
DEVELOPMENT SERVICES

Date: Friday, February 21, 2025

To: MATT SCHLICHT
50 SE 30TH ST
LEES SUMMIT, MO 64082

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

Application Number: PRSUBD20245707

Application Type: Public Infrastructure

Application Name: Oldham Village - Street and Storm, Sanitary, and Water

The Development Services Department received record drawing documents for this project and we have completed our review 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 five (10) business days of the date received.

Traffic Review - Streets

Reviewed By: Erin Ralovo

Corrections

1. The sidewalk along the south/west side of Oldham from Jefferson to the fieldhouse should be a 10 FT multi-use path. Please change.

The 10 FT multi-use use is not consistently shown on all sheets. Specifically the Plan and Profile sheet for Oldham still shows a 5 Ft sidewalk. Additionally the Profiles need to be updated and the reference should be for a multi-use or Shared use path as the design is different from that of a sidewalk.

2. Plans should include demo of the driveway at the church property.

If the church drive is not being removed with these plans, please add a note to the plans that the north most entrance to the site should not be built until the church parking lot is build and the existing church drive is removed.

3. A traffic phasing plan will need to be included with plans, i.e. how will traffic be handled during construction and any detour routes that may be needed.

This is still not sufficient. You will need to show which roads will be closed when, which closures will be done at the same time and how the local traffic will access their homes. This can not be left to construction but should be worked out now as with any Capital Improvement project within the City.

4. The east/west leg of the intersection at Oldham and Fieldhouse should be named SW Fieldhouse Drive on both sides of Oldham. There can not be two intersection streets with the same name. The north/south leg of the "seven street" can remain SW Jefferson Street.

5. The sag vertical curve on Oldham Pkwy at Low PT Sta. 11+57.28 has a K Value below the minimum required of 49. Please adjust to as close to the minimum as possible.
6. There are some misc. notes at the bottom of the profiles that need to be cleaned up.
7. All public streets in this development should be KCMMB concrete rather than asphalt. Please revise the profiles to reflect this.
8. No Streetlight plans were included with this submission.
9. No signal plans were included with this submission.

Engineering Review - Street and Storm

Reviewed By: Gene Williams, P.E.

Corrections

1. Will the large storm line on the west side of the project encroach-upon the structural portions of the retaining wall? The typical section view for the retaining wall is vague, and it would appear a more thorough design be prepared for a retaining wall of this magnitude. For instance, it is not clear whether the retaining wall will need to be considered as part of the dam design. It is not clear how far the footing of the retaining wall will extend into the subgrade, and how far the flat area on the bottom adjacent grade will extend horizontally, thus affecting the setback from 100 year WSE within the basin, setback from sanitary sewer(s), setback from water line(s), and setback from public storm lines. Evaluation and correction required as appropriate.
2. Index of Sheets on Cover Page does not match what is shown in the plan set. As one example, the signage plan is not shown in the index. Go through the index of sheets, and ensure the index of sheets matches exactly what is shown in the plans. Correction required.
4. It is not possible to review the ADA-accessible ramps and ADA-accessible routes without traffic signal plans at Oldham and Fieldhouse, and the streetlight plans. No further review at these locations were conducted. Informational comment.
5. Submittal was still missing the streetlight plans. No further review of the road geometry was conducted along the area in question. Correction required.
7. No phasing plan was submitted. This has been requested on several occasions, but nothing has been officially submitted with the plans. A specific phasing plan shall be required, and shall be a part of the construction plans. Informal verbal agreements are not sufficient for a phasing plan. Correction required.
8. How are you managing the existing storm line adjacent to Lot 204 Hillsdale? Are you proposing to remove this storm line? What are you planning in terms of an end treatment of this line? Are you proposing any sort of inlet at the end? Evaluate and correct as appropriate.
9. Refer to comment #22 in previous applicant letter. Rip rap design and dimension callouts and material callouts were requested, but the response to comments stated it is still "added", but I can find no calculations. No further review was conducted. Correction required.
10. According to the plan view and the typical section view of the retaining wall, you are proposing to allow sheetflow of stormwater over the tops and sides of the retaining wall. Grading should be revised to direct stormwater to the field inlets and storm lines serving this project. Sheetflow and/or concentrated flow shall not be allowed to cascade over the retaining wall. Correction required.
11. Refer to comment #25 in previous applicant letter. None of the typical sections provided for this project in regard to street construction is sufficient for arterial streets. The Design and Construction Manual requires the design to be

