



# Charlotte Department of Transportation

## Memorandum

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**Date:** November 30, 2005

**To:** Keith MacVean  
Planning Commission

**From:** Scott L. Putnam  
Development Services Division

**Subject:** Rezoning Petition 06-014: Located east of Sandy Porter Road north of  
West Arrowood Road

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This site could generate approximately 230 trips per day as currently zoned. Under the proposed zoning the site could generate approximately 8,300 trips per day. This will have a significant impact on the surrounding thoroughfare system.

Therefore, we request that the developer submit a Traffic Impact Study (TIS) in order to evaluate the effect that site generated traffic will have on the thoroughfare system in the vicinity. The preparer of the TIS must contact Mark Cook (704-432-1555) of the Charlotte Department of Transportation (CDOT) prior to beginning the TIS to determine the study requirements. Since access is proposed to an NCDOT-maintained roadway, they may also require a TIS as part of their driveway permit approval process. They may have additional or different requirements for their approval than what is identified in this rezoning process. The developer/petitioner is recommended to meet with NCDOT early in the development process to identify any issues that they may have.

We have the following specific comments that are critical to CDOT's support of the rezoning petition:

1. Because there is more than 1 driveway on the Sandy Porter Road frontage, the driveways providing access to the site should have a letter or number unique identifier, so that they can be easily referenced.
2. The existing edge of pavement, pavement markings, median, sidewalk, curb and gutter on West Arrowood Road, Sandy Porter Road, and Whitehall Park Drive should be shown on the site plan. CDOT will determine the curb/gutter locations for these roadways during the building/driveway permit process that will accommodate the future cross section and include bike lanes.
3. The proposed development connects with the adjacent property and utilizes its major access driveway at the Arrowood/Whitehall Park intersection. The conditional zoning plan for that property requires that the existing full movement access be converted to a directional crossover ("left-over") as a condition of the site's access at the time of development. Should the development proposed with this petition occur first, then the petitioner/developer will be

required to construct the directional cross-over after obtaining the appropriate easements from the adjacent property owner. The directional crossover is necessary with the intensification of traffic generated by the development and consistent with the I-485 Interchange Analysis that was adopted by the Mecklenburg-Union MPO (July 1999). The design of the directional crossover must accommodate the westbound left-turn lane/movement serving Whitehall Park Drive.

4. Internal channelization is required at each driveway and must be a *minimum* of 150 feet, measured from the proposed rights-of-way of Arrowood Road and Sandy Porter Road.
5. A median will be required to physically restrict prohibited left-turn movements at the proposed right-in/right-out driveways on Arrowood Road and Sandy Porter Road. The median on Arrowood Road must be constructed between the Arrowood/Sandy Porter and Arrowood/White Hall Park intersections. The median on Sandy Porter Road must be constructed between the Arrowood/Sandy Porter intersection and the proposed full movement driveway at the northern end of the property. This construction includes any necessary adjustments on the approach and departure ends of the median to maintain lane/cross section alignment through intersections and the full access driveway.
6. 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. CDOT has determined that a left-turn lane is necessary to serve the traffic using the proposed private driveway connection for this site. The engineering design and construction of the left-turn lane is the responsibility of the owner, and shall be performed by a professional engineer registered in the State of North Carolina who has roadway-design experience. CDOT will only approve the proposed private driveway connection provided that a left-turn lane is constructed on Sandy Porter Road at the driveway labeled as "FULL ACCESS DRIVE" and that it can be designed so that it does not conflict with the operation/use of any existing adjacent driveway or driveway on the opposite side of the street. We recommend the rezoning plan reflect the design of this required left-turn lane prior to submittal/approval of the public street/private driveway connection(s). This roadway improvement is required to meet the traffic demands of the proposed development. The left-turn lane should be designed with a minimum 150 feet of storage, a 15:1 bay taper and 35:1 through lane tapers.
7. Because this site connects with the adjacent site, the site plan needs to be revised to show the portion of the conditional site plan for that development that abuts the internal access roadway. This is needed so that we can review/evaluate the proposed internal circulation.
8. Additional comments may follow our review of the TIS.

We have the following specific comments that are important to CDOT's support of the rezoning petition. We would like the petitioner to give serious consideration to these comments/requests. These may require coordination with related CMPC issues.

1. The sidewalk and planting strip along West Arrowood Road and Sandy Porter Road should be 6 feet and 8 feet wide, respectively. The proposed sidewalk in the 100' buffer should connect to the existing sidewalk on Arrowood Road.
2. Internal sidewalk along parking spaces should be 7 feet wide to accommodate vehicle bumper overhang, or at least 5-feet of sidewalk with 2-foot planting strip should be constructed to provide unobstructed pedestrian access.
3. It is requested that the Petitioner/Developer revise the site plan to illustrate the design of a complete sidewalk network that provides internal pedestrian circulation to the front entrance of all buildings, through parking areas, to adjacent parcels, and pedestrian access to Sandy Porter Road and West Arrowood Road.
4. Bicycle parking should be provided to meet the amended parking section of the Zoning Code. It is requested that conformance with all current parking standards be acknowledged on the site plan.

We have the following general comments that are provided to aid the petitioner in planning and subsequent permitting phases:

West Arrowood Road is a major thoroughfare and Sandy Porter Road is a minor thoroughfare normally requiring minimum rights-of-way of 100 and 70 feet, measuring 50 feet and 35 feet from the centerline of the roadway, respectively. However, at thoroughfare intersections, additional right-of-way is necessary to accommodate required roadway cross section. The developer/petitioner should convey right-of-way in fee simple title to meet this requirement.

Arrowood Road - 65 feet from the centerline of Arrowood Road for a distance of 500 feet from Sandy Porter Road, then tapering back at a rate of 45:1 to the existing right-of-way width or 50 feet, which ever is greater.

Sandy Porter Road- 45 feet from the centerline of Sandy Porter Road for a distance of 300 feet from Arrowood Road, then tapering back at a rate of 20:1 to the existing right-of-way width or 35 feet, which ever is greater.

Adequate sight triangles must be reserved at the existing/proposed street entrance(s). Two 35' x 35' and two 10' x 70' sight triangles 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.

The proposed driveway connection(s) to West Arrowood Road and Sandy Porter Road will require a driveway permit(s) to be submitted to CDOT and the North Carolina Department of Transportation 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.

Any fence or wall constructed along or adjacent to any sidewalk or street right-of-way requires a certificate issued by CDOT.

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.

To facilitate building permit/driveway permit review and approval, the site plan must include the following:

- Dimension width of the existing and proposed driveways.
- New/reconstructed driveways must be drop curb ramp Type II driveways.
- Indicate the locations and widths of all adjacent and opposing driveways.
- Indicate typical parking module dimensions.
- Include a parking summary with figures for the numbers of parking spaces required and provided.

If we can be of further assistance, please advise.

SLP

c: W.B. Finger  
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Rezoning File (2)