



**2011
CONSTRUCTION GUIDELINES
FOR COMMERCIAL PROJECTS**

City of Olive Branch, Mississippi

PREFACE

A GUIDE FOR DESIGNERS AND CONTRACTORS

Building construction can be a very complicated process. Considerable data must be examined by the City of Olive Branch to insure conformance to the adopted codes of the city, which are adopted to protect the life, safety and welfare of the public. Properly constructed buildings last longer and are easier to maintain. Also, codes, materials and methods change and it is very important that systems and materials be applied correctly. The more information is shared and the more standardized the format, the more efficient the process is overall.

The following guidelines are provided to assist property owners, contractors and design professionals with the design and construction of commercial projects within the provisions of the adopted Building Codes, Zoning Ordinance and other Olive Branch ordinances. Please read them carefully and understand that they do not include all of the code requirements, but are summarized for this guideline. Any questions can be directed to the Fire Prevention Division.

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CITY OF OLIVE BRANCH, MISSISSIPPI CONSTRUCTION GUIDELINES FOR COMMERCIAL PROJECTS

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City of Olive Branch

CONSTRUCTION GUIDELINES FOR COMMERCIAL BUILDINGS

Current Adopted Codes

Ordinance # 07-12-180

The Construction Codes currently adopted by the City of Olive Branch are as follows:

- 2009 International Building Code (IBC) with Appendixes I,K
- 2009 International Existing Building Code
- 2006 International Property Maintenance Code
- 2006 International Plumbing Code (IPC)
- 2006 International Mechanical Code (IMC)
- 2006 International Fuel Gas Code (IFGC)
- 2009 International Fire Code (IFC) with all Appendixes
- 2005 National Electrical Code (NEC)
- 2006 International Residential Code Appendixes E, G, P (5,000 sq. ft.), Q
- ANSI 117 of the Americans with Disability Act / 2003

And all local adopted ordinances and amendments to above codes.

City of Olive Branch

SECTION ONE

NEW BUSINESS

General Information

If your project is located in a planned district you may be required to file an application to the Planning Commission or the Board of Aldermen for preliminary approval. A site plan review is typically included in this process. If the project is near a state highway, approval from the Mississippi Department of Transportation will be required. A parking plan must be submitted for all projects.

Plans that are incomplete, defaced, illegible or faded will not be accepted. Applicants whose projects include food or liquor service facilities, such as restaurants, should make applications to the county health department and appropriate liquor boards. In the City of Olive Branch the Board of Aldermen must approve all liquor licenses. Final approval for plans will not be granted until Olive Branch Fire Department has approved the plans and issued a permit. For information or to schedule an inspection call the Olive Branch Fire Department at 662-890-7376.

PERMIT INFORMATION

The following information is required to complete a building permit application.

- Lot number.
- Block number.
- Parcel number
- Subdivision.
- Contractor name, address and phone number.
- If LLC, PC or LLP, corporate number and information of all officers and registered agent will be required.
- City of Olive Branch business license number. Licenses may be obtained through the Planning Department at 662-892-9238
- Architect/Engineer name, address, phones number and professional license number.
- Class of work (new, addition, alteration, repair, move, remove, etc.).
- Valuation of work (cost to build minus profit and lot cost).
- Former use of building to proposed use of building.
- Signature of agent.
- Signature of owner.
- Sub-contractors list with name, address of LLC, PC or LLP, corporate number and information of all officers and registered agent will be required.
- One sets of plans sealed by a Mississippi registered engineer.
- One PDF file of all applicable drawings.
- Deed showing ownership of property

DEFINITIONS

Actual Building Area vs. Allowable Area – Based on type of construction and occupancy. Refer to 2003 IBC, Chapter 5.

Base Flood Elevation – Minimum basement floor elevation to comply with City Flood Plain Management Ordinance based on the National Flood Insurance Program (NFIP). Builder must submit flood-proofing design to a height of 1' (one foot) above the Base Flood Elevation (BFE). Calculations, details, and approved technical data shall be provided as evidence of compliance and provided with a completed flood plain development permit application.

Drawing Index – Should be complete with Drawing Numbers, Drawing Title and Revision Numbers.

Occupancy Classification – Structure is to be designed according to its occupancy. Refer to 2006 IBC Chapter 3. Classifications include:

A-1. For the production and viewing of the following:

- Performing arts
- Motion pictures

A-2. For the consumption of food and/or liquor. Includes the following building types among others:

- Banquet halls
- Taverns and bars
- Night clubs
- Restaurants

A-3. For the following functions:

- Worship
- Recreation
- Amusement
- Gatherings

A-4. Spaces for viewing indoor sporting activities with spectator seating:

- Arenas
- Skating rinks
- Swimming pools
- Tennis courts

A-5. For the following functions:

- Participating in outdoor activities
- Amusement park structures
- Bleachers
- Grand stands
- Stadiums

B. Includes buildings or parts of buildings used for the following:

- Offices
- Professional transactions
- Service transactions
- Storage of records
- Storage of accounts

E. Includes buildings or parts of buildings used as follows:

Buildings with the following characteristics,

- Serving 12th grade or lower
- Serving more than 6 people at one time or
- Day care

F. Includes buildings or parts of buildings used for any of the following functions which are not classified as Occupancy H.

