

March 8, 2019

Shannon McGuire  
Planner, City of Lee's Summit  
220 SE Green Street  
Lee's Summit, MO 64063

Re: **Burton Townhomes Residential Rezoning and PDPs (PL2019020)**

Mrs. McGuire:

Please find our responses to your comments below regarding the Burton Townhomes Preliminary Development Plans (PDPs) submitted to you for review in January 2018. The revised PDPs, Stormwater Report, Sanitary Impact Statement, and revised Traffic Study are also enclosed. The supporting documents have been updated to address the comments we received as follows:

<b>Fire Review</b>	Jim Eden (816) 969-1303	Assistant Chief Jim.Eden@cityofls.net	Corrections
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- 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 2012 International Fire Code.

*RIC Response: Acknowledged.*

- 2) Provide a schematic showing turning movements around the island with an aerial apparatus.

*RIC Response: Sheet C06 – Hydrant Coverage has been updated to include turning movements around the island with an aerial apparatus.*

- 3) 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 prohibit the obstruction thereof. The means by which fire lane are designated shall be maintained in a clean and legible condition at all times and be replaces or repaired when necessary to provided adequate visibility.

Action required: Several areas may need to be posted if needed to ensure turning movements through the complex. To be determined by Item #2.

*RIC Response: FIRE LANE – NO PARKING has been added to Sheet C06 – Hydrant Coverage.*

- 4) IFC 506.1 – Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire code official. 506.1.1 Locks. An approved lock shall be installed on gates of similar barriers when required by the fire code official.

Action required: Knox boxed are not required.

*RIC Response: Acknowledged.*

5) Indicated where the hydrant at the entrance on Olive is being relocated to.

*RIC Response: Private drive entrance has been relocated. Existing hydrant will remain along Olive St.*

#### Planning Review

Shannon McGuire  
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Corrections

6) Please remove the contours from the rezoning map and show the 185' surrounding boundary. Additionally, the proposed land use on the rezoning map should state Medium Density Residential."

*RIC Response: Contours removed from rezoning map. 185' surrounding boundary and adjacent property owners added to sheet C03 – Rezoning Map. Proposed land use changed to Medium Density Residential.*

7) Please label the ROW width of NW Olive St.

*RIC Response: ROW width added to sheet C02 – General Layout.*

8) Please label the dimensions of the proposed parking stalls.

*RIC Response: Proposed parking stall dimensions added to sheet C02 – General Layout.*

9) Parking lighting is required. Please provide details for parking lights, including fixture type, location, light pole details, height and intensity. Please also provide manufacture's specification sheets for all proposed lighting.

*RIC Response: Out of Scope. See Architectural response letter.*

10) Please label the total building height on sheets A4.1 & A4.2. Please also include this information in the site data table on sheet C02.

*RIC Response: Out of scope. See Architectural response letter.*

11) By my calculation, 25 open space trees are required. Total site area-building footprints/50000 or  $153,331.2 - (3,524 \times 9) / 5000 = 24.3$ . Please update the plans accordingly.

*RIC Response: Sheet L1 – Landscaping plan has been updated to include 27 open space trees.*

12) By my calculation, 49 open space shrubs are required. Total site area-building footprints/50000\*2 or  $153,331.2 - (3,524 \times 9) / 5000 \times 2 = 48.6$ . Please update the plans accordingly.

*RIC Response: Sheet L1 – Landscaping plan has been updated to include 53 open space shrubs.*

13) A 20' high impact buffer is required along the north property line adjacent to the PI zoned district. Additionally, a 20' low impact buffer is required along the remaining property lines) excluding the east property line adjacent to NW Olive St) adjacent to RP-2 zoned districts. As proposed, the building are too close to the property lines (13'-19') to accommodate the required buffers. Please update the plans to meet the buffer requirements.

*RIC Response: A minimum of 20' building set backs added to all proposed buildings.*

14) Please provide details for the proposed fence. Additionally, 6' max fence height allowed in the RP-3 district.

*RIC Response: "Note: All fencing constructed adjacent to PI zoning districts shall conform to City of Lee's Summit UDO Section 8.890 minimum buffer screen requirements." added to Sheet C02 – General Layout.*

15) Please provide details for the proposed curbing.

