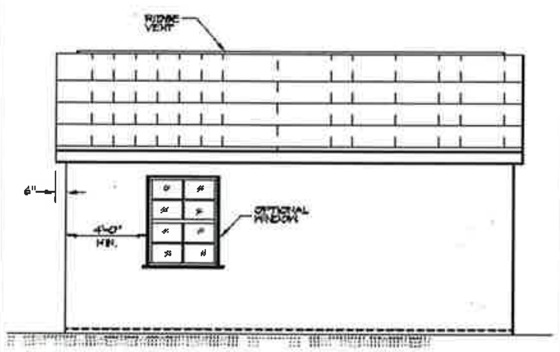
Mike Weston
321.615.7858

RESMSTR18 0004   16' WOOD ON SLAB

GABLE ROOF OPTION



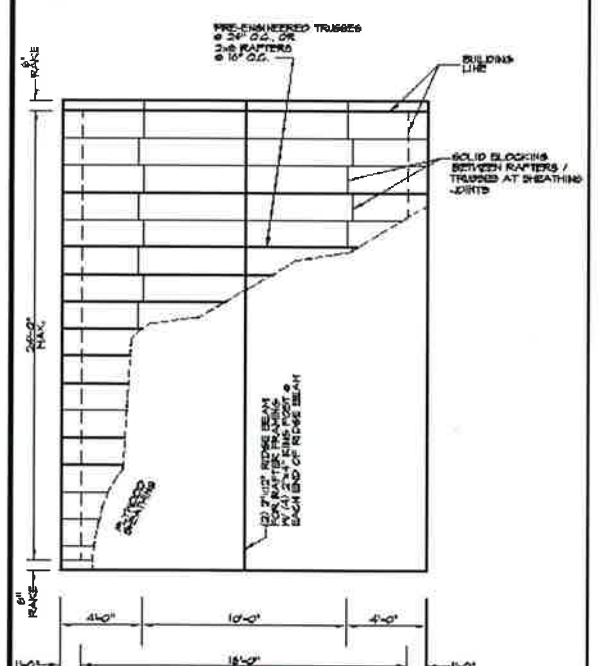
FRONT VIEW
SCALE 1/8" = 1'-0"



SIDE VIEW
SCALE 1/8" = 1'-0"

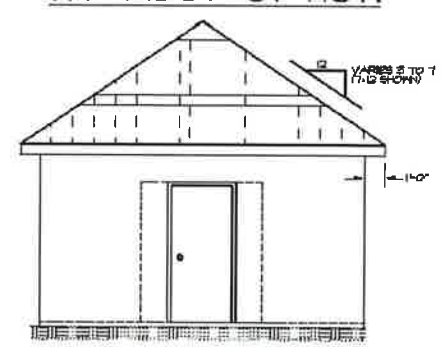
NOTE

NOTE:
CONVENTIONAL FRAMING PERMITTED TO 16'-0" MAX. DEPTH OVER 16'-0" DEPTH REQUIRES PRE-ENGINEERED TRUSSES.

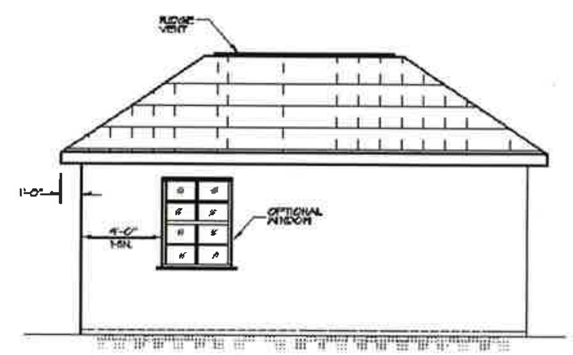


ROOF PLAN
SCALE 1/8" = 1'-0"