- Assembling
- Disassembling
- Fabricating
- Finishing
- Manufacturing
- Packaging
- Repair
- Processing operations

F-1. Moderate-Hazard Occupancy includes factory and industrial functions such as:

- Aircraft
- Publishing
- Rug cleaning
- Printing
- Textiles
- Laundries
- Food processing
- Cabinet making
- Carpet cleaning

For a complete list of F-1 refer to 2006 IBC, Section 306.2.

F-2. Factory Industrial Low Hazard Occupancy includes factory and industrial functions that use noncombustible materials that do not cause significant fire hazards.

H, H-1, H-2, H-3. Hazardous Occupancies. Buildings that contain Class Class II and Class III-A flammables, combustible materials or I that pose physical hazards or health hazards.

I-1, I-2, I-3, I-4. Institutional occupancies that include:

- Medical treatment
- Residential board and care facilities
- Halfway houses
- Group homes
- Convalescent facilities

For a complete list of Institutional occupancies, refer to 2006 IBC, Section 308.

M. Mercantile. Includes buildings or parts of buildings used for the display and sale of merchandise.

R-1. Buildings where residents are primarily transient:

- Hotels
- Motels
- Transient boarding houses

R-2. Buildings with more than 2 dwelling units; residents are primarily permanent:

- Apartment houses
- Dormitories
- Fraternities and sororities

R-3. Buildings with less than 2 dwelling units; residents are primarily permanent:

- Single family homes

R-4. Residential care/assisted living facilities with the number of residents served is more than 5 and less than 16.

S-1, S-2. Includes buildings or parts of buildings used for storage.

For a complete list of S occupancies refer to 2006 IBC, Section 311.

U. Utility and Miscellaneous. Buildings or structures that are not in any other occupancy classification:

- Agriculture buildings
- Barns
- Carports
- Fences
- Stables
- Towers
- Sheds
- Greenhouses

Parking Plan – A plan showing the number of vehicle parking spaces provided, with ingress, egress, location, dimensions, driveways, loading spaces, accessible spaces, off street parking, shared parking, landscaping and screening as per the Zoning Ordinance.

Planned District – (PUD & PUB) These districts provide primarily for transition areas so as to achieve the highest and best use of the land while preserving the adjacent properties. Permits can only be issued after Planning Commission and Board of Aldermen review of the plans and proposed uses. Please inquire for application requirements.

Structural Codes Analysis – 2006 IBC, Chapter 16 shall follow the engineering standards format and content.

Type of Building Construction –

Non Combustible, Protected, IA, IB, IIA;

Non Combustible, Unprotected, IIB;

Combustible, Protected IIIA, IV, VA;

Combustible, Unprotected IIIB, VB

(Most cases A=Protected, B=Unprotected)

(I & II Non Combustible; III, IV, V, Combustible).

SITE PLAN

Plans shall be designed and stamped by a Mississippi registered design professional.

General Information to be included on plans:

- Vicinity map, north arrow, property boundaries, zoning district boundaries, adjoining property zoning and specific land use.
- Date and scale: Scale must be no larger than 1:20 and no smaller than 1:50 unless otherwise approved by the Community Development Director. Plans must be fully dimensioned for critical dimensions.
- Show exact location of proposed building in relation to property lines.
- Existing buildings, streets, parking areas, trees, signs, etc.
- Note the use of all existing and proposed buildings or structures.
- Topographical information (minimum five foot contours).
- Grades and elevation of the site and buildings.
- Rights-of-way width and grade.
- Street names.
- Pavement width.
- Surface materials of vehicular travel area and medians.
- Curb, gutter or ditch sections.
- Existing or proposed public or private sidewalk location and material.
- Plan view of all improved, extended and widened streets, public or private.
- Internal traffic circulation details.
- Location of any off-site parking.
- Detail to show compliance with disabled accessibility requirements.
- Disabled parking spaces.
- Vehicular stacking space areas.
- Driveway and access point locations, and widths, opposing driveways and all off-site impediments to the proposed driveway.
- Open Space and Landscaping:
 - Calculations for open space requirements and open space shown on plans.
 - Show wetlands, surface water areas.
 - Landscape plans showing requirements of City code where applicable.
 - Description of vegetation to be retained and removed.
 - Identify all protected areas, including but not limited to, conservation management areas, natural resource buffer yards and screening.
 - Lighting, signage, landscaping and fencing details.

PLAN INFORMATION

Plans must be prepared by a Mississippi licensed architect or engineer. All plans must be wet sealed and signed by the design professional with registration numbers. The architect or engineer of record is to be specified on the first sheet of the plans; this individual will be responsible for reviewing and coordinating all submitted documents prepared by others, per 2006 IBC 106.3.4.1.

