



BUILDING CODE ENFORCEMENT MANUAL

**FACILITIES MANAGEMENT & CONSTRUCTION
ENVIRONMENTAL HEALTH & SAFETY**

Revision #3, 11/05/2024

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PREFACE

The information contained in this administration manual reflects the knowledge and experience of the design and construction professionals of the Florida State College at Jacksonville and is a tribute to their efforts.

This information is comprehensive but is not perfect for all situations at all times. Users are reminded that this is intended to be used for plans review, permit and construction only, as the title suggests.

Since it is intended to be used for plans review, permit and construction, it may, but should not necessarily be followed precisely, as project requirements vary, nor especially should it be dismissed without careful consideration. Part of the careful consideration should be the assurance that it will help the user to think, and in so doing will help to keep the needs of the project in focus.

To be most useful, it must be kept current, and must always be kept open to improvement. Constructive criticism is invited. If you discover something is missing or a better way to do something described in the manual, share it with us and we will share it with the other users.

PURPOSE

Our mission is to ensure all the facilities at Florida State College at Jacksonville are in compliance with the [Florida Building Code](#), the [Florida Fire Prevention Code](#), [the State Requirement for Educational Facilities](#) (SREF), and the Florida Administrative Code (F.A.C.), [Chapter 69A-58](#).

The further purpose of this manual is to establish and implement the administration and enforcement of the [Florida Building Code](#) at the College in accordance with state law and the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, safety to life, and property from fire and other hazards attributed to the built environment and to provide safety to firefighters and emergency responders during emergency operations.

This manual provides instruction regarding building code compliance with relation to plans review, permit and inspection. It is not intended to provide a synopsis of the code requirements.

AUTHORITY

[Section 1013.37](#), Florida Statutes (F.S.) requires FSCJ District Board of Trustees to ensure that facilities comply with building code, fire code and life safety codes.

[Sections 553.73](#), and [553.79](#), F.S. details these requirements by requiring compliance with the Florida Building Code, Florida Fire Prevention Code and Life Safety Code. Further, [Section 553.80](#), F.S. allows college boards the option to administer and enforce code provisions or utilize the services of the local building department as in our case the City of Jacksonville and Nassau County.

POLICY

Facilities Management & Construction (FMC) represents FSCJ as its Building Code Enforcement Agency. As the regulatory arm of the College; FMC issues building permits, certificates of occupancy, temporary occupancy and certificates of completion as required in [Florida Statute Section 235.017](#) and [FSCJ Board Rule 6Hx7-8.7](#).

FSCJ will provide the administration and enforcement of the [Florida Building Code](#), [Florida Fire Prevention Code](#) (FFPC), and with National Fire Protection Association (NFPA) [Life Safety Code](#) (LSC) internally. Therefore, all College administration and facility management staff must understand their roles and responsibilities to ensure proper building code compliance.

Simply stated, all new construction, renovations, remodeling, day labor and maintenance projects performed at the College shall comply with the latest edition of the Florida Building Code and all other applicable codes.

This policy requires that all College entities performing new construction, renovation, remodeling and maintenance will comply with the following:

- Submit construction documents (drawings and/or project manuals) for plans review.
- Request and obtain the required permit prior to any such work to be done.
- Ensure proper inspections during the construction process.
- Certify completion prior to occupancy or re-occupancy.

HOW TO USE THIS MANUAL

Included in the manual are various written components, which form the basis of documentation needed from consultants and contractors for college projects, the deliverables expected with their attendant procedures, the technical standards to be followed by the College, and the consultants to achieve consistent, finished and complete

documentation, and when applicable, the services expected from the consultant during bidding, construction, and project close-out.

The examples included are suggestions for a consistent approach in reviewing the documentation with relation, to the applicable codes. All examples should be carefully reviewed and adapted as required to best suit the needs of the project being considered.

The Manual is divided into six (6) general sections as shown in the Table of Contents and as follows:

- Section 1 – Plans Review
- Section 2 – Permits
- Section 3 – Annual Facility Permit
- Section 4 – Construction
- Section 5 – Delivery/Job Order Construction
- Section 6 - Appendices

MANUAL UPDATING PROCEDURES

It is intended that the Code Enforcement & Construction Manual be amended and updated periodically or every three (3) years to satisfy the needs of FSCJ and end users.

AMENDMENT PROPOSALS

There are no restrictions on who may propose an amendment.

In order to propose an amendment to the manual, it will be necessary to describe the type of amendment which is being proposed, and whether it is a modification to an existing entry, or the addition of an entirely new entry.

Send all amendment proposals to the FSCJ Facilities Management and Construction/Building Code Enforcement via Bldgcode@fscj.edu. Each proposed amendment will be followed-up individually with the proposer if there are questions.

AMENDMENT PROPOSAL SUBMITTALS

Please copy and paste the specific section in need of change and enter all changes in red ink. Please make sure all revisions are clearly understood as to their intent.

Amendments and updates will be published on an as needed basis, and will be distributed via fscj.edu - [Building Permits, Forms and Manuals](#).

MANUAL UPDATE HISTORY

Original Date of Issue: 02.01.12

Revision 1: 09.01.1; Revision 2: 05.01.15; Revision 3: 11.05.24

DEFINITIONS

A/E - Architect/Engineer

AHJ - See Authority Having Jurisdiction

ACCESSIBLE - A site, building, facility, or portion thereof that complies with this part. Florida [Building Code, Accessibility](#)

ACCESSIBLE MEANS OF EGRESS - A continuous and unobstructed way of egress travel from any *accessible* point in a building or facility to a *public way*. [Section 202, FBC-Buildings](#)

ACCESSIBLE ROUTE - Site Arrival Points. At least one accessible route shall be provided within the site from accessible parking spaces and passenger loading zones; public streets and sidewalks; and public transportation stops to the accessible building or facility entrance they serve. Components shall consist of one or more of the following: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. [Building Code, Accessibility](#)

APPROVED - Acceptable to the code official or authority having jurisdiction. [Section 202, FBC-Buildings](#)

ARCHITECT - A Florida-registered architect. [Section 202, FBC-Buildings](#)

AUTHORITY HAVING JURISDICTION (AHJ) - An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approved equipment, materials, an installation, or a procedure. [NFPA Standard 1, Fire Code](#)

ASBESTOS - The asbestiform varieties of the phyllosilicate chrysotile (serpentine) and of the amphibole groups crocidolite (riebeckite), anthophyllite (amosite, Cummington/grunerite), and tremolite actinolite.

- (A) **Asbestos-Containing Materials** - Any material or product that contains more than one present asbestos as determined using the method specified in [Subpart E,40CFR, Part 763](#).
- (B) **Friable** - Asbestos material that, when dry can be crumbled, pulverized or reduced to powder by hand pressure. This definition includes previously non-friable material that becomes damaged to the extent that, when dry, it can be crumbled, pulverized, or reduced to powder by hand pressure.
- (C) **Non-friable** - Asbestos material that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

BUILDING - Any structure used or intended for supporting or sheltering any use or occupancy. [Section 202, FBC-Buildings](#)

BUILDING CODE ADMINISTRATOR - The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative. See Building Official.

BUILDING OFFICIAL - The officer or other designated authority charged with the administration and enforcement of this building code, or a duly authorized representative. [Section 202, FBC-Buildings](#)

BUILDING PERMIT - An official document or certificate authorizing construction issued by the building official in accordance with [Section 105 of the Florida Building Code](#).

CERTIFICATE OF OCCUPANCY- Document issued by the authority having jurisdiction that indicates inspection and approval of completion of a construction project pursuant to the requirements of the Florida law.

COLLEGE - Florida State College at Jacksonville.

CONDITIONAL - An on-site review of a facility or site, which complies to the applicable codes with minimal and reasonable adjustments, to the work category being inspected, at that time. This is a judgment decision by the inspector as to allow work in this category to continue as scheduled.

CONSTRUCTION DOCUMENTS - Written, graphic and pictorial documents prepared or assembled for describing the design, location and physical characteristics of the elements of a project necessary for obtaining a building permit. [Section 107.2, FBC- Construction Documents](#).

DELIVERABLE - Documents, which are required permit issuance. See Plans and Submittals.

DELIVERY/JOB ORDER CONSTRUCTION - An annual continuing contract with a qualified construction contractor to provide ongoing construction services, and limited as built design services, for numerous smaller projects. This process provides a “rapid” response with smaller construction projects.

DRAWING SIZE - Documents shall be submitted on sheet size twenty-four (24) inch by thirty-six (36) inches (24 x 36 inches / 609.6 x 914.4 mm) or US Architectural Drawing Size: ARCH D SIZE.

EMERGENCY LIGHTING - Lighting designated to provide required illumination automatically in the event of any failure of the general lighting. [SREF, 1.2](#)

ENGINEER - A Florida-registered professional engineer. [Section 202, FBC-Buildings](#)

EXISTING BUILDING - A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued [Section 202, FBC-Buildings](#)

EXISTING CONSTRUCTION - Any building and structures for which the “start of construction” commenced before the effective date of the community’s first flood plain management code, ordinance or standard. “Existing construction” is also referred to as “existing structures.” [Section 202, FBC-Buildings](#)

EXISTING STRUCTURE - See “Existing construction.” [Section 202, FBC-Buildings](#)

EXIT - That portion of a means of egress that is separated from all other spaces of a building or structure by construction or equipment as required to provide a protected way of travel to the exit discharge. [Florida Fire Prevention Code \(FFPC\), 7th edition \(2020\)](#), [NFPA 101, Life Safety Code \(2024\)](#)

EXIT ACCESS - That portion of a means of egress that leads to an exit. [NFPA 101, Life Safety Code \(2024\)](#)

EXIT DISCHARGE - That portion of a means of egress between the termination of an exit and a public way. [Florida Fire Prevention Code \(FFPC\), 7th edition \(2020\)](#), [NFPA 101, Life Safety Code \(2024\)](#)

FECC - Florida Energy Conservation Code for Building Construction; Florida Conservation Code. [SREF, 1.2](#)

FAILED - Not acceptable to the code official or authority having jurisdiction. Corrections, in that category, are to be made and a request for re-inspection is mandatory.

FIRE CODE ADMINISTRATOR / PLANS EXAMINER - Reviews, approves, and enforces the provisions of the Florida Fire Prevention Code and applicable state and federal statutes, codes and standards adopted by the State of Florida pertaining to fire prevention and fire protection.

FIRE LANE - A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus. [Section 202, FBC-Buildings](#)

FIRE OFFICIAL - The officer or other designated authority charged with the administration and enforcement of the Florida Fire prevention Code, latest adopted edition, or a duly authorized representative. Also see Fire Code Administrator / Plans Examiner.

FIRE SAFETY INSPECTOR - An individual that performs inspections, plans review duties, and resolves complex code related issues for compliance with fire safety and prevention laws, codes and regulations. [Section 633.216, Florida Statute](#)

FIRE SEPARATION - Fire separation is achieved by a fire wall, building separation of sixty (60) linear feet, or the requirements of [Section 602, FBC- Types of Construction](#).

FIRE WATCH - The assignment of a person or persons to an area for the express purpose of notifying the fire department, the building occupants, or both of an emergency;

preventing a fire from occurring; extinguishing small fires; or protecting the public from fire or life safety dangers.

FLORIDA BUILDING CODE (FBC) - The building code used for new construction, renovation, remodeling, day labor and maintenance of all public educational facilities.

FLORIDA FIRE PREVENTION CODE (FFPC) - Codes adopted by the State Fire Marshal at three (3) year intervals as required by [Chapter 633.202, Florida Statutes](#). This complex set of fire code provisions are enforced by the local fire official within each county, municipality, and special fire districts in the state. [Chapter 633.202, F.S.](#)

FLORIDA STATE COLLEGE AT JACKSONVILLE - College.

INSPECTION - An on-site review of a facility or site as required by [Chapter 1013, F.S.](#), and by [SREF](#).

INTERIOR FINISH - Materials permanently affixed to the interior building structure. [SREF, 1.2](#)

LIGHT-FRAME CONSTRUCTION - A type of construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or light gage steel framing members. [Section 202, FBC-Buildings](#)

MAINTENANCE AND REPAIR - The upkeep of educational and ancillary plants including, but not limited to, roof or roofing replacement short of complete replacement of membrane or structure; repainting of interior or exterior surfaces; resurfacing of floors; repair or replacement of glass and hardware; repair or replacement of electrical and plumbing fixtures; repair of furniture and equipment; replacement of system equipment with equivalent items meeting current code requirements provided the equipment does not place a greater demand on utilities, structural requirements are not increased, and the equipment does not adversely affect the function of life safety systems; traffic control devices and signage; and repair or resurfacing of parking lots, roads, and walkways. Does not include new construction, remodeling, or renovation; except, as noted above. [SREF, 1.2](#)

MEANS OF EGRESS - A continuous and unobstructed way of travel from any point in a building or structure to a public way consisting of three (3) separate and distinct parts: (1) the exit access, (2) the exit, and (3) the exit discharge. [Florida Fire Prevention Code \(FFPC\), 7th edition \(2020\), NFPA 101, Life Safety Code \(2024\)](#)

NEC - National Electrical Code also referred to as [NFPA 70](#).

NFPA - National Fire Protection Association.

NEW CONSTRUCTION - Any construction of a building or unit of a building in which the entire work is new. An addition connected to an existing building is considered new

construction. For accounting purposes, a construction project is considered new through the fiscal year in which the project was completed and the first year thereafter. [SREF, 1.2](#)

NOT READY - An on-site review of a facility or site, as requested by the holder of the building permit or their authorized agent, has been requested and scheduled for inspection; however, upon on-site arrival the work is not completed for the necessary inspection or review category as requested.

OCCUPANT LOAD - For life safety purposes, the maximum number of persons that are allowed to occupy a building or room at any one time. [SREF, 1.2](#)

PARTIAL - An on-site requested inspection of a facility or site, which is part of a review category that cannot be completed with one (1) on-site inspection or review. Generally, this type inspection for a specific category is approved at permit issuance.

PASS - The action taken when an inspection category (building, electrical, mechanical, plumbing, gas, fire or life safety) is acceptable to the code official or authority having jurisdiction.

PERMIT - An official document or certificate issued by authority having jurisdiction which authorizes performance of a specified activity. [Section 202, FBC-Buildings](#)

PLANS - All construction drawings and specifications for any structure necessary for the building official to review in order to determine whether a proposed structure, addition, or renovation will meet the requirements of the Florida Building code or other applicable codes. [Section 202, FBC-Buildings](#) (See Deliverable and Submittal)

PORTABLE FIRE EXTINGUISHER - A portable device, carried or on wheels and operated by hand, containing an extinguishing agent that can be expelled under pressure for the purpose of suppressing or extinguishing fire. [NFPA Standard 10](#), Standard for Portable Fire Extinguishers

REGISTERED DESIGN PROFESSIONAL - An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed. [Section 202, FBC-Buildings](#)

RE-INSPECTION - The action taken when an inspection category is reviewed after the initial inspection or review has been performed and identified as not being acceptable to the code official or authority having jurisdiction. This inspection is mandatory after the initial inspection category is marked "FAILED".

REMODELING - The changing of existing facilities by rearrangement of space and/or change of use. Only that portion of the building being remodeled must be brought into

compliance with the building and life safety codes unless the remodeling adversely impacts the existing life safety systems and exiting of the building. [SREF, 1.2](#)

RENOVATION - The rejuvenation or upgrade of existing facilities by installing or replacing materials and equipment. The use and occupancy stay the same. Only that portion of the building being renovated must be brought into compliance with the building and life safety codes unless the renovation adversely impacts the existing life safety systems of the building. [SREF, 1.2](#)

REPAIR - Defective material or parts shall be replaced or repaired in such manner so as to preserve the original approval or listing.

REPAIR AND MAINTENANCE - See Maintenance and Repair. [SREF, 1.2](#)

SREF - State Requirements for Educational Facilities ([2014 SREF](#)).

SHOP DRAWING - A drawing or set of drawings produced by a contractor, supplier, manufacturer, subcontractor, or fabricator. Shop drawings are typically required for prefabricated components and emphasize a particular product or installation. See Submittal.

SPECIAL FIRE SAFETY INSPECTOR - An individual that conducts basic fire inspections and applies codes and standards. [Section 633.216, Florida Statute](#)

STANDARD INSPECTOR - A person who performs inspections and is certified in one or more disciplines, either building, plumbing, electrical, mechanical or other specialty to inspect structures at different stages of completion. These inspections are done to assure compliance with codes, which are being enforced by this jurisdiction, in this case the [Florida Building Code \(FBC\)](#).

SUBMITTAL - Documents (drawings, sketches, etc.), manuals (specifications, booklets, pamphlets, etc.) or materials (manufacturer's product literature, manufacturer's technical data, manufacturer's installation instructions, samples, etc.) provided for review, record, file or approval to a jurisdiction having authority. See Deliverables, Plans and Shop Drawings.

WALL, LOAD BEARING - Any wall meeting either of the following classifications:

1. Any metal or wood stud wall that supports more than one hundred (100) pounds per lineal foot (1459 N/m) or vertical load in addition to its own weight. [Section 202, FBC-Buildings](#)
2. Any masonry or concrete wall that supports more than two hundred (200) pounds per lineal foot (2919 N/m) of vertical load in addition to its own weight. [Section 202, FBC-Buildings](#)

WALL, NON-LOAD BEARING - Any wall that is not a load-bearing wall. [Section 202, FBC-Buildings](#)

SECTION 1 – PLANS REVIEW

INTRODUCTION

As the regulatory arm of the College, Facilities Management & Construction/Building Code Enforcement reviews plans, addendums, revisions, selected submittals, as well as, issues building permits and certificates of occupancy.

As such, Facilities Management & Construction/Building Code Enforcement is responsible for the minimum plans review criteria of all construction documents and accompanying data.

Construction documents and/or accompanying data with descriptive transmittal should be sent to:

Bruce D. Nelsen, BU-1559
Florida State College at Jacksonville
Facilities Management & Construction
Attn: Facilities/Building Code Enforcement
501 West State Street
Jacksonville Florida 32202
(904) 633-5959
Email – bldgcode@fscj.edu

PLANS ROUTING

Construction documents (100%) and accompanying data, as submitted, shall be marked as to level of the design and electronically date stamped as being received. A Plan Review Routing Sheet shall be attached.

Plans review, relating to code compliance, will be routed to each of the following disciplines:

- Building
- Electrical
- Plumbing
- Mechanical
- Gas
- Fire Protection Systems
- Life Safety

Refer to Section 6 Appendices; Appendix A, Plans Review Routing Sheet

PRELIMINARY REVIEWS

As an aid to review, on large construction projects, Facilities Management & Construction/Building Code Enforcement conducts reviews prior to final construction documents (100%). Planning and Design reviews plans inclusive of any interior and exterior finish modifications and Furniture, Fixtures, and Equipment prior to final documents (100%). The prior review service is not mandatory, but design professionals are encouraged to take advantage of this service to ensure that the completed documents and accompanying data can be reviewed and processed quickly. Plan reviews prior to 100% completed construction documents also provides the design professional the opportunity to make corrections to the plans early in the project when the project drawings are not as highly developed and easier to make code related changes.

No fee is charged to the design professional for this service and the percent (%) of completion of the documents is flexible.

SCHEMATIC DESIGN DOCUMENTS (15%) OPTIONAL

Construction documents may be sent to Facilities Management & Construction/Building Code Enforcement for preliminary code analysis and review at this level of the design phase process. One (1) complete set of Schematic Design drawings (size 24" x 36") with transmittal may be sent as directed above.