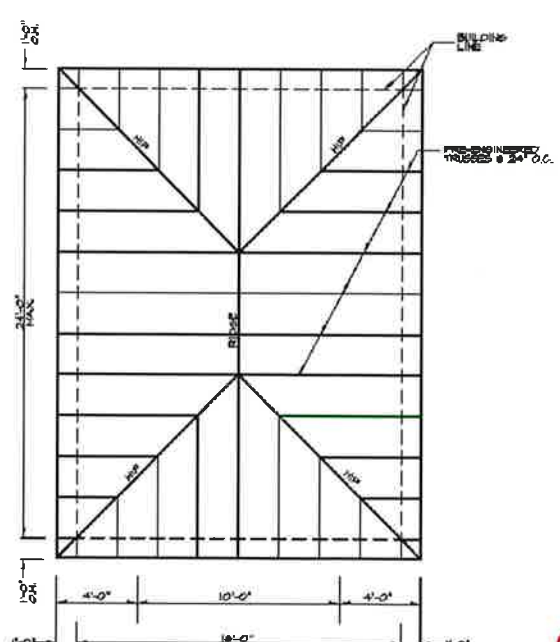
HIP ROOF OPTION



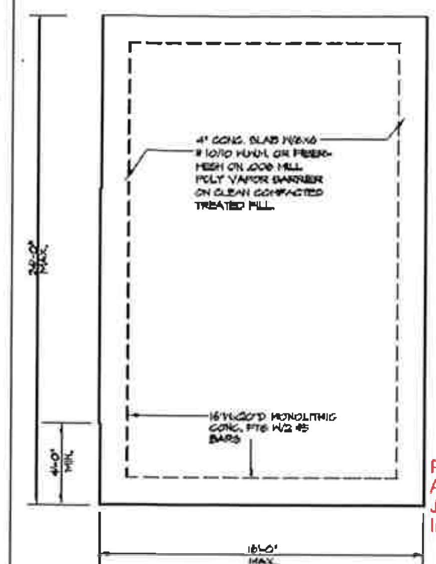
FRONT VIEW
SCALE 1/8" = 1'-0"



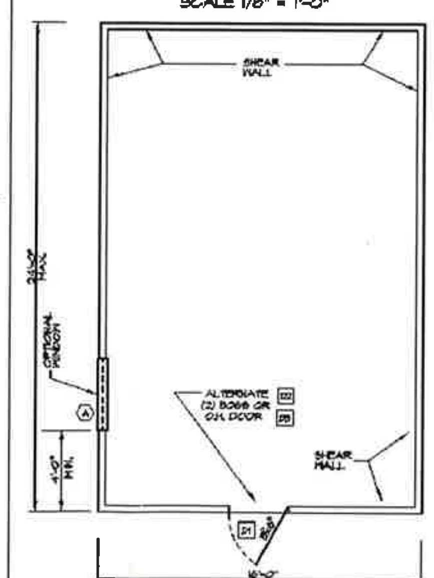
SIDE VIEW
SCALE 1/8" = 1'-0"



ROOF PLAN
SCALE 1/8" = 1'-0"

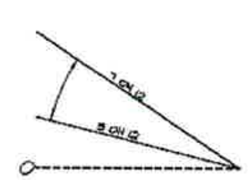


FOUNDATION PLAN
SCALE 1/8" = 1'-0"



FLOOR PLAN
SCALE 1/8" = 1'-0"

GENERAL NOTE:
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 ENDWALLS WITH RAFTERS MUST BALLOONED FRAMED W/ (4) 2"x4" KING POST @ EACH END OF RIDGE BEAM.
GABLE ENDWALLS WITH TRUSSES MAY BE BALLOONED FRAMED OR PLATFORM FRAMED.
HEADERS FOR 8'-0" MAX. OPENING SHALL BE (2) 2" x 12" W/ 1/2" FLITCH PLATE & CONTINOUS TOP PLATE ABOVE
HEADERS FOR 7'-0" MAX. OPENING SHALL BE (2) 2" x 10" W/ 1/2" FLITCH PLATE & CONTINOUS TOP PLATE ABOVE.
TWO LAYERS OF WATER RESISTIVE BARRIER BEHIND EXTERIOR WALL COVERING. R703.6.3
PROVIDE PAN FLASHING UNDER WINDOWS AND DOORS DURING CONSTRUCTION.
**FOR EXPOSURE CATAGORIES "C" AND "D" IMPACT RESISTANT GLAZING MUST BE UTILIZED FOR ALL DOORS AND WINDOWS



OPTIONAL ROOF PITCHES

①	15/32" CDX PLYWOOD
②	(2) LAYERS OF 15# FELT PAPER OR SELF-ADHERING POLYMER MODIFIED BITUMINOUS SHEET MEETING ASTM 1970
③	ASPHALT SHINGLES OR GALV. STL METAL ROOFING
④	OPTIONAL STUCCO FINISH

DESIGN PARAMETERS:

APPLICABLE CODES:
- [X] 2017 FLORIDA BUILDING CODE, RESIDENTIAL, SIXTH EDITION
- [X] 2017 FLORIDA BUILDING CODE, MECHANICAL, SIXTH EDITION
- [X] 2017 FLORIDA BUILDING CODE, PLUMBING, SIXTH EDITION
- [X] 2017 FLORIDA BUILDING CODE, ENERGY CONSERVATION, SIXTH EDITION
- [X] 2017 FLORIDA BUILDING CODE, ACCESSIBILITY, SIXTH EDITION
- [X] FLORIDA FIRE PROTECTION CODE, SIXTH EDITION
- 2014 [X] ~~2017~~ NATIONAL ELECTRICAL CODE
- [X] NATIONAL FIRE PROTECTION CODE, NFPA 101 (LIFE SAFETY)

