

# PLAN TO PERMIT

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September 24, 2020

Jeremy Hicks, Fire Marshal  
City of Mercer Island Fire Department  
3030 78th Avenue SE  
Mercer Island, WA 98040

Re: Fire Code Alternates Proposal – 6427 E Mercer Way (2005-060)

Dear Mr. Hicks:

The owners of the property at 6427 E Mercer Way are requesting alternates to the current fire code requirements for the new single family residence proposed.

The following five deficiency was identified for the subject property as part of the intake screening meeting:

1. The fire access road exceeds 150 feet;

The following alternative fire protection addition is proposed to address the applicable fire code requirement deficiency, and meet 2012 IFC [A] 104.9:

1. Install a monitored household fire alarm (NFPA Household 72).

We understand that a 13D fire sprinkler would be required regardless of any deficiencies, and are therefore not included as part of the mitigation. The owner would also like to defer the submittal of the fire alarm and fire sprinkler applications until after building permit approval.

Please do not hesitate to contact me if you need any additional information. Thank you for your consideration of the request.

Sincerely



George Steirer  
Plan to Permit, LLC



Mercer Island Fire Marshal Office  
 3030 78<sup>th</sup> Avenue SE  
 Mercer Island, WA 98040  
 (206) 275-7966

Permit No: \_\_\_\_\_

# FIRE PLAN REVIEW

Address: \_\_\_\_\_

## 1. PROJECT TYPE

- NSF
- Alteration or Addition

Valuation Ratio (based on Fire Area Worksheet

Proposed Work \_\_\_\_\_ / Assessed Value \_\_\_\_\_ = \_\_\_\_\_ %

- Exempt structure - detached garage or similar non living space structure
- 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)

## 2. FIRE AREA

- Fire Area = \_\_\_\_\_ square feet (sf) (from Fire Area Worksheet)
  - ≥ 10000 SF Requires a NFPA 13R or 13 sprinkler system (**use 13R sprinkler system as base**)

## 3. FIRE FLOW

Hydrant ID# \_\_\_\_\_ PSI \_\_\_\_\_

Flow Required \_\_\_\_\_ GPM @ 20 psi (from IFC table B105.1)

With Sprinkler Reduction \_\_\_\_\_ GPM @ 20 psi (50% reduction)

Available \_\_\_\_\_ GPM @ 20 psi (Max of 500gpm for a 2-port hydrant)

- Does not meet fire flow even with sprinkler reduction (**use 13R sprinkler system as base**)
- Does not meet fire flow due to no sprinkler reduction credit.

## 4. HYDRANTS

Number Required: \_\_\_\_\_ Spacing \_\_\_\_\_

- Number Available: \_\_\_\_\_ Spacing \_\_\_\_\_

- Distance from all building points to hydrant \_\_\_\_\_ (300' Max, 600' W/ Sprinklers)

**5. FIRE ACCESS ROADS**

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- Distance from all points to access road (150'). \_\_\_\_\_
- Length provided: \_\_\_\_\_ ft. (Over 150' from access road must provide turn-around)
- Width Required:      < 500' = 20'                      ≥ 500' = 26'
- Width provided:  ≥ 16'     12' - 16'  
 ≤ 12' **Code Alternate Required**
- Radius provided (minimum 28' inside/45' outside): \_\_\_\_\_ ft.
- Turnaround provided:  None     Sub Standard     Standard             N/A
- Grade Provided:  < 10'     < 15'     < 20'    Current \_\_\_\_\_ %  
 > 20' **Code Alternate Required**

**6. FIRE REQUIREMENT**

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- No Fire Requirement
- Monitored Household Fire Alarm
- 13D Fire Sprinkler System
- 13R Fire Sprinkler System
- Code Alternate Proposal**