

PUBLIC WORKS COMMENTS

PROJECT NAME: Sienna 1			
PROJECT NUMBER: 2022103527			
CONTACT: Arthur Saint arthur.saint@co.thurston.wa.us			
ITEM	REVISION / NOTE / COMMENT	DETAILS	APPLICANT RESPONSE:
1) Drainage	Comments	Provide Code Reference – Item(s) that need to be corrected. Please see Drainage Scoping Review Comments at: https://weblink.co.thurston.wa.us/dspublic/0/doc/16269410/Page1.aspx	

MEMORANDUM

DATE: January 26, 2023
TO: Arthur Saint, PE, Development Review
FROM: Zach Severs, PE, Public Works Water Resources
SUBJECT: Scoping Report Review Comments – Sienna Phase 1 Subdivision,
Thurston County Project #2022103527, Parcel #09090009000

Thurston County Public Works staff have reviewed the Scoping Reports and Plans prepared/provided by LDC, Inc. (Tyrell Bradley, PE) dated June 30, 2022 for the above referenced project. The plan of action outlined in the scoping report is generally acceptable subject to addressing the following comments; however, please be aware additional comments may need to be addressed if changes are made to the plans and/or reports or, if other information is discovered during the review of the Drainage Report and Plans.

Findings:

Submittal Requirements

1. Due to the nature of the project and with portions of the project already constructed under the 'Sienna Phase 2' project, a meeting may be scheduled to further discuss how the existing stormwater runoff and treatment into Tract 'D' pond can accommodate and treat new pollution generating impervious surfaces (PGIS) and pollution generating pervious surfaces (PGPS) and meet the 2022 DDECM requirements.
2. Applicant shall conduct a thorough review of their submitted materials to ensure they are accurate.
3. Applicant shall complete an Engineered Drainage & Erosion Control Plan (DECP) addressing Core Requirements #1-11 of the 2022 Drainage Design and Erosion Control Manual (DDECM) prepared by a civil engineer licensed in the state of Washington. As of now, the drainage report indicates the project was designed to meet the 2016 DDECM. The plans/report will need to be updated to meet the 2022 DDECM requirements.
4. Applicant shall submit an electronic copy of the WWHM2012 model with their DECP. Applicant shall also use the most current version of WWHM. Most recent version can be found at:
<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Stormwater-manuals/Western-Washington-Hydrology-Model>

5. All projects using infiltration facilities (other than single family residential drywells) shall submit a verification testing plan and contingency plan for under performance. The plan shall include a reasonable "worst-case" projection of long-term infiltration performance and describe methods and costs for improving/restoring performance and/or expanding facility size. See Sections 3.1.5 & 3.1.6, Volume V of the DDECM.
6. Thurston County has been collecting data on rainfall and water levels at various locations within the county. This information may be used for planning purposes only and can be found in the following link: <https://www.thurstoncountywa.gov/sw/Pages/monitoring-dashboard.aspx>.
7. Applicant shall submit completed Drainage Report Checklists including, but not limited to:
 - a. Project Elements Submission Completeness
 - b. Drainage Report Required Elements
 - c. Construction Plan Required Elements
 - d. Any checklists relevant to planned Best Management Practices (BMP's)
 - e. LID.02 Soil Preservation and Amendment Checklist

Checklists are available on the Thurston County Website:

<https://www.thurstoncountywa.gov/sw/Pages/dm-2022-docs.aspx>

8. Landscape & Irrigation Plans shall be submitted for review.
9. No trees or shrubs shall be planted within 25-feet of catch basins, manholes, inlet/outlet of pipes, spillways, or level spreaders. The Landscaping Plans shall reflect this.
10. See Table 3.5, Volume III for maximum spacing for inlet structures on paved roadway surfaces.

Drainage Report

11. In Section 9: Facility Sizing and Downstream Analysis, it states infiltration drywells will be utilized for the proposed lot roof and backyard runoff. Please include in the Construction Documents a typical lot layout and typical drywell sizing to ensure that proper horizontal setbacks and vertical separation from groundwater/restrictive layer will be achieved. If minimum setbacks are not a possible, a variance(s) will be required for reducing said setbacks.
12. From the submitted drainage report, the WWHM calculations indicates there is more than 15,000-square feet of impervious area contributing to the project's basin. From this, the project is required to perform Infiltration Receptor Characterization. See Section 2.3, Volume III of the DDECM for additional information and requirements.

Core Requirement #1: Stormwater Site Planning

13. A complete Engineered DECP and Construction Stormwater Pollution Prevention Plan (SWPPP) is required to meet Core Requirement #1.

Core Requirement #2: Construction Stormwater Pollution Prevention Plan

14. A Construction Stormwater Pollution Prevention Plan (SWPPP) is required to meet Core Requirement #2. Note that the Construction SWPPP shall be submitted and accepted prior to permit issuance.

Core Requirement #3: Source Control of Pollution

15. Applicant shall submit a completed Source Control Plan with their Drainage and Erosion Control Plan. A template Source Control Plan is available on the Thurston County website at <https://www.thurstoncountywa.gov/sw/Pages/dm-2022-docs.aspx>.

Core Requirement #4: Preservation of Natural Drainage Systems and Outfall

16. Existing drainage patterns shall be shown on the plans and preserved to the maximum extent practicable.

Core Requirement #5: On-site Stormwater Management

17. Per Table 2-1 in Section 2.4.6, Volume I of the DDECM, the project is located inside the City of Tumwater Urban Growth Area (UGA) on a 16.28-acres parcel. Therefore, the project shall meet LID Performance Standards and BMP LID.02, or List #2 located in Section 2.4.6.2, Volume I of the DDECM.
18. BMP LID.02 is required for lawn and landscaped areas. The extent of BMP LID.02 Post Construction Soil Quality and Depth must be shown on the plans. Note, all lawn/landscape areas subject to BMP LID.02 may be modeled as pasture in WWHM.
19. Applicant shall submit a site-specific Soil Management Plan with their application. Refer to the Design Guide for Post-Construction Soils Quality and Depth for the submittal requirements. Please see link for additional information: <https://www.thurstoncountywa.gov/sw/swdocuments/DG-4%20POST-CONSTR%20SOILS.pdf>

Core Requirement #6: Runoff Treatment

20. Pollution generating hard surfaces exceed 5,000-square feet within a single threshold discharge area and the proposed project will be classified as residential. Therefore, basic runoff treatment is required.
21. Originally, Sienna Phase 1 received preliminary plat that was vested under the 1994 DDECM. The preliminary plat expired and thus, this project will need to meet the latest 2022 DDECM requirements. As of now, the stormwater pond in Tract 'D' was constructed under Phase 2 and utilized Filter Strips for Runoff Treatment for PGIS and PGPS, which was designed to meet the 1994 DDECM. With adding new pollution generating surfaces to the existing pond, calculations/modifications may be necessary to ensure all new runoff is treated per the 2022 DDECM.

Core Requirement #7: Flow Control

22. Flow control is required for this site. Applicant must submit WWHM2012 modeling which shows the proposed BMP'S meeting the flow control requirements.
23. Verify horizontal setbacks to property lines, buildings, septic systems, drinking water wells and other on-site (and off-site) features are met. See Appendix V-E, Volume V for setback requirements.
24. The Tract 'D' pond will need to propose vehicular access meeting the requirements of Appendix V-E, Volume V of the 2022 DDECM. As of now, the plans do not show an access road or access ramp.

Core Requirement #8: Wetland Protection

25. Per Thurston County Geodata, no wetlands or wetland buffers are mapped on-site. No wetland protection is required at this time.

Core Requirement #9: Operations and Maintenance

26. Applicant must develop and record with the Thurston County Auditor an agreement to maintain stormwater facilities and implement a pollution source control plan for all those facilities to be maintained by the property owner. The Operations Plan and Source Control Plan shall be included as attachments to any recorded document(s).

Core Requirement #10: Financial Liability

27. The applicant shall provide a financial guarantee to the DDECM Administrator to ensure satisfactory maintenance of drainage facilities (i.e. Infiltration facilities) for a minimum of 2 years from final acceptance of the project.

Core Requirement #11: Off-site Analysis and Mitigation

28. A qualitative downstream analysis shall be performed for any potential runoff from the site, even if 100-percent infiltration is proposed. The downstream analysis will include the flow path from the site to the receiving water or up to one mile, whichever is less, even if all runoff will be full dispersed on site. See section 2.4.12, Volume I of the DDECM for requirements.