

FLORIDA INTERNATIONAL UNIVERSITY

APPENDIX “A”

**CONSTRUCTION
SERVICES GUIDE**



Division of State Fire Marshal – Bureau of Fire Prevention

CONSTRUCTION SERVICES GUIDE DIVISION OF STATE FIRE MARSHAL BUREAU OF FIRE PREVENTION March 2017

JEFF ATWATER STATE FIRE MARSHAL

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I. INTRODUCTION:

633.218 – Inspections of state buildings and premises; tests of fire-safety equipment; building plans to be approved.

(3) All construction of any new, or renovation, alteration, or change of occupancy of any existing, state-owned or state-leased space shall comply with the uniform fire-safety standards of the State Fire Marshal.

(a) For all new construction or renovation, alteration, or change of occupancy of state-leased space, compliance with the uniform fire-safety standards shall be determined by reviewing the plans for the proposed construction or occupancy submitted by the leasee to the Division of State Fire Marshal for review and approval prior to commencement of construction or occupancy, which review shall be completed within ten (10) working days after receipt of the plans by the Division of State Fire Marshal.

(b) The plans for all construction of any new, or renovation or alteration of any existing, state-owned building are subject to the review and approval of the Division of State Fire Marshal for compliance with the uniform fire-safety standards prior to commencement of construction or change of occupancy, which review shall be completed within thirty (30) calendar days of receipt of the plans by the Division of State Fire Marshal.

(4) The Division of State Fire Marshal may inspect state-owned space and state-leased space as necessary prior to occupancy or during construction, renovation, or alteration to ascertain compliance with the uniform fire-safety standards. Whenever the Division of State Fire Marshal determines by virtue of such inspection or by review of plans that construction, renovation, or alteration of state-owned and state-leased space is not in compliance with the uniform fire safety standards, the Division of State Fire Marshal shall issue an order to cease construction, renovation, or alteration, or preclude occupancy, of a building until compliance is obtained, except for those activities required to achieve such compliance.

(5) The Division of State Fire Marshal shall by rule provide a schedule of fees to pay for the costs of the inspections, whether recurring or high hazard, any fire-safety review or plans for proposed construction, renovation, or occupancy, and related administrative expenses.

The Bureau of Fire Prevention is the Compliance and Enforcement Arm of the Division of State Fire Marshal.

The Bureau is comprised of four (4) sections: Plans Review, Inspections, Boiler Safety, and Regulatory Licensing. Each building constructed with the State will be affected by at least two (2) and maybe all four (4) of these sections. The purpose of this guide is to identify the general requirements of the Bureau as they may affect your construction project. It includes a brief description of the codes and standards that will be used to evaluate your project both during the plans review process and in the field.

Plans Review

The Plans Review Section is tasked with the review of construction plans and documents for new construction, alterations, and renovations on all state-owned and state-leased spaces for compliance with the Florida Fire Prevention Code. Our objective is to identify code violations during the design phase, which reduces construction time, field inspection time, and has proven to be an effective value engineering tool in reducing construction cost to state agencies.

Inspections

The Section is comprised of 32 Fire Protection Specialists (inspectors) in six (6) regions throughout the state. Inspectors witness water supply installations and tests, and conduct systems and construction surveys to ensure work is completed in accordance with approved construction documents, and all adopted laws, codes and standards.

Regulatory Licensing

The Regulatory Licensing Section is charged with licensing and certification of the fire equipment industry and the fire protection industry. Field inspections are conducted to ensure that all work performed complies with applicable statutes, rules and adopted codes.

Boiler Safety

A "First Inspection" is required after the installation of non exempt boilers. Inspections may be performed by a state inspector or a special inspector employed by an Authorized Inspection Agency. Insurance companies licensed to write boiler and machinery insurance in Florida are Authorized Inspection Agencies. Inspections are required in accordance with F.S. 554.108. If a boiler is located at public assembly locations, a Certificate of Compliance is issued for one (1) year to a high-pressure boiler and two (2) years to a low-pressure boiler.

