



*Jason received*  
*5/26/05*

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY,  
GOVERNOR

DIVISION OF HIGHWAYS

LYNDO TIPPETT  
SECRETARY

May 25, 2005

Chatham County

Subject: Briar Chapel Comments

Mr. Travis Fluitt, EIT  
Kimley-Horn and Associates, Inc.  
3001 Weston Parkway  
Cary, N.C. 27513

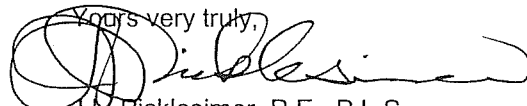
Dear Mr. Fluitt:

This office agrees with the proposed improvement that will be necessary due to the construction of the Briar Chapel Complex as outlined in the attachment with the following minor revisions:

There is still discussion that the proposed retail center near the intersection of US 15/501 and Smith Level Road will have access onto US 15/501 at this point.

The NCDOT is aware of the existing deficiencies as outlined on page one of the PHASING OF IMPROVEMENTS that are noted as to be constructed by others, but due to our budget constraints now in place, when these improvements could be made is uncertain.

If you have any questions please call this office at (336) 629-1423.

Yours very truly,  
  
J.L. Picklesimer, P.E., P.L.S.  
District Engineer

JLP/dcw

Attachment

c: Timothy Johnson, P.E. Division Engineer  
Keith Megginson, Chatham County  
File



Kimley-Horn  
and Associates, Inc.

April 15, 2005

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P.O. Box 33068  
Raleigh, North Carolina  
27636-3068

By e-mail

### BRIAR CHAPEL MEETING MINUTES

**PROJECT:** Briar Chapel  
**DATE/TIME:** March 18, 2005 at 10:00 AM  
**LOCATION:** NCDOT District Office, Asheboro, NC

A meeting was held at the NCDOT District Office in Asheboro, NC to discuss the additional improvements suggested by NCDOT Congestion Management for the Briar Chapel Development and to finalize the list of recommended/required improvements. A list of required improvements by phase is attached.

**ATTENDEES:**

NAME	COMPANY	NAME	COMPANY
Will Garner	NCDOT	Mitch Barron	Newland Communities
Jeff Picklesimer	NCDOT	Al Williford	Kimley-Horn
Damon Webb	NCDOT	Travis Fluitt	Kimley-Horn

**Items discussed and conclusions:**

- 15-501 & Smith Level Road
  - o Do extend the outside right turn lane to provide 500' of storage (if ROW is available)
  - o Wal-Mart proposed to align driveway with Smith Level Road and may be required to make improvements at this intersection
- 15-501 & Mann's Chapel Road
  - o Do not need additional northbound left-turn lane on 15-501 (or additional receiving lane on Mann's Chapel Rd) if dual northbound lefts provided at 15-501 & Taylor Rd
  - o Do not need exclusive northbound right-turn lane on 15-501
  - o Do not need additional southbound left-turn lane on 15-501 (or additional receiving lane on Mann's Chapel Rd)
  - o Do not need additional eastbound left-turn lane on Mann's Chapel Rd. Extend dual lefts to provide 500' of storage as recommended in TIA.
  - o Evaluate the need to extend the eastbound right-turn lane at some point in the future
- 15-501 & Vickers Road (East Access Road)
  - o Extend southbound right-turn lane on 15-501 to provide 150' of storage

