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Memorandum

To: Jeremiah Fettig, Associate Planner

Date: November 3, 2021

From: Tyler Sandt, Development Review Engineer
Michael Walton, Project Engineer

Cc: Alex Mestdagh, P.E. Engineering Services Manager

Subject: Parker and Pine Filing 1 Lot 4 Car Wash – Engineering 1st Review

The Engineering Department has reviewed the documents submitted for the Parker and Pine Car Wash. The submittal consisted of the following documents:

<u>Document</u>	<u>Date Received</u>
Drainage Letter	June 30, 2021
Construction Plans	July 1, 2021
Traffic Letter	September 28, 2021
Site Plan	June 30, 2021

The site is located at the southwest corner of Parker Road and Pine Drive. Based on our review we have the following comments:

Traffic and Roadway Review Comments

The following comments concern traffic, access, roadway design, and construction standard issues for the subject property. They are based upon our review of the submittal documents in accordance with the criteria presented in the Town of Parker’s Roadway Design and Construction Criteria Manual (RDCCM), as revised, July 2015. Additional regulatory and planning documents may have been utilized in the review, and are referenced in the comments where appropriate.

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Civil Construction Plans

1. Please revisit the configuration of the sidewalk connection to Parker Road per ADA as an 8% slope for the proposed segment of sidewalk is not acceptable.

Site Plan

2. 25-foot drainage easements are required over all proposed storm sewer not already covered by an easement. Note that roof and landscape drains do not require an easement. Once the storm sewer configuration is finalized please provide the legal descriptions and exhibits for these areas.

Traffic Letter

3. Please add a queueing analysis to the traffic letter. Note that the letter will need to demonstrate that all anticipated queueing can be accommodated on site.

Stormwater Review Comments

The following comments concern drainage, erosion and sediment control, and non-point source pollution control issues for the subject property. They are based upon our review of the submittal documents against the criteria presented in the Town of Parker's, *Storm Drainage and Environmental Criteria Manual (SDECM)*, as revised, February, 2014. Additional regulatory and planning documents were utilized in the review, and are referenced in the comments where appropriate.

Civil Construction Plans

4. All storm sewer systems collecting drainage from the proposed drive aisles and parking areas shall be considered public and must adhere to the standards and specifications outlined within Section 6.3.3 of the Town's SDECM, including the use of RCP, concrete inlet structures and dedication of drainage easements. This includes the area inlet proposed for Storm Sewer – A which is proposed to receive the parking lot flows through curb cuts.
5. Please consider the use of a curb inlet at the curb cut location with a landscape drain routing the landscaped areas flows through storm sewer into the curb inlet. The area inlet in the landscaped area with curb cuts will be more prone to clogging and cause greater potential concern for erosion.

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6. Evaluate means of capturing the landscaped area flows currently proposed to discharge overland offsite. Flows should only discharge overland offsite when there is no feasible means to capture and convey them through the proposed storm sewer system.
7. Provide a typical swale section in the stormwater details. The section should include all necessary dimensions, materials, and the 100-year water surface elevation at a minimum.
8. Provide CDOT standard details for all proposed storm sewer infrastructure.
9. Provide Town's standard manhole cover detail. Reference RDCCM Appendix A for most current form of the detail.

Site Plan

10. All storm sewer systems collecting drainage from the proposed drive aisles and parking areas shall be considered public and must adhere to the standards and specifications outlined within Section 6.3.3 of the Town's SDECM, including the dedication of drainage easements. Provide drainage easements for all storm sewer receiving flows from paved driving surfaces.
11. Provide a minimum of 7-feet from the dripline of any proposed or existing tree and the edge of any proposed or existing storm sewer infrastructure.

Drainage Report

12. Provide narrative on how the proposed sub-basins will be conveyed on site. It is unclear how the swale along the eastern border of the site is proposed to convey the flows around the proposed retaining wall on the southwest corner to reach the proposed area inlet.
13. Please consider the use of design points at the ultimate point of discharge to help simplify the requested basin descriptions.
14. Provide narrative on how the stormwater flows and proposed car wash flows will be kept separate by the proposed infrastructure on site.
15. Provide swale sizing calculations.
16. Provide inlet capacity calculations for all proposed storm sewer inlets.

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17. Provide minor and major storm hydraulic grade line calculations for all proposed storm sewer.

Grading and Erosion Control Plans

GENERAL COMMENTS

18. Ensure Limits of Construction (LOC) and proposed perimeter control encompass the full extents of the proposed disturbance. Specifically noted a small portion of the proposed sidewalk at the northeast corner of the site falls outside of these extents.
19. Provide a unique block for each type of inlet protection required on site to avoid potential confusion in the field.
20. Provide and identify Debris and Trash Control (DTC) for all existing paved driving surfaces adjacent to the site and all proposed paved driving surfaces on site.
21. Provide and identify Portable Toilet Protection (PTP) for the site.
22. Provide and identify a Stabilized Staging Area (SSA) for the site.
23. Omit all existing and proposed utilities from the CBMP Drawings, except those relating to stormwater.
24. Include within the plan set all of the town's 31 CBMP Notes & Details.
25. Add a callout/label on all properties adjacent to the project stating that no work shall occur in these areas.
26. Add the following note to the initial and final CBMP plan sheets:
"LOT PROTECTION (LP) IS REQUIRED ON COMMERCIAL LOTS WHEN LANDSCAPING IS NOT POSSIBLE."

INITIAL CBMP PLANS

27. Please provide one means for perimeter control at any given point around the site extents. This should be Silt Fence (SF) when downstream of proposed disturbance and should be Construction Fence (CF) when upstream of proposed disturbance.

INTERIM/FINAL CBMP PLANS

28. Revise sheet title to reflect "CMBP PLAN INTERIM/FINAL".

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29. Provide and identify Erosion Control Blanket (ECB) on all slopes steeper than 4:1.
30. Provide and identify Seeding Mulching and Crimping (SMC) and Surface Roughening (SR) in all proposed landscaped areas.
31. Provide and identify sediment control logs (SCL) along all paved areas adjacent landscape/pervious areas. This includes landscape islands and all pedestrian walks.

The submittal is not in general conformance with the Town of Parker's *Roadway Design and Construction Criteria Manual* and *Storm Drainage and Environmental Criteria Manual*. The submittal must be revised and re-submitted for review.

Link to Engineering Standards and Criteria:

<http://www.parkeronline.org/210/Standards-and-Criteria>

An attempt has been made to identify all of the items that do not meet the Town of Parker's design criteria; however, it remains the developer's responsibility to ensure that all criteria are met.

If you have any questions regarding the comments, please do not hesitate to contact the Engineering Department at (303) 840-9546.