**Bureau of Fire Prevention
Casia Sinco, Bureau Chief
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Inspection Section

John Walker, Senior Management Analyst Supervisor
200 East Gaines Street,
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Phone (850)413-3656
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Plans Review

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200 East Gaines Street,
Tallahassee, Florida 32399-0342
Phone (850)413-3736
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Regulatory Licensing

Keith McCarthy, Safety Program Manager
200 East Gaines Street,
Tallahassee, Florida 32399-0342
Phone (850)413-3644
Fax (850)410-2467

Boiler Safety Program

Greg Frazier, Chief Boiler Inspector
200 East Gaines Street,
Tallahassee, Florida 32399-0432
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Fax (850)410-2467

Field Offices

North Region: Tallahassee Office

Paul Dyer, Regional Supervisor
200 East Gaines Street,
Tallahassee, Florida 32399-0342
Phone (850)413-3741
Fax (850)410-2467

Northwest Region: Fort Walton Beach Office

William Tate, Regional Supervisor
105 Lewis Street, Suite 102,
Fort Walton Beach, Florida
32547-3182
Phone (850)833-9038
Fax (850)833-9131

Northeast Region: Jacksonville Office

Van Patterson, Regional Supervisor
921 N. Davis Street, Bldg B, Suite 270
Jacksonville, Florida 32209-8605
Phone (904)798-5805
Fax (904)353-2179

Central Region: Orlando Office

Kimberly Mendoza, Regional Supervisor
3655 Maguire Boulevard, Suite 101
Orlando, Florida 32803-3047
Phone (407)316-4825
Fax (407)897-4384

Southeast Region: West Palm Beach Office

Michael Long, Regional Supervisor
400 North Congress Avenue,
Suite 230
West Palm Beach, Florida
334015213
Phone (561)640-6750
Fax (561)681-6383

Southwest Region: Tampa Office

Agustin Valdes, Regional Supervisor
8600 Hidden River Parkway
Palm Court @Hidden River, Ste. 200
Tampa, Florida 33637-1016
Phone (813)972-8656
Fax (813)558-5055

II. STATUTES – RULES – CODES and STANDARDS:

The Bureau obtains its authority from Florida Statutes, Chapter 633. This statute provides authority for the development of rules and the adoption of fire-safety standards such as those produced by the National Fire Protection Association. The rules of the Division of State Fire Marshal are listed in Chapter 69A of the Florida Administrative Code. The applicable codes and standards are listed in Chapter 69A-3 of the Florida Administrative Code. All projects must first comply with any statutory language addressing the issue in question. If the statute is silent to the issue, the applicable rule would prevail over any adopted code of standard.

All state-owned buildings are subject to the Uniform Fire Safety Rules listed in Chapter 69A of the Florida Administrative Code. Uniform firesafety rules are developed by the State Fire Marshal and may not be modified by any law, rule, or ordinance of any other state agency or local fire authority. Deviations from the approved requirements may be permitted with the advance approval of the Plans Review Section Manager.

The following is a partial listing of the more frequently used codes and standards:

NFPA 1, Fire Prevention Code and its referenced standards
NFPA 10, Standard for Portable Fire Extinguishers
NFPA 13, Standard for the Installation of Sprinkler Systems
NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including Four Stories in Height
NFPA 17A, Standard for Wet Chemical Extinguishing Systems
NFPA 24, Standard for the Installation of Private Fire Service Mains and their Appurtenances
NFPA 25 Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.
NFPA 30, Flammable and Combustible Liquids Code
NFPA 70, National Electrical Code
NFPA 72, National Fire Alarm Code
NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations
NFPA 101, Life Safety Code and its referenced standards

The above list does not constitute a complete list of the applicable standards for your project. Please refer to the full text of Chapter 69A3 Florida Administrative Code for other applicable standards.

III. LICENSING REQUIREMENTS:

Engineered Fire Protection System: The layout, fabrication, inspection, installation, alteration, or repair of an engineered fire protection system as defined in Section 633.102, Florida Statutes requires certification and licensing by the State Fire Marshal as follows:

- Contractor I Business includes all types of engineered systems.
- Contractor II Business is limited to water-based engineered systems.
- Contractor III Business is limited to chemical systems
- Contractor IV Business is limited to detached one family or two family dwellings
- Contractor V Business is limited to the underground piping for an engineered fire protection system beginning at the point piping is exclusive for fire protection and ending no more than one foot above the finished floor.

A Fire Protection System Contractor I, II, and V, may install the underground piping of a fire protection system, however the contractor who installs the underground piping from the point of service is responsible for completing the installation to the aboveground connection flange, which by definition is no more than 1 foot above the finished floor, before completing the Contractor's Material and Test Certificate for Underground Piping document.

Aboveground contractors may not complete the Contractor's Material and Test Certificate for Underground Piping document for underground piping or portions thereof which have been installed by others.