BUILDING OCCUPANCY CLASSIFICATION:
- [ ] GROUP A - ASSEMBLY
- [ ] GROUP B - BUSINESS
- [ ] GROUP D - DAY CARE CENTER
- [ ] GROUP E - EDUCATIONAL
- [ ] GROUP F - FACTORY INDUSTRIAL
- [ ] GROUP H - HAZARDOUS
- [ ] GROUP I - INSTITUTIONAL
- [ ] GROUP M - MERCANTILE
- [ ] GROUP R - RESIDENTIAL
- [X] GROUP S - STORAGE

BUILDING CONSTRUCTION TYPE:
- [ ] TYPE I-A
- [ ] TYPE I-B
- [ ] TYPE II-A
- [ ] TYPE II-B
- [ ] TYPE III-A
- [ ] TYPE III-B
- [ ] TYPE IV
- [ ] TYPE V-A
- [X] TYPE V-B

RISK CATAGORY:
[X] I [ ] II [ ] III [ ] IV

WIND LOADS:
(WIND LOADS ARE BASED ON CH. 26 THRU 30 OF ASCE 7)

WIND SPEED:
- [X] 150 MPH-ULTIMATE DESIGN WIND SPEED (3-SECOND GUST)
- [X] 116 MPH-NOMINAL DESIGN WIND SPEED (FASTEST MILE)

SURFACE ROUGHNESS CATAGORY:
[X] B [ ] C [ ] D

EXPOSURE CATAGORY:
[X] B [X] C [X] D

WINDBORNE DEBRIS REGION:
- [X] YES
  - [X] NOT APPLICABLE FOR SHEDS UNDER 720 SQ FT

INTERNAL PRESSURE COEFFICIENTS:
- [ ] 0.00 (OPEN)
- [X] +0.18, -0.18 (ENCLOSED)
- [ ] +0.55, -0.55 (PARTIALLY ENCLOSED)

COMPONENTS AND CLADDING PRESSURES:
ZONE 1: +21.1 / -24.4
ZONE 2: +24.2 / -61.9
ZONE 3: +26.5 / -106.5
ZONE 4: +44.0 / -47.4
ZONE 5: +44.0 / -51.3

GEOTECHNICAL INFO:
(FOUNDATIONS ARE BASED ON A MINIMUM SOIL BEARING CAPACITY OF 2000 PSF)

PRODUCT APPROVAL ON JOB SITE FOR INSPECTIONS

WINDOW SCHEDULE

KEY	SIZE	TYPE	OPENING SIZE	MANUFACTURER	ZONE	ACTUAL APPLIED WIND PRESSURES +	ACTUAL APPLIED WIND PRESSURES −	MANUF. MAX. DESIGN PRESSURES +	MANUF. MAX. DESIGN PRESSURES −	IMPACT PROTECTION TYPE OF OPENING PROTECTION (COVERING / GLAZING)	INSTALLATION NOTES (LIST BELOW)	BUCK DETAIL	STATE OF FLORIDA PRODUCT APPROVAL MASTER NUMBERS
A	VARIES	S.H.	VARIES	SEE STATE APPROVED LIST	4	44	-48	VARIES	VARIES	N/A		SEE 1/S1	VARIES

BUILDINGS OVER 720 SQ FT MUST HAVE PROTECTED OPENINGS

DOOR SCHEDULE

KEY	SIZE	TYPE	OPENING SIZE	MANUFACTURER	ZONE	ACTUAL APPLIED WIND PRESSURES +	ACTUAL APPLIED WIND PRESSURES −	MANUF. MAX. DESIGN PRESSURES +	MANUF. MAX. DESIGN PRESSURES −	IMPACT PROTECTION TYPE OF OPENING PROTECTION (COVERING / GLAZING)	INSTALLATION NOTES (LIST BELOW)	BUCK DETAIL	STATE OF FLORIDA PRODUCT APPROVAL MASTER NUMBERS
D1	3068	SWING	36" x 80"	SEE STATE APPROVED LIST	4	44	-48	VARIES	VARIES	N/A		SEE 2/S1	VARIES
D2	(2) 3068	SWING	60" x 80"	SEE STATE APPROVED LIST	4	44	-48	VARIES	VARIES	N/A		SEE 2/S1	VARIES
D3	VARIES	O.H. DR.	VARIES	SEE STATE APPROVED LIST	4	44	-48	VARIES	VARIES	N/A	3	SEE 2/S1	VARIES

ROOF COVERING MATERIAL

TYPE	MANUFACTURER	APPROVED MODEL, STYLE OR DESIGNATION
ASPHALT SHINGLES OR METAL	SEE APPROVED LIST	SEE APPROVED LIST

CODE COMPLIANCE:
1. ASPHALT SHINGLES SHALL BE IN COMPLIANCE W/ FBC 2017, SEC. 1507.2, & R905.2
2. METAL ROOFING SHALL BE IN COMPLIANCE W/ FBC 2017, SEC. 1507.4 & R905.4

