



July 21, 2026

Job No. 2090-004-022

Mr. Donald Washburn
Engineering Technician
City of Poulsbo
200 NE Moe St
Poulsbo, WA 98370

**RE: Pinnacle at Liberty Bay PRD and Preliminary Subdivision 5th Submittal
P-06-20-25-03 - Response Letter to Technical Review #4**

Dear Mr. Washburn:

ESM Consulting Engineers, LLC, is submitting the following responses to the Memo that was received from you dated July 2, 2026. In an effort to provide concise and direct responses, we have copied the review comments below in *italics* and our responses are in **bold**.

Site Plan

1. *Based on the submitted plans, Road D exceeds the maximum allowable dead-end street length established in the Poulsbo Construction Standards (Section 2.C.7). The roadway design requires revision. This requirement cannot be conditioned.*

RESPONSE: Road D has been shortened to 500 feet. This has prompted the removal of Lot 130.

2. *Revise the plans to depict the approved future public street connection associated with the Audrey Estates PRD (P-11-10-22-01) to demonstrate consistency with adjacent approved development and planned street connectivity. Civil plans are included in this package for informational purposes. This item may be addressed through a condition of approval.*

RESPONSE: Connection to Audrey Estates has been depicted on the preliminary plat drawings as a future connection.

3. *Footprint for lot 21 was enlarged as part of the most recent submittal. This lot contains two proposed manholes that require a permanent maintenance access. Revise the plans to demonstrate adequate paved access, utility easements, and any necessary modifications to ensure long-term maintenance access to the manholes and associated sewer lines. This item may be addressed through a condition of approval.*

RESPONSE: Noted, a public utility easement has already been proposed. Adequate paved access will be provided to the 2-utility structures.

4. *Retaining wall adjacent to pond and lots 1-4 is showing on future City owned Tract F, and depending on construction type will likely have MSE reinforcing structure under/on private lots. The City will not accept ownership and maintenance responsibility for this wall. Revise the plans to ensure retaining walls supporting private development remain under private ownership and maintenance. This item may be addressed through a condition of approval.*

RESPONSE: Understood. The walls will be under private ownership. Tract F, however, has been noted as HOA ownership. There are multiple uses for the tract which includes open space and the noted walls. A public stormwater easement is proposed over the entirety of Tract F for the sole purpose of maintaining stormwater facilities, not the retaining walls. This same concept is also proposed at the other pond in Tract E.

5. *As noted in preapplication comments, no walls or structures are allowed in utility easements, including the required 10' dry utility easements fronting all lots. Wall adjacent to Lot 45 is shown in the dry utility easement along that lot on Sunrise Ridge Ave NE. No structural reinforcing for the wall such as MSE reinforcing will be allowed in right of way or dry utility easement. Wall on Lot 69 is shown directly adjacent to dry utility easement - no structural reinforcing will be allowed in dry utility easement along Road B. Walls on Lot 4 and Tract Y are shown in dry utility easement area. Revise the plans to remove retaining wall structures and associated reinforcement from public utility easements and required dry utility easements. This item may be addressed through a condition of approval.*

RESPONSE: Walls have been removed from the utility easement, particularly the walls adjacent to lots 44 and 45. Updates to walls have additionally been made along Lot 4.

Along Tract Y and the Stream D crossing on Sunrise Ridge Ave, walls are anticipated to accommodate the ADA crossing (max 5% cross slope) across Sunrise Ridge Ave. As a result, utility installations will likely need to be within the ROW.

Understood that no structural reinforcement will be allowed within the utility easements.

6. *A 10-foot dry utility easement shall be provided along Sunrise Ridge Ave NE through Tract D to accommodate dry utilities serving the subdivision. A dry utility easement will also be required along Road C adjacent to Wetland A unless the City approves its elimination. This item may be addressed through a condition of approval.*

RESPONSE: It is anticipated the utility alignment adjacent to Wetland A will be on the north side of Road C. This is to avoid utility work within a wetland buffer. Noted this will be worked out at a later time.

7. *Retaining walls that present a pedestrian fall hazard shall be provided with fencing or other approved fall protection meeting pedestrian loading requirements, as applicable. This requirement will be included as a condition of approval.*

RESPONSE: Noted, will be addressed with plat engineering.

