

ORDINANCE NO. _____

**AN ORDINANCE ADOPTING THE 2009 2012 INTERNATIONAL BUILDING (ICC) CODES AND
SUPPLEMENTAL PROVISIONS TO UPGRADE THE VARIOUS CODES RELATING TO
THE INSPECTION ACTIVITIES OF THE CITY OF FOLEY AND ENFORCEMENT OF THE
BUILDING PROVISIONS AND FIRE SAFETY AS PROVIDED IN SAID CODES**

BE IT ORDAINED by the Mayor and Council of the City of Foley, Alabama at its meeting on the
_____ day of _____, 2013 2015 as follows:

SECTION 1 That the following codes or portions of codes be, and the same are hereby,
approved and adopted by reference, except for the changes and exclusions listed (if any):

- (a) International Building Code, 2009 2012 Edition, together with Appendix C (Group U –
Agricultural Buildings) and Appendix I (Patio Covers); provided, however, the following
sections and chapters are omitted and not adopted:

Section 101.4.1 - Gas (International Fuel Gas Code)

~~Section 101.4.6 – Energy (International Energy Conservation Code)~~

Section 105.1.1 - Annual permit

Section 105.1.2 - Annual permit records

~~Chapter 13 – Energy Efficiency~~

The International Building Code, adopted herein shall be amended as follows:

Section 101.1: (Insert) City of Foley, Alabama

Section 1612.3: (Insert) Baldwin County, Alabama and Incorporated Areas

Section 1612.3: (Insert) July 17, 2007

Section 1613: DELETE IN ITS ENTIRETY

Section 3412.2: (Insert) (Effective Date of This Ordinance)

Section 105.5: Expiration. Every permit issued shall become invalid unless the work on the
site authorized by such permit is commenced within 180 days after its issuance, or if the
work authorized on the site by such permit is suspended or abandoned for a period of 180
days after the time the work is commenced, unless such shorter duration or different
expiration terms are imposed on the permit due to special circumstances, such as nuisance
abatement projects. The building official is authorized to grant, in writing, one or more
extensions of time, for periods not more than 180 days each. The extension shall be
requested in writing and justifiable cause demonstrated.

*Section 109.3: (Insert) “For new construction the valuation used to determine the applicable
fee shall be calculated from the most current version of the Building Valuation Data
published by the International Code Council, bona fide, signed contracts, local averages
based on the square footage of the project, or any other evidence of the cost or value of the
work.”*

Exception: Group U Buildings

Section 111.5 - Certificate of Completion. Upon satisfactory completion of a building,
electrical, mechanical or plumbing permit, a certificate of completion may be issued. This
certificate indicates a structure or system is complete and for certain types of permits is
released for use and may be connected to a utility system. This certificate does not grant
authority to occupy or connect a building, such as a shell building, prior to the issuance of a
certificate of occupancy.

~~Section 903.2.7 – Group M. – An automatic sprinkler system shall be provided throughout
buildings containing a Group M occupancy where one of the following conditions exists:~~

- ~~1. A Group M fire area exceeds 12,000 square feet (1115 m2).~~

- 2. ~~A Group M fire area is located more than three stories above grade plane.~~
- 3. ~~The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m2).~~
- 4. ~~A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet.~~

COMMERCIAL DESIGN CRITERIA:

Section 1609.3 (Insert) The ultimate design wind speed, V_{alt} shall be determined as follows:

RISK CATEGORY 1	RISK CATEGORY 2	RISK CATEGORY 3	RISK CATEGORY 4
147 MPH	157 MPH	170 MPH	***
*** Provide design wind speed determination by calculation			

Chapter 31 – Special Construction

MEMBRANE STRUCTURES:

1. Section 3102 Membrane Structures and Section 3103 Temporary Structures. A permit for a temporary membrane structure on a single **commercial** premise may be issued for a period not to exceed fourteen (14) consecutive days for a maximum of twelve (12) times per calendar year and must be used on the same lot as the permanent structure **which it serves**. A minimum of two (2) weeks is required between permit issuance periods. The **required** two (2) week period between permits ~~requirement~~ may be waived if the membrane structure is being used along with a permanently occupied business, meeting all ordinances and regulations, and it is for a special event not longer than eight (8) weeks. Any structure outside these parameters will be considered permanent and would be subject to all requirements for permanent structures.

TEMPORARY STRUCTURES:

2. Section 3103 Temporary Structures. A permit for a temporary structure, including mobile vendors, may be issued for a period not to exceed six (6) months during a single calendar year.

- (b) International Residential Code, ~~2009~~ **2012** Edition, together with **Exhibit A (Coastal Construction Supplement) attached hereto**, Appendix G (Swimming Pools, Spas and Hot Tubs), Appendix H (Patio Covers), **Appendix M (Home Day Care-R3 Occupancy)**; provided, however, the following sections and chapters are omitted and not adopted:
 Section R313 – Automatic Fire Sprinkler Systems
 Chapter 11 – Energy Efficiency:
Section: ~~(a) N1101.7.1~~ **N1101.13.1** Protection of exposed foundation insulation.
Section: ~~(b) N1102.2.8~~ **N1102.2.9** Slab-on-grade floors.
Section: ~~(c) N1103.1.1~~ Programmable Thermostats.

The Residential Code adopted herein shall be amended as follows:

Section R101.1: (Insert) City of Foley, Alabama.

Section R104.10.1 – Areas Prone to Flooding. Delete “without the granting of a variance to such provisions by the board of appeals.”

Section R105.2 – Work Exempt from Permit – Building #7 “Prefabricated swimming pools that are 42 inches or less in depth.

Section 105.5: Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced, unless such shorter duration or different expiration terms are imposed on the permit due to special circumstances, such as nuisance abatement projects. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

RESIDENTIAL DESIGN CRITERIA:

Table Section R301.2(1) – Climatic and Geographic Design Criteria – shall be amended as follows:

Table R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA											
GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMPERATURE	ICE BARRIER UNDERLAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMPERATURE
	Speed (mph)	Topographic effects		Weathering	Frost Line Depth	Termite					
0	140	NO	A	Negligible	4"	Very Heavy	30	NO	10/7/2008	32	66.7

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Section R302.2 Townhouses.

EXCEPTION: A common 2-hour fire resistant-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 and 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

Section R314.3 Location. Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms, within 21 ft. of any door to a sleeping room, with the distance measured along a path of travel.
3. On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
4. In the living area(s).

RESIDENTIAL ENERGY CONSERVATION:

Section N1101.7 Above code programs. Above code programs shall be permitted upon approval by the Alabama Residential and Energy Codes Board.

Section N1101.16/R401.3 Certificate. A permanent certificate shall be permitted to be posted on or in the electrical distribution panel. If posted, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant R-values of the insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawlspace wall and/or floor) and ducts outside conditioned spaces; U-factors for fenestration; and solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the types and efficiencies of heating, cooling and

service water heating equipment. Where a gas-fired unvented room heater, electric furnace and/or baseboard electric heater is installed in the residence, the certificate shall list “gas-fired unvented room heater,” “electric furnace” or “baseboard electric heater,” as appropriate. An efficiency shall not be listed for gas-fired unvented room heaters, electric furnaces or electric base board heaters.

Section N1102.1 Insulation and Fenestration Requirements ~~by Component Criteria~~. Delete Table N1102.1.1 and substitute Table 402.3 ~~Insulation and Fenestration Requirements by Component~~ Building envelope requirements: Fenestration from the 2009 2012 IECC.

Section N1102.2.4/R402.2.4 Access Hatches and Doors. Access doors from conditioned spaces to unconditioned spaces (e.g.; attics and crawl spaces) shall be weather-stripped and insulated to a level in accordance with the following insulation values:

1. Hinged vertical doors shall have a maximum U-Factor of U-0.20 (R-5 minimum);
2. Hatches/scuttle hole covers shall have a maximum U-Factor of U-0.05 (R-19 minimum); and
3. Pull down stairs shall have a maximum U-Factor of U-0.20 with a minimum of 75 percent of the panel area having (R-5 minimum) insulation.

Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood framed or equivalent baffle of retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed R-value of the loose fill insulation.

Section N1103.2.1/R403.2.1 Insulation. All ducts not in a conditioned space shall be insulated to a minimum of R-6. ~~Effective July 1, 2013 all supply ductwork in attics shall be insulated to a minimum of R-8.~~

Exception: Ducts or portions thereof located completely inside the building thermal envelope.

~~Section M1502.4.4.1 Specified Length. The maximum length of the exhaust ducts shall be thirty five (35) feet from the connection to the terminus of the transition duct from the dryer to the outlet terminal. Where fittings are utilized, the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.4.1.~~

RESIDENTIAL MECHANICAL SYSTEMS:

Section M1601.4.1 Joints, seams and connections. Joints of duct systems shall be made substantially airtight by means of tapes, mastics, liquid sealants, gasketing or other approved closure systems. Closure systems used with rigid fibrous glass ducts shall comply with UL181A and shall be marked 181A-P for pressure-sensitive tape, 181A-M for mastic or 181A-H for heat-sensitive tape. Closure systems used with flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked 181B-FX for pressure-sensitive tape or 181B-M for mastic. All metal to metal connections shall be mechanically fastened. All duct connections shall be sealed. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL 181B and shall be marked 181B-C. Crimp joints for round metal ducts shall have a contact lap of at least 1 ½ inches (38mm) and shall be mechanically fastened by means of at least three sheet metal screws or rivets equally spaced around the joint. Closure systems used to seal metal ductwork shall be installed in accordance with the manufacturer’s installation instructions.

Add new Section M1601.4.1.1 Duct Leakage. Duct leakage testing shall not be required prior to July 1, 2013. Leakage of ducts to unconditioned space shall be less than or equal to eight (8) cfm (226.5 L/min) per one hundred (100) ft² (9.29 m²) of conditioned floor area or a

total leakage less than or equal to twelve (12) cfm (12 L/min) per one hundred (100) ft² (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure.

Exception: Duct tightness test is not required if the air handler and all ducts are located within conditioned space.

RESIDENTIAL PLUMBING:

~~Section P2603.6.1~~ **P2603.5.1** – Sewer Depth. Building sewers that connect to private sewage disposal systems shall be ~~not less than a minimum of~~ eighteen (18) inches below finished grade at the point of septic tank connection. Building sewers shall be ~~not less than a minimum of~~ six (6) inches below grade.

Add Section 3005.2.7.1 – Building Drain and Building Sewer Junction. Sewage line clean-outs shall be permanently protected from damage at ground level by a method approved by the building official.

COMMERCIAL PLUMBING:

- (c) International Plumbing Code, ~~2009~~ **2102** Edition provided, however, the following sections are amended to read as follows and/or added to said code:

Section 101.1 (Insert) City of Foley, Alabama

~~Section 305.6.1~~ **305.4.1** – Sewer Depth. Building sewers that connect to private sewage disposal systems shall be a minimum of eighteen (18) inches below finished grade at the point of septic tank connection. Building sewers shall be a minimum of six (6) inches below grade.

Section 708.3.2.1 – Building Sewers. Sewage line clean-outs shall be permanently protected from damage at ground level by a method approved by the building official.

~~Section 904.1~~ **903.1** - Roof Extension. All open vent pipes that extend through a roof shall be terminated at least six (6) inches above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least 7 feet (2134 mm) above the roof.

COMMERICAL MECHANICAL SYSTEMS:

- (d) International Mechanical Code, ~~2009~~ **2012** Edition; provided, however, that the following sections ~~be added and supplemented to said Code:~~ **are amended to read as follows and/or added to said code:**

Section 101.1: (insert) City of Foley, Alabama

Section 606.4.2 – Alarm activation from the installed protective signaling system shall cause shutdown of all HVAC units in the zone, floor or area. If the signaling system is unable to designate a specific zone, floor or area, global shutdown of all HVAC systems in the building shall occur upon fire alarm activation.

FIRE CODES:

- (e) International Fire Code, ~~2009~~ **2012** Edition; and Appendices A, B, C, D, F, H and I; provided, however, the following sections are amended to read as follows and/or added to said code:

Section 101.1: (Insert) City of Foley, Alabama

~~Section 102.7 – Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 47, and such codes and standards shall be~~

~~considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.~~

Section 109.4 (SPECIFY OFFENSE) Fire Code Violation

(AMOUNT) As Determined by the Municipal Court System

(NUMBER OF DAYS) As Determined by the Municipal Court System

Section 111.4: Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable. ~~to a fine of not less than (AMOUNT) dollars or more than (AMOUNT) dollars~~ and subject to penalties as determined by the Municipal Court System.

Section 302.1 Definitions – Definitions.

PORTABLE/FIXED OUTDOOR FIREPLACE. A portable or fixed, outdoor, solid-fuel-burning fireplace that may be constructed of steel, concrete, clay or other noncombustible material. A portable or fixed outdoor fireplace may be open in design, or may be equipped with a small hearth opening and a short chimney or chimney opening in the top.

Section 307 – Open Burning. Recreational Fire and Portable/Fixed Outdoor Fireplaces shall be amended as follows:

Section 307.1.1.1. No person shall kindle or maintain any open fire or authorize any such fire to be kindled or maintained without first obtaining a permit or other proper authorization. During the construction or demolition of any structure, no waste materials or rubbish shall be disposed of by burning on the premises or in the immediate vicinity without having obtained a permit or other proper authorization.

Exception: A permit is not required for fires in portable/fixed outdoor fireplaces or approved containers.

Section 307.1.1.2. Only untreated wood and plant growth shall be permitted to be burned. Under no circumstances shall any treated or painted lumber, heavy oils, items containing synthetic or natural rubber, asphaltic materials, plastics, or refuse be burned.

Section 307.1.1.3. Open fires permitted in this section shall not commence before 6:00 a.m. and no combustible material shall be added to the fire after 3:00 p.m. of each day permitted. The fire official may prohibit any or all open burning when local circumstances or atmospheric conditions make such fires hazardous.

Section 307.1.1.4. Open burning of materials generated by major land clearing practices is prohibited in the corporate City limits of Foley.

Exception: The disposal of plant growth generated by major land clearing practices may be conducted only in an incinerator approved by the fire code official.

Section 307.4 – Location. The location for open burning shall not be less than five hundred feet (500') from any structure, other than a structure located on the property on which the burning is conducted. Adequate provision shall be made to prevent the fire from spreading; and the location is not less than five hundred feet (500') from any public road, street or highway and is controlled so as not to create a hazard to health or traffic as a result of the smoke emitted.

Exceptions: Fires in approved containers that are not less than fifteen feet (15') from a structure.

Section 307.4.3 Portable/Fixed Outdoor Fireplaces. Portable and/or fixed outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet (3048 mm) of a structure or combustible material.

Section 307.6. The requirements established in this section shall not prohibit the Fire Official from making exception to these requirements from time to time for purposes relating to the common good of the community.

Section 308.1.4 – Open-flame cooking devices. Charcoal burners and other open-flame cooking devices shall not be operated on combustible balconies or within 10 ft. (3048 mm) of combustible construction.

Propane cooking devices shall not be stored on combustible balconies.

Exceptions: 1. One and two family dwellings.

Section 311.2.2 – Fire Protection. Fire alarm, sprinkler and standpipe systems shall be maintained in an operable condition at all times. Any impairment to or malfunction of the fire alarm, sprinkler or standpipe system shall be reported to the fire department.

