Single Source DESIGN BUILD

8845 Red Oak Blvd Charlotte, NC 28217 704.586.2520 p 704.523.2235 f www.singlesourcedesignbuild.com

November 9, 2012

ACTS Village @ Plantation Estates – Request for Rezoning Deferral

To: Town of Matthews Planning Department
232 Matthews Station Street
Matthews, North Carolina 28105

Project: Village at Plantation Estates (V@PE)
Matthews, North Carolina 28105
SSDB Project No. 001-01-002

Purpose: Request for Rezoning Decision Deferral
ACTS Retirement Life Communities
Matthews Rezoning Petition # 589

Dear Kathi & Jay,

ACTS Retirement Life Communities and Single Source Design-Build both respectfully request that the pending decision currently scheduled for November 12th by the Matthews Town Council be deferred for one month so that ACTS and their Consultants have some additional time to evaluate the project budget.

Thank you for assisting us with the proper filing of this letter and confirming the receipt of this request. Please contact Tom Strader at 828-817-1726 or Bob Romano at 704-685-1825 as needed. Thank You.

Respectfully Submitted,

Tom Strader

Tom Strader – ACTS Real Estate Development

Cc: Kathi Ingrish, AICP – Planning Director
Jay Camp – Matthews Senior Planner
Marvin Mashner, CPA - ACTS P & CEO
Jeff Rathfon, SVP – ACTS Development
Steve Eggles, RVP – Mid-South Director

Single Source Design-Build

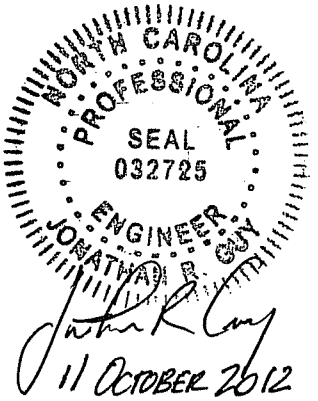
Bob Romano

Bob Romano, AIA, A-DBIA, CCCA, LEED AP
Design-Build Project Manager

Cc: Brunson Russum, AIA – SSDB President
Matt Langston, ASLA – LWDG Manager
Tom McCrory, ASLA – LWDG Designer
Steve Wilson, PE – LWDG Civil Engineer
Steve Chomick, AIA – FWI Arch. Design
Marc Gibson, PE, SE – WGPM Structural

2012-589
10/24/2012

Kimley-Horn
and Associates, Inc.



Suite 440
2000 South Boulevard
Charlotte, North Carolina
28203

October 11, 2012

Mr. Bob Romano
Single Source Design-Build, LLC
8845 Red Oak Blvd
Charlotte, NC 28217

Re: South Trade Street at Country Place Drive
Traffic Signal Warrant Study

Dear Mr. Romano:

At the request of Single Source Design-Build, LLC, Kimley-Horn and Associates has performed a traffic signal warrant analysis for the intersection of S. Trade Street and Country Place Drive. The analysis methodology and results are summarized below.

BACKGROUND

South Trade Street is a two-lane undivided minor thoroughfare with an estimated 2010 ADT of 22,000 vehicles per day and a posted speed limit of 35 mph south of Fullwood Lane, and an estimated 2010 ADT of 13,000 vehicles per day and a posted speed limit of 25 mph north of Main Street.

Country Place Drive is a two-lane local street providing access to the Matthews Estates and Country Place neighborhoods. Country Place Drive is the only point of access for both of these neighborhoods.

The traffic signal warrant analysis was performed based on the guidelines published by the Federal Highway Administration in the *Manual on Uniform Traffic Control Devices, 2009 Edition* from Warrants 1,2,3,6 and 8.

TRAFFIC VOLUMES

A twelve-hour intersection turning movement count was performed by Quality Counts, LLC, at the intersection of S. Trade Street at Plantation Estates Drive on Thursday, September 13, 2012, between the hours of 6:00 AM and 6:00 PM. The count data is attached for reference.