The Fire Protection System Contractor V may install the crossconnection backflow prevention device on new installations only. The retrofitting of a backflow device on an existing fire protection system will cause a reduction in available water pressure and probable system malfunction. The development of aboveground fire protection system hydraulic calculations is a task of the Contractor I and II.

A Contractor V is expressly prohibited from retrofitting crossconnection backflow prevention devices on an existing fire protection system, and only a Contractor I or Contractor II who is tasked to recalculate the system and take corrective actions to ensure that the system will function with the available water supply may retroactively install these backflow devices on existing fire protection systems.

NOTE: A utility contractor, licensed pursuant to Chapter 489, Florida Statutes, is prohibited from engaging in the layout, fabrication, inspection, installation, alteration, or repair of any fire protection piping.

Fire Alarm: The contractor installing the fire alarm system must be licensed by the Department of Business and Professional Regulations in one of the following classes:

- EC - Certified Electrical Contractor
- EF – Certified Alarm System Contractor I
- EY – Registered Alarm System Contractor I

Fire Equipment Dealer: The installation, service, repair, recharge, testing, marking, inspection, or hydro testing of fire equipment must be conducted by a business or individual licensed in one of the following classes:

- Class A – Portables excluding pre-engineered
- Class B – Portables, excluding carbon dioxide hydro testing
- Class C – Portables, excluding carbon dioxide hydro testing and recharging
- Class D – Pre-engineered Systems

Procedures: Plans Submissions

The Division of State Fire Marshal will require the submitter to furnish two sets of plans and one set of specifications for review to the Plans Review Sections. The submitter may, however, submit plans at an earlier stage, i.e., design review, in which case only one unsigned set needs to be submitted.

Only one design review will be allowed per project.

When the documents are approved for construction, the plans and specs will be stamped "APPROVED" and returned to the submitter. The stamped set of plans must be kept on the job site for the fire safety inspector's use at the time of inspection.

It shall be the responsibility of the submitter to see that the "approved" set of plans is on the construction site before work begins and remains there until final inspection and approval has been issued. Plans approval is good for one year from the date of issue.

The construction contract must be maintained within this period or the approval will expire and the plans must be re-submitted with another review fee.

The editions of the pertinent codes that will apply to your project will be those that are adopted at the date of your first submittal, regardless of phase, i.e. 50% or final, and will not change even if a newer edition is adopted during the review process.

Any change orders or redesign during construction that affect life safety shall be submitted with an application for review with the State Fire Marshal's permit number indicated. There is no additional fee required for changes.

The review process allows 30 calendar days for review of all state owned property and 10 working days for review of state leased property.

If there are any special circumstances or hazards that require further clarification, the reviewer will attempt to contact you; therefore, please include the name and telephone number of a contact person with your plan submission. Please remember that if you are called and asked for additional information or clarification, the reviewer needs this information in writing before he can approve the project. If the statutory time (10 working days on a lease or 30 calendar days on state owned) expires he must disapprove the project and a re-submittal process may add further delay to the project.

Design Criteria:

The Life Safety portion of the plans shall be designed in accordance with the **National Fire Protection Association (NFPA) 101, Life Safety Code; NFPA 1, Fire Prevention Code; and adopted NFPA Standards.** See Florida Administrative Code 69A-3.012 for the adopted edition of NFPA 101 & 1 and a list of adopted NFPA Standards. (<https://www.flrules.org/>)

Plans Review Fees:

The fee for plans review is determined by multiplying the estimated construction/renovation cost for the building, by the constant 0.0025. The minimum fee is \$100.00. This does not include the cost of the land, site improvements, civil work or furniture & equipment.

Example:
\$1,000,000.00 Construction Cost x 0.0025 = 2,500.00 Fee

Method of Payment

After plans are received an invoice will be prepared and sent at which time payment can be made by check, money order or, if a state agency is paying, a Samas – Journal Transfer. Please make check or money order payable to the Department of Financial Services. Fill in the memo portion with "SFM Plans Review fee" and return payment with invoice.

IV. TYPES OF CONSTRUCTION SITE VISITS:

The plans review process and fee includes a full and complete review of all required construction documents and up to three (3) construction site inspections. During the initial site visit, the regional inspector and supervisor, if available, may modify the number of inspections.

The purpose of the site inspection is to ensure the project is constructed in accordance with the approved construction documents and in compliance with all applicable laws, codes and standards. The site inspection may include verification and/or witness of an underground fire main installation, including flush and pressure testing, flow testing of sprinklers, testing of alarm devices, and pull stations, emergency lighting, fire and smoke dampers, assessment of the egress system, and other features of fire protection.