*RIC Response: Roll Back Dry Curb & Gutter (Type CG-2 Dry) and Straight Back Dry Curb & Gutter (Type CG-1 Dry) distinctions added to sheet C02 – General Layout.*

- 16) As proposed, the monument sign is located in the ROW. Please relocate this, as this location is prohibited.  
Please provide monument sign details for what is being proposed.

*RIC Response: Monument sign relocated outside of the ROW.*

- 17) The property must be replated prior to issuance of building permits.

*RIC Response: Acknowledged.*

- 18) Please label the proposed colors of the structures.

*RIC Response: Out of Scope. See Architectural comment response.*

- 19) Four-sided architecture is required. As proposed, the backs and side of the structures are "Flat". Additional architectural features (breaks, projections, etc.) are required. The use of EFIS should be limited to no more than 30% of any façade. Additional building materials should be incorporated into the facades.

*RIC Response: Out of Scope. See Architectural comment response.*

- 20) Please position the plan sheets so that north is to the top and all sheets are oriented consistently.

*RIC Response: All sheets oriented so that north is to the top.*

- 21) Open areas not covered with other materials shall be covered in sod. Please update the landscaping plan to reflect this requirement.

*RIC Response: Open areas updated to reflect sod cover on Sheet L1 – Landscaping Plan.*

#### Planning Review

Gene Williams  
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Senior Staff Engineer  
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Corrections

- 1) The "Micro Storm Water Drainage Study" dated Jan. 18, 2019 (hereinafter referred to as the stormwater study), was not sealed.

*RIC Response: Micro Storm Water Drainage Study dated Jan. 18, 2019 is sealed on pg. 12. Revised Micro Storm Water Drainage study dated Mar. 08, 2019 is sealed on Title Sheet (pg.1) and pg. 12.*

- 2) The stormwater study states there are no off-site contractors to the drainage. We do not agree. There appear to be an area to the northeast, as well as a small portion to the southwest which contributes. These areas should be included for accounting purposes, and the report should be revised as appropriate.

*RIC Response: Offsite drainage areas to the NW have been added to the overall project boundaries. These areas will be included in the existing and proposed conditions analysis. SW offsite drainage has been added to existing and proposed conditions analyses. (ExOffsite)*

- 3) Exhibit D of the stormwater study: "Existing Conditions Drainage Areas" must be revised to include any off-site contributors to drainage.

*RIC Response: Offsite drainage area ExOffsite (SW) added to Exhibit D.*

- 4) Exhibit F of the stormwater study: the same comments apply as above.

*RIC Response: Offsite drainage area ExOffsite (SW) added to Exhibit F.*

- 5) Emergency spillways are discussed within the report in terms of freeboard requirements, but there is no discussion of the freeboard required during times when the primary outlet works (i.e., the detention basin outlet structure, not including the emergency spillway if incorporated into the same) is 100% clogged condition/zero available storage in the basin. The minimum required freeboard from the calculated water surface elevation in the spillway and the lowest point of the dam is 1.0 feet, as specified in the Design and Construction Manual.

*RIC Response: 100yr Spillway Performance (100% clogged condition) and Weir Analysis (Total spillway Energy) calculations have been added to Exhibit H – Detention Analysis.*

- 6) Page 9 of the stormwater study indicated the dam will not have sufficient freeboard for the event described in the previous comment. The weir elevation of the emergency spillway is shown at 1011.00, and the top of the dam is shown at 1012.10. We believe that after the 100% clogging condition/zero available storage condition 100 year water surface elevation is calculated (i.e., within the subcritical flow regime in the basin, not supercritical flow regime within the spillway itself), the dam will have insufficient freeboard. The same would also apply to the southeast basin. Please be aware that the elevations shown on Table 17 of maximum water surface elevation was presented without any supporting calculations. When providing backup for these calculations, please be aware that the maximum water surface elevation is not the elevation within the spillway, but rather, upstream of the spillway where flow is subcritical (i.e., the water surface elevation within the spillway, plus the velocity head). This will typically be higher than the calculation of depth in the subcritical flow condition, which appears to be the case for the results in this table.

*RIC Response: Top of dam and Emergency Spillway elevations have been revised. Weir Analysis calculations have been added to Exhibit H to verify the 1 foot freeboard requirement has been met between top of dam and energy grade line.*

- 7) The grading plan proposes to divert stormwater on to the adjacent property to the north. This is not allowed, unless a drainage easement can be obtained for the property owner to the north. If drainage patterns are altered (as is the case as shown on the grading plan), then this will be required. Alternatives include the collection of stormwater that normally would have traveled across the development in the existing condition, and rerouting it through or around the detention basin.

