

ORDINANCE NO. _____

AN ORDINANCE ADOPTING THE ~~2015~~ **2018** 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 ____, ~~2018~~
2020 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, ~~2015~~ **2018** 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 105.1.1 - Annual permit
 - Section 105.1.2 - Annual permit records

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

Section 101.1: (Insert) City of Foley, Alabama

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."

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 114.4.1: (Insert) Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the *approved construction documents* or directive of the building *official*, or of a permit or certificate used under provisions of this code, shall be guilty of a Building **Code Violation**, and upon conviction, punishable pursuant to Section 1-8 of the Foley Code of Ordinances. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

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

RISK CATEGORY 1	RISK CATEGORY 2	RISK CATEGORY 3	RISK CATEGORY 4
147 MPH	157 MPH	170 167 MPH	*** 177 MPH
*** Provide design wind speed determination by calculation			

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

Section 1612.3: (Insert) July 17, 2007

Section 1613: DELETE IN ITS ENTIRETY

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 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, ~~2015~~ **2018** Edition, together with Exhibit A (Coastal Construction Supplement) attached hereto, Appendix H (Patio Covers), Appendix J (Existing Buildings and Structures), *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

Section: N1102.2.10 Slab-on-grade floors.

Section: N1103.1.1 Programmable Thermostats.

The Residential Code adopted herein shall be amended as follows:

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

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

R113.4.1: (Insert) Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the *approved construction documents* or directive of the building official, or of a permit or certificate used under provisions of this code, shall be guilty of a Building **Code Violation**, and upon conviction, punishable pursuant to Section 1-8 of the Foley

Code of Ordinances. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

RESIDENTIAL DESIGN CRITERIA:

Table 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	150	NO	A	Negligible	4"	Very Heavy	30	NO	10/7/2008	32	66.7

***Wind design speed is ~~ultimate~~ basic design wind speed and shall be increased for slope**
IAW Table R301.2.1.5.1 of the ~~2015~~ 2018 International Residential Code

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 *dwelling*s 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).

Section R315.3.1 Location near living areas. Carbon monoxide alarms shall be installed within 21 feet of any living area where sleeping is likely to occur. Alarms shall be located per manufacturer's specification.

RESIDENTIAL ENERGY CONSERVATION:

Section N1101.4 Above code programs. Above code programs shall be permitted upon approval by the Alabama Residential and Energy Codes Board.

RESIDENTIAL PLUMBING:

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

Add Section P3005.2.10.3 – 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, ~~2015~~ 2018 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 305.4.1 – 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 708.1.2.1 – Building Sewers. Sewage line clean-outs shall be permanently protected from damage at ground level by a method approved by the building official.

Section 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, 2015 ~~2015~~ 2018 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 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, 2015 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 109.4 ~~110.4~~ (SPECIFY OFFENSE) Fire Code Violation

(AMOUNT) ~~As Determined by the Municipal Court System~~

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

Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the *approved construction documents* or directive of the *fire code official*, or of a permit or certificate used under provisions of this code, shall be guilty of a **Fire Code Violation**, and upon conviction, punishable pursuant to Section 1-8 of the Foley Code of Ordinances. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Section ~~111.4~~ **112.4** 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, **upon conviction**, shall be liable and subject to penalties as **found in the Foley Code of Ordinances, Section 1-8**. ~~determined by the Municipal Court System.~~

Section 302.1 Definitions – Definitions.

RECREATIONAL FIRE. An outdoor fire for pleasure, religious, ceremonial, cooking, warmth or similar purposes, burning material other than rubbish.

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 approved recreational or 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 areas or 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 and detection systems is engineering and as such must be designed by or under the direct supervision of professional engineers qualified to design fire protection and detection systems. Only fire protection and detection 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 903.2.8 – 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, 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.

Appendix C

Section C101.1.1 – RV Parks shall be included in these requirements and RV’s considered as one- or two-family dwellings.

Appendix D

Section D101.1.1 - RV Parks shall be included in these requirements and RV’s considered as one- or two-family dwellings.

PROPERTY MAINTENANCE:

- (f) International Property Maintenance, ~~2015~~ **2018** 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, ~~2015~~ **2018** 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

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) International Energy Conservation Code (IECC), ~~2015~~ **2018** Edition, as amended by the Code of the State of Alabama, shall be implemented and enforced for new habitable commercial buildings and habitable residential buildings three (3) stories and above including multi-family dwellings provided, however, the following sections and chapters are omitted and not adopted:

Section R402.2.9 10 Slab-on-grade Floors

Section R403.1.1 Programmable Thermostat

Section R403.9 10 Pools and inground permanently installed spas (Mandatory)

Section R403.9 10 .1 Heaters

Section R403.9 10 .2 Time Switches

Section R403.9 10 .3 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

COMMERCIAL ELECTRICAL CODES:

- (i) NFPA 70, National Electric Code, ~~2014~~ 2017 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 (24) volts and data-com.

ELECTRICAL POWER CONNECTIONS:

1. 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.

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

MANUFACTURED HOMES:

- (j) NFPA 501A, Manufactured Home Installations, Sites, and Communities, 2017 Edition.

