



April 5, 2023

Mike Weisenborn
Project Manager
City of Lee's Summit
220 SE Green Street
Lee's Summit, MO 64063

**RE: PL2023043 REUNION AT BLACKWELL
RESIDENTIAL FINAL DEVELOPMENT PLAN REVIEW DATED 3/28/2023
FINAL DEVELOPMENT PLAN (FDP)**

Dear Mike:

Thank you for your review comments for the above-referenced public waterline plans dated March 28, 2023. Please see the responses below:

Electronic Plans for Resubmittal

All Planning application and development engineering plan resubmittal shall include an electronic copy of the documents as well as the required number of paper copies.

Electronic copies shall be provided in the following formats

- Plats – all plats shall be provided in multi-page Portable Document format (PDF).
- Engineered Civil Plans – all engineered civil plans shall be provided in multi-page Portable Document Format (PDF).
- Architectural and other plan drawings – Architectural and other plan drawings, such as site electrical and landscaping, shall be provided in multi-page Portable Document Format (PDF).
- Studies – studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Response: Acknowledged.

Excise Tax

On April 1, 1998, an excise tax on new development for road construction went into effect. This tax is levied based on the type of development and trips generated. If you require additional information about this development cost, as well as other permit costs and related fees, please contact the Development Services department at (816) 969-1200.

Response: Acknowledged.

Review Status

Revisions Required: One or more departments have unresolved issues regarding this development application. See comments below to determine the required revisions and resubmit to the Development Services Department. Resubmit one (1) digital copy following the electronic plan submittal guides as stated above. Revised plans will be reviewed within five (5) business days of the date received.

Required Corrections

Planning Review

1. Sheet C101 – Site Data table, please update the zoning to reflect the current zoning of RP-4.

Response: Zoning updated

2. Please provide details/elevations for the pool/clubhouse.

Response: Elevations/details submitted

3. Will there be any signs? All signs must comply with the sign requirements as outlined in the sign section of the ordinance.

Response: Yes, there will be street name and handicapped parking signs. Understood.

4. Please label the width of the proposed parking stalls.

Response: Additional stall width dimensions added.

5. Will any ADA parking stalls be provided? At a minimum they will need to be at least 1 van accessible stall provided at the pool/clubhouse. There shall also be an ADA route from this stall to the structure.

Response: ADA spaces added to site

6. Please show the location, height, intensity and type of outside lighting fixtures for buildings and parking lots.

Response: Acknowledged

7. Please provide a photometric diagram indicating the foot candle levels throughout the site and at the property lines.

Response: Acknowledged

8. Will there be any ground or roof mounted mechanical equipment? If so, please show the location and provide details for the proposed screening method.

Response: HVAC units will be on the ground. Primary screening method shown on landscape plan.

Engineering Review

1. An offsite easement for the storm line connection property shall be required prior to approval of these plans. The easement shall be a private easement. Please provide a courtesy review copy of the proposed easement language and exhibit in graphic format showing the limits of the proposed easement.

Response: Easement exhibits submitted.

2. A dedicated stormwater report for this phase of the development was missing. No further review of the detention basin outlet works were performed since the report was missing. Please submit a stormwater report for this phase of the project.

Response: Stormwater report was submitted along with plan drawings and has been re-submitted for review.

3. Sheet C305 and C306: In addition to the information shown on these sheets, the following items are needed: 1) storage volume for the 100-year event, 2) graphic location of the design 100-year water surface within both basins, (3) dimensions showing a minimum of 20 feet setback from any property line or building is maintained between the clogged condition 100 year WSE, 4) location on the plan view showing 'emergency spillway:', and 5) slope callouts for the bottom of the detention basins.

Response: 1) Storage volume added to sheet. 2) As previously submitted, graphic locations depicted in both plan view and profile view by dashed lines and callouts for the corresponding storm event and water surface elevation, these have been updated. 3) As previously submitted, dimensions shown from design storage pool to nearest property line or structure per APWA 5608.2 4) As previously submitted, the emergency spillway is shown in plan view at section A-A, additional labels added for clarification. 5) Slope callouts for the bottom of the basins added.

4. Sheet C305 and C306: Both basin bottoms appear to be flat, with no slope. Please explain how this will function and revise if appropriate.

Response: Both basins are wet detention basins. Wet detention basins have a permanent pool of water. Following precipitation water drains from the water surface of the wet basins by means of the outlet structures. Due to the permanent pool of water present in wet detention basins the slope of the bottom of the basins is inconsequential.

