STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

March 10, 2014

Mr. Lyle Overcash, P.E.
VHB Engineering NC, P.C.
4000 Westchase Boulevard, Suite 530
Raleigh, NC 27607

Subject: Newhope Church Expansion TIA

The proposed development, Newhope Church Expansion, is a 750 seat expansion to an existing 826 seat place of worship for a total of 1,576 seats. The proposed church will generate an additional 1,388 daily trips on Sundays with 457 trips (229 entering and 228 exiting) during the Sunday peak-hour. The church is located on the east side of Fayetteville Road, south of Massey Chapel Road.

The site will utilize two existing driveway connections to Fayetteville Road. The expected completion year is 2015, and the TIA analysis year is 2016. The Newhope Church Expansion TIA was prepared by VHB Engineering NC, P.C. in November 2013.

The TIA analyzed the following intersections:

- Fayetteville Road and Renaissance Parkway / Village Circle Way;
- Fayetteville Road and Massey Chapel Road (northern intersection);
- Fayetteville Road and Massey Chapel Road (southern intersection);
- Fayetteville Road and Atkins Heights Boulevard;
- Fayetteville Road and Antler Point Drive / Site Access #1;
- Fayetteville Road and Site Access #2; and
- Fayetteville Road and Chancellor's Ridge Drive.

TIP Roadway Improvement Projects Relevant to Proposed Development

- None in the area

Trip Generation and Distribution

The assignment of site traffic on the study area roadway network was based on the following trip distribution percentages:

The trips will be distributed as follows:

- 45% to/from the North via Fayetteville Road;
- 25% to/from the South via Fayetteville Road;
- 15% to/from the West via Renaissance Parkway;
- 4% to/from the East via Massey Chapel Road;
- 5% to/from the West via Massey Chapel Road;
- 2% to/from the West via Antler Point Drive;
- 4% to/from the West via Chancellor's Ridge Drive.

DIVISION 5 - DISTRICT 2, 815 STADIUM DRIVE, DURHAM NC 27704-2713
Telephone: 919-220-4750 Fax: 919-560-3357

Capacity Analysis for Existing and Future Conditions

- Existing (2013) conditions;
- No-Build (2016) conditions (2013 Existing + Background growth traffic); and
- Build (2016) conditions (2013 Existing + Background growth traffic + Site traffic).

Summary of Road Improvements

The Department has reviewed the preliminary site plan and Traffic Impact Analysis (TIA) for Newhope Church Expansion development prepared by VHB Engineering NC, P.C., (Sealed and dated 11/11/13). In order to accommodate the site-generated traffic safely and efficiently, while also attempting to protect the functional integrity and operational capacity of the adjacent roadway facilities, we recommend the following improvements and/or restrictions related to this development. Any additional changes to the site plan must be submitted in writing to the District Office.

Fayetteville Road and Site Driveway

- No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic. A Transportation Management Plan (TMP) for the Sunday peak hour shall be submitted to the District Office for review and approval.

Fayetteville Road and Renaissance Parkway / Village Circle Way

- No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Fayetteville Road and Massey Chapel Road (northern intersection)

- No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Fayetteville Road and Massey Chapel Road (southern intersection)

- No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Fayetteville Road and Atkins Heights Boulevard

- No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Fayetteville Road and Site Access #2

- No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Fayetteville Road and Chancellor's Ridge Drive

- No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

General

Cross-access to adjacent properties is strongly encouraged to reduce repetitive trips and provide future alternative routes of ingress/egress.

Due to, but not limited to, the comments and recommendations from this review of the proposed developments, changes in the internal circulation may be necessary to ensure that driver confusion is minimized to the maximum extent possible.

Any signal revisions, modifications, or additions necessitated by the development should be coordinated with the Regional Traffic Engineer, the Division Traffic Engineer, the Signals and Geometrics Section and the City of Durham.

Any pavement marking revisions/modifications necessitated by the development should be the responsibility of the developer and coordinated with the Division Traffic Engineer.

Any roadway modifications or improvements necessitated by the development should be the responsibility of the developer unless otherwise noted.

Reference should also be made to the information included in the "General Recommendations Attachment."

NCDOT driveway permits will be required for any modifications to the existing driveway locations on Fayetteville Road (SR 1118). If we can provide further assistance, please contact me at (919) 220-4750.

Sincerely,

Mike Goodwin
Assistant District Engineer

Attachment
cc: Mr. H. Wesley Parham, P.E.