Exceptions:

1. When the premises have been cleared of all combustible materials and debris and, in the opinion of the fire code official, the type of construction, fire separation distance and security of the premises do not create a fire hazard.
2. Where *approved* by the fire chief, buildings that will not be heated and where fire protection systems will be exposed to freezing temperatures, fire alarm and sprinkler systems are permitted to be placed out of service and standpipes are permitted to be maintained as dry systems (without an automatic water supply), provided the building has no contents or storage, and windows, doors and other openings are secured to prohibit entry by unauthorized *persons*.

Section 503.2.2 - Authority. The fire code official shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

Section 503.3 - Marking. Where required by the fire code official, approved signs or other approved notices or markings shall be provided for fire apparatus roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility. Fire lane striping shall consist of six-inch (6") wide red background stripe with four-inch (4") high white lettering stating "NO PARKING FIRE LANE" at intervals not to exceed 25 feet. Fire lane marking shall be on the vertical surface of the curb unless otherwise approved by the fire code official.

Section 901.2.1.1 – All sprinkler and fire alarm design drawings submitted to the fire department for review shall abide by the Alabama State Board of Licensure for Professional Engineers and Land Surveyors' fire protection position statement. NICET certification does not replace the requirement for professional licensure. The designing of fire protection systems is engineering and as such must be designed by or under the direct supervision of professional engineers qualified to design fire protection systems. Only fire protection designs that have been signed and sealed by a qualified Alabama licensed professional engineer shall be approved for construction.

Section 901.2.1.2 – Contractor Qualification Requirements. Copies shall be submitted to the Code Official for review.

Restaurant Fire Suppressions Systems:

- The qualifier must be either manufacturer certified, which restricts them to that manufacturer, and/or NAFED/ICC certified in that field which would allow them to be unrestricted and service or maintain any system (This will not cover installation; maintenance only).

Hood Cleaning:

- Current certificate of training on hood cleaning in compliance with NFPA 96.

Sprinkler Systems:

- Current sprinkler permit through the Alabama State Fire Marshal's Office and NICET certification.

Fire Alarm Systems:

- Current fire alarm permit through the Alabama State Fire Marshal's Office and NICET certification. Must be a minimum of NICET II to perform technician work, or work under the direct supervision of a NICET II.

Fire Extinguishers:

Current certificate of training on portable fire extinguishers in compliance with NFPA 10.

~~Section 903.2.7 – Group M. – An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:~~

- ~~1. A Group M fire area exceeds 12,000 square feet (1115 m2).~~
- ~~2. A Group M fire area is located more than three stories above grade plane.~~
- ~~3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m2).~~
- ~~4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet.~~

Section 903.2.8 – Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area except in one and two family dwellings in accordance with the State of Alabama Act 2010-185 mandate. However, if automatic sprinkler systems are voluntarily installed in one or two family dwelling they shall be installed as set forth in Section 903.3.

Section 903.3.7 – Fire Department Connections. The location of fire department connections shall be remote of the building, ~~at the backflow preventer~~ **outside of the building's collapse zone**, whenever possible. **The collapse zone is a distance away from the building equal to the height of the exterior wall on the side of the fire department connection.** The location shall be approved by the fire code official.

Section 903.3.7.1. All above ground piping exposed to the weather shall be insulated to protect from freezing.

~~Section 47 – Referenced Standards. The following NFPA standard shall be added to the referenced standards in Chapter 47:~~

~~NFPA I: Uniform Fire Code, 2006 Edition~~

Section 5704.2.9.6.1: (Insert) City of Foley, Alabama

Section 5706.2.4.4: (Insert) City of Foley, Alabama

Section 5806.2: (insert) City of Foley, Alabama

Section 6104.2: (Insert) City of Foley, Alabama

PROPERTY MAINTENANCE:

- (f) International Property Maintenance, 2009 2012 Edition; provided, however, that the following sections are amended to read as follows and/or added to said code:

Section 101.1: (insert) City of Foley, Alabama

Section 302.4: (Insert) 12 Inches

- (g) International Existing Building Code, 2009 2012 Edition, together with Appendix A (Referenced standards); provided, however, the following sections are omitted and not adopted:

Section 105.1.1 – Annual permit

Section 105.1.2 – Annual permit records

~~Section (EC) 307.5 – Energy~~

~~Section 607 – Energy Conservation~~

~~Section 711 – Energy Conservation~~

~~Section 808 – Energy Conservation~~

The International Existing Building Code adopted herein shall be amended as follows:

Section 101.1: (Insert) City of Foley, Alabama

Section 1401.2: (Insert) (The Effective Date of this Ordinance)

COMMERICAL ENERGY CONSERVATION:

- (h) 2009 2012 International Energy Conservation Code (IECC) shall be implemented and enforced for buildings three (3) stories and above including multi-family dwellings provided, however, the following sections and chapters are omitted and not adopted:

~~Section 402.2.8~~ R402.2.9 Slab-on-grade Floors

~~Section 403.1.1~~ R403.1.1 Programmable Thermostat

~~Section 403.9~~ R403.9 Pools and inground permanently installed spas (Mandatory)

~~Section 403.9.1~~ R403.9.1 Pool Heaters

~~Section 403.9.2~~ R403.9.2 Time Switches

~~Section 403.9.3~~ R403.9.3 Pool Covers

The following sections are amended to read as follows and/or added to said code:

Section C101.1 and R101.1: (insert) City of Foley, Alabama

~~Section 403.2.1 Insulation. All ducts not in a conditioned space shall be insulated to a minimum of R-6. Effective July 1, 2013 all supply ductwork in attics shall be insulated to a minimum of R-8.~~

~~Section 403.2.2~~ R403.2.2 Sealing (Mandatory). All ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.4.1 of the International Residential Code.

- (a) ~~Effective July 1, 2013,~~ Duct tightness shall be verified by either of the following:

1. Post-construction test: Leakage to outdoors shall be less than or equal to 8 cfm per one hundred (100) ft² of conditioned floor area or total leakage less than or equal to 12 cfm per one hundred (100) ft² of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.

2. Rough-in test: Total leakage shall be less than or equal to 6 cfm per one hundred (100) ft² of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the roughed in system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test. If the

air handler is not installed at the time of the test, total leakage shall be less than or equal to 4 cfm per one hundred (100) ft² of conditioned floor area.

Exceptions: Duct tightness test is not required if the air handler and all ducts are located within conditioned space.

COMMERCIAL ELECTRICAL CODES:

- (i) NFPA 70, National Electric Code, 2011 Edition provided, however, the following sections are amended to read as follows and/or added to said code:

Article 362 – Electric nonmetallic tubing type ENT, shall only be allowed for low voltage AC circuits not exceeding twenty-five (25)24 volts and data-com.

MANUFACTURED HOMES:

- (j) NFPA 501A, Manufactured Home Installations, Sites, and Communities, 2005 2009 Edition.

RECREATIONAL VEHICLE PARKS:

- (i) NFPA 1194, Recreational Vehicle Parks, 2008 2011 Edition.

WATER SUPPLY, SUBURBAN AND RURAL FIRE FIGHTING:

- (j) NFPA 1142, Water Supplies, Suburban and Rural Fire Fighting, 2007 2012 Edition.

AMERICANS WITH DISABILITIES ACT:

- (m) Accessible and Usable Building and Facilities, ICC/ANSI A117.1, 2009 Edition.

FIRE ALARMS:

- (n) NFPA 72: National Fire Alarm and Signaling Code, 2007 2013 Edition.

WET CHEMICAL EXTINGUISHING:

- (o) NFPA 17A: Standard for Wet Chemical Extinguishing Systems, 2002 2013 Edition

RESIDENTIAL SPRINKLER SYSTEMS:

- (p) NFPA 13R: Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including Four Stories in Height, 2007 2013 Edition.
- (q) NFPA 13D: Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured homes, 2007 2013 Edition.

COMMERCIAL SPRINKLER SYSTEMS:

- (r) NFPA 13: Standard for the Installation of Sprinkler Systems, 2007 2013 Edition.