5. Sheet C305 and C306: It appears both basins were designed to manage stormwater for the 100-year event. This is not the function of an emergency spillway. The emergency spillway shall be designed to manage storm events in excess of the 100-year event, or clogging of the outlet works. It shall not be designed to function in any other case. Please review and evaluate and revise as appropriate.

Response: As outlined in the previously submitted stormwater report, the emergency spillway will function when a 1% chance storm event occurs after a previous 1% chance storm has occurred during which the primary outlet structure was clogged or in the case of a storm that far exceeds durations and/or intensities of the design 1% chance storm event.

6. The location of the emergency spillway shall be labeled and shown on the plan view. Please revise and ensure the words “emergency spillway” are used rather than ‘spillway’.

Response: The word “Emergency” has been added.

7. Sheet C305: Where is the emergency spillway for the detention basin on Tract A? Is this a case of being lower than adjacent grade, and therefore an emergency spillway is not required? If so, explain in the stormwater report.

Response: As previously submitted, the emergency spillway in Tract A is shown between the detention basin and the roadway at section A-A. Additional text and callouts have been added for clarification.

8. Rip rap for incoming flows into both detention basins appear to terminate before the bottom of the basin. This will likely lead to severe erosion issues. Please evaluate and revise as appropriate.

Response: Rip-rap has been extended further below the surface of the water. These basins are wet detention basins which contain permanent pools of water. In conjunction with the rip-rap the permanent pools of water should quickly dissipate energy from water flowing into the basin from the storm sewer. Additionally, these basins will be stabilized using turf reinforcement mat per City comment.

9. Sheet C305: The typical section view of the emergency spillway does not make sense. Was this a typographical error on the overflow elevation? Finally, where is the emergency spillway?

Response: Yes there was a typographical error, an “8” should have read “9” and has been corrected. As previously submitted, the emergency spillway in Tract A (EWDB-2) is shown between the detention basin and the roadway at section A-A. Please see sheet C305 and responses to comments #3, #5, #6, #7 for additional information on the location of the emergency overflow spillway for this extended wet detention basin.

10. It appears the 20 foot setback requirement for the clogged condition will not be met. The setback requirement applies to the nearest property line or building. Please evaluate and revise as appropriate.

Response: Basin storage volumes and outlets have been revised to provide for additional setback.

11. Outlet structures on both detention basins appear to lack any means of receiving stormwater from the basin. It appears the orifice and weirs are beneath grade? Please evaluate and review, and revise as appropriate.

Response: Both basins and outlet structures have been revised as appropriate. Please keep in mind that the lowest weir openings for each outlet structure are located on the south face (Downhill side) of the structures, which are located above grade. Existing and proposed grade lines are labeled.

12. Due to the number of issues with the two (2) detention basins in terms of comments, no further review is being conducted at this time.

Response: Acknowledged

13. A typical section view of pavement was missing. All streets, whether public or private, shall include a typical section view showing the stationing start and stop, and shall meet the public street construction standards regardless of whether it is public or private. Please update.

Response: Typical Section Sheet added.

14. Sheet C901: The section views at the bottom of sheet do not meet the Unified Development Ordinance (UDO) in terms of thickness of asphalt concrete. Please revise as appropriate.

Response: The section views match those recommended in the geotechnical report previously submitted, which in both cases exceed the UDO pavement thicknesses listed in Table LS-2, section 5200, City of Lee's Summit Design Criteria.

15. Sheet C101: The water line is shown crossing Riley Place twice. I realize this is covered under separate plan set, but Water Utilities has indicated this will not be acceptable to have two (2) crossings at Riley Place. This may impact your design for the Final Development Plan.

Response: Water main crossings removed.

16. No review of the parking stalls or ADA-accessible spaces was conducted due to a lack of detailed plans concerning these spaces. Please submit details on the ADA-accessible spaces.

Response: Acknowledged

17. Basin 1 is identified in the erosion and sediment control plan for skimmer installation, but the plan view does not show a "basin 1". Are you referring to Tract B detention basin? If so, please be specific. Please revise as appropriate.

Response: Label added.

18. Sheet C301: There are various notes within the detention basins that are not defined. Please define each of these notes as appropriate.

Response: Callouts are defined in the Erosion Control and Staging Chart as previously submitted on sheet C300. As previously submitted the note on sheet C301 directing readers to “SEE SHEET C300 FOR EROSION CONTROL NOTES, LEGEND AND STAGING CHART” has been replaced by a duplicate copy of the erosion control and staging chart for convenience.