SOFFIT COVERING MATERIAL

TYPE	MANUFACTURER	APPROVED MODEL, STYLE OR DESIGNATION	
VARIES	SEE APPROVED LIST	SEE APPROVED LIST	VARIES

CODE COMPLIANCE:
1. SOFFIT COVERING SHALL BE IN COMPLIANCE W/ FBC 2017, SEC. R703.11, & TABLE R301.2.2

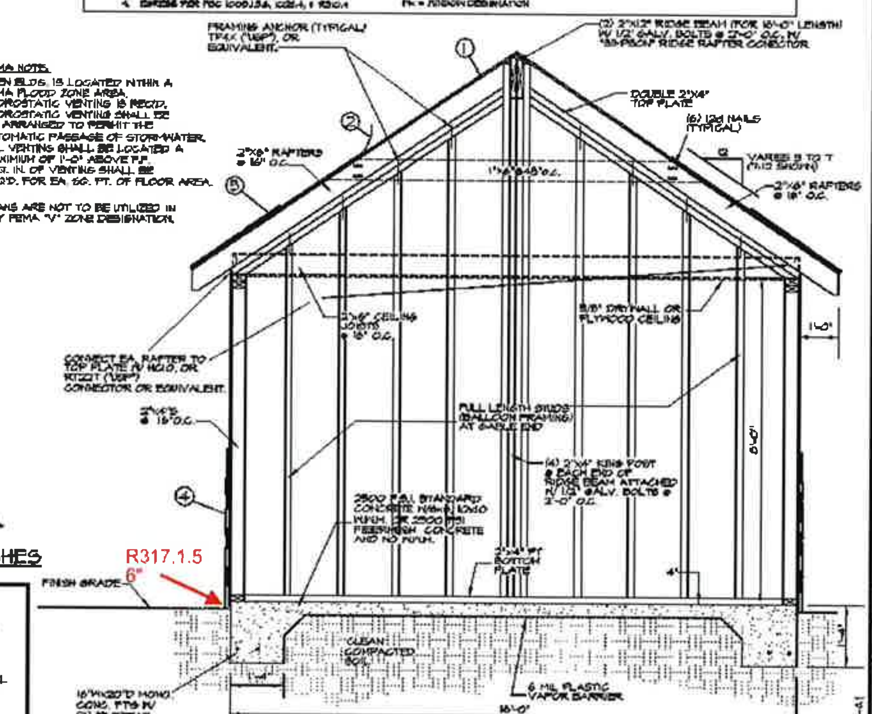
INSTALLATION NOTES:
1. MEANS OF EGRESS
2. TEMPERED WINDOW
3. O.H. GARAGE DOOR
4. EGRESS PER FBC 1005.1.5.4, 1025.4, & R310.4

LEGEND:
Dx = DOOR DESIGNATION
SLx = SKYLITE DESIGNATION
Wx = WINDOW DESIGNATION

SIZE DESIGNATIONS:
W = WIDTH
H = HEIGHT

FEMA NOTES:
WHEN BLDG. IS LOCATED WITHIN A FEMA FLOOD ZONE AREA, HYDROSTATIC VENTING IS REQ'D. HYDROSTATIC VENTING SHALL BE SO ARRANGED TO PERMIT THE AUTOMATIC PASSAGE OF STORMWATER. ALL VENTING SHALL BE LOCATED A MAXIMUM OF 1'-0" ABOVE F.F. 1 SQ. IN. OF VENTING SHALL BE REQ'D. FOR EA. SQ. FT. OF FLOOR AREA.

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



TYPICAL WOOD FRAME ENDWALL SECTION
NTS

LEE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF CODES AND BUILDING SERVICES
HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION
PURSUANT TO 2017 FLORIDA BUILDING CODE

16' WIDE WOOD FRAME STORAGE BUILDING

SCALE: AS NOTED
DATE: DECEMBER 11, 2017
SHEET
A1

LC17-06-A1

Robert W. Case, P.E
cn=Robert W. Case, P.E., o=LIS Engineering, LLC, ou, email=BOBC@LIS-E.COM, c=US
2018.01.17 '00'05- 10:37:00
11.0.23

STORAGE BUILDING

GENERAL

1. This building/structure has been designed in accordance with the Sixth Edition of the 2017 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 Sixth Edition of the 2017 Florida Building 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.
4. All windows, doors, and other such systems, components and cladding shall be designed in accordance with Section 1609 of the Sixth Edition of the 2017 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

1. 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 Sixth Edition of the 2017 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, screws, 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 hot dipped galvanized after the fastener or connector is fabricated to form a zinc coating not less than 1 oz per sq ft, or hot 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

