

Rezoning Transportation Analysis

Petition Number: 2023-046

General Location Identifier: 22916101, 22916103, 22916105, 22916184

From: Jake Carpenter, PE

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Reviewer:

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Revision Log:

Date	Description
08-25-23	First Review (NK)
09-20-23	Second Review (NK)
11-22-23	Third Review (TP)
12-20-23	Fourth Review (NK)
1-24-24	Fifth Review (NK)
2-21-24	Sixth Review (DR)

General Review Information

The petition is located adjacent to Tom Short Road, a State-maintained minor throughfare, north of Mesa Verde Road, a City-maintained local street. The petition is located in a south wedge outside of Route 4, within the Providence Road / I-485 Area Plan.

Active Projects Near the Site:

- N/A

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 adjacent to Tom Short Road, a State-maintained minor throughfare, north of Mesa Verde Road, a City-maintained local street. A Traffic Impact Study (TIS) is required for this site due to the site exceeding 2,500 trips. The TIS was approved on 02/01/2024. Site plan and/or conditional note revisions are needed to removing additional access point on Tom Short Road. Site plan commits to installing multi-use path along Tom Short Rd. and 8' sidewalk along internal roads. Further details are listed below.

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Trip Generation

Scenario	Land Use	Intensity	Trip Generation (vehicle trips/day)	Source
Existing Use	Single Family Detached General Office Building	4 Dwelling Units 1,190 SF	60	Tax Record
Entitlement with Current Zoning	Single Family (MX-1, 124.602 acres)	331 Dwelling Units	3,035	General Guidance from Planning & RZP-2004-014
Proposed Zoning	Middle School Single Family Detached Single Family Attached Multifamily (Mid-Rise) (MX-1 INNOV, 124.602 acres)	1,400 Students 24 Dwelling Units 211 Dwelling Units 682 Dwelling Units	6,655	Per TIS Scope

Petitioner to provide responses to the staff comments below as well as specify other changes to the site plan.

Outstanding Issues

Strikethrough = Resolved

~~1. Curblines:~~

~~**Tom Short Road:** Location of back of curb and gutter to be moved to 24' feet from roadway centerline to accommodate the Charlotte Streets Map with a roadway typical section of 2+ Avenue, Bike Lanes.~~

~~NOTE: Additional distance from center line to back of curb may be required in locations where a median is present or around intersections and interchanges. Additional length may be required based upon outcome of traffic study.~~

~~Label and dimension the curb and gutter from the centerline for each road on the site plan.~~

~~2. Traffic Study:~~

~~A Traffic Impact Study is required for the complete review of this petition due to the site generating more than 2,500 daily trips and/or triggering other City TIS requirements.~~

~~Staff will receive the petition and begin review, but the public hearing will not be scheduled until the TIS is approved to allow for the minimum time necessary for CDOT to review the study and reach agreement with the petitioner on the required transportation commitments. Any agreed upon commitments shall be included on the last site plan submitted no fewer than 4 weeks prior to the public hearing. Therefore, additional traffic mitigation comments may be forthcoming once the TIS is approved by CDOT (and NCDOT).~~

~~**Outstanding Issue 12/20/23:** TIS was first submitted on October 5, 2023. CDOT comments were provide on 11/2/2023. Revised TIS needs to be submitted. Updated TIS to include mitigation and make sure comments are addressed. Development standards also need to be updated to reflect mitigation.~~

~~**Outstanding Issue 1/24/24:** TIS resubmitted on 1/8/2024. A few minor text edits to the development standards and TIS need to be updated.~~

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REMOVE HIGHLIGHTED BELOW:

1. I-485 SOUTHBOUND RAMP & PROVIDENCE ROAD (SIGNALIZED)

PHASE 2 CONDITIONS

THESE SUGGESTED IMPROVEMENTS ARE NEEDED UNDER THE NO BUILD CONDITIONS AND ARE SUGGESTED IN LIEU OF IMPROVEMENTS AT INTERSECTION 3:

- EXTEND THE EXISTING WESTBOUND LEFT TURN LANE FROM 150 TO 400 FEET OF STORAGE.
- EXTEND THE EXISTING WESTBOUND RIGHT TURN LANE FROM 150 TO 300 FEET OF STORAGE.