Generally; at this level, plans review will be performed in the Building, Fire and Life Safety categories. Comments are formatted in a review form completed by the Building Code Administrator, or duly authorized representative, and sent directly to the Design Professional and/or the College Construction Project Manager, unless otherwise directed by the College.

Note: A/E response is not necessary at this level of plans review.

DESIGN DEVELOPMENT DOCUMENTS (60% - 90%) OPTIONAL

Construction documents and accompanying data may be sent to Facilities Management & Construction/Building Code Enforcement for a secondary review at the Design Development phase. One (1) complete set of the Design Development Drawings (24" x 36") with transmittal may be sent as directed above.

Signed and sealed drawings, for this plan review level are not required.

At this level of the design process; plan reviews will be performed in all categories including Building, Electrical, Plumbing, Mechanical, Fire and Life Safety. Plan review comments will be sent by the Building Code Administrator, or duly authorized representative,

electronically, to the Design Professional and/or the College Construction Project Manager, unless otherwise directed by the College.

Note: During the plan review process; it would be helpful if the Design Professional included a response(s) to the Building and Fire Safety review comments from the previous plan review form.

Refer to Section 6 Appendices; Appendix A, Plans Review Instructions and Plans Review Comments

DESIGN DOCUMENTS (90% - 100%) MANDATORY

Construction documents and accompanying data shall be sent to Facilities Management & Construction/Building Code Enforcement for a final review at this design phase. One (1) complete set of the Design Drawings (24" x 36") with transmittal shall be sent as directed above. One (1) additional complete set may be required depending on the type of reviews required for an individual project.

Signed and sealed drawings for this plan review level are not required.

This plan review is essentially the same as the Design Development review, but it involves a greater level of review. Plan review categories will still include, yet not limited to, Building, Electrical, Plumbing, Mechanical, Fire and Life Safety. Plan review comments will be sent electronically by the Building Code Administrator, or duly authorized representative, to the Design Professional and/or the College Construction Project Manager, unless otherwise directed by the College.

Note: Plan reviews at this level will not take place unless the College plan review comments sheet(s) are returned with A/E responses answered and complete. Facilities Management & Construction/Building Code Enforcement requires that these forms be returned electronically.

Refer to Section 6 Appendices; Appendix A, Plans Review Instructions and Plans Review Comments

FINAL CONSTRUCTION DOCUMENTS (100%) PHASE III MANDATORY

Construction documents and accompanying data shall be sent to Facilities Management & Construction/Building Code Enforcement for a final review and review of outstanding responses at the Final Construction phase. This phase shall be for the issuance of a Building Permit and the number of submittals required is as follows:

- Two (2) complete sets of the Construction Drawings (24" x 36") with transmittal shall be sent as directed above. Three (3) complete sets may be required depending on the type of reviews required for an individual project.

- Two (2) additional complete sets may be required for projects in excess of three hundred thousand dollars (\$300,000.00) for plans review by the Department of Education.

Signed and sealed drawings, for this plan review level, are required.

This plan review is essentially the same as the design review. The primary function of this review is to determine if all A/E responses to the previous plan review comments are satisfied in all plan review categories. Plan review comment sheets indicating all comments are satisfied will be attached to the Construction Documents issued with the Building Permit.

Upon request, plan review comments sheets indicating all comments satisfied maybe sent electronically by the Building Code Administrator, or duly authorized representative, to the Design Professional and/or the College Construction Project Manager, unless otherwise directed.

Note: Plan reviews at this level will not take place unless College plan review comments sheet(s) are returned with A/E responses completed. Facilities Management & Construction/Building Code Enforcement requires that these are to be returned electronically. Design professionals are encouraged to start the plans review process at the Design Document (60% - 100%) level as not to delay Building Permit issuance. Plan reviews starting at this final construction phase may take a minimum of thirty (30) days.

Refer to Section 2 Permits; Building Permit Deliverables

MINIMUM PLAN REVIEW CRITERIA FOR BUILDINGS

The examination of the documents by the building official shall include the following minimum criteria and documents: floor plan; site plan; foundation plan; floor/roof framing plan or truss layout; and all exterior elevations:

Commercial Buildings:

Building

1. Site requirements:
Parking, fire access, vehicle loading, driving/turning radius, fire hydrant/water supply/post indicator valve (PIV), setback/separation (assumed property lines), location of septic tanks, water lines and sewer lines. **See note below regarding civil projects.*
2. Occupancy group and special occupancy requirements shall be determined.
3. Minimum type of construction shall be determined.

4. Fire resistant construction requirements shall include:
Fire-resistant separations, fire resistant protection for type of construction, protection of openings and penetrations of rated walls, Fire blocking and draft stopping and calculated fire resistance.
5. Fire suppression systems shall include:
Early warning smoke evacuation systems, schematic fire sprinklers, standpipes, pre-engineered systems, riser diagrams
6. Life safety systems shall be determined and shall include the following requirements: occupant load/egress requirements, early warning, smoke control, stair pressurization, systems schematics
7. Occupancy load/egress requirements shall include:
occupancy load, gross, net, means of egress, exit egress, exit, exit discharge, stairs construction/geometry and protection, doors, emergency lighting and exit signs, specific occupancy requirements, construction requirements, horizontal exits/exit passageways
8. Structural requirements shall include:
soil conditions/analysis, termite protection, design loads, wind requirements, building envelope, structural calculations (if required), foundation, wall systems, floor systems, roof systems, threshold inspection plans, stair systems
9. Materials shall be reviewed and shall, at a minimum, include the following:
wood, steel, aluminum, concrete, plastic, glass, masonry, gypsum board and plaster, insulating (mechanical), roofing, insulation
10. Accessibility requirements shall include the following:
site requirements, accessibility route, vertical accessibility, toilet and bathing facilities, drinking fountains, equipment, specialty occupancy requirements, fair housing requirements
11. Interior requirements shall include the following:
interior finishes (flame spread/smoke development), light and ventilation, sanitation
12. Special systems:
elevators, escalators and lifts
13. Swimming pools:
barrier requirements, spas and wading pools

Note: Civil projects will require submission, plan review and approval of construction documents by the City of Jacksonville or Nassau County's Planning & Zoning, Public Works and Building Departments and adherence to local governing agencies requirements for permitting, inspections and final acceptance in addition to the requirements set forth herein by FSCJ Building Code Enforcement.

Electrical

1. Wiring, services, feeders and branch circuits, overcurrent protection, grounding, wiring methods and materials, GFICs
2. Equipment
3. Special occupancies
4. Emergency systems, communication systems
5. Low voltage
6. Load calculations

Plumbing

1. Minimum plumbing fixtures, fixture requirements, water heaters
2. Water supply piping, back flow prevention, sanitary drainage, vents, roof drainage
3. Irrigation
4. Location of water supply line, back flow prevention, environmental requirements, grease traps, plumbing riser

Mechanical

1. Energy calculations
2. Exhaust systems: clothes dryer exhaust, specialty exhaust systems, kitchen equipment
3. Equipment, equipment location, roof-mounted equipment, make-up air, duct systems, ventilation, bathroom ventilation
4. Combustion air, chimneys, fireplaces and vents
5. Appliances, boilers, refrigeration, laboratory

Gas

1. Gas piping, venting
2. Combustion air, chimneys and vents
3. Appliances, fireplaces
4. Type of gas, LP tank location, riser diagram shutoffs, design flood elevation

Demolition

1. Asbestos removal

EXEMPTIONS

Per [FBC, Section 107.3.5](#), Plans examination by the building official shall not be required for the following work:

1. Replacing existing equipment such as mechanical units, water heaters, etc.
2. Reroofs
3. Minor electrical, plumbing and mechanical repairs
4. Annual maintenance permits
5. Prototype plans
 - Except for local site adaptations, siding, foundations and/or modifications
 - Except for structures that require waivers
6. Manufactured buildings plan except for foundations and modifications of buildings on site

Note: The above items, as listed, are related to plans examining or review only. Specific inspections, submittals or additional information may still be required for construction.

ADDENDUMS

Construction documents and accompanying data, during the bidding process, may require revisions or clarifications. All revised documents shall be submitted to Facilities Management & Construction/Building Code Enforcement for review prior to issuance. Facilities Management & Construction/Building Code Enforcement shall be informed of addenda during the plans review phases to ensure changes are code compliant.

SUBMITTALS/SHOP DRAWINGS

Additional submittals may be required for review by the Facilities Management & Construction/Building Code Enforcement as a requirement of permit issuance.

Upon the contractor submitting the Schedule of Submittals at the time of the Pre-construction Meeting; a copy shall be provided to the Building Code Administrator for review of any items which may require review prior to installation.

Submittals shall be received within thirty (30) days.

Submittals identified shall be indicated as being reviewed by the Contractor and the Consultant of Record, before submittal to Facilities Management & Construction/Building Code Enforcement.

Items that may be required for review, but not limited to, are as follows:

- Structural Steel
- Steel Joists
- Steel Roof Deck shop drawings
- Truss Design drawings
- Roof System Components

- Exterior Window and Door shop drawings
- Awnings
- Pre-engineered Metal Buildings
- Elevators
- Wheel Chair Lifts

Refer to Section 4 Construction; Preconstruction Meeting and Submittal Drawings

FIRE PROTECTION SYSTEM/SHOP DRAWINGS

Fire protection system shop drawings, signed and sealed, shall be submitted and are required to be reviewed and approved, prior to installation, by the College Fire Official.

Note: Fire protection system shop drawings may require a lead time for submittal, review and approval, and shall be agreed upon by the Fire Official/Fire Safety Inspector, 904.632.3367.

Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with this code and the construction documents and shall be approved prior to the start of installation. Shop drawings shall contain all information as required by the referenced installation standards in [Florida Building Code; Chapter 9](#).

Reference: [Florida Building Code - Building; 107.2.2](#)

SECTION 2 - PERMITS

INTRODUCTION

As the regulatory arm of the College, Facilities Management & Construction/Building Code Enforcement reviews plans, addendums, revisions, selected submittals; as well as, issues building permits and certificates of occupancy.

The types of permits issued by this office; but not limited to, are as follows:

- Building
- Electrical
- Fire (issued separately by the Fire Official)
- Mechanical
- Mobile/Portables
- Plumbing
- Roofing
- Sign
- Site/Tree
- Annual Facilities Maintenance

Note: For civil projects, there may be additional permits required from other governmental entities such as water management districts, state or federal agencies.

Permit applications, construction documents and/or accompanying data with descriptive transmittal should be sent to:

Bruce D. Nelsen, BU-1559
Florida State College at Jacksonville
Facilities Management & Construction
Attn: Facilities/Building Code Enforcement
501 West State Street
Jacksonville Florida 32202
(904) 633-5959
Email – bldgcode@fscj.edu

BUILDING PERMIT DELIVERABLES

Prior to obtaining a Building Permit from FSCJ's Facilities Management & Construction/Building Code Enforcement, submittals must be made in accordance with the requirements of the department as follows:

- [FSCJ Building Permit Application](#)
- Two (2) sets of Energy Calculations signed by the Design Professional of Record.
- Two (2) sets of Structural Calculations signed by the Engineer of Record.
- Two (2) sets of Specifications signed and sealed by all disciplines.
NOTE: It is only necessary to sign and seal the Table of Contents pages.
- Two (2) complete sets of Drawings signed and sealed by all disciplines.
- Two (2) complete sets of Fire Protection System and/or Fire Alarm System shop drawings and wiring diagrams from the Contractor after the Contract is signed.
- Threshold inspection plan prepared by the structural Engineer of Record for implementation by the threshold inspector. *This applies to structures which qualify as threshold buildings.*
- Three (3) complete sets of signed and sealed Kitchen (food service) Drawings submitted to Duval County or Nassau County Health Department.

Note: Sign-off approval by Environmental Health & Safety is required before any permits can be issued.

***Except as otherwise agreed upon, all plan review fees will be at no charge.*

APPLICABLE CODES

As a matter of record, construction documents shall comply with the latest adopted edition of the following codes, as applicable:

- [BUILDING - Florida Building Code, 2023, 8th Edition](#)
- [PLUMBING - Florida Building Code, 2023, 8th Edition](#)
- [MECHANICAL - Florida Building Code, 2023, 8th Edition](#)
- [FUEL GAS - Florida Building Code, 2023, 8th Edition](#)
- [ENERGY CONSERVATION - Florida Building Code, 2023, 8th Edition](#)
- [ACCESSIBILITY - Florida Building Code, 2023, 8th Edition](#)
- [Florida Fire Prevention Code \(FFPC\), 2023, 8th Edition](#)
- [NFPA 70, National Electric Code \(NEC\) 2023](#)
- [State Requirements for Educational Facilities \(SREF\), 2014](#)

- [Accessibility by Handicapped Persons – F.S. 553; Part II](#)
- [Thermal Efficiency Standards – F.S. 553, Part V](#)
- [Energy Conservation Standards – F.S. 553, Part VI](#)
- [Standards for Radon-Resistant Buildings – F.S. 553, Part VII](#)
- [Building Energy-Efficient Rating System – F.S. 553, Part VIII](#)
- [Food Hygiene – Florida Administrative Code, Chapter 64E-11](#)
- [Elevator Accessibility Requirements for the Physically Handicapped – FS 399.035](#)
- [OSHA General Industry Standards – 29 CFR 1910](#)
- [OSHA Construction Industry Standards – 29 CFR 1926](#)
- [Safety Code for Elevators and Escalators – ANSI A17.1](#)
- DUVAL or NASSAU COUNTY HEALTH DEPARTMENT – [Chapter 64E-11 FAC](#)
- [Ventilation for Acceptable Indoor Air Quality – ASHRAE Standard 62 \(2020\)](#)

The Florida Department of Environmental regulation must approve those developments which involve dredge and fill permits, and similar construction which require pollution control measures. Please refer to Florida Statutes (FS), Chapters [253](#), [298](#), [373](#), and [403](#).

- Compliance shall be with the FSCJ's Collegewide Comprehensive Master Plan. Copies are available upon request from the College.
- All overhead appended and suspended objects in student and employee areas shall be equipped with redundant support to some stable part of the building structure.
- Redundancy of support shall be defined as containing a minimum of two (2) independent means of support, and will probably be configured as follows:
 - When the design includes one (1) primary support, there shall be a secondary support capable of retaining and supporting the object if the primary should fail.
 - When the design includes several equal supports, the system shall be capable of supporting the object with the loss of one (1) of the supports.
 - When the design is for a complex object which consists of many parts, there shall be redundancy of support for each of the items that make-up the whole object.

Note: Verify all information which may vary for individual projects.

FIRE PROTECTION SYSTEMS/HOT WORK PERMIT

In addition to the permit provided by FSCJ Code Enforcement, a separate permit will be required and issued for all scopes of work involving fire protection systems and open flames, producing heat or sparks. This permit issuance will be authorized by the College's Fire Official.

Refer to Section 6 Appendices; Appendix D, Fire Protection Systems Construction

FOOD PERMIT

As per [Section 500.12, Florida Statutes](#), a food permit from the Department of Agriculture and Consumer Services is required of any person who operates a food establishment or retail store.

Reference: [Florida Building Code - Building; 105.1.3 Food Permit](#)

Note: College-owned property shall be permitted and inspected by the Florida Department of Health whereas leased property falls under the purview of the Florida Department of Business and Professional Regulation.

WORK EXEMPT FROM PERMIT

Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code.

Permits shall not be required for the following:

Gas:

- ✓ Portable heating appliance
- ✓ Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

- ✓ Portable heating appliance
- ✓ Portable ventilation
- ✓ Portable cooling unit
- ✓ Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
- ✓ Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
- ✓ Portable evaporative cooler

- ✓ Self-contained refrigeration system containing 10 pounds (4.54kg) or less of refrigerant and actuated by motors of 1 horsepower (746W) or less.
- ✓ The installation, replacement, removal or metering of any load management control device.

Plumbing:

- ✓ The stopping of leaks in drains, water, soil, waste or vent pipe provided, however, that if any concealed trap, drain, pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered new work and a permit shall be obtained and inspection made as provided in this code.
- ✓ The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and removal and reinstallation of water closets, provided such repairs do not involve or require replacement or rearrangement of valves, pipes or fixtures.

Reference: [Florida Building Code - Building: 105.2](#)

CERTIFICATES OF OCCUPANCY AND COMPLETION

Certificate of Occupancy

Prior to obtaining a Certificate of Occupancy from FSCJ, the following actions shall have been satisfactorily completed and the listed submittals made to the College:

- Final inspection by an inspector from each discipline.
- One (1) copy of the final Project Manual (Specifications) with all Bulletins, and the Table of Contents signed and sealed by all disciplines.
- One (1) complete set of Drawings with all Bulletin information incorporated, and signed and sealed by all disciplines.
- For Threshold Buildings, a letter of compliance from the Special Threshold Inspector.

Refer to Section 6 Appendices; Appendix C, Checklist for Certificate of Occupancy

Temporary Occupancy

The Building Code Official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by permit, provided that such portion or portions shall be occupied safely. The Building Code Official shall set a time period during which the temporary certificate of occupancy is valid.

Reference: [Florida Building Code - Building; 111.3](#)

Certificate of Completion

A Certificate of Completion is proof that 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 a building, such as shell building, prior to the issuance of a Certificate of Occupancy.

Reference: [Florida Building Code - Building; 111.5](#)

Note: As each construction project is different relating to the construction documents and accompanying data; the contractor shall review a final list of requirements with the building code administrator, or duly authorized representative.

SECTION 3 – ANNUAL FACILITY PERMIT

INTRODUCTION

As the regulatory arm of the College, Facilities Management & Construction/Building Code Enforcement is responsible for the minimum plans review criteria of all construction and alterations completed under Annual Facility Permits.

Note: A project covered under this permit may still require a plan review. If so, follow the procedures as identified in Section 1 Plans Review, Final Construction Documents (100%) – Phase III; however, for Annual Facility Permits a formal application will not be required.

To determine if a plan review is required, please contact:

Bruce D. Nelsen, BU-1559
Florida State College at Jacksonville
Facilities Management & Construction
Attn: Facilities/Building Code Enforcement
501 West State Street
Jacksonville Florida 32202
(904) 633-5959
Email – bldgcode@fscj.edu

ANNUAL FACILITY PERMIT

In lieu of an individual permit for each alteration to an existing electrical, gas, mechanical, plumbing or interior nonstructural office system(s), the Building Code Official is authorized to issue an Annual Facility Permit for occupancy to facilitate routine or emergency service, repair, and refurbishing, minor renovations of service systems or manufacturing equipment installations/relocations. The Building Code Official shall be notified of major changes and shall retain the right to make inspections at the facility as deemed necessary.

An Annual Facility Permit shall be valid for one (1) year from date of issuance. A separate permit shall be obtained for each facility and for each construction trade, as applicable. The permit application shall contain a general description of the parameters of work intended to be performed during the year.

Reference: [Florida Building Code – Building: 105.1.1](#)

All such projects require inspections and it is the Contractor's or the Campus Facilities Director's or the Center Facilities Supervisor's obligation to request all of the required inspections.

Refer to Section 3, Inspection Procedures

ANNUAL FACILITY PERMIT RECORDS

The person to whom the Annual Facility Permit is issued shall keep a detailed record of alterations made under such annual permit. The Building Code Official, or duly authorized representative, shall have access to such records at all times or such records shall be filed with the Building Code Official as designated.