TEL 704 333 5131
FAX 704 333 0845

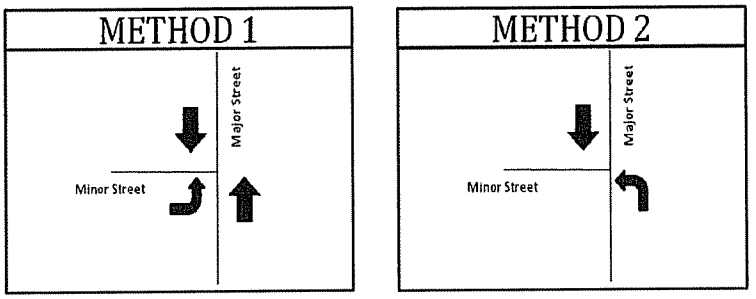
Kimley-Horn
and Associates, Inc.

SIGNAL WARRANT ANALYSIS

The traffic signal warrant analysis was performed for 2012 existing conditions based on the guidelines published by the Federal Highway Administration in the Manual on Uniform Traffic Control Devices, 2009 Edition for Warrants 1,2,3,6 and 8.

The major street approach (S. Trade Street) and the minor street approach (Country Place Drive) were evaluated with two approach lanes. All of the left-turn volumes were considered on the minor street along with the right-turn volumes based on guidance provided in the MUTCD.

The study intersection was evaluated under two methodologies. Method 1 evaluates a standard configuration evaluating the need for signalization between the major street movements (S. Trade Street) and the minor street movements (Country Place Drive). In addition, Method 2 was also utilized to evaluate the need for signalization between the major street left (into Country Place Drive) against the opposing major street through movement (S. Trade Street). Both methods are graphically shown below.



The results of the traffic signal warrant analysis are summarized in Table 1 for the 2012 existing traffic volumes. The detailed worksheets are attached for reference.

Table 1
Traffic Signal Warrant Summary

Condition	WARRANT 1, Condition A Eight-Hour Vehicular Volume	WARRANT 1, Condition B Eight-Hour Vehicular Volume	WARRANT 1, Combination Warrant	WARRANT 2, Four-Hour Vehicular Volume	WARRANT 3, Peak Hour
2012 Existing Method 1	NOT SATISFIED	NOT SATISFIED	NOT SATISFIED	NOT SATISFIED	NOT SATISFIED
2012 Existing Method 2	NOT SATISFIED	NOT SATISFIED	NOT SATISFIED	NOT SATISFIED	NOT SATISFIED

Kimley-Horn
and Associates, Inc.

As shown in Table 1, traffic signal warrants are not satisfied under 2012 existing conditions at the intersection of S. Trade Street and County Place Drive. Warrant 1, Condition A and B and Warrant 1, Combination Warrant along with Warrant 2 and 3 were not satisfied for either method. Under Method 1, Warrant 1, Condition B, two of eight hours was met and Warrant 1, Combination Warrant, Condition B, 4 hours of eight was met.

When considering the purpose S. Trade Street facilitates in the greater transportation system for the Town of Matthews, Warrant 8, Roadway Network should be considered. S. Trade Street is classified as a minor thoroughfare and has a total entering volume of over 1,000 vehicles per hour between 6 am and 6 pm. However, satisfaction of Warrant 1, 2 or 3 has not been achieved.

Consideration of Warrant 6 Coordinated Signal System should be given when evaluating the ultimate access strategy of S. Trade Street. The proposed signal would be located 1,600 feet north of the signalized intersection of Fullwood Lane. The installation of a traffic signal at the study intersection would provide additional vehicle platooning creating uniform traffic flow through the corridor.

Evaluation of Warrant 4, Pedestrian Volume was performed. However, with 7 pedestrians recorded over a 12 hour period, the thresholds of 100 pedestrians for each of any four hours or 190 pedestrians in a one hour period, were not met.

