8/28/2015 **REVISED DATE**

/1\ 9/22/2015

SHEET

GENERAL STRUCTURAL NOTES

All material and workmanship shall conform to the requirements of the 2009 International Building Code.

DESIGN LOADS: 40 psf A. Floor live load Deck live load 60 psf 100 psf Common live load 125 psf Storage live load B. Roof live load 20 psf C. Roof snow load 40 psf Flat-roof snow load Pf= 40 psf Snow exposure factor Ce= 1.0 Snow load importance factor I = 1.0Thermal factor Ct= 1.1

D. Basic wind speed 100 mph (3) second gust Importance factor Occupancy category Wind exposure E. Seismic design category Importance factor

Occupancy category Spectral response accelerations Ss= 0.316 S1= 0.077 Site class Spectral response coefficients Seismic-force-resisting system(s) Design base shear Seismic response coefficient(s) Response modification factor(s) Analysis procedure used

Sds= 0.253 Sd1= 0.087 ASCE 7-05 Method 12.8:A.13 & G.1 V= 0.039 W Cs = 0.039R= 6.5

Equivalent lateral force procedure

and Electrical plans.

A. Contractor shall be responsible for all construction methods, techniques, sequencing and safety required to complete construction.

B. Contractor shall verify all dimensions and details prior to proceeding with constuction. All discrepancies shall be approved by the Architect or Engineer of record. C. Contractor shall verify all required openings on Architectural, Mechanical

FOR 3 PLY 2x6 COLUMNS 2 ROWS

OF 30d COMMON WIRE NAILS

FOR 2 PLY 2x4 COLUMNS 1 ROW

STAGGERED BETWEEN FACES

OF 10d COMMON WIRE NAILS

STAGGERED BETWEEN FACES

A. Footing have been designed for a maximum allowable soil bearing pressure of 4,000 psf on native material or properly compacted structural

B. All footings shall be constructed as shown on the plans and in accordance with S. W. Cole Engineering, Inc. report for project 14-1188s dated 01/16/2015.

C. No excavation shall be made below any footing closer than one to one slope to the bottom of same. D. All bottom of exterior footings to be a minimum of 54" below finish grade.

E. Back fill all pipe trench excavations below footings with lean concrete to the bottom of the footings.

A. Concrete to develop a unit compressive stress of 2,500 psi minimum at 28 days per I.B.C. section 1905 with 5 sacks of cement/ cubic yd. minimum. REINFORCING STEEL FOR CONCRETE:

ASTM A615, grade 60 bars except where welding is required use A706, grade 60 bars. B. Details of reinforcing steel shall conform to ASTM Manual of Standard practice, Code of Standard Practice for detailing reinforcing materials,

A. All reinforcing steel shall be rail steel deformed bars conforming to

by CTSI and WCRSI (latest edition). C. All concrete slab reinforcing steel shall be supported at the required

heights by approved bolsters.

D. Provide 2'-0" X 2'-0" corner bars for all horizontal wall steel at all corners and intersections.

E. Splices shall be lapped 36 bar diameters or 2'-0" minimum unless detailed otherwise.

REINFORCING PROTECTION:

A. Concrete deposited against earth = 3 inches B. Concrete formed surfaces exposed to ground or weather: #5 rebar and smaller = 1 1/2 inches. #6 rebar and larger = 2 inches.

C. Slabs = 3/4 inches.

A. All anchor bolts to be ASTM A-307 minimum.

STRUCTURAL WOOD:

A. All sawn lumber, excluding stud wall framing, to be #1/#2 grade SPF, except 4x lumber to be No. 2 Douglas Fir Larch, 6x lumber or larger to be No. 1 Douglas Fir Larch, per I.B.C. section 2303.1.1.. All stud wall framing to be stud grade SPF or better.

B. All wedge anchors to be Simpson Wedge-all or approved equivalent.

B. The contractor shall furnish and install all bolts and plates as required to complete the job.

C. All bolt heads and nuts bearing on wood to be provided with standard cut washers, except where otherwise shown.

D. All wood members in contact with concrete, masonry or exposed to weather

shall be pressured treated.