Construction documents shall be dimensioned and drawn upon suitable material, such as bluelined, or photo copied on substantial paper, a minimum of 18" x 24". The minimum scales on most plans is 1/8" = 1'-0". Civic drawings can be plotted on to smaller scale, such as 1" = 30'. Construction documents shall be of sufficient detail and clarity to indicate the location, nature and extent of the work proposed and that it will conform to the provisions of the adopted codes and relevant laws, ordinances, rules and regulations as determined by the plan reviewer.

Plans must state or declare any hazardous materials, which may be used or stored in the proposed building. A Material Safety Data Sheet shall be attached for any proposed chemicals. If asbestos or any types of "air emissions" are proposed they shall clearly be called out on plans.

BUILDING PLAN REQUIREMENTS

Building plans submitted for review shall consist of One set of complete building plans and one PDF file of all applicable drawings. One copy of all support documents and calculations. All plans shall be stamped or sealed by a Mississippi licensed design professional. Plans shall show the following information:

1. Title Sheet

- a. Project name
- b. Project address if known
- c. Name and address of owner
- d. Assessor's parcel identification number
- e. Zoning classification
- f. Building code designed to

2. Building Data

- a. Occupancy (use group)
- b. Construction type
- c. Automatic sprinklers Yes No (see local amended square footage requirements)
- d. Mezzanine Yes No
- e. High rise Yes No
- f. Building height (allowable and proposed)
- g. Building area allowable
- h. Building area proposed
- i. Occupant load
- k. Earthquake design
- l. Wind speed design
- m. Any exceptions taken and code sections

3. Exit requirements

- a. Exit requirements per Table 1004.1.1. 2006 IBC and exits provided
- b. Required exit width per Table 1005.1. 2006 IBC and exit width provided
- c. Life safety plan and travel distances
- d. Fire resistance rating per Table 601, 602. 2006 IBC

4. Reference symbols

5. Architectural drawings shall show the following:

- a. Floor plan, plan detail, section detail
- b. Roof plans, roof plan details, building section
- c. Exterior building elevations
- d. Wall section, section details
- e. Frame elevation, door/frame types, door schedule and details

6. Structural drawings

- a. General structural notes
- b. Foundation plan
- c. Foundation sections and details

- d. Framing section and details
- e. Roof framing plans
- 7. **Mechanical**
 - a. Mechanical plans
 - b. Mechanical detail

- 8. **Plumbing**
 - a. Plumbing plans
 - b. Plumbing detail

- 9. **Electrical**
 - a. Electrical plans
 - b. Electrical details

NEW BUILDINGS **ARCHITECTURAL PLANS**

Provide architectural plans with the following information as it relates to the particular project.

- The minimum entrance for any facility shall be 20' on the incoming driveway to the facility. All gates shall be pre-approved by the Fire Marshal.
- **One PDF copy of all applicable drawings.**
- For any building constructed with any part of the structure below the regulatory flood plain elevation, flood-proofing certification must be provided at time of plan submittal with an approved flood plain development permit.
- Applicant shall provide a statement of special inspection prepared by the design professional when required by the 2006 IBC, Section 1704.
- If appropriate for the proposed occupancy, submit complete data on types and amounts of materials to be stored, processed, manufactured or used in the manufacture of products in the facility. State if such materials are corrosive, poisonous, under pressure, in liquid or gaseous state, radioactive or other relevant properties.
- A letter of certification of fire resistance must accompany all fabric awnings or canopies from the manufacturer. Fabric awnings and canopies must meet the ground snow loads and be constructed to support all live and dead loads as specified in the 2006 IBC.
- Provide on the plans the calculations for the means of egress widths for the entire floor occupancy load and the exiting capacity of all exits including all stairs, doors, corridors and ramped exits.
- Architectural floor plans of each floor showing the location and ratings of all walls proposed for the project.
- Provide wall legend showing each type of rated and non-fire rated walls and reproduce all applicable UL/FM details for the walls on the drawings.
- The total square footage of each floor shown on the corresponding floor plans.
- As applicable to the project, provide all UL floor and ceiling and ceiling and roof fire-rated design assemblies.
- The names and use of each room.
- Door schedule that defines all doors, rated doors, frames, and hardware.

- Show elevation with dimensions, defining overall building height, floor-to-floor heights, or heights to ridge and eave as applicable to the type of building construction proposed.
- A roof plan showing roof slopes, drainage system and through wall scuppers, if applicable to the project.
- For assembly occupancy only, provides 2 (two) drawings showing the seating layout for determination of occupancy posting.
- Wall sections showing material sizes, construction and fire-rated assemblies as applicable to the project.
- If plans are for a “shell building”, show all proposed plumbing, HVAC and electrical rough-in work (if any is to be included) on the plans. Tenant demising walls must not be constructed under “shell only” permit and must not be shown on the shell drawings.
- If masonry construction is proposed, include the following:
 - All masonry construction shall comply with Chapter 21 of the 2006 International Building Code.
 - Type of brick ties and spacing of weep holes.
 - Control joints
 - Placement of wall flashing.
- For pre-engineered metal buildings, submit manufacturer’s letter of engineering, Mississippi engineered sealed foundation plan and complete architectural plans. The letter of engineering certification shall state the model number, size and design loads for the building. A Mississippi registered architect or engineer must design the foundation and show the size and reinforcement of footings or turn down slabs and reaction loads for all columns. Also specify reinforcing, bolt pattern and bolt size for the building.

