

City Comment Response #1

Project: Lakewood Business Center on I-470 Plat S – Public Street and Storm Water Plans

Owner: Ward Development

Powell CWM Project Number: 21-1883

Application Number: PL2022164

Date: 08/23/2022

The responses below are in regard to the **Engineering Plan Review** received on May 8th, 2022.
The necessary drawings have been updated and our responses are listed below.

Plan Reviewer: Gene Williams, P.E.

Item Review: Engineering Review

Email address: Gene.Williams@cityofls.net

Phone number: (816) 969-1223

1. An additional ADA-accessible ramp appears warranted at Maguire and Cargo. This ramp would cross Maguire, but since it is not in a stop-controlled situation, is not subject to the 1.5% cross-slope, but rather, 5% max. Please add details showing the additional ramp, and please show the general location on the "overall site plan" sheet.

Completed per request

2. Sheet C-130: Portions of the ADA-accessible ramps are shown with a designation of "L" for a landing. These are not landings, but rather, turning spaces. In one instance at North side of Maguire and Hagan, this turning space (incorrectly designated as landing) is called out with 1.5% in all directions, which mathematically equates to a slope no greater than 2.0% in the diagonal direction. All turning spaces must be flat, as defined as being no greater than 1.5% in any direction including the diagonal. Please review and revise as appropriate.

Labeling and grades revised per request

3. Sheet C-130: Wings are shown on the ramps' and not desired by the city. Please remove the wings, and substitute grading at no greater than 3 to 1 slope to the ADA-accessible ramp.

Revised as requested

4. Sheet C-130: ADA-accessible route across the stop-controlled intersections were missing from this sheet. The route shall be clearly shown on the plans, with 5-foot minimum callouts for width, and maximum 1.5% cross-slope across the entire route.

ADA curb ramp and accessible routes detailed on sheet 131

5. Sheet C-130: The diagonal slope across the turning space (incorrectly labeled as landing) on the east side of Cargo and Maguire is greater than 1.5%. I am showing approximately 2.1% slope across the diagonal based on elevation callouts on the diagonal. Please review and revise as appropriate.

Revised per request

6. Sheet C-130: The turning space (incorrectly labeled as a landing) shows a slope of greater than 1.5% on the diagonal on the south side of the intersection of Maguire and Hagan. I am showing a slope of 2.1% at this location. Please review and revise as appropriate.

Revised per request

7. Profile views of streets should be updated to reflect the ADA-accessible route across the intersection at stop-controlled intersections. As shown, it appears a 2% callout is provided on the profile views, which may present an issue when compared to Sheet C-130 which shall be revised to show no more than 1.5% cross slope across the stop-controlled intersection. Please review and revise as appropriate.

Revised as needed

8. Sheet C-211 Future sanitary sewer extension in phase 2 is being proposed within the easements on adjacent property to the west of Lot 1. An exclusive easement should be dedicated for this future sanitary sewer on lot 1 rather than utilizing the adjacent property easement to the west. Please review and revise as appropriate, noting that distance requirements are met between the sanitary sewer and the storm line, as well as depth of sewer versus width of easement for the exclusive sanitary sewer easement. This shall also be reflected on the final plat. Please contact this office for language for the exclusive sanitary sewer easement.

Completed per request

9. Sheet C-211: The same issue with the sanitary sewer exists to the west of Lot 3. An exclusive easement for sanitary sewer is required rather than a general utility

easement since this line is being constructed behind lots and out of the right of way. Please review and revise as appropriate and ensure proper clearances and sufficient easement width of twice the depth is provided for the sanitary sewer easement. This shall also be reflected on the final plat.

Completed per request.

10. An additional curb inlet appears warranted on Maguire, to the north of the westernmost proposed curb inlet on Maguire. The maximum distance between curb inlets is 400 feet, and as proposed, it appears the curb inlet at the sump location may overload without an addition at-grade curb inlet to the north of the proposed curb inlet. Please revise as appropriate.

Based on design gutter flow an additional curb inlet is not warranted.

11. Normal procedure within the City of Lee's Summit is to show the HGL below the crown of the pipe, and the 100-year HGL at least 6 inches below the throat of any opening. As proposed, the 100-year event is above the crown of the pipe in many instances, and it would appear the 100-year event will surcharge out of the inlet. If this design is sought, emergency overflow swales for the 100-year event shall be required. Recommending sizing the pipe as described above (i.e., with the 100-year event no less than 6 inches from any throat opening). Please review and revise as appropriate.

Storm sewers revised to carry 100-yr flows.

12. Storm lines that cross Maguire shall be either RCP or CPP. HDPE is not allowed in this instance due to the street classification.

The HDPE spec'd is CPP (N12 dual-wall pipe)

13. The last section of the pipe entering the detention basin is shown as HDPE with a diameter of 60 inches. This will tend to float if constructed as shown without anchors. Recommended RCP from the last structure to the detention basin. If not, other designs are required to address the issue of floating.

Storm layout revised, pipe will be anchored

14. Underdrain was missing as the sump location of the two curb inlets along Maguire. These shall be called out on the plan view, and sufficient notes directing the reader to a standard detail to be provided elsewhere within the plan set. Please show which KCAPWA detail is being used (i.e. the cross-pipe detail should be shown, you can cross-out the other details if that is easier). Please revise as appropriate. In general, you will be connecting the curb two curb inlets with a perforated pipe to facilitate groundwater drainage at the sump pump.

Revised, details added

15. It was our understanding the ditch to the west of Lot 1 would be filled-in after installation of the storm line entering the detention basin. This will also be required after re-routing the sanitary sewer line to the east into Lot 1 (see previous comments related to this issue). As shown, the ditch will remain, and erosion issues will continue to affect the integrity of the detention basin at its inlet. Please review and revise as appropriate.

Grading revised to fill in ditch to extent possible without adversely affecting runoff patterns.

16. In regard to the above comment, it is acceptable to provide a gentle swale rather than completely filling the ditch to the west of Lot 1. However, some method of addressing the ongoing issues at the discharge point to the west of Lot 1. However, some method of addressing the discharge point into the detention basin bottom, rather than allowing it to create rills along the basin side. Please review and revise as appropriate.

Revised as requested

17. A SWPPP is required prior to formal approval of the plans.

Acknowledged.

18. Are there any wetlands on site?

Pending formal delineation, wetland shown on database for existing ditch is out of date as it shows the wetland continuing under existing buildings to the south.

Traffic Review Corrections

1. Sheet C-120 Street name signs shall be a mix of upper and lower-case letters. Re. City sign detail.

Revised per request.

2. The existing temporary cul-de-sac at the end of Maguire shall be completely removed with the road extension. Plans shall show clearly shown the removal and restoration of these areas.

Completed per request.

Please feel free to contact me with any questions.

Sincerely,

Jadrienne Rodell-Tipton, PE
816-642-2433
Jrodell-tipton@powellcwm.com