PHASE 3 CONDITIONS

- NO ADDITIONAL SUGGESTED IMPROVEMENTS.

REMOVE HIGHLIGHTED BELOW:

10. TOM SHORT ROAD & POLO RIDGE ELEMENTARY SCHOOL DRIVEWAY-OUT (UNSIGNALIZED)

PHASE 1 CONDITIONS

- **INSTALL A TRAFFIC SIGNAL.**

3. ~~Revise site plan and conditional note(s) to commit to dedicate 46' right of way from the road centerline. The site plan shall label and dimension the right of way from the road centerline.~~
4. **New Comment 2/21/24:** Update highlighted improvement to match wording from TIS that was approved on 2/1/2024. Approved TIS says that "Signalization to be explored in permitting with coordination from CDOT's E&O division.

INTERNAL INTERSECTION "A"

THE INTERNAL INTERSECTION WAS ANALYZED TO CREATE A COMPLETE MODEL AND THE FOLLOWING CONFIGURATIONS ARE RECOMMENDED AS A PART OF THE REQUIRED SCHOOL QUEUEING AND STACKING ANALYSIS (VOLUME ASSUMPTIONS AND ANALYSIS CAN BE FOUND IN THE APPENDIX AND SYNCHRO FILES) AND SHALL BE INSTALLED IN CONNECTION WITH THE PHASE 1 CMS SCHOOL:

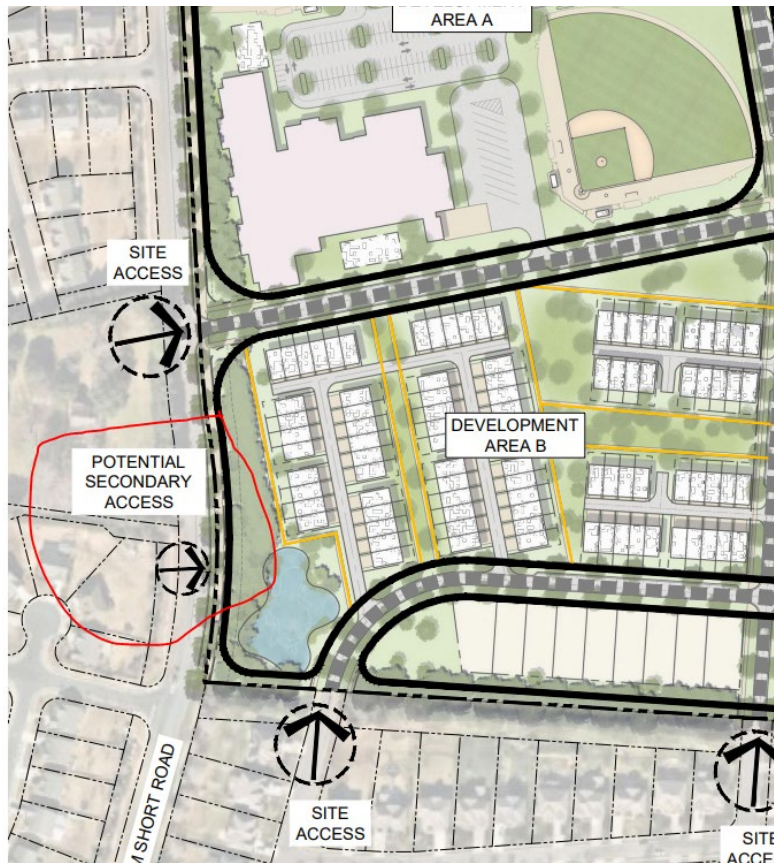
- **INSTALL A TRAFFIC SIGNAL.**

- EASTBOUND - A COMBINED THRU-RIGHT TURN LANE AND A SEPARATE LEFT TURN LANE WITH 650 FEET OF STORAGE (THE EXTENDED LEFT TURN LANE SHOULD SERVE AS THE TURN LANE INTO THE BUS LOT).
 - WESTBOUND - A COMBINED THRU-RIGHT TURN LANE AND A SEPARATE LEFT TURN LANE WITH 100 FEET OF STORAGE.
 - NORTHBOUND - A COMBINED LEFT-THRU-RIGHT TURN LANE.
 - SOUTHBOUND - A COMBINED THRU-LEFT TURN LANE AND A SEPARATE RIGHT TURN LANE THAT TERMINATES AT THE PROPOSED MIDDLE SCHOOL DRIVEWAY.
5. **New Comment 2/21/24:** Per coordination with NCDOT, the requirements for the second access on Tom Short Road are as follows: right-in/right-out, construct a 150' right turn lane and taper per the driveway manual, and the TIS will need to be revised. Other option is to remove callout and conditional note referring to secondary potential access on Tom Short Road.

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b. A POTENTIAL SECONDARY ACCESS FROM TOM SHORT RD. TO DEVELOPMENT AREA B IS PROPOSED. THIS SECONDARY ACCESS IS SUBJECT TO FURTHER REVIEW AND APPROVAL BY CDOT AND NCDOT. THE SPECIFIC DESIGN OF THE PROPOSED ACCESS TO TOM SHORT RD. WILL BE DETERMINED DURING THE LAND DEVELOPMENT APPROVAL PROCESS. THE PETITIONER RESERVES THE RIGHT TO NOT MAKE THIS SECONDARY CONNECTION IF ADDITIONAL RIGHT-OF-WAY OR UTILITY RELOCATIONS FOR THIS CONNECTION ARE REQUIRED.

6. ~~Outstanding Issue 8/24/23:~~ Add a conditional note specifying "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 construction/installation. Contact CDOT for additional information concerning cost, submittal, and liability insurance coverage requirements."

7. ~~If abandonment required:~~

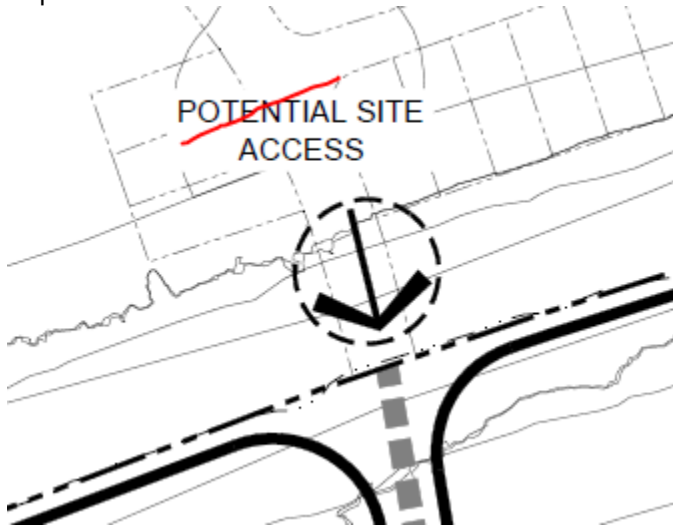
~~Add a conditional note specifying "The petitioner needs to complete and submit the [Right of way Abandonment Petition form](#) to CDOT for review. The Right of Way Abandonment process is controlled by North Carolina General Statutes and is independent of this rezoning process."~~