Reference: [Florida Building Code – Building: 105.1.2](#)

Each campus/center maintenance department shall maintain a detailed facility alteration/inspection log for all work completed under the annual permit. The person to whom the Annual Facility Permit is issued shall be responsible for the accuracy and updating of this log. The facility alteration/facility log shall be kept at the campus/center maintenance office and shall be open to inspection by the Building Code Official or duly authorized representative.

The Building Code Official, or duly authorized representative, upon notice shall make the required inspection and shall either release that portion of the construction or notify of any violations which must be corrected in order to comply with the technical codes. To release that portion of the construction, the Building Code Official, or duly authorized representative, shall sign the facility alteration/inspection log.

Note No inspection shall be performed without the facility alteration/inspection log being available.

The Building Code Official, or duly authorized representative, shall review the facility alteration/inspection log on a continued basis to ensure such records are being filed. Facility alteration records shall be retained for a period of not less than three (3) years.

If the Building Code Official, or duly authorized representative, identifies a pattern of code violations at a particular campus/center, the Annual Facility Permit may not be issued for the following year. An individual permit would then be required for each alteration.

FIRE PROTECTION SYSTEM/HOT WORK PERMIT

In addition to the Annual Facility Permit provided by code enforcement, a separate permit will be required and issued for all scopes of work involving fire protection systems and open flames, producing heat or sparks. This permit issuance will be authorized by the Fire Official.

Note No scopes of work for fire protection systems or hot work are included in the Annual Facility Permit as issued by building code enforcement.

Refer to Section 6 Appendices; Appendix D, Fire Protection Systems Construction

WORK EXEMPT FROM PERMIT

Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code.

Permits shall not be required for the following:

Gas:

- ✓ Portable heating appliance
- ✓ Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

- ✓ Portable heating appliance
- ✓ Portable ventilation
- ✓ Portable cooling unit
- ✓ Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
- ✓ Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
- ✓ Portable evaporative cooler
- ✓ Self-contained refrigeration system containing 10 pounds (4.54kg) or less of refrigerant and actuated by motors of 1 horsepower (746W) or less.
- ✓ The installation, replacement, removal or metering of any load management control device.

Plumbing:

- ✓ The stopping of leaks in drains, water, soil, waste or vent pipe provided, however, that if any concealed trap, drain, pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered new work and a permit shall be obtained and inspection made as provided in this code.
- ✓ The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and removal and reinstallation of water closets, provided such repairs do not involve or require replacement or rearrangement of valves, pipes or fixtures.

Reference: [Florida Building Code - Building: 105.2](#)

EMERGENCY REPAIRS

Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the building code official.

Reference: [Florida Building Code – Building: 105.2.1](#)

MINOR REPAIRS

Ordinary minor repairs may be made with approval of the Building Code Official without a permit, provided the repairs do not include cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; additionally, nor shall ordinary repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring systems or mechanical equipment or other work affecting public health or general safety, and such repairs shall not violate any of the provisions of the technical codes.

Reference: [Florida Building Code – Building: 105.2.2](#)

INSPECTION PROCEDURES

Requests for inspections shall be made during regular business hours of the day before an inspection is needed.

Requests are to be emailed to Bldgcode@fscj.edu and must be received prior to 4:00 p.m. Please make sure that you provide the following information with your inspection request:

- Permit number
- Location (campus, building, room number(s), etc.)
- Type of inspection (refer to inspection checklist)
- Site supervisor
- Contact telephone number (i.e., cellular)

Note: Identify the permit number & type of inspection on the subject line of the email.

Partial inspections may be requested. Inspections will be made the next day if possible and inspection schedule is not in conflict. Contractually the inspection can be performed within forty-eight (48) hours. Same day inspections are not encouraged.

Note: An inspection request may be cancelled on the day an inspection is needed, provide it is received before 8:00 a.m. This action may alleviate a re-inspection fee.

Note: Life safety, fire suppression systems and fire alarm inspections must be requested with a lead time agreed upon by the Fire Official/Fire Safety Inspector, 904.632.3367.

INSPECTION FEES

There is no cost to contractors for an initial inspection or for the first re-inspection unless the items listed below are observed.

RE-INSPECTION FEES

Re-inspection fees are charged to meet the rising costs of sending College inspection staff out for excessive re-inspections. For building projects having a college building, electrical, mechanical or plumbing permit, re-inspection fees may be charged for the following reasons:

1. When an inspection is requested by the contractor or agent issued the permit, and the work is not completed or not ready.
2. If, after initial inspection and notification of violation, a re-inspection has been requested, and it is found that corrections have not been made.
3. When the inspection is requested by the contractor or agent issued the permit, and there is no access to the premises or designated construction area.
4. When an inspection is requested by the contractor or agent issued the permit, and the building permit, or the approved current construction documents are not on the site of work.

RE-INSPECTION FEES SCHEDULE

The Florida State College at Jacksonville has the following fee schedule:

- The first chargeable re-inspection fee is \$ 50.00.
- The subsequent re-inspection fee is \$ 50.00.

PAYMENT OF RE-INSPECTION FEES

Re-inspection fees are identified at the time the inspection is made. This fee shall be due prior to any additional inspections and shall be paid by the contractor, or agent issued the permit.

Method of payment: Check shall be made payable to the Florida State College at Jacksonville and shall be identified with building permit number.

REQUIRED INSPECTIONS

Building:

1. Foundation inspection. To be made after trenches are excavated and forms erected and shall at a minimum include the following building components:
 - Stem-wall
 - Monolithic slab-on-grade
 - Piling / pile caps
 - Footings / grade beams
2. Framing inspection. To be made after the roof, all framing, fire blocking and bracing is in place, all concealed wiring, all pipes, chimneys, ducts and vents are complete and shall at a minimum include the following building components:
 - Window / door framing.
 - Vertical cells.
 - Lintel / tie beams.
 - Framing / trusses / bracing / connectors.
 - Draft stopping / fire blocking.
 - Curtain wall framing.
 - Energy insulation.
 - Accessibility.
 - Verify rough-opening dimensions are within tolerances.
3. Sheathing inspection. To be made either as part of a dry-in inspection or done separately at the request of the contractor after all roof and wall sheathing and fasteners are complete and shall at a minimum include the following building components:
 - Wall sheathing
 - Sheathing fasteners
 - Roof / wall dry-in
4. Roofing inspection. Shall at a minimum include the following building components:
 - Dry-in
 - Insulation (thermal)
 - Roof coverings
 - Flashing
5. Final inspection. To be made after the building is completed and ready for occupancy.

6. Swimming pool inspection. First inspection to be made after excavation and installation of reinforcing steel, bonding and main drain and prior to placing concrete.
 - Final inspection to be made when the swimming pool is complete and all required enclosure requirements are in place.
7. Demolition inspections. First inspections to be made after all utility connections have been disconnected and secured in such a manner that no unsafe or unsanitary conditions shall exist during or after demolition operations.
 - Final inspection to be made after all demolition work is completed.
8. Manufactured building inspections. Code Enforcement shall inspect construction of foundations; connecting building to foundations; installation of parts identified on plans as site installed items, joining the modules, including utility crossovers; utility connections from the building to utility on site; and any other work done on site which requires compliance with the Florida Building Code.
9. Additional inspections may be required for public educational facilities. Refer to [section 453 of the Florida Building Code](#).
10. Where impact-resistant coverings are installed to meet requirements of this code, the building official shall schedule adequate inspections of impact-resistant coverings to determine the following:
 - The system indicated on the plans was installed.
 - The system is stalled in accordance with the manufacturer's installation instructions and the product approval.

Electrical:

1. Underground inspection. To be made after trenches or ditches are excavated, conduit or cable is installed, and before any backfill is put in place.
2. Rough-in inspection. To be made after the roof, framing, fire blocking and bracing is complete, and prior to this installation of wall or ceiling membranes.
3. Final inspection. To be made after the building is complete, all required electrical fixtures are in place and properly connected or protected, and the structure is ready for occupancy.

Plumbing:

1. Underground inspection. To be made after trenches or ditches are excavated, piping is installed, and before any backfill is put in place.
2. Rough-in inspection. To be made after the roof, framing, fire blocking and bracing is in place and all soil, waste and vent piping is complete, and prior to this installation of wall or ceiling membranes.

3. Final inspection. To be made after the building is complete, all plumbing fixtures are in place and properly connected, and the structure is ready for occupancy.

Note: See [Section 312 of the Florida Building Code, Plumbing](#) for required tests.

Mechanical:

1. Underground inspection. To be made after trenches or ditches are excavated, underground duct and fuel piping is installed, and before any backfill is put in place.
2. Rough-in inspection. To be made after the roof, framing, fire blocking and bracing are in place and all ducting, and other concealed components are complete, and prior to this installation of wall or ceiling membranes.
3. Final inspection. To be made after building is complete, the mechanical system is in place and properly connected, and the structure is ready for occupancy.

Gas:

1. Rough piping inspection. To be made after all new piping authorized by the permit has been installed, and before any such piping has been covered or concealed or any fixture or gas appliance have been connected.
2. Final piping inspection. To be made after all piping authorized by the permit has been installed and after all portions which are to be concealed by plastering or otherwise have been so concealed, and before any fixtures or gas appliances have been connected. This inspection shall include a pressure test.
3. Final inspection. To be made on all new gas work authorized by the permit and such portions of existing systems as may be affected by new work or any changes, to ensure compliance with all the requirements of this code and to assure that the installation and construction of the gas system is in accordance with reviewed plans.

Note: See [Section 406 of the Florida Building Code, Fuel Gas](#) for required tests.

Reference: [Florida Building Code – Building: 110.3](#)

Refer to Section 6 Appendices; Appendix C, Inspections

Fire Protection Systems:

(Automatic Sprinkler Systems/Alternative Automatic Fire-Extinguishing Systems)

- To be made after the building is complete, all required life safety fixtures, including sprinklers, smoke detectors, pull stations, speakers, notification devices, etc., are in place and properly connected or protected, and the structure is ready for occupancy.

Note: Testing shall be in accordance with the [Florida Fire Prevention Code](#) and related Florida adopted standards.

Note: Fire suppression system and fire alarm inspections must be requested with a lead time agreed upon by the Fire Official/Fire Safety Inspector, 904.632.3367.

Life Safety

- To be made after the building is complete, all required life safety fixtures, including exit signage, emergency lighting, egress illumination, evacuation diagrams, etc., are in place and properly connected or protected, and the structure is ready for occupancy.

Note: Testing prior to acceptance.

Note: Life safety inspections must be requested with a lead time agreed upon by the Fire Official/Fire Safety Inspector, 904.632.3367.

Refer to Section 6 Appendices; Appendix C, Inspections

Note: As each construction project is different relating to specific or special inspections; the contractor shall review a required inspection list with the Building Code Administrator, or duly authorized representative, before work begins.

SECTION 4 - CONSTRUCTION

INTRODUCTION

As the regulatory arm of the College, Facilities Management & Construction/Building Code Enforcement reviews plans, addendums, revisions, selected submittals; as well as, issues building permits and certificates of occupancy.

As such, contractors shall apply for a building permit by sending an application, construction documents and/or accompanying data with descriptive transmittal to:

Bruce D. Nelsen, BU-1559
Florida State College at Jacksonville
Facilities Management & Construction
Attn: Facilities/Building Code Enforcement
501 West State Street
Jacksonville Florida 32202
(904) 633-5959
Email - bldgcode@fscj.edu

Reference: [Florida Building Code - Building: 105.3](#)

Except otherwise provided in [Chapter 440, Florida Statutes, Worker's Compensation](#), every employer, as a condition to receiving a building permit, must show proof that it has secured compensation for its employees as provided in [Section 440.10](#) and [Section 440.38](#), Florida Statutes. Reference: [Florida Building Code - Building: 105.3.5](#)

Other items needed at this time for a building permit is a copy of contractors Duval County Business Tax Receipt (Occupational License) and an [Asbestos Letter](#) stating no Asbestos contained materials will be used in this project.

The contractor shall list all subcontractors with the application and provide a copy of the subcontractor's license and insurances. If the subcontractors are not known at the time of permit issuance, then as the information is available, it shall be relayed to Facilities Management & Construction/Building Code Enforcement. An email is acceptable for the contractor's information - bldgcode@fscj.edu.

Permit Application must have two sets of signed and sealed plans with all submittal data (specifications). One set of plans and submittals will be retained by Building Code Enforcement and one set returned with the Building Permit to remain at the project.

MINIMUM SUBMITTAL PACKAGE FOR PERMITTING

Submittal packages must be completed in order to be accepted by Building Code Enforcement. No partial submittal packages will be accepted.

The following is the **minimum amount** of information contained in a Submittal Package:

- 1) [Building Permit Application](#) –
 - Original application with signature of the qualifying agent/license holder for contracting company.
 - Signature shall be notarized as an option. If the license holder is unavailable for the original signature, then the applicant may use a power of attorney from the license holder.
 - See [Florida Building Code - Building; 105.3](#) and [Section 713.135 F.S.](#)
- 2) Contractor and sub-contractor's licenses -
 - DBPR & Duval County Business Tax Receipt
- 3) [Asbestos Letter](#) –
 - Stating no asbestos containing materials will be used on the college projects.
 - Primary contractor only
- 4) Certificate of Insurance (ACORD) for contactor & sub-contractors -
 - Proof of Liability and Workers Compensation Insurance
 - Must list the 'certificate holder' as Florida State College at Jacksonville and its District Board of Trustees, 501 West State Street, Jacksonville, FL 32202 as additional insured.
 - See [Florida Building Code - Building; 105.3.5](#)
- 5) Two (2) sets of Construction Documents -
 - Construction documents shall be of sufficient to indicate the location, nature and extent of all the work proposed and show in enough detail to document that the work will conform to the provisions of current code and relevant laws, ordinances, rules and regulations as determined by the building official. Architect and engineer plans must be signed and sealed.
 - See [Florida Building Code - Section 107.3.5](#)
- 6) Two (2) - Supporting Data –
 - Specifications signed and sealed by architect and engineers
 - See [Florida Building Code - Section 107.3.5](#)
- 7) General Note:
 - Construction documents or supporting data, which is signed and sealed by a design professional, licensed in the State of Florida shall be **original** for record purposes in the permitting files.

PERMIT ISSUANCE

After the building permit application is received, the Building Code Official will verify if the information complies with all requirements, laws and regulations and, if in compliance, a Building Permit shall be issued. The contractor shall receive a Building Permit and Inspections placard with one (1) set of reviewed stamped construction documents with accompanying data.

- Questions regarding the reviewed construction documents related to code issues shall be directed to:

Bruce D. Nelsen, Building Code Official, BU-1559

E-mail: bldgcode@fscj.edu

Office: 904.633-5959

- Questions regarding the contractual documents shall be directed to the assigned FSCJ Project Manager or designated other.
- The building permit and inspection cards shall be posted on site and shall be kept secured from the elements. The permit or copy shall be kept on the site of the work until the completion of the project. Reference: [FBC – Building; 105.7](#)
- When the Building Code Official issues the permit, the construction documents shall be approved, in writing or by stamp, as “Reviewed for Code Compliance.” One (1) set of construction documents shall be retained by the building official. The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the building official or duly authorized representative. Reference: [FBC – Building; 107.3.1](#)

Refer to Section 6 Appendices; Appendix A, A-4 Plans Review Stamp

- Plan Review Comments sheet(s) will be attached to the construction documents and shall be open to inspection by the Building Official or duly authorized representative.

Note: In addition to the permit provided by Building Code Enforcement, a separate permit will be required and issued for all scopes of work involving fire protection systems and open flames, producing heat or sparks. This permit issuance will be authorized by the Fire Official.

Refer to Section 6 Appendices; Appendix D, Fire Protection Systems Construction

AMENDED CONSTRUCTION DOCUMENTS

Construction documents and accompanying data, during the construction process, may require revisions. All revised documentation relating to the construction documents and accompanying data shall be submitted to Facilities Management & Construction/Building Code Enforcement for review prior to issuance.

Note: The contractor shall be informed that no field inspections will be performed with revised construction documents, which are not stamped with review signatures by the Facilities Management & Construction/Building Code Enforcement.

Work shall be installed in accordance with the approved construction documents, and any changes made during the construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents. Reference: [FBC - Building; 107.4](#)

PRE-CONSTRUCTION MEETING

Prior to start of work, the contractor shall attend a pre-construction meeting to determine that no questions remain covering the intent of the construction documents or accompanying data.

The contractor shall outline his/her method of procedure and bring up for discussion and decision any questions concerning this project. The Building Code Official, or duly authorized representative, and the Fire Official/Safety Inspector shall be present at this meeting. The Building Code Official, or duly authorized representative, shall determine the timing and sequencing of when inspections occur and what elements are inspected at each field inspection.

Upon review of the Schedule of Submittals, additional submittals or manufacturer's product data and samples may be required. Further; code issues which have been left unresolved relating to the plan review comments shall be reviewed and a time frame for resolution shall be determined. A Safety Manual shall be provided by the contractor and submitted for review.

SUBMITTALS/SHOP DRAWINGS

Additional submittals may be required for review by the Facilities Management & Construction/Building Code Enforcement as a requirement of building permit issuance. Upon the contractor submitting the Schedule of Submittals at the time of the Pre-construction Meeting; a copy shall be provided to the Building Code Official for review of any items which may require review prior to installation. Submittals shall be received

within thirty (30) days. Submittals identified shall be indicated as being reviewed by the Contractor and the Consultant of Record (architect-engineer), before submittal to Facilities Management & Construction/Building Code Enforcement.

Items that may be required for review, but not limited to, are as follows:

- Structural Steel
- Steel Joists
- Steel Roof Deck shop drawings
- Roof System Components
- Exterior Window and Door shop drawings
- Awnings
- Pre-engineered Metal Buildings
- Elevators
- Wheel Chair Lifts

Fire protection system shop drawings are required to be reviewed. Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with this code and the construction documents and shall be approved prior to the start of installation. Shop drawings shall contain all information as required by the referenced installation standards in Florida Building Code; Chapter 9. Reference: [Florida Building Code - Building; 107.2.2](#)

Note: Fire protection system shop drawings may require a lead time for submittal, review and approval, and shall be agreed upon by the Fire Official/Fire Safety Inspector, 904.632.3367.

INSPECTION PROCEDURES

Requests for inspection shall be made during regular business hours of the day before an inspection is needed. Requests are to be emailed to Bldgcode@fscj.edu and must be received prior to 4:00 p.m. Please make sure that you provide the following information with your inspection request:

- Permit number
- Location (campus, building, room number(s), etc.)
- Type of inspection (refer to inspection checklist)
- Site supervisor
- Contact telephone number
- Identify the permit number and the type of inspection on the subject line of the email.

Partial inspections may be requested. Inspections will be made the next day if possible and inspection schedule is not in conflict. Contractually the inspection can be performed within forty-eight (48) hours. Same day inspections are not encouraged.

An inspection request may be cancelled on the day an inspection is needed, provide it is received before 8:00 a.m. This action may alleviate a re-inspection fee.

Note: Fire suppression system, fire alarm and life safety inspections must be requested with a lead time agreed upon by the Fire Official/Fire Safety Inspector, 904.632.3367.

INSPECTION FEE

There is no cost to contractors for an initial inspection or for the first re-inspection unless the items listed below are observed.

RE-INSPECTION FEE

Re-inspection fees are fees charged to meet the rising costs of sending College code inspection staff out for excessive re-inspections.

