



San Juan County  
Community Development & Planning

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**POLICIES/PROCEDURES/INTERPRETATIONS**

**Automatic Fire Extinguishing System**

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ISSUE: The following questions have arisen as to how the Fire Marshals Office and the Building Division are to interpret and apply the provisions of Section 13.08.200 of the SJCC:

- How is the living area to be determined?
- How is the existence of approved fire hydrants to be determined?
- Where an automatic fire extinguishing system is required in lieu of approved fire hydrants, is the automatic fire extinguishing system required in all portions of the structure or only in the living area portions of the structure?
- When a remodel/conversion of existing non-living area to living area; or an addition of new living area increases the total living area to 4,000 or more sq ft, is the automatic fire suppression system required throughout the structure or only in the newly converted or added living areas?
- What are the building review, permitting, inspection, and approval mechanisms to verify requirements of Section 13.08.200 of the UDC?

ANALYSIS: Section 13.08.200 of the SJCC reads as follows:

"In lieu of fire hydrants, all habitable structures 4,000 square feet or more of living area shall be required to install an automatic fire extinguishing system as per UBC Section 904 and UFC Section 1003."

"Living area" is defined by section 18.20.120 as meaning:

". . . the internal space measured from the interior of the exterior walls, excluding decks, overhangs, unenclosed porches or unheated enclosed porches, and the stairwell on one level of a two-story structure."

By Section 13.08.200 it is clear that all "habitable structures" of 4,000 or more square feet require an additional level of protection. It is important to note that "habitable structures" are those that not only contain habitable spaces/uses but may also contain non-habitable spaces/uses. From the definition, it is clear that the living area is the "internal space, as measured from the interior of the exterior wall lines". However, the term "internal space" is very broad and also does not specifically exclude areas such as basements or crawl spaces. However, unusable crawl spaces, those which cannot be used for storage or other uses, should not be included in the total "living area" in that they do not measurably add to the overall fire load of the structure.

It is also not clear if carports or garages are to be included in the total living area. However, a carport and garage are generally classified as a separate use/occupancy. Additionally a carport is similar to an unclosed porch while a garage may be considered similar to an enclosed unheated porch and is also separated from the dwelling unit by a modified fire resistive separation. Therefore a carport or garage should probably not be included in the total "living area".

As for who determines the existence of approved fire hydrants, this should be the responsibility of the Fire Districts and Fire Marshal.

As for the extent of coverage requirements, Section 13.08.200 establishes a condition that triggers additional requirements. The condition is the existence of 4,000 or more square feet of "living area". The condition triggers the additional requirement for approved fire hydrants or, as an alternate, an automatic fire suppression system for the "structure". In that the "structure", and not a portion of the structure, is required to be protected by Section 13.08.200, it makes no difference whether a structure is built with, or incrementally increased to contain 4,000 or more square feet of "living area". The entire structure would have to be provided with an automatic fire suppression system, not just remodeled or added areas.

Additionally, when the Building and Fire Codes require an entire structure to be protected by an automatic fire suppression system, specific areas or occupancies are not excluded from the protection requirement, even if separated by an occupancy separation. The only exception could be where a minimum 2-hour fire/party (area separation) walls are built creating two separate fire areas. This would imply that garages and other usable areas would have to also be protected.

As for the building review, permitting, inspection, and approval mechanisms, it should be the responsibility of the plans examiner to initially calculate the "living area" and, when determined that the structure contains 4,000 or more square feet, to notify the Fire Marshal. The Fire Marshal should then determine if approved fire hydrants exist. If the fire hydrants do not exist the Fire Marshal should inform the owner of automatic fire suppression system requirements, including permitting, plan review, inspections, and approvals including the potential requirements for additional building permits for water storage tanks and associated equipment. The Fire Marshal should also notify the plans examiner who should then modify the construction valuation as appropriate for the required fire suppression system. The plans examiner should also provide notes on the permit record, plans and permit record card of this requirement. The framing inspection should not be performed until the Fire Marshal has inspected and approved the fire suppression system rough installation. Additionally, the final inspection and approval should be withheld until the Fire Marshal has accepted the completed and operational fire suppression system.

**POLICY:**

1. It shall be the responsibility of the plans examiner to
  - a. Verify the total "living area".
    - i. Living area shall be calculated by totaling all of the usable internal space measured from the interior of the exterior walls, excluding decks, overhangs, unenclosed porches or unheated enclosed porches, and the stairwell on one level of a two-story structure.
    - ii. Basements and other usable storage areas shall be included in the total "living area".

- iii. The area of carports and garages shall not be included in the total living area calculation.
  - b. Notify the Fire Marshal when the living area is 4,000 or more square feet and withhold plans exam approval pending the Fire Marshals determinations.
  - c. Where the Fire Marshal determines an automatic fire suppression is required,
    - i. Note on plans of sprinkler requirements, and
    - ii. Note on Permit Record Card requirement of Fire Marshal approval of automatic fire suppression rough inspection prior to frame inspection, and
    - iii. Note on Permit Record Card requirements of Fire Marshal approval of complete automatic fire suppression prior to final building inspection, and
    - iv. Recalculate permit fees, and
    - v. Approve permit for issuances pursuant to normal established procedures
- 2. It shall be the responsibility of the Fire Marshal
  - a. To verify the existence of approved fire hydrants or the alternative requirement for an automatic fire suppression system and to notify the plans examiner of his/her findings.
  - b. Inform the owner or the designated agent of automatic fire suppression system requirements, including permitting, plan review, inspections, and approvals including the potential requirements for additional building permits for water storage tanks and associated equipment.
  - c. Review and approve automatic fire suppression system permit applications in accordance with the applicable NFPA Standard.
  - d. All areas of the structure including attached garages, basements, and other useable storage areas shall be protected where required by the applicable NFPA Standard.
  - e. Inspect and approve all rough and final inspections of automatic fire suppression systems.