FIRE PROTECTION PLANS

Provide fire protection plans with the following information as it relates to the particular project. All fire protection plans must be approved by the Olive Branch Fire Department and comply with the 2009 IFC and NFPA standards and requirements. Contact the Olive Branch Fire Department for local amendments to the International Fire Code.

- A site plan must be provided with Knox Box location, fire department connections and all hydrants shown.
- A sprinkler design data sheet completed and included on the first plan of the sprinkler drawings.
- Floor plans for each floor showing sprinkler piping layout, pipe sizes, pipe hanger detail, piping materials, doors, walls and roof identities.
- Ceiling plans showing sprinkler head/s layout, walls, soffits, openings, doors, dimensions and room identities.
- Verify system design by providing hydraulic calculations along with the following information:
 1. Recent water flow test and location of test
 2. 10 PSI safety margin
 3. Fire pump summary
- All fire-rated walls shown on each applicable floor plan along with a corresponding wall legend.
- Show all applicable UL/FM penetrating procedure details used to maintain the integrity of the rated assemblies for each type of penetration.
- ANY BUILDING LARGER THAN 100,000 SQUARE FEET SHALL HAVE A 12" LOOP INSTALLED AROUND BUILDING.
- The hydrant dedicated for the FDC, shall be connected directly to the City main and be located within 10 feet of the FDC. Location shall be approved by the Fire Marshal.
- Signs shall be installed on the outside of the building indicating each location and number of any wall PIV in relation to its corresponding riser. All riser locations shall be indicated with signage on the exterior of the building. Pump room shall be marked as such.

The fire alarm system shall be annunciated in all parts of the structures on any fire alarm. **IFC 907**

The fire alarm system shall be of an addressable type, with point by point monitoring of all signals. Points shall be dispatched with location.

*The Fire Prevention Division will only approve required commercial fire alarm systems that meet all requirements of "open source" systems.

An "open source" fire alarm life safety system, or other electronic system, is one where the parts, supplies, programming, and all other portions and aspects of the system are available from multiple independent, competitive dealers. **OBFD**

The fire alarm contractor will be responsible for a a runner service with a one hour response on any fire alarm event. The contractor will also be responsible to follow NFPA 72 guidelines for supervisory and trouble conditions related to technician response.

**ANY CONTRACTOR WHO TIES INTO THE CITY MAIN
AND LAYS UNDERGROUND PIPE FOR FIRE
PROTECTION SHALL BE A LICENSED SPRINKLER
CONTRACTOR AS REQUIRED BY CITY ORDINANCE.**

STRUCTURAL PLANS

Provide structural plans with the following information as it relates to the particular project.

- Provide complete footing and foundation plans.
- A footing schedule defining footing sizes and required reinforcing.
- Show the established footing depth below grade.
- The thickness of the floor slab and size of reinforcing must be shown
- Provide location, size and amount of reinforcing steel.
- Floor slab vapor barrier if applicable.
- Show foundation corner reinforcing bars and minimum overlapping (as applicable to project structure).
- Provide strength of concrete according to design.
- Wood beams, joists, girders, headers, rafters and/or truss design and layouts (with reactions shown) and details of connections.
- The sizes, species, and design strength of all members.
- All steel columns, girders, joists, purlins, beams and base plates.
- A complete lintel schedule must be provided if lintels are used.
- Type of anchoring for steel bearing directly on masonry.
- Complete shop drawings for pre-cast concrete and masonry units.
- The total of dead and live loads for floor areas, roofs, balconies, porches, breezeways, corridors, stairs, mezzanines and platforms.
- Shear walls, bracing strapping, fastening, reinforcement and any special anchoring required.
- Indicate on roof framing plan where concentrated loads (such as mechanical equipment) may be placed
- Complete structural plans for canopies over entrances, and exterior exit stairs.

MECHANICAL PLANS

Provide mechanical plans with the following information as it relates to the particular project.

- Mechanical floor plans for each floor.
- The size of all duct runs clearly labeled and delineated on the drawings.
- Controls for fan shut down indicated on plans.
- The location and installation details of all fire dampers, smoke dampers and fire doors.
- Show all fire-rated walls on each applicable floor plan with a corresponding wall legend.
- All applicable UL/FM penetrating procedures used to maintain the integrity of the rated assemblies must be detailed for each type of penetration.
- Refrigerant system requirements.
- Commercial kitchen equipment drawings shall be sealed by a design professional.