Re-inspection fees may be charged for the following reasons:

- 1) When an inspection is requested by the contractor or agent issued the permit, and the work is not completed or not ready.
- 2) If, after initial inspection and notification of violation, a re-inspection has been requested, and it is found that corrections have not been made.
- 3) When the inspection is requested by the contractor or agent issued the permit, and there is no access to the premises or designated construction area.
- 4) When an inspection is requested by the contractor or agent issued the permit, and the building permit, or the approved current construction documents are not on the site of work.

RE-INSPECTION FEE SCHEDULE

Florida State College at Jacksonville has a fee schedule, as follows:

- The first chargeable re-inspection fee is \$ 50.00.
- The subsequent re-inspection fee is \$ 50.00.

There is no charge for the initial re-inspection or for the final inspection when all the work has been completed.

PAYMENT OF RE-INSPECTION FEES

Re-inspection fees are identified at the time the inspection is made. This fee shall be due prior to any additional inspections and shall be paid by the contractor, or agent issued the permit.

Method of payment: Check shall be made payable to Florida State College at Jacksonville and shall be identified with building permit number.

REQUIRED INSPECTIONS

Building:

1. Foundation inspection. To be made after trenches are excavated and forms erected and shall at a minimum include the following building components:
 - Stem-wall
 - Monolithic slab-on-grade
 - Piling / pile caps
 - Footings / grade beams
2. Framing inspection. To be made after the roof, all framing, fire blocking and bracing is in place, all concealed wiring, all pipes, chimneys, ducts and vents are complete and shall at a minimum include the following building components:
 - Window / door framing.
 - Vertical cells.
 - Lintel / tie beams.
 - Framing / trusses / bracing / connectors.
 - Draft stopping / fire blocking.
 - Curtain wall framing.
 - Energy insulation.
 - Accessibility.
 - Verify rough-opening dimensions are within tolerances.
3. Sheathing inspection. To be made either as part of a dry-in inspection or done separately at the request of the contractor after all roof and wall sheathing and fasteners are complete and shall at a minimum include the following building components:
 - Wall sheathing
 - Sheathing fasteners
 - Roof / wall dry-in
4. Roofing inspection. Shall at a minimum include the following building components:
 - Dry-in

- Insulation (thermal)
 - Roof coverings
 - Flashing
5. Final inspection. To be made after the building is completed and ready for occupancy.
 6. Swimming pool inspection. First inspection to be made after excavation and installation of reinforcing steel, bonding and main drain and prior to placing concrete.
 - Final inspection to be made when the swimming pool is complete and all required enclosure requirements are in place.
 7. Demolition inspections. First inspections to be made after all utility connections have been disconnected and secured in such a manner that no unsafe or unsanitary conditions shall exist during or after demolition operations.
 - Final inspection to be made after all demolition work is completed.
 8. Manufactured building inspections. Code Enforcement shall inspect construction of foundations; connecting building to foundations; installation of parts identified on plans as site installed items, joining the modules, including utility crossovers; utility connections from the building to utility on site; and any other work done on site which requires compliance with the Florida Building Code.
 - Additional inspections may be required for public educational facilities (see [Section 453.27.20 FBC](#)).
 9. Where impact-resistant coverings are installed to meet requirements of this code, the building official shall schedule adequate inspections of impact-resistant coverings to determine the following:
 - The system indicated on the plans was installed.
 - The system is stalled in accordance with the manufacturer's installation instructions and the product approval.

Electrical:

1. Underground inspection. To be made after trenches or ditches are excavated, conduit or cable is installed, and before any backfill is put in place.
2. Rough-in inspection. To be made after the roof, framing, fire blocking and bracing is complete, and prior to this installation of wall or ceiling membranes.
3. Final inspection. To be made after the building is complete, all required electrical fixtures are in place and properly connected or protected, and the structure is ready for occupancy.

Plumbing:

1. Underground inspection. To be made after trenches or ditches are excavated, piping is installed, and before any backfill is put in place.
2. Rough-in inspection. To be made after the roof, framing, fire blocking and bracing is in place and all soil, waste and vent piping is complete, and prior to this installation of wall or ceiling membranes.
3. Final inspection. To be made after the building is complete, all plumbing fixtures are in place and properly connected, and the structure is ready for occupancy.

Note: See [Section 312 of the Florida Building Code, Plumbing](#) for required tests.

Mechanical:

1. Underground inspection. To be made after trenches or ditches are excavated, underground duct and fuel piping is installed, and before any backfill is put in place.
2. Rough-in inspection. To be made after the roof, framing, fire blocking and bracing are in place and all ducting, and other concealed components are complete, and prior to this installation of wall or ceiling membranes.
3. Final inspection. To be made after building is complete, the mechanical system is in place and properly connected, and the structure is ready for occupancy.

Gas:

1. Rough piping inspection. To be made after all new piping authorized by the permit has been installed, and before any such piping has been covered or concealed or any fixture or gas appliance have been connected.
2. Final piping inspection. To be made after all piping authorized by the permit has been installed and after all portions which are to be concealed by plastering or otherwise have been so concealed, and before any fixtures or gas appliances have been connected. This inspection shall include a pressure test.
3. Final inspection. To be made on all new gas work authorized by the permit and such portions of existing systems as may be affected by new work or any changes, to ensure compliance with all the requirements of this code and to assure that the installation and construction of the gas system is in accordance with reviewed plans.

Note: See [Section 406 of the Florida Building Code, Fuel Gas](#) for required tests.

Reference: [Florida Building Code – Building: 110.3](#)

Refer to Section 6 Appendices; Appendix C Inspections

Fire Protection Systems:

(Automatic Sprinkler Systems/Alternative Automatic Fire-Extinguishing Systems)

- To be made after the building is complete, all required life safety fixtures, including sprinklers, smoke detectors, pull stations, speakers, notification devices, etc., are in place and properly connected or protected, and the structure is ready for occupancy.

Note: Testing shall be in accordance with the [Florida Fire Prevention Code](#) and related Florida adopted standards.

Note: Fire suppression system and fire alarm inspections must be requested with a lead time agreed upon by the Fire Official/Fire Safety Inspector, 904.632.3367.

Life Safety

- To be made after the building is complete, all required life safety fixtures, including exit signage, emergency lighting, egress illumination, evacuation diagrams, etc., are in place and properly connected or protected, and the structure is ready for occupancy.

Note: Testing prior to acceptance.

Note: Life safety inspections must be requested with a lead time agreed upon by the Fire Official/Fire Safety Inspector, 904.632.3367.

SECTION 5 – DELIVERY/JOB ORDER CONTRACTING

INTRODUCTION

As the regulatory arm of the College, Facilities Management & Construction/Building Code Enforcement reviews plans, addendums, revisions, selected submittals; as well as, issues building permits and certificates of occupancy.

The College solicits formal proposals from qualified general contracting and specialty trade firms to secure partnership for the provision of delivery/job order contracting services including; but not limited to, the following:

- General Contractors – Contract Limits: \$ 700,000
- Mechanical Contractors – Contract Limits: \$ 500,000
- Electrical Contractors – Contract Limits: \$ 75,000
- Plumbing Contractors – Contract Limits: \$ 125,000
- Roofing Contractors – Contract Limits: \$ 500,000

Delivery/job order construction contractors shall apply for a building permit with Facilities Management & Construction/Building Code Enforcement. A copy of the contractor's licenses and insurances, both liability and workers compensation, shall accompany the application. Permit applications shall have an original signature of the qualifying license holder for the contracting company and the signature shall be notarized. If the license holder is unavailable for the original signature, then the applicant may use a power of attorney from the license holder.

Reference: [Florida Building Code – Building: 105.3](#)

The [Building Permit Application](#) is to be completed and the original submitted to this office with the appropriate insurances provided. A certificate of insurance (ACORD) form, for verification of Workers Compensation and Liability Insurance, shall have the 'certificate holder' as Florida State College at Jacksonville and its District Board of Trustees, 501 West State Street, Jacksonville, FL 32202 as additional insured must be provided.

Except otherwise provided in Chapter 440, Florida Statutes, Worker's Compensation, every employer, as a condition to receiving a building permit, show proof that it has secured compensation for its employees as provided in Section 440.10 and 440.38, Florida Statutes

Reference: [Florida Building Code – Building: 105.3](#)

The contractor shall list all sub-contractors with the application and provide a copy of the sub-contractor's license and insurances. If the sub-contractors are not known at the time of permit issuance; then as the information, is available, it shall be relayed to Facilities

Management & Construction/Building Code Enforcement. Sub-contractors' information can be scanned and emailed to code enforcement.

MINIMUM SUBMITTAL PACKAGE FOR PERMITTING

Submittal packages must be completed in order to be accepted by Building Code Enforcement. No partial submittal packages will be accepted.

The following is the **minimum amount** of information contained in a Submittal Package:

- 1) [Building Permit Application](#) -
 - Original application with signature of the qualifying agent/license holder for contracting company.
 - Signature shall be notarized as an option. If the license holder is unavailable for the original signature, then the applicant may use a power of attorney from the license holder.
 - See [Florida Building Code - Building; 105.3](#) and [Section 713.135 F.S.](#)
- 2) Contractor and sub-contractor's licenses -
 - DBPR & Duval County Business Tax Receipt
- 3) [Asbestos Letter](#) -
 - Stating no asbestos containing materials will be used on the college projects.
 - Primary contractor only
- 4) Certificate of Insurance (ACORD) for contractor & sub-contractors -
 - Proof of Liability and Workers Compensation Insurance
 - Must list the 'certificate holder' as Florida State College at Jacksonville and its District Board of Trustees, 501 West State Street, Jacksonville, FL 32202 as additional insured.
 - See [Florida Building Code - Building; 105.3.5](#)
- 5) Two (2) sets of Construction Documents -
 - Construction documents shall be of sufficient to indicate the location, nature and extent of all the work proposed and show in enough detail to document that the work will conform to the provisions of current code and relevant laws, ordinances, rules and regulations as determined by the building official. Architect and engineer plans must be signed and sealed.
 - See [Florida Building Code - Section 107.3.5](#)
- 6) Two (2) - Supporting Data -
 - Specifications signed and sealed by architect and engineers
 - See [Florida Building Code - Section 107.3.5](#)

- 7) General Note: Construction documents or supporting data, which is signed and sealed by a design professional, licensed in the State of Florida shall be **original** for record purposes in the permitting files.

PERMIT ISSUANCE

After the building permit application is received, the Building Code Official will verify if the information complies with all requirements, laws and regulations and, if in compliance, a Building Permit shall be issued. The contractor shall receive a Building Permit and Inspections placard with one (1) set of reviewed stamped construction documents with accompanying data.

- Questions regarding the reviewed construction documents related to code issues shall be directed to:

Bruce D. Nelsen, Building Code Official, BU-1559

E-mail: bldgcode@fscj.edu

Office: 904.633-5959

- Questions regarding the contractual documents shall be directed to the assigned FSCJ Project Manager or designated other.
- The building permit and inspection cards shall be posted on site and shall be kept secured from the elements. The permit or copy shall be kept on the site of the work until the completion of the project. Reference: [FBC – Building; 105.7](#)
- When the Building Code Official issues the permit, the construction documents shall be approved, in writing or by stamp, as “Reviewed for Code Compliance.” One (1) set of construction documents shall be retained by the building official. The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the building official or duly authorized representative. Reference: [FBC – Building; 107.3.1](#)

Refer to Section 6 Appendices; Appendix A, A-4 Plans Review Stamp

- Plan Review Comments sheet(s) will be attached to the construction documents and shall be open to inspection by the Building Official or duly authorized representative.

Note: In addition to the permit provided by Building Code Enforcement, a separate permit will be required and issued for all scopes of work involving fire protection systems and open flames, producing heat or sparks. This permit issuance will be authorized by the Fire Official.

Refer to Section 6 Appendices; Appendix D, Fire Protection Systems Construction

AMENDED CONSTRUCTION DOCUMENTS

Generally, for direct order contract, construction project, amended construction documents are not required.

Note: The contractor shall be informed that verbal instructions amending scope of work could contain code related issues, which are the responsibility of the licensed general contractor.

PRECONSTRUCTION MEETING

Generally, for direct order contracted construction projects, preconstruction meetings are not required.

SUBMITTALS/SHOP DRAWINGS

Generally, for delivery/job order contracted construction projects, submittals/shop drawings are not required.

INSPECTION PROCEDURES

Inspection procedures for delivery/job order contracted construction projects, are the same as Section 4 Construction; 4-6 Inspection Procedures.

INSPECTION FEE

Inspection fees for delivery/job order contracted construction projects, are the same as Section 4 Construction; 4-7 Inspection Fees.

REQUIRED INSPECTIONS

Inspections for delivery/job order contracted construction projects, are the same as Section 4 Construction; 4-8 Required Inspections.

Refer to Section 4 Construction; 4-8 Required Inspections and Section 6 Appendices; Appendix C, C-4 Inspections.

Note: As each construction project is different relating to specific or special inspections; the contractor shall review a required inspection list with the Building Code Official, or duly authorized representative, before work begins.

Refer to Section 2 Permits; 2-7 Certificates of Occupancy and Completion.

Refer to Section 6 Appendices; Appendix C, Checklist for Certificate of Occupancy.

SECTION 6 –APPENDICES

APPENDIX A: PLANS REVIEWS

COLLEGE CONTACTS

College Building Code Official

Bruce D. Nelsen, Licensee # BU-1559

Building Code Official

904.633-5959 office

Email – bldgcode@fscj.edu

College Building Permit Applications

Lisa Reinertson

College Plans Examining & Review Team:

Lisa Reinertson, Licensee # BN-7409, PX-4103

Construction Inspector II (Electrical, Mechanical)

904.633.5959 office

Email – bldgcode@fscj.edu

Charles E. Johnson, ID # 224144

Fire Official & Occupational Health Safety Specialist (Fire Protection and Life Safety)

904.632.3367 office

Email - Safety@fscj.edu

SECTION A-2: PLANS REVIEW ROUTING SHEET

PLANS REVIEW ROUTING SHEET

Date: _____

Project: _____

Location / Building: _____

Documents Specifications Others _____

Plans Review only Plans Review for Permit

Comments: _____



Required	Location	Date Received	Date Completed	Who Transmitted
	BUILDING CODE REVIEW:			
	Building			
	Electrical			
	Plumbing			
	Mechanical			
	Gas			
	Facilities Planner			
	Fire protection systems			
	Life safety			
	Safety			
	PERMIT ISSUANCE			

Remarks:

- Plans review package: One (1) set of construction documents as submitted.
- Plans review for permit package: One (1) building permit application, licenses, insurance certificate and two (2) sets of construction documents shall remain together throughout the review process.

Facilities Management & Construction/Safety
Florida State College at Jacksonville

A002/103023

SECTION A-3: PLANS REVIEW COMPLIANCE STAMP

<p>Florida State College at Jacksonville Facilities Management & Construction / Safety</p> <p>“Reviewed for Code Compliance”</p> <table border="1"><thead><tr><th>Category</th><th>Plans Examiner</th><th>Date</th></tr></thead><tbody><tr><td>Building:</td><td>_____</td><td>_____</td></tr><tr><td>Electrical:</td><td>_____</td><td>_____</td></tr><tr><td>Mechanical:</td><td>_____</td><td>_____</td></tr><tr><td>Plumbing:</td><td>_____</td><td>_____</td></tr><tr><td>Fire Protection Systems:</td><td>_____</td><td>_____</td></tr><tr><td>Life Safety:</td><td>_____</td><td>_____</td></tr><tr><td><input type="checkbox"/> Submittals Required by:</td><td>_____</td><td>_____</td></tr></tbody></table> <p>Note: This plan review is in accordance with the Florida Building Code with Supplements and the Florida Fire Prevention Code, latest adopted edition; however, this does not alleviate the responsibility of code compliance for the design professionals, general contractor, specialty contractors or subcontractors.</p>			Category	Plans Examiner	Date	Building:	_____	_____	Electrical:	_____	_____	Mechanical:	_____	_____	Plumbing:	_____	_____	Fire Protection Systems:	_____	_____	Life Safety:	_____	_____	<input type="checkbox"/> Submittals Required by:	_____	_____
Category	Plans Examiner	Date																								
Building:	_____	_____																								
Electrical:	_____	_____																								
Mechanical:	_____	_____																								
Plumbing:	_____	_____																								
Fire Protection Systems:	_____	_____																								
Life Safety:	_____	_____																								
<input type="checkbox"/> Submittals Required by:	_____	_____																								

Approval of construction documents requires the documents shall be approved, in writing or by stamp, as “Reviewed for Code Compliance”.

Reference: Florida Building Code 7th Edition (2023) – Building; 107.3.1

SECTION A-4: PLANS REVIEW INSTRUCTIONS

First Review:

The College plans review team will complete the information as follows:

- Project Name, Location, Discipline, Plans Reviewer, Licensee Number, Date

The College plans review team, relating to plans review, will complete the information as follows:

- Plan Sheet
- Code reference
- Plans review Comments

The design professional(s) will review and complete the following:

- Date
- A/E Response (narrative, revised documents and/or accompanying data)

Second Review:

The College plans review team, relating to plans review, will complete the information as follows:

- Date Satisfied (complete A/E Response)
- Initial (Plans Examiner's initials – completed A/E responses)

Additional reviews may be required until all comments are satisfied by the plans review team.

Note: Plans review comments are formatted to be transmitted and responded to electronically (email). This tool can expedite the plans reviews completed responses for your project. All design professionals are encouraged to use this instrument.

SECTION A-5: PLAN REVIEW COMMENTS

See Plan Review template below:

PLAN REVIEW COMMENTS							
Project Name: _____		To be filled out by the Plans Examiner.		Date: _____		Date Plan Examination started....	
Location: _____						FSCJ Florida State College at Jacksonville	
Discipline: _____							
Plan Reviewer: _____							
Licensee Number: _____							
No.	Plan Sheet	Code Reference	Plan Review Comments	Date	A/E Response FSCJ Response	Date Satisfied	Initial
	All	FBC 7 th Edition (2020) Building, 101	This review is in accordance with the FBC 7 th Edition (2020) in the respective categories; building, electrical, plumbing, mechanical, fuel gas and demolition.				
	All	FBC 7 th Edition (2020) Building, 107.1	Submittal documents, as reviewed, consists of two (2) sets complete.				
Plan Review Criteria							
Building							
1			Code deficiency comment.				
2							
Mechanical							
3		FBC 7 th Edition (2020) Mechanical	Code deficiency comment.				
4							
Plumbing							
5		FBC 7 th Edition (2020) Plumbing	Code deficiency comment.				
6							
Electrical							
7		NEC 2023	Code deficiency comment.				
8							
Comments							
9			Comments related to construction documents.				
10							

General Note: The intent of this form is for it to be sent to the Architect or Engineer of record electronically (email) by the Plans Examiner and then have it returned electronically to the plan examiner with A/E responses filled out. Once the plans examiners, plan review comments, are satisfied new plans or plan sheet can be submitted for the project. A copy of this form will be printed and stamped to the approved construction plans, if the form is being used during the time a contractor is requesting a permit for a project.

