

CITY OF MERCER ISLAND

Fire Marshal's Office

3030 78th Ave SE | MERCER ISLAND, WA 98040

PHONE: 206.275.7966 | www.mercergov.org



2020 RESIDENTIAL FIRE AREA SQUARE FOOTAGE CALCULATION

Project Type: <input type="checkbox"/> New Single Family <input type="checkbox"/> Alteration <input type="checkbox"/> Addition	
Project Address:	
Contact Name:	Phone No.
Owner Name:	

Gross floor area shall be that area in square feet under the roof line of the structure including all usable area whether heated or not, above and below grade. This includes the garage and any unheated storage rooms or attachments including covered decks. If it is *usable space*, then it is included in the **Gross** square footage calculation. *This is not the same calculation for floor area ratio.*

For all construction types, add all the interior wall measurements of each floor and the basement and total that figure.

NEW CONSTRUCTION *(over for addition or alteration)*

N/A	Measurements	Square Footage
	Main Floor interior	
	Lower Floor Interior	
	Other Floors interior	
	Basement interior	
	Attached Garage interior	
	Covered Decks interior	
	Other interior	
	TOTALS	_____

ADDITION or ALTERATION

Does this house have an existing Fire Sprinkler System? Yes <input type="checkbox"/> No <input type="checkbox"/> / Fire Alarm System Yes <input type="checkbox"/> No <input type="checkbox"/>				
Measurements	Existing Square Footage	Standardized Value	Added Footage	Final Square Footage
Main Floor interior		x _____		
Lower Floor Interior		x _____		
Other Floors interior		x _____		
Basement interior		x _____		
Attached Garage interior		x _____		
Covered Decks interior		x _____		
Other interior		x _____		
TOTALS				

Construction Cost \$ _____

Official Use

Verified Cost \$ _____

Higher of Verified or Cost \$ _____ / Value _____ = % _____

Valuation Ratio

- Exempt structure – detached garage or similar structure less than 750 sf.
- Less than 10% (fire review not required)
- 10 – 49% (monitored Household Fire Alarm System per NFPA 72 Chapter 29, if fire deficiency)
- 50% or greater (substantial alteration)

2015 INT'L FIRE CODE

901.4.4 Additional Fire Protection Systems. In occupancies of a hazardous nature, where special hazards exist in addition to the normal hazards of the occupancy, or where the fire code official determines that access for fire apparatus is unduly difficult, the fire code official shall have the authority to require additional safeguards. Such safeguards include, but shall not be limited to, the following:

- Automatic fire detection systems,
- Fire alarm systems,
- Automatic fire-extinguishing systems,
- Standpipe systems, or
- Portable or fixed extinguishers.

Fire protection equipment required under this section shall be installed in

accordance with this code and the applicable referenced standards.

2015 INT'L RESIDENTIAL CODE

AV107.1 Fire Sprinklers. An approved automatic fire sprinkler system shall be installed in new one-family and two-family dwellings and townhouses in accordance with Appendix Q.

AV107.2 Fire Sprinklers in Existing Buildings. An approved automatic fire sprinkler system shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) in accordance with Appendix Q when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within

a sixty-month period exceeds 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.

AV107.3 Household Fire Alarm System. An approved household fire alarm system shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) that have deficiencies in fire flow, hydrants or access. This system shall be installed in accordance with NFPA 72 Chapter 29 when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within a sixty-month period is within 10% to 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.

A Fire Plan Review was completed (attached to your permit file) for the proposed alteration/addition. The project cost, when compared to the valuation of the residence is more than 10% but less than 49% (38.24%). In this case we evaluate the proposed project for fire access, grade and water flow. Any deficiency noted within this percentage range requires a monitored household NFPA 72 fire alarm system to be installed. The following deficiencies were noted:

1. Number of hydrants available is one vs. two.
2. Distance from access road to the furthest point of the residence exceeds 150' (241)
3. Width of the roadway is less than 20'
4. Grade exceeds 10%

Due to these deficiencies the monitored NFPA 72 fire alarm will be required. A sperate permit must be obtained and the system must be installed, inspected and finaled prior to the final occupancy status. I have included the link to the Monitored Fire Alarm System Standards for your review. Please let me know if you have any questions. If you already have an installed fire alarm system, the system will need to meet current standards.

AV107.3 Household Fire Alarm

System. *An approved household fire alarm system shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) that have deficiencies in fire flow, hydrants or access. This system shall be installed in accordance with NFPA 72 Chapter 29 when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within a sixty-month period is within 10% to 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.*

https://www.mercerisland.gov/sites/default/files/fileattachments/community_planning_amp_develop ment/page/24351/household_fire_alarm_standard_-_2018_version.pdf

Here are some local companies that have done work on the island (no particular order, or preference)

Fire Alarm Companies

- ADT LLC
- Audio One LLC
- Audio Plus LLC
- Definitive Audio
- Distinctive Audio and Video

- Elite Audio Video Inc
- Fire Protection Inc
- Froula Alarm systems
- Guardian Security Systems Inc
- Innovative Low Voltage LLC
- Island Security Systems Inc
- Washington Alarm Inc

Please let me know if you have any further questions... I am happy to help.

Jeromy



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**** PLEASE NOTE MY EMAIL ADDRESS
CHANGE**** Jeromy.hicks@mercerisland.gov