PLUMBING PLANS

Provide plumbing plans with the following information as it relates to the particular project.

- Indicate all supply and waste piping for each floor, with riser drawings.
- Indicate roof drainage plan including secondary drainage system on the roofing as well as calculations for leaders, with riser drawings.
- A fixture and equipment schedule as well as supply and waste/vent riser diagrams provided for all units on all floor levels.
- Show the number of water closets for each sex with locations indicated on each floor plan.
- Grease interceptors (as applicable to project) shall be provided and sized by flow rate per minute, IPC Table 1003.3.4.1.
- Show all fire rated walls on each applicable floor plan with corresponding wall legend.
- All applicable UL/FM penetrating procedures used to maintain integrity of rated assemblies shall be detailed for each type of penetration.
- Detail types and location of backflow devices.

ELECTRICAL PLANS

Provide electrical plans with the following information as it relates to the project.

- Power plans for each area. Indicate all device and equipment locations/direct hook-ups. Show and size all equipment disconnects.
- Lighting plans (on reflective ceiling plans) for each area. Indicate control location, fixture and lamp types, number of lamps and ballasts, and voltage of operations.
- Locations of all services, service disconnects, panels, transformers and distribution equipment.
- All panel schedules. Include branch wiring and over current (O.C.) device size(s).
- Both 'connected' and 'code' load calculations for all panels, busses, feeders, generators, and services, per 2005 NEC 220, 700, 701, 702.
- A single line-riser diagram (2005 NEC 215-5), showing service and feeder wire, equipment grounds, conduit, and O.C. device sizes, fuse types, maximum available fault current, and equipment and device bracing. Include transformer sizes, grounding electrode conductors, grounding bonding jumper sizes and identify grounding electrodes to be used.
- Location of all services [2005NEC 230-2 (with plaques if required)] per 2005 NEC 230-70a.
- Wiring methods to be used including conductor material and insulation types, and conduit types.
- All life safety requirements, such as fire alarm systems and special power requirements with locations of exit signs and emergency egress illumination. Single line-riser diagram showing panel(s) and devices for fire alarm systems.
- If applicable, a note on plans indicating that no hazardous materials are stored or used on premises and that no area is deemed a hazardous area per NEC definitions.
- It is suggested that plan details required as to 2005 NEC Chapter 5 (special occupancies), Chapter 6 (special equipment), or Chapter 7 (special conditions), should be discussed with the Building Safety Division in advance of plan submittal.

City of Olive Branch, Mississippi

SECTION TWO COMMERCIAL TENANT FINISH

The following check list is to be used for all commercial alterations and renovations as applicable to your project. Plans must be complete relative to the requirements listed below when submitted for permit review. Incomplete plans will be returned without review. Major revisions, which require a re-review after permit issuance, may cause the permit to be voided and require a new submittal as well as additional fees. The requirements listed below are divided into general requirements; Plans, Architectural, Fire Protection, Plumbing, Mechanical and Electric.

PLANS

- Plan submittals must include 1 (one) copy of all project drawings drawn to scale with sufficient detail to indicate the nature and character of work to be done.
- One PDF copy of all applicable drawings.
- An original City of Olive Branch permit application must be completed in its entirety including a tenant suite number for each project submitted for permit review.
- All plans and specifications must contain information (in the form of notes or otherwise) on the technical properties of the building materials to be used where such properties are essential to show compliance with technical building codes. Code reference used shall be specific.
- Each discipline plan set shall include a legend defining all symbols used.
- Minimum plan text height shall be 3/32" actual size.
- Confirm installation of Knox Box on structure
- Clearly delineate all new and existing work.
- All plans dated and signed by the designer; professional seal, signature and date, when applicable to the project, must appear on each sheet of the drawings.
- If the work involves only a portion of the building, provide a key plan showing the entire building with the area of new construction highlighted.
- All fire rated walls (both existing and new) shown on all plans (architectural, fire protection, plumbing, HVAC and electric). Plans submitted without fire-rated walls shown on plans will be rejected. Provide a wall legend of each type of rated wall system to be used on all plans.

- The permit application must indicate construction valuation (cost of materials, supplies and labor only, no lot cost or profit included).
- Incomplete plans will be returned without review. Major revisions, which require a re-review after permit issuance, may cause the permit to be voided, require a new submittal and be subject to additional fees.

ARCHITECTURAL PLANS

Provide architectural plans with the following information as it relates to the particular project.

- Architectural floor plans for each floor of proposed construction showing existing construction and new construction with sufficient detail to indicate the nature and character of work to be done. Highlight all new construction.
- The name and use of each room.
- Sufficient dimensions to calculate areas and size of each room.
- A door schedule that defines the applicable rated and non-rated doors, hardware and frames.
- If the building has more than one tenant, indicate the occupancy and hourly rating separating tenants and provide the applicable UL/FM design.
- Assembly for tenant demising wall.
- Provide a typical wall section of all rated wall types to be used in construction of tenant finish.
- Show all fire-rated walls (both existing and new) on each applicable floor plan. (Example: for multi-storied buildings, the existing stairwells, elevator shafts, chases, exit access corridors and other rated elements must show existing fire ratings.)
- All applicable UL/FM penetrating procedures used to maintain the integrity of the rated assemblies must be detailed for each type of penetration.
- As applicable to the project, provided all UL floor and ceiling and ceiling and roof fire-rated design assemblies.