RECREATIONAL VEHICLE PARKS:

- (i) NFPA 1194, Recreational Vehicle Parks, ~~2014~~ 2018 Edition.

WATER SUPPLY, SUBURBAN AND RURAL FIRE FIGHTING:

- (j) NFPA 1142, Water Supplies, Suburban and Rural Fire Fighting, ~~2012~~ 2017 Edition.

AMERICANS WITH DISABILITIES ACT:

(m) Accessible and Usable Building and Facilities, ICC/ANSI A117.1, ~~2009~~ 2017 Edition.

FIRE ALARMS:

(n) NFPA 72: National Fire Alarm and Signaling Code, ~~2013~~ 2019 Edition.

WET CHEMICAL EXTINGUISHING:

(o) NFPA 17A: Standard for Wet Chemical Extinguishing Systems, ~~2013~~ 2017 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, ~~2013~~ 2019 Edition.

(q) NFPA 13D: Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured homes, ~~2013~~ 2019 Edition.

COMMERCIAL SPRINKLER SYSTEMS:

(r) NFPA 13: Standard for the Installation of Sprinkler Systems, ~~2013~~ 2019 Edition.

PORTABLE FIRE EXTINGUISHERS:

(s) NFPA 10: Standard for Portable Fire Extinguishers, ~~2013~~ 2018 Edition.

STANDPIPES AND HOSE SYSTEMS:

(t) NFPA 14: Standard for Installation of Standpipes and Hose Systems, ~~2013~~ 2019 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. (~~Residential shall be sealed by a professional engineer, commercial shall be sealed per regulations set by the state architectural and/or engineering boards~~).
- (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 ~~shall be sealed by a professional engineer~~.
- (c) Any residential remodel that affects the exterior loads or is considered a fifty (50%) percent improvement to the structure ~~shall be sealed by a professional engineer~~.
- (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 ~~shall be sealed per regulations set by the state architectural and/or engineering boards~~.
- (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 ~~shall be sealed per regulations set by the state architectural and/or engineering boards~~.
- (f) Any built-on-site accessory structure over one thousand (1,000) square feet in area ~~shall be sealed per regulations set by the state architectural and/or engineering boards~~.
- (g) Any pre-built accessory, modular or manufactured structure ~~shall be sealed per regulations set by the state architectural and/or engineering boards~~.
- (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 ~~shall have the loads sealed by a professional engineer~~.
- (i) Any engineered product, such as a truss system ~~shall be sealed by a professional engineer~~.

- (j) Any geotechnical data shall be sealed by a professional engineer.
- (k) Any new Commercial Mechanical, Electrical or Plumbing (MEP) system shall be sealed by a professional engineer.
- (l) Any other project requiring a design professional as determined by the state architectural or engineering boards shall be sealed as required by the state boards.
- (m) The submittal documentation for any habitable structure being built or modified in a Special Flood Hazard area shall also include a flood elevation certificate, prepared by a qualified surveyor, based off of the construction drawings.

The submittal information required for any new structure includes a code study, structural loads, energy values and/or commercial electrical, mechanical, plumbing and life safety plans.

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

Digital copies (PDF) 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 2015 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 (currently the minimum valuation for new residential one and two family construction will be figured at \$80 per square foot for conditioned space and \$40 per square foot for unconditioned space), 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. Fees based off of valuation shall be determined by using the following method:

<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.

Section 4. Residential Construction Fees:

New Construction:

- a) Plan Review (Flat Fee): Single Family/Duplex - \$50 per unit, Multi-family – Same as Commercial
- b) Building Permit (Valuation) – See Valuation Fee Method
- c) Electrical Permit (Flat Fee):
 - 1-4 units per building - \$175 per unit
 - 5-16 units per building - \$125 per unit
 - More than 16 units per building - \$100 per unit
- d) Plumbing Permit (Flat Fee):
 - 1-4 units per building - \$100 per unit
 - 5-16 units per building - \$90 per unit
 - More than 16 units per building - \$80 per unit
- e) Mechanical Permit (Flat Fee):
 - 1-4 units per building - \$75 per HVAC unit
 - 5-16 units per building - \$65 per HVAC unit
 - More than 16 units per building - \$55 per HVAC unit

Miscellaneous Residential Fees:

- a) Remodeling/Addition Building Permit (Valuation) See Valuation Fee Method
- b) Remodeling/Addition Electrical Permit (Fixture Count) See Fixture Count Method
- c) Remodeling/Addition Plumbing Permit (Fixture Count) See Fixture Count Method
- d) Remodeling/Addition Mechanical Permit (Flat Fee) - \$75.00 per HVAC unit
- e) Swimming Pool/Spa (Valuation) See Valuation Fee Method
- f) Reroofing (Valuation) See Valuation Fee Method