1. Underground Fire Main Visit:

If applicable, this site visit is required before backfilling the open trench, and covering the supply piping. The inspector will verify the underground installation is in compliance and witness the required pressure test and system flush.

2. Intermediate Inspection Visit:

This inspection occurs at approximately 50% of completion (before enclosing walls and ceilings). This inspection may include pressure test for sprinklers, location of pull stations, connections for strobes and horns, alarm wiring, stairs, ramps, etc. The intermediate inspection may be exempted at the Inspector's discretion, depending upon the size and complexity of the construction project.

3. Final Inspections Visit:

Final inspection must be completed by the Inspector to ensure that the construction/renovation is in accordance with the approved construction documents and in compliance with all adopted laws, codes and standards.

4. Other Inspections

- a. Special: This inspection would include any inspection not otherwise specified such as but not limited to, an on-site visit to review and discuss proposed changes to the approved plans before submitting a change order to Plans Review Section.
- b. Boiler: "First Inspections" are required after the installation of non exempt boilers. This inspection may be performed by a Special Inspector employed by an insurance company authorized to write boiler and machinery insurance in Florida, or a SFM Deputy boiler inspector, for locations that do not participate in the State insurance pool.
- c. Fire Protection Systems: This inspection is for an installation of any fire protection system associated with or without new construction or renovations. The inspection will include all aspects of the proper installation and acceptance testing of the system.

V. HOW TO REQUEST AN INSPECTION:

State Owned Property:

The following visits must be considered and/or requested:

- 1. Underground Verification: REQUIRED if an underground fire main is installed. This must be performed before backfilling the trench and covering the piping.
- 2. Intermediate Inspections: The complexity of the project may require one or more inspections as determined by the assigned inspector.
- 3. Final Inspection: REQUIRED.

The construction documents must be approved prior to commencing construction. Any request for the use of an alternative system or changes made to the approved plans, must be approved by the Plans Review Section prior to installation or change. Throughout the various construction phases, all requests for inspection shall be made at least five (5) working days prior to the date requested. The request may be forwarded by electronic mail, U.S. mail, or facsimile to Assigned Inspector and Regional Supervisor at their address or fax number noted on New Construction Project Letter.

The assigned inspector in the office will contact the requestor to make final arrangements for the inspection.

The request form shall be completed in its entirety. Furthermore, if the construction documents/plans have been disapproved by this office, the inspection will not be performed, and a stop work order may be issued. Revised plans must be submitted, approved, and the plans review fee paid in full before inspection services resume.

Should the project fail the inspection due to deficiencies, a re-inspection should be scheduled with the assigned inspector at the time.

State Leased Property:

Construction inspections for state leased property are requested in the same manner as for inspections of state owned buildings. The approved construction documents/plans should be secured on site. The complexity of the project may require one or more intermediate inspections as determined by the assigned inspector.

VI. INTERMEDIATE INSPECTION CHECKLIST:

Listed below are some features that may be inspected or witnessed during your intermediate construction inspection:

Fire rated partition construction, penetrations and locations, manufacturer's specifications or listings by recognized testing laboratories required to verify the quality of fire-stopping material.

Fire/smoke damper installations at required locations.

Stair details including the run and rise of treads and risers

Handrails and guardrails including height and spacing.

Integrity of stair enclosures and other vertical openings.

Number of exits.

Travel distance, common path of travel and dead-end corridors.

Placement of exit signs and emergency lighting fixtures.

Above ground fire sprinkler system that includes the following:

Witness hydrostatic test and obtain copies of Schedule A test certificates that are found in NFPA 13

Ensure that sprinkler head coverage meets code requirements.

Installation of risers, mains and lines including hangers Review hydraulic calculations

Manufacturer's specifications or listings by recognized testing laboratories required to verify the quality of fire-stopping material.

Underground fire main for the fire sprinkler system that includes the following:

Witness hydrostatic test and flushing of the supply main and obtain copies of Schedule U test certificates that are found in NFPA 13. Verify location and installation of joints, retainers, and thrust blocks. Verify locations and accessibility of fire department connections, post indicator valves, fire hydrants, and backflow prevention valves.

Manufacturer's specifications or listings by recognized testing laboratories required to verify the quality of fire-stopping material.

- Installation of emergency generator and witness acceptance (load) test. Obtain copy of test results.
- Installation of fire-jockey pumps and witness acceptance test. Obtain copy of test results.
- Kitchen hood installations including clearance of ducts from combustible material, clean-out doors on ducts, seamless exterior welds, height of discharge vent above roof, and that the top of the vent is hinged for access and cleaning of the fan motor.
- Inspection of fuel storage tank(s) and dispensing piping, and/or performance testing of LPG, flammable and combustible liquids and other hazardous material systems.

