



DEVELOPMENT SERVICES

Date: Thursday, February 17, 2022

To: Judd Clausen, P.E.
Phelps Engineering, Inc.

From: Gene Williams, P.E.
Senior Staff
Engineer

Application Number: PL2022039

Application Type: Engineering Plan Review

Application Name: Market Street Center, Lot 1 - Public Sanitary Sewer

The Development Services Department has completed its review of the above-referenced plans dated Feb. 4, 2022 and offer the following comments listed below.

- See comments below to determine the required revisions and resubmit to the Development Services Department public portal located at devservices.cityofls.net. Digital documents shall follow the electronic plan submittal guides as stated below.
- Revised plans will be reviewed within ten (10) business days of the date received.

Engineering Review

1. A brief erosion and sediment control plan shall be provided for the project. All projects within the City of Lee's Summit shall include an erosion and sediment control plan despite their small scope of work. A final restoration plan shall also be incorporated into the erosion and sediment control plan. It is acceptable to place these plans within the same plan set.

Response: See added Sheet SS-3 which includes restoration details and erosion control measures.

2. Restoration plan shall include all sidewalk, driveway entrance, sodding, seeding, fertilizer, mulch, and other items necessary to restore the disturbed area to its original condition. Please be aware the entrance is KCMBB concrete mix, and sufficient detailing shall be provided for its restoration. The City shall not allow excessive steel reinforcement within this section of the driveway replacement, so please see the City standard details for more information. The intent of the removal and replacement shall be to yield a driveway as good a condition as was originally designed, but will allow for easy access in the future by Water Utilities staff. Excessive rebar and/or dowels over and above what the City shows on the standard jointing pattern detail should be the goal of your design. Please revise, and provide specific notes as to the removal and replacement of the driveway, sidewalks, and grassed areas.

Response: See added Sheet SS-3 which includes restoration details and erosion control measures. All pavement to be removed / replaced as part of the street cut and repair is on private property. A detail for the street cut and repair has been added to Sheet SS-4. The southern existing public sidewalk ramp, landing, and next panel are all to be removed / replaced. These have been detailed, included spot elevations and slopes. Details for public sidewalk and ramps have been added to Sheet SS-5. All disturbed turf area outside of the property shall be

sodded. This has been called out and noted on Sheet SS-3.

4. The public line shall be extended further to the northeast so that the installation of the wye can take place completely within the bounds of Lot 2, with sufficient space around the wye for future maintenance by the owner of Lot 2 without the need to disturb the property of Firestone to the south. Recommend a minimum of 10 feet from the wye. Please revise as appropriate.

Response: The public line was extended to ensure adequate space for the installation of the wye for lot 1.

3. A wye connection for the 1.25 inch force main was missing from the plans. I am using this figure of 1.25 inch as there was a contradiction in the FDP which showed 2 inch HDPE, then went on to state 1.25 inch. Please review which size is needed, and show the wye location where the force main serving the northern lot will be connected. Please be aware the City does not allow direct connection to the manhole, and the wye shall be a minimum of 4.0 feet downstream of the manhole, as measured from the outside of the manhole, to the closest point on the wye (i.e., not the centerline of the wye, but the closest point on the wye). Please revise as appropriate.

Response: See updated Sheet SS-3 which shows the location of the future 1.25" wye connection which is > 4.0 feet downstream of the manhole.

5. Standard detail for a wye connection including tracer wire requirements were missing. Please provide this detail in the plans.

Response: Added detail to Sheet SS-3.

6. Topo is incomplete. The impacted driveway, sidewalk, and grassed-area were missing. Without this, no comments can be provided on the removal and replacement plan for the KCMMB driveway entrance (including jointing pattern), nor the sidewalk, or the grassed-area restoration. Provide a complete topo for the area in question.

Response: Additional topo provided.

7. Sanitary sewer appears to be too close to the unidentified feature "ET", and the AT&T telephone vault. Minimum distance between the outside of the pipe or manhole shall be 10 feet from these or any other permanent structure. Please revise.

