



Application Number: PRSUBD20245294
Application Type: Public Infrastructure

Application Name: Oldham Village – Mass Grading and Erosion Control

Please note our comment responses in bold below.

## **Engineering Review - Grading:**

- 1. Plans are incomplete in terms of identification and design of the sediment basin. Are you proposing the detention basin to act as a sediment basin? Correct. Where is the outlet structure? Added. Where is the emergency spillway? Added. Correction required. Sedimentation basin details have been added to the plan set along with site specific notes.
- 100 year clogged/zero available storage condition shall be shown on the plan view(s) along with numeric callout. Minimum of 20 feet setback required from any property line or building. Correction required. Both the 100-year and the consecutive 100-year clogged condition water surface elevations have been shown graphically on Sheet C. 201 and labeled accordingly.
- 3. Stormwater report: Grading plan for the detention basin in the appendix does not match the grading plan shown in the plan set on Sheet C.200. No further review of stormwater report or the stormwater detention basin performed. Basins match on the plans and in report. The basin has been revised to a retention basin with 6-feet of permanent storage and an additional 0.30 feet for sediment accumulation.
- 4. Sheet C.200: This grading plan is showing the sheet flow discharge of stormwater from the dam onto 1111 SW Mission Place, which we are showing is not currently happening. According to LIDAR data within the GIS, I am showing only 1109 SW Mission Place is currently being affected by stormwater flow within the channel. Drainage swale along the dam should be modified to remove any sheet flow from the dam onto 1111 SW Mission Place, unless a suitable legal agreement is made between the lot owner and the developer. Correction required. The emergency spillway has been relocated to the north.
- 5. It appears the top of dam width is only 2.5 feet according to Sheet C.200. This is too narrow to provide access to the facility, and is too narrow to provide stability to the top of dam. Minimum width for the top of the dam should be at least wide enough to drive maintenance equipment (e.g., 6 feet?). Correction required. **The top of dam contour at elevation 1004.00 is 6' wide.**
- 6. The grading plan for the detention basin shown in the drainage report differs from what is shown on Sheet C.200. According to the grading plan shown in the appendix of the stormwater report; stormwater from the embankment will impact the residential lots to the west even greater than already shown on Sheet C.200, in particular, 1111 SW Mission Place. Correction required. See response to Item 4 above.
- 7. Based on a cursury review, it would appear the storage of the detention basin will be too small to manage the 100 year event after moving the basin further to the east to address the above comments, and widening the top of the dam to accommodate access and to provide a stable top of dam. It is likely portions of the basin will need to be constructed with vertical sides (i.e., retaining walls) to accommodate the needed storage. Corrections required. The proposed storm water management facility meets or exceeds the requirements of the comprehensive control strategy.



- 8. Sheet C.200: Scale in upper right hand corner appears in error. Correction required. Corrected.
- No further review of Sheet C.200 possible due to scale error (see above). Correction required.
   Acknowledged.
- 10. It is questionable whether grading shown on the corners of the detention basin can be achieved (i.e., squared-off rather than rounded). Correction required. **Revised.**
- 11. Where is the turf reinforcement mat for the detention basin sides? Correction required. **Note** added on Sheet C.201 Retention Basin Plan to provide TRM on all unsubmerged 3:1 slopes.
- 12. It is likely you are wanting to grade the detention basin one time, and install the outlet structure one time rather than retrofit later. As such, all aspects of the unapproved final stormwater report shall be addressed, and all aspects of the detention basin outlet structure shall be addressed on the plans, and all aspects of the sediment basin design shall be addressed, such as sizing of skimmer, placement of skimmer, etc. Correction required. **Acknowledged.**
- 13. Stormwater Study Comments: 1) Isn't the methodology of the report to determine whether the detention system is capable of meeting Section 5600 Comprehensive Control Strategy? The purpose of the report was to determine if onsite attenuation using a comprehensive control strategy would be advantageous to the downstream drainage system. The methodology used to determine efficacy of the proposed design is based on APWA 5600 criteria, specifically utilizing SCS & TR-55 methods. 2) you are proposing 0% slope for the bottom? How is this going to work? We have seen less than 2% in the past, but 0% is going to unacceptable and will lead to mosquito breeding and stagnant water, Retention will be utilized. 3) Conclusions and Recommendations did not mention anything about meeting Section 5600 Comprehensive Control Strategy, Added. 4) no discussion of potential stream buffer issues was presented, and calculation of the drainage area upstream of the outlet structure was not addressed, Added. 5) no discussion of eliminating impact to residential properties to the west was presented in the report, and how a drainage swale would be constructed to address this issue, Added Section 6.1. 6) no discussion of width of top of dam and what would be sufficient based on your recommendations, A 6' wide berm will be constructed with a 6" crown for drainage purposes. Added as a basin design parameter. 7) no discussion of how the water quality orifice is going to remain clog-free, A screen has been added to help minimize the chance of encountering a 100% clogged condition. 8) no discussion of the emergency spillway in terms of providing a safe path for discharge of the design event, The earthen broad crested weir emergency spillway location has been moved to the north to release solely onto City parkland adjacent to Cedar Creek in case of an emergency. 9) any wetland issues, None. 10) any U.S. Army Corps of Engineers issues. No known issues. The property is located at the headwater of Cedar Creek.
- 14. The zero percent slope within the bottom of the basin is a questionable design and is going to lead to public safety issues such as mosquito breeding. This will take place adjacent to a residential subdivision. As previously commented, this 0% slope will not be approved. Corrections required. The previously proposed Detention Basin has been revised to a Retention Basin.
- 15. There are still questions regarding the scale of the plans. Without an accurate scale, I am reluctant to provide any review of the required storage volume shown in the report. Review to be delayed until the scale issue is resolved. **Scale has been revised on Sheet C.200.**
- 16. Cost estimate required prior to formal approval. Correction required. Uploaded.





Sincerely,

Matthew Schlicht