- g) Electrical Service Panel/Meter Replacement Only (Flat Fee) - \$50.00
- h) Residential Generator Installation (Flat Fee) - \$50.00
- i) Residential Pool Electrical Equipment (Flat Fee) - \$50.00
- j) Sewer Line Installation/Replacement Only (Flat Fee) - \$50.00
- k) HVAC Unit Replacement Only (Flat Fee) - \$75.00 per HVAC unit
- l) HVAC Duct Work Only – See Mechanical Valuation Method
- m) Manufactured Home Installation (Flat Fee) - \$50.00
- n) Manufactured Home Installation Electrical (Flat Fee) - \$50.00
- o) Demolition (Flat Fee) - \$50.00 per structure
- p) Contractor Temporary Power Pole Only (Flat Fee) - \$50.00
- q) Fence (Valuation) See Valuation Fee Method
- r) Re-inspection Fee (Flat Fee) - ~~\$25.00~~ 50.00 when not prepared for scheduled inspection or for any inspection for the same item after 1st re-inspection. \$100.00 fee for any inspection for the same item if the situation continues after the re-inspection following the first fine.
- s) Working Without A Permit Penalty – Permit Fees are doubled plus any additional fees as determined by other City of Foley Departments

Section 5: Commercial Construction Fees:

1. New Construction:
 - a) Plan Review – Fee is equal to one half of the permit fee
 - b) Building Permit (Valuation) – See Valuation Fee Method
 - c) Electrical Permit (Fixture Count) – See Electrical Fixture Count Method
 - d) Plumbing Permit (Fixture Count) – See Plumbing Fixture Count Method
 - e) Mechanical Permit (Valuation) – See Mechanical Valuation Fee Method
2. Miscellaneous Commercial Fees:
 - a) Remodeling/Addition Building Permit (Valuation) See Valuation Fee Method
 - b) Remodeling/Addition Electrical Permit (Fixture Count) See Fixture Count Method
 - c) Remodeling/Addition Plumbing Permit (Fixture Count) See Fixture Count Method
 - d) Remodeling/Addition/Duct Work Mechanical Permit (Valuation) See Mechanical Valuation Method
 - e) Swimming Pool/Spa (Valuation) See Valuation Fee Method
 - f) Swimming Pool/Spa Electrical (Fixture Count) See Fixture Count Method
 - g) Reroofing (Valuation) See Valuation Fee Method
 - h) Electrical Service Panel/Meter Replacement Only (Flat Fee) - \$50.00
 - i) Sewer Line Installation/Replacement Only (Flat Fee) - \$50.00
 - j) HVAC Unit Replacement Only (Valuation) – See Mechanical Valuation Fee Method
 - k) Manufactured/Modular Office Installation (Valuation) – See Valuation Fee Method
 - l) Manufactured/Modular Office Installation Electrical (Flat Fee) - \$50.00
 - m) Demolition (Flat Fee) - \$100.00 per structure
 - n) New Tenant Power Change-Out Only (Flat Fee) - \$50.00
 - o) Contractor Temporary Power Pole Only (Flat Fee) - \$50.00
 - p) Fence (Valuation) See Valuation Fee Method
 - q) Manufactured/Modular/Mobile Building - Temporary Commercial Use (Flat Fee) - \$225.00 for 6 month period; can be renewed, with approval for the same fee.
 - r) Manufactured/Modular Building - Temporary Construction Field Office (Flat Fee) - \$50.00 for 6 month period; can be renewed, with approval for the same fee.

- s) Manufactured/Modular Building - Temporary Watchman's Quarters (Flat Fee) - \$225.00 for 6 month period; can be renewed, with approval for the same fee.
- t) Tent/Membrane Structure –Temporary Commercial Use (Flat Fee) \$50.00 per period
- u) Re-inspection Fee (Flat Fee) - ~~\$25.00~~ **50.00** when not prepared for scheduled inspection or for any inspection for the same item **after 1st inspection. \$100.00 fee for any inspection for the same item if the situation continues after the re-inspection following the first fine.**
- v) Working Without A Permit Penalty – Permit Fees are doubled plus any additional fees as determined by other City of Foley Departments
- w) Signs (Valuation) See Valuation Fee Method
- x) **Certificate of Occupancy Permit (Flat Fee) - \$50**

Section 6: Mechanical Valuation Fee Method:

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	\$50.00
Up to \$1,000	\$50.00
\$1,001 and up	\$50.00 for the first \$1,000 + \$10.00 for each additional \$1,000 or fraction thereof

Section 7. Electrical Fixture Count Method:

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

(A) Minimum Electric Fee \$50.00

(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>
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>
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	\$50.00

(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>
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750 Watts or less	\$5.00
Above 750 Watts, up to 3750	\$8.00
Over 3750	\$10.00

Section 8. Plumbing Fixture Count Fee Method

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

(A) Minimum plumbing fee \$50.00

(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 Bibs	\$2.00

Dishwasher	\$4.00
Kitchen Sinks & Disposal	\$4.00
Laundry Tray	\$4.00
Service Sink	\$4.00
Icemaker	\$2.00

Section 9: 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.

Section 10: Other Fees:

(1) 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.

(2) 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.

(3) 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.

(4) 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 \$50.00 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 \$50.00 which amounts shall be deducted from the amount of refund applied for.)

Notwithstanding the above, no plan review fees will be refunded.

