



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 - Grading

1. Dam height is measured from top of dam to the lowest point of the receiving creek bed. Since this is higher than 10.0 feet, the dam is subject to TR-60 design requirements. Since the dam is subject to TR-60 requirements with additional freeboard from the 100 year clogged HGL to the top of dam, additional studies, width of the flat spot on the dam, slopes of the dam, and other design criteria listed in TR-60 are required unless the dam height is less than 10 feet. Correction required. **The height of the dam does not exceed 10 feet. Additional spot grades for existing and proposed grades have been shown on C.211 to illustrate this.**
2. Stormwater study should be revised to include the TR-60 design requirements. Correction required. **Not Required due to height being less than 10 feet**
3. Sheet C.300: Normal drafting practice is to specifically detail the number of pipes in the profile view as well as the plan view? Profile view only shows one (1) pipe. A note should be provided showing three (3) pipes. Correction required. **REVISED.**
4. Sheet C.300: Outlet pipes should be RCP rather than HDPE due to the size. Correction required. **REVISED.**
5. Sheet C.201: The grading behind (i.e., east property line) 1111 SW Mission Pl. has reverted back to what we commented upon during the Preliminary Development Plan as being not ideal. You changed the grading plan during that process, but it has now reverted back to what was originally shown as not ideal. You are showing the creation of a small swale that directs stormwater towards this lot. It appears this was done because you ran out of space for the detention basin? Correction required if applicable. **Grading has been updated**
6. We need more than a note on the plans about the installation of skimmer in the detention basin. Complete details as normally required on all other previous projects shall be provided. Correction required. **Skimmer sheet has been added as C.210 to illustrate the design and installation**
7. Plunge pool or other high discharge method of energy dissipation is warranted for the detention basin storage. Simple rip rap for three (3) RCP pipes is not going to be an acceptable method of energy dissipation. Complete design with details is required. Correction required. **Calculations have been provided on C.211 for the use of rip rap**
8. Details missing on retaining walls. Complete design information required, including plan and profile views. Correction required. **ADDED C.220 PLAN AND PROFILE SHEETS.**



9. Dam design is incomplete. It shall include plan and profile views, materials and compaction specifications, drain to empty the reservoir within 72 hours, and all other information required under TR-60. Correction required. **Not required due to height being less than 10 feet**
10. Sheet C.201: Need additional contours along the southwest portion of the detention basin where contours are unlabeled to evaluate design. Correction required. **Grading has been updated on C.200**
11. Sheet C.201: Emergency spillway is shown over the primary outlet works. This does not appear to meet any design standards for dams, including TR-60. Correction required. **The only location for the outlet is within the spillway due to limited space. Grading has been completed on the backside to reduce the risk with the structure being located within the spillway**
12. All storm lines shall be private, and labeled on the profile view with the word "PRIVATE". Correction required. **REVISED.**
13. Sheet C.300: Elevation of proposed ground in relation to the outlet structure on the profile view appears incorrect based on your elevations shown. Correction required. **REVISED OUTLET STRUCTURE TOP ELEVATION IN PROFILE.**
14. Outlet control structure details did not show materials of construction, thickness, reinforcing steel, etc. There were notes, but it should be shown on the drawing. Correction required. **Details have been added to C.211**
15. You may need a better solution to drain the pond for the water quality event. The small orifice does not contain any detail. Simple notes with a phone number are not sufficient. If this method is desired, provide more detail in the form of material submittals within the plans. Correction required. **Detail has been provided and additional detail added to C.211**
17. See Design and Construction Manual for permanent retention basins with a permanent pool. I am not convinced the method you are showing will suffice for such a large retention basin. Evaluation and correction may be required. **Design and Construction manual has been reviewed and in my opinion all necessary information is met and provided**
18. Where are the steps for the outlet structures? Correction required. **Added to detail on C.211**
19. Where are the details for the "manway" on the outlet structures? Correction required. **Added to detail on C.211**
20. Have you received any documentation from the USACE about jurisdictional waters? We will need to see this prior to formal approval. Informational comment. **We have spoken with the USACE and this site does not meet the need for a Jurisdictional Determination. The drainage is considered ephemeral and the USACE has stated they do not have jurisdiction. Federal Wetland maps have been provided illustrating no wetlands or "blue" lines are located within the construction area. The drainage does not constitute the need for a stream buffer and originates at the outlet of the basin from the Abundant Life Baptist Church.**



21. All three (3) details need to be provided for each outlet structure. The note stating that "only one shall incorporate the orifice" is confusing to those in the field. Show all three (3) outlet structures to ensure there is no confusion in the field. Correction required. **Details have been added to C.211**
22. Did you subtract the storage from the permanent pool from the total storage? If not, that needs to happen. Correction may be required if you did not subtract the permanent pool storage. **Storage table information has been provided on C.211. The listed volume has been labeled as total storage and additional notes have been added for Detention Storage Volume**
23. Rename the plans to Retention Basin, Mass Grading, and Erosion and Sediment Control Plans, or equivalent language. Ensure "Retention Basin" is included in the title. **REVISED.**
24. Final review of cost estimate to be completed at a later date, after review of final plans. Informational comment. **NOTED.**
25. Cursory calculations showed approximately 850,000 cubic feet of storage for 6 feet of depth to the 100 year design HGL. This does not appear to match what is shown on the plans (i.e., 1,300,000 cubic feet). Evaluate and correct if appropriate. **Storage table information has been provided on C.211. The listed volume has been labeled as total storage and additional notes have been added for Detention Storage Volume**

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

Thank You,

Matt Schlicht