End of Appendix A

APPENDIX B: ANNUAL FACILITY PERMIT

B-1: COLLEGE CONTACTS

College Building Code Official

Bruce D. Nelsen, Licensee # BU-1559

Building Code Official

904.633-5959 office

Email – bldgcode@fscj.edu

College Building Permit Applications

Lisa Reinertson

College Plans Examining & Review Team:

Lisa Reinertson, Licensee # BN-7409, PX-4103

Construction Inspector II (Electrical, Mechanical)

904.633.5959 office

Email – bldgcode@fscj.edu

Charles E. Johnson, ID # 224144

Fire Official & Occupational Health Safety Specialist (Fire Protection and Life Safety)

904.632.3367 office

Email - Safety@fscj.edu

SECTION B-2: ANNUAL FACILITY PERMIT



ANNUAL FACILITY PERMIT

FLORIDA STATE COLLEGE AT JACKSONVILLE

This permit is issued for a one (1) year period from _____ thru _____ for

PERMIT # _____ / LOCATION: _____

Permit Limitations:

1. In lieu of an individual permit for each alteration, the building official is authorized to issue an annual permit for any occupancy to facilitate parameters of work intended to be performed during the year. In accordance with the Florida Building Code; 105.1.1, this annual facility permit is issued to authorize the general description and types of work as follows:
 - Alteration to any existing electrical, gas, mechanical, plumbing or interior non-structural office system(s).
 - Routine or emergency service, repair, refurbishing, minor renovations of service systems or manufacturing equipment installations / relocations.
 - The building code administrator shall be notified of major changes and shall retain the right to make inspections at the facility site as deemed necessary.
2. The amount expended for any maintenance project authorized by this permit shall **not** exceed three hundred thousand dollars and no cents (\$300,000.00).
3. Use of this annual facility permit requires the person to whom this permit is issued to:
 - a. Maintain a detailed log of alterations and inspections,
 - b. Submit a copy of the alterations / inspections log annually to the FSCJ Building Code Administrator, and
 - c. Submit a Routine Maintenance Report to the Building Code Administrator for any maintenance project costing in excess of Fifty Thousand Dollars and No Cents (\$50,000.00).

Permit issued by:

Bruce D. Nelson, Building Code Administrator, BU1559	Date Signed
--	-------------

Permit issued to:

Campus Facilities Director	Date Signed
----------------------------	-------------

Facilities Management & Construction
Florida State College at Jacksonville

B001/10.31.2023

SECTION B-3: ANNUAL PERMIT ALTERATION & INSPECTION LOG

**FACILITY ALTERATION/INSPECTION LOG
FLORIDA STATE COLLEGE AT JACKSONVILLE**



LOCATION: _____

Date	Building	Room
Description of Alteration		

Inspected by _____

Date	Building	Room
Description of Alteration		

Inspected by _____

Date	Building	Room
Description of Alteration		

Inspected by _____

Date	Building	Room
Description of Alteration		

Inspected by _____

Facilities Management & Construction/Safety
Florida State College at Jacksonville

SECTION B-4: ROUTE MAINTENANCE REPORT

ROUTE MAINTENANCE REPORT		
FLORIDA STATE COLLEGE AT JACKSONVILLE		
LOCATION: _____		
Campus/Site	Date of Request	
Building Identification	Room Number	
Maintenance/Repair Work Description		
Note: Please attach any relevant drawings, contractor proposals, catalog cut sheets, etc.		
Submitted by (Print or Type Name of Campus Maintenance Supervisor)	Title	
Signature	Phone	
For Building Code Administrator Use Only		
Date Received:	_____	Inspector: _____
Date Inspected:	_____	_____
Comments:	_____ _____ _____	
Facilities Management & Construction/Safety Florida State College at Jacksonville		

End of Appendix B

APPENDIX C: BUILDING PERMITS & INSPECTIONS

C-1: COLLEGE CONTACTS

College Building Code Official

Bruce D. Nelsen, Licensee # BU-1559
Building Code Official
904.633-5959 office
Email – bldgcode@fscj.edu

College Building Permit Applications

Lisa Reinertson

College Plans Examining & Review Team:

Lisa Reinertson, Licensee # BN-7409, PX-4103
Construction Inspector II (Electrical, Mechanical)
904.633.5959 office
Email – bldgcode@fscj.edu

Charles E. Johnson, ID # 224144
Fire Official & Occupational Health Safety Specialist (Fire Protection and Life Safety)
904.632.3367 office
Email - Safety@fscj.edu

SECTION C-2:
BUILDING PERMIT APPLICATION



Florida State College
at Jacksonville

Date of Application: _____

Location / Building: _____

This application is titled: building permit application; however, it may also be used to obtain a single category of work. Indicate by checking the box below for the type of permit to be issued. Incomplete applications will not be accepted for submittal.

Applicant:

Contractor's name: _____

Mailing address: _____

Phone: _____ Fax: _____

Florida Department of Business & Professional Regulation (DBPR) License: _____

Qualifying agent's name: _____

Qualifying agent's signature: _____

Application is hereby made to obtain a permit to do work and installation as indicated. I certify that all work will be performed to meet the standards of all the laws regulating construction in this jurisdiction. Original signature shall be submitted.

Proposed Project:

Project name: _____

Type of permit:

Building Electrical Mechanical Plumbing Roofing Sign

Site / Tree Mobiles / Portables Other: _____

Project number (if applicable): _____

Project location or address: _____

Building use – check all that apply: Assembly Business Educational Industrial

Mercantile Storage Other: _____

Occupancy classification: _____ Construction type (FBC): _____

Building area (GSF): _____ Building height: _____ Value of the work: _____

Class of work:

New construction Remodeling Renovation Other: _____

BUILDING PERMIT APPLICATION (continued)

Description of work: _____

Estimated duration of work: _____

Jobsite superintendent: _____

Phone: _____

Email address (license holder or authorized agent): _____

Note: Field inspection reports related to this permit will be transmitted electronically to the email address listed above.

YOUR SPECIAL ATTENTION is called to the following:

This application shall be submitted as an original. No copies of this application shall be accepted.

Contractor shall provide copies of license holder's current licenses and copies of certificates of insurance naming Florida State College at Jacksonville as additional insured with each building permit application.

Any deviation from the approved plans must be authorized by the approval of revised plans subject to the same procedure established for the examination of the original plans.

Permits are not valid if construction work is not started within six (6) months from date permit is issued.

Request for inspections should be made by email: bldgcode@fscj.edu. Inspection requests shall be made by 4:00 pm the business day prior to, an anticipated inspection. All inspections shall be made within forty-eight (48) hours.

Final inspection and certificate of occupancy must be obtained before occupying building or construction area as contracted.

Architect / Engineer (if applicable):

Name: _____

Mailing address: _____

Florida Department of Business & Professional Regulation (DBPR) License: _____

License holder's name: _____

Contractors submitting this application for a building permit, which includes subcontractors, shall complete and attach the subcontractor list as indicated herein; otherwise, single category permits need not attach.

BUILDING PERMIT APPLICATION (continued)

Subcontractor list project: _____

Electrical subcontractor:

Name: _____

Mailing address: _____

Florida Department of Business & Professional Regulation (DBPR) License: _____

License holder's name: _____

Plumbing subcontractor:

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

Mechanical subcontractor:

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

Gas subcontractor:

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

Roofing subcontractor:

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

BUILDING PERMIT APPLICATION (continued)

Subcontractor list project: _____

Fire sprinkler/standpipe/pre-engineered fire suppression subcontractor: (Permit issued separately)

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

Underground fire protection water piping subcontractor: (Permit issued separately)

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

Fire alarm system subcontractor: (Permit issued separately)

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

Other subcontractor:

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

Other subcontractor:

Name: _____

Mailing address: _____

Florida (DBPR) License: _____

License holder's name: _____

Note: Additional subcontractors may be identified on a separate sheet

SECTION C-3: BUILDING PERMIT FORM

BUILDING PERMIT

FLORIDA STATE COLLEGE AT JACKSONVILLE



Florida State College
at Jacksonville

LOCATION: _____

Building Permit #		Date Issued	
Project Title		Project #	
Campus / Building		Room #	
General Contractor		Contact	
License #		Phone #	
Electrical Contractor		License #	
Mechanical Contractor		License #	
Plumbing Contractor		License #	
Gas Contractor		License #	
Underground Utilities		License #	
Fire Protection Systems	Issued Separately, See Note # 3, below		
A / E of Record		License #	
Building Code Administrator: Bruce D. Nelson, BU1559		Inspector	

Notes:

1. Building Permit with Inspection Cards (original or copy) shall be kept on the site of the work until the completion of the project.
2. No inspection shall be made unless Building Permit with Inspection Cards, and construction documents with review stamp, is open to inspection by the building official or duly authorized representative.
3. **Fire Protection Systems and Hot Work Permits shall be issued separately by the Fire Official. Fire & Life Safety inspections must be requested with a lead time agreed to by the Fire Official / Fire Safety Inspector.**
4. All components which are to be covered or concealed; shall be inspected and passed, prior to backfill or installation of wall or ceiling membranes.
5. Email: bldgcode@fscj.edu for inspection requests. Inspection requests shall be made by 4:00 pm the day prior to, an anticipated inspection. All inspections will be made within forty-eight (48) hours.

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Florida State College at Jacksonville

C002 / 05.01.2015

(The Permit and Inspection Card is to be Posted on the Job Site at All Times)

SECTION C-4: PERMIT INSPECTIONS (ISSUED WITH BUILDING PERMIT)

PERMIT INSPECTIONS

Building / Structural

Demolition _____

Demolition Final _____

Slab / Monolithic _____

Masonry _____

Wall / ceiling _____

Framing _____

Structural _____

Insulation (sound) _____

Insulation (thermal) _____

Sheetrock – non-rated (fasteners) _____

Sheetrock – rated (fasteners) _____

Roofing (dry-in) _____

Roofing (insulation) _____

Roofing (covering) _____

Roofing (flashing) _____

Other _____

Final _____

Note: All final inspections are required to be requested, inspected and approved (signed-off) before this inspection is requested or scheduled. Upon approval (signed-off) of this final, a copy of this card shall be submitted to the building code administrator.

PERMIT INSPECTIONS (continued)

Plumbing

Water Service _____

Sanitary _____

Storm _____

Underground _____

Rough-in _____

Stack Piping / Test _____

Water Piping / Test _____

Gas Piping / Test _____

Storm Piping / Test _____

Fixtures _____

Equipment _____

Other _____

Plumbing Final _____

Electrical

Underground _____

Floor rough-in _____

Wall rough-in / Cover up _____

Ceiling rough-in / Cover up _____

Panel / Feeder _____

PERMIT INSPECTIONS (continued)

Service / Grounding _____

Appliance / Equipment _____

Partial _____

Lightning Protection _____

Panel / Feeder _____

Service / Grounding _____

Appliance / Equipment _____

Partial _____

Lightning Protection _____

Hot Check _____

Other _____

Electrical Final _____

Mechanical

Partial _____

Duct rough-in _____

Steam Piping / Test _____

HW Piping / Test _____

CHW Piping / Test _____

Condensation Piping / Test _____

Insulation _____

PERMIT INSPECTIONS (continued)

Wall / Ceiling _____

Equipment _____

Other: _____

Mechanical Final _____

Note: [Test & Balance Report shall be available for this inspection.](#)

Fire Protection Systems

Note: Individual inspections for this category are listed on the Fire Protection Systems Permit, issued separately by the Fire Official.

Fire Final _____

Note: Fire inspections must be requested with a lead time agreed upon by the Fire Official / Fire Safety Inspector, 904.632.3110

Hot Work Permit

Note: Hot Work permit issued separately by the Fire Official, 904.632.3110

Life Safety

Life Safety _____

Life Safety Final _____

Note: Fire inspections must be requested with a lead time agreed upon by the Fire Official / Fire Safety Inspector, 904.632.3110

Note: Inspections indicated on this card shall be arranged by written notification, email: Bldgcode@fscj.edu

Note: As each construction project is different relating to specific or special inspections; the contractor shall review a required inspection list with the Building Code Administrator, or duly authorized representative, before work begins.

SECTION C-5: FIELD INSPECTION REPORT FORM

FIELD INSPECTION REPORT		
Date of Request:	Permit Number:	
Inspection #:	Inspection Date:	
Time:	Temperature / Weather:	
Project Name:		
Inspection Type:	Re-inspection: <input type="checkbox"/>	
Description:		
Inspection Results: <input type="checkbox"/> Passed <input type="checkbox"/> Conditional <input type="checkbox"/> Partial <input type="checkbox"/> Failed <input type="checkbox"/> Not Ready		
Conditions / Comments:		
Work in Progress:		
Project Quality:		
Compliance:		
Inspector:	Signature:	
Requests must be received by 4:00 p.m. one (1) day prior to inspection date		
Photographs:		
Facilities Management & Construction Florida State College at Jacksonville		C004 / 05.01.2015

SECTION C-6: CHECKLIST FOR CERTIFICATE OF OCCUPANCY

This contains a summary of items that must be completed prior to the issuing of a Certificate of Occupancy for new construction projects at Florida State College at Jacksonville.

Not all items as listed below, may apply to your construction project. Depending on the project type and location, items may be deleted or additional items may be required as they apply.

1. All inspections shall be signed off. Submit to the College Building Code Administrator a copy of the signed Inspection Card(s) or Report(s):
 - Building
 - Electrical
 - Plumbing
 - Mechanical
 - Fire Protection Systems
 - Life Safety
2. Energy Code calculations and Certification signed and submitted to Building Code Official
3. Fire alarm and smoke detector test completed and signed off by the College Fire Official
4. All portable fire extinguishers are in place
5. College Fire Official approval
6. Insulation certificate
7. Soil treatment certificate
8. Final survey
9. Building address posted
10. Backflow prevention inspection and certification
11. Elevator – Certificate of Operation
12. All traffic signs, parking and roadway markings are in place
13. All emergency vehicle lane markings and signage in place

14. Permanent landscaping installed per plans

15. All temporary drives, staging areas, construction material, and construction debris and construction trailers have been removed

Depending on the project type and location, additional items may be required.

1. Elevation certificate
2. Food Service inspection complete
3. Health Department approval
4. Food Establishment Permit complete
5. State, County or City / Department of Transportation (DOT)
6. St. Johns Water River Management District
7. US Army, Corps of Engineers
8. US Fish & Wildlife

Note: As each project is different relating to the construction documents and accompanying data; the contractor shall review a final list of requirements with the College's Project Manager and/or the Building Code Administrator.

End of Appendix C

APPENDIX D: FIRE PROTECTION SYSTEMS CONSTRUCTION

D-1: COLLEGE CONTACTS

Authority Having Jurisdiction (AHJ):

Charles E. Johnson, ID # 224144

Fire Official & Occupational Health Safety Specialist (Fire Protection and Life Safety)

904.632.3367 office

Email - Safety@fscj.edu

SECTION D-2: SPRINKLER, STANDPIPE, UNDERGROUND PIPING & FIRE PUMP PERMIT PROCEDURES

A. Permit Procedures

1. A permit is required for all work involving sprinkler, standpipe and fire pump installations, additions or modifications. For work also requiring a building permit, the building permit is to be issued prior to submitting for a fire protection permit.
2. Work requiring a fire protection permit may not begin until submittals have been reviewed and approved by the College's Building Department and the permit has been issued. For submittal requirements, see Section I-B, below.
3. A Permit Application; completed in full and signed by the applicant, is to be included with all submittals. Applications must be submitted to the College's Building Department; Administration Offices, 501 West State Street between the hours of 8:00 a.m. and 4:00 p.m.
4. For revisions to approved plans, submit a copy of the original permit and a copy of the original approved plans, with revisions clearly noted. Revised plans are to be submitted for addition/deletion of sprinklers or alterations to plans that affect hydraulic calculations. Revisions are to be approved prior to completing work in field.
5. The contractor will be contacted with results of the submittal review in accordance with one of the following:
 - a. Approved plans with comments and the permit attached will be mailed to the applicant, or are available for pick up by the applicant.
 - b. Disapproved plans with comments are available for pick up. Re-submittal will be necessary.

- c. At the discretion of the reviewer, the submittal may be placed on hold and comments will be discussed verbally with the applicant, who is then required to resubmit the revisions in a timely manner.

B. Submittals

1. Submittals are to consist of shop drawings, hydraulic calculations and manufacturers' data sheets. A minimum of two (2) sets of this information are to be submitted to the College's Building Department, Suite 303, College Administration Building at 501 West State Street between the hours of 8:00 a.m. and 4:00 p.m.
2. The College's Building Department will review the submittal for compliance with the Florida Fire Prevention Code and the applicable standards referenced therein. Some of the commonly used standards enforced by the College include:
 - a. [NFPA 13](#), Standard for the Installation of Sprinkler Systems. (Florida current adopted edition per [FAC 69A-3](#))
 - b. [NFPA 14](#), Standard for the Installation of Standpipe and Hose Systems. (Florida current adopted edition per [FAC 69A-3](#))
 - c. [NFPA 20](#), Standard for the Installation of Centrifugal Fire Pumps. (Florida current adopted edition per [FAC 69A-3](#))
3. The College's Building Department will retain one (1) set of the submittal. The other set(s) will be returned to the applicant and must be maintained at the project site, along with a copy of the review comments. Additional sets may be submitted if the contractor needs additional stamped sets for their records and use.
4. Submitted shop drawings must be prints, signed and sealed, with no handwritten changes.
5. Manufacturers' data sheets are to be submitted for each system component, with specific models indicated as proposed for use.
6. The submittal is to include the information required by the applicable NFPA standard (e.g., [NFPA 13](#), Chapter 14).

SECTION D-3: FIRE ALARM SYSTEM PERMIT PROCEDURES

A. Permit Procedures

1. A permit is required for all work involving fire alarm system installations, additions or modifications. For work also requiring a building permit, the building permit shall be issued prior to approval and issuing of the fire protection permit.
2. Work requiring a fire alarm permit may not begin until submittals have been reviewed and approved by the College's Building Department and the permit has been issued. For submittal requirements, see Section II-B, below.
3. A Permit Application; completed in full and signed by the applicant, is to be included with all submittals. Applications must be submitted to the Building Department; Suite 303, College Administration Building at 501 West State Street between the hours of 8:00 a.m. and 4:00 p.m.
4. For revisions to approved plans, submit a copy of the original permit and a copy of the original approved plans, with revisions clearly noted. Revised plans are to be submitted for addition/deletion of fire alarm devices. Revisions are to be approved prior to completing work in field.
5. The contractor will be contacted with results of the submittal review in accordance with one of the following:
 - a. Approved plans with comments and the permit attached will be available for pick up by the applicant.
 - b. Disapproved plans with comments are available for pick up. Re-submittal will be necessary.
 - c. At the discretion of the reviewer, the submittal may be placed on hold and comments will be discussed verbally with the applicant, who is then required to resubmit the revisions in a timely manner.

B. Submittals

1. Submittals are to consist of shop drawings, battery and voltage drop calculations and manufacturers' data sheets. A minimum of two (2) sets of this information are to be submitted to the College's Building Department, Suite 303, Administration Offices, 501 West State Street between the hours of 8:00 a.m. and 4:00 p.m. The submittal is to include the items detailed below.

a. Drawings:

- 1) Project name and address.
- 2) Project owner's name and address including zip code.
- 3) Building construction permit number.
- 4) Contractor name, address, telephone number and contact person.
- 5) Symbol and abbreviation key.
- 6) Device locations.
- 7) Occupancy of all rooms and areas.
- 8) Location of all partitions.
- 9) Fire resistance rating of any walls and doors, and detection associated with door closures where proposed.
- 10) Smoke partitions, doors, duct penetrations, and associated detection.
- 11) Submitted shop drawings must be prints, with no handwritten changes, and be of minimum 1/8 in. per ft. scale.

b. Manufacturers' Data Sheets:

- 1) Catalog cut sheets for all equipment to be used. Indicate specific equipment to be used on cut sheets.
- 2) Existing equipment catalog cut sheets for coordination and to check compatibility (for system additions).
- 3) System devices provided by others such as duct detectors and door holders.

c. Wiring Diagram:

- 1) Point-to-point diagram showing all terminal connections at devices and panels.
- 2) Typical circuits or devices may be shown once.
- 3) Riser Diagram.
- 4) Devices and panels.
- 5) Wire counts.

d. Sequence of Operation:

- 1) For initiating devices, show all outputs such as audible and visual devices, annunciation, door and damper closure, AHU shutdown, door unlocking, smoke control activation, sprinkler system activation, etc.

e. Calculations:

- 1) Battery calculations showing all devices and current draw. Calculations shall include the required alarm and supervision time.
- 2) Voltage drop calculations.

