



CLARK COUNTY DEPARTMENT OF BUILDING

Fire Prevention Bureau

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OTC-012

Effective Date: 09/30/2013

Revision Date:

**TITLE: OVER THE COUNTER (OTC) PLAN REVIEW
FIRE SPRINKLERS**

SCOPE: Fire sprinkler head installation, maximum 20 heads total, no systems that require calculations, no flexible sprinkler hose, only light hazard and ordinary hazard spaces, wet systems only, no extended coverage unless matching existing overhead system, no ESFR or other specific application systems.

Where the installation involves an assembly/retail space that has primary access through an assembly, such as occurs with spaces within covered mall buildings, casinos, terminals, and other large facilities, systems may be required to install individual control valves and may utilize pipe schedule method. These systems are to be reviewed by a FPE or fire sprinkler specialist only.

The following is required for all submittals:

- Project Address, Contractor Name, Contractor Phone Number, APN (APN on Application Form is acceptable)
- Signature and NICET Number, or Engineer's Seal, of the Designer
- Correct Scale is Indicated on Plans
- A Narrative Scope of Work, or some Description of what work is being conducted
- An indication of the correct NFPA 13 Hazard Classification per Appendix Sections A5.2 through A5.4.2
- The static pressure of the existing system, (can be as simple as Yes/No for over 100 PSI?)

Prepared By	Concurred By	Approved By
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Reviewed By	Reviewed By	
Kurt Gottschalk Deputy Fire Marshal	Donna Starke Deputy Fire Marshal	

- Whether the construction is non-combustible, or whether concealed combustible spaces are being created
- Verify all rooms are identified/labeled, and coincide with the indicated Hazard Classification
- Sprinkler legend indicating number of sprinklers, response type of sprinkler(s), symbol for each sprinkler, manufacturer, model or SIN, K-factor/orifice size, and temperature rating.
- Verify that quick response sprinklers are provided for light hazard occupancies unless otherwise permitted by Section 8.3.3
- Verify either ordinary or intermediate temperature (135° to 225°) heads consistent throughout the space, per Section 8.3.2. If there are different sprinkler temperature or response types, review each protected area individually to ensure correct sprinkler selection
- Verify a sprinkler specification sheet for each new sprinkler noted in the legend
- For systems piped with each head from an existing outlet or a new mechanical tee, verify a single existing outlet serves a maximum of two new sprinkler heads, as long as the two heads are separated by a solid ceiling/wall or lintel
- Verify an armover detail showing connection to the branchline and piping to a maximum of two sprinkler heads.
- Show any ceiling element such as soffits, decorative items, light fixtures, etc that obstruct sprinkler spray. Provide ceiling heights for ceiling with such obstructions. Ensure that any obstructions are mitigated per Chapter 8 requirements (8.6 for standard pendant/upright; 8.7 for standard sidewall)
- Check for sprinkler coverage (including existing heads within compartment). Coverage for standard pendant/upright sprinklers is maximum 15' and minimum 6' between sprinklers; maximum 7'-5" and minimum 0'-4" from walls (small room rule in light hazard occupancies per Section 8.6.3.2.4 allows up to 9 feet from one wall). For extended coverage heads, check the specification sheet.
- Verify coverage area per sprinkler head. For pendant/upright, maximum of 225sf per head for Light Hazard and 130sf per head for Ordinary Hazard. For sidewall, see Table 8.7.2.2.1.
- Verify hanger spacing on armovers. For systems that experience over 100 psi, hangers with surge restraint required within 12 inches of head. For less than 100 psi, regular hangers required on armovers exceeding 2 feet.
- Look for hanger detail. Verify hanger meets rod (3/8-inch rod for pipe up to 4-inch diameter) and attachment requirements from Section 9.1 (concrete Table 9.1.3.10.1; steel Table 9.1.4.5.1; wood Tables 9.1.5.2.1, 9.1.5.3.1, 9.1.5.7.1, and 9.1.5.7.2).
- Check for hanger placement. For steel pipe, spacing is a maximum 15 feet between hangers for 1 ½ inch pipe and up; maximum 12 feet for 1 and 1 ¼ inch pipe. If different kinds of piping are used, see Table 9.2.2.1(a) for spacing.