



2724 BLACK LAKE BLVD SW, SUITE 202 • TUMWATER, WA 98512 • PHONE: 360 352-2477 • FAX: 360 352-0179  
[www.vectorengineeringinc.com](http://www.vectorengineeringinc.com)

7/13/25

Ruji Ding, PE  
City of Mercer Island

RE: 2411-113-SUB1-PLANS\_review.

**Structural responses in red:**

**Page 18:**

1. *Provide tension ties and bracing.*
  - a. *Worst case deck lateral load can be resisted by Ledgerlok installation in the joist bays. Additional calculations showing tension tie requirements.*
2. *Provide overframing details.*
  - a. *Connections and framing shown on plan view sheet 18*
3. *This home appears to be a stick framed low slope roof with intermediate support to interior bearing walls. Provide existing roof framing and show lateral connections at ceiling joists, rafter supports etc as required.*
  - a. *Roof as built information has been added to sheet 18 as well as calculations verifying capacity of existing and no-work required verification. New framing areas*
4. *Provide structural calculations and stamped structural plans.*
  - a. *Stamps added to revised plans and calculations.*

**Civil responses in blue**

**Page 21 (C-1):**

1. *Move the information box without breaking up the site plans*
  - a. *The information box has been broken into two separate sections and located elsewhere on the sheet.*
2. *Clearly differentiate between existing site features that are to remain and those that are to be removed and replaced. Currently the plan does not make this distinction.*
  - a. *Updated annotations and hatch settings have been applied to this sheet for clarity.*
3. *Please show the existing watermains, storm system, and sewer system on 92<sup>nd</sup> SE ROW so the new water meter location can be determined*
  - a. *Existing utilities have been shown to the extent feasible without changing the scale of the drawing. An existing water meter is located near the SE corner of the property that will be utilized.*



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**Page 22 (C-2):**

1. *Provide Method of demolition and back fill in lifts per EOR*
  - a. *Pneumatic hammers, Bobcats with grapple attachments, and dump trucks to haul material away will be the means of demolition for the pool. Backfill notes have been added to the plans.*
2. *Remove the shed in required side yard setback*
  - a. *This shed in question is now shown as removed on the plans.*

**Page 23 (C-3):**

1. *Please show clearing limits of this project and the limits shall be consistent with the locations of the silt fence.*
  - a. *Clearing limits and Silt Fence locations have been updated. Silt fence extension now shown to fence along east property line.*

**Page 24 (C-4):**

1. Please show the approximate locations, sizes, slopes, and types of all proposed storm conveyance systems, including:
  - a. (1) Roof and footing drainage (if the new footing drain is proposed) from the new house to the proposed onsite drainage system.
    - i. *Roof and Footing drainage to tie into the same outfall locations.*
  - b. (2) Drainage from the driveway to the proposed onsite drainage system if the driveway will be replaced.
    - i. *N/A*
2. All storm drain lines must be designed with a minimum slope of 2% toward the outlet. Provide necessary elevations to demonstrate the feasibility of gravity flow for the footing drain.
  - a. *Minimum pipe inverts for worst case drain locations shown on sheet C-4. These inverts are well below grade, thus are feasible.*
3. This project will result in more than 2,000 square feet of new plus replaced hard surface. Therefore, the drainage design for both roof drainage and any replaced driveway drainage must comply with current code requirements under MICC 15.09. The proposed sheet flow dispersion does not meet current code and is not acceptable. Please revise and provide a drainage design that meets all applicable requirements. Once a new design is provided, then a full drainage review will be performed.



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- a. This project results in a redeveloped design path, per the Manual. Following flowchart Figure I-3.2, Minimum requirements #1-5 are required. In the stormwater report, the decision choices for the different surface types are indicated.
  - i. While the driveway is not included in the project design and stormwater compliance for the driveway is not required as it is not a new or replaced hard surface, a driveway dispersion trench has been added to aid in stormwater runoff from the property. It does not meet current code requirements because there is not a 25' separation buffer between the trench and the Right-of-Way. There actually is not even 25' of driveway length between the residential structure and the Right-of-Way. If the reviewer would like this proposed dispersion trench removed, we can accommodate that request and still be in accordance with the current code requirements of MICC 15.09 and the Manual.
  
4. There are no records indicating an existing connection to the City storm system. The City does not allow blind connections to the public storm system under current code and policy. Therefore, even if blind connection exists, it cannot remain. This project must comply with all current City requirements. Have you physically verified whether this connection exists?
  - a. This comment has been reviewed and approved by City Staff.

Please note, with the multiple changes to the annotations and features on sheet C-1 & C-4, revision clouds have not been applied to the sheet, but only a note in the title block indicates the city requested changes.

Please let us know if you have any questions regarding these documents.

A handwritten signature in blue ink, appearing to read "Ryan Moore".

Ryan Moore, PE  
**Vector Engineering, Inc.**

A handwritten signature in blue ink, appearing to read "Collin McMaster".

Collin McMaster, P.E.  
**Vector Engineering, Inc.**



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