The College's Building Department will review the submittal for compliance with the Florida Fire Prevention Code, and the applicable standards referenced therein, including [NFPA 72](#), National Fire Alarm Code. (Florida current adopted edition per [FAC 69A-3](#)).

The College's Building Department will retain one (1) set of the submittal. The other set(s) will be returned to the applicant and must be maintained at the project site, along with a copy of the review comments.

Additional sets may be submitted if the contractor needs additional stamped sets for their records and use.

SECTION D-4: LICENSE REQUIREMENTS

What licenses are required to obtain a Fire Permit?

SCOPE OF WORK	LICENSE REQUIRED
Automatic sprinkler systems	Fire Contractor I or II
Underground mains dedicated to fire protection systems only; including hydrants	Fire Contractor I, II, or V
Underground mains serving combined fire and domestic systems	Fire Contractor I, II, or V Underground Utility Contractor (CU) or Excavation Contractor (RU)
Gaseous, foam, or chemical extinguishing systems	Fire Contractor III
Pre-engineered systems	Fire Equipment Dealer
Fire alarm systems	Electrical Contractor (EC) or Alarm Systems Contractor (EF)

SECTION D-5: HOT WORK PERMIT PROCEDURES

What is a Hot Work Permit?

Hot work is defined as cutting and welding operations for construction/demolition activities that involve the use of portable gas or arc welding equipment. The use of these types of equipment for cutting and welding introduces significant fire hazards into Florida State College at Jacksonville buildings.

The hot work permit system is intended to educate the parties involved in construction of these hazards and to implement control measures to help mitigate them.

A hot work permit is the means by which the College's Building Department and Risk Management, Safety Department can stay aware and keep track of construction activities that involve hot work. The hot work permit also provides a step-by-step check list for hot work fire safety and serves as a reminder to contractors of their fire prevention responsibilities before, during, and after any hot work is conducted.

The Hot Work Permit was developed in accordance with [OSHA 29 CFR 1910.252](#) and [NFPA 51B](#) recommendations with the goal of preventing hot work fires.

How Does the Hot Work Permit System Work?

Before a contractor can perform hot work for a Florida State College at Jacksonville construction project, they need to get a hot work permit. To get a permit, the contractor must go to the College's Safety Department, Suite 303, Administration Offices, 501 West State Street, between the hours of 8:00 a.m. and 4:00 p.m. After completing the Hot Work Permit information, the permit is issued to the contractor for a specified time period for the building where the work will be performed. The contractor may then perform the hot work, following the precautions outlined on the permit. After the hot work is completed, the contractor turns the permit over to the College Fire Safety Inspector.

When is a Hot Work Permit Necessary?

Hot work permits are needed for all cutting or welding activities that are conducted with portable gas or arc equipment on Florida State College at Jacksonville construction projects.

The following operations do not require a Hot Work Permit:

- Bunsen burners in laboratories
- fixed grinding wheels
- electric soldering irons

Where is a Hot Work Permit Necessary?

Hot work permits are needed for each building where hot work will be performed (utility tunnels are considered to be separate buildings). For example, if one contractor is performing work at several different buildings for one project, a permit is necessary for each building.

Who Needs Hot Work Permits?

Hot work permits are needed for each and every contractor or sub-contractor/trade performing hot work for a project. For example, if there are three different sub-contractors/trades performing hot work on one project, each sub-contractor/trade is responsible for obtaining a permit for their own work.

How Long is a Hot Work Permit Valid?

The duration of a hot work permit depends upon the type of project (new or existing construction) and the character of the hot work. The following are guidelines used to determine how long a permit is good for. If there are conditions unique to the project or activities a contractor will be performing, exceptions can be made. Contact your FSCJ Construction Project Manager for information.

For **NEW CONSTRUCTION** - permits are issued in 30-DAY intervals. New construction is defined as new buildings, additions to existing buildings, new tunnels (including vaults), and new exterior improvement work. The following are the types of work anticipated for new construction:

- Structural hot work - cutting/welding reinforcing steel and structural steel for all of the project's structural work (tunnels construction, building super-structure, site work).
- Mechanical hot work - tunnel services connections, building system installations, HVAC equipment installations.
- General activities hot work - all other cutting/welding for equipment/building component installations (handrails, guardrails, specialties, and ornamental metal).

For **RENOVATIONS and REMODELS** permits are issued in 15-DAY intervals. Renovations and remodels are defined as new work that takes place in an existing building. The following are the types of hot work anticipated for renovations/remodels;

- Demolition hot work - dismantling built-in equipment, removal of discontinued/abandoned equipment.
- Mechanical hot work - removal of discontinued/abandoned services, new services tie-ins, building system installations/modifications.
- General activities hot work - all other cutting/welding for equipment/building component installations (handrails, guardrails, specialties, and ornamental metal).

Where Shall the Hot Work Permit be Posted?

Hot work permits shall be posted at the job site in an accessible and conspicuous location. Job site trailers are an acceptable location.

Who Checks to See if the Hot Work Requirements are Met?

The contractor or sub-contractor/trade performing hot work is ultimately responsible for conducting their hot work activities in a sound, fire-safe manner and following the precautions outlined on the hot work permit. The responsible contractor or sub-contractor/trade supervisor or foreman shall review the work area and sign the card daily.

After the Hot Work Permit is Filled or The Hot Work is Complete...Then What?

Once a hot work permit has been filled or when the hot work has been completed, the contractor shall return the completed hot work permit to the College Fire Safety Inspector for the project records. Once the project has been completed, the hot work permit is retained for a minimum of 180 days as per the Florida Building Code.

For more information, please contact the College's Safety Department at 904.632. 3367.

Note: As each construction project is different relating to the construction documents, accompanying data, specific or special inspections; the contractor shall be responsible for review, of a final list of requirements, with the fire official.

SECTION D-6: FIRE PROTECTION SYSTEM PERMIT APPLICATION



Florida State College at Jacksonville
Safety Department
 501 West State Street
 Jacksonville, Florida



Fire Protection System Permit Application

Permit # _____ **F** Date Issued: ____ / ____ / ____ Approved: _____

Project Identification		Brief Description of Work	
Project Name: _____		_____	
Project Contact: _____		_____	
Project Contact Phone: () - _____		_____	
Associated Permit: <input type="checkbox"/> No <input type="checkbox"/> Yes <small>If you list permit data below</small>		_____	
Associated Permit # _____		_____	
Permit Address <small>(This is the physical address of the actual work location)</small>			
Campus/Center Name: _____			
Street Address: _____			
Building(s): _____		Room(s): _____	
Licensed Contractor / Engineer			
Company Name: _____			
Address: _____			
Phone: () - _____		Fax: () - _____	
E-mail: Address _____			
Qualifying Agent Name: _____			
State Certification or Registration Number: _____		Qualifying Agent's Signature: _____	
Fire Plans Submitted <small>(Signed and Sealed)</small>	Type of Improvement	Nature of Work (Type)	
<input type="checkbox"/> Drawings <small>Two Sets 24" x 30"</small> Number of Pages: _____	<input type="checkbox"/> Existing Building	<input type="checkbox"/> Fire Alarm	<input type="checkbox"/> Fire Main
<input type="checkbox"/> Specifications	<input type="checkbox"/> New Building	<input type="checkbox"/> Fire Suppression	<input type="checkbox"/> Hood System
Occupancy/Hazard Classification	Job Cost	Nature of Work (Details)	
Occupancy: _____	\$ _____	<input type="checkbox"/> New	<input type="checkbox"/> Repair
Hazard Classification: _____		<input type="checkbox"/> Relocate	<input type="checkbox"/> Addition
		<input type="checkbox"/> Industrial Oven	<input type="checkbox"/> Paint Booth
Fire Alarm	Water Based System	Non-Water Based Systems	
<input type="checkbox"/> Central Station <input type="checkbox"/> Remote	<input type="checkbox"/> Deluge <input type="checkbox"/> Wet Pipe	<input type="checkbox"/> CO2	<input type="checkbox"/> FM-200
Total Number of devices: _____	<input type="checkbox"/> Dry Pipe <input type="checkbox"/> Pre-Action	<input type="checkbox"/> Dry Chemical	<input type="checkbox"/> Wet Chemical
	<input type="checkbox"/> Water Mist	Other: _____	
	Total # Heads _____		
Total area in Square Feet: _____	Fire Pump: <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Supply: <input type="checkbox"/> Public <input type="checkbox"/> Private Well	
Comments: _____ _____ _____			

SECTION D-8: HOT WORK PERMIT

	<h1 style="margin: 0;">HOT WORK PERMIT</h1>	 Florida State College at Jacksonville
BEFORE INITIATING HOT WORK, ENSURE THAT REQUIRED PRECAUTIONS ARE IN PLACE! MAKE SURE AN APPROPRIATE FIRE EXTINGUISHER IS READILY AVAILABLE!		
Permit # _____ H Date Issued: _____ Approved: _____		
This hot work permit is required for any construction, renovation or remodel operation involving open flames or producing heat and/or sparks. This includes, but is not limited to: welding and allied processes, hot mopping, heat treating, grinding, thawing pipe, the use of power-driven fasteners, hot riveting and similar applications. Note: This permit is not required for instructional programs.		
<p style="text-align: center; font-weight: bold;">INSTRUCTIONS</p> <p>A. Verify precautions listed at right (or do not proceed with the work).</p> <p>B. Complete and retain this permit.</p>	<p style="text-align: center; font-weight: bold;">CONTRACTOR REQUIRED PRECAUTIONS CHECKLIST</p> <p><input type="checkbox"/> Available sprinklers, hose streams and extinguishers are in service / operable.</p> <p><input type="checkbox"/> Hot work equipment in good repair.</p> <p>Requirements within 35 feet of work:</p> <p><input type="checkbox"/> Flammable including liquids, dust, lint and oil deposits removed.</p> <p><input type="checkbox"/> Explosive atmosphere in area eliminated.</p> <p><input type="checkbox"/> Floors swept clean.</p> <p><input type="checkbox"/> Combustible floors wet down, covered with damp sand or fire-resistant sheets.</p> <p><input type="checkbox"/> Remove other combustibles where possible. Otherwise, protect with fire-resistant tarpaulins or metal shields.</p> <p><input type="checkbox"/> All wall and floor openings covered.</p> <p><input type="checkbox"/> Fire resistant tarpaulins suspended beneath work.</p> <p>Work on walls or ceilings/container/enclosed equipment:</p> <p><input type="checkbox"/> Construction is non-combustible and without combustible covering or insulation.</p> <p><input type="checkbox"/> Combustibles on other side of walls moved away 35 feet or more.</p> <p><input type="checkbox"/> Enclosed equipment cleaned of all combustibles.</p> <p><input type="checkbox"/> Containers purged of flammable liquids/vapors.</p> <p>Fire Watch/hot work area monitoring:</p> <p><input type="checkbox"/> Fire watch will be provided during and for 30 minutes after work, including any coffee and/or lunch breaks.</p> <p><input type="checkbox"/> Fire watch is supplied with suitable extinguishers.</p> <p><input type="checkbox"/> Fire watch is trained in use of this equipment and in sounding alarm.</p> <p><input type="checkbox"/> Additional fire watches may be required for adjoining areas, above and below.</p> <p><input type="checkbox"/> Monitor hot work area for 30 minutes after job is completed.</p> <p>I verify the above location has been examined; the precautions checked on the Required Precautions Checklist have been taken to prevent a fire.</p>	
<p>COMPANY NAME AND ADDRESS</p> <hr/> <p>DATE(S)</p> <hr/> <p>NAME OF PERSON(S) DOING HOT WORK</p> <hr/> <p>ADDRESS WHERE HOT WORK IS BEING PERFORMED</p> <hr/> <p>SPECIFIC LOCATION HOT WORK WILL BE PERFORMED</p> <hr/> <p>TYPE OF HOT WORK BEING PERFORMED</p> <hr/> <p>This permit is issued by the Florida State College At Jacksonville, Safety Department in accordance with the College's Safety Manual. Permit is not valid unless signed by the Fire Official or Fire Safety Inspector. Jobs may be terminated at the discretion of the Fire Official if precautions are not in place. All hot work jobs are subject to inspection by the Fire Official or Fire Safety Inspector to ensure that precautions are maintained throughout the duration of the job.</p> <p>Expiration Date: ____ / ____ / ____.</p>	<p style="text-align: center;"> _____ <small>Print Name</small> </p> <p style="text-align: center;"> _____ <small>Signature</small> </p>	

APPENDIX E: DELIVERY/JOB ORDER CONSTRUCTION

SECTION E-1: INTRODUCTION

Facilities Management & Construction/Building Code Enforcement represents Florida State College at Jacksonville as its code enforcement agency. As the regulatory arm of the College; Facilities Management & Construction/Building Code Enforcement issues building permits, certificates of occupancy, temporary occupancy and certificates of completion.

As such; Facilities Management & Construction/Building Code Enforcement is responsible for the minimum plans review criteria of all delivery/job order construction documents and accompanying data for issuance of permits.

Construction documents and/or accompanying data should be sent to:

Bruce D. Nelsen, BU-1559
Florida State College at Jacksonville
Facilities Management & Construction
Attn: Facilities/Building Code Enforcement
501 West State Street
Jacksonville Florida 32202
(904) 633-5959
Email – bldgcode@fscj.edu

SECTION E-2: BUILDING PERMIT DELIVERABLES

Prior to obtaining a Building Permit for the Florida State College at Jacksonville projects from the College's Facilities Management & Construction/Building Code Enforcement submittals not provided by the College, must be made in accord with the requirements of the Department:

- Building Permit Application (Original shall be submitted).
- Copies of current licenses and insurances.
- Two (2) sets, complete of Drawings (Deliverables)

In some cases, the proposed construction may require a design in more detail or if the services of a design professional (architect or engineer) are required; these items including construction documents are also required to be submitted prior to building permit issuance.

***Note:** Items which are required to be submitted by the design professional (architect or engineer) shall be original documents, signed and sealed.*

Except as otherwise agreed upon, all Plan Check Fees will be at no charge.

SECTION E-3: DELIVERABLES

Deliverables are identified as a set of drawings, which typically includes fully developed floor plans, interior elevations, reflected ceiling plans, roof plans, wall sections with callouts and details. These drawings also identify generic information such as dimensions, scales and sheet titles.

Deliverables may be submitted on sheet sizes of eight and one half (8-1/2) inches by eleven (11) inches, eleven (11) by seventeen (17) inches or twenty-four (24) by thirty-six (36) inches. Once a sheet size is determined, the submittal shall be of one (1) size only.

Minimum construction documents or deliverables, not limited to, may be as follows:

1. Title Sheet
 - Project title, index and code identifications
2. Floor Plan(s)
 - Total floor plan (designate construction area)
 - Partial floor plan – existing with removal work
 - Partial floor plan - new work
 - Reflected ceiling plan – existing
 - Reflected ceiling plan – new work
 - Partial floor plan - life safety information
3. Roof Plan
 - Scope of work will determine, if required
4. Exterior Elevations
 - Scope of work will determine, if required
5. Building Sections and Cross Sections
 - Wall section (studs, bracing, insulation, gypsum, etc.)
 - Ceiling height
6. Built-in Elements, Plans and Elevations
 - Scope of work will determine, if required
7. Structural Systems
 - Design professional, signed and sealed
8. Plumbing Systems
 - Design professional, signed and sealed
9. Mechanical Systems
 - Design professional, signed and sealed
 - Product literature, technical data and installation instructions

10. Electrical Systems

- Locations for receptacles, switches, lighting, etc., shall be shown including identification of circuits, either new or existing.
- Electrical panel, either new or existing, shall be located and identified.

SECTION E-4: COMPLETION & CLOSE-OUT

This contains a summary of items that must be completed prior to a delivery / job order construction project being completed at Florida State College at Jacksonville.

1. All inspections as identified on the inspections card, as issued with the building permit, shall be signed off. Once issued, only the building code administrator or duly authorized representative can delete or void a specific inspection or inspection category:

Building

Electrical

Plumbing

Mechanical

Fire Protection Systems

Fire & Safety

2. All final inspections are required to be requested, inspected and approved (signed-off) before this inspection is scheduled. Upon approval (signed-off) of this final, a copy of this card shall be submitted to the building code administrator.

Depending on the project's scope of work, additional items may be required.

Note: As each construction project is different relating to the construction documents and accompanying data; the contractor shall review a final list of requirements with the building code administrator, or duly authorized representative.

End of Appendix E

APPENDIX F: FSCJ DESIGN & CONSTRUCTION STANDARDS

Specifications shall be attached to the required submittals for all direct order contract; construction projects only.

Division 1. General Requirements (1000)

1.0 Requirements / Conditions:

- 1.1.1 Construction shall be in accordance with the Florida Building Code and the Florida Fire Prevention Code, latest adopted edition.
- 1.1.2 Contractor shall verify all existing conditions and dimensions before proceeding with the scope of work.
- 1.1.3 College shall be notified of any discrepancies due to unforeseen conditions once work has begun.
- 1.1.4 The fire alarm, security system and emergency power shall remain in operable condition during this construction process.
- 1.1.5 The College will occupy the building area(s) during the construction.
 - a.) Provide barricades and dust partitions as necessary to protect occupants adjacent to the construction area.
 - b.) Maintain safe egress from all areas during the construction process.
 - c.) Do not block the building exits at any time.
- 1.1.6 Contractor or subcontractor shall supply all materials, labor, tools, ladders, scaffolding and equipment necessary for the completion of the work.
- 1.1.7 Each contractor or subcontractor is responsible for inspecting the work of others prior to their application of any construction components or materials.
- 1.1.8 Remove from the premises all rubbish and accumulated materials of whatever nature and leave work area in a clean, orderly and acceptable condition.

Division 2. Site Work/Existing Conditions (2000)

CUTTING AND PATCHING

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Employ skilled workers to perform cutting and patching.

Part 2 Products:

2.1 Basic Materials:

- 2.1.1 Use materials identical to in-place materials.

a.) For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

2.1.2 If identical materials are unavailable or cannot be used, use materials that, when installed according to manufacturer's installation instructions, will match the visual and functional performance of in-place materials.

Part 3 Execution:

3.1 Installation

3.1.1 Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to original condition.

3.1.2 Cut in-place by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained by adjoining construction.

3.1.3 Patch by filling, repairing, refinishing, closing up, and similar operations following performance of other work identified herein.

3.1.4 Patch with durable seams that are as invisible as possible.

3.1.5 All penetrations through fire-rated construction shall be fire-stopped as per NEC 300-21 using a through penetration fire-stop system (XHEZ) listed in the Underwriters Laboratory Fire Resistance Directory.

DEMOLITION

Part 1 General

1.1 Requirements / Conditions:

1.1.1 Employ skilled workers to perform demolition and removal work.

1.1.2 Use methods required to complete the work including hauling and disposal off-site, within limitations of governing regulations.