1. 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.
4. Concrete shall have a minimum specified compressive strength of 3000 psi at 28 days.
5. Reinforcing Steel shall be minimum Grade 40 and identified in accordance with ASTM A 615, A 616, A 617, or A 706.
6. Metal Accessories: Joint reinforcement, anchors, ties, and wire fabric shall conform to the following standards:
   1. ASTM 82 for joint reinforcement and wire anchors and ties.
   2. ASTM 36 for plate, headed and bent bar anchors.
   3. ASTM 366 for sheet metal anchors and ties.
7. Metal accessories for use in interior wall construction shall be mill galvanized in accordance with ASTM A 641, Class 1.
8. Minimum concrete cover over reinforcing bars shall be 3 inches. In narrow footings where insufficient width 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.
9. 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.
11. Grout shall have a maximum coarse aggregate size of 3/8 inch placed at an 8 to 11 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.
12. 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 than 2 inches.
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.
20. Provide granular fill, clay materials are unacceptable. Existing soil under footing and slabs shall be compacted to 95% of AASHTO T-99.
21. Provide (1) #5 electrical ground to foundation steel.
22. A 6 mil minimum 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.
24. All footings shall be a minimum of 12" below finished grade.
25. The top of slab shall be a minimum of 8" above finished grade for wood frame construction.
26. The top of slab shall be a minimum of 4" above finished grade for masonry veneer and a minimum of 6" elsewhere.

CONCRETE FLOORS

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

WOOD GENERAL

1. All wood construction shall comply with the latest NFPA and AITC Specifications and Recommendations.
2. Lumber standard shall be American Softwood Lumber Standard PS 20-70, S4S, 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. Glue laminated timber shall conform with ASTM D-3737 and AITC 117. Roof beams shall be designated 24F-V1 or 24F-E1.
5. Plywood for sheathing shall be APA rated sheathing as per plans and shall bear the APA Mark.
6. Wood in contact with concrete, masonry and/or exposed to weather shall be protected or pressure treated in accordance with AITC-109.

EXTERIOR WALL FRAMING

1. Studs shall be placed with the wide face perpendicular to the wall.
2. Header Beams shall be provided and sized in accordance with Section R602.7. of the Sixth Edition of the 2017 Florida Building Code.
3. The minimum number of header studs supporting each end of a header beam shall be 2.
4. 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.
5. 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

1. Framing members in exterior wall systems shall be fastened together in accordance with Section 2305 of the Sixth Edition of the 2017 Florida Building Code.
2. Uplift connectors shall be provided to resist the uplift loads.
3. Uplift load resistance shall be continuous from roof to foundation.
4. 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 Schedule.
5. Where Anchor down connectors occur connectors required for uplift resistance may be omitted.

EXTERIOR WALLS

1. Exterior wall segments shall not contain openings which when added together will exceed 144 sq in (1 sq ft) in any individual segment.
2. Each corner shall be sheated for a least 3 feet and may be counted as a shearwall segment.
3. 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.
4. Studs shall be doubled at each end of each shearwall segment.
5. 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 16d common nails.
6. Provide bridging/blocking at mid-span of exterior wall studs.

PLYWOOD SHEATING USED FOR UPLIFT RESISTANCE

1. Panels shall be 15/32" exposure 1 C-D sheating grade plywood and shall be installed as follows:
   Panels shall be installed with face grain parallel to studs.
   All horizontal joints hall occur over framing and shall be attached per Detail Sheets.
   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

1. Exterior walls require anchor downs to resist overturning moment.
2. Two studs and anchor down are required at each end of each shearwall segment.
3. 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 Schedule.

ROOF & TRUSSES

TRUSS FRAMING SYSTEMS

1. Trusses shall be designed in accordance with TPI Design Specification for Metal Plate Connected Wood 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.
4. Metal plate connected wood trusses shall be spaced no more than 24 inches on center and designed for live loads and Windloads for an enclosed building based on Sections 2304.4, R502.11.4., and R802.10.1, of the Sixth Edition of the 2017 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 girder truss.
6. Top chords of trusses shall be of Group II species lumber.
7. Uplift connectors shall be provided at truss bearing to resist the uplift loads.
8. Where trusses are used to form a hipped roof, a step down hip system shall be used. See detail sheets.
9. Provide blocking at ends and mid-spans of roof trusses.
10. 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

1. Roof sheating shall be 15/32 inch Exposure 1 C-D sheating grade plywood (wood structural panels), or equivalent.
2. The sheating shall be installed in accordance with Detail Sheets.
3. Long dimension shall be perpendicular to framing and end joints shall be staggered.
4. 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.)

Ring-shank nails shall have the following minimum dimensions:
a. 0.113-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

Exceptions:
Where roof diaphragm requirements may necessitate a closer fastener spacing.