Based on the signal warrants contained in the MUTCD, the subject intersection does not satisfy any of the traffic signal warrants. However, consideration for a traffic signal should be given based on the existing traffic congestion along S. Trade Street which is restricting the number of acceptable gaps in traffic to safely accommodate a side street movement. Furthermore, consideration of signal to provide for a safe, controlled pedestrian crossing of S. Trade Street should be given.

A signal at Country Place Drive could accommodate and provide a gap in traffic for pedestrians and motor vehicles to safely enter the traffic stream along S. Trade Street. At 1,600 feet north of Fullwood Lane, the signal would not be detrimental to signal operations. In fact, there may be operational benefits through traffic stream platooning that would benefit the corridor. The signal at Country Place Drive is not anticipated to impact the existing signal at Fullwood Lane.

Should you have any questions please feel free to contact me at 704.333.5131.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

Jonathan Guy, P.E., AICP

Attachments – Traffic Count Data
Signal Warrant Analysis Worksheets

2012-589
10/24/2012

S. Trade Street at Country Place Drive Signal Warrant Study

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS

INTERSECTION NAME: S. Trade Street at Country Place Drive

DATE: 10/11/12

INTERSECTION CONDITION: 2012 Existing Conditions

MAJOR STREET: S. Trade Street

MINOR STREET: Country Place Drive

OF APPROACH LANES: 1

OF APPROACH LANES: 1

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): N

85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): N

USE 56% REDUCTION (Y OR N): n

	MAJOR ST BOTH APPROACHES	MINOR ST HIGHEST APPROACH	WARRANT 1, Condition A			WARRANT 1, Condition B			WARRANT 1, Combination Warrant						WARRANT 2	WARRANT 3
									CONDITION A			CONDITION B				
			MAJOR STREET	MINOR STREET	BOTH MET	MAJOR STREET	MINOR STREET	BOTH MET	MAJOR STREET	MINOR STREET	BOTH MET	MAJOR STREET	MINOR STREET	BOTH MET		
THRESHOLD VALUES			500	150		750	75		400	120		600	60			
06:00 AM TO 07:00 AM	476	82					Y		Y				Y			
07:00 AM TO 08:00 AM	873	92	Y			Y	Y	Y	Y			Y	Y	Y		
08:00 AM TO 09:00 AM	942	77	Y			Y	Y	Y	Y			Y	Y	Y		
09:00 AM TO 10:00 AM	797	61	Y			Y			Y			Y	Y	Y		
10:00 AM TO 11:00 AM	735	49	Y						Y			Y				
11:00 AM TO 12:00 PM	843	44	Y			Y			Y			Y				
12:00 PM TO 01:00 PM	863	47	Y			Y			Y			Y				
01:00 PM TO 02:00 PM	890	56	Y			Y			Y			Y				
02:00 PM TO 03:00 PM	849	57	Y			Y			Y			Y				
03:00 PM TO 04:00 PM	1,016	53	Y			Y			Y			Y				
04:00 PM TO 05:00 PM	1,137	50	Y			Y			Y			Y				
05:00 PM TO 06:00 PM	1,207	71	Y			Y			Y			Y	Y	Y		
06:00 PM TO 07:00 PM	0	0														
	10,628	739			0			2			0			4	0	0
			8 HOURS NEEDED NOT SATISFIED			8 HOURS NEEDED NOT SATISFIED			8 HOURS OF BOTH COND. A AND COND. B NEEDED NOT SATISFIED						4 HRS NEEDED NOT SATISFIED	1 HR NEEDED NOT SATISFIED

WARRANT 1 -- Eight-Hour Vehicular Volume Warrant
- Condition A : Minimum Vehicular Volume
- Condition B : Interruption of Continuous Traffic
- Combination : Combination of Condition A and Condition B

