Williamson County
Emergency Services District No. 4
Liberty Hill Fire Department
www.libertyhillfire.org

SITE PLAN SUMITTAL GUIDELINES (COMMERCIAL PROJECTS)

This guide is intended as a resource for the civil construction drawings submittal requirements for commercial developments. Civil construction plans are reviewed to determine compliance with WCESD No.4 Fire Marshal's Office requirements as they relate to site construction, layout, building size, fire lanes, fire department access, fire hydrants, and other issues as designated. These requirements can be found in the 2015 International Fire Code, as adopted and amended by the WCESD No.4. In an effort to expedite the civil plan review process, please ensure the following list of items are incorporated into the proposed civil construction plans. Please submit plans to LHFDpermits.com

GENERAL COMMENTS

- Plat in the civil construction drawing set shall match the Plat approved by the City of Liberty Hill and/or Williamson County Engineering Department.
- The address on the site plan must be approved by Williamson County 911 Addressing Coordinator.

FIRE DEPARTMENT ACCESS

- Fire lane construction shall be in accordance with the Fire Department *Fire Lane Guidelines* and the construction detail shall be indicated on the submittal drawings.
- Approved, unobstructed fire department access (fire lane) shall be provided such that all portions of the exterior of the building shall be within 150 feet, as the hose lays, of a fire lane and/or public street. WCESD No.4 will allow this distance to be increased to 200 feet if the building(s) have a fire sprinkler system installed.
- Additional fire lanes may be required based upon the layout of the site and size of the building(s) with regards to Fire Department access, mutual/cross access, and special hazards or as designated by the Fire Marshal.
- Fire lanes must be shaded, or otherwise, clearly marked on the plans.
- Fire lanes must meet the following criteria:
    - Minimum width for fire lanes in WCESD No.4 District is 25 feet, if narrower widths are requested the Fire Chief must approve this request.
    - Turning Radii is 25 feet inside/ 50 feet outside.
    - Minimum unobstructed vertical height clearance is 13 feet 6 inches.
    - Provide an all-weather driving surface.
    - Support a minimum of 75,000 lbs.
    - Maximum grade of 10% unless approved by Fire Chief.
    - Aerial Apparatus Access Roads. Buildings or portions of buildings exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with a 26 feet wide fire lane. The fire lane shall be a minimum of 15 feet to a maximum of 30 feet from the building and shall be positioned parallel to one entire side of the building.

- Fire lane construction detail drawings, including temporary emergency access easements.
- Emergency access easements shall be approved by the Fire Marshal's Office under a separate instrument.
- Dead end fire lanes in excess of 150 feet shall be provided with an approved turnaround.
- Size, type and location of turnarounds are required to be approved by the Fire Marshal's Office.

Fire Hydrant and Water Lines

- Existing and proposed fire hydrants shall be indicated on the plans.
- Location of valves.
- Fire hydrant type and construction detail. Please include WCESD No.4 Hydrant Detail on the detail sheet. Primary features required include: factory installed integral 5-inch STORZ pumper nozzle; 1.5 inch pent operating nut on nozzle cap; open left; factory painted.
- Type and size of underground water lines serving the fire hydrants and other utility services.
- Size and location of the underground water line, Fire Service, for the fire sprinkler system.
- Location of Backflow prevention.
- A minimum required fire-flow of 1,500 GPM for 2 hours is required. (IFC Appendix B, Section B105).
- Fire hydrants shall be spaced such that all portions of the exterior of the building are within 300 feet. Spacing may be decreased/increased due to occupancy type, construction type and fire-flow.
- Proposed location of the Fire Department Connection (FDC). Note that the FDC is required to be on the addressed side of the building along a fire lane and within 100 feet, as the hose lies, of a fire hydrant.
- Fire Department Connection (FDC) is required to have a 5 inch STORTZ connection on a 30 degree downturn with a Knox brand locking cap.
- A working space of not less than 3 inches in width, 36 inches in depth and 78 inches in height shall be provided and maintained in front of and to the sides of wall-mount FDC and around the circumference of fire-standing (remote) FDC.
- Install a sign above the fire department connection stating "FDC". The sign shall be 7 feet above grade. The sign shall have reflective white letters upon a reflective red background. The lettering shall be a minimum 2 inch stroke and minimum 6 inches in height. The sign shall also have the address/building of the structure protected if a remote FDC is used. The address lettering shall be minimum 2 inch stroke.
- A strobe connected to the fire alarm system shall be placed above a wall-mounted FDC.
- All Fire Department Connections (FDCs) shall be marked as approved by the Fire Code Official. Two red street lane reflectors (stimsonite model 88AB or similar) shall be installed six inches from centerline of the fire apparatus access roadway on the side closest to the FDC. Markers shall be parallel to the FDC having the reflective ends of the street markers facing the direction of traffic.

Building Size, Height and Location Requirements

- Building or facility size, in square feet, to be indicated on the site plan.
- Building or facility building construction type (As Defined in the International Building Code) shall be indicated on the site plan.
- Building height shall be indicated on the site plan.

- Will the building(s) require an automatic fire sprinkler system? Please refer to 2015 IFC Chapter 9 Section 903 Automatic Sprinkler Systems for fire sprinkler requirements. Or if the required fire-flow from Appendix B Table B105.1(2) cannot be met because of the building construction type and square footage then a fire sprinkler system can be installed to reduce the required fire-flow down to a minimum of 1,500 GPM for 2 hours.

Vertical Construction

- Fire hydrants and fire lane access roadways shall be installed, approved by WCESD No.4, and maintained PRIOR TO VERTICAL CONSTRUCTION of any building or structure.