*RIC Response: Drainage swale added along the northern property boundary to keep stormwater from discharging on to the adjacent property.*

- 8) A backflow vault will be required in close proximity to the water main. A gate valve must be shown immediately prior to the backflow vault.

*RIC Response: Gate valve and backflow preventor added to the Sheet C05 – Utility Plan.*

- 9) The grading plan shows the constriction of a swale between building 9 and 8. This swale is pointing directly toward the property to the south. It is no longer sheet flow, but rather, a point source discharge. This will either require a private drainage easement from the adjacent property owner to the south, or additional measures to eliminate this point source discharge. As a rule, drainage flow patterns cannot be changed to create adverse effects on downstream or upstream property owners. This swale will create an adverse situation for the property owner to the south.

*RIC Response: Swale between buildings 8 & 9 removed. Sheet C04 – Grading Plan has been revised.*

- 10) Off-site grading is shown on the property to the south. Was this a drafting remnant? It does not appear the proposed grading shown on this sheet changes the existing contours.

*RIC Response: Off-site grading has been removed from the proposed contours.*

11) Will the buildings be served by individual water meters? Will the buildings be served by on (1) master meter?  
*RIC Response: "Waterline: Individual Unit Water Meter (TYP.)" added to sheet C05 – Utility Plan.*

- 12) The sanitary sewer analysis appears to omit the drainage area upstream of manhole 30-009, on the west side. In other words, it appears that calculations were only performed on the eastern leg of the sanitary sewer branch, with no consideration of the branch entering from the west. This will affect the calculations, and the report should be revised.

*RIC Response: Calculations have been updated to include drainage areas upstream of manhole 30-009.*

#### Planning Review

Michael Park  
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City Traffic Engineer  
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Corrections

- 1) The Unimproved Road Policy, adopted by City Council by resolution, applies to this project considering the condition of Olive and Orchard and the proposed preliminary development plan. Olive and Orchard may require road improvements based on the policy unless waived as part of the PDP by City Council. The submitted traffic assessment should be amended to address the Unimproved Road Policy; and any applicable waiver justification. As written, the assessment of NW Olive and NW Orchard is incomplete as is error regarding the determination of policy applicability. There were no roadway dimensions references of existing conditions (measurements) to verify unimproved road status or interim road status. The project was assumed to conform to the policy since it is a minor plat, however, the project is a preliminary development plan. Furthermore, the policy states Local Streets and Collectors shall be constricted to, or improved to, an urban standard for any development; there should be no interim standard Local or Collector associated with development activity.  
*RIC Response: Traffic assessment has been amended to address the Unimproved Road Policy. Existing roadway dimensions have been added to Sheet C02 – General Layout.*
- 2) Show sidewalk along Olive and within the development. There are no pedestrian accommodations shown.  
*RIC Response: Sidewalks added along Olive St. and within development.*
- 3) Recommend alignment of the shared driveway with Orchard Street  
*RIC Response: Shared driveway and Orchard Street have been aligned to accommodate recommendation and site plan.*
- 4) Illustrate the site design/parking and drive layout can accommodate the design vehicle turning movements (e.g. Fire Truck, Delivery Truck, Etc.)  
*RIC Response: Sheet C06 – Hydrant Coverage has been added to show site accommodation of design vehicle movements.*
- 5) Verify existing right-of-way (ROW) along Olive in reference to total right-of-way and location of street centerline. ROW donation may be required if a minimum 50' typical ROW, and/or 25' of ROW west of the road centerline does not exist. It appears that existing ROW is approximately 40' and the roadway is west centered within the ROW.  
*RIC Response: 60' ROW dimension added to sheet C02 – General Layout. Minimum 50' typical ROW requirement is met by the current project boundaries.*

- 6) Suggest additional parking be provided, especially between housing and NW Olive, considering on-street parking along NW Olive will not be permitted in such proximity to the existing and proposed intersection/driveways and current roadway widths.

*RIC Response: Additional parking has been added to the site plan. Total visitor parking has been increased to 28 spaces.*



Mick Slutter P.E.



Jon Daldalian, E.I.

**RENAISSANCE INFRASTRUCTURE CONSULTING**