WARRANT 2 -- Four-Hour Vehicular Volume Warrant

WARRANT 3 -- Peak Hour Warrant

2012-589
10/24/2012

S. Trade Street at Country Place Drive Signal Warrant Study

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS

Based on 2009 MUTCD

INTERSECTION NAME: S. Trade Street at Country Place Drive

DATE: 10/11/12

INTERSECTION CONDITION: 2012 Traffic with Proposed Site - Lefts only

MAJOR STREET: S. Trade Street — # OF APPROACH LANES: 1

MINOR STREET: Country Place Drive — # OF APPROACH LANES: 1

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): N

85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): N

USE 56% REDUCTION (Y OR N): N

	MAJOR ST BOTH APPROACHES	MINOR ST HIGHEST APPROACH	WARRANT 1, Condition A			WARRANT 1, Condition B			WARRANT 1, Combination Warrant						WARRANT 2	WARRANT 3
									CONDITION A			CONDITION B				
			MAJOR STREET	MINOR STREET	BOTH MET	MAJOR STREET	MINOR STREET	BOTH MET	MAJOR STREET	MINOR STREET	BOTH MET	MAJOR STREET	MINOR STREET	BOTH MET		
THRESHOLD VALUES			500	150		750	75		400	120		600	60			
06:00 AM TO 07:00 AM	380	5														
07:00 AM TO 08:00 AM	569	22	Y						Y							
08:00 AM TO 09:00 AM	622	24	Y						Y			Y				
09:00 AM TO 10:00 AM	459	23							Y							
10:00 AM TO 11:00 AM	429	34							Y							
11:00 AM TO 12:00 PM	432	30							Y							
12:00 PM TO 01:00 PM	403	51							Y							
01:00 PM TO 02:00 PM	434	43							Y							
02:00 PM TO 03:00 PM	406	38							Y							
03:00 PM TO 04:00 PM	452	54							Y							
04:00 PM TO 05:00 PM	474	66							Y				Y			
05:00 PM TO 06:00 PM	547	66	Y						Y				Y			
06:00 PM TO 07:00 PM	0	0														
	5,607	456			0			0			0			0	0	0
			8 HOURS NEEDED NOT SATISFIED			8 HOURS NEEDED NOT SATISFIED			8 HOURS OF BOTH COND. A AND COND. B NEEDED NOT SATISFIED						4 HRS NEEDED NOT SATISFIED	1 HR NEEDED NOT SATISFIED

WARRANT 1 -- Eight-Hour Vehicular Volume Warrant

Condition A : Minimum Vehicular Volume

Condition B : Interruption of Continuous Traffic

Combination : Combination of Condition A and Condition B

WARRANT 2 -- Four-Hour Vehicular Volume Warrant

WARRANT 3 -- Peak Hour Warrant

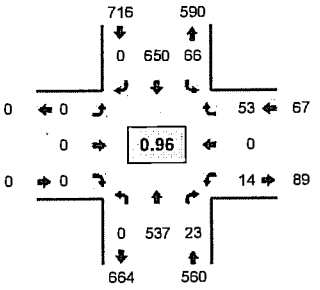
Type of peak hour being reported: Intersection Peak

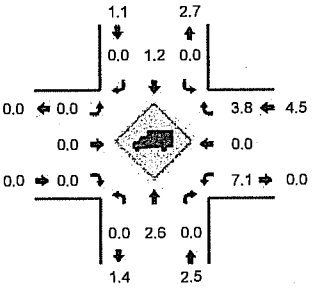
Method for determining peak hour: Total Entering Volume

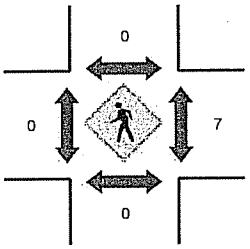
LOCATION: Trade St -- Country Place Dr
CITY/STATE: Matthews, NC

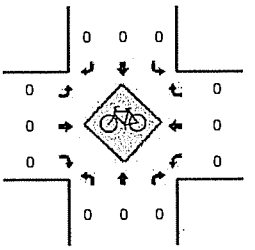
QC JOB #: 10805801
DATE: Thu, Sep 13 2012