8. *Note that all weather access to all structures is required - e.g. SSMH#10, stormwater treatment vault in Tract V, etc. This requirement will be included as a condition of approval.*

RESPONSE: Noted, will be addressed with plat engineering.

9. *Note that SSMH's #10 and #11 are over 20' deep - will require additional ladder safety features per WAC 296-56-60209 and WAC 296-876-60065. Reference WSDOT technical commentary for standard plan B-15.40. This requirement will be included as a condition of approval.*

RESPONSE: Noted, will be addressed with plat engineering.

Transportation

10. *Please review and address the comments contained in the attached Traffic Impact Analysis Peer Review Memorandum (July 1, 2026) regarding the updated traffic impact analysis.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026

11. *As described in the Engineering Connectivity and Access Memorandum (June 15, 2026), construction of NR-12 providing a public street connection to the Baywatch subdivision shall be required. This requirement will be included as a condition of approval.*

RESPONSE: See Applicant Response to Technical Comments Letter regarding Noncompliance with PMC 17.080.050 and 17.080.060 - Connectivity and multiple points of access/egress included with this resubmittal.

12. *Future connections shall be provided to the adjacent south parcels. Plans shall provide connections to parcels tax id 252601-2-034-2002 and 252601-2-044-2000 per the requirements of PMC 17.80.060(B). This requirement will be included as a condition of approval.*

RESPONSE: Refer to separate feasibility memos for discussion on access to the two listed parcels. Connections to either parcel have been found to be infeasible.

13. *The roadway profile views submitted with the most recent resubmittal include crest and sag curves; however, Roads A, B, C and D h do not meet the City's design standards and policy memo dated April 29th, 2014 (Clarification - Vertical curve criteria, specifically K values) and minimum AASHTO K-values for a 25 mph design speed. Submit revised roadway profiles to demonstrate compliance with the minimum K-values of 12 for crest curves and 26 for sag curves. Profile views shall also call out structure ID's. This requirement cannot be conditioned.*

RESPONSE: Structure ID's (CB's and SSMH's) were added to Plan and Profile view.

All roads were closely examined to check against the policy memo dated April 29, 2019.

Road A (Sheet PP-22): One of the sag curves was found to be less than 26. This has been revised to be 26. The remaining sag and crest curves meet minimums. Additionally, there are no intersections on this profile.

Road B (Sheet PP-24): No Vertical curves along road, except at the intersection of Road A.

At the intersection with Road A, the vertical curve is proposed with sufficient length to meet the City adopted King County Intersection Landing Fig 2-013 standards as depicted on the sheet. Secondary, Road B will be stopped controlled and because vehicles are required to stop, their actual operational speed through the sag curve is naturally constrained.

Road C (Sheet PP-23): All Vertical curves along the roadway (with the exception of the intersection at Sunrise Ridge) have been adjusted to meet the minimum K values.

At the intersection with Sunrise Ridge Ave, because this crest vertical curve falls within the operational influence of the intersection turning movements, sight distance and landing parameters, rather than 25 mph K values, are the controlling factors per City policy. Assuming a conservative operational speed profile of 15 mph for entering turning vehicles, the minimum required AASHTO crest K-value is reduced to 3. Furthermore, the physical intersection layout fully satisfies the landing geometry and vertical tolerances required by the King County Intersection Landing Fig. 2-013 standard.

Road D (Sheet PP-25): No Vertical curves along road, except at the intersection of Road C.

At the intersection with Road C, because this crest vertical curve falls within the operational influence of a fully controlled T-intersection, sight distance and landing parameters, rather than 25 mph free-flowing K values, are the controlling factors per City policy. To proactively mitigate entering sight distance constraints while protecting driver expectations, the intersection will be configured as a standard Multi-Way Stop with positive stop control implemented on all three approaches. Under AASHTO Chapter 9, Case E (All-Way Stop Control) criteria, the operational speed at the vertical transition is reduced to 0 mph, eliminating free-flowing gap requirements. Furthermore, the physical layout fully satisfies the landing geometry and vertical tolerances mandated by the King County Intersection Landing Fig. 2-013 standard.