PORTABLE FIRE EXTINGUISHERS:

- (s) NFPA 10: Standard for Portable Fire Extinguishers, 2007 2013 Edition.

STANDPIPES AND HOSE SYSTEMS:

- (t) NFPA 14: Standard for Installation of Standpipes and Hose Systems, 2007 2013 Edition.

SECTION 2 That the following laws are hereby ratified, passed or adopted:

SUBMITTAL DOCUMENTS:

- 1. Submittal documents required to be prepared by a design professional:
 - (a) Any new habitable structure.
 - (b) Any residential addition over one thousand (1,000) square feet in area or that creates more than a fifty (50%) percent improvement to the structure.

- (c) Any residential remodel that affects the exterior loads or is considered a fifty (50%) percent improvement to the structure.
- (d) Any commercial addition that is over one thousand (1,000) square feet in area, increases the original structure to over twenty-five hundred (2,500) square feet in area or affects the loads, energy values or life safety plan of the original structure.
- (e) Any commercial remodel to a structure that is over twenty-five hundred (2,500) square feet in area or changes the structural load, energy values or life safety plan of the original structure.
- (f) Any built-on-site accessory structure over one thousand (1,000) square feet in area.
- (g) Any pre-built accessory, modular or manufactured structure.
- (h) Any free-standing sign with a face over thirty-two (32) square feet in area or more than nine (9) feet in height at the highest point.
- (i) Any engineered product, such as a truss system.
- (j) Any geotechnical data.

The information required includes structural loads, energy values and/or commercial electrical, mechanical, plumbing or life safety plans.

*EXCEPTIONS: Non-habitable structures or signage will not have to provide energy values.

When available, digital copies of plans/revisions shall be submitted along with the hard copies

ATTIC STAIRWAYS:

2. Permanent Attic Stairways: In addition to other types of attic stairways permitted under this code, permanent stairs leading to a non-habitable attic space may also be allowed, but only if they meet or exceed the following criteria and only if the Owner and Contractor sign an acceptable hold harmless and indemnity agreement in favor of the City of Foley and its agents:

- (a) Permanent attic stairs must have a minimum net clearance between the inside edge of the handrail or, if none, the fire rated interior finished wall on one side and the inside edge of the handrail or fire rated interior finished wall on the other side of at least twenty-four inches (24").
- (b) Treads and Risers: Permanent attic stairs shall have a riser height of no greater than nine inches (9") and shall have a tread depth of no less than five and one-half inches (5½"). All risers shall be "open" between the steps.
- (c) Illumination: Attic stairs must be illuminated, and shall have a light switch at the bottom of the stairs and a light at the top of the stairs.
- (d) Under Stair Protection: Attic staircases must be enclosed on both sides with fire rated interior finished wall for fire protection, and must have a lockable, metal door blocking the entrance to the bottom of the staircase which can be opened without a key from inside the stairwell.
- (e) Hand Rails: Permanent attic staircases must have at least one handrail running along the entire length of the staircase.
- (f) Any provisions contained in the ~~2009~~ **2012** International Residential Code which directly conflict with these provisions is hereby repealed or deleted, but only to the minimum extent required to make these changes effective.

PERMIT EXCEPTIONS:

- 3. Permit exceptions: Construction and construction-related activities which are being performed by or on behalf of the federal government, the State of Alabama, Baldwin County, or any departments, agencies, boards, divisions, or subdivisions of the same for their own use shall be exempt and excluded from the permits, permit fees, inspections, and inspection fees called for in this Article. The City of Foley shall be exempt and excluded from the permit fees and inspection fees. Subject to the forgoing, all construction and construction-related activities must conform to all applicable federal, state, county and local laws relating to the same, and it is the responsibility of the federal government, the State of Alabama, Baldwin County, the City of Foley, or the department, agency, board, division, or subdivision on whose behalf the work is being performed to ensure compliance with all applicable laws and ordinances. This section shall not exclude construction or construction-

related activities which are merely funded, in whole or in part, by federal, state, county or municipal monies but which will not be owned or occupied by that governmental entity after the completion of the construction or construction-related activities.

PERMIT FEES:

4. Permits and Fees.

Section 1. Permit Fees shall read as follows: “Each person, firm, corporation or other entity engaged in any construction or construction-related activity for which a City building permit is required shall, before the commencement of work, pay the appropriate building permit fee. For the purpose of determining the fee for the issuance of a building permit, the value of the requested work is determined by the City of Foley Inspection Department which may consider **the most current version of the Building Valuation Data published by the International Code Council**, bona fide, signed contracts, **local averages based on** the square footage of the project, or any other evidence of the cost or value of the work. The following fees shall be charged for the issuance of building permits based on the total value of work, including materials and labor.”

Section 2:

<u>Value</u>	<u>Fee</u>
Minimum	\$50.00
Up to \$1,000	\$50.00
\$1,001 to \$50,000	\$50.00 for the first \$1,000 + \$10.00 for each additional \$1,000 or fraction thereof
\$50,001 to \$100,000	\$540.00 for the first \$50,000 + \$8.00 for each additional \$1,000 or fraction thereof
\$100,001 to \$500,000	\$940.00 for the first \$100,000 + \$6.00 for each additional \$1,000 or fraction thereof
\$500,001 and up	\$3,340.00 for the first \$500,000 + \$4.00 for each additional \$1,000 or fraction thereof

Section 3: “When commercial and residential building plans are submitted for review under the International Building Code and the International Residential Code, a plan review fee shall be paid to the Building Department at the time of submitting the plans and specifications for review. The fee shall be equal to one-half the Building Permit Fee. “Exemption: Detached one- and two-family dwellings and accessory buildings.”

Section 4: Mechanical Fees will be based on the total value or cost of the work to be performed, as determined by the City of Foley Inspections Department, which may consider bona fide signed contracts or any other evidence of the cost or value of the work as follows:

<u>Value</u>	<u>Fee</u>
Minimum	\$25.00
Up to \$1,000	\$25.00
\$1,001 and up	\$25.00 for the first \$1,000 + \$5.00 for each additional \$1,000 or fraction thereof

Section 5. Electrical Fees will be based on the nature and extent of the work to be performed based on the following:

(A)Minimum Electric Fee \$25.00

(B) Wiring, outlet and fixture fees are based on wiring to an outlet or fixture, with wall switches to be included in the fixture category as follows:

1) Outlets

<u>Number of Outlets</u>	<u>Fee</u>
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1 to 3	\$2.00
4 to 10	\$2.50
11 to 15	\$3.00
16 to 24	\$4.00
25 to 50	\$6.00
51 to 75	\$8.00
76 to 100	\$12.00
Over 100	\$12.00 + \$.50 for each outlet over 100

2) Fixtures	
<u>Number of Fixtures</u>	<u>Fee</u>
1 to 5	\$3.00
6 to 15	\$5.00
16 to 30	\$7.00
31 to 40	\$9.00
41 to 50	\$11.00
51 to 60	\$13.00
61 to 70	\$15.00
71 to 80	\$17.00
81 to 90	\$19.00
91 to 100	\$20.00
Over 100	\$20.00 plus \$.50 for each fixture over 100

(C) Wiring and installation of U.L. Listed pre-wired equipment not otherwise shown on other schedules:

<u>Number of Circuits</u>	<u>Fee</u>
1 to 3	\$5.00
4 to 6	\$10.00
7 to 10	\$15.00
Over 10	\$15.00 + \$1.00 for each circuit over 10

(D) Main line service for light, heat, or power:

<u>Switch Amperes</u>	<u>Fee</u>
100 Amperes or less	\$6.00
200 Amperes	\$8.00
400 Amperes	\$10.00
600 Amperes	\$14.00
800 Amperes	\$18.00
1200 Amperes	\$22.00
2000 Amperes or more	\$30.00

Fees for switches shall include only mainline service entrance switches and switches for sub-feeder panels.