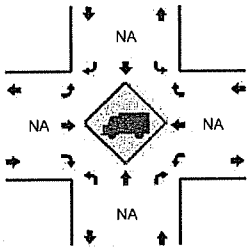
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:30 PM -- 5:45 PM

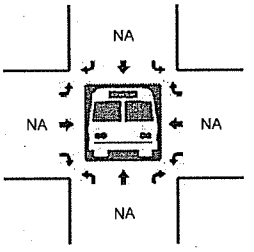












15-Min Count Period Beginning At	Trade St (Northbound)				Trade St (Southbound)				Country Place Dr (Eastbound)				Country Place Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	0	78	3	0	4	86	0	0	0	0	0	0	3	0	11	0	185	851
12:15 PM	0	101	8	0	9	88	0	0	0	0	0	0	1	0	13	0	220	846
12:30 PM	0	89	0	0	16	107	0	0	0	0	0	0	1	0	5	0	218	833
12:45 PM	0	118	6	0	22	128	0	0	0	0	0	0	3	0	10	0	287	910
1:00 PM	0	117	4	0	13	111	0	0	0	0	0	0	3	0	19	0	267	992
1:15 PM	0	98	7	0	12	105	0	0	0	0	0	0	4	0	9	0	235	1007
1:30 PM	0	100	2	0	8	102	0	0	0	0	0	0	0	0	8	0	220	1009
1:45 PM	0	102	4	0	10	95	0	0	0	0	0	0	4	0	9	0	224	946
2:00 PM	0	87	3	0	8	89	0	0	0	0	0	0	4	0	6	0	197	876
2:15 PM	0	93	4	0	7	89	0	0	0	0	0	0	1	0	6	0	200	841
2:30 PM	0	120	5	0	10	86	0	0	0	0	0	0	6	0	24	0	251	872
2:45 PM	0	91	3	0	13	141	0	0	0	0	0	0	0	0	10	0	258	906
3:00 PM	0	93	4	0	11	133	0	0	0	0	0	0	5	0	9	0	255	964
3:15 PM	0	97	6	0	17	131	0	0	0	0	0	0	5	0	6	0	262	1026
3:30 PM	0	110	7	0	13	114	0	0	0	0	0	0	10	0	10	1	265	1040
3:45 PM	0	131	4	0	13	132	0	0	0	0	0	0	1	0	7	0	288	1070
4:00 PM	0	84	7	0	12	128	0	0	0	0	0	0	4	0	7	0	242	1057
4:15 PM	0	134	6	0	17	172	0	0	0	0	0	0	2	0	2	0	333	1128
4:30 PM	0	104	6	0	17	143	0	0	0	0	0	0	2	0	17	0	289	1152
4:45 PM	0	129	4	0	20	154	0	0	0	0	0	0	2	0	14	0	323	1187
5:00 PM	0	117	8	0	8	191	0	0	0	0	0	0	4	0	10	0	338	1283
5:15 PM	0	145	6	0	19	149	0	0	0	0	0	0	4	0	10	0	333	1283
5:30 PM	0	146	5	0	19	156	0	0	0	0	0	0	4	0	19	0	349	1343
5:45 PM	0	114	6	0	20	98	0	0	0	0	0	0	2	0	18	0	258	1278

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	584	20	0	76	624	0	0	0	0	0	0	16	0	76	0	1396
Heavy Trucks	0	20	0		0	12	0		0	0	0		0	0	0		32
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/18/2012 5:17 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

2012-589
9/6/2012

Single Source DESIGN BUILD

8845 Red Oak Blvd Charlotte, NC 28217 704.586.2520 p 704.523.2235 f www.singlesourcedesignbuild.com

August 28, 2012

ACTS Village @ Plantation Estates – Request for Rezoning Deferral

To: Town of Matthews Planning Department
232 Matthews Station Street
Matthews, North Carolina 28105

Project: Village at Plantation Estates (V@PE)
Matthews, North Carolina 28105
SSDB Project No. 001-01-002

Purpose: Request for Rezoning Decision Deferral
ACTS Retirement Life Communities
Matthews Rezoning Petition # 589

Dear Kathi & Jay,

ACTS Retirement Life Communities and Single Source Design-Build both respectfully request that the pending decision currently scheduled for September 10th by the Matthews Town Council be deferred for one month so that ACTS and their Consultants have time to evaluate some adjacent property issues that may change and could lead to modifications of the Site Plan and Development Standards for the Project.