FIRE PROTECTION PLANS

Provide fire protection plans with the following information as it relates to the particular project.

- Floor plans indicating sprinkler-piping layout, pipe sizes, pipe hanger details, piping materials, doors, walls and room identities.
- Ceiling plans must show sprinkler head layout, walls, soffits, openings, doors, dimensions and room identities.
- A sprinkler design data sheet completed and provided on the first plan of the sprinkler drawings.
- Verify systems design by providing hydraulic calculations or APE schedule, recent water flow test and fire pump summary.
- All fire-rated walls (both existing and new) shown on each applicable floor plan.

PLUMBING PLANS

Provide plumbing plans with the following information as it relates to the particular project.

- Supply and waste piping plans for each floor.
- A fixture and equipment schedule, as well as supply and waste/vent riser diagrams, for all units on all floor levels.
- The number of water closets for each sex with locations indicated.
- Grease traps (as applicable to project) provided and shown.
- All fire-rated walls (both existing and new) shown on all floor plans with a corresponding wall legend.
- Show all applicable UL/FM penetrating procedures.

MECHANICAL PLANS

Provide mechanical plans with the following information as it relates to the particular project.

- Mechanical floor plans for each floor.

- The size of all duct runs clearly labeled and delineated.
- The location and installation details of all fire dampers, smoke dampers and fire doors.
- Controls for fan shut downs.
- All fire-rated walls (both existing and new) shown on each applicable floor plan with a corresponding wall legend.
- All applicable UL/FM penetration procedures used to maintain integrity of the rated assemblies must be detailed for each type of penetration.
- A design professional shall seal commercial kitchen equipment drawings.

ELECTRICAL PLANS

Provide electrical plans with the following information as it relates to the particular project.

- Power plans for each tenant finish. Indicate all device and equipment locations, show and size all equipment disconnects.
- Lighting plans (on reflective ceiling plans) for each tenant finish area. Indicate control locations, fixture and lamp types, number of plans and ballasts, and voltage of operation.
- Locations of all services, service disconnects, panels, transformers and distribution equipment (new and existing) within space and/or where affected by this project. (2005 NEC 110.26, 240.21 and 384.4).
- All panel schedules (new and existing) within space and/or where affected by this project. Include branch wiring and over current device size(s).
- Both new and existing load calculations for all panels, busses, feeders, generators, and services, (2005 NEC. 220, 700, 701, 702).
- A single line-riser diagram in accordance with 2005 NEC. 215.5, showing service and feeder wire, equipment grounds, conduit, and O.C. device sizes, fuse types, transformer sizes, grounding electrode conductors, grounding bonding jumper sizes. Identify grounding electrodes used.
- Location of all new and existing services per 2005 NEC 230.2 (with plaques if required).

- Show compliance with 2005 NEC 230-70A.
- Show all fire rated walls, ceiling and roof assemblies, or other fire-rated elements on each electrical floor plan with corresponding legend. Indicate all applicable UL/FM penetrating procedures used to maintain the integrity of rated assemblies.
- Show all life safety requirements, such as fire alarm systems and special power requirements with locations of exit signs and emergency egress illumination. Single line riser diagram showing panel(s) and devices for fire alarm systems.
- If applicable, note on plans indicating that no hazardous materials are stored or used on premises and that no area is deemed a hazardous area per NEC definitions.

FIRE ALARM PLANS

NFPA 72, 2007 Edition

4.3 Equipment and Personnel.

- **4.3.1 Equipment.** Equipment constructed and installed in conformity with this Code shall be listed for the purpose for which it is used. Fire alarm system components shall be installed, tested, and maintained in accordance with the manufacturer's published instructions and this Code.
- **4.3.2 System Designer.**
 - **4.3.2.1** Fire alarm system plans and specifications shall be developed in accordance with this Code by persons who are experienced in the proper design, application, installation, and testing of fire alarm systems.
 - **4.3.2.2** The system designer shall be identified on the system design documents. Acceptable evidence of qualifications or certification shall be provided when requested by the authority having jurisdiction. Qualified personnel shall include, but not be limited to, one or more of the following:
Personnel who are factory trained and certified for fire alarm system design of the specific type and brand of system being designed
- (2)* Personnel who are certified by a nationally recognized fire alarm certification organization acceptable to the authority having jurisdiction
Personnel who are registered, licensed, or certified by a state or local authority
- **4.3.3 System Installer.** Installation personnel shall be qualified or shall be supervised by persons who are qualified in the installation, inspection, and testing of fire alarm systems. Evidence of qualifications or certification shall be provided when requested by the authority having jurisdiction. Qualified personnel shall include, but not be limited to, one or more of the following:
 - Personnel who are factory trained and certified for fire alarm system installation of the specific type and brand of system being installed
 - (2)* Personnel who are certified by a nationally recognized fire alarm certification organization acceptable to the authority having jurisdiction
 - Personnel who are registered, licensed, or certified by a state or local authority

4.4.4.2 Installation and Design.

- **4.4.4.2.1*** All systems shall be installed in accordance with the specifications and standards approved by the authority having jurisdiction.