19. Turf reinforcement mat should be specified for all detention basin side slopes. Please revise as appropriate.

Response: Per city comment the detention basins will be graded and turf reinforcement mat installed prior to construction of these plans. Please see plan set “Mass Grading and Erosion Control” for details of turf reinforcement mat. A note referencing the mat and that plan set has been added.

20. Turf reinforcement mat should be specified for all swales. This would appear to include the swale at the north edge of the development. Please revise as appropriate.

Response: Turf reinforcement mat installation shown on “Mass Grading and Erosion Control” plans. Due to construction sequence and per city comment the mat will be existing by the time construction on these plans begins.

21. The hydraulic grade line for the design storm shall be shown on the profile view for all storm lines greater than 6 inches in diameter. If the 100-year event cannot be contained without surcharging, all building openings shall be a minimum of 2.0 feet above the 100 year water surface elevation. Please revise as appropriate.

Response: HGL's added to storm profiles

22. Sheet C403: ADA-accessible ramp details were missing: 1) running slope of ramp, not to exceed 7.5%, 2) cross-slope, not to exceed 1.5%. Please review and revise as appropriate, and if other sidewalks are needed on the private streets, please provide details on the ADA-accessible ramps.

Response: Ramp details added to plans.

23. Would an 8 inch private sanitary sewer line be preferable to a 6 inch private sanitary sewer line? It would appear there are several units tied to the 6 inch private lines, and 8 inch might be better suited for this application? If using an 8 inch line rather than a 6 inch line, you may connect directly to the manhole rather than a wye.

Response: 6” service lines preferred

24. Profile view of the incoming storm lines within Tract B appears to be missing. Please revise with all incoming and outgoing storm lines.

Response: Please see public Street & Storm plans, Line 100.

25. If using a 6 inch private sanitary sewer lateral rather than an 8 inch private lateral, a wye shall be required and you cannot connect to the manhole.

Response: Service line and manhole revised

26. Please identify the location of all special concrete collars for street-installed manhole frame and lids on the private line (sanitary sewer) plan view.

Response: Note added to P&P sheets

27. Please show a gate valve just prior to the backflow vault in all instances. In addition, if crossing a street, two (2) valves shall be required (i.e. one valve on each side of the street) just prior to the backflow vault. Example of the latter would be the crossing at Riley Loop. Please revise as appropriate.

Response: Gate valves added.

28. There are instances where the private water main is shown too close to buildings. Minimum distance from buildings as measured from the outside of the pipe to the building is 15 feet for public water mains. It is highly advised that the distance be increased since water lines are subject to failure and could subsequently lead to foundation damage. Please evaluate and revise as appropriate.

Response: Water mains relocated to 15'+ from buildings

29. Please wait for the review of the public water line plans prior to resubmittal of these plans. The loop you are showing to the northeast may not be necessary since Water Utilities is requesting a second connection at Blue Parkway to complete the loop.

Response: Understood

30. Informational Comment: An itemized and sealed Engineer's Estimate of Probable Construction Costs is required prior to formal approval.

Response: Engineers estimate submitted

Traffic Review

No Comments

Fire Review

Corrections:

1. All issues pertaining to life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to the safety to fire fighters and emergency responders during emergency operations, shall be in accordance with the 2018 International Fire Code.

Response: Acknowledged.

2. IFC 503.3 – Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING – FIRE LANE shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designed shall be

maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

D103.6.2 Roads more than 26 feet in width. Fire lane signs as specified in Section D103.6 shall be posted on one side of fire apparatus access roads more than 26 feet wide (7925 mm) and less than 32 feet wide (9754 mm).

Action required – Post the public and private roads.

Response: Fire lane signs added to sign plan

3. Windflower Court is not a cul-de-sac. Change the name or suffix.

Response: Changed to Windflower Terrace

4. D107.1 One-or two-family dwelling residential developments. Developments of one-or two-family dwellings where the number of dwelling units exceeds 50 shall be provided with two separate and approved fire apparatus access roads.

Exceptions:

- a. Where there are more than 50 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, access from two directions shall not be required.
- b. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire code official.

Action required – this phase requires the second access.

Response: Additional access shown, connecting Blue Pkwy to Riley Dr via the future commercial site.

Building Codes Review

1. Architectural plans were not evaluated under this report.

Action required: Comment is information.

Response: Understood

2. Utility C500 incomplete.

Action required: provide utilities to all buildings.

Response:

Should you have additional comments or questions, please do not hesitate to contact me.

Sincerely,

SCHLAGEL & ASSOCIATES, P.A.

Mark A. Breuer, PE
Principal / Engineering Manager
Direct 913-322-7154
MAB@schlagelassociates.com

/mr
Attachments