14. *The grading and profile information included with the most recent resubmittal does not adequately demonstrate that the proposed roadway intersections can meet applicable ADA requirements. Revise the plans to include grading and profile details for all road intersections to ensure feasibility of meeting ADA requirements. Based on the information provided, the intersection of Road C and Sunrise Ridge Ave NE does not appear capable of meeting ADA requirements and shall be redesigned or otherwise revised to demonstrate compliance. This requirement cannot be conditioned.*

RESPONSE: The updated profiles indicate crossing location and cross slope meeting the applicable ADA requirements for either a stopped control intersection (max 2%) or a free-flowing crossing (max 5%).

Stormwater

15. *Vactor truck size used for modeling pond access is incorrect. Please use the following truck dimensions to determine if pond access is feasible (this requirement cannot be conditioned):*
- a. *Length 41' End to End*
 - b. *Width: 10'*
 - c. *Height: 11'10"*
 - d. *Center of front axle to front: 8'*
 - e. *Center of front axle to center of front rear axle: 20'6"*

RESPONSE. The turnaround has been updated to accommodate the noted dimensions.

16. *As mentioned previously, the proposed pond access road will be challenging for public works to access with a vactor truck. This will likely be a 250ft+ road at 15% grade. If this design is used, the applicant will need to provide correspondence from City of Poulsbo Public Works stating that they will accept the pond access road as proposed. This requirement will be included as a condition of approval.*

RESPONSE: Noted, we will work with the Public Works Department at time of engineering design that is acceptable for pond access.

Other

17. *Note that installation of sewer in WSDOT right of way will require an approved franchise agreement between the City and WSDOT prior to grading permit issuance. This requirement will be included as a condition of approval.*

RESPONSE: Noted.

18. *Note that soil amendment described in TESC drawing notes is not approved as part of this application. This will require a separate submittal to the City Engineer for review and approval with Grading permit submittal. Amended soils are not anticipated to be acceptable for use as roadway embankment fill and should not be assumed as an approved design element. This requirement will be included as a condition of approval.*

RESPONSE: Noted.

19. *Note that additional filtering capability beyond gravity settling noted in TESC drawing notes as a contingency will likely be a project requirement at grading permit submittal. This requirement will be included as a condition of approval.*

RESPONSE: Noted

20. *Anticipate the requirement to sleeve utilities bored under creeks. This requirement will be included as a condition of approval.*

RESPONSE: Noted

21. *Note, consistent with the plans submitted, staff anticipates that the primary construction access route will utilize Sunrise Ridge Avenue NE, Johnson Parkway, and SR 305. Final construction access routing, truck haul routes, traffic control measures, construction sequencing, and any associated mitigation measures shall be reviewed and approved by the City Engineer as part of the grading permit process.*

RESPONSE: Noted

22. *Note, final retaining wall drainage systems, groundwater interception, and discharge methods shall be reviewed as part of the civil construction permit and shall demonstrate that runoff is conveyed through the approved stormwater management system without adversely affecting adjacent properties. This requirement will be included as a condition of approval.*

RESPONSE: Noted

Parametrix - Traffic Impact Analysis and Transportation Review - July 1, 2026

1. *Comment #1 - General TIA Completeness and Consistency*
The revised TIA includes updates; however, deficiencies remain for completeness and consistency with the City's applicable TIA guidelines and policies. Key Issues include:

- *Study Area Consistency: The report does not clearly and consistently identify all study intersections or reconcile which intersections are included in figures versus LOS tables.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026

- *Intersection Screening: The TIA does not demonstrate that all intersections with ≥ 10 new trips were evaluated per City requirements. Consider intersections to the south of Johnson Road and to the north of Hostmark Street, based on AM and PM trip distribution figures.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026

- *Peak Hour Methodology: School-related peak demand and local peak hour variability are not fully documented.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026

Comment Summary: Additional documentation is required to demonstrate compliance with City TIA standards and HCM-based methods.

