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Memorandum

To: Amber Wood Hicken, Planner I

Date: September 13, 2024

From: Charles Kudlauskas, P.E., Senior Development Review Engineer
Robert Seacat, Stormwater Permit Coordinator

Cc: Alex Mestdagh, P.E., Engineering Services Manager
Tom Williams, P.E., Director of Engineering/Public Works

Subject: SP24-086 Parker Pointe AMD 1 L3A - Car Wash – Engineering 1st Review

The Engineering Department has reviewed the documents submitted with this application. The submittal consisted of the following documents:

<u>Document</u>	<u>Dated</u>
Construction Plan	July 2024
Site Plan	July 2024
Drainage Memo	July 2024
Traffic Letter	July 2024

Thank you for the opportunity to review this application. 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, November 2020. Additional regulatory and planning documents may have been utilized in the review and are referenced in the comments where appropriate.

CONSTRUCTION PLANS – CIVIL

1. The Vicinity Map shall be at a scale of 1"=2,000' and include location and names of all aerial roadways within one mile of proposed construction. Include any major drainageways in this area.
2. Please ensure signature review block matches the latest shown in the Parker Roadway Design and Construction Criteria Manual (RDCCM).

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3. Please ensure all Town of Parker Notes match the latest notes in the Town of Parker RDCCM.
4. Please include the Signing and Striping Plans.
5. Please reference and include a detail for ADA ramps. (See RDCCM for Parker standard details)
6. Please reference Parker Detail 20 or provide full grading details with cross ramp transitions for driveway connections with attached sidewalk. (see uploaded redlines)
7. Please include existing and proposed contour labels on all grading plans.
8. The signature review block for Parker Engineering/Public works located on the sheets for Parker Water and Sanitation can be removed while the subset can be separate from the overall CD set. (see uploaded redlines)
9. Please clearly show and label property boundaries.
10. Please clearly label the dashed lines. (see uploaded redlines)
11. Please label, dimension, and reference reception no. or book and page for all existing easements. (see uploaded redlines)

SITE PLAN – CIVIL

1. The Vicinity Map shall be at a scale of 1"=2,000' and include location and names of all aerial roadways within one mile of proposed construction. Include any major drainageways in this area.
2. Provide and identify sight lines in accordance with Town standard detail 24 on the landscaping plans.

TRAFFIC IMPACT STUDY – CIVIL

1. Please provide a queue analysis of the project site. Include discussion and analysis of anticipated stacking distance in relation to the proposed design of drive through lanes. It must be certified that the queuing created by this development will not impact the adjacent shared access road or adjacent properties.

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.

CONSTRUCTION PLANS – ENVIRONMENTAL

SP24-086 – Mister Car Wash - 1st Environmental Review, 9-13-24

Please note that a **CBMP Cost Estimate** will be **required** and **reviewed** with the Grading Permit

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after all CBMP comments have been addressed and the final site plan is near approval.

GENERAL COMMENTS (Initial, Interim and Final Plan Sheets)

1. Civil Plans must include multiple Erosion Control Plan Sheets referencing the Initial, Interim and Final phases of the project. You can use two plan sheets, Initial and Interim/Final: or three plan sheets, Initial, Interim, and Final. **Each Erosion Control Plan must be on a separate Civil Plan sheet, enlarged to provide more detail.** Using three plan sheets is preferred but not required.
2. Please add a general note stating – “THE VTC PAD FOR A CWA DOES NOT NEED TO CONFORM TO THE FORMAL VTC DETAIL”.
3. Please add a general note stating – “THE TRUE LOCATION OF THE CWA MAY BE DETERMINED BY THE TOWN AND THE ECS”.
4. Please add a general note stating – “LOT PROTECTION (LP) IS REQUIRED ON COMMERCIAL LOTS WHEN COMPLETION OF LANDSCAPING IS NOT POSSIBLE and PRIOR TO ISSUANCE OF A TEMPORARY CERTIFICATE OF OCCUPANCY.”
5. Please add a general note stating – “THE TRUE LOCATION OF THE PORTABLE TOILET PROTECTION (PTP) MAY BE DETERMINED BY THE TOWN AND THE ECS”.
6. Please add a general note stating – “MASONRY WORK PROTECTION IS REQUIRED FOR CONSTRUCTION OF BUILDINGS”.
7. Please add a general note stating – “ANY ONSITE BULK FUEL STORAGE REQUIRES A FIRE LIFE SAFETY PERMIT FROM THE TOWN OF PARKER PRIOR TO INSTALLATION”. Contact Randy Capra at 303-805-3136 or rcapra@parkeronline.org for FLS Permit questions.
8. Please consider connecting the Stabilized Staging Area (SSA) to the end of the Vehicle Tracking Control (VTC) as shown in the Town’s standard detail. This configuration helps limit the amount of necessary traffic across disturbed areas, further limiting tracking from the site.
9. Please show multiple Portable Toilet Protections (PTP), a site this size must have at least 2 at initial phase. Addition PTPs may be needed in the interim and final phases.
10. Please omit all existing and proposed utilities from the CBMP Drawings, except those relating to stormwater.
11. Please provide arrows to indicate the direction of stormwater flow.
12. Please provide Parkers Legend of Keys/Symbols to correspond to the Town’s 31 CBMP Notes & Details on all Erosion Control plan sheets.

13. Include Silt Fence (SF) perimeter controls on the south side of the site. Construction Fence (CF) may be used as a singular alternative **when upstream** of disturbed areas.
14. Add a callout/label on all properties adjacent to the project stating: “NO WORK SHALL OCCUR IN THIS AREA”. These areas must be shaded for easy identification.
15. Please show the **existing and proposed** Stormwater Utilities (Inlets, Pipe and Manholes) on the Initial and Interim/Final Plan Sheets.