(E) Wiring for and installation of motors:

<u>Motor HP</u>	<u>Fee</u>
5 HP or less	\$5.00
6 HP to 10 HP	\$6.00
11 HP to 20 HP	\$8.00
21 HP to 30 HP	\$10.00
31 HP to 50 HP	\$14.00
51 HP to 100 HP	\$18.00
Above 100 HP	\$18.00 + \$1.00 per HP above 100

(F) Wiring for and installation of generators and transformers:

<u>Ratings of Units</u>	<u>Fee</u>
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10 KW or less	\$5.00
11 KW to 25 KW	\$8.00
26 KW to 50 KW	\$14.00
Above 50 KW	\$20.00

(G) Wiring for and installation of all exterior signs:

<u>Number of Signs</u>	<u>Fee</u>
Any number	\$25.00

(H) Wiring for and installation of heating and appliances, ranges, ovens, cooktops, water heaters, and other appliances not addressed elsewhere herein:

<u>Unit Wattage</u>	<u>Fee</u>
750 Watts or less	\$5.00
Above 750 Watts, up to 3750	\$8.00
Over 3750	\$10.00

(I) Other electrical fees:

Fees not otherwise provided for in Section 5, including but not limited to, new tenant meter change-out, construction power pole, temporary installation of any switch, fixture, appliance or other electrical device, mobile home, and temporary electrical power shall be \$25.00 each.

Section 6. Plumbing fees:

Plumbing fees will be based on the nature and extent of the work to be undertaken based on the following:

(A) Minimum plumbing fee \$25.00

(B) Unit/Fixture fees:

<u>Unit or Fixture</u>	<u>Fee</u>
Water Closets	\$4.00
Bathtubs	\$4.00
Lavatories	\$4.00
Sinks	\$4.00
Urinals	\$4.00
Drinking Fountains	\$4.00
Shower Baths	\$4.00
Bidet	\$4.00
Clothes Washer – Commercial	\$4.00
Clothes Washer – Residential	\$2.00
Floor Drains	\$2.00
Garbage Grinder – Commercial	\$5.00
Garbage Grinder – Residential	\$4.00
Gravity Storage Tank	\$3.00
Hot Water Storage Tank	\$3.00
Indirect Waste Receptors	\$3.00
Oil or Grease Separators	\$2.00
Ornamental Fountain or Pool	\$5.00
Relief Valves – Separate	\$2.00
Sewer Ejectors – Pump	\$7.00
Solids Separators	\$2.00
Sump Pump	\$5.00
Hot Water Heaters – Electric	\$4.00
Hot Water Heaters – Gas	\$4.00
Water Heaters – Alternate	\$11.00
Water Pumps	\$4.00

Water Treatment Devices	\$2.00
Building Sewer – Connection to Main	\$5.00
Slab	\$5.00
Sewer Repair	\$4.00
Septic Tank Connection	\$4.00
Building Drains to Sewer	\$2.00
Water – Meter to Building	\$2.00
Water Distribution – 1 st Outlet	\$2.00
Water Distribution – Each Additional	\$1.00
Hose Bibbs	\$2.00
Dishwasher	\$4.00
Kitchen Sinks & Disposal	\$4.00
Laundry Tray	\$4.00
Service Sink	\$4.00
Icemaker	\$2.00

Section 7: Miscellaneous Fees

All fees listed below will be payable at the time of permit issuance and shall be duly receipted prior to the commencement of work:

- (1) Moving a Building or Structure:
 - The permit fee for moving any building is \$100.00.

- (2) Demolition of a Building or Structure:
 - For the demolition of any building or structure, the permit fee shall be as follows:
 - 1) Where the building or structure is 100,000 cubic feet or less, the fee is \$50.00.
 - 2) Where the building or structure is greater than 100,000 cubic feet, the fee is \$50.00 + \$.50 per one thousand cubic feet or fraction thereof over 100,000 cubic feet.

- (3) Mobile/Manufactured Structure Use Fees:
 - For the use of any mobile or manufacturing structure as an approved temporary commercial structure, as otherwise permitted by Ordinances of the City of Foley, Alabama, the use fee shall be as follows:
 - A. Where the mobile or manufactured structure is used as a temporary commercial use, the fee shall be \$225.00 for a 6-month period.
 - B. Where the mobile or manufactured structure is used as a temporary construction field office, the fee shall be \$50.00 for a 6-month period. At the end of the 6-month period, the Building Official may approve another 6-month period at a cost of \$50.00 for each re-permitted extension.
 - C. Where the mobile or manufactured structure is used as a quarters for a watchman, the fee shall be \$225.00 for a 6-month period. At the end of the 6-month period, the Building Official may approve another 6-month period at a cost of \$225.00 for each re-permitted extension.
 - *Any requests for longer than the original 6-month period must be requested In writing.

- (4) Mobile/Manufactured Home Fee:
 - For the use of any mobile or manufactured home to be used as a residence as otherwise permitted by Ordinances of the City of Foley, Alabama, the use fee shall be \$50.00.

Section 8: Other Fees:

- (1) Re-inspection Fees:

Any re-inspection of any item covered under the provisions of this ordinance, as necessitated by lack of approval on the item upon initial inspection shall require a separate fee of \$25.00.

(2) Weekend or After Hours Fees:

Fees for after hours or weekend inspections shall be paid prior to such request for an appointment granting the inspection, and shall be in addition to all other fees. Such after hour and weekend fees will be based on a fee of \$40.00 per hour or portion thereof, and in no case shall be less than two hours. Normal business hours of the Building Inspections Department of the City of Foley shall be posted within the office confines of the Department.

(3) Fees for Additional Work:

In the event that during the performance of the work allowed under the permit, additional installations or alterations are required, it shall be unlawful for the person who secured the original permit to fail to immediately remit to the Building Inspections Department an amount equal to the additional fees called for under this Ordinance.

(4) Double Fees:

When work for which a permit is required is commenced prior to the obtaining of a permit, the applicant shall be required to pay a permit fee equal to two times the amount the fee would otherwise be. The payment of the double fee shall not relieve any person from fully complying with all of the requirements of all applicable regulations and codes, nor shall it relieve them from being subject to any of the penalties therein, including, but not limited to suspension or termination of the work.

(5) Unused Permits and Refunds:

The City Clerk of the City of Foley is authorized to refund fees paid for permits issued under this Ordinance at any time within 180 days after the issuance of said permits provided the Building Official certifies to the City of Foley Clerk, and a written request and explanation is received from the applicant, as follows:

- (A) That the permit for which the refund is requested has been cancelled and no work has begun. (Any refund made under this provision shall be subject to an administrative charge of \$25.00 which amount shall be deducted from the amount of refund applied for); or
- (B) That the work for which the permit refund is requested is not going to be completed. (Any refund made under this provision is subject to a prorated refund as determined by the Building Official and an administrative charge of \$25.00 which amounts shall be deducted from the amount of refund applied for.) Notwithstanding the above, no plan review fees will be refunded.

Section 9: Planning and Zoning Fees:

(1) Miscellaneous Fees as follows:

- a) ZONING PLAN REVIEW – The fee for zoning plan reviews shall be TWENTY FIVE DOLLARS (\$25.00) per residential plan and FIFTY DOLLARS (\$50.00) per commercial plan.
- b) There shall be a TWENTY FIVE DOLLAR (\$25.00) fee for a Flood Determination letter, a TWENTY FIVE DOLLAR (\$25.00) fee for a Zoning Verification letter.
- c) Land Disturbance activities as follows: “Application must be accompanied by a fee of Four Hundred Fifty Dollars (\$450.00) for up to five acres plus Seventy-Five Dollars (\$75.00) per five acre increments over and above the first five acres, which shall provide for inspection by the City inspector, and a plan and design review and study by the City’s professional engineers.”

