



Solid Ground Engineering

8105 166th Ave NE
Redmond, WA 98052
Office: 425.305.5104

February 22, 2024

City of Marysville
Community Development
501 Delta Ave
Marysville, WA 98270

RE: Serenity Trails PA24-001, Technical Review #1

Project: Serenity Trails

Please find below responses to all comments as received from the City of Marysville. All comments have now been addressed and responses to each comment are outlined below.

Planning Comments

1. Include File Number PA24-001 on all future correspondence, in addition to all site, civil, and landscape plans.
Response: This has been added to all sheets as requested.

2. Based on the application materials, RDI Benefit 7c is proposed. However, perimeter fencing must be accompanied with at least 6 ft. in landscaping. Please demonstrate how this provision would be satisfied.
Response: This RDI credit has been removed as there are portions of the 500 LF of fencing that cannot accommodate the 6' width of landscaping due to the presence of necessary asphalt (ie, the westerly property line of tract 999) and the total amount of applicable fencing falls beneath 500 LF. These areas will still be fenced due to developer preference.

3. With the exception of Lot 5, all lots would be required to meet the development provision of MMC 22C.010.310 for Small lot single-family dwelling development standards.
Response: Noted.

4. Per MMC 22G.090.580, a 6 ft. sight obscuring fence shall be required if: during grading plan review, the existing grade will be increased by a 2 ft. or greater vertical grade change and the grade increase causes the new lots to be at a higher elevation than the abutting property.
Response: Noted. Fencing along this property line already exists that was installed by the adjacent properties to the south.

5. Please determine whether the new lots (including the stormwater tract) along the south property line of this development would be higher than the abutting lots of the Enclave South at Whiskey Ridge. If so, please demonstrate compliance with the provision by adding the required 6 ft. fence to the proposed plans.
Response: Fencing along this property line already exists that was installed by the adjacent properties to the south.

6. Significant trees, which include evergreen trees eight inches in diameter or greater and/or deciduous trees 12 inches in diameter or greater measured four and one-half feet above grade, shall be retained as follows
 - i. Perimeter landscaped areas that do not constitute a safety hazard shall be retained.
 - ii. To provide the best protection for significant trees during the construction stage, the application shall install a temporary, five-foot-high orange clearing limits construction fence in a line generally corresponding to the dripline of any significant tree(s) to be retained. All such fencing shall be installed and inspected by the community development department prior to commencement of site work.

Response: Noted.

7. To ensure compatibility with the neighboring Boulder Heights development (North), please include the use of Pyramidal European Hornbeams for proposed street trees.

Response: Please see the revised landscape plans for updates on this item.

8. Stormwater management facilities are required to have a 5ft. L5 landscape buffer. Planting areas may incorporate no more than 30 percent deciduous plantings due to maintenance and pond performance constraints.

Response: The landscape plans reflect no more than 30% deciduous plantings in the area surrounding the detention pond. Please see the revised landscape plans.

Traffic Comments:

1. Traffic impact fees will be required from the City and depending on trip generation/distribution, may be required from the County and State.

Response: Noted.

2. A Traffic Impact Analysis (TIA) will be required.
 - a. TIA is approvable except that Trip Generation is updated to 14 PM Peak Hour Trips per below comment.
 - b. TIA should follow City guidelines to be provided.
 - i. Single-family homes Trip Generation shall be 1 PM peak Hour trip per unit consistent with the development of Traffic Impact Fee (TIF) calculations.

Response: Please see the revised TIA included with the resubmittal items.

3. Undergrounding of existing overhead utilities along the frontage of 83rd Ave NE shall be required.

Response: A note has been added to sheet PP-01 indicating underground of existing utilities along 83rd Ave NE.

4. Per EDDS 3-506, street lighting will be required.
 - a. Street Lighting upon 83rd Ave NE and within the residential area shall be PUD installed fiberglass pole installation type street lighting.
 - b. Roadways:
 - ii. 83rd Ave NE lighting shall be designed as minor arterial/residential utilizing 200-watt equivalent LED fixtures.
 - iii. New residential streets shall be designed as neighborhood collector/residential utilizing 100-watt equivalent LED fixtures.
 - c. Spacing of fixtures should be approximately 180'-220'.
 - d. As part of civil construction approval proposed PUD street lighting locations will be provided by the City to the developer for submission to PUD and incorporation into the PUD site electrical plans.
 - e. Contact Eddie Haugen of Snohomish County PUD at (425) 783-8276 or [contact email] for more information regarding PUD design.

Response: Light fixtures are already installed on the 32nd St NE and 32nd PI NE frontages. These fixtures have been called out on sheet CH-01.

5. Per EDDS 3-204, 3-211, 3-212, etc. sight distance analysis should be required at intersections with both new and existing roadways. Sight distance analysis will be required with civil design submittals.

Response: A sight distance analysis was performed for Boulder Heights for the 83rd and 32nd PI NE intersection. The proposed project doesn't propose any intersections that would require sight distance analysis.

6. A signing and channelization plan shall be required as part of civil construction plans.
 - a. To the extent feasible, 83rd Ave NE Channelization shall be installed per the ultimate roadway cross-section.
 - b. Signing:
 - i. 32nd PL NE:
 1. Dead End sign upon entry into development.
 2. Speed Limit 20 mph sign 50'-100' following entry into the development.
 3. No Parking (symbol) in Cul-De-Sac before entry into cul-de-sac.
 - ii. 32nd ST NE:
 1. No Parking (symbol) with arrows signs on outside of 90-degree corner approximately 15' prior to/after the curve.