Thank you for assisting us with the proper filing of this letter and confirming the receipt of this request. Please contact Tom Strader at 828-817-1726 or Bob Romano at 704-685-1825 as needed. Thank You.

Respectfully Submitted,

Tom Strader – ACTS Real Estate Development

Cc: Kathi Ingrish, AICP – Planning Director
Jay Camp – Matthews Senior Planner
Marvin Mashner, CPA - ACTS P & CEO
Jeff Rathfon, SVP – ACTS Development
Steve Eggles, RVP – Mid-South Director

Single Source Design-Build

Bob Romano, AIA, A-DBIA, CCCA, LEED AP
Design-Build Project Manager

Cc: Brunson Russum, AIA – SSDB President
Matt Langston, ASLA – LWDG Manager
Tom McCrory, ASLA – LWDG Designer
Steve Wilson, PE – LWDG Civil Engineer
Steve Chomick, AIA – FWI Arch. Design
Marc Gibson, PE, SE – WGPM Structural

2012-589
8/29/2012

Kimley-Horn and Associates, Inc.

Technical Memorandum

2000 South Blvd.
Suite 440
Charlotte, NC
28203

To: Mr. Jeff Rathfon
ACTS Retirement-Life Communities, Inc.

From: Jonathan Guy, P.E., AICP

Date: July 11, 2012

Subject: Village at Plantation Estates
Talbot Court Extension

At the request of ACTS Retirement-Life Communities, Inc., Kimley-Horn and Associates, Inc. has prepared a transportation evaluation of the proposed Talbot Court Extension from Whitefriars Lane to Fullwood Lane in Matthews, North Carolina. This memorandum summarizes our findings and observations regarding the extension of Talbot Court.

BACKGROUND

Fullwood Lane is a two-lane undivided street with an estimated 2010 ADT of 13,000 vehicles per day and a posted speed limit of 45 mph that serves as a connection between South Trade Street and NC 51.

Whitefriars Lane is a two-lane local residential street providing access to the Hampton Green neighborhood with 132 single family homes. Whitefriars Lane intersects with S. Trade Street 279 feet south of the intersection between Fullwood Lane and S. trade Street. Currently Whitefriars Lane is the only point of ingress and egress for the Hampton Green subdivision.

South Trade Street is a two-lane undivided minor thoroughfare with an estimated 2010 ADT of 22,000 vehicles per day and a posted speed limit of 35 mph south of Fullwood Lane, and an estimated 2010 ADT of 13,000 vehicles per day and a posted speed limit of 25 mph north of Main Street.

The intersection of S. Trade Street and Fullwood Lane currently carries a significant amount of volume and is currently operating at Level of Service (LOS) C during both the AM and PM peak hours. Table 1 on the following page depicts the existing conditions operations of this intersection.