- 15-501 & Jack Bennett Road
  - o Do not need additional westbound left-turn lane on Jack Bennett Road
  - o Approximately 165' of storage to be provided for westbound left-turn lane by R-942 – will need to extend to provide 250' of storage
- 15-501 & Taylor Road
  - o Do need additional northbound left-turn lane on 15-501 with receiving lane on Taylor Road
  - o Do need eastbound right-turn lane on Taylor Road with 125' of storage plus ROW for future lengthening if needed
- 15-501 & Andrews Store Road
  - o Do not need additional northbound left-turn lane on 15-501 or receiving lane on Andrews Store Road, just ensure enough storage for single left-turn lane (Note: 450' of provided storage for 236' maximum queue)
  - o Do need additional eastbound left-turn lane on Andrews Store Road
  - o Do need eastbound right-turn lane on Andrews Store Road unless the full-movement office driveway does not align across 15-501, then the eastbound through lane is not needed
- Lystra Road & Farrington Road
  - o Extend eastbound left-turn lane on Lystra Road to provide 200' of storage
- Mann's Chapel Road & Andrews Store Road
  - o Do not need westbound right-turn lane on Andrews Store Road
- Mann's Chapel Road & Hamletts Chapel Road
  - o Do not need southbound right-turn lane on Mann's Chapel Road
- Mann's Chapel Road & SR 1600
  - o Do need southbound right-turn taper on Mann's Chapel Road
- Mann's Chapel Road & North Access Road
  - o Do not need additional westbound left-turn lane on Mann's Chapel Road, just provide enough storage for single left-turn lane (Note: Two-way left-turn lane on Mann's Chapel Road constructed under the NC Moving Ahead project extends from SR 1534 to SR 1605 and will provide adequate storage)
  - o Do not need eastbound right-turn lane on Mann's Chapel Road at this time, provide ROW in case needed in the future
  - o Change the laneage on the North Access Road to an exclusive left-turn lane and a shared through-right lane
  - o If signalized, will need to tie into system on 15-501 and need to have signal preemption for emergency vehicles at this intersection and at 15-501 & Mann's Chapel Rd
- Andrews Store Road & South Access Road/Parker Herndon Road
  - o Do need westbound left-turn lane with 125' of storage on Andrews Store Road
- Provide the new signal(s) on 15-501 to accommodate construction traffic – either Taylor Road or Andrews Store Road (or possibly both)
- KHA to analyze phasing of required improvements

Note: Kimley-Horn and Associates has reviewed the project phasing and prepared the attached list of improvements and phasing. The list includes improvements recommended in the TIA and additional improvements identified in this meeting with NCDOT. Additional improvements required by NCDOT are in italics.

## Briar Chapel Phasing of Improvements<sup>1</sup>

**Existing deficiencies (these improvements are needed to correct existing deficiencies and should be constructed by others):**

At the intersection of U.S. 15-501 & Mt. Gilead Church Road:

- Construct an exclusive westbound right-turn lane on Mt. Gilead Church Road (this improvement is necessary to accommodate background traffic)

At the intersection of Lystra Road & Jack Bennett Road:

- To accommodate an existing deficiency, construct an exclusive northbound right-turn lane on Jack Bennett Road

At the intersection of Lystra Road & Farrington Road:

- To accommodate an existing deficiency, construct an exclusive southbound right-turn lane on Farrington Road

**Before project new external trip generation exceeds 7,500 Daily Trips the following improvements must be in place:**

At the intersection of U.S. 15-501 & Taylor Road:

- Construct an exclusive left-turn lane on the eastbound approach of Taylor Road (to be done when the Taylor Road access point is opened)

At the intersection of U.S. 15-501 & Andrews Store Road:

- Construct an exclusive left-turn lane on the eastbound approach of Andrews Store Road (to be done when the South Access Road access point is opened)
- *Install a traffic signal with pedestrian signal heads for construction traffic (to be done when the South Access Road access point is opened)*

At the intersection of U.S. 15-501 & Vickers Road (East Access Road):

- Construct an exclusive left-turn lane on the eastbound approach of the East Access Road (to be done when the East Access Road access point is opened)
- *Extend the southbound right-turn lane on U.S. 15-501 to provide 150 feet of storage (to be done when the East Access Road access point is opened)*
- *Install a traffic signal with pedestrian signal heads for construction traffic (to be done when the East Access Road access point is opened)*

At the intersection of Andrews Store Road & the South Access Road/Parker Herndon Road:

- Construct an exclusive eastbound left-turn lane on Andrews Store Road (to be done when the South Access Road access point is opened)

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<sup>1</sup> Additional improvements required by NCDOT are italicized.

- Construct an exclusive westbound right-turn lane on Andrews Store Road (to be done when the South Access Road access point is opened)
- Provide an exclusive southbound left-turn lane and a shared southbound through-right lane on the Access Road (to be done when the South Access Road access point is opened)
- *Construct an exclusive westbound left-turn lane on Andrews Store Road with 125 feet of storage (to be done when the South Access Road access point is opened)*

At the intersection of Andrews Store Road & the Second South Access Road:

- Construct an exclusive eastbound left-turn lane on Andrews Store Road (to be done when the Second South Access Road access point is opened)
- Construct an exclusive westbound right-turn lane on Andrews Store Road (to be done when the Second South Access Road access point is opened)
- Provide exclusive southbound left and right-turn lanes on the Access Road (to be done when the Second South Access Road access point is opened)

**Before project new external trip generation exceeds 15,000 Daily Trips the following improvements must be in place:**

At the intersection of U.S. 15-501 & Mann's Chapel Road:

- Extend the dual eastbound left-turn lanes on Mann's Chapel Road to provide 500 feet of full-width storage (if the project connection has not been made to Mann's Chapel Road, this improvement can be delayed until the connection is made).