completed with the aid of a geotechnical report based on actual sampling and based on Section 5203.11 of the Design and Construction Manual. Correction required.

12. Refer to comment #25 in the previous applicant letter. In addition to a engineered design of the pavement based on a geotechnical report, all pavements shall include either chemically-stabilized subgrade or geogrid in the design of the base layer. Correction required.

13. Regardless of the design of the arterial street pavement sections, the asphaltic concrete or portland cement concrete sections shall be KCMMB mix. Correction required.

14. Sheet C.301: Footing of the retaining wall over the 48 inch storm line does not appear to show the footing. It appears the bottom of the wall is called-out, not the bottom of the footing. It appears the retaining wall will be using the pipe as structural support due to the minimal distance between the footing of the retaining wall and the outside of the HDPE pipe. It would appear the pipe beneath the retaining wall should be upgraded to RCP at a minimum. Evaluation and correction required.

19. Sheet C.211: Why are you showing the retention basin and dam within this plan set? In addition, why does this version on Sheet C.211 vary from the other version contained in the retention basin and grading plan? Grading is different, among other issues. Suggest removing any of these separate plans from this particular plan set. Correction required.

20. Sheet C.301: No cardinal directions or number of openings was provided for the field inlets. Correction required.

21. Sheet C.301: No cardinal directions for the various storm structure elements were provided for flowline in or flowline out. Correction required.

22. Sheet C.302: No cardinal directions or number of openings was provided for the field inlets. Correction required.

23. Sheet C.302: No cardinal directions for the various storm structure elements were provided for flowline in or flowline out. Correction required.

24. Sheet C.302: Why construct two (2) separate storm lines to the detention basin? Wouldn't it be easier to connect Line 3 serving the curb inlet (erroneously shown on the profile as a field inlet, and erroneously labeled as 3-2 even though it appears to be curb inlet 3-1) to the larger system to the west? Evaluate and correct.

25. Sheet C.301: What is the reasoning behind the excessive storm line slope to the retention basin? A 10% slope may lead to issues within the retention basin, and good engineering judgment would cause me to question such a design, especially given the proximity to a tall retaining wall. Evaluate and correct.

26. "PUBLIC" versus "PRIVATE" has been requested on the profile view of storm lines, but remains unresolved. Go through the plans and label each profile view of the storm line as "PRIVATE" or "PUBLIC" as appropriate. This is needed to enable our GIS technicians to enter the data for our GIS system. Correction required.

27. Overall Layout: Storm line 11 is shown too close to the retaining wall near the retention basin. Retaining wall shall be installed outside the limits of the easement, including any foundation, geogrid tie-backs, drainage system, or other item ancillary to the retaining wall. Correction required.

28. Field inlet sizing (i.e., dimensions) on Storm Line 1 is called-out incorrectly (e.g., 4x4) on the plan view versus what is shown on the profile view. Correction required.

29. Sheet C.303: Incoming crown of pipe is shown below receiving crown of pipe on one (1) segment. Correction required.

30. Is there a particular reason Storm Line 5 is shown so deep? There does not seem to be any compelling reason to allow such a deep storm sewer to be maintained in perpetuity by the public. Correction required.