4.5 Documentation.

4.5.1 Approval and Acceptance.

- **4.5.1.1*** The authority having jurisdiction shall be notified prior to installation or alteration of equipment or wiring. At the authority having jurisdiction's request, complete information regarding the system or system alterations, including specifications, type of system or service, shop drawings, input/output matrix, battery calculations, and notification appliance circuit voltage drop calculations shall be submitted for approval.
 - **4.5.1.2** Before requesting final approval of the installation, if required by the authority having jurisdiction, the installing contractor shall furnish a written statement stating that the system has been installed in accordance with approved plans and tested in accordance with the manufacturer's published instructions and the appropriate NFPA requirements.
 - **4.5.1.3*** The record of completion form, Figure 4.5.2.1, shall be permitted to be a part of the written statement required in 4.5.1.2. When more than one contractor has been responsible for the installation, each contractor shall complete the portions of the form for which that contractor had responsibility.
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- **8.2.4 Certificated or Placarded.** The prime contractor shall conspicuously indicate that the fire alarm system providing service at a protected premises complies with all the requirements of this Code by providing a means of third-party verification, as specified in 8.2.4.1 or 8.2.4.2.
 - **8.2.4.1** The installation shall be certificated .
 - **8.2.4.1.1** Fire alarm systems providing service that complies with all the requirements of this Code shall be certificated be by the organization that has listed the central station.
 - **8.2.4.1.2** A document attesting to certification shall be located on or within 1 m (36 in.) of the fire alarm system control unit or, if no control unit exists, on or within 1 m (36 in.) of a fire alarm system component.

IFC 2009

907.1.1 Construction documents.

- Construction documents for fire alarm systems shall be submitted for review and approval prior to system installation. Construction documents shall include, but not be limited to, all of the following:
 - A floor plan which indicates the use of all rooms.
 - Locations of alarm-initiating and notification appliances.
 - Alarm control and trouble signaling equipment.
 - Annunciation.
 - Power connection.
 - Battery calculations.
 - Conductor type and sizes.
 - Voltage drop calculations.
 - Manufacturers, model numbers and listing information for equipment, devices and materials.

- Details of ceiling height and construction.
 - The interface of fire safety control functions.
 - **907.1.2 Equipment.**
Systems and their components shall be listed and approved for the purpose for which they are installed.
1. The fire alarm system shall be annunciated in all parts of the structures on any fire alarm. **IFC 907**
The fire alarm system shall be of an addressable type, with point by point monitoring of all signals. Points shall be dispatched with location.
*The Fire Prevention Division will only approve required commercial fire alarm systems that meet all requirements of “open source” systems.
An “open source” fire alarm life safety system, or other electronic system, is one where the parts, supplies, programming, and all other portions and aspects of the system are available from multiple independent, competitive dealers. **OBFD**
 2. The fire alarm contractor will be responsible for a a runner service with a one hour response on any fire alarm event. The contractor will also be responsible to follow NFPA 72 guidelines for supervisory and trouble conditions related to technician response.

City of Olive Branch Mississippi

SECTION THREE

COMMERCIAL ALTERATIONS and RENOVATIONS

PLAN SUBMITTAL REQUIREMENTS

The following checklist is applicable for all new commercial alterations and renovations. Plans must be complete relative to the requirements listed below when submitted for permit review. Incomplete plans will be returned without a review. Major revisions, which require a re-review after permit issuance, may cause the permit to be void and require a new submittal as well as additional fees. The requirements listed below are divided into general requirements as follows; site, architectural, fire protection, plumbing, mechanical and electrical.

GENERAL REQUIREMENTS PLANS

- Provide One (1) copy of all project drawings, drawn to scale with sufficient detail to indicate the nature and character of work to be done.
- **One PDF copy of all applicable drawings.**
- An original City of Olive Branch building permit application completed in its entirety, including a tenant suite number, if applicable, for each project submitted for review.
- All plans and specifications must contain information (in the form of notes or otherwise) on the technical properties of the building materials to be used where such properties are essential to show compliance with technical building codes. Code references used shall be specific.
- Each discipline plan set shall include a legend defining all symbols used.
- Minimum plan text height shall be 3/32" actual size.
- Clearly delineate all new and existing work.
- All plans must be dated and signed by the designer. Mississippi professional seals, with signature and date when applicable to the project, must appear on each sheet of the drawings.
- If the work involves only a portion of a building, provide a key plan showing the entire building with the area of the new construction highlighted.
- All fire-rated walls (both existing and new) shown on all plans (architectural, fire

- protection, plumbing, HVAC and electrical). A wall legend of each type of rated wall system shall be provided.
- Show locations of concentrated loads and total loads.
- The permit application must indicate construction valuation (cost of materials, supplies and labor only, no lot cost or profit included).
- Incomplete plans will be returned without review. Major revisions, which require a re-review after permit issuance, may cause the permit to be voided, require a new submittal and be subject to additional fees.

