



Application Number: PRSUBD20245294
Application Type: Public Infrastructure

Application Name: Oldham Village - Mass Grading and Erosion control

Please note our comment responses in bold below.

## **Engineer Review – Traffic**

1. Street Light plans should be submitted and approved with the infrastructure plans.

- a. Plans have been included with the resubmittal
- 2. Signal plans should be submitted and approved with the infrastructure plans.
  - a. Plans have been included with the resubmittal
- 3. A complete phasing plan and associated Traffic control plans should be submitted with these plans.
  - a. Plans have been included with the resubmittal
- 4. Generally, pavement design is not reviewable as submitted. Please include backup calcs for ESALs, ADT, truck distribution, soil properties. and rational for material coefficient inputs.
  - a. Geotechnical design has been updated and resubmitted
- 5. Submit PCC pavement recommendation to evaluate life-cycle cost to the City.
  - a. Provided with the revised Geotechnical resubmittal
- 6. Truck percentage seems low for this proposed roadway.
  - a. Truck percentages have been updated per the traffic study
- 7. Expect truck count to be about 10%, so is this 2% tractor trailers only, which seems okay, but ignores school buses, trash trucks, delivery vehicles, etc.
  - a. Truck percentages have been updated per the traffic study
- 8. How many lanes is the roadway? Need traffic report, with truck counts, to review. Need street classification to review.
  - a. Traffic study has been provided, street classification has been established as Industrial Collector
- 9. CBR should be 3.0 unless there are lab tests showing otherwise. Please submit Geotech work and lab testing for review, or change to a CBR of 3.0.
  - a. Calculations have been provided to support the CBR
- 10. Future ADT of 16,000 equates to 8,000 ADT with 2% growth over 35 years. Is that correct? (Should be in traffic report.)
  - a. Traffic study has been provided for review



## Engineer Review - Street and Storm

- 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. The storm line was design to be located at or below the lower courses of the retaining wall, this line has been added to the profile for the storm line. The final design of the retaining wall will be performed by the contractor and provided prior to the wall being constructed. The portion near the retention facility has been updated and this comment no longer applies. Setbacks for the public infrastructure adjacent to the wall have been established to equal the depth of the public infrastructure facility.
- 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. **Index has been updated**
- 4. It is not possible to review the ADA-accessbile 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. **Traffic signal plans have been provided**
- 5. Submittal was still missing the streetlight plans. No further review of the road geometry was conducted along the area in question. Correction required. **Streetlight plans have been provided**
- 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. **Phasing Plan has been provided**
- 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. The storm line current drains the existing detention basin, which will be removed, and the rear yards of houses adjacent to the storm pipe. The current plan is to install the retaining wall and not impact the existing rear yard drainage that utilizes the pipe system. Following our meeting there has been a note to revisit this condition once the wall construction has begun
- 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. Rip rap calculations have been provided on C.212
- 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. The area of drainage between the retaining wall and curb is a minimal amount of drainage and this will not result in sheet flow going over the wall. The storm line will be installed at the same time as the wall and this storm system will collect the site runoff to prevent the storm water from going over the wall



- 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. The street section has been determined to be an Industrial Collector and the Geotechnical report has been updated to support the pavement design
- 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. The street section has been determined to be an Industrial Collector and the Geotechnical report has been updated to support the pavement design
- 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. **Noted on the street section**
- 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. Per our conversation, flowable fill will be placed above the pipe and below the wall. Additionally, that segment of storm pipe has been changed to RCP.
- 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. This sheet has been removed from this plan set
- 20. Sheet C.301: No cardinal directions or number of openings was provided for the field inlets. Correction required **Directions for the openings have been provided**
- 21. . Sheet C.301: No cardinal directions for the various storm structure elements were provided for flowline in or flowline out. Correction required. **Directions have been provided for flowlines**
- 22. Sheet C.302: No cardinal directions or number of openings was provided for the field inlets. Correction required. **Directions for the openings have been provided**
- 23. . Sheet C.302: No cardinal directions for the various storm structure elements were provided for flowline in or flowline out. Correction required. **Directions have been provided for the flowlines**
- 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. **Storm lines have been modified**
- 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. **Pipe slopes have been reduced to 3.68**%