- d) The City of Foley Subdivision Regulations, Article IV, Table I subdivision fees as follows:
 - Preliminary Plat fees are \$250.00 + \$30.00 per lot.
 - Final Plat fees are \$150.00 + \$20.00 per lot.
 - Minor Subdivision fees are \$250.00 + \$30.00 per lot
- e) Rezoning by petition of property owner: "A FIVE HUNDRED DOLLAR (\$500.00) fee for 20 acres or less shall be charged to defray the cost of processing application. For every acre over 20 an additional FIFTEEN DOLLARS (\$15.00) per acre fee shall be charged."
- f) The fee for initial zoning shall be TWO HUNDRED FIFTY DOLLARS (\$250.00) and shall be submitted with the petition for annexation and zoning request form attached to the petition.
- g) Board of Adjustment and Appeals Fees: All applications to the Board of Adjustment and Appeals for interpretations, special exceptions, or variances must be accompanied by a check payable to the City of Foley, Alabama, or cash in the amount of \$150.00 which includes the cost of advertising.

- 1. All adopted, valid Flood Damage Prevention Ordinances remain in full force and effect.

ELECTRICAL POWER CONNECTIONS:

- 2. Electrical Power Connections:

- a) Temporary Power Defined – Electric power service, permanently connected to buildings and structures, but limited to use for a specified period of time, and for the express purpose of testing and inspecting electrically powered systems and equipment installations during new construction, or during renovations, alterations, or repairs to existing structures or buildings.
- b) Permanent Power Defined – Electric power service, permanently connected to a building or structure to provide a continuous electric current source to operate electrically powered systems and equipment.
- c) Permanent power and temporary power connections to buildings and structures within the corporate City limits of Foley shall be approved by the Inspection Department.
- d) Temporary electrical power service connections to buildings under construction shall be obtained in the name of the contractor and shall not exceed a time period limitation of thirty (30) calendar days from the date of the connection.
- e) Upon issuance of a permit for major renovations, alterations, or repairs to either the structural elements of a building, or to the electrical system, electric power service shall be converted to a temporary permanent status, and shall be limited to a time period of thirty (30) calendar days from the date of the issuance.
- f) Permanent electric power service connections to such buildings and structures as are outlined in b) above shall be approved only upon completion of all permitted work, and the issuance of the Certificate of Occupancy or Completion.

- 4. All non-residential electrical work requires a properly licensed electrician.

SECTION 3. Severability. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portions thereof.

SECTION 4. Repeal. That this ordinance is intended to update and amend various prior ordinances. Any prior ordinances which are in conflict with this ordinance are hereby repealed and superseded by this ordinance, including, but not limited to, Sections 4-1, 4-2(c) and Section 8-2, Code of the City of Foley.

SECTION 5. That this ordinance shall be published as required by law.

SECTION 6. “The terms and provisions of this ordinance are severable. If any part or portion of this ordinance is declared invalid, void, or unconstitutional, that portion shall be deemed severed, and the remaining portions of the ordinance shall remain in full force and effect.”

SECTION 7. All ordinances or parts of ordinances, in any manner conflicting herewith are hereby repealed.

PASSED, ADOPTED AND APPROVED THIS day of , 2014. 2015

President’s Signature _____ Date _____

Attest by City Clerk _____ Date _____

Mayor’s Signature _____ Date _____

Exhibit A

COASTAL CONSTRUCTION SUPPLEMENT

S1 Roof Covering

Roof coverings and their attachment must be rated for the ASCE7 design wind speed for the site location of the building and must be installed in accordance with the manufacturer’s recommendations for high-wind regions.

Asphalt Shingles:

Table 5: Design Wind Speed and Shingle Testing Standards	
Wind Speed	Shingle Testing Standard/ Classification
110 mph	ASTM D3161 (Class F) or ASTM D7158 Class F, G, or H
120 mph	ASTM D7158 Class G or H
130 mph	ASTM D7158 Class H
140 mph	ASTM D7158 Class H
150 mph	

Shingle Attachment:

Shingles shall be installed using the number of fasteners required by the manufacturer for high-wind fastening.

Attachment at eaves, rakes, valleys, gable ends, and starter strips:

Shingles and starter strips at all intersections, eaves, valleys, and gable ends shall be set in a minimum 8-inch wide strip of flashing cement. Maximum thickness of flashing cement shall be 1/8 inch. Shingles shall not extend more than ¼ inch beyond the drip edge.

Metal Panels:

Metal panel roofing systems and their attachment shall be installed in accordance with the manufacturer's installation instructions and shall provide uplift resistance equal to or greater than the design uplift pressure for the roof based on the site design wind speed and exposure category. The metal panels shall be installed over continuous decking and one of the acceptable sealed roof deck options.

Clay and Concrete Roof Tiles:

Clay and concrete roof tile systems and their attachment shall meet the requirements of the site design wind speed and exposure category. Clay and concrete roof tiles shall be installed in accordance with FRSA/ Tile Roofing Institute installation guidelines, "Concrete and Clay Roof Tile Installation Manual Fourth Edition, FRSA/TRI 07320/08-05" for the site design wind speed and exposure category. Mortar set tile or mortar set hip and ridge tiles (Systems Three and Four B, as listed in FRSA/TRI Manual) are not permitted. Hip and ridge boards shall be attached to the roof framing to resist the uplift pressure for the site design wind speed and exposure or in accordance with Table 11 of the FRSA/Manual. Hip and ridge tiles shall be secured to the hip and ridge boards with mechanical fasteners and/or an approved roof tile adhesive. Note: FRSA/ Tile Roofing Institute installation guidelines, "Concrete and Clay Roof Tile Installation Manual Fourth Edition, FRSA/TRI 07320/08-05" are available for purchase from the Tile Roofing Institute or the Florida Roofing, Sheet Metal and Air Conditioning Contractor's Association.

Other roof coverings:

For all other roof coverings, the designer must provide documentation showing the roof covering and the attachments were designed for the component and cladding wind pressures corresponding to the site design wind speed (up to 150 mph). All roof coverings, regardless of type, must be installed in accordance with the manufacturer's installation guidelines for the appropriate design wind speed.

Residential reroofing:

Reroofing of residential structures shall meet the requirements of this section for roof covering and Section S2 for Sealed Roof Deck. Existing roof coverings shall be removed to expose the roof deck. An inspection is required at this point to determine the adequacy of the roof deck attachment in accordance with the following:

Sawn Lumber or Wood Board Roof Decking:

- Add fasteners as required to ensure that roof decking consisting of sawn lumber or wood boards up to 1 inch thick are secured with at least two nails, having a minimum diameter of 0.131 inches and a minimum length of 2-1/2 inches, (three nails if the board is wider than 8 inches) to each roof framing member it crosses. Framing members must be spaced no more than 24 inches apart. Clipped-head, D-head or round-head nails shall be acceptable provided they have the required minimum diameter and length.
- For wood boards greater than 1 inches thick and up to 2 inches thick, add fasteners as required to ensure that the decking is secured with at least two nails, having a minimum diameter of 0.131 inches and sufficient length to penetrate a minimum of 1-

5/8 inches into the roof framing, (three nails if the board is wider than 8 inches) to each framing member it crosses. Framing members must be spaced no more than 24 inches apart. Clipped-head, D-head or round-head nails shall be acceptable provided they have the required minimum diameter and length.

Structural Wood Panel (Plywood or Oriented Strand Board-OSB) Roof Sheathing:

The number and spacing of additional fasteners needed to adequately strengthen the connection of structural wood panel roof sheathing depends on the size, type and spacing of the existing fasteners. With these considerations in mind, the re-nailing solutions outlined below are based on using ring-shank nails with full round heads as the additional nails. The specific required minimum dimensions and characteristics for the additional ring-shank nails to be used to strengthen the roof deck attachment are:

- full round head diameter (no clipped head nails allowed)
- 2-3/8 inch minimum nail length
- 0.113 inches in diameter

Additional fasteners shall be according to the following Table.