ASPHALT SHINGLE ROOF COVERING

1. 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 shingles shall comply with the provisions of fbc Sec. 1507.3.
3. Asphalt shingles shall be solidly sheathed decks.
4. Asphalt shingles shall be used only on roof slopes of 2:12 or greater. For roof slopes from 2:12 up to 4:12 double underlayment application is required in accordance with 1507.3.8.
5. Unless otherwise noted, required underlayment shall conform with ASTM D 226, type I, or ASTM D 4869, type I.
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 or ASTM D 3462.
8. Fasteners for asphalt shingles shall be galvanized, stainless steel, aluminum or copper roofing nails, 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 nails 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 2:12 up to 4:12, underlayment shall be a minimum of two layers applied as follows:
    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.
    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.
11. 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

1. In those cases where a gable endwall is not build using full-height studs continuosse 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.
3. Where a gypsum wallboard ceiling is used to create the required diaphragm, the diaphragm length must be at least two times the width of the building.
4. The gypsum board must be a (min.) of 5/8 inch thick and must be fastened directly to the ceiling joists or bottom chords of trusses (no furring) with 5d cooler nails or 6/13-54 1 1/2 inch nails at 7 inches on center.
5. 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.
6. Lateral loads at the endwall top plate shall be resisted by connecting the top plate to a 2x ceiling nailer with 10d nails at 6 inches on center. See detail sheets.

EXTERIOR WALL VENEERS

1. Exterior wall veneers shall be installed in accordance with Section 1405 of the Sixth Edition of the 2017 Florida Building Code.
2. Application of stucco (portland cement plaster) shall be in accordance with ASTM C 296, Application of Portland Cement Based Plaster.

WINDLOAD CONNECTORS SCHEDULE

LABEL	MANUFACTURER USP	MANUFACTURER SIMPSON	DESCRIPTION	FASTENERS
1	(2) TDX5	(2) HDRA/5	WOOD TO WOOD UPLIFT CONN. ASSY.	(4) 3/4" AB
2	HTA24	HETA24	TRUSS/RAFTER ANCHOR	10-10dx1-1/2"
3	TP4X	SPH4	TOP/BOTTOM PLATE ANCHORS	10-10d
4	HC10	H10	HURRICANE CLIP	9-10d – 9-10d
5	RT22T	HTS24	TRUSS/RAFTER TIES	10-16d (24-16d W/ SIMPSON STRAP)
6	TDX5	HDRA/5	ANCHOR DOWN	(2)5/8"AB – (1)5/8"AB
7	RT30F	LTSA30	TRUSS/RAFTER TIES	10-16d
8	SMA6	N/A	MAS. UPLIFT CONNECTOR	(2)3/4"AB – (4)1/2"AB
9	HTA20	HETA20	TRUSS ANCHOR, HIGH UPLIFT	16-10dx1-1/2"
10	PA23	PA23	PURLIN ANCHOR	18-16d
11	HC10-2	H10-2	HURRICANE CLIP	9-10d – 9-10d
12	USC2F	N/A	TRUSS/RAFTER TIES	(8) 16d – (4) 3/4" AB

LEE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF CODES AND BUILDING SERVICES

HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION
PURSUANT TO 2017 FLORIDA BUILDING CODE

16' WIDE WOOD FRAME STORAGE BUILDING

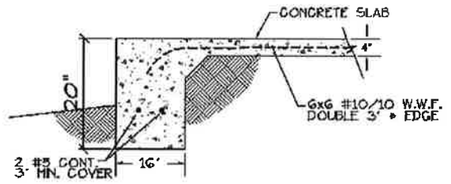
SCALE: N.T.S.

DATE: DECEMBER 11, 2017

SHEET N1

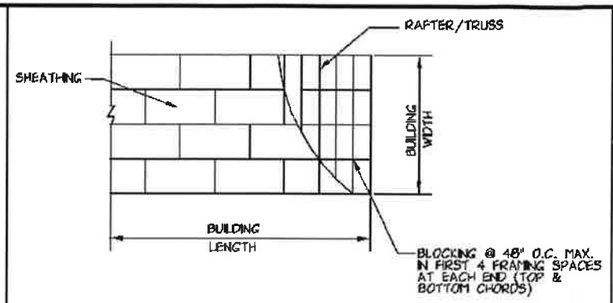
LC17-05-M

RESMSTR18-0004

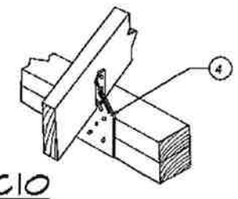


MONO. SLAB ON GRADE FOOTING
FOR WD. FRAMED EXT. BRG. WALLS — 1 / S1

N.T.S.



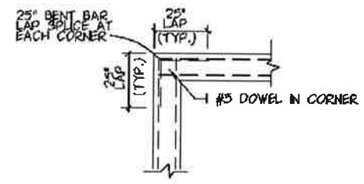
ROOF SHEATHING LAYOUT
FOR GABLE ROOFS — N.T.S. — 2 / S1



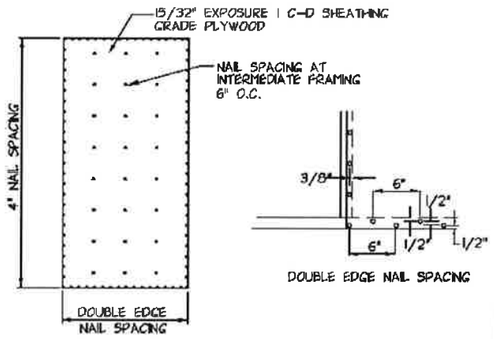
HC10

FOR UPLIFT LOADS UP TO 1105 LBS.

