

Rezoning Transportation Analysis

Petition Number: 2020-099

General Location Identifier: 04705303

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Reviewer: Eric Lemieux, PE

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Revision Log:

| Date | Description |
|----------|-------------------|
| 08-20-20 | First Review |
| 09-22-20 | Second Review |
| 10-28-20 | Third Review (KP) |
| 11-12-20 | Fourth Review |

General Review Information

The site is located along Mallard Creek Road (major thoroughfare, state-maintained) and Penninger Circle (local street, city-maintained). The site is in a wedge outside Route 4.

Active Projects Near the Site:

- NCDOT STIP (#U-2507A) – Mallard Creek Road Widening and Extension
 - The project will widen Mallard Creek Road to a 4-lane divided roadway section
 - Status: under construction

CDOT's review of this rezoning petition is intended to provide consistency with council adopted policies, plans, standards and guidelines including, but not limited to, the [Transportation Action Plan \(TAP\)](#), [Vision Zero](#), [Urban Street Design Guidelines \(USDG\)](#), [Center, Corridor and Wedges](#), [Charlotte BIKES](#), [Traffic Impact Study Guidelines](#) and [Charlotte WALKS](#). With a commitment to design complete streets, this review is to ensure that the City's transportation network supports current and future land uses and includes streets that provide safe and comfortable mobility for motorists, pedestrians, bicyclists, and transit users.

This document is primarily for communication to Planning Department staff as part of the overall City staff analysis of the rezoning petition and includes an overall summary of the case from a transportation perspective, information on trip generation, and resolved or outstanding site plan concerns. Additional advisory information about the driveway permit process is provided for information only.

Based on our review of the petition, we offer the following information for your consideration.

Transportation Summary

The site is located on Mallard Creek Road, which is classified as a State-maintained major thoroughfare. The petitioner has committed to constructing road improvements within the existing unmaintained Penninger Circle public right-of-way along the project frontage. **CDOT and the petitioner modified the proposed street intersection design, located in front of 7304 Mallard Creek Road, to address a property owner concern involving car headlight beams and road construction near the existing house along Penninger Circle.** CDOT and the petitioner will continue to examine the possibility of shifting this proposed road to the west, further away from 7304 Mallard Creek Road, during plan permitting. Additionally, the petitioner has committed to constructing a right-turn lane into the site, on Mallard Creek Road. Lastly, in accordance with Charlotte BIKES, the petitioner has agreed to construct a 12-foot multi-use path along Mallard Creek Road. CDOT and the petitioner have coordinated the design of a front-loaded townhome design that would minimally impact the streetscape within the public right-of-way.

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Trip Generation

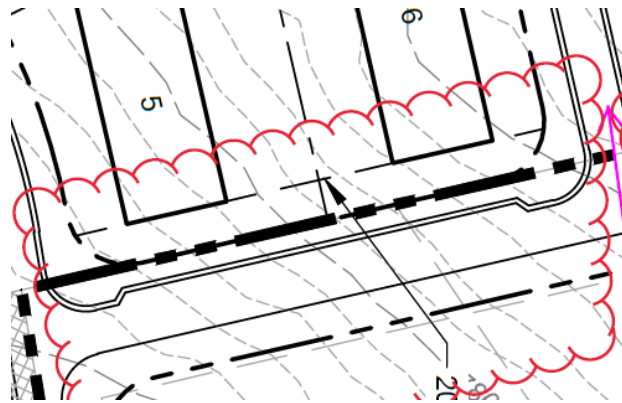
| Scenario | Land Use | Intensity | Trip Generation (vehicle trips/day) | Source |
|---------------------------------|---------------------------------|-----------|-------------------------------------|--------------------------------|
| Existing Use | Vacant | - | - | - |
| Entitlement with Current Zoning | Single Family (R-3, 20.9 acres) | 62 units | 670 | General Guidance from Planning |
| Proposed Zoning | Townhomes | 130 units | 945 | Site Plan: 09-14-20 |

Please provide responses to our comments.