Table 1 - S Trade St at Fullwood Ln					
Condition	Measure	EB	NB	SB	Intersection
		EBR	NBL		
AM Peak Hour					
2012 Existing	LOS (Delay)	B (19.8)	C (24.7)	E (74.7)	C (33.3)
	Synchro 95th Q	117'	1185'		
	SimTraffic Max Q	206'	274'		
PM Peak Hour					
2012 Existing	LOS (Delay)	C (29.4)	B (10.5)	D (41.0)	C (25.7)
	Synchro 95th Q	486'	252'		
	SimTraffic Max Q	566'	258'		
	Existing Storage	550'	175'	-	-

= Largest queue length reported between Synchro and SimTraffic between peak hours for each movement

*WB approach of Church Exit not shown due to little volume on this approach during the peak hours

As shown in Table 1 the existing queues for the northbound left-turn lane on Fullwood Lane extend approximately 905 ft past the intersection with Whitefriars Lane and S. Trade Street in the AM peak hour. In the PM peak hour a 566 foot queue for the eastbound right-turn lane on Fullwood Lane is present. Field observations during the AM and PM peak hours confirm the queuing conditions.

Figure 1, right, depicts the 2012 traffic volumes for the intersection of S. Trade Street and Fullwood Lane.

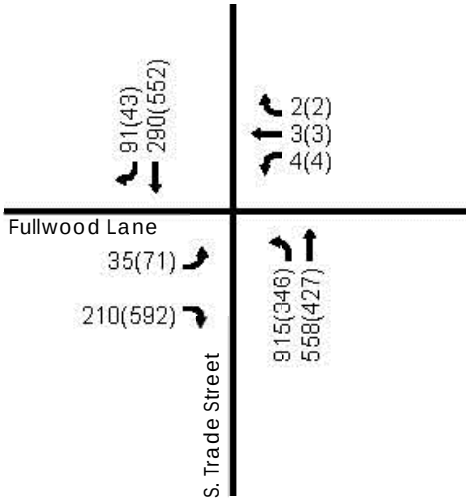
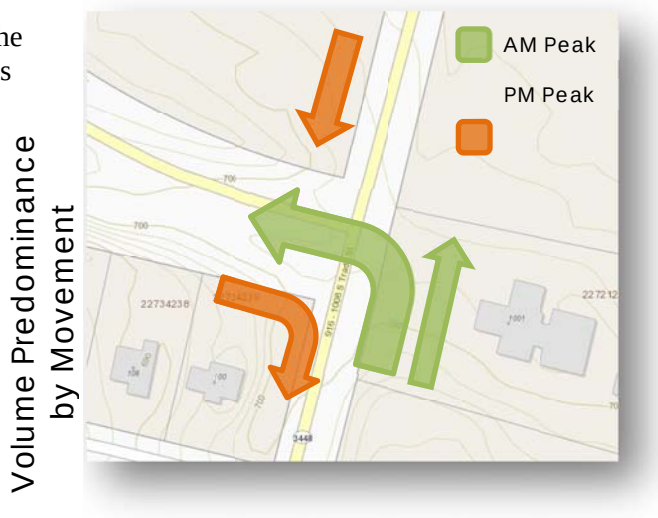
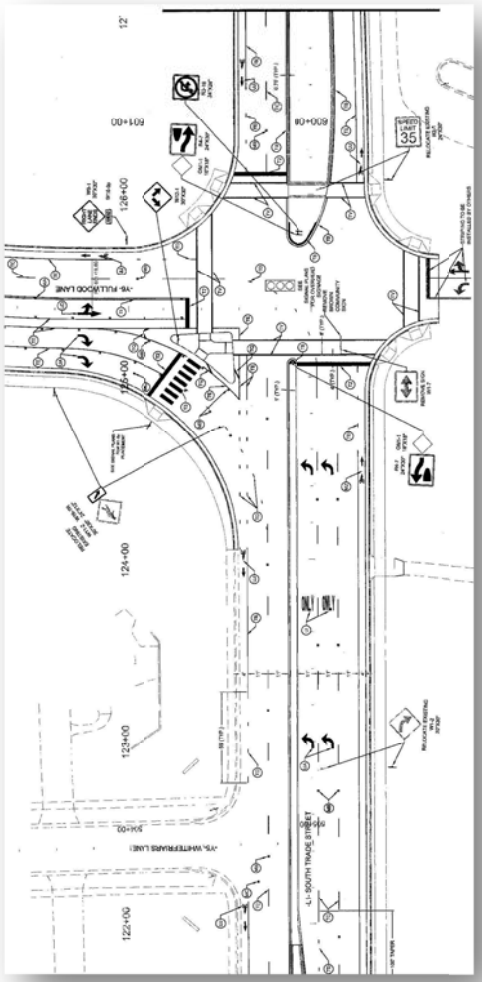


