



Application No. PL2022246

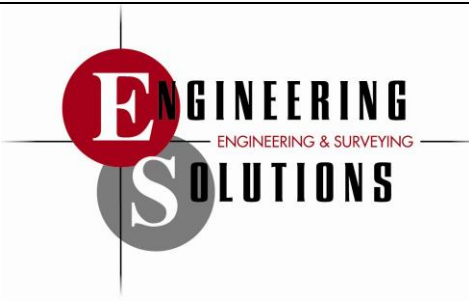
Application Name: THE VILLAS OF CHAPEL RIDGE 2ND PLAT, LOTS 43-74 AND TRACTS C-1 AND D-1 -
PUBLIC WATER

Engineering Review

1. A stormwater report or memorandum was missing from the application. Please include a stormwater report or memorandum discussing whether or not detention is required, and the suitability of the existing detention basin to accept and manage the stormwater flows from this project. **Stormwater memo has been provided**
2. Collector street asphalt paving section does not meet the requirements of the Design and Construction Manual in terms of asphalt thickness, MoDOT Type S aggregate, or subgrade stabilization. Please review and revise as appropriate. **Revised.**
3. It appears right of way may not be dedicated for the connection point to Dick Howser Dr. The plat "East Lake Village 2nd Plat" appears to show a strip of land blocking access to the Dick Howser Dr. connection point. Please verify if right of way extends to the plat boundary, as it is difficult to determine from the old plat recorded in 1986. **The "East Lake Village 2nd Plat" has platted right of way up to the South line of the North ½ of the SW ¼ of Section 8-48-31 and the north line of "The Villas of Chapel Ridge 2nd Plat" is the same South line. Please let me know if I am misunderstanding your comment**
4. Please provide contour labels for Lots 48 through 51. It is difficult to determine the grading in this area without the labels. **Revised.**
5. Please provide contour elevation labels along Lot 63 and 74. **Revised.**
6. lots requiring an MBOE were not shown on the Master Drainage Plan. Please evaluate and revise as appropriate. If no MBOEs are necessary, please add a note stating "no MBOEs are required. Final grading and elevations to be reviewed during plot plan review process" or equivalent language. **Added table.**
7. Basement type was not included on the Master Drainage Plan for each lot. Please show basement type (i.e., daylight, walkout, or standard) on the Master Drainage Plan. **Added table.**
8. Cover Sheet: Sheet C.200 is labeled as including the SWPPP. Was this a typographical error? SWPPP is a standalone document required with the erosion and sediment control and mass grading plans. **Revised.**
9. Would it be beneficial to include notes on the Master Drainage Plan to construct sideyard auxiliary swales between the homes during home construction? Currently, drainage is directed toward the new lots, and without the sideyard swales being constructed when the homebuilder pulls building permit and plot plan, there is the potential to create a dam in the backyard. Please review and revise as appropriate. **We are comfortable with the grade plans as is and don't see an issue with drainage with the construction of the homes.**
10. ADA-accessible ramps do not follow the Design and Construction Manual in terms of running slope, cross slope, distance from truncated domes to the back of curb, and ADA-accessible route across stop-controlled intersection. Please review and revise as appropriate. **Revised.**
11. Slope callouts for the ADA-accessible routes across the intersections were not provided. Please show the proposed cross-slope across these intersections, and ensure they are no more than 1.5% design slope and minimum of 5 feet width. **Revised.**
12. It is unclear how the ADA-accessible route across Independence Ave. will be possible with the slopes shown on the profile view shown on Sheet C.203. A maximum cross slope of 1.5% is allowed at this stop-controlled intersection, and the profile view shows greater than 3.95%. Please evaluate and revise as necessary. **Added cross slope information.**
13. The same issue (above) exists for the ADA-accessible route across Troon Dr. at Independence Ave. A 1.73% cross slope is shown on the profile view on Sheet C.204, while 1.5% is the maximum design slope across the ADA-accessible route in the stop controlled scenario. Please review and revise as appropriate. **Added cross slope information.**