2. *Comment #2 - Safe Routes to School, LOS, and Concurrency*
The TIA does not adequately address school-related impacts or pedestrian safety, specifically regarding the following transportation issues:

- *The intersection of Hostmark/Caldart operates at LOS F (61.9-63.2 sec delay) under 2037 AM conditions, below the City LOS standard (E). Although the LOS F is consistent between 2037 No Build and Build conditions, the vehicle delay increases under the Build scenario.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026

- *The school route to North Kitsap High School requires a mid-block crossing of Caldart Avenue without stop control. This crossing is aligned with and supported by Comprehensive Plan Policies TR-5.1, TR-5.2, and TR 5.3.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026

- *The transportation analysis should evaluate improvements to the existing school crossing, including installation of a Rectangular Rapid Flashing Beacon (RRFB), to address pedestrian safety and support the City's transportation findings under PMC 14.04, PMC 17.60.040(A)(e), PMC 17.80.060, and Comprehensive Plan Policies TR-1.1 and TR-1.4.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026

Comment Summary: The TIA does not adequately evaluate pedestrian safety or identify mitigation measures necessary to address project-related transportation impacts. Based on the information currently provided, the TIA does not adequately support the City's required findings related to concurrency (PMC 14.04) and student safety.

3. *Comment #3 - Baywatch Connection Feasibility Analysis*

The information provided in support of the applicant's feasibility determination does not adequately support the conclusion that the Baywatch connection is infeasible due to vertical geometry and stream crossing constraints because the feasibility evaluation does not fully address applicable City codes, policies, and reasonable design alternatives necessary for the City Engineer to determine infeasibility. The feasibility evaluation should include the following:

- *Additional alternatives addressing alternative crossing locations or configurations. Only one alignment was evaluated as part of the feasibility study*

RESPONSE: The stream crossing feasibility study was updated to include evaluation of alternative alignments. In summary, there is only one available crossing location being the existing ROW stub off of Baywatch Ct Ne. There are no further available access points to the property along the western property line of the project.

Micro alignment adjustments were made within the ROW stub to cross the stream at a slightly lower elevation. This is also documented in the updated feasibility analysis.

- *Additional analysis with design deviations considered for alternatives. The current analysis assumes a K value of 6.0 and concludes the proposed connection is infeasible. While a K = 6 vertical curve is an allowable design deviation at a stop-controlled intersection under City standards, the analysis does not evaluate other reasonable design alternatives using the City's typical vertical curve criteria (AASHTO/WSDOT standard K = 12 for crest curves and K = 26 for sag curves), nor does it clearly explain why the selected design approach represents the only feasible option.*

RESPONSE: As noted above, the crossing location evaluated is at the only available stream crossing location to the project site. The feasibility study focuses on a hypothetical proposed roadway that meets current city and fire standards. The updated study provides a vertical curve based on Fire's maximum allowed approach angle, and the city's intersection landing requirements. The resulting K is what it is at what would be a stopped controlled intersection. In this case is 1.31. If larger K is desired, perhaps a K value that meets driver comfort standards for a particular speed, that would further make the crossing infeasible.

- *Expanded evaluation of the basis for concluding the connection is infeasible. The memo does currently demonstrate a standard design failure, but it does not demonstrate that all reasonable modified or mitigated designs are infeasible.*

RESPONSE: The suggestion that the feasibility analysis should evaluate modified, reduced, or non-standard design parameters for this connection, is infeasible from both a safety and liability perspective.

Under IFC Appendix D (Section D103.2), the explicit national standard ceiling for fire apparatus access roads is 10%. The City's adopted 12% maximum grade already incorporates the maximum allowable flexibility beyond standard IFC access guidelines of any design exceeding 12% is technically infeasible.

Per City and Poulsbo Fire access standards, the maximum allowable approach transition grade for emergency apparatus is strictly limited to 6.0%. This standard exists specifically to prevent trucks long wheelbase such as the City's designated Poulsbo E-One Pumper (with its 1.1 foot ground clearance) from physically bottoming out or damaging undercarriage components.

As a matter of professional engineering practice and legal liability, the applicant will not propose nor endorse non-standard modifications that violate published fire apparatus access parameters.

- *A discussion on the Baywatch connection (NR-12) is identified as a required roadway connection under the City's Comprehensive Plan*

(Appendix B.4a) and is necessary to meet connectivity and redundancy requirements via codes PMC 17.80.060 and PMC 17.60.040.