31. Is there a particular reason Storm Line 7 is so deep? Evaluate and correct.
32. All of the stormwater profile sheets are missing cardinal direction of flowline in and out. Parenthesis as provided, but the field is blank. Correction required.
33. Why is Storm Line 6 shown so deep? Correction required.
34. Profile view of Storm Line 3 does not make sense. According to your retention basin plan, you are proposing a ten foot shared-use corridor along the retaining wall, and outside the limits of any flat area at the base of the retaining wall. The profile view does not show this, but rather, a sloped area from the base of the retaining wall to the retention basin. Correction required.
35. Sheet C.301: No cardinal directions for the various storm structure elements were provided for flowline in or flowline out. Correction required.
36. Why is Storm Line 9 shown so deep? Correction required.
37. Why is Storm Line 10 shown so deep? Correction required.
40. Storm Line 11 is too deep at the downstream end for no compelling reason. Correction required.
41. Storm Line 12 is also shown with excessive depth for no compelling reason, especially on the upstream side. Correction required.
42. Recommend reviewing the entire stormwater system, and make adjustments over the entire system. Typical depths of cover for other projects in the City are considerably less than you are showing. Anything greater than 7 feet of cover should be supported by a reason, and I am not seeing the reason at this time. Correction required.
43. Street underdrains shall be called-out at all sump locations. The underdrains shall be connected between curb inlets at the sump. Show the location of these underdrains, and provide a reference to the detail showing how these will be installed. Correction required.
44. Delete the trenching and backfill detail, and insert the City standard detail GEN-6 for pipe bedding. Correction required.
45. Type B ADA-accessible ramps are no longer allowed under PROWAG. ADA-accessible ramps shall be uni-directional rather than bi-directional. In other words, for each pedestrian movement, a separate ADA-accessible ramp is required. Remove all Type B ramps and provide alternate design. Correction required.
46. Public Works requested all public streets to be constructed on this project to be KCMMB portland cement concrete mix rather than asphaltic concrete. In a letter dated Jan. 23, 2025 from Cook, Flatt, and Strobel, it is stated that a geotechnical report was completed, and it goes on to recommend asphaltic concrete. Any deviation from the Public Works request shall be approved by Public Works, and so far, the plan does not comply with Public Works request. Correction required.
47. Typical pavement sections are shown with asphaltic concrete, not portland cement KCMMB mix. Correction required.
48. No further review of the pavement typical sections was conducted due to discrepancies in what Public Works requested versus what you are proposing. Correction required.
- 49.

50. Sheet C.100: Why are you showing easements for the private storm lines? Remove the easements as appropriate. Correction required.

51. Label the profile views of streets with the word "PRIVATE" or "PUBLIC" as appropriate. Correction required.

52. You are missing the typical pavement sections for the private street segments. Correction required.

Engineering Review - Streetlight Reviewed By: Gene Williams, P.E. Corrections

1. Streetlight plans and traffic signal plans were missing. Correction required.

Engineering Review - Water Reviewed By: Gene Williams, P.E. Corrections

16. A cost estimate is required prior to formal approval. Informational comment.

17. An MDNR construction permit shall be required prior to formal approval of the plans. Informational comment.

18. Use new City trenching and backfill detail. Remove your version. Correction required.

Water Utilities - Water Review Reviewed By: Kevin York Corrections

1. Sheet C.502: If the water main north of the connection will be removed, why install a tee and valve? There is also a fire hydrant on the south side of Sta. 0+65 of Line 1. Is the hydrant supposed to be used in place or removed? If it is supposed to be removed, remove the hydrant, hydrant tee and 12"--90 degree bend and connect the new water main to the existing water main without installing a new tee and valve. If the hydrant is supposed to remain, remove the 12"--90 degree bend and connect the new water main to the existing water main without installing a new tee and valve. The existing right of way on the west side of Jefferson Street is not identified. Install bends if needed to stay within right of way or utility easements. Correction required.

2. Sheet C.502: It looks like an alternate alignment was drawn for Line 1 between Sta. 10+00 and Sta. 11+50. Delete the alternate alignment and connect Line 2 to Line 1. Correction required.