14. The ADA-accessible ramp details do not show the start and stop points of construction. Please show the limits of construction on these sheets. **Revised.**
15. The second ADA-accessible ramp on Sheet C204 does not appear to meet any of the City standards in regard to geometry. Please be aware the old Type B ramp shown in the standard details is now an acceptable alternative to the mono-directional ramp design requested in the past. Please review and revise as appropriate. **Revised.**
16. Sidewalk installed along all common area tracts and unplatted land shall be installed with these improvements. I did not see anywhere in the plans where this was specifically shown. This would pertain to the tracts, and also the sidewalk to be installed just north of the plat boundary near Dick Howser Dr. Please clearly shown the limits of construction of these required sidewalk improvements. **Sidewalks on Dick Howser Dr are already constructed but a note has been added to the common tracts assigning the responsibility to the adjacent home builder.**
17. It appears two (2) additional curb inlets and storm line are warranted near Dick Howser Dr. Please review and revise as appropriate, and show how the storm line will be directed towards the detention basin. **The drainage areas do not meet the APWA criteria for a storm collection system.**
18. Storm line 1 last segment is shown with an excessive slope that can be mitigated by installing deeper. This slope will lead to supercritical flow at the outlet. Please review, analyze, and revise as appropriate. **The pipe slope is shown at 2.43% and the rip rap sizing is provided on the sheet. It is my opinion that nothing is needed**
19. Sheet C.301: Why are field inlets called-out along the street on storm line 1 and 2? Please review and revise as appropriate. **Revised.**
20. HOPE is not allowed beneath collector streets (i.e., Independence Ave.). Acceptable alternatives include RCP and CPP. Please review and revise as appropriate. **Revised.**
21. Sheet C.300: A field inlet is called-out on Treon Dr. Please correct. **Revised.**
22. Sheet C.301: A note and arrow is pointing to "Storm Line 1" which does not make sense. This note is located on the inset plan view of storm line 2 on north side of Lot 63. Please review and revise as appropriate. **Revised.**
23. The easement between Lot 71 and Lot 70 is too narrow for the storm line. This is also the case for the easement between Lots 66 and 67. The easement should be twice the depth of the storm line at its deepest point. **Easement has been widened**
24. What is the plan for discharge into the existing detention basin? As shown, there is no plan other than direct-discharge to a point on the ground, and then subsequent rilling and erosion will take place. A plan shall be submitted showing how this discharge will be managed. It shall show the limits of the detention basin including the normal pool elevation, and a plan for how the stormwater will be discharged without a negative impact. It shall include off-site contours and contour elevations (proposed and existing), along with any structures needed to manage stormwater. As shown, severe erosion shall take place without a proper design. **The storm pipes have adequate rip rap provided and calculations shown. It is my opinion that nothing additional is needed**
25. Standard details were provided for underdrains, but neither the method to use was specified, nor the location shown elsewhere in the plans. These shall be installed at sump locations between curb inlets. Please revise as appropriate. **Added.**
26. A trenching and backfill detail was missing for the storm line. Please provide a detail for trenching and backfill. Ensure the new standard of 12 inches of aggregate over top of pipe is shown. **Revised.**
27. A concrete anchor or other means of securing the shallow pipe at the discharge point to the detention basin is warranted. There is the potential to float. Please revise as appropriate. **If this comment is related to Storm Pipe 1, I would disagree with the opinion that this pipe will float. The end section is anchored to the ground with a toe wall with an approximate weight of 1,000 lbs.**
28. Ensure the cover sheet note is updated when revising the pavement section for collector street (i.e., Independence Ave.). **Revised.**



Traffic Review

1. C.203 - Sta. 6+18 K Value too low. Minimum 37 for residential collector. **Revised.**
2. Gen.: Please include street name signs for review. Size and styles can be found on the City's details.
Added.

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

Thank You,

Matt Schlicht