Section 11: 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.

SECTION 12: All adopted, valid Flood Damage Prevention Ordinances remain in full force and effect.

SECTION 13. 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 14. 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 15. That this ordinance shall be published as required by law.

SECTION 16. “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 17. All ordinances or parts of ordinances, in any manner conflicting herewith are hereby repealed.

PASSED, ADOPTED AND APPROVED THIS day of , 2019

President’s Signature _____ Date _____

Attest by City Clerk _____ Date _____

Mayor’s Signature _____ Date _____

Exhibit A

COASTAL CONSTRUCTION CODE SUPPLEMENT

For Adoption by Communities Affected By Hurricanes



The Coastal Construction Code Supplement was created and adopted by community leaders and Building Code Officials in Coastal Alabama, in partnership with Smart Home America, after being impacted by both Hurricanes Ivan and Katrina in back to back years.

The purpose of the Code Supplement is to increase community resilience and reduce future damage from hurricanes, high winds and wind-driven rain. Adoption has many benefits including; reduction of losses during severe weather events, significantly reduced damage, and lowered insurance costs. A recent study also shows that a FORTIFIED Home™ designation increases the resale value of a property. Additional benefits from using and enforcing this supplemental code are increased numbers of FORTIFIED Home™ designations and reduced storm debris cleanup costs.

Adoption of the Code Supplement closes the gap between existing “I Codes®”¹ and the Insurance Institute for Business and Home Safety’s (IBHS) FORTIFIED Home™ Technical Standards. The Code Supplement is meant to be adopted and enforced in addition to local building codes. IBHS provides technical input to keep the Code Supplement current. The Supplement is based on the latest research and testing conducted at the IBHS Research Center and in the field.

NOTE: By adopting this Supplemental Code, municipalities and jurisdictions recognize that individual homes built, re-roofed or otherwise permitted under this code will be constructed to code- plus standards but will not be designated as a FORTIFIED Home™. To be identified as a FORTIFIED Home™ and issued a Designation Certificate, a homeowner, or the builder, must voluntarily contract the services of a Certified FORTIFIED Evaluator™. They are the only professional able to inspect and collect relevant documentation confirming that a home meets all the requirements of the IBHS FORTIFIED Home™ program. Adoption of the Supplemental Code also allows the local building code to be consistent with **FEMA’s P-804, Wind Retrofit Guide for Residential Buildings**².

This public resource is maintained by Smart Home America and is available at:
SmartHomeAmerica.org/resources/details/code-supplement

COASTAL CONSTRUCTION SUPPLEMENT

S1 Roof Coverings

Roof coverings and their attachment shall be rated for the ASCE 7 design wind speed for the site location of the building and shall be installed in accordance with the manufacturer's recommendations for high- wind regions.

S1.1 Asphalt Shingles:

Asphalt shingles shall be tested in accordance with ASTM D7158 and meet the classification requirements listed in Table S1 for the design wind speed at the building site. Their packaging shall be labeled to indicate compliance with ASTM D7158 and the classification required for the applicable International Residential Code (IRC)/American Society of Civil Engineers (ASCE) Standard 7 design wind speed at the building site.

TABLE S1. CLASSIFICATION OF ASPHALT SHINGLES BASED ON DESIGN WIND SPEED

2012 IRC/ASCE 7-05 Basic Design Wind Speed V_{ASD} (mph)	2015 IRC/ASCE 7-10 Basic Design Wind Speed V_{ult} (mph)	ASTM D7158 Shingle Testing Standard / Classification
110	140	G or H
120	152	G or H
>120 to 150	>152 to 190	H

S1.1.1 Shingle attachment:

Shingles shall be installed using the number of fasteners required by the manufacturer for high-wind fastening. In areas where the local building code requires more fasteners than required by the manufacturer, fasteners shall comply with the local building code.

S1.1.2 Edge Metal:

Provide code-compliant, minimum gauge metal drip edge at eaves and gables. Overlap drip edge metal a minimum of 3-inch at joints. Eave drip edges shall extend ½ in. below sheathing and extend back on the roof a minimum of 2-inches. The drip edge shall be mechanically fastened to the roof deck. Fasteners shall be fabricated from similar or compatible material and spacing shall be a maximum of 4-inch o.c. Mechanical fasteners shall be applied in an alternating (staggered) pattern along the length of the drip edge. Drip edge at eaves shall be installed over the underlayment.

S1.1.3 Installation of starter strips at eaves:

Starter strips at eaves shall be set in a minimum 8-inch-wide strip of flashing cement. Maximum thickness of flashing cement shall be 1/8 inch or a shingle manufacturer–approved ASTM D1970 fully adhered (peel-and-stick) starter strip with asphaltic adhesive strip at eave.

S1.1.4 Attachment of shingles at intersections, valleys, rakes and gable ends:

S1.1.4.1 Attachment of Shingles at Intersections and Valleys:

Shingles installed at all intersections and both sides of open valleys shall be set in a minimum 8-in.-wide strip of flashing cement. Maximum thickness of flashing cement shall be $\frac{1}{8}$ in. Cut side of closed valleys shall be set in a minimum 2-in.-wide, $\frac{1}{8}$ -in.-thick strip of flashing cement. Woven valleys to be according to the manufacturer's specifications.