Wind Speed	Existing Fasteners	Existing Spacing	Required Additional Fastening	
			Within 4 foot zone (see Figure 4)	Outside of 4 foot zone
120 mph or less	Staples or 6d nails	Any	6 inches o.c. spacing between additional fasteners along panel edges and intermediate framing	
	8d smooth shank nails	6 inches o.c. or less along panel edges and intermediate framing	No additional fasteners required along panel edges, 6 inches o.c. spacing between additional fasteners along intermediate framing	No additional fasteners required
	8d smooth shank nails	Greater than 6 inches o.c.	6 inches o.c. spacing between existing and additional fasteners along panel edges, 6 inches o.c. spacing between additional fasteners along intermediate framing	6 inches o.c. spacing between existing and additional fasteners along panel edges and along intermediate framing
	8d ring shank nails	12 inches o.c. or less	6 inches o.c. spacing between existing and additional fasteners along panel edges and intermediate framing	6 inches o.c. spacing between existing and additional fasteners along panel edges and along intermediate framing
Greater than 120 mph	Staples or 6d nails	Any	4 inches o.c. spacing between additional fasteners along panel edges and intermediate framing	6 inches o.c. spacing between additional fasteners along panel edges and intermediate framing
	8d smooth shank nails	Less than 6 inches o.c.	4 inches o.c. spacing between existing and additional fasteners along panel edges and 6 inches o.c. between additional fasteners along intermediate framing	No additional fasteners required along panel edges, 6 inches o.c. spacing between additional fasteners along intermediate framing
	8d smooth shank nails	6 inches o.c. or greater	4 inches o.c. spacing between existing and additional fasteners along panel edges and along intermediate framing	6 inches o.c. spacing between existing and additional fasteners along panel edges, 6 inches o.c. spacing between additional fasteners along intermediate framing
	8d ring shank nails	12 inches o.c. or less	4 inches o.c. spacing between existing and additional fasteners along panel edges and along intermediate framing	6 inches o.c. spacing between existing and additional fasteners along panel edges and along intermediate framing

Deteriorated or damaged roof deck:

Damaged or deteriorated decking would generally be marked by one or more of the following characteristics: soft or spongy wood, wood swelling or buckling, delaminating (plywood), or crumbling and flaking of the wood. If deteriorated or damaged roof decking is found, the decking must be replaced and fastened in accordance with this section.

S2 Sealed Roof Deck

A sealed roof deck is required for all new construction and re-roofing applications by one of the following methods:

1. Installation of a "peel and stick" membrane over the entire roof deck;¹

- o The entire roof deck shall be covered with a full layer of self-adhering polymer modified bitumen membrane ("peel and stick") meeting ASTM D1970 requirements. In applications where membrane adhesion to OSB is marginal, apply a primer to the OSB panels to ensure the proper attachment of the self-adhering membrane to the sheathing.
- 2. Installation of a minimum 4" wide "peel and stick" tape installed over all the wood roof panel seams, covered by a compliant underlayment over the entire roof; ¹
 - o A self-adhering polymer modified bitumen flashing ("peel and stick") tape 4" wide minimum must be applied directly to the roof deck to seal the horizontal and vertical joints in the roof deck.
- 3. Installation of a high tear strength synthetic underlayment with all vertical and horizontal seams taped;
 - o Application a reinforced synthetic roof underlayment which has an ICC approval as an alternate to ASTM D226 Type II felt paper. The synthetic underlayment must have minimum tear strength of 20 lbs. per ASTM D1970 or ASTM D4533.
 - o This underlayment must be attached using annular ring or deformed shank roofing fasteners with minimum 1 inch diameter caps at 6 inches on center spacing along all laps and at 12" on center in the field or a more stringent fastener schedule if required by the manufacturer for high wind installations. Metal caps are required for areas where the design wind speed is greater than or equal to 140 mph.
 - o The minimum horizontal overlap between rolls is 2-inches and the minimum overlap at the ends of rolls (vertical) is 6-inches.
 - o All seams should be sealed with a compatible adhesive or a compatible 4-inch wide tape except for steep slope roofs with a 12/12 roof pitch (45 degrees) or greater.
 - o Horizontal seams on steep slope roofs with a 12/12 pitch (45 degrees) or greater do not have to be sealed with adhesive or tape provided the overlap for horizontal seams is at least 18 inches.
- 4. Installation of a closed cell polyurethane spray foam applied to the underside of the roof sheathing at the joints between the sheathing panels and along all intersections between roof sheathing and all roof framing members.
 - o The minimum requirements for the closed cell spray polyurethane foam spray are:
 - Two-component spray polyurethane foam system with a minimum core density of 1.5-3.0 pcf in accordance with ASTM D1622, Standard Test Method for Apparent Density of Rigid Cellular Plastics.
 - Spray polyurethane foam adhesive system should be installed by a properly trained and qualified applicator in accordance with the manufacturer's maintenance and installation guidelines.

S3 Aluminum/Vinyl Soffit

All Aluminum/Vinyl Soffit covering shall be attached to minimum 7/16 OSB or plywood or minimum 2 x 2 wood supports 8 inches OC maximum.

S4 Roof Decking Attachment

Roof decks shall be nailed in accordance with the engineered drawings but no less than 6 inches OC maximum intermediate and edge for zones 1 & 2 and 4 inches OC intermediate and edge for zone 3 using 8d (0.113" x 2-3/8") irregular shank (i.e., ring shank or spiral) nails with full round heads. Staples are not permitted for fastening of the roof decking.

S5 Roof Ventilation

Roof Ventilation shall be designed for the applicable wind load; ridge and off ridge vents shall be tested in accordance with TAS 100(A) for high wind and be labeled for verification of compliance. All roof ventilation shall be anchored in accordance with the manufacturer’s installation instructions for the appropriate wind load. Gable vents must be provided with a removable cover that can be attached from the outside made of plywood or a nonporous type of shutter that will prevent water from entering through the gable end vent. Wood structural panels with a minimum thickness of 7/16 inch and a maximum span of 4 feet are permitted as a gable end cover. Panels must be pre-cut so that they can be attached to the framing surrounding the gable vent. Panels shall be pre-drilled as required for the anchorage method and all required hardware shall be provided. Permanent corrosion-resistant attachment hardware with anchors permanently installed on the building shall be provided. Attachment schedule must be, at a minimum, in accordance with Table 4.

TABLE 4

FASTENER TYPE	FASTENER SPACING (inches) ¹
No. 8 Wood Screw based anchor with 2-inch embedment length ²	16
No. 10 Wood Screw based anchor with 2-inch embedment length ²	16
1/4 Lag screw based anchor with 2-inch embedment length ²	16

- Notes for Table 4:
- 1. Fasteners shall be installed at opposing ends of the wood structural panel and have a 2 inch minimum penetration into the building framing through veneers. Attachment to veneers is not acceptable
 - 2. Where screws are attached to masonry or masonry/stucco, they shall be attached using vibration-resistant anchors having a minimum withdrawal capacity of 1500 lb.

S6 Gable Ends

Unless balloon framed, gable ends over 4 foot high shall be braced with a minimum 2 x 6 horizontal strong back installed at midpoint of the vertical height of the gable end wall. Minimum 2 x 4 diagonal bracing not to exceed 45 degrees or 4 feet OC shall be installed on top of strong back and face nailed with 4-10d nails into side of gable wall framing studs. In addition, when ceiling joists run parallel to the gable end wall, a minimum 2 x 4 x 8 brace shall be installed at maximum 6 feet OC on top of ceiling joists and gable top plate nailed with 2-10d nails at each support. Metal 20 gauge straps shall be installed on top of 2 x 4 lateral brace and over gable top plate into stud below using 10-8d nails top and bottom. Install minimum 2 x 4 bracing under lateral braces adjacent to gable wall.