RESPONSE: See Applicant Response to Technical Comments Letter regarding Noncompliance with PMC 17.080.050 and 17.080.060 - Connectivity and multiple points of access/egress as a part of this resubmittal.

Comment Summary: The information provided is insufficient for the City Engineer to make a determination of infeasibility under PMC 17.80.060. Additional analysis and evaluation of alternatives and allowable deviations for the Baywatch connection is requested to determine all possible scenarios under the applicable city codes and policies. The Baywatch connection (NR-12) is identified as a required roadway in the City's Comprehensive Plan and is necessary to support connectivity and redundancy objectives.

4. *Comment #4 - Access and Connectivity Without Baywatch Connection*
If, after further analysis, the Baywatch connection is determined by the City Engineer to be infeasible, the information provided does not demonstrate that the proposed Sunrise Ridge access configuration satisfies the applicable City and Fire Code requirements for access, connectivity and emergency response. Specific examples where the site plan of the TIA deviates from City or Fire Code include:

- *Both Road C and Crystallia Court rely exclusively on Sunrise Ridge Ave NE, resulting in one functional access route and a single route condition, not two independent routes as required by City code and implied in the TIA. This is inconsistent with City code PMC 17.80.050(C).*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026.

- *The TIA does not demonstrate that the proposed street network satisfies the redundancy objectives as required under City code PMC 17.80.060.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20th, 2026.

- *The information provided does not demonstrate that the proposed subdivision provides the required street connections to adjacent properties and does not demonstrate feasibility or request exemption as required under PMC 17.80.060(B).*

RESPONSE: Feasibility studies for connections to the adjacent parcels to the south, Parcels 252601-2-034-2002 and 252601-2-044-2000, have been completed and are enclosed with this resubmittal. Connections to either parcel have been found to be infeasible.

- *Any blockage of Sunrise Ridge would significantly reduce site access, which is inconsistent with the intent of PMC 17.80.050(C) to provide access via two different streets and PMC 17.80.060 to provide redundant and efficient connections and emergency access provisions of IFC 503.1.2. This risk is amplified by steep grades (~12%) and significant elevation change.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20, 2026.

- *No alternative mitigation (e.g., emergency access, sprinklering, roadway improvements) has been proposed in the TIA as required under PMC 17.80.050(C) and supporting provisions.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20, 2026.

- *Based on the site conditions, including terrain, steep grades (~12%), and access limitations, the transportation information provided does not adequately demonstrate that the proposed access configuration satisfies the applicable emergency access provisions of IFC 503.1.2 and IFC D107.2.*

RESPONSE: See response to comments in the enclosed updated TIA provided by Heath and Associates dated July 20, 2026.

- *Road D exceeds allowable dead-end length and the initial project phase (>30 lots) is served by a single route, which is inconsistent with subdivision access and phasing requirements per City code PMC 17.80.050(C) and Fire code IFC D107.1.*

RESPONSE: Road D has been shortened to 500 feet. This has prompted the removal of Lot 130. Additionally, Road D is planned to be constructed with Phase 3 of the project. Phase 1 will construct the entire looped roadway that Road D will then later tee off of to serve 20 units.

- *Each division must meet access and safety requirements independently per PMC 17.60.040(C), which is not demonstrated.*

RESPONSE: The entire looped road is proposed to be constructed with Phase 1. Dead end road B will be built with Phase 2, and dead-end road D will be constructed with Phase 3. All phases will meet access and safety requirements independently when constructed in the noted order.

Comment Summary: Based on the information provided, the proposed access configuration does not demonstrate compliance with the City's requirements for independent access routes, roadway redundancy, and emergency access,

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resulting in potential life safety concerns that should be addressed through additional analysis or documentation. Accordingly, the information provided does not demonstrate consistency with the applicable City and Fire Code access provisions.

If there are any questions or a need for further clarification, please feel free to contact me at (253) 838-6113 and we would be happy to discuss them with you.

Sincerely,

ESM CONSULTING ENGINEERS, LLC

A handwritten signature in blue ink, appearing to read 'R. Overfield', is positioned above the printed name.

ROBBY OVERFIELD
Project Manager

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