Figure 1: 2012 AM and PM Peak Hour Volumes

Upon review of traffic volumes it is important to note that there is a significant movement of traffic in the Am peak hour from NB S. Trade Street to WB Fullwood Lane along with a considerable volume continuing NB. In the PM peak this condition remains, just in the inverse of the AM peak hour but closer in magnitude of volume. The graphic below depicts this observation.





In an effort to relieve congestion along South Trade Street, the Town of Matthews is currently in the engineering phase to widen South Trade Street from Weddington Road to Fullwood Lane. The Town is currently seeking appropriate funds through the issuing of bonds to help pay for the project.

With this project, access from Whitefriars Lane to S. Trade Street will be converted to RIRO. This will offset the congestion to a point south on S. Trade Street where a U-turn can be facilitated. The extension of Talbot Court to Fullwood Lane would provide full-movement access to the neighborhood alleviating the necessity to U-turn on S. Trade Street. A copy of the planned median on S. Trade Street at Whitefriars Lane is shown to the right.

TALBOT COURT CONNECTION EVALUATION

As with any street connection proper study and evaluation of the needs and characteristics of the community is necessary. The evaluation should consider the potential impacts of the connection on the local street, but also on the adjacent thoroughfare that it is connecting with. The following section looks at the proposed connection; its potential benefits and detriments of the proposed connection.

Street connectivity is defined as the number of connecting streets in a given area. Listed below are a few of the perceived benefits and detriments.

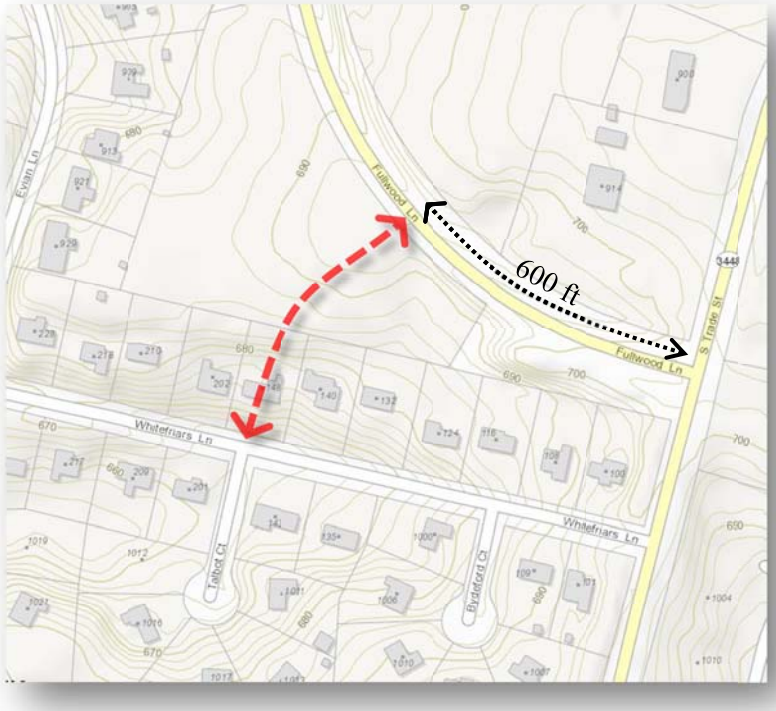
Perceived Benefits:

- Decreased traffic volumes on arterial streets
- Alleviates RIRO access with Whitefriars Lane at under Fullwood/S. Trade roadway improvements
- Improved emergency response times

Perceived detriments:

- Potential increased traffic on residential streets
- Potential neighborhood and intersection safