



# ECTYPOS

ARCHITECTURE

February 14, 2022

Jeromy Hicks, Mercer Island Fire Marshal  
3030 78<sup>th</sup> Ave. SE  
Mercer Island, WA 98040

**Memo: Fire Code Alternate Request** for 8435 SE 47th Pl. (PRE21-009)

Dear Fire Marshal Hicks,

The proposed single-family residence is for a new home on a currently vacant lot. The site is very steep with a Geologic Critical Area overlay. The configuration of the site requires a steep driveway to get to the topographic “bench” or building pad on which the building will sit. The driveway will be put in on an existing “ramp” that will, nevertheless, require significant grading to meet the 20% requirement.

There are several exceptional trees adjacent to the ramp. These trees are important for many reasons to the Island, but for the site itself they work hard to stabilize the slope and require protection during construction and after. Responsible construction on this site will include preservation of as many large healthy evergreens as possible and minimized impervious surface to help mitigate run-off.

In addition to requirements you outlined in the April 6, 2021 Pre-App comments, we are requesting the width of the driveway be reduced from the required 20’ to 14’.

**Deficiencies**

Noted in 4/6/21 Pre-App Fire Comments

Access road width

Fire Flow

Distance from access road to furthest point of residence exceeds 150’

Additional deficiency requested in this application

Reduced driveway width from 20’ to 14’



### **Proposed Fire Code Alternates**

Construction shall meet all requirements outlined in the IFC and current Mercer Island-adopted building and fire codes.

NFPA 13R Plus – Fire Sprinkler System. The sprinkler design will be a deferred submittal by the installer. The system shall include as outlined:

- Water supply – 1 ½” min. water meter/ 2” min. service line.
- Backflow preventer
- Fire Department Connection – 1 ½” hose connection at exterior of garage.
- Water Flow Alarm
- Garage Coverage
- Sprinkler System Drain
- Spare Head Box
- Bathroom Coverage
- Closet Coverage
- Water Flow Monitoring
- Decks, balconies and patio coverage.
- Monitored “Household Fire Alarm System” per NFPA 72 Chapter 29
- Majority of exterior materials are non-combustible including concrete stem and retaining walls, metal siding and roof, roof decks will have concrete or ceramic pavers. Wood siding is limited.
- 1hr Gypsum sheetrock throughout.
- Solid core doors throughout except closet doors.

With these additions to a normal single family scope of work, we believe the proposal is equal to or better than the code requirement.

Sincerely,

Lucia Pirzio-Biroli, AIA  
Ectypos Architecture

Related documents: Permit Drawing Set; Critical Area Review Memo; Fire Gross Square Feet form; Water meter sizing form.