S1.1.4.2 Attachment of Shingles at Rakes:

Manufacturer-approved starter strips at rakes shall be set in a minimum 8-in.-wide strip of compatible flashing cement. Maximum thickness of flashing cement shall be $\frac{1}{8}$ in or install a shingle manufacturer-approved ASTM D1970 fully adhered (peel-and-stick) starter strip with asphaltic adhesive strip at rake. Fasten starter strips parallel to the rakes according to the manufacturer's specifications. Position fasteners to ensure they will not be exposed. Starter strips and shingles must not extend more than $\frac{1}{4}$ in. beyond the drip edge.

S1.2 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 underlayment options (See Section S2).

S1.3 Clay and Concrete Roof Tiles:

Clay and concrete roof tile systems shall be installed over continuous 19/32" thick plywood roof decking and one of the acceptable sealed roof deck underlayment options (See Section S2). Clay and concrete roof tile systems and their attachment shall meet the requirements of the site design wind speed and exposure category. For design wind speeds based on 2012 IRC (ASCE 7-05), 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. For design wind speeds based on 2015 IRC (ASCE 7-10), clay and concrete roof tiles shall be installed in accordance with FRSA/ Tile Roofing Institute installation guidelines, "Florida High Wind Concrete and Clay Roof Tile Installation Manual Fifth Edition, FRSA/TRI April 2012 (04-12)" 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.

S1.4 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, shall be installed in accordance with the manufacturer's installation guidelines for the appropriate design wind speed. When applicable (e.g., wood shakes, slate roofs), the roof deck shall be sealed using one of the options provided in Section S2 that is compatible with the manufacturers installation requirements for the roof covering selected.

S1.5 Residential Reroofing:

Reroofing of residential structures shall meet the requirements of this section for roof sheathing replacement, roof sheathing attachment, and roof covering; and, Section S2 for Sealed Roof Deck. Existing roof coverings shall be removed to expose the roof deck. An inspection shall be conducted at this point to determine the condition of roof decking in accordance with section S1.5.1. The inspection shall also determine the adequacy of the roof deck attachment and the existing decking as well as any replaced decking shall be fastened in accordance with Section S1.5.2 or Section S1.5.3 as appropriate for the type and thickness of the roof decking.

S1.5.1 Deteriorated or damaged roof deck:

Damaged or deteriorated decking will generally be marked by one or more of the following characteristics: soft or spongy wood, wood swelling or buckling, delamination (plywood), or crumbling and flaking wood. If deteriorated or damaged roof decking is identified, the decking shall be replaced.

S1.5.2 Sawn lumber or wood board roof decking:

S1.5.2.1 For sawn lumber or wood boards up to 1-inch-thick:

Add fasteners to ensure boards 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 shall 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.

S1.5.2.2 For wood boards greater than 1-inch-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 shall 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.

S1.5.3 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. The re-nailing solutions specified in Table S2 are based on using ring-shank nails with the following characteristics and dimensions.

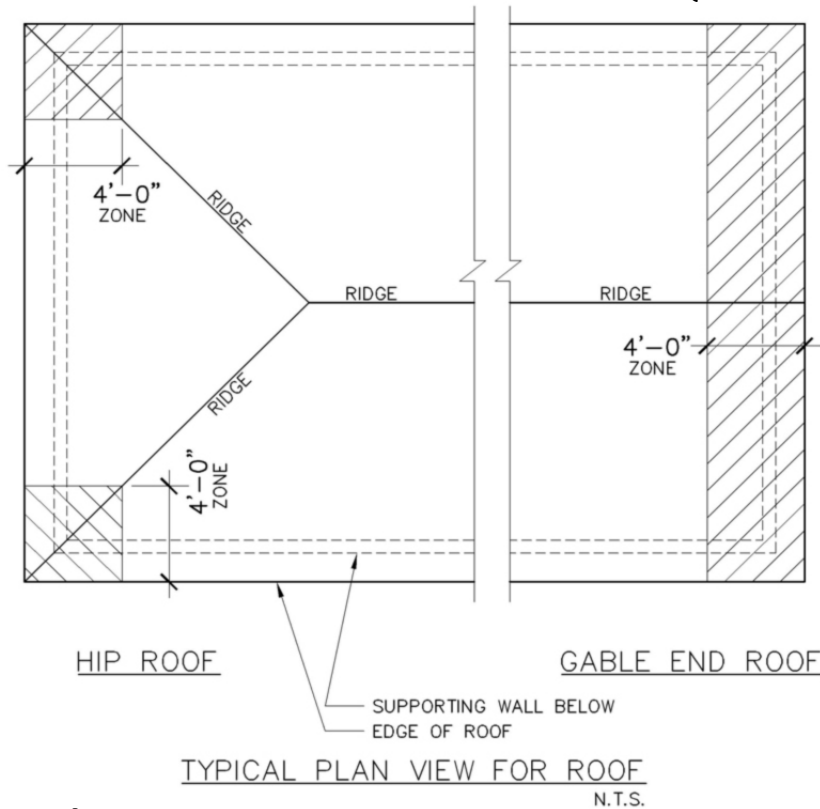
- full round head diameter (no clipped head nails allowed)
- 2-3/8-inch minimum nail length
- 0.113-inch minimum shank diameter

Additional fasteners meeting the minimum requirements listed above shall be installed in accordance with Table S2 for the zones shown in Figure S1.