Response: Dead end sign and speed limit sign has already been provided and installed with permit #G22-0018. No parking in cul de sac sign has been installed, but has been noted for relocation on sheet CH-01 of the civil plans that will be submitted at a later time.

Fire Department Comments:

1. The project shall comply with current fire code requirements (2018 IFC) including WA State and local City of Marysville amendments to the fire code, city design standards, and all applicable NFPA standards, including IFC Chapter 33 and NFPA 241 construction codes.
 - a. Fire marshal approval of fire access and fire hydrant/water supply systems is required as part of the civil construction plan review and approval process.

Response: Noted.

1. Lots 11, 12, 13, and 14 will require 13D fire sprinklers due to single-point access from 83rd Ave NE per MMC 9.04.503.1.5 Exception 1.

Response: Noted. A note calling out these lots for sprinklers has been added to sheet WA-01 of the civil plans that will be submitted at a later time. It has also been added to sheet PP-01.

2. Lot 5 will also require a 13D fire sprinkler due to distance from ROW per EDDS 2-060.D.12.

Response: Noted. A note calling out this lot for sprinklers has been added to sheet WA-01 of the civil plans that will be submitted at a later time. It has also been added to sheet PP-01.

3. 4. It is the developer's responsibility to see that adequate water for fire protection is attainable. The minimum required fire flow is determined using IFC Appendix B and depends upon building sizes, construction types, and sprinkler systems. Proof of fire flow will be required. No fire flow information provided at this time.

Response: Noted. Fire flow information will be included with the civil permit submittal documents.

4. 5. Documentation/certification of available water supplies for providing the required fire flows is required for final approval of the water system for this project and prior to building construction. Check with the city Public Works Dept. for water system information.

Response: Noted.

5. 6. The minimum required fire flow for hydrants protecting SFR dwellings is 1,000 gpm (with a 20-psi minimum residual pressure) for dwellings not exceeding 3,600 SF in size.

Response: Noted.

6. 7. The minimum required fire flow for dwellings exceeding 3,600 SF is 1,500 gpm.

Response: Noted.

7. 8. Maximum hydrant spacing for the proposed SF use is 600 ft. The plan shows 2 hydrants on 32nd PI NE in acceptable locations. GIS shows another hydrant located along 84th Dr NE, which would serve lots 11-14.

Response: Noted. Thank you for verification.

8. 9. Fire hydrants shall comply with city Water Design Standard 2-060 Hydrants, including 5" Storz fittings, with blue reflective hydrant markers to be provided in the roadways, located four inches off the centerline on the hydrant side of the road.

Response: Noted.

9. 10. Fire hydrants shall be provided in approved locations. Fire hydrants on an approved water main extension are required within the site for this development.

Response: Noted.

10. 11. Provide water main extensions with hydrants along the new roadways and at all road intersections in approved locations, with a maximum spacing of 600 feet apart.

Response: Noted. Hydrants are either provided or are existing.

11. 12. Fire hydrants with approved water supply must be in service before building construction.

Response: Noted.

12. 13. Fire hydrant coverage shall be provided along all roads and at intersections. "Fire hydrants meeting city specifications shall be installed on all extensions of the city water system at the time such extensions are constructed. All hydrants shall be owned and maintained by the city. The location and frequency of fire hydrants shall be specified by the city utility department and fire department; provided, that fire hydrants in single-family residential zones shall be spaced not more than 600 feet apart" (MMC 14.03.050).

Response: Noted.

13. 14. The location of fire hydrants requires fire marshal approval on civil construction plans.

Response: Noted.

14. 15. Future homes to be constructed may require residential sprinkler installation for several reasons, including if homes are three or more stories tall, if fire flow from hydrants does not meet fire code requirements, if any part of homes is further than 200' from the public road ROW with no hydrant provided on-site, or to mitigate access deficiencies.

Response: Noted.

15. 16. Where residential fire sprinklers may be required, the developer should install a water service per Standard Plan 2-090-001 Full ¾" x 1" Meter Service. Under this plan, a 1" tap is made at the water main and 1" piping is run to the 1" meter setter. If, in the end, a ¾" water meter will suffice, then all that is required is to install two reducer bushings with the ¾" water meter. A single service tap should be used where sprinklers are required, not a double service installation.

Response: Noted. ¾" meters are shown for each lot on sheet WA-01 of the civil plans that will be submitted at a later time.

1. An adequate access route for fire apparatus must be in service before any building construction.

Response: Noted.

2. Access for firefighting operations along all sides of all buildings is required. A minimum 5' wide access is required for SF dwellings. All parts of building exteriors should be accessible for firefighting by an approved route around the building, and be within 150 feet of a minimum 20' wide fire apparatus access.

Response: Noted.

3. "NO PARKING - FIRE LANE" signs are required on both sides of all roads that are 26 feet wide or less. The signage shall be identified on the approved Civil Plans. (MMC 9.04.101, 2018 IFC Appendix D103.6.1)

Response: No parking signage has been added as requested to the civil plans that will be submitted at a later date.

4. The city address committee will determine road names and address numbers for the lots.

Response: Noted.

Thank you for your review. Let us know if you have any questions or if you need any additional information. We are happy to discuss this project further with you as necessary.

Regards,



Tom Abbott, P.E.
Principal Civil Engineer
Solid Ground Engineering