

# SIYAO

STUDIO

February 25, 2024

City of Mercer Island

Community Planning & Development

Wang & Yang ADU – Fire Code Alternative Request

To Whom It May Concern:

The project proposal is to tear down and replace an existing garage accessory structure originally constructed in 1985. The lot is zoned R-15. The existing structure is a 1-story garage of about 526 sf. The existing structure will be replaced with an approximately 888 sf 2-story ADU in the same location with a garage on the first floor.

In the pre-application meetings, the Mercer Island Marshal's Office identifies 4 aspects of the subject property which are deficient from the standpoint of the Fire Code. These are as follow:

1. Fire hydrant flow does not meet requirements with sprinkler reduction.
2. Fire access road is 9.75 ft wide, less than 20 ft required.
3. Fire access road slope is 16%, greater than 10% required.
4. No turn-around is provided on the subject lot.

The following measures, which are specified in Building Classification on Plan Set A0.01 Cover Sheet, are proposed as a means of mitigating the above deficiencies:

1. **Upgraded full coverage NFPA 13D.** Sheet A0.01 specifies that an upgraded full coverage NFPA 13D sprinkler system will be installed (deferred submittal).
2. **Monitored fire alarm system.** Sheet A0.01 specifies that a monitored fire alarm system will be provided (deferred submittal). Fire alarm system will comply with Mercer Island Fire Marshal's Office 'Household Fire Alarm Standards'.
3. **1-hr rate gypsum in all areas.** Sheet A0.01 notes that 1-hr rated gypsum will be used in all areas. Additionally, Construction Assemblies on sheet A4.01 specifies all gypsum boards to be 5/8" type 'X'.
4. **Solid core doors.** Sheet A0.01 specifies that solid core doors will be used. Sheet A6.01 also notes that all doors to be solid core.

We believe the measures proposed above are equal to or better than the code requirements.

Sincerely,

Siyao Wang