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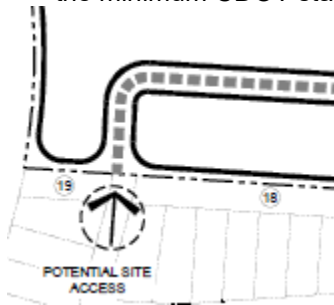
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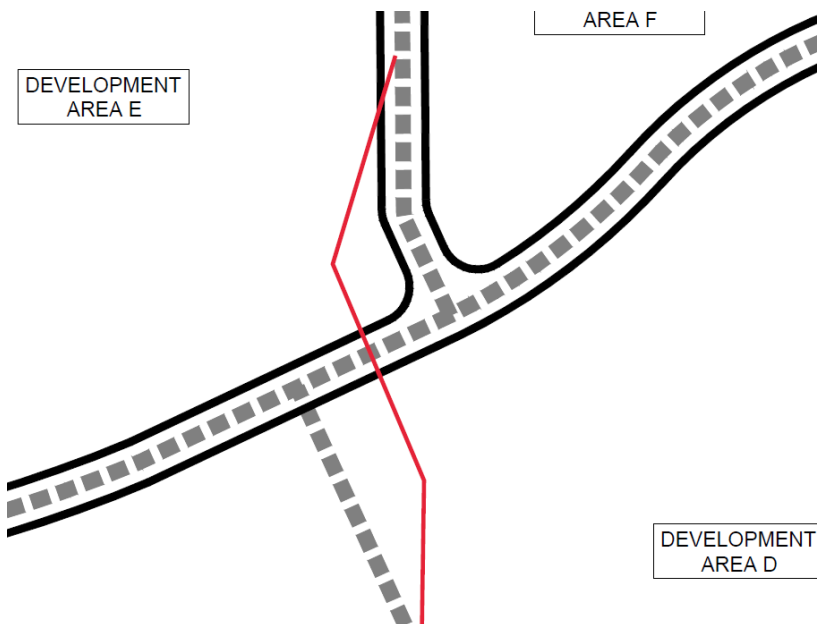
8. ~~Revise site plan to commit to removing the word potential from the access points as these are required~~ ~~connections.~~



9. **Outstanding Issue 8/24/23:** Remove this intersection, and ensure all future horizontal curves meet the minimum CDOT standard of 150' radius.



10. **Outstanding Issue 8/24/23:** Align internal public roads to remove offset intersections.

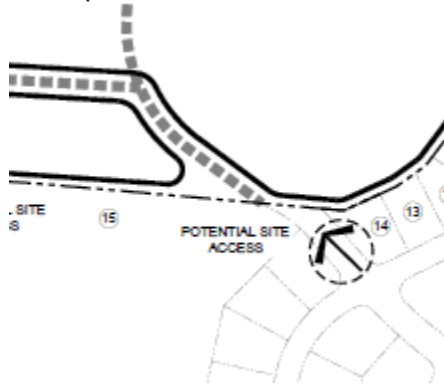


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11. ~~Outstanding Issue 8/24/23:~~ The horizontal curves pictured below need to have a minimum 50' separation to meet minimum CDOT standard.



12. ~~Revise site plan and conditional notes to remove conditional note 6. "Streetscape, Landscaping and Buffer" c. as there is already a conditional note under 2. "Access Streetscape and Setbacks" note d.~~
13. ~~Add a conditional note specifying "the Petitioner shall dedicate and convey in fee simple all rights-of-way to the City before the site's first building certificate of occupancy is issued. CDOT requests rights-of-way set at 2' behind back of sidewalk where feasible."~~
14. ~~Add a conditional note specifying "All transportation improvements will be approved and constructed before the site's first building certificate of occupancy is issued. The petitioner may phase transportation improvements if said improvements and phasing are explicitly described in site plan notes."~~
15. ~~Add conditional note specifying "All public roadway improvements will be subject to the standards and criteria of CDOT and NCDOT, as applicable, to the roadway improvements within their respective road system authority. It is understood that such improvements may be undertaken by the Petitioner on its own or in conjunction with other development or roadway projects taking place within the broad south Mecklenburg area, by way of a private/public partnership effort or other public sector project support."~~

Advisory Information

The following are requirements of the developer that must be satisfied prior to driveway permit approval. These requirements shall be reflected on the rezoning plan, as appropriate.

1. 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, per the City of Charlotte's Driveway Regulations.
2. Adequate sight triangles must be reserved at the existing/proposed street entrance(s). Two 50' x 50' sight triangles (and two 10' x 70' sight triangles on NCDOT-maintained streets) are required for the entrance(s) to meet requirements. All proposed trees, berms, walls, fences, and/or identification signs shall not interfere with sight distance at the entrance(s) and shall 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 NCDOT 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 submitted to CDOT for review and approval.

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5. Any fence or wall constructed along or adjacent to any sidewalk or street right-of-way requires a certificate issued by CDOT.
6. To obtain a street and pedestrian lighting recommendation, the petitioner should visit the following link:
<https://charlottenc.gov/Transportation/Programs/Pages/StreetLighting.aspx>