TABLE S2. ADDITIONAL FASTENERS AT PANEL EDGES AND INTERMEDIATE FRAMING FOR ROOF DECKS

Wind Speed	Existing Fasteners	Existing Spacing	Required Additional Fastening	
			Within 4-foot zone (see Figure S1)	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

FIGURE S1. IDENTIFICATION OF 4-FOOT ZONES FOR SPECIAL NAILING REQUIREMENTS



S2 Sealed Roof Deck

For all new construction and re-roofing applications, a sealed roof deck shall be constructed using one of the methods specified in Sections S2.1, S2.2, or S2.3.

S2.1 Self-adhering Polymer Modified Bitumen Membrane:

The entire roof deck shall be covered with a full layer of self-adhering polymer modified bitumen membrane ("peel and stick") conforming to 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.

S2.2 Tape Seams Between Roof Deck Wood Structural Panels:

Apply a 4-inch wide ASTM D1970 compliant self-adhering polymer-modified bitumen flashing tape or a 3-3/4-inch wide AAMA 711-13, Level 3 (for exposure up to 80°C/176°F) compliant self-adhering flexible flashing tape to seal all horizontal and vertical joints in the roof deck. In applications where flashing tape adhesion to OSB is marginal, apply a manufacturer-specified compatible primer to the OSB panels where the tape will be applied to ensure the proper attachment of the self-adhering tape to the sheathing.

Cover the entire deck with a code-compliant #30 ASTM D226 Type II or ASTM D4869 Type IV underlayment over the self-adhering tape. As an alternative, cover the entire deck with a reinforced synthetic roof underlayment which has an ICC evaluation report as an alternate to ASTM D226 Type II felt paper and has passed ASTM D4869 Section 8.6 liquid water transmission test. The synthetic underlayment shall have a minimum tear strength of 20 lb per ASTM D5034 or ASTM D4533.

These underlayment's shall be attached using annular ring or deformed shank roofing fasteners with minimum 1-in.-diameter caps (button cap nails) at 6 in. o.c. spacing along all laps and at 12 in. o.c. vertically and horizontally in the field or a more stringent fastener schedule if required by the manufacturer for high-wind and prolonged exposure installations. Horizontal laps shall be a minimum of 2 in. and end laps shall be a minimum of 6 in. Weave underlayment across valleys. Double-lap underlayment across ridges (unless there is a continuous ridge vent). Lap underlayment with minimum 6-in. leg "turned up" at wall intersections; lap wall weather barrier over turned-up roof underlayment.

S2.3 Two Layers of Underlayment:

Install two (2) layers of ASTM D226 Type II (#30) or ASTM D4869 IV (#30) underlayment in a shingle-fashion, lapped 19 in. on horizontal seams (36-in. roll), and 6 in. on vertical seams. Create a starter course of felt by cutting 17 in. off one side of the roll and install the remaining 19-in.-wide strip of underlayment along the eave, safely tacked in place. Install a 36-in.-wide roll of underlayment over the 19-in.-wide course of underlayment along the eave. The same procedure shall be followed for each course, overlapping the sheets 19-in. (leaving a 17-in. exposure). The underlayment shall be fastened with annular ring or deformed shank nails with 1-in.-diameter caps at 6-in. o.c. along the laps and at approximately 12- in. o.c. in the field of the top sheet between the side laps. For sites with design wind speeds less than 140 mph (ASCE 7-05), annular ring or deformed shank nails with 1-in.-diameter caps (button cap nails) shall be allowed. For sites with design wind speeds greater than or equal to 140 mph (ASCE 7-05), annular ring or deformed shank nails with 1-in.-diameter thin metal disks ("tincaps") shall be used.

Note:

- Weave underlayment across valleys.
- Double-lap underlayment across ridges (unless there is a continuous ridge vent).
- Lap underlayment with minimum 6-in. leg "turned up" at wall intersections; lap wall weather barrier over turned-up roof underlayment.

S3 Aluminum/Vinyl Soffit

All Aluminum/Vinyl Soffit covering shall be attached to minimum 7/16-inch-thick OSB or plywood or minimum nominal 2-inch x 2-inch wood supports 8-inches o.c. maximum.

S4 Roof Deck Attachment

Roof decks shall be nailed in accordance with the engineered drawings but no less than 6 inches o.c. maximum spacing along intermediate and edge framing members except within the 4-foot zones shown in Figure S1. Within the 4-foot zones shown in Figure S1, roof deck nailing shall be not less than 4 inches o.c. along all intermediate and edge framing. Fasteners shall be minimum 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 Vents

Roof Vents shall be designed for the applicable wind load; ridge and off ridge vents shall be tested in accordance with the Florida Building Code Testing Application Standard TAS 100(A) for high wind and be labeled for verification of compliance. All roof vents shall be installed in accordance with the manufacturer's installation instructions for the appropriate wind load.