Response: See updated Sheet SS-2 which dimensions from the sewer to the transformer and telephone vault. The proposed sewer is running within the existing 20 ft sewer easement which was established to provide sewer to the development. By maximum distance between the two existing structures, 7 feet of horizontal separation can be provided between the sewer main and each structure. It should be noted that each structure is located within the existing 20 ft sanitary sewer easement. The depth of the sewer at the location where 7 feet of horizontal separation is provided is 5 feet (FG to FL) providing more than 1:1 separation for any future maintenance needs. The contractor will ensure a pipe joint will not be established at the pinch point.

8. Existing flowline information was missing for the existing manhole. The flowline in elevation for the existing line to the west, and the flowline elevation for the outgoing line is required in addition to the flowline elevation for the proposed. Please revise.

Response: Added information to Sheet SS-2 profile.

9. Plans are missing the notes specifying core drilling of the manhole for the connection. Please add sufficient notation.

Response: Added notes to Sheet SS-2.

10. ADA-accessible ramps at the existing entrance appear to be impacted by the project. No topo information was provided, however, to make a definitive determination. Please see comment related to an adequate topo for this project, and provide the required details concerning the removal and replacement of this feature. Generic details for ADA-accessible ramps are not sufficient, and minimum callouts for this particular ramp include corner elevations of the ramp, slope callouts for the ramp and the cross-slope of the ramp, callouts for the 5 foot wide ADA-accessible route across the driveway with dimensions, cross-slope callouts, cross-section at the curb opening (if used), and all other information necessary to construct the ADA-accessible ramps in accordance with City of Lee's Summit standards. Please be aware the City has adopted more stringent standards for design than PROWAG, including the 1.5% cross-slope rather than 2.0%, and 7.5% for running slope rather than 8.33%. This allows for some construction tolerance, with PROWAG governing the finished product.

Response: See added Sheet SS-3 which includes restoration details and erosion control measures. All pavement to be removed / replaced as part of the street cut and repair is on private property. A detail for the street cut and repair has been added to Sheet SS-4. The southern existing public sidewalk ramp, landing, and next panel are all to be removed / replaced. These have been detailed, included spot elevations and slopes. Details for public sidewalk and ramps have been added to Sheet SS-5. All disturbed turf area outside of the property shall be sodded. This has been called out and noted on Sheet SS-3.

11. Incoming force main shall be installed outside all public utility easements since it is considered private. A private easement shall be dedicated to Lot 1 from Lot 2 for its installation, maintenance, and service. Please ensure this is taken into account during design of the public portion of the project.

Response: Acknowledged. Private sewer easement shown on the updated plat and shown on the updated sewer plans for the private force main.

12. General Comment: Linework was confusing, contradictory, and needs considerable cleanup. These comments shall be considered cursory in nature due to this issue.

Response: See updated plans which have been cleaned up and additional topo provided.

Traffic Review - Not Required

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs shall accompany your final submittal copies. The itemized estimate (material and installation) shall be sufficiently broken down and shall include the following items, as applicable.

- Public infrastructure, both onsite and offsite.
- Private street construction, including parking lots and driveways.
- Sidewalks located within the right-of-way.
- ADA accessible ramps.
- Sanitary sewer manholes and piping between manholes, including private mains.
- Connection of the building sanitary sewer stub to the public main.
- Waterlines larger than 2 inches in diameter, valves, hydrants, and backflow preventer with vault, if outside the building.
- Stormwater piping greater than 6 inches in diameter, structures, and detention / retention facilities - public or private.
- Water quality features installed to meet the 40-hour extended duration detention requirements.
- Grading for detention / retention ponds.

- Grading to establish proper site drainage.
- Utility infrastructure adjustments to finished grade (i.e. manhole lids, water valves, etc.).
- Erosion and sediment control devices required for construction.
- Re-vegetation and other post-construction erosion and sediment control activities.

Electronic Plans for Resubmittal

All Planning application and development engineering plan resubmittals shall include an electronic copy of the documents as well as the required number of paper copies.

Electronic copies shall be provided in the following formats

- Plats – All plats shall be provided in multi-page Portable Document Format (PDF).
- Engineered Civil Plans – All engineered civil plans shall be provided in multi-page Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Please contact me if you have any questions or comments.

Sincerely,

/s/ electronically signed Feb. 17, 2022

Gene Williams, P.E.
Senior Staff Engineer
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Gene.Williams@cityofls.net

cc: Development Engineering Project File