E. Fasteners in contact with preservative-treated wood shall be of hotdipped zinc coated galvanized steel, silicon bronze or copper. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be of mechanically deposited zinc-coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum. Connectors that are used in exterior applications and in contact with preservativetreated wood shall have coating types and weights in accordance with the treated wood or connector manufacturer's recommendations. In the absence of manufacturer's recommendations, a minimum of ASTM A 653, type G185 zinc-coated galvanized steel, or equivalent, shall be used. Exception: Plan carbon steel fasteners in SBX/DOT and zinc borate preservative-treated wood in an interior, dry environment shall be

permitted. F. All nailing not shown shall be called for in I.B.C. table 2304.9.1, fastening

G. Roof sheathing shall be 15/32" CDX plywood with a span rating of 24/16.

ROOF TRUSSES: A. Roof framing members shall be designed to support the specified loads and limit maximum total load deflection to L/240 of the span.

B. Roof truss manufacturer's design shall include required bearing, bracing, blocking, fastening and attaching devices to carry the specified loads. C. Erection and installation shall be in accordance with the specifications

set fourth by the manufacturer. D. The roof truss manufacturer shall supply all trusses, associated load transfer blocks, hangers, bracing, blocking and beveled plates as

to complete the roof truss framing. E. Maximum stress load of trusses not to exceed 0.90 CSI for any trusses.

STRUCTURAL INSPECTION AND TESTING: A. All construction shall be inspected in conformance with the

Architect of Record, and the Building Officials.

2009 Edition International Building Code. B. All items noted as required special inspection per the Florida Building Code 2010 Edition in accordance with section 1704, shall be performed by a qualified person who can demonstrate competence for the particular type of construction being inspected. The special inspections shall be performed in addition to the inspections required by the Florida Building Code, The plans and Specifications, The

ITEM	CONTINUOUS 3	PERIODIC 3	COMMENTS
SOILS			
Grading, Excavation & Backfill			By Geotech.
Final Foundation Inspection			By Geotech.
CONCRETE			
Reinforcing Placement		Х	
Reinforcing Welding			Ref. Note 6
Anchor Bolts & Inserts		Х	
Preparation of Test Specimens			F'c 2500 psi
Concrete Placement			
Epoxy Anchor Placement			
Expansion Anchor Placement		X	
STRUCTURAL STEEL			
High Strength Bolting			A325 ⁸⁹ A490
Welding of Anchors & Studs			
Welding Stairs/Railing System			
Embedded Plates			
SHOP WELDING			
Single Pass Fillet Welds ≤ 5/16"			Ref. Note 4
Fillet Welds > 5/16"			Ref. Note 4
Partial/Complete Penetration			Ref. Note 5
FIELD WELDING			
Single Pass Fillet Welds ≤ 5/16"			Ref. Note 4
Fillet Welds > 5/16"			Ref. Note 4
Partial/Complete Penetration			Ref. Note 5
Prefab. Construction			Ref. Note 7
WOOD			
Plywood Nailing		X	
Holdown Installation		X	

1. The items marked with a 'X' shall be inspected in accordance with 2010 F.B.C. Section 1704 by a certified special inspector from an established test agency. For material sampling and testing requirements, refer to the material sampling and testing section, the project specifications and the specific general notes sections. The testing agency shall send copies of all structural testing and inspection reports directly to the Architect, engineer, contractor and building official. Any materials which fail to meet the project specifications shall immediately be brought to the attention of the architect. All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority and to the building official. The special inspector shall submit a final signed report stating whether the work requiring special inspection was to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of the code. Special inspection testing requirements apply equally to all bidder designed components.

2. Special inspection is not required for work performed by an approved fabricator per 2010 F.B.C. section 1704.2.2. 3. Continuous special inspection means that the special inspector is on site

inspector is on the site at the time intervals necessary to confirm that all work requiring special inspection is in compliance. 4. All welds shall be visually inspected.