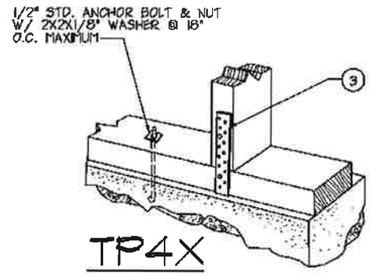
HURRICANE CLIP
@ EXT. BEARING WALL — 3 / S1



FOOTING & FOUNDATION
CORNER DETAIL — SCALE: N.T.S. — 4 / S1

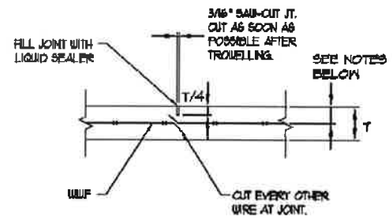


WOOD EXTERIOR WALL
PANEL ATTACHMENT — SCALE: N.T.S. — 5 / S1



FOR ALL WOOD FRAMED BEARING WALLS

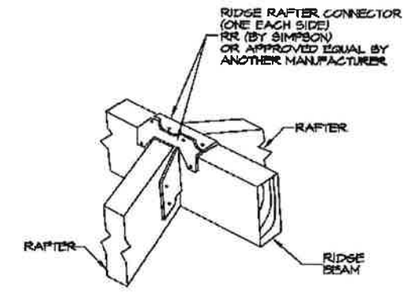
TOP PLATE ANCHORS
FOR USE AT BOTTOM PLATE — N.T.S. — 6 / S1



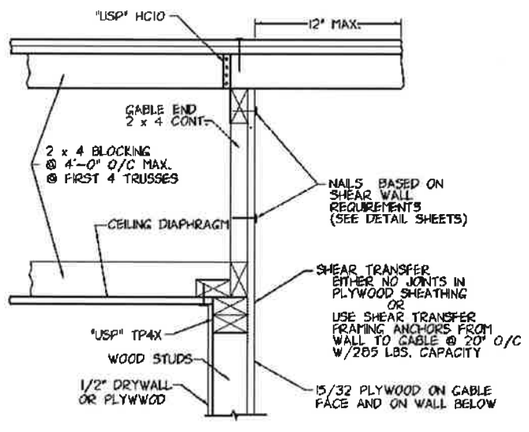
NOTES:

1. CUT SLAB AS SOON AS AGGREGATE DOES NOT DISLODGE (MUST BE WITHIN SAME DAY AS CONCRETE PLACEMENT.)
2. PLACE REINFORCING 1/3 SLAB DEPTH FOR SLABS GREATER THAN 3" THICK, AND 1-1/2" CLEAR FOR SLABS 3" THICK OR LESS.
3. HAND TOOL JOINT TO FACE OF WALL WHERE SAWCUT DOES NOT REACH.