At the intersection of U.S. 15-501 & Taylor Road:

- Provide an exclusive left-turn lane and a shared through-right lane on the westbound approach of Taylor Road (to be done when the office parcel is constructed)
- Construct an exclusive northbound right-turn lane on U.S. 15-501 (to be done when the office parcel is constructed)
- *Construct an eastbound right-turn lane on Taylor Road with 125 feet of storage and dedicate ROW to allow future extension to 300 feet if necessary (to be done when the office parcel is constructed)*

At the intersection of U.S. 15-501 & Andrews Store Road:

- Provide an exclusive left-turn lane and a shared through-right lane on the westbound approach of Andrews Store Road (to be done when the office parcel is constructed)
- Construct an exclusive northbound right-turn lane on U.S. 15-501 (to be done when the office parcel is constructed)
- *Construct an eastbound right-turn lane on Andrews Store Road with 300 feet of storage (only required if/when full-movement office driveway aligns across 15-501)*

At the intersection of Mann's Chapel Road & Andrews Store Road:

- Extend the committed right-turn taper to provide 150 feet of full-width northbound right-turn storage on Mann's Chapel Road (if the schools are constructed prior to the 15,000

daily trip threshold being reached, this extension will be required concurrent with the school openings)

At the intersection of Mann's Chapel Road & the North Access Road:

- Provide an exclusive northbound left-turn lane and a shared northbound through-right lane on the North Access Road (to be done when the North Access Road access point is opened)
- *Dedicate ROW for eastbound right-turn lane on Mann's Chapel Road*

At the intersection of Mann's Chapel Road & SR 1600:

- *Construct a southbound right-turn taper on Mann's Chapel Road (if the schools are constructed prior to the 15,000 daily trip threshold being reached, this will be required concurrent with the school openings)*

**Before project new external trip generation exceeds 23,000 Daily Trips the following improvements must be in place:**

At the intersection of U.S. 15-501 & Smith Level Road:

- *Extend the outside eastbound right-turn lane on Smith Level Road to provide 500 feet of storage*

At the intersection of U.S. 15-501 & Mann's Chapel Road:

- Convert the northbound exclusive right-turn lane on U.S. 15-501 into a through-right lane (700 feet of full-width lane)
- Construct an additional northbound departure through lane on U.S. 15-501 to Old Lystra Road
- Construct an additional southbound approach through lane on U.S. 15-501 (700 feet of full-width lane)
- Construct an additional southbound departure lane on U.S. 15-501 (1,000 feet of full-width lane)

At the intersection of U.S. 15-501 & Jack Bennett Road:

- *Extend the westbound left-turn lane on Jack Bennett Road to provide 250 feet of storage*

At the intersection of U.S. 15-501 & Taylor Road:

- Construct an additional eastbound left-turn lane on Taylor Road to provide dual left-turn lanes on this approach (to be done when the commercial tract is developed)
- Install a traffic signal with pedestrian signal heads when warrants are met
- *Construct an additional northbound left-turn lane on U.S. 15-501 to provide dual left-turn lanes on this approach (to be done when the commercial tract is developed)*
- *Construct an additional westbound receiving lane on Taylor Road (to be done when the commercial tract is developed)*

At the intersection of U.S. 15-501 & Andrews Store Road:

- *Construct an additional eastbound left-turn lane on Andrews Store Road to provide dual left-turn lanes on this approach*

At the intersection of Mann's Chapel Road & Hamletts Chapel Road:

- Modify the stop control to allow for all-way stop control

At the intersection of Lystra Road & Jack Bennett Road:

- Install a traffic signal if MUTCD traffic signal warrant criteria are met

At the intersection of Lystra Road & Farrington Road:

- Modify the signal phasing to provide a protected left-turn phase for the eastbound Lystra Road approach
- *Extend the eastbound left-turn lane on Lystra Road to provide 200 feet of storage*

**Before project new external trip generation exceeds 30,000 Daily Trips the following improvements must be in place:**

At the intersection of Mann's Chapel Road & the North Access Road:

- Install a traffic signal with pedestrian signal heads when warranted

At the intersection of Andrews Store Road & the South Access Road:

