



COMMERCIAL CONSTRUCTION GUIDELINES

June 15, 2004

Ed Berkel, Fire Marshal; extension 1703
Teresa Cross, Inspector; extension 1704

Greg Breher, Inspector; extension 1705
Beverly Lampe, Secretary; extension 1712

A fire prevention building permit is required for the following types of work, including, but not limited to:

New Buildings	Remodeling	Renovations
Additions	Change in Occupancy/Use Group	Move a Lot Line That Affects an Existing Building
Interior Finish	Fire Damage Repairs	Range Hood Suppression Systems
Sprinkler Systems	Underground Fire Mains	
Underground Fuel Tanks	Fire Suppression Systems	
Flood Damage Repairs		

You should apply for your fire permit simultaneously with your application with St. Louis County.

To apply you will need to bring the following items to our office at 11020 Mueller Road (Mueller intersects S. Lindbergh Blvd. between Tesson Ferry Road and I-55) and complete our permit application form: **Two sets of construction documents** and **one set of specifications**. All construction documents submitted shall bear an original embossed or wet ink seal and original signature on the front sheet of each discipline within each set of construction documents. Your application will then be assigned for plan review (the secretary can advise you which plan reviewer when you apply). Our maximum response time for review is four weeks, with most being in the one to three week range. If a plan review correction letter is sent to you, revised plans and/or addenda will need to be prepared to address the items noted. All revised construction documents submitted shall bear an original embossed or wet ink seal and original signature on the front sheet of each discipline within each set of construction documents. Please provide two copies of all revised documents. To complete our permit issuance, the following items need to be provided to us: one copy of the County Approved Plans and the pink copy of the County Permit Application (these will be returned to you when you pick up your permit) (this gives you one set of drawings with both agency approvals). Once we receive the County paperwork and all corrections have been made and approved, the permit is normally issued within a week.

Current Codes: *International Building Code*®/2003; *International Fire Code*®/2003.

MEHLVILLE FIRE PROTECTION DISTRICT

COMMON MISTAKES ON COMMERCIAL PROJECTS

- I. Preliminary meetings are very beneficial. We would prefer to meet with the Owner, Architect/Engineer, and St. Louis County. Obviously, simple interior finishes and small single tenant buildings do not typically require such a meeting. If you are doing anything unusual it probably would be helpful. Our staff will meet with you at our offices, your office or at St. Louis County. Typically, a couple of days notice is required for scheduling purposes. Our people also do the field inspections on the jobs they review, so they are not in the office all day.
- II. When making revisions, please cloud or otherwise identify the changes on your plans. This will make it much easier (less time consuming) to verify that the changes now comply with the code and/or adopting ordinance.
- III. Typical errors on plans include:
 - A. Failure to identify the correct code edition. Typically, the adoption dates for the County and the Fire District are not the same, so you need to verify the correct code edition before you begin design.
 - B. Failure to properly determine the Use Group of the building. This is the first thing that the design professional must do. Also remember that many buildings are mixed uses and you have several options within the code for dealing with them. Plans should clearly show which one of the mixed use options is being used, if applicable.
 - C. Once the Use Group is determined, the next thing that must be done is to determine the minimum type of construction allowed for the proposed building. The code clearly identifies each of the construction types and often we see a mixture of constructions within the building, e.g. metal stud walls and a wood truss roof. This would have to be classified as a type V or wood frame building since it does not comply with the fire resistance and combustibility requirements for a noncombustible type II building.
 - D. Failure to include a site plan. This typically occurs on franchise type operations where they have a limited number of plans and they use it throughout the country. Many construction requirements are based on building set back distances and accessibility to the building.
 - E. Failure to identify any hazardous materials (according to the *International Fire Code*[®]) and submit the information required to determine if a given occupancy is a high hazard or if limited amounts can be allowed within the basic use group. We have a separate handout that deals with submittals for occupancies storing, dispensing, using or handling hazardous materials. If you would like one, please contact our office.
 - F. Restaurants of types III, IV or V construction invariably run into problems with clearance to the combustible roof structure from the range hood exhaust duct. The *International Mechanical Code*[®] and *NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations* provide for several methods to reduce the clearance from the typical 18" minimum required to combustible materials.
 - G. Failure to identify the appropriate design number and details for any fire resistance rated assemblies in the structure. You need to identify the UL, Gypsum Association or FM design number and system used on the plans. Your details should clearly show the items required for construction from the chosen design. Notations such as AL-528 similar automatically throw up a RED FLAG to the plan reviewer that something does not agree with the tested design. Along with this, you need to show details of how you are going to protect penetrations of floor/ceiling assemblies and walls. Again we need reference numbers to tested and approved through-penetration firestop systems. Typically, we would expect to see sufficient detail for each size and type of opening to be protected.
 - H. Fire rated swinging fire doors are a complete assembly consisting of: fire rated door and frame; ball bearing hinges (three per door, typically); closer (if using spring hinges. Two are required per door), latching device (dead bolt is not acceptable), if panic hardware is required, it must be fire exit hardware, not just an exit device.

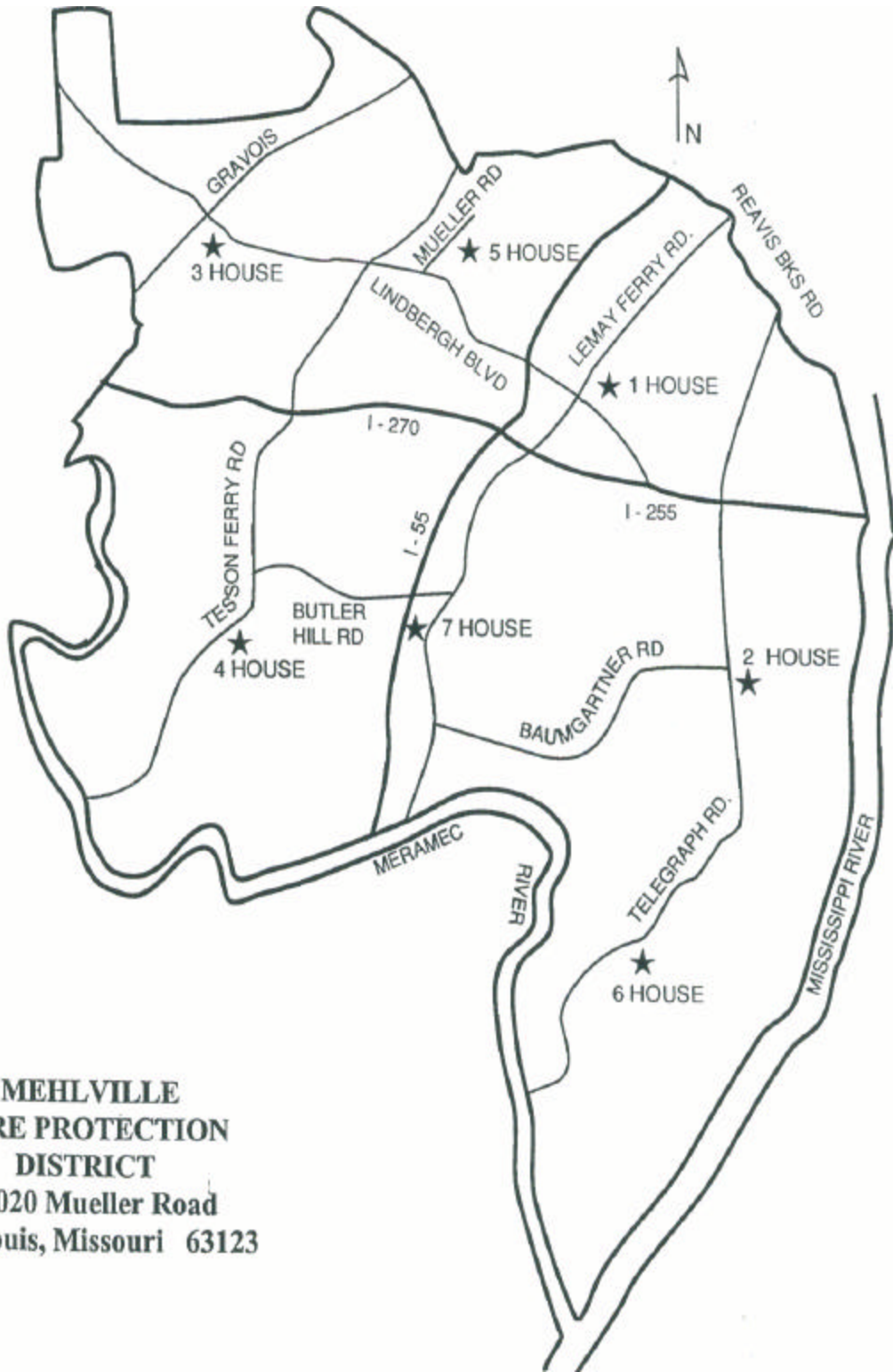
- I. Provide a complete hardware schedule. It is also helpful if you provide catalog cut sheets showing the lock functions so we can verify the hardware meets the egress requirements.
- IV. A fire prevention building permit is required **PRIOR** to the start of any construction. The permit is not just for inspections. If you need to start with the footings and foundations prior to the issuance of a permit, you need to send a letter requesting footing and foundation authorization to your plan reviewer. If the building height and area issues fire separation distance issues and exterior exiting are resolved, we will issue a footing and foundation letter. This will allow you to begin work **at your own risk**, before the actual permit issuance. If you go beyond that point, you will need your permit. In very rare cases, we have issued exterior wall and roof letters, but this is highly unusual.
- V. Typically, two inspections are required. A framing inspection is required **BEFORE** drywalling begins. All firestopping, electrical and mechanical work should be completed. We prefer to do this prior to the walls being insulated, although if insulated, it is not a problem. If your project is in phases, we will do however many inspections are needed. A final inspection is required **BEFORE** the tenant starts to move any of their equipment or stock into the building. If the complete structure is not ready for the final inspection, you can obtain a temporary occupancy permit (TOP) to allow this type of work. To obtain a TOP you will need a check for \$100 and to complete an application. This can be filled out at our offices. You will also need to know the fire prevention building permit number(s) for your project. The next working day after you apply for the TOP, we will conduct an inspection. All life safety items must be in place and operable; sprinkler systems, exit signs, and emergency lighting. It is to your advantage to make a test of all of these systems **BEFORE** you request the inspection. We are not the quality control inspectors, we are to verify that the systems comply with the code. It is also advantageous to coordinate the inspections, framing or final, with the Fire District and St. Louis County. This way, you will only have to test everything once for all agencies.
- VI. 24 hour notice is required for inspections. To call in the request:

call: **314-894-0420**

after the auto-attendant answers, press **2 2**

You are then in the voice mail box for inspections. Please clearly state your 8 digit Mehlville Fire Permit Number, the address and project for which you are requesting the inspection and whether this is for a framing or final inspection. You may also request AM or PM for the inspection and we will make every effort to facilitate that request.

Please do not call an inspector to request an inspection. This will probably slow down the process, depending upon when they get their messages and can call you back. If you need a specific time, you should talk to the inspector a couple days ahead of the inspection date to set up a time. If you only need a rough idea on a time, you can call the inspector the morning of the inspection, between 8:00 a.m. and 8:30 a.m. and they should be able to give you an approximate time.



**MEHLVILLE
FIRE PROTECTION
DISTRICT**
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