MKG

General Recommendations Attachment
(For Newhope Church Expansion)

Adequate horizontal and vertical sight distances should be reserved at all proposed entrances. Foliage that interferes with sight distance should be cut back to protect lines of sight. The District Engineer should determine if all drainage facilities are adequate. Curb cuts and curb ramps should be constructed in conformance with the "*Guidelines for Curb Cuts and Ramps for Disabled Persons*," if applicable.

The developer may be required to obtain an approved encroachment agreement covering proposed work within the state right-of-way. If this is the case, the encroachment should be cross-referenced to this review.

All street and driveway entrances onto state system roadways should be controlled with appropriate traffic control devices, including but not limited to, stop, yield, directional, regulatory, and advisory signs and pavement markings. All traffic control devices shall conform to the requirements set forth in the Manual on Uniform Traffic Control Devices. Final pavement marking and signing plans should be submitted to the Division Traffic Engineer for approval prior to the installation of any signs and/or pavement markings.

Unless otherwise noted, a recommended width of 40 feet (curb face to curb face) should be used at each drive. It is also recommended that 40 feet (minimum) radii should be used at each drive to accommodate any service type vehicles or truck traffic that may visit the site.

If the developer anticipates adding or petitioning for addition to the state system, all roads/streets should be designed and constructed in conformance with the current North Carolina Department of Transportation design and construction guidelines.

All "outparcels" or "excluded areas" should be served internally with no additional access onto abutting roadways. The developer should convey this condition in any lease or sell agreements.

As required by the "*Policy on Street and Driveway Access to North Carolina Highways*," dated July 2003, the applicant is responsible for identifying all right-of-way and/or control-of-access limits and for including this information on all submittals. Failure to accurately disclose R/W and C/A limits could result in the denial or closure of access points.

Adequate right-of-way for widening and sight distance triangles should be reserved. Any additional development, either within this site or adjacent to this site, that intends on using the developments access will require an updated driveway permit and re-evaluation of geometric and traffic control needs

Any additional development, either within this site or adjacent to this site, that intends on using this development's access will require an updated driveway permit and re-evaluation of geometric and traffic control needs.

All widening should include appropriate transitional and deceleration tapers. Recommended turn lane and transitional treatments are shown on pages 78 and 79 of the "*Policy on Street and Driveway Access to North Carolina Highways*," dated July 2003.

Where possible, opposite side driveways should be aligned to prevent the operational and safety problems caused by offset driveways.

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Memorandum

To: Mike Goodwin – Assistant District Engineer, NCDOT
Bill Judge, PE – Development Review Engineer, City of Durham

Date: March 19, 2014

Project No.: 38173.00

From: Steve Epley, PE

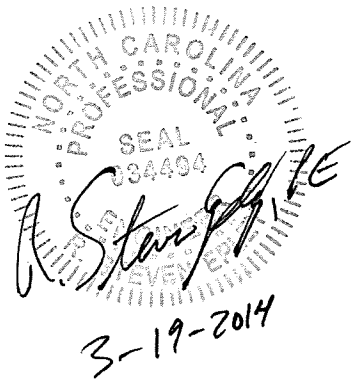
Re: Newhope Church
Transportation Management Plan
Durham, NC

This memorandum provides a Transportation Management Plan for the expansion of Newhope Church on Fayetteville Road, south of I-40 in Durham, North Carolina. The existing church has an overall capacity of 826 seats, and after expansion would have an overall capacity of 1,576 seats. Construction is to be completed by 2015. A Traffic Impact Analysis (TIA) was completed and sealed by VHB Engineering NC, PC on November 11, 2013. The analysis was reviewed by the North Carolina Department of Transportation (NCDOT) district office and they required a Transportation Management Plan for the Sunday peak hour.

As part of the TIA, turning movement counts and a site visit were conducted on Sunday, September 15, 2013 by VHB personnel during the morning worship services of 8:45 AM to 10:15 AM and 10:45 AM to 12:15 PM. During this period, a traffic control officer was observed directing traffic at the intersection of Fayetteville Road and Antler Point Drive/Main Site Access. In addition, there were three to five church personnel directing traffic through the parking lots to empty spaces. Traffic congestion on Fayetteville Road and into the church utilizing this system was observed to be minimal.

As observed in the field and mentioned in the TIA, the following should be maintained at Newhope Church:

- A traffic control officer should be utilized at the intersection of Fayetteville Road and Antler Point Drive/Main Site Access during Sunday peak operational times when congestion at the intersection is present. Between peaks (admission and dismissal), the officer can relinquish traffic control to the existing stop sign controlled operations.
- An adequate number of church personnel should be utilized within the church parking lots to assist patrons finding empty spaces so that vehicles are not competing for empty spaces, creating congestion, or space hunting, therefore reducing congestion within the church campus.



3-19-2014