INITIAL CBMP PLANS

16. Please show the VTC to be 50-feet in length on the Initial Erosion Control plan sheet.
17. Please show jersey barriers or construction fence along the sides of the VTC to ensure use of the entire 50-foot pad.
18. Provide and identify Inlet Protection (IPCOS) for the existing inlet to the east of the site. IPCOS should remain in place until the actual work on the stormwater inlet begins.

INTERIM/FINAL CBMP PLANS

19. Show Masonry Work Protection (MWP) on the plans in two locations for Construction of the building.
20. Sediment Control Log (SCL) is required at back of curb and back of sidewalk immediately after installation of asphalt/concrete in roadways and parking areas. This includes landscape islands and all pedestrian walks. Please provide and identify on the plans where needed. Note: if tree lawn areas/landscape islands are graded to final grade, Erosion Control Blanket (ECB) may be used to cover the entire tree lawn area/landscape island instead of using SCL at back of sidewalk/curb.
21. Remove the roadway striping arrows from the plan sheets to avoid confusion with the stormwater flow arrows that must be added.
22. Provide and identify Debris and Trash Control (DTC) along all proposed paved driving surfaces internal to the site and to adjacent properties around the site.
23. The existing Type R Inlet that falls in the site driveway entrance pan needs to be relocated to the south utilizing a manhole, RCP, and another Type R Inlet. Parker does not allow a Valley Grate Type 16 Inlet in the pedestrian crosswalk area of the driveway pan.

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Stormwater/Storm Drainage and Environmental Criteria Manual
["\\townsan\group\engineering\Stormwater\Storm Drainage and Environmental Criteria Manual\2013
Final SDECM\Appendix C CBMP Standard Details"](#)
Roadway Design/Construction Criteria Manual
[Roadway-Design--Construction-Criteria-Manual \(parkerco.gov\)](#)
CAD Drawings Link:
["\\townsan\group\engineering\Stormwater\Storm Drainage and Environmental Criteria Manual\2013
Final SDECM\Appendix C CBMP Standard Details"](#)

CONSTRUCTION PLANS – STORMWATER

1. Please include a label of the structure type and a detail. Please be aware, per SDECM 6.3.3.2, pipe bends are not allowed in storm sewer alignments. (see uploaded redlines)
2. The minimum acceptable easement widths for storm sewers can be found in Table 2.8 of Section 2.6.1 of the SDECM (25ft). The required easements widths are necessary to ensure adequate space is provided for the construction and maintenance of the storm sewer facilities. Please extend proposed drainage easements 25 ft beyond the storm structure on all sides.
3. Please dimension and show proposed drainage easements on all Storm Sewer Plans. proposed drainage easements will need to be dedicated by separate document per the Town SDECM. Upon future submittal please provide an exhibit with legal description and name of entity representative/owner to sign.
4. Please note that proposed drainage easements do not need to include roof drains or landscape drains.
5. Include hatching in the legend. (see uploaded redlines)
6. All storm sewer systems collecting drainage from the proposed drive aisles and parking areas must adhere to the standards and specifications outlined within Section 6.3.3 of the Town's SDECM, including the use of RCP with a minimum 18-inch pipe size and dedication of drainage easements.
7. On all storm plans, please include all proposed and existing easements and provide reference reception no. or book and page for existing easements.
8. Provide the invert out information for tie-in to existing storm drain and show this information on the profile as well.
9. Please specify what dry utilities being located are in the profiles.
10. Please include a label of the structure type and a detail for the structure at the end of the trench drain.
11. Please provide a 0.2ft drop in pipe inverts across storm structures.
12. Please include minor and major HGL's on all profiles that match those presented in the drainage report calculations.
13. Please ensure that within each storm line, subsequent downstream pipe sizes are maintained or are increased in size. (see uploaded redlines)

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14. Parker does not allow a Valley Grate Type 16 Inlet in the pedestrian crosswalk area of the driveway pan. Please revise the proposed alignment and inlet to accommodate a Type R inlet outside of the crosswalk and driveway pan and within the curb. (see uploaded redlines)

DRAINAGE REPORT

1. From the *Final Drainage Report-Parker Pointe* under the Minor Drainage Basins Section it states: *Basins L1 thru L15 are used to represent each of the proposed lots. As development conditions are not yet determined, an assumed 95% imperviousness is established for each basin. A storm sewer stub is provided for each lot to convey developed runoff to the extended detention basin at the southeast corner of the site providing both detention and water quality facilities. While Basins L10 thru L15 drain towards Parker road in the overlot condition, it is required that these lots convey site runoff to the mainline storm sewer down the center access drive. Due to the presence of the Magellan gas pipeline and it's limited cover requirements as well as site visibility lines to the easterly lots, The west side of lots 10 thru 15 will remain below the center access drive. The storm sewer has been placed at maximum depth to accommodate these lots "bucking" grade with the storm sewer system.*

Please re-evaluate design alternatives and further describe the proposed drainage pattern for undetained sub-basins and discuss how the proposed basin aligns with the overall plan or how and why it is not feasible to (specifically what constraints) meet the overall conformance to the master drainage report.

2. Please provide street inlet spread/depth calculations for the minor and major storm using the latest MHFD street capacity and inlet sizing workbooks. See Section 6.3.2 of the SDECM for inlet requirements.
3. Please provide hydraulic calculations for the minor storm and include the HGL's in the storm drainage profiles. (See Section 6.3.3.4 of the SDECM for requirements)
4. Please include the Hydrologic Soil Group Information for the NRCS Map of the project site area.

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.

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.