at all times observing the work requiring the special inspection (2010

F.B.C. section 1704). Periodic special inspection means that the special

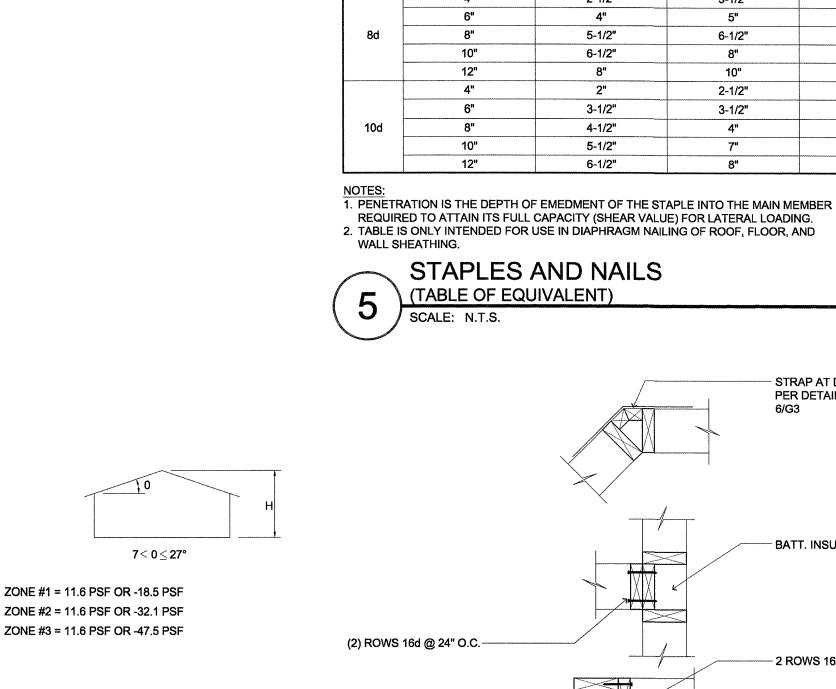
5. All complete penetration welds shall be tested ultrasonically or by using approved method.

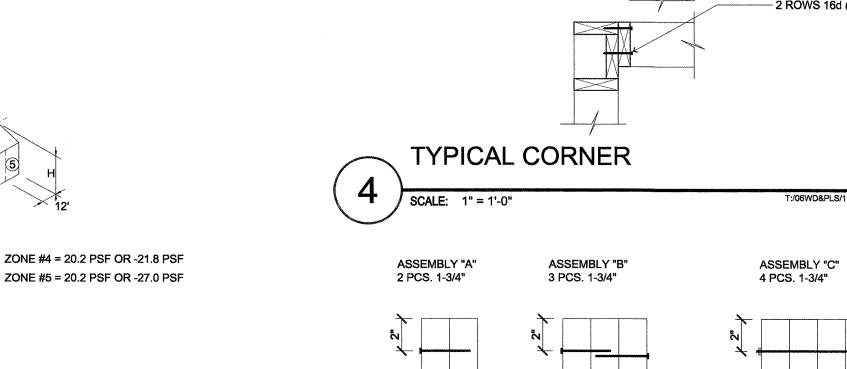
6. Periodic special inspection is only required for welding of ASTM A706 reinforcing steel not greater then No. 5 used for embedments, provided the materials, qualifications of welding procedures and welders are verified prior to the start of work: periodic inspections are made of work in process: and a visual inspection of all welds is made prior to

completion or prior to shipment of shop welding. 7. Inspection for prefabricated construction shall be the same as if the material used in the construction took place on site. Continuous inspection will not be required during prefabrication if the approved agency certifies the construction and furnishes evidence of compliance.

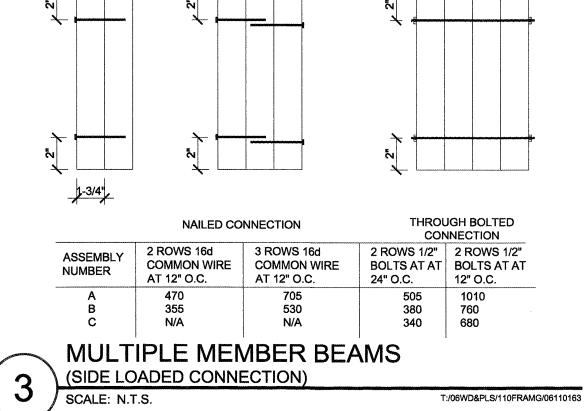
8. Snug tight. 9. Turn of the nut method.