VII. FINAL INSPECTION:

Listed below are some features that may be inspected during your final construction inspection:

- Final fire rated partition construction and all visible penetrations through partitions.
- Perform or witness operational test of all smoke or fire dampers and ensure they are accessible for inspection/cleaning.
- Final stair details and enclosures.
- Locations of required fire rated doors/windows and ensure that doors and windows are a listed/labeled assembly or product, and that each function properly (self closures, latches, etc.).
- Placement of required exit signs.
- Exit door swing.
- Exits and access to exits: Check exit discharge for obstructions, and verify that it leads to the public way.
- Fire extinguisher ratings and placements.
- Conduct a final inspection on the fire sprinkler system including exterior items. Make sure valves are supervised, required signage is provided, riser is tagged, hydraulic calculation label is attached, required spare heads and wrench are present, and as-built drawings are provided to the building.
- If emergency generator is installed, a time activation test, emergency lighting, exit signs and other items connected to the generator will be tested while the building is on emergency power and in non-emergency modes.
- Building's electrical system to ensure there is no exposed wiring or live parts, and all circuit breakers are legibly identified as to their purpose.

- Final fire alarm system inspection to include testing EVERY device in the system and provide the following:
 - Certificate of Completion
 - Owner's manual and installation instructions covering all system equipment
 - Record Drawings (as-built)
 - Tag on panel in accordance with F.A.C. 69A-48
- Pre-engineered systems and witness acceptance test in accordance with manufacturers recommendations. Obtain copies of test results, owner's manual, and as-built drawings.
- Fire sprinkler system including flow test and alarm activation.
- Other fire suppression systems protecting special hazards, fuel storage tanks, and dispensing systems.
- Placement of building signage, including street address and other identifying markings.
- Evaluation of the fire alarm system layout.

VIII. FEES:

The Plans Review Fee will include review of the construction documents, and up to three (3) construction site visits including, underground fire main verification, and intermediate, and final inspections. Additional visits required as a result of deficiencies found during the final inspection may result in additional fees billed to the contractor at a portal to portal rate of \$65.00 per hour, per inspector, plus expenses. With this in mind, the contractor should have completed all systems testing and inspection punch list, and should make the necessary corrections to prevent additional visits to the site. If, however, the contractor feels the need to cancel or postpone the final inspection, he may do so, without additional costs, by notifying the assigned inspector or regional office a minimum of 24 hours in advance of the established date and time of the scheduled inspection, exclusive of weekends and holiday



DEPARTMENT OF FINANCIAL SERVICES
Division of State Fire Marshal – Bureau of Fire Prevention

REQUEST FOR BUILDING SITE INSPECTION

GENERAL INFORMATION

APPLICANT'S NAME:

PHONE NUMBER:

E-MAIL ADDRESS:

STATE AGENCY:

TYPE OF INSPECTION (CHECK APPROPRIATE ONE)

- | | | |
|---|---|---|
| <input type="checkbox"/> FINAL | <input type="checkbox"/> SPRINKLER SYSTEM, | |
| <input type="checkbox"/> ABOVE GROUND | <input type="checkbox"/> INTERMEDIATE SPRINKLER SYSTEM, | |
| <input type="checkbox"/> UNDER GROUND | <input type="checkbox"/> FIRE ALARM SYSTEM | <input type="checkbox"/> LEASE, RENEWAL |
| <input type="checkbox"/> LEASE, PRE-OCCUPANCY | <input type="checkbox"/> HOOD SYSTEM | OTHER (SPECIFY): |
| | OTHER (SPECIFY): | |

NAME, STREET ADDRESS OR EXACT LOCATION OF FACILITY:

INSPECTION DATE:

(Provide this office with a **MINIMUM** of five (5) working days notice prior to requested date of inspection.)