1.1.3 College shall have first right of refusal for equipment indicated for demolition.

Part 2 Products:

2.1 Basic Materials:

2.1.1 Provide all materials, tools, ladders, scaffolding and equipment necessary for the completion of the work.

Part 3 Execution:

3.1 Demolition Work:

- 3.1.1 Demolish and remove existing construction components only to the extent required by new construction or as indicated.
- 3.1.2 Locate and remove equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors or framing.
- 3.1.3 Cut masonry at junctures with construction indicated to remain, using power-driven saw, then remove masonry between saw cuts.
- 3.1.4 Disconnect equipment at nearest fitting connection to services, complete with service valves. Remove as whole units, complete with controls unless otherwise noted or approved.
- 3.1.5 Dispose of demolished items and materials promptly.
- 3.1.6 Return elements of construction and surfaces that are to remain to condition existing before demolition operations began including any and all repair and re-paint.
- 3.1.7 Reserved.

Note: Hot Work Permit is required for any work or operation involving open-flame, producing heat or sparks. This permit issuance will be authorized by the Fire Official.

SELECTIVE DEMOLITION

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Employ skilled workers to perform selective demolition and removal work.
- 1.1.2 Use methods required to complete the work including hauling and disposal off-site, within limitations of governing regulations.
- 1.1.3 Comply with [ANSI A10.6](#) and [NFPA 241](#).
- 1.1.4 College assumes no responsibility for condition of site elements to be selectively demolished.
- 1.1.5 Hazardous materials are not expected to be encountered in this work.
 - a.) Materials suspected of containing hazardous materials are encountered, do not disturb; notify the College immediately. Hazardous materials may be removed by the College under a separate contract.
- 1.1.6 Maintain existing utilities identified to remain in service and protect against damage during this work.

Part 2 Products:

2.1 Basic Materials:

- 2.1.1 Detach items as designated from existing construction and deliver to the College for re-use where indicated.
- 2.1.2 Detach items as designated from existing construction, prepare them for re-use and re-install where indicated.

Note: All materials identified to be re-used or re-installed shall follow the Florida Building Code and the Florida Fire Prevention Code, latest adopted edition. No materials or fixtures shall be re-used or re-installed that are not in accordance with the current codes.

Part 3 Execution:

3.1 Selective Demolition Work:

- 3.1.1 Demolish and remove existing construction components only to the extent required by new construction or as indicated.
- 3.1.2 Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors or framing.
- 3.1.3 Dispose of demolished items and materials promptly, unless noted otherwise to be re-used or salvaged.
- 3.1.4 Return elements of construction and surfaces that are to remain to condition existing before selective demolition operations began.

Note: Hot Work Permit is required for any work or operation involving open-flame, producing heat or sparks. This permit issuance will be authorized by the Fire Official.

Division 3. Concrete (3000)

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Cast-in-Place Concrete: Concrete shall be placed in accordance with the [American Concrete Institute \(ACI\)](#).
- 1.1.2 Ready mix concrete shall conform to [ASTM C94/C94M](#).
- 1.1.3 Concrete shall have a minimum cement factor of 5-1/2 sacks per cubic yard and 28-day compressive strength of 3,000 psi. Concrete mixes shall be proportioned by the filed experience method or the laboratory trial method in accordance with [ACI 318/318R](#).

- 1.1.4 Slump for concrete shall be 4 inches, +/- 1 inch and grout for filling masonry cells and cavities shall be 7-1/2 inch, +/- 1-1/2 inches, unless otherwise noted.

Part 2 Products

2.1 Basic Materials:

2.1.1 Concrete materials:

- a.) Portland cement: ASTM C 150, type 1.
- b.) Water: Clean and potable.
- c.) Air-entraining admixture: ASTM C 260.
- d.) Water reducing admixture: ASTM C 494, type A.

2.1.2 Aggregates:

- a.) Regular weight concrete: ASTM C 33.
- b.) Grout: ASTM C 404.

2.1.3 Reinforcing:

- a.) Reinforcing bar: ASTM A615, Grade 60
- b.) Welded wire fabric: ASTM A185

2.1.4 Moisture barrier: Provide PVC sheet membrane, minimum 10 mils thick.

2.1.5 Membrane-forming curing compound: ASTM C 309, type 1.

2.1.6 Water curing-moisture retaining cover: Provide waterproof craft paper, 4 mil polyethylene sheet or burlap.

2.1.7 Preformed joint material: ASTM D 1752, type 1, 2, or 3 or ASTM D 1751. Provide Sealtight by W.R. Meadows or approved equivalent.

Part 3 Execution

3.1 Installation:

3.1.1 Construct formwork for concrete members and structures of size, shape, elevation and position as necessary. Chamfer exposed edges and corners of formed concrete $\frac{3}{4}$ inch unless noted otherwise. Conform to [ACI 347](#). Design of formwork is the responsibility of the contractor.

3.1.2 Moisture barrier shall be installed under all interior slabs-on-grade lapping a minimum of six (6) inches at all seams.

3.1.3 Locate reinforcement and support with metal accessories in compliance with [ACI 315, ACI Detailing Manual](#). For support of reinforcing steel in slabs or

beams exposed to view underneath, furnish stainless steel or plastic accessories or accessories having plastic-coated feet.

a.) Welded wire fabric shall be installed in as long lengths as practicable, lapping at least one (1) mesh.

3.1.4 Reserved.

Division 4. Masonry (4000)

Part 1 General

1.1 Requirements / Conditions:

1.1.1 Unit Masonry Assemblies: Masonry construction shall comply with the requirements of ACI-530, "Building Code Requirements for Masonry Structures".

Part 2 Products:

2.1 Basic Materials:

2.1.1 Reserved.

Part 3 Execution:

3.1 Installation

3.1.1 Reserved.

Division 5. Metals (5000)

LIGHT GAUGE METAL FRAMING

Part 1 General

1.1 The design, installation and construction of metal framing, structural and nonstructural, shall be in accordance with AISI-General and AISI-NAS.

1.2 The design and installation of headers shall be in accordance with AISI-Header and subject to the limitations therein. Coordinate this work with the mechanical (HVAC) and electrical work.

Part 2 Product

2.1 Basic Materials:

2.1.1 Metal studs shall be

2.1.2 Metal studs (complete stud framing system, including matching top and bottom tracks).

Partition height up to nine feet (9'-0"): 3-5/8-inch x 25 gauge (18 mil)

Partition height up to fifteen feet (15'-0"): 3-5/8-inch x 20 gauge (33 mil)

Partition height up to twenty feet (20'-0"): 6-inch x 20 gauge (33 mil)

2.1.3 Provide deep leg slotted tracks where tops of partitions above the structure.

2.1.4 Fasteners shall be self-tapping, Type S, Bugle Head, 1-1/8-inch minimum length.

2.1.5 Where gypsum board is required to be laminated to gypsum board, provide Type G screws, Bugle Head, 1-1/2-inch minimum length.

2.1.6 Provide metal studs in rated walls with fire-rating approvals, horizontal and vertical applications as necessary.

Part 3 Installation

3.1 Installation:

3.1.1 Bottom track and all studs indicated to be installed against concrete masonry shall be set in two (2) continuous beads of sealant prior to securing in place.

3.1.2 Fasten bottom and top track to structural elements and as shown with suitable fasteners, located 2 inches from ends and spaced 24 inches on center unless otherwise noted.

3.1.3 All joints or splices in bottom and/or top track shall be lapped 8 inches (8") minimum.

3.1.4 Position studs vertically, engaging bottom and top tracks. Stud spacing shall be sixteen inches (16") on center unless otherwise noted. Secure studs plumb with two (2) screws to bottom track and two (2) screws to top track. Crimping of studs to track is not acceptable. No joints or splices shall be permitted in full length of stud.

3.1.5 Provide metal stud each side of structural member for securing gypsum board where partition wall is located perpendicular to structural orientation.

3.1.6 Provide metal framing within one-quarter inch (1/4") on all sides of ductwork where it penetrates any partition. Requirement here is to provide a four-sided box of metal framing surrounding each HVAC duct penetrating a gypsum board partition whether rated or non-rated.

3.1.7 For duct penetrations of gypsum board finished CMU walls; provide a four-sided box formed with metal furring. Under no circumstances is gypsum board edge permitted to be unsupported without metal framing.

3.1.8 Bracing shall be provided where metal framed gypsum board partitions do not terminate against structure, diagonally brace partitions with bracing fabricated from metal stud members spaced nominally four foot (4'-0") on center.

3.1.9 Installation of accessories, bridging, etc., not specifically indicated; shall be in accordance with the manufacturer's suggested and recommended details and referenced standards.

Division 6. Woods & Plastics (6000)

ROUGH CARPENTRY

Part 1 General

1.1 Requirements / Conditions:

1.1.1 Framing shall comply with AF&PA's "Details for Conventional Wood Framing Construction" unless otherwise noted.

Part 2 Products

2.1 Basic Materials:

2.1.1 Reserved.

Part 3 Execution

3.1 Installation:

3.1.1 Set rough carpentry to required levels and lines, with members plumb, true to line, cut and fitted.

3.1.2 Fit carpentry to other construction; scribe and cope as needed for accurate fit.

3.1.3 Locate furring, nailers, blocking and similar supports to comply with requirements for attaching other construction components.

3.1.4 Provide the necessary blocking and framing required to support facing materials, fixtures, specialty items and trim.

Division 7. Thermal and Moisture Protection (7000)

BUILDING INSULATION

Part 1 General

1.1 Requirements / Conditions:

1.1.1 Reserved.

Part 2 Products

2.1 Basic Materials:

2.1.1 Batt and Blanket Insulation

- a.) Faced, Glass Fiber Insulation – [ASTM C 665](#), Type III (blankets with reflective membrane facing), Class A (membrane-faced surface with a flame-spread index of 25 or less; Category 1 (membrane is a vapor barrier), faced with polypropylene-scrim-kraft vapor-retarder membrane on one (1) face.

2.1.2 Acoustic and Sound Attenuation Blanket Insulation

- a.) [ASTM C 665](#), Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool or rock wool.

Part 3 Execution

3.1 Installation

- 3.1.1 Insulation shall be placed in strict accordance with the manufacturer's installation instructions.

MEMBRANE ROOFING

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Reserved.

Part 2 Products

2.1 Basic Materials:

- 2.1.1 Reserved.

Part 3 Execution

3.1 Installation:

- 3.1.1 Reserved.

Division 8. Doors, Windows & Glazing (8000)

Part 1 General

1.1 Requirements / Conditions

- 1.1.1 Doors and frames shall match existing in all construction projects where reasonable.
- 1.1.2 Doors shall comply with the quality requirements of the AWI.

Part 2 Products

2.1 Basic Materials:

2.1.1 Obtain hollow metal work from a single source manufacturer.

Part 3 Execution

3.1 Installation:

3.1.1 Coordinate installation of anchorage for hollow metal frames.

3.1.2 Install doors and frames in accordance with the manufacturer's installation instructions and with the provisions in Chapter 10 of the Florida Building Code - Building.

WINDOWS

Part 1 General

1.1 Requirements / Conditions

1.1.1 Windows shall match existing in all construction projects where reasonable.

1.1.2 Safety glazing shall comply with the testing requirements of [16 CFR 1201](#).

Part 2 Products

2.1 Basic Materials:

2.1.1 Obtain glazing accessories through on (1) source from a single manufacturer for each product and installation required for the scope of work.

Part 3 Execution

3.1 Installation:

3.1.1 Reserved.

HARDWARE

Part 1 General

1.1 Requirements / Conditions

1.1.1 Hardware shall match existing in all construction projects where reasonable.

Part 2 Products

2.1 Basic Materials:

2.1.1 Obtain door hardware and accessories from a single source manufacturer.

Part 3 Execution

3.1 Installation:

- 3.1.1 Install accessories in accordance with the manufacturer's installation instructions and with the provisions in Chapter 11 of the Florida Building Code - Building.

Division 9. Finishes (9000)

GYPSUM BOARD

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Gypsum board materials shall be in accordance with [Table 2506.2](#) and gypsum construction shall be in accordance with [Table 2508.1](#).

Part 2 Products

2.1 Basic Materials:

- 2.1.1 Use USG gypsum board or approved equal.
 - a.) Gypsum board shall be 5/8-inch-thick, type X with a tapered edge.
- 2.1.2 All gypsum accessories shall be galvanized including metal corner bead, metal casing bead and other metal trims as necessary.
- 2.1.3 Use USG screws or approved equal.
 - a.) Use 1-inch type S, Bugle Head (USG) for fastening gypsum panels to studs or furring
 - b.) 1-1/2-inch type G, Bugle Head (USG) for fastening gypsum to gypsum.
- 2.1.4 Joint cement and reinforcing tape shall be as recommended by the manufacturer of the gypsum board.

Part 3 Execution

3.1 Installation:

- 3.1.1 Position all ends and edges of gypsum board staggered over framing members, except when joints are at right angles to framing members as in a perpendicular application.
 - a.) Stagger end joints and edge joints on opposite sides of partitions placed on different studs.
 - b.) Both vertical and horizontal gypsum joints shall be staggered on both sides of the partitions.

c.) To minimize end joints, use panels of maximum practical lengths. Fit ends and edges closely, but not forced together.

3.1.3 Extend ceiling board into corners and make firm contact with top plate.

3.1.4 Attach gypsum board to framing supports by power-driven USG screws.

a.) Space fasteners, not less than 3/8 inch from edge and ends of panel and drive as specified fastening methods.

b.) Drive fasteners in field of panels first, working towards edges and ends.

c.) Hold panel in firm contact with framing while driving fasteners.

d.) Drive fastener heads slightly below surface of gypsum panels in a uniform dimple without breaking face paper.

3.1.5 Cut ends, edges, scribe or make cutouts within field of panels in a workmanlike manner.

3.1.6 Install trim at all internal and external angles formed by the intersection of either panel surfaces or other surfaces.

a.) Apply corner bead to all vertical or horizontal external corners in accordance with manufacturer's installation instructions.

3.1.7 Installation of gypsum board shall be in strict accordance with the manufacturer's installation instructions, specifically, USG Product Bulletins SA-923 and SA-927 for installation over metal framing systems.

3.1.8 Installations shall conform to UL requirements when UL design numbers are referenced.

3.2 Finishing:

3.2.1 Application of joint compound and joint reinforcing and finishing of panels shall be in accordance with manufacturer's installation instructions, specifically, Product Bulletin SA-927.

3.2.2 Walls shall match existing with relation to texture; unless, otherwise noted.

ACOUSTICAL PANEL CEILINGS

Part 1 General

1.1 Requirements / Conditions:

1.1.1 Acoustical suspended ceiling systems shall be installed in accordance with the provisions of ASTM C 635 and ASTM C 636. Coordinate this work with the mechanical (HVAC) and electrical work.

1.1.2 Metal suspension system and acoustical tile panels shall be manufactured by Armstrong unless otherwise noted.

Part 2 Products

2.1 Basic Materials:

- 2.1.1 Metal suspension system shall be manufactured by Armstrong unless otherwise noted.
 - a.) Exposed suspension grid system shall be intermediate duty steel with aluminum cap in standard white finish.
 - b.) Suspension system, unless noted otherwise, shall be Prelude 15/16-inch exposed tee system with aluminum caps.
 - c.) Tie wires shall be 12 and 18 SWG annealed wire, galvanized.
- 2.1.2 Acoustical tile panels shall be manufactured by Armstrong unless otherwise noted.
 - a.) Acoustical ceiling tiles, unless noted otherwise, shall be RH90 Fine Finish, tegular edge, color: white, 24-inch x 24-inch x 5/8-inch.
- 2.1.5 Suspension system and ceiling tiles shall match existing in all construction projects where reasonable.

Part 3 Execution

3.1 Installation:

- 3.1.1 Measure each ceiling area and establish lay-out of acoustical panels to balance border widths at opposite edges of each ceiling.
 - a.) Avoid using less-than-half-width panels at borders.
- 3.1.2 Where direct hung suspension is used; hangers, runners, cross tees, etc., shall be spaced as recommended by manufacturer's installation instructions to prevent deflection in excess of 1/360 of span of cross tee or runner, except that the maximum spacing of hangers shall be four feet (4'-0") on center.
 - a.) Provide hangers not more than eight inches (8") from ends of each member.
 - b.) Provide extra hangers and bracing as required at or near items of mechanical, electrical, and miscellaneous equipment.
- 3.1.3 Mechanical, electrical and miscellaneous equipment shall not be supported by the ceiling suspension system unless noted or approved by the manufacturer.
- 3.1.4 Acoustical ceiling shall be installed in accordance with the manufacturer's installation instructions.
- 3.1.5 Lay-out acoustical ceilings as identified on the Reflected Ceiling Plan within the drawing submittal.

PAINTING

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 This contractor is responsible for inspecting the work of others, prior to the application of any finishing materials.
- 1.1.2 If any surface to be finished cannot be put in proper condition for finishing by customary cleaning, sanding and putty operations; this contractor shall notify the College, and shall not proceed with this scope of work until conditions have been corrected and are acceptable.

Part 2 Products

2.1 Basic Materials:

- 2.1.1 All paints, varnishes, enamels, lacquers, stains, paste fillers and similar materials must be delivered in the original containers, with the seals unbroken and labels intact and shall be used from the original containers.
- 2.1.3 Use only those products of approved manufacturers.
- 2.1.4 Use materials only in accordance with the manufacturer's installation instructions.

Part 3 Execution

3.1 Installation

- 3.1.1 Engage an experienced applicator to insure the very best result.
 - a.) Quality is required.
- 3.1.2 Apply all materials under adequate illumination, spread evenly and flow on smoothly without runs or sags.
- 3.1.3 Touch up knots, pitch streaks and sappy spots with recommended sealer before primer is applied.
- 3.1.4 Repair scratches, cracks and abrasions in gypsum surfaces and openings adjoining trim with a spackling compound, flush adjoining surface, and when dry, sand smooth and seal before applying primer coat.
 - a.) Putty nail holes, cracks and other defects after the first coat, with putty color to match the finish. Bring putty flush with adjoining surfaces.
 - b.) Do not paint gypsum containing more than 15% moisture.
- 3.1.5 Protect work, adjacent work, and materials at all times, by suitable covering.
- 3.1.6 Upon completion of the work, remove all paint and varnish spots from the floors, glass and other surfaces.

3.2 Finishing:

- 3.2.1 Clean surface before proceeding with the application of the first coat.

3.2.2 Touch up suction spots or “hot spots” as recommended after application of the first coat and before applying the second coat.

a.) All coats must be thoroughly dry before applying succeeding coats.

3.2.3 Sand smooth, all woodwork to be finished with enamel or varnish.

3.2.4 Application and finishing shall be in accordance with the manufacturer’s installation instructions.

WALL BASE AND ACCESSORIES

Part 1 General

1.1 Requirements / Conditions:

1.1.1 Decorative materials and trim shall be in accordance with NFPA 701.

1.1.2 This contractor is responsible for inspecting the work of others prior to the application of any finishing materials.

Part 2 Products

2.1 Basic Materials:

2.1.1 All vinyl cove bases shall be extruded for 1/8-inch gauge in forty-eight-inch (48”) lengths by four inches (4”) in height.

2.1.5 Use manufactured outside and inside corners fabricated from the same material as cove base.

2.1.6 Color, height and profile shall be identical to cove base. All materials shall match existing unless approved otherwise.