Outstanding Issues

~~Strikeout~~ = Not an outstanding issue

1. ~~**Traffic Study** A Traffic Impact Study is not necessary for the complete review of this petition due to the site not generating more than 2,500 daily trips.~~
2. ~~The petitioner should revise the site plan and conditional note(s) to clarify whether the residential local street will be constructed to USDG Residential Wide or Medium cross section, along the block of buildings 5 and 6, fronting Penningner Circle.~~



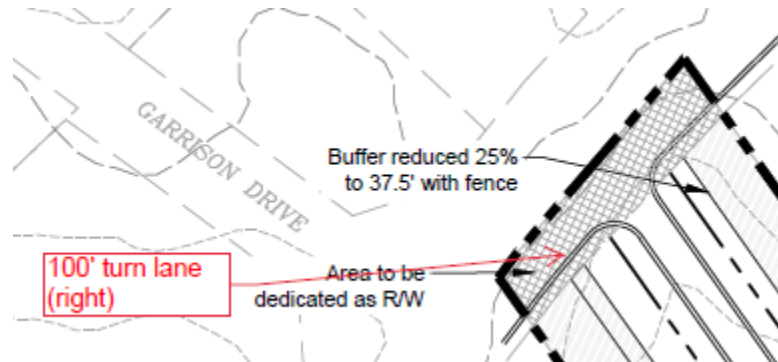
3. ~~**Outstanding** The petitioner should revise the site plan to include the roadway improvements that will be constructed within NCDOT's STIP (#U-2507A). In accordance with Charlotte BIKES, please provide an 8-ft planting strip and a 12-ft multi-use path, if sidewalk is not constructed within the STIP.~~
 - a. ~~**Technical Clarification (site plan dated 09/14/20)** The petitioner should clarify conditional note (Section 3.C.) that 2-ft of additional right-of-way should be dedicated from back of the 12-ft multi-use path. The petitioner should construct a 12-ft multi-use path where the existing sidewalk is removed for the proposed right turn lane. Where the existing sidewalk remains undisturbed along the property frontage, CDOT requests for the existing sidewalk to be widened to 12-ft, in accordance with Charlotte BIKES.~~

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4. ~~**Outstanding** The petitioner should revise the site plan and conditional note(s) to confirm adequate intersection sight distance, according to CDOT's Sight Distance Policy, for access proposed on Mallard Creek Road.~~
5. ~~CDOT requests the petitioner revise the site plan and conditional note(s) to provide rear alleys for access to public streets.~~
 - a. ~~**Technical Clarification (site plan dated 09/14/20)** The petitioner should clarify whether front-loaded or rear-loaded units are proposed. If front-loaded, the petitioner should commit to pair shared driveway aprons with every two units, to preserve the proposed planting strip and sidewalk within the public right of way. This request limits the number of curb cuts, promotes walkability, and preserves a quality streetscape.~~
6. ~~**Outstanding** The petitioner should revise the site plan and conditional note(s) to restrict the proposed access on Mallard Creek Road to a right-in/right-out, with right-turn lane (100-ft storage with appropriate bay taper) on Mallard Creek Road at the proposed access location.~~
 - a. ~~**Technical Clarification (site plan dated 09/14/20)** The petitioner should clarify conditional note (Section 3.D.) that a proposed right-turn lane will be constructed at the proposed Mallard Creek Road right-in/right-out access. The proposed right-turn lane should have 100 linear feet of storage with the appropriate bay taper length, according to NCDOT design standards.~~