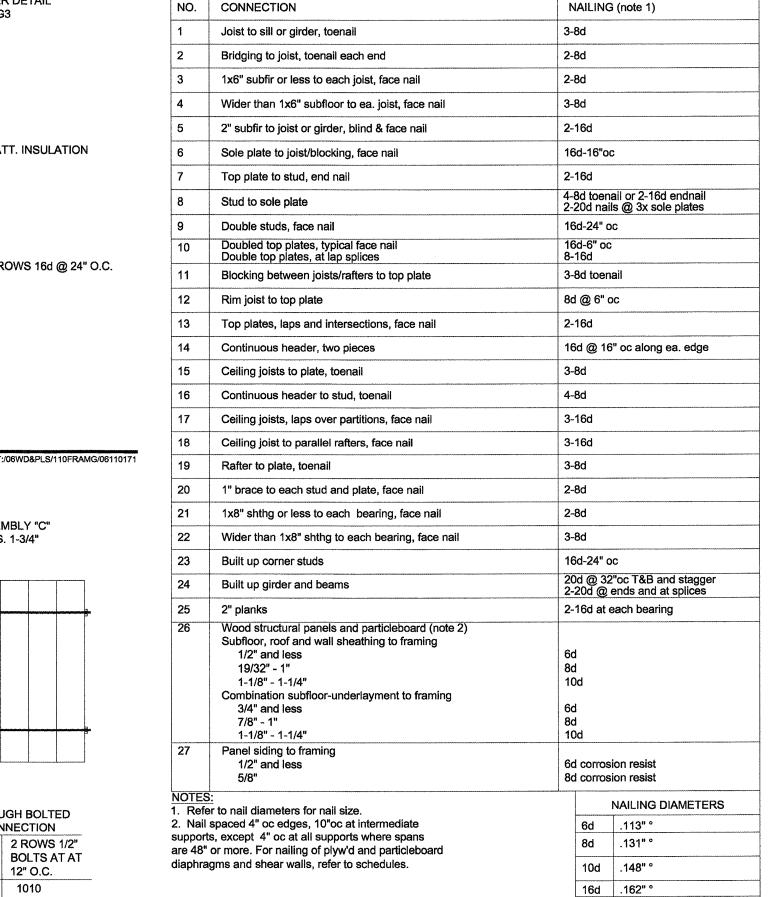
C. Contractor to retain an approved special inspector to observe and approve all high strength bolt installations.





23	73		2		
2	23				
7	2		2,		
1-3/4"					
	NAILED CONNECTION		THROUGH BOLTED		
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	INECTION	
ASSEMBLY	2 ROWS 16d COMMON WIRE	3 ROWS 16d COMMON WIRE	2 ROWS 1/2" BOLTS AT AT	2 ROWS 1/2" BOLTS AT AT	
NUMBER	AT 12" O.C.	AT 12" O.C.	24" O.C.	12" O.C.	
A	470	705	505	1010	
B	355	530	380	760	
C	N/A	N/A	340	680	





NAILING SCHEDULE

NAILING SCHEDULE (MINIMUM REQUIREMENTS) SCALE: N.T.S.

FRAMING MEMBER

-NAILS @ PANEL FIELD

-- NAILS @ DIAPHRAGM

 $\bigcirc$ 

1-1/4"

FOR 4 PLY 2x6 COLUMNS 1/2" DIA.

FOR 4 PLY 2x4 COLUMNS 1/2" DIA.

FOR 2 PLY 2x6 COLUMNS 2 ROWS

OF 10d COMMON WIRE NAILS

STAGGERED BETWEEN FACES

BUILT UP COLUMN

(NDS 15.3.2 REQUIREMENTS

**BOLTS AT CENTER LINE SPACE AS** 

**BOLTS POSITIONED AS SHOWN** 

ROOF - 12" o.c.

BOUNDARY

ROOF - 6" o.c.

- NAILS @ PANEL

**SEE SHEET G4 FOR

9-1/2"

12"

14-1/2"

6"

12"

6-1/2"

STRAP AT DBL. TOP PLATE

PER DETAIL

BATT. INSULATION

- 2 ROWS 16d @ 24" O.C.

6/G3

SHEATHING GRADE

ROOF - 6" o.c.

EDGES

ROOF FRAM. - 8d @ ROOF

10d @ ROOF SLOPES EQ.

SLOPES OVER 2:12 AND

TO OR LESS THAN 2:12

DIAPHRAGM BOUNDARY

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

GAUGE

PENETRATION

10"

12"

12"

4"

COMMON_

NAIL

SPACING

DIAPHRAGM NAILING

** VALID FOR LATERAL LOADS ONLY **

3-1/2"

6-1/2"

8-1/2"

10"

2-1/2"

5-1/2"

6-1/2"

3-1/2"

4-1/2"

5-1/2"

6-1/2"

STAPLES AND NAILS

(TABLE OF EQUIVALENT)

SCALE: N.T.S.

EQUIVAILENT O.C. SPACING OF STA[LES

10"

3-1/2"

5"

6-1/2"

10"

2-1/2"

3-1/2"

T:/06WD&PLS/110FRAMG/06110153

20d .192" °

LOADING DIAGRAM) SCALE: N.T.S.

HIP ROOF

1 (22)

3 2 33 2

**GABLE ROOF** 

11.6 PSF OR -32.1 PSF

ROOF COMPONENT AND CLADDING

7< 0 ≤ 27°

ZONE #1 = 11.6 PSF OR -18.5 PSF

ZONE #2 = 11.6 PSF OR -32.1 PSF ZONE #3 = 11.6 PSF OR -47.5 PSF