S7 Continuous Load Path

A continuous load path shall be provided to transfer all lateral and vertical loads from the roof, wall and floor systems to the foundation. All residential structures must have the structural design depicting the load path and all connections signed and sealed by an Alabama registered design professional. Structures may use prescriptive design in accordance with the engineered design limitations of the most current editions of the ANSI/AF&PA Wood Frame Construction Manual (WFCM) or the American Iron and Steel Framing Prescriptive Method for One and Two-family Dwellings (COFS-PM).

S8 Glazed Openings

Glazed openings shall be designed and protected in relation to the applicable wind load.

All glazed opening protection (Impact-rated products and opening protection products) must meet two criteria:

- 1. Design pressure rating:** Glazed openings must be rated for the design pressures appropriate for the exposure category, wind speed, window size, and window location on the building and depicted on the building plans. Products must be tested, at a minimum, in accordance with International Residential Code (IRC) accepted standards and installed in accordance with the manufacturer’s instructions. Acceptable International Residential Code (IRC) design pressure test standards for windows and glass doors include AAMA/WDMA/CSA 101/I.S.2/A440, ASTM E330 (products must be tested to 1.5 times design pressure). The Florida Building Code Testing Application Standard, TAS 202 is also acceptable.
- 2. Opening Protection Impact rating:** Plans must indicate the International Residential Code (IRC) accepted test standards for impact resistance including the Large Missile Test of ASTM E 1886 **and** ASTM E 1996 or AAMA 506. The Florida Building Code Testing Application Standards, TAS 201, 202, and 203 are also acceptable. Labeling for verification of compliance consistent with plan submittal is required at time of inspection

Wood structural panels with a minimum thickness of 7/16 inch and a maximum span of 8 feet are permitted to be used for opening protection. Panels must be pre-cut and pre-drilled as required for the anchorage method and all required hardware shall be provided. Permanent corrosion-resistant attachment hardware with anchors permanently installed on the building must be provided. The attachment schedule must be, at a minimum, in accordance with Table 1.

FASTENER TYPE	FASTENER SPACING (inches)		
	Panel span ≤ 4 feet	Panel span greater than 4' and less than or equal to 6'	Panel span greater than 6' and less than or equal to 8'
No. 8 wood screw based anchor with 2-inch embedment length	16	10	8
No. 10 wood screw based anchor with 2-inch embedment length	16	12	9
¼ inch lag screw based anchor with 2-inch embedment length	16	16	16

S9 Garage Doors

Garage doors shall be rated to or above the applicable wind design load. In addition, garage doors with glazed openings that exceed a total window area of 1–square-foot for a one-car wide garage door or 1.8 square feet for a two-car wide garage door must also be protected from windborne debris.

- For garage doors without glazed openings (windows): Provide a garage door assembly (door and all associated hardware and components) that meets the design wind pressure for the site or protect the garage door with an impact-rated shutter/screen product that meets the design wind pressure for the site. Labeling for verification of compliance is required.

2. For garage doors with glazed openings (windows): If the garage door has windows where the total window area on the door is less than or equal to 1.0 square feet for a one car wide garage door or 1.8 square feet for two car wide garage door, then the garage door is only required to meet the design wind pressure requirements for the site. If the garage door has window areas that exceed these total window areas, the door must be rated for the design pressure and the glazing must be rated for both pressure and impact or the garage door shall be protected with an impact rated shutter/screen product that meets the design wind pressure for the site. Labeling for verification of compliance is required.

GARAGE DOOR WIND LOAD GUIDE
BASED ON ASCE 7-95, EXPOSURE C, HURRICANE-PRONE REGION

Mean Roof Height	Door Size	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
15 Feet Single Story	Single 9' x 7'	27.4	32.6	38.2	44.3	50.9
		-30.9	-36.8	-43.2	-50.1	-57.5
	Double 16' x 7'	26.2	31.2	36.6	42.4	48.7
		-29.2	-34.8	-40.8	-47.3	-54.3
25 Feet Double Story	Single 9' x 7'	30.2	36.0	42.2	49.0	56.2
		-34.2	-40.7	-47.8	-55.4	-63.6
	Double 16' x 7'	29.0	34.5	40.5	46.9	53.9
		-32.3	-38.4	-45.1	-52.3	-60.0

Design pressures above are in Pounds per Square Foot (PSF)

Testing, if required by local authority, may be performed to ASTM E-330, or preferably ANSI/DASMA 108, with acceptance criteria in accordance with ANSI/DASMA 108.

Test conditions:

- Garage doors shall be tested to both negative and positive pressures. Doors shall be installed simulating normal conditions (i.e., top roller in track radius, other rollers in tracks, all hinges in place, reinforcing hardware in place)
- Test durations for each test direction shall be as follows:
 - 10 seconds at design pressure.
 - 10 seconds at 1.5 times the design pressure.

Standard engineering principles may be used to interpolate or extrapolate test results to door sizes not specifically tested. Doors shall include a manufacturer's label certifying compliance to specific load.

This guide is provided for reference purposes only. In all cases the local building authority is the sole and final determiner of the structural and safety requirements, and suitability of the garage door.

Notes:

- Basic Wind Speeds above are three second peak-gust values
- Negative pressures assume door has 2 feet of width in building's end zone.
- Garage doors evaluated as attached to enclosed buildings with a Use Factor of 1.0.
- Doors larger than 100 square feet should use the 16 x 7 loads. Doors less than 100 square feet may be interpolated.
- Garage doors evaluated as Components and Cladding
- Installation details vary. Consult manufacturer's instructions.

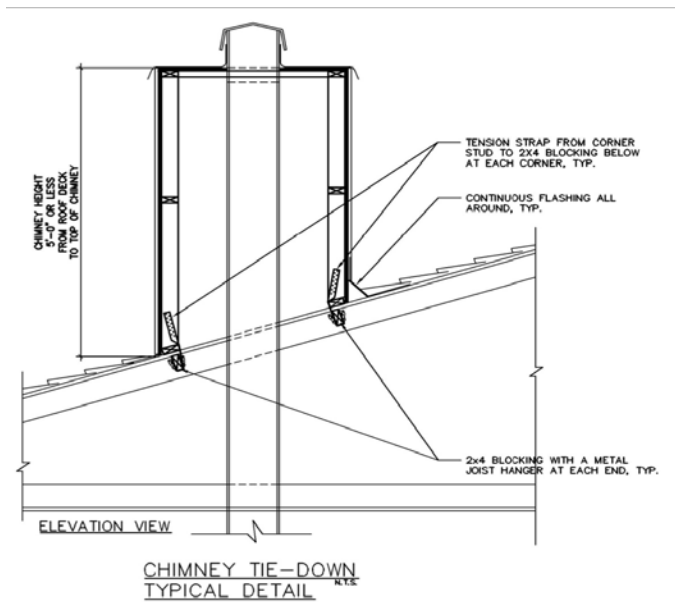
S10 Chimney Chases

Wood frame chimney chases shall be structurally connected to rafters and ceiling joists. The attachment must be detailed in the engineered plans or must meet the following minimum requirements:

Each corner of the chimney structure must have a tension strap fastened to the corner stud and continues downward to the roof support members below. The tension strap must have a minimum tension capacity of 700 lbs. at each end.

Chimney framing shall be sheathed with minimum 7/16-inch structural panel on exterior four sides.

The base perimeters of chimney framing must be continuously supported by minimum 2x4 blocking fastened to roof framing members with joist hangers.



S11 Braced Wall Lines /Shear Walls

Exterior and Interior shear wall and/or braced wall panel locations shall be indicated on the plans and shall be nailed in accordance with the engineered drawings but no less than 6 inches OC maximum intermediate and edge using 8d (0.113" x 2-3/8") irregular shank (i.e., ring shank or spiral) nails with full round heads. Shear wall designs shall meet the engineered design requirements specified in Section S7.