STATE FIRE MARSHAL'S PERMIT #:

_____ (Contact this office should you need assistance)

OCCUPANCY CLASSIFICATION, NFPA:

_____ (Business, Assembly, etc.)

PROJECT SQUARE FOOTAGE:

NUMBER OF STORIES:

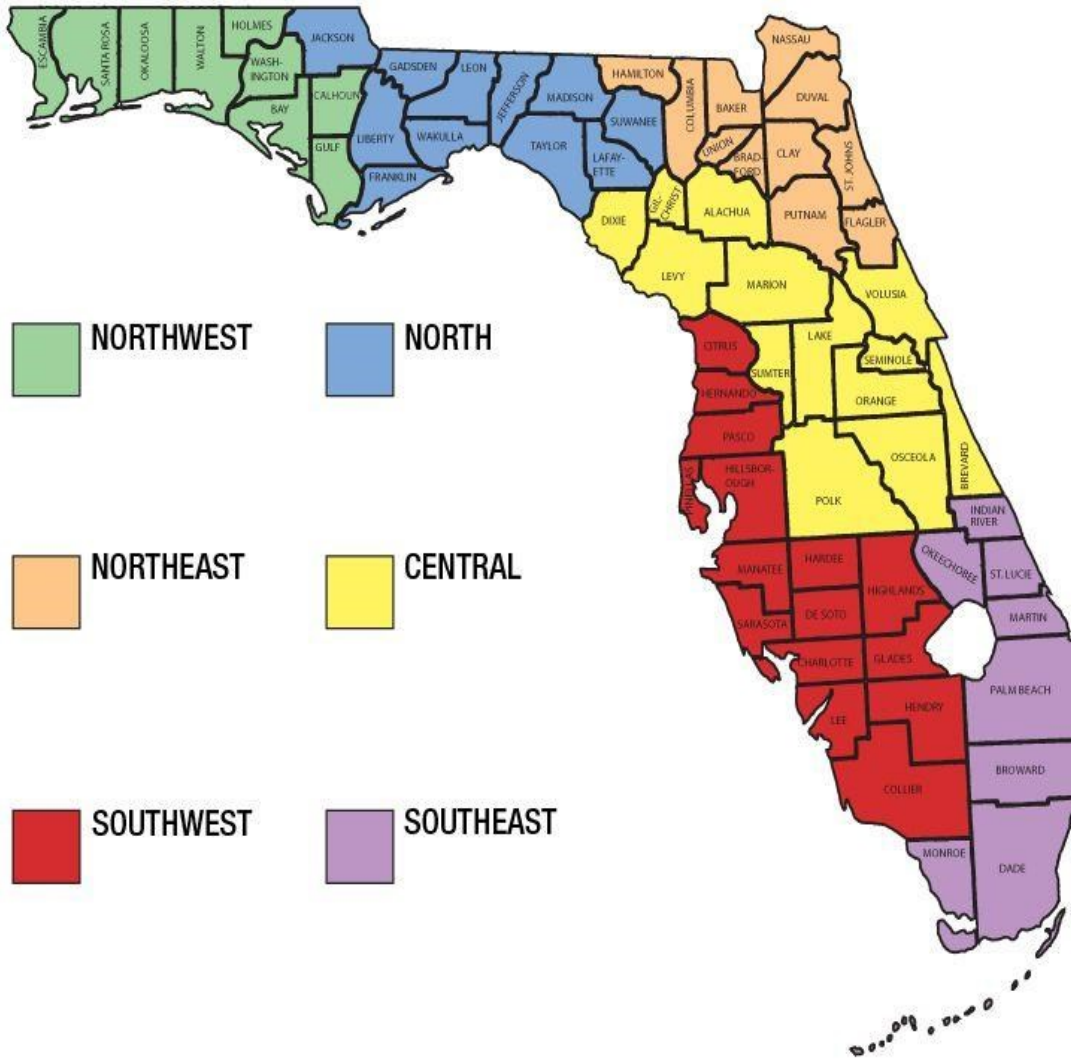
LIST THE FACILITY'S LIFE SAFETY FEATURES:

(Sprinkler, Standpipe, Fire Alarm, Smoke Control, etc.)

TYPE OF CONSTRUCTION, FBC:

E-MAIL ALL REQUESTS TO:

Assigned Inspector & Regional Supervisor
 (See: New Construction Project Letter)



| Regions | Inspection Field Offices | Supervisor | Phone |
|-----------|----------------------------|------------------|----------------|
| Northwest | Ft. Walton Beach | William Tate | (850) 833-9015 |
| North | Tallahassee | Paul Dyer | (850) 413-3171 |
| Northeast | Jacksonville | Van Patterson | (904) 798-5805 |
| Central | Orlando/Ocala | Kimberly Mendoza | (407) 316-4791 |
| Southwest | Tampa/Ft. Myers | Agustin Valdes | (813) 972-8605 |
| Southeast | West Palm Beach/Plantation | Michael Long | (561) 640-6705 |