Determination of Substantial Remodel for Fire Sprinkler System installation

414.1 PURPOSE AND SCOPE

This policy clarifies the definition of Substantial Remodel in Ordinance #129 as it relates to how affected area is calculated for automatic fire sprinklers to be installed both in residential and commercial structures. Affected floor area is the entire space within the area remodeled, altered and/or added via exposing that area to rough framing members as defined in Chapter 2 of the 2019 California Fire Code amended by Ordinances #129.

414.2 PROCEDURE FOR DETERMINING AFFECTED AREA- ORDINANCE #129 PROVISIONS

As indicated in Ordinance #129, automatic sprinkler shall be required for Additions & Alterations, as well as Substantial Remodel. When affected area calculations are under review by District staff, areas will be included using defined spaces like walls, door ways, and obvious separations. A second method to outline affected area spaces within the calculation for fire sprinklers is to use rectangular or squared measurements in the newly created open concept. Replacing doors & windows considered "Like for like" where no dry-wall has been removed does not get calculated into affected area.

Removal of walls will typically affect both sides of the area affected by the removal as this opens the space and minimizes the compartmentalization of fire. Older building techniques used compartmentalization of fire with a rating of time to contain a fire within a space. Adding walls does not create a higher level of protection, but does increase the flexibility to install sprinkler piping and heads in their creation of space.

Automatic fire sprinklers, in residential application, are life safety systems which prioritize time to get occupants out using water to keep a fire from exponential growth and the arrival time of firefighting services. Fire sprinklers may not extinguish a fire, but it is designed to keep it from growing in a singular area. This is an important distinction to keep in mind as the open concept floor plans are more popular in today's remodels, thus creating a larger space for fire to grow.

Use of the entire footprint of the home against the affected area (which includes new additions) is where the percentage calculation is made to not exceed 50% before residential fire sprinklers shall be required. Any project that is calculated to 40% or more should expect an inspection by District staff to determine no other work (repair/remediation or change order) has increased the affected area. It shall be the discretion of the Fire Code Official to determine if electrical cut-in work for switches, lights and other wiring shall be added to affected area. When in doubt, an applicant shall contact the Fire Code official for a digital review of plans.
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The 36 month period goes into effect upon permit completion by the issuing Building Division and not the Fire District Final date. This period is intended to prevent a "piecemeal" series of projects to avoid installation of sprinklers because automatic sprinklers saves lives.

414.3   PROCEDURE FOR ADDITIONS AND ALTERATIONS PER ORDINANCE #129

An automatic sprinkler system shall be required in any structure in excess of 3,000 square feet for which ten (10%) percent or more floor area had been added or altered in a 36 month period.

A Change of Use or Occupancy shall also trigger automatic sprinklers per the added section of CFC 903.2.4 as approved in Ordinance #129.