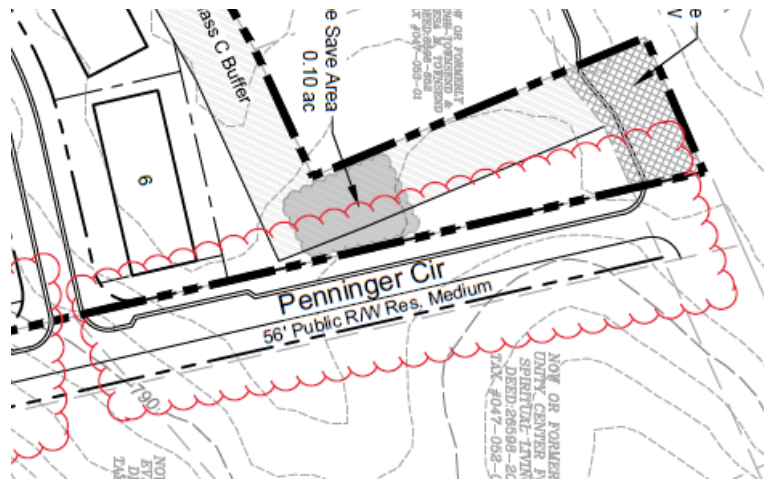


7. ~~The petitioner should commit to dedicate an additional 2-feet of right-of-way from the proposed back-of-multi-use path, with the addition of the eastbound right-turn lane. The site plan should label and dimension the right-of-way from the road centerline.~~
8. ~~The petitioner should revise the site plan to add a note specifying dedication and fee simple conveyance of all rights of way to the City before the site's first building certificate of occupancy is issued. CDOT requests right of way set at 2' behind back of sidewalk where feasible.~~
9. ~~The petitioner should remove the proposed access on Mallard Creek Road, as shown below; NCDOT does not support an access at this location of Mallard Creek Road, in reference to the STIP's u-turn bulb-out. Please revise the site plan to provide adequate access for the existing single-family properties, using the proposed USDG Residential Medium/Wide section as proposed below. Please include sidewalk and planting strip on both sides of Penninger Circle.~~
 - a. ~~**Technical Clarification (site plan dated 09/14/20)** The petitioner should clarify the site plan to show and call-out the existing Penninger Circle private drive that ties into existing Mallard Creek Road. CDOT requests the petitioner to clarify that the existing Penninger Circle road improvements will be constructed in accordance with *CLDSMU-02 - Local Residential Medium Section* cross section design standards, on both sides of the existing Penninger Circle road centerline.~~

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40. ~~Resolved~~ Sample format for comment that is resolved

Advisory Information

The following are requirements of the developer that must be satisfied prior to driveway permit approval. We recommend that the petitioner reflect these on the rezoning plan as-appropriate.

1. According to the City of Charlotte's Driveway Regulations, CDOT has the authority to regulate/approve all private street/driveway and public street connections to the right-of-way of a street under the regulatory jurisdiction of the City of Charlotte.
2. Adequate sight triangles must be reserved at the existing/proposed street entrance(s). Two 35' x 35' sight triangles (and two 10' x 70' sight triangles on North Carolina Department of Transportation on NCDOT maintained streets) are required for the entrance(s) to meet requirements. All proposed trees, berms, walls, fences, and/or identification signs must not interfere with sight distance at the entrance(s). Such items should be identified on the site plan.
3. The proposed driveway connection(s) to public streets will require a driveway permit(s) to be submitted to CDOT (and the North Carolina Department of Transportation on NCDOT maintained streets) for review and approval. The exact driveway location(s) and type/width of the driveway(s) will be determined by CDOT during the driveway permit process. The locations of the driveway(s) shown on the site plan are subject to change in order to align with driveway(s) on the opposite side of the street and comply with City Driveway Regulations and the City Tree Ordinance.
4. All proposed commercial driveway connections to a future public street will require a driveway permit to be submitted to CDOT for review and approval.
5. Any fence or wall constructed along or adjacent to any sidewalk or street right-of-way requires a certificate issued by CDOT.
6. A Right-of-Way Encroachment Agreement is required for the installation of any non-standard item(s) (irrigation systems, decorative concrete pavement, brick pavers, etc.) within a proposed/existing City maintained street right-of-way by a private individual, group, business, or homeowner's/business association. An encroachment agreement must be approved by CDOT prior to the construction/installation of the non-standard item(s). Contact CDOT for additional information concerning cost, submittal, and liability insurance coverage requirements.