Gable vents shall 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 shall be, at a minimum, in accordance with Table S3.

TABLE S3. GABLE END COVERING FASTENER SCHEDULE

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
¾-inch Lag Screw based anchor with 2-inch embedment length ²	16

Notes for Table S3:

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 End Bracing

Unless balloon framed, gable ends over 4-foot high shall be braced using the method specified in S6.1 or S6.2.

S6.1 Gable End Bracing Option 1:

A minimum 2-inch x 6-inch horizontal strong-back shall be installed at midpoint of the vertical height of the gable end wall. Strong-back shall be attached to each framing member it crosses using metal straps with 3-8d x 1-1/2-inch long nails at each end of the strap. Minimum 2 x 4 diagonal bracing not to exceed 45 degrees or 4 feet o.c. shall be installed on top of strong back and face nailed with 4-10d nails into side of gable wall framing studs. The other ends of diagonal braces shall be toenailed to roof rafters or top chords or trusses and connected with a metal strap with 4-8d x 1-1/2-inch long nails at each end of strap or face nailed with 4-10d nails into sides of ceiling joists when they run perpendicular to the gable wall or into the sides of 2-inch x 4-inch x 8-foot lateral braces connected to tops of ceiling joists or truss bottom chords when ceiling joists run parallel to the gable wall.

In addition, when ceiling joists run parallel to the gable end wall, a minimum 2-inch x 4-inch x 8-foot lateral brace shall be installed at maximum 6 feet o.c. on top of ceiling joists or truss bottom chord and gable top

plate, aligned with a wall stud below, and nailed with 2-10d nails at each support. Metal 20 gauge straps shall be installed on top of 2-inch x 4-inch lateral brace and over gable top plate into stud below using 10-8d nails top and bottom (into the lateral brace and into the wall stud below). Install minimum 2 x 4 blocking under lateral braces in the bay between the gable wall framing and the first ceiling joist or truss with four (4) 10d nails.

S6.2 Gable End Bracing Option 2:

When ceiling joists or trusses run parallel to the gable end wall, continuous 2-by-4 lateral braces shall be installed on the top edges of ceiling joists or the top edges of truss bottom chords from the gable end truss/framing at maximum 6-feet o.c., and aligned with a wall stud below. The lateral braces shall be attached to each truss bottom chord/ceiling joist with 2-10d nails. The braces shall extend back from the gable truss/framing a distance equal to 90% of the building width. Each lateral brace shall have a minimum 20-gauge metal strap connected to the lateral brace that wraps over the bottom chord of the gable end wall plate/truss, over the top plate of the wall below and connected to a stud in the wall below. Straps shall be connected with ten (10) 8d nails at each end. Install minimum 2 x 4 blocking under lateral braces in the bay between the gable wall framing and the first ceiling joist or truss with four (4) 10d nails.

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 proposed for locations with a wind speed of 120 mph or greater shall have the structural design depicting the load path and all connections signed and sealed by a State-based, registered design professional. Structures located outside of the 120 mph or higher wind zones shall be permitted to 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 loads and impact resistance requirements specified in Sections S8.1 and S8.2.

S8.1 Design Pressure Requirements:

Windows, all exterior doors (including the glazing in exterior doors), and all impact protection systems shall be rated for the design pressures appropriate for the exposure category, design wind speed, opening size, and opening location on the building. The required pressure ratings shall be depicted on the building plans. Products shall be tested, at a minimum, in accordance with IRC accepted standards and installed in accordance with the manufacturer's instructions. Acceptable IRC design pressure test standards for windows and glass doors include AAMA/WDMA/CSA 101/I.S.2/A440, ASTM E330 (products shall be tested to 1.5 times design pressure). Installation of products with adequate ratings achieved using the Florida Building Code Testing Application Standard, TAS 202 shall also be permitted.

S8.2 Opening Protection Impact Requirements:

All glazing in exterior windows and doors (including sliding glass doors, garage doors and entry doors, etc.) shall be impact rated or protected by a system that is impact rated as defined in this section.

Where the design wind speed is 120 mph or greater, accepted test standards for impact resistance include the Large Missile Test of ASTM E 1886 **and** ASTM E 1996 or AAMA 506. Installation of products with Florida Building Code Testing Application Standards, TAS 201, 202, and 203 shall also be permitted. Plans shall indicate the applicable test standard for impact resistance and labeling for verification of compliance consistent with plan submittal is required at time of inspection.

Where design wind speeds are less than 120 mph, 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 shall be pre-cut and pre-drilled as required for the anchorage method and all required hardware shall be provided. Wood structural panels shall extend a minimum of 1-inch beyond the center-line of fasteners. 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 S4.

Exception: Glazed openings (windows) in garage doors with a total window area less than or equal to 1.0 square feet for a one car wide garage door or 1.8 square feet for a two-car wide garage door shall not be required to be impact rated or covered with an impact rated system.