ARCHITECTURAL PLANS

Provide architectural plans with the following information as it relates to the particular project.

- Architectural floor plans for each floor of proposed construction showing existing and new construction provided with sufficient detail to indicate the nature and character of work to be done. Highlight all new construction.
- The name and use of each room with dimensions to calculate areas and site of each room.
- A door schedule that defines the applicable rated and non-rated doors, frames, and hardware.
- If the building has more than one tenant, indicate occupancy and hourly rating separating tenants and provide the applicable UL/FM rating for the tenant-demising wall.
- All fire-rated walls (both existing and new) shown on each applicable floor plan. (Example: for multi-storied buildings, the existing stairwells, elevator shafts, chases, exit access corridors and other rated elements must show existing fire ratings.)
- All applicable UL/FM penetrating procedures used to maintain the integrity of the rated assemblies detailed for each type of penetration.
- As applicable to the project, please provide all UL floor and ceiling and roof fire-rated design assemblies.

FIRE PROTECTION PLANS

Provide fire protection plans with the following information as it relates to the particular project.

- Floor plans showing sprinkler-piping layout, pipe sizes, pipe hanger details, piping materials, doors, walls and room identities
- Ceiling plans showing sprinkler heads layout, walls, soffits, openings, doors, dimensions and room identities.
- Sprinkler design data sheet completed and included on the first sheet of the sprinkler drawings.
- Verify the system design by providing hydraulic calculations or pipe schedule, a recent flow test and a fire pump summary.

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The fire alarm system shall be of an addressable type, with point by point monitoring of all signals. Points shall be dispatched with location.

*The Fire Prevention Division will only approve required commercial fire alarm systems that meet all requirements of "open source" systems.

An "open source" fire alarm life safety system, or other electronic system, is one where the parts, supplies, programming, and all other portions and aspects of the system are available from multiple independent, competitive dealers. **OBFD**

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City of Olive Branch

SECTION FOUR
COMMERCIAL INSPECTION REQUIREMENTS

Final Inspection

- The building or structure must be substantially complete and ready for occupancy, or the work for which the permit is required must be complete.
- The following items must be finalized before we will schedule an inspection:
 - All life and fire safety systems and accessories must be in place, functional and previously tested with proof.
 - All required fire stopping and draft stopping must be installed, i.e. penetrations, vertical/horizontal assemblies, smoke walls, fire door assemblies, etc.
 - All stairs, handrails and guardrails complete.
 - Attic and crawl space access and ventilation must be completed.
 - Attic insulation completed.
 - All ceilings covered up that are require to be.
 - All ramps, facilities and accessories to accommodate the handicapped must be in place.
 - Post-street numbers complete.
 - Parking lot and/or street improvements complete.

Olive Branch Fire Department Fee Schedule as of July 19, 2010

Annual Inspection fees: \$50.00

Day Care Center (Adult and Child)
Nursing Homes
Mental Health Facility
Alcohol and Drug Center
Counseling Center
Businesses with one of the following:
Fire Suppression Systems (Hood and Duct)
Fire Sprinkler Systems
Fire Alarm Systems
Liquefied Petroleum Gas
Paint Spray Booths or Spray Rooms

Additional Installation or Alteration to any Fire related building system: \$50.00

Fire Sprinkler System – 10 or more heads
Standpipe Systems
Fire Alarm Systems
Private Fire Hydrants
Fire Suppression (Hood and Duct)
Gate Installations
*Not All Examples Included

Burn Permit: \$250.00

Miscellaneous Permit Fees: \$150.00

Pyrotechnics
Blasting, Explosives
Flammable & Combustible Tank Inspections

Use & Occupancy permit fee: \$25.00 (only for existing buildings)

New Construction

Fire Dept Plan review fee: ½ the Building permit fee (Building permit is calculated by Building Dept)

(Includes plan review of building plans and final onsite inspection.)

Note* If sprinkler plans, alarm plans and suppression plans are turned in at the same time as building plans there are no additional fees

Fire Prevention Systems: \$75.00

Fire Sprinklers – (Plan review, overhead inspection and acceptance test)

Fire Alarm – (Plan review, overhead inspection and acceptance test)

Fire Suppression – (Plan review, smoke inspection and acceptance test)

***Failure to obtain any permit prior to review or installation shall result in double permit fees or \$100.00 minimum fee.**

****Fees can be paid at 9245 Pigeon Roost road across from City Hall at Fire Dept Headquarters. Only cash or checks are accepted at this time.**