- 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. Labels have been added to the profile views
- 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 ancilary to the retaining wall. Correction required. Setbacks have been verified and updated to maintain necessary easements
- 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. **Structure sizing has been updated**
- 29. Sheet C.303: Incoming crown of pipe is shown below receiving crown of pipe on one (1) segment. Correction required. Flowlines have been updated to match crown elevations
- 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. The depth of the storm line is to collect an existing storm line that is conveying storm water from MoDOT Right of way
- 31. Is there a particular reason Storm Line 7 is so deep? Evaluate and correct. **Storm line 7 has been** designed to allow for storm water connections from the adjacent lots, specifically Lots 3 & 4.
- 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. Cardinal directions have been provided
- 33. Why is Storm Line 6 shown so deep? Correction required. Storm line 6 is designed to collect stormwater from lots 5A, 6 and 7 and based on preliminary design the depth is required to serve the lots
- 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. **Storm line has been connected to Storm Line 1**
- 35. Sheet C.301: No cardinal directions for the various storm structure elements were provided for flowline in or flowline out. Correction required. **Cardinal directions have been provided**
- 36. Why is Storm Line 9 shown so deep? Correction required. **Storm line 9 has been designed to serve Lot 5 and based on preliminary design of the lot the depth is required**
- 37. Why is Storm Line 10 shown so deep? Correction required. Storm line 10 has been designed to serve Lot 5 and based on preliminary design of the lot the depth is required however the invert has been modified to create a drop into Inlet 5-4
- 40. Storm Line 11 is too deep at the downstream end for no compelling reason. Correction required. Storm line 11 has a starting flowline due to connection of an existing storm sewer system on Jefferson
- 41. Storm Line 12 is also shown with excessive depth for no compelling reason, especially on the upstream side. Correction required. Storm line 12 has a starting flowline due to connection of an existing storm line from the MoDOT system
- 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. Review has been completed and all lines have been designed to minimize depth.



- 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. **Underdrain note** and detail have been added to the plan set
- 44. Delete the trenching and backfill detail, and insert the City standard detail GEN-6 for pipe bedding. Correction required. **Detail has been removed and detail GEN-6 added**
- 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. **ADA ramps have been updated**
- 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. Pavement sections have been updated to reflect discussion
- 47. Typical pavement sections are shown with asphaltic concrete, not portland cement KCMMB mix. Correction required. Pavement sections for Oldham are KCMMB Asphalt and Jefferson is shown on PCC
- 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. **Noted**
- 50. Sheet C.100: Why are you showing easements for the private storm lines? Remove the easements as appropriate. Correction required. **Easements have been removed**
- 51. Label the profile views of streets with the word "PRIVATE" or "PUBLIC" as appropriate. Correction required. **Private and Public have been added**
- 52. You are missing the typical pavement sections for the private street segments. Correction required. **Pavement sections have been updated for Jefferson and Fieldhouse Dr**

#### **Engineer Review – Streetlight**

 Streetlight plans and traffic signal plans were missing. Correction required. Streetlight and signal plans have been provided

## **Engineer Review – Water (Gene Williams)**

- 16.. A cost estimate is required prior to formal approval. Informational comment. Noted
- 17. An MDNR construction permit shall be required prior to formal approval of the plans. Informational comment. **Noted**
- 18. Use new City trenching and backfill detail. Remove your version. Correction required. **Detail has been removed**



#### **Engineer Review – Water (Kevin York)**

- 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. Connection has been updated to remove the existing configuration
- 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. Alignment has been updated
- 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. **Connection has been added to the plan**
- 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. Water has been added to the plan
- 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. **Hydrant has been added at**
- 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. Alignment has been updated

# **Engineer Review - Sanitary (Gene Williams)**

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. Sanitary sewer easement route has been provided from Lot 1 to Oldham sanitary sewer



- 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. **Conflicts have been updated**
- 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. Sanitary sewer license agreement was discussed at the meeting with Parks
- 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. **Wall and sanitary main have been adjusted to meet the setback requirements**
- 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. **Notes have been added**
- 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. License agreement was discussed with Parks at the meeting
- 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. **Revision to basin has removed this 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. **Notes have been added**
- 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. **Depth of the line and easements have been updated**
- 13. Delete old pipe embedment detail and insert new City standard detail GEN-6. Correction required.

  Detail has been updated

Feel free to contact me should you have any additional questions regarding this project. Thank You,

Matt Schlicht