2.1.4 Adhesives shall be applied in accordance with manufacturer’s installation instructions.

Part 3 Execution

3.1 Installation:

3.1.1 Adhesives shall be maintained at the proper temperature for use for not less than twenty-four (24) hours immediately prior to installation of cove base and corners.

3.1.2 All joints shall be vertical and tight.

3.1.3 Where field cutting is necessary, a sharp razor knife shall be used.

3.1.4 Joints shall not be readily visible to the College in the finish work.

Division 10. Specialties (10000)

SIGNAGE

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Comply with the provisions in Chapter 11 of the Florida Building Code - Building.
- 1.1.2 Signage shall match existing where reasonable.

Part 2 Products

2.1 Basic Materials:

- 2.1.1 Obtain each sign from a single source manufacturer.

Part 3 Execution

3.1 Installation:

- 3.1.1 Reserved

TOILET ACCESSORIES

Part 1 General

1.1 Requirements / Conditions:

- 1.1.3 Install accessories in accordance with the manufacturer's installation instructions and with the provisions in Chapter 11 of the Florida Building Code - Building.
- 1.1.4 Toilet accessories shall match existing where reasonable.

Part 2 Products

2.1 Basic Materials:

- 2.1.1 Provide products of the same manufacturer unless otherwise noted or approved.

Part 3 Execution

3.1 Installation:

- 3.1.1 Coordinate locations with other work to prevent interference with clearances for required access and for proper installation, adjustment, operation, cleaning and servicing of accessories.

Division 11. Equipment (11000)

PROJECTION SCREENS

Part 1 General

1.1 Requirements / Conditions

1.1.1 Screens shall match existing where reasonable.

Part 2 Products

2.1 Basic Materials:

2.1.1 Obtain each projection screen(s) from a single source manufacturer.

2.1.2 Provide each screen as a complete unit, including necessary mounting hardware and accessories.

Part 3 Execution

3.1 Installation:

3.1.1 Install projection screen(s) at approved locations to comply with screen manufacturer's installation instructions.

3.1.2 Coordinate layout and installation of projection screens with ceiling construction and related components penetrating or above ceilings.

3.1.3 Coordinate requirements for blocking, structural supports and bracing.

3.1.4 Coordinate requirements for power supply conduit and wiring.

LABORATORY CASEWORK

Part 1 General

1.1 Requirements / Conditions

1.1.5 Casework shall match existing where reasonable.

1.1.6 Manufacturer shall be a member of AWI and be QCP certified. Installer qualifications shall be certified by the manufacturer.

1.1.7 Installer qualifications shall be certified by the manufacturer.

1.1.8 Adjust doors, hardware, fixtures and other moving or operating parts to function smoothly.

Part 2 Products

2.1 Basic Materials:

2.1.1 Casework and fume hoods shall be manufactured and furnished by a single source furniture company.

Part 3 Execution

3.1 Installation:

3.1.1 Casework Installation:

- a.) Set casework components plumb, square and straight with no distortion and securely anchored to building structure.
- b.) Fasten continuous cabinets together with joints flush, tight and uniform with alignment of adjacent units within 1/16-inch tolerance.
- c.) Secure wall cabinets to solid supporting material, not plaster, lath or gypsum board. Provide blocking as necessary.
- d.) Abut top edge surfaces in one true plane. Provide flush joints not to exceed 1/8 inch between top units.

3.1.2 Work Surface Installation:

- a.) Where required due to field conditions, scribe or caulk to abutting surfaces.
- b.) Secure joints in field, where practicable, in the same manner as in factory, with dowels, adhesives or fasteners recommended by manufacturer.
- c.) Secure work surfaces to casework and equipment components with material and procedures recommended by the manufacturer.

3.1.3 Sinks shall be set in chemical-resistant sealing compound, secured and supported per manufacturer's recommendations.

3.1.4 Install accessories and fittings in accordance with manufacturer's recommendations.

- a.) Turn screws to seat flat; do not drive.

HORIZONTAL LOUVERED BLINDS

Part 1 General

1.1 Requirements / Conditions

1.1.1 Blinds shall match existing where reasonable.

Part 2 Products

2.1 Basic Materials:

2.1.1 Obtain blinds from a single source manufacturer.

2.1.2 Flame-resistance rating passing NFPA 701.

Part 3 Execution

3.1 Installation:

3.1.1 Install blinds in accordance with the manufacturer's installation instructions.

Division 12. Furnishings (12000)

Part 1 General

1.1 Requirements / Conditions

1.1.1 Reserved.

Part 2 Products

2.1 Basic Materials:

2.1.1 Reserved.

Part 3 Execution

3.1 Installation:

3.1.1 Reserved.

Division 13. Special Construction (13000)

Part 1 General

1.1 Requirements / Conditions

1.1.1 Reserved.

Division 14. Conveying Systems (14000)

Part 1 General

1.1 Requirements / Conditions

1.1.1 Reserved.

Division 15. Mechanical (15000)

PLUMBING

Part 1 General

1.1 Requirements / Conditions

1.1.1 Construction shall be in accordance with the latest edition of the Florida Building Code-Plumbing with the Supplements.

Part 2 Products

2.1 Basic Materials:

2.1.1 Reserved.

Part 3 Execution

3.1 Installation:

3.1.1 Reserved.

GAS

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Construction shall be in accordance with the latest edition of the Florida Building Code-Fuel Gas with the Supplements.

Part 2 Products

2.1 Basic Materials:

2.1.1 Reserved.

Part 3 Execution

3.1 Installation:

3.1.1 Reserved.

HEATING, VENTILATION & AIR CONDITIONING (HVAC)

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Construction shall be in accordance with the latest Edition of the Florida Building Code-Mechanical with the Supplements and the NFPA.
- 1.1.2 Coordinate this work with electrical work.
- 1.1.3 Manufacturer's installation instructions shall be available on the jobsite at the time of inspection.

Part 2 Products

2.1 Ductwork

- 2.1.1 Construction: Galvanized per SMACNA 2" W.G. duct reinforcement. Reinforcement joints, closures and seams as required by SMACNA. All ductwork shall be galvanized.
- 2.1.2 Hangers: Support from the building structural steel. Duct hangers shall conform to SMACNA table 4-4 using straps at 8 feet maximum spacing. Do not hang from metal decking.

2.1.3 Fittings: Provide 1.5 radius turn elbows. Provide turning vanes for all square turns per SMACNA figure 2-4.

2.1.4 Sealant: Seal all joints and seams with sealant, UL 181, class 1 rated. Interior duct sealant shall be Hardcast Iron Grip # 601 or approved substitute.

2.1.5 Flexible ducts shall be factory insulated with 1-inch-thick fiberglass insulation faced with reinforced foil vapor barrier. Use metal straps with stainless steel cam-type fasteners.

a.) Minimum R value 6.0.

2.1.6 Duct sizes shown are clear inside dimensions for airflow. Allow for duct liner as required.

2.1.7 Smoke damper, when required, shall be UL 555S listed and installed in accordance with their listing. Smoke dampers shall be constructed of no less than 16 gage steel for the blades and 13 gage steel for the frame. The dampers shall be at least class II.

a.) Dampers shall be 24 volts.

b.) Provide required transformer, low voltage wiring and EMT conduit.

c.) Fail-safe operation – power on / damper open; power off / damper closed.

d.) Activation of fire alarm shall close damper.

2.2 Diffusers and Registers

2.2.1 Air outlets shall be manufactured by Titus with models to match existing.

2.2.2 Indicated sizes are nominal neck dimensions.

2.3 Insulation

2.3.1 All interior insulation shall have thermal conductivity of 0.27 or less.

2.3.2 All exterior insulation shall be completely covered with weatherproof jacket including fittings and valves.

a.) Exterior insulation shall have some perm and conductivity rating as above but does need flame-spread and smoke developed rating.

2.3.3 Insulation minimum thickness shall be as follows:

a.) Service / ductwork (all).

b.) Thickness / 1-1/2 inch (min. R6.0)

2.3.4 Install in accordance with manufacturer's recommendations.

2.4 Equipment

2.4.1 Provide all equipment, accessories and materials required for a complete and operable system.

2.4.2 Install equipment according to manufacturer's instructions. Assist with factory start-up and check-out of each system.

2.4.3 VAV box: support as detailed in location indicated.

2.5 Controls

2.5.1 Provide temperature controls, interlock wiring and control wiring for complete operating systems.

a.) Exterior wiring shall be installed in rigid metal conduit and electrical boxes meeting the electrical specifications.

b.) Low voltage wiring shall be multiple conductor plenum rated cable with insulated # 16 AWG copper conductors.

c.) Controls shall be by existing manufacturer.

d.) All the information shall be reported back to the central system.

Part 3 Execution

3.1 Balance and Testing

3.1.1 The contractor shall balance the air system to deliver the quantities required within 100% to 105%.

3.1.2 Record air quantities for design, initial and final for each supply and return register / diffuser.

3.1.3 Record air conditioning unit inlet air DB and WB, volts, amps on each leg, refrigerant suction, pressure and temperature, liquid pressure and temperature.

3.1.4 Adjust air throws of the supply diffusers / grilles to yield even air distribution throughout space.

3.1.5 Submit balancing report for approval before final inspection.

3.2 Project Completion

3.2.1 Provide as built drawings before final inspection. Use one (1) clean set of prints and mark any changes in red ink. Show locations of pipe and valves.

3.2.2 Operate each air conditioning unit and check operating modes.

a.) Calibrate thermostats.

- b.) Check exhaust fan operation.
- 3.2.3 Install a new set of air filters at final inspection.
- 3.2.4 Reserved.

Division 16. Electrical - Power (16000)

BASIC ELECTRICAL, MATERIALS AND METHODS

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Construction shall be in accordance with the latest [National Electrical Code \(NEPA 70\)](#).
- 1.1.2 Furnish products listed by UL or other testing firm acceptable to the Building Code Administrator.
- 1.1.3 Verify field measurements and circuiting arrangements as shown on drawings.
- 1.1.4 Coordinate this work with mechanical (HVAC) and plumbing work.

Part 2 Products

2.1 Basic Materials:

- 2.1.1 Steel channel: Galvanized.
- 2.1.2 Miscellaneous hardware: Treat for corrosive resistant.
- 2.1.3 Nameplates shall be engraved three-layer laminated plastic, black letters on white background.
- 2.1.4 Wire and cable markers shall be cloth markers, split sleeve or tubing type.

Part 3 Execution

3.1 Installation:

- 3.1.1 Install work according to NECA "Standards of 2.5 Building Wire and Cable Installation".
- 3.1.2 Provide bonding to meet regulatory requirements.
- 3.1.3 Make electrical connections to utilization equipment in accordance with manufacturer's instructions.
 - a.) Verify that wiring and outlet rough-in work is complete and that utilization equipment is ready for electrical connection, wiring and energizing.
 - b.) Make wiring connections in control panel or wiring compartment of pre-wired equipment. Provide interconnecting wiring as indicated.

- c.) Install and connect disconnect switches, controllers, control stations and control devices as indicated.
 - d.) Make conduit connections to equipment using flexible conduit. Use liquid tight flexible conduit in damp or wet locations.
 - e.) Install pre-fabricated cord set where connection with attachment plug is indicated or specified, or use attachment plug suitable strain-relief clamps.
 - f.) Provide suitable strain-relief clamps for cord connections to outlet boxes and equipment connection boxes.
- 3.1.4 Install support systems sized and fastened to accommodate weight of equipment and conduit, including wiring, which they carry.
- a.) Fasten hanger rods, conduit clamps and outlet and junction boxes to building structure using precast insert system beam clamps.
 - b.) Use toggle bolts or hollow wall fasteners in hollow masonry, plaster or gypsum board partitions and walls; expansion anchors or preset inserts in solid masonry walls; self-drilling anchors or expansion anchor in concrete surfaces; sheet metal screws in sheet metal studs; wood screws in wood construction.
 - c.) Do not fasten supports to piping, ceiling support wires, ductwork, mechanical equipment or conduit.
 - d.) Do not use power-actuated anchors.
- 3.1.5 Identify electrical distribution and control equipment, and loads served, to meet regulatory requirements.
- a.) Degrease and clean surfaces to receive nameplates and tape labels.
 - b.) Secure nameplates to equipment fronts using screws, rivets, or adhesive with edges parallel to equipment lines, secure nameplate to inside face of recessed panel board door in finished locations.
 - c.) Use nameplates with 1/8-inch lettering to identify individual switches and circuit breakers, receptacle circuits and loads served.
 - d.) Use nameplates with ¼ inch to identify distribution and control equipment.
- 3.1.6 Install wire markers on each conductor in panel board gutters, pull boxes, outlet and junction boxes, and at load connections.
- a.) Use branch circuit or feeder number to identify power and lighting circuits.
 - b.) Use control wire number as indicated on from foundation wall: Plastic conduit. Provide equipment manufacturer's shop drawings to identify control wiring.

WIRING METHODS

Part 1 General

1.1 Requirements / Conditions:

- 1.1.1 Verify field measurements and circuiting arrangements.

Part 2 Product

2.1 Product Requirements

2.1.1 Use only specified raceway in the following locations:

- a.) Wet interior locations: Rigid steel conduit or electric metallic tubing. Use threaded or rain tight fittings for metal conduit.
- b.) Dry interior locations: Rigid steel conduit or electric metallic tubing.

2.1.2 Use wire and cable locations as follows:

- a.) All power wires and cables shall be in raceway use no wire smaller than 12 AWG for power and lighting circuits, and no smaller than 14 AWG for control wiring. Use 10 AWG conductors for 20 amperes, 120-volt branch circuit home runs longer than 75 feet; and for 20 amps.

2.2 Conduits and Fittings

2.2.1 Conduit:

- a.) Metal conduit and tubing; galvanized.
- b.) Flexible conduit; steel.

2.2.2 Conduit fittings:

- a.) Metal fittings and conduit bodies: NEMA FB 1.
- b.) EMT fittings; steel compression type for wet location. Set screw for dry locations.

2.3 Electrical Boxes

2.3.1 Boxes:

- a.) Sheet metal: NEMA OS 1, galvanized steel.
- b.) Cast Metal: Cast ferroalloy, deep gasket, gasketed cover, threaded hubs.

2.4 Building Wire and Cable

2.4.1 Feeders and branch circuits larger than 6 AWG; copper stranded conductor, 600-volt insulation, THHN / THWN and XHHW.

2.4.2 Feeders and branch circuits 6 AWG and smaller; copper conductor, 600-volt insulation, THHN, THWN and XHHW. 6 and 8 AWG; stranded conductor, smaller than 8 AWG; solid conductor.

2.4.3 Control circuits; copper, stranded conductor, 600-volt insulation, THW.

2.5 Remote Control and Signal Cable

2.5.1 Control cable for class 1 remote control and signal circuits: Copper conductor, 600-volt insulation, rated 60-degree C, individual conductors twisted together, shielded, and covered with PVC jacket; (plenum rated).

2.5.2 Control cable for class 2 or class 3 remote control and signal circuits: Copper conductor, 300-volt insulation, rated 60-degree C, individual conductors twisted together, shielded, and covered with PVC jacket; UL listed; (plenum rated).

Part 3 Execution

3.1 Examination and Preparation

3.1.1 Verify that interior of building is physically protected from weather.

3.1.2 Verify that mechanical work that is likely to damage conductors has been completed.

3.1.3 Completely and thoroughly swab raceway system before installing conductors.

3.1.4 Electrical boxes are shown on drawings in appropriate locations unless dimensioned.

a.) Obtain verification from the College of junction box locations, and locations of outlets in offices and work areas, prior to rough-in.

b.) It shall be understood that any outlet may be relocated a distance not exceeding 5 feet from the location shown on the drawings prior to or during rough-in, if so directed by the College without additional cost to the College.

c.) Local switches which are shown near doors shall be located at the strike side of the door as finally hung, regardless of swing on the drawings.

3.2 Installation

3.2.1 Perform work according to NECA standard of installation.

3.2.2 Arrange conduit to maintain headroom and to present neat appearance.

a.) Route exposed raceway parallel and perpendicular to walls and adjacent piping.

b.) Maintain minimum 6-inch clearance to piping and 12-inch clearance to heat surfaces such as flues, steam pipes, and heating appliances.

c.) Maintain required fire, acoustic, and vapor barrier rating when penetrating walls, floors and ceilings.

d.) Route conduit through roof openings for piping and ductwork where possible; otherwise, route through roof jacket with pitch pocket.

- e.) Group in parallel runs where practical. Use rack constructed of steel channel. Maintain spacing between raceways or de-rate circuit Ampacities to NPA 70 requirements.
 - f.) Use conduit hangers and clamps; do not fasten with wire or pipe straps.
 - g.) Use conduit bodies to make sharp changes in direction.
 - h.) Terminate conduit stubs with insulated bushings.
 - i.) Use suitable caps to protect installed raceway against entrance of dirt and moisture.
 - j.) Provide no. 12 AWG insulated conductor or suitable pull string in empty raceways, except sleeves and nipples.
 - k.) Install expansion joints where raceway crosses building expansion or seismic joints.
 - l.) Use steel compression fittings with EMT conduits.
- 3.2.3 Install electrical boxes as shown on drawings, and as required for splices, taps, wire pulling, equipment connection and regulatory requirements.
- a.) Locate and install electrical boxes to allow access. Provide access panels if required.
 - b.) Locate and install electrical boxes to maintain headroom and to present neat mechanical appearance.
 - c.) Install pull boxes and junction boxes above accessible ceilings or in unfinished areas.
 - d.) Provide knockout closures for unused openings.
 - e.) Align wall-mounted outlet boxes for switches, thermostats and similar devices.
 - f.) Coordinate mounting heights and locations of outlets above counters and backsplashes.
 - g.) Use recessed outlets in finished area and where indicated.
 - h.) Secure boxes to interior wall and partition studs, accurately positioning to allow surface finish thickness.
 - i.) Use stamped steel stud bridges for flush outlets in hollow stud wall and adjustable steel channel fasteners for flush ceiling outlet boxes.
 - j.) Locate boxes in masonry walls to require cutting corner only. Coordinate masonry cutting to achieve neat opening for boxes.
 - k.) Do not install boxes back-to-back in walls; provide 6-inch separation, minimum; except provide 24-inch separation minimum in acoustic-rated walls.
 - l.) Do not damage insulation.

- 3.2.4 Install cable and wiring according to manufacturer's instructions
 - a.) Neatly train and secure wiring inside boxes, equipment and panelboards.
 - b.) Use wire pulling lubricate for pulling 4 AWG and larger wires.
 - c.) Support cables above accessible ceilings to keep them from resting on ceiling tiles.
 - d.) Make splices, taps, and terminations to carry full ampacity of conductors without perceptible temperature rise.
 - e.) Terminate spare conductors with electrical tape.
- 3.2.5 Install wiring devices according to manufacturer's instructions.
- 3.2.5 Install wall plates flush and level.
 - a.) Install plates on switch, receptacle and blank outlets in finished areas.
 - b.) Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above ceilings and on surface-mounted outlets.
- 3.2.7 Install service fittings according to manufacturer's instructions.
- 3.2.8 Before installing raceways and pulling wire to any mechanical equipment or plumbing equipment, verify electrical characteristics with final submittal on equipment to ensure proper number and AWG of conductors.

Division 17. Electrical – Voice Data (17000)

Part 1 General

1.1 Requirements / Conditions

1.1.1 Reserved.

Note: As each construction project is different relating to the construction documents and accompanying data; the contractor shall review a final list of requirements with the building code administrator.

End of Appendix F