TABLE S4 WINDBORNE DEBRIS PROTECTION FASTENING SCHEDULE FOR WOOD STRUCTURAL PANELS

Fastener Type	Fastener Spacing (inches) ¹		
	Panel span ≤ 4-foot	Panel span > 4-foot and ≤ 6-foot	Panel span > 6-foot and ≤ 8-foot
No. 8 wood screw based anchor with 2-in. embedment length ²	16	10	8
No. 10 wood screw based anchor with 2-in. embedment length ²	16	12	9
¼-inch lag screw based anchor with 2-in. embedment length ²	16	16	16

Notes for Table S4:

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.

S9 Garage Doors

Garage doors and their attachment system shall conform to the design wind pressure for the door size, exposure category and design wind speed at the site. Products shall be tested and approved per ANSI/DASMA 108 or ASTM E 330 for the required design wind pressure or the garage door shall be protected with an impact-rated shutter/screen product that meets the design wind pressure. Garage doors and their attachment systems with adequate ratings achieved using the Florida Building Code Testing Application Standard, TAS 202 shall also be permitted. Labeling for verification of compliance is required.

S10 Chimney Chases

Wood frame chimney chases shall be structurally connected to rafters and ceiling joists. The attachment shall be detailed in the engineered plans or shall meet the minimum requirements of Sections S10.1, S10.2 and S10.3 as illustrated in Figure S2.

S10.1 Connection of Chimney structure to Roof Structure:

Each corner of the chimney structure shall have a tension strap fastened to the corner stud that continues downward to the roof support members below. The tension strap shall have a minimum tension capacity of 700 pounds and shall be connected with a minimum of seven (7) 8d by 1.5-inch-long nails at each end.

S10.2 Sheathing of Chimney:

Chimney framing shall be sheathed with minimum 7/16-inch-thick wood structural panels on all four exterior sides.

S10.3 Support of Chimney Perimeter:

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

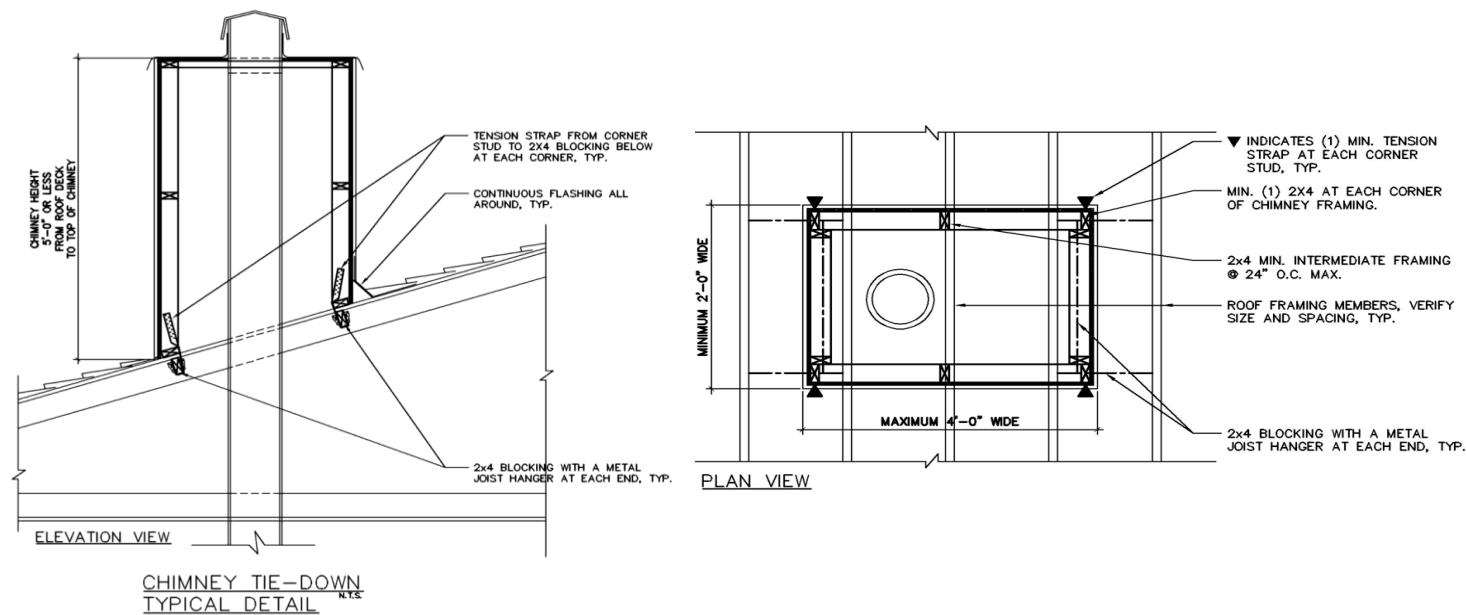


FIGURE S2. TYPICAL CHIMNEY TIE-DOWN DETAILS

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 o.c. maximum spacing along all intermediate and edge framing using 8d (0.113-inch diameter x 2-3/8-inch-long) 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.