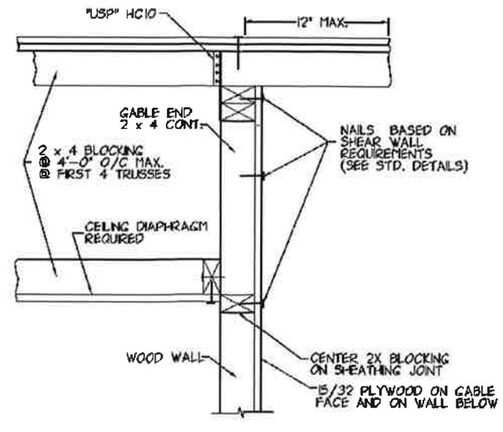
TYP. CONCRETE SLAB
CONTROL JOINT — SCALE: N.T.S. — 7 / S1



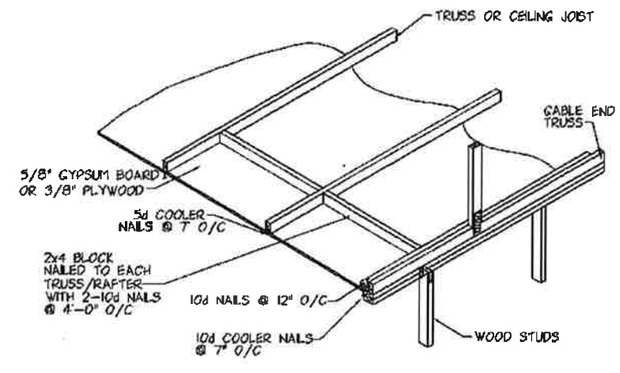
TYP. RIDGE RAFTER
CONNECTOR DETAIL — SCALE: N.T.S. — 8 / S1



GABLE ENDWALL, PLATFORM FRAMING
FOR ROOF TRUSSES — SCALE: N.T.S. — 9 / S1



GABLE ENDWALL, BALLOON FRAMING
WOOD RAFTERS — SCALE: N.T.S. — 10 / S1



CEILING CONNECTION TO GABLE ENDWALL
FOR CEILING DIAPHRAGMS — 11 / S1

LEE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
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HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION
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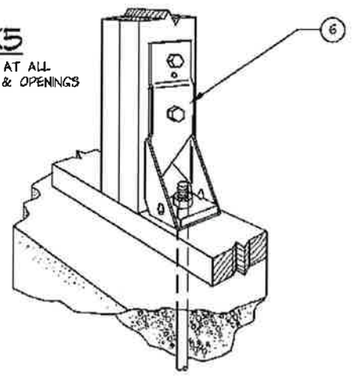
SCALE: N.T.S.
DATE: DECEMBER 7, 2017
SHEET S1

LC17-05-S1

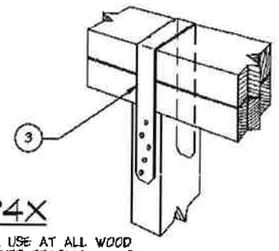
RESMSTR18-0004

TDX5

FOR USE AT ALL CORNERS & OPENINGS



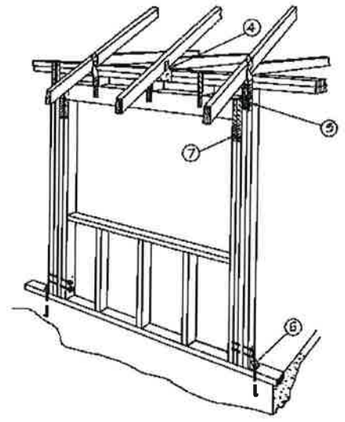
ANCHOR DOWN — N.T.S. — 1/S2



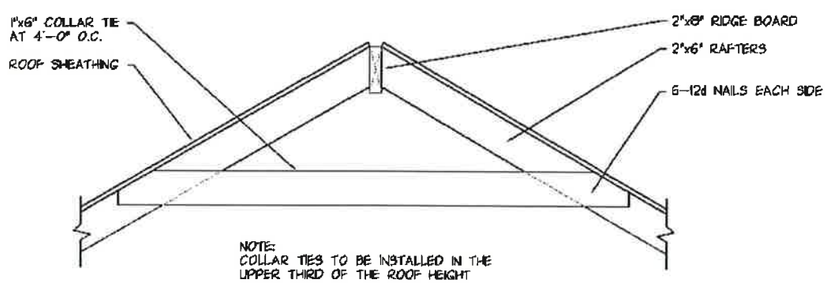
TP4X

FOR USE AT ALL WOOD FRAMED BEARING WALLS

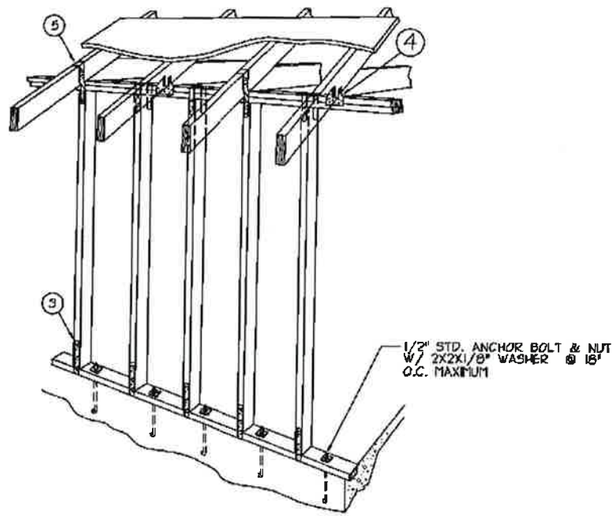
TOP PLATE ANCHOR — N.T.S. — 2/S2



TYP. HEADER & CONNECTORS FOR OPENINGS AT EXT. BEARING WALLS — N.T.S. — 3/S2



ROOF BRACING DETAIL — N.T.S. — 4/S2



TYPICAL EXT. WD. FRAME BEARING WALL CONNECTIONS & STRAPPING — 5/S2

Reviewed for Code Compliance
By: Sharon Reynolds Date: 02/01/18
RESMSTR18-0004

LEE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF CODES AND BUILDING SERVICES

HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION
PURSUANT TO 2017 FLORIDA BUILDING CODE

16' WIDE WOOD FRAME STORAGE BUILDING

SCALE: N.T.S.

DATE: DECEMBER 7, 2017

SHEET S2

LD17-05-51