- Install a traffic signal when warranted

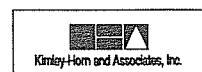
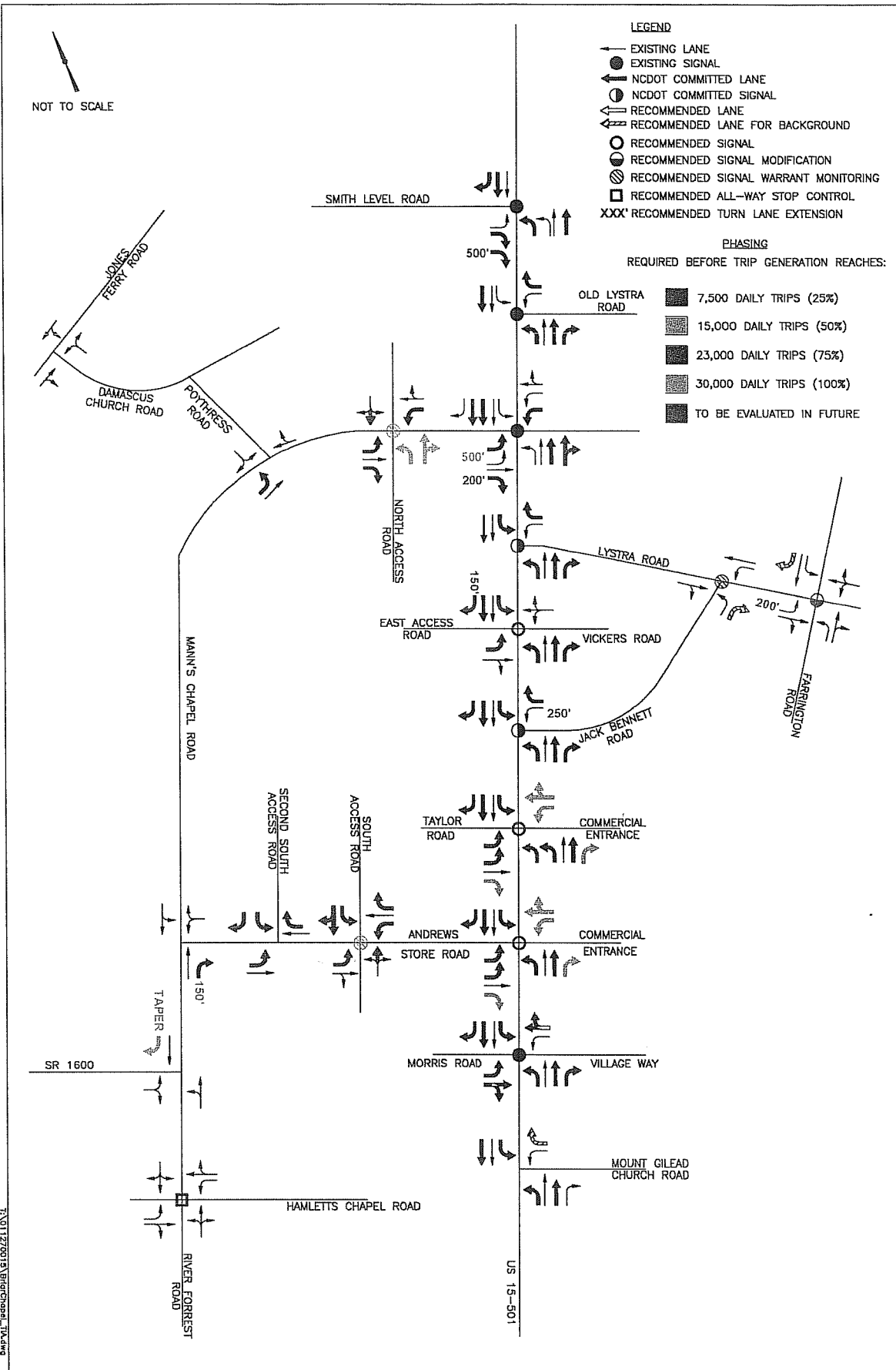
**To be evaluated in the future before project new external trip generation exceeds 23,000 Daily Trips:**

At the intersection of U.S. 15-501 & Mann's Chapel Road:

- *Extend the eastbound right-turn lane on Mann's Chapel Road to provide 200 feet of storage*

At the intersection of Mann's Chapel Road & the North Access Road:

- *Construct an exclusive eastbound right-turn lane on Mann's Chapel Road*



BRIAR CHAPEL  
TRANSPORTATION IMPACT ASSESSMENT

RECOMMENDED ROADWAY LANEAGE  
BY PHASE

FIGURE  
1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.