3. Sheet C.503: The proposed water main at Sta. 22+55.50 needs to connect to an existing water main. The existing water main is shown on the plan sheet to be about 35 feet southwest of the proposed water main. Correction required.

4. Sheet C.503: LS Mapper shows a water main crossing the proposed water main near Sta. 21+25. The proposed water main needs to connect to the existing water main crossing 50 highway. Correction required.

5. Sheet C.503: There is over 1000 feet of water main along Oldham Parkway without a fire hydrant. The currently adopted Fire Code requires hydrants with a maximum spacing of 1000 feet where there are no structures to protect. Correction required.

6. Sheet C.504: There appear to be two different alignments for Line 2 between Sta. 1+00 and Sta. 1+60. Use an alignment that keeps the water main 5 feet from the storm inlet. Correction required.

Engineering Review - Sanitary Reviewed By: Gene Williams, P.E. Corrections

1. Lot 1 appears to be unserved by sanitary sewer. Response to comments states this lot is to be used for a parking lot and will not need sanitary sewer service, and provides an alternate connection method for a future connection if needed in the future. A letter was submitted by the applicant showing an alternate route for a future sanitary sewer which is: 1) too close to the retaining wall, 2) within the backyard of the homes along this area, a violation of Design and Construction Manual rules, 3) adding an additional potential dam penetration which would not be supported, and 4) would require the installation of approximately 300 feet of aerial gravity line which would be 15 feet high at the highest point in the backyards

of residential homes. All of these deficiencies in the concept plan are grounds for rejection of this plan. Correction required.

3. Comment: "Utility crossings are not shown in profiles". Although this comment was addressed, there are at least six (6) instances of utility conflicts either due to pipe shown going through another pipe, or too close to another pipe. Correction required.

5. Has there been any discussion with City of Lee's Summit Parks Department on the placement of the new sanitary sewer on Park's property? Shared-use path? We have had no discussions with Parks concerning this sanitary sewer line installation. Recommend meeting with Parks. Informational comment.

7. Sanitary sewer is too close to the retaining wall along the entire segment from the dam to the end of the retaining wall to the east. Measurement is taken at the outside of the pipe to the lowest portion of the footing, which would appear to extend an additional 5 feet to the south due to the banter involved and the flat area at the bottom of the retaining wall as depicted in your typical section view. Correction required.

8. Restoration plan was not shown for the work within Parks property. A detailed restoration plan shall be required showing the restoration of the baseball diamond impacted by construction, outfield, and any other areas impacted by construction on Parks property. Simple seeding is not sufficient. Recommend sodding in areas outside the playing field, and restoration of the playing field to Parks Department specifications. Corrections required.

9. Off-site easement(s) shall be required prior to formal approval of any sanitary sewer plans. Easement acquisition shall be subject to Parks board approval. Informational requirement.

10. Since the retention basin dam and embankment is being moved due to comments related to encroachment onto adjacent property, additional review of the sanitary sewer line shall be performed when the new plan is submitted for the dam and retention pond. This review will be related to conflicts related to dam penetration by the sanitary sewer line, and whether mitigation measures such as re-routing are justified. Informational comment.

11. Plan does not provide any details concerning the existing 10 inch sanitary sewer line beneath the proposed retention basin, and how this line will be properly abandoned. I would suggest the majority of this line be physically removed, with portions allowed to be abandoned in place where it makes sense. Abandonment in place for those areas shall be described on the plans, and the method for abandonment in place shall be shown on the plans and shall conform to the Design and Construction Manual. Correction required.

12. Sanitary sewer depth is too deep at Sanitary Sewer Line A. You are allowed 20 feet to the flowline, not the top of pipe. Correction required.

13. Delete old pipe embedment detail and insert new City standard detail GEN-6. Correction required.

Water Utilities - Sanitary Review

Reviewed By: Amanda Bagwell

Corrections

Please contact me if you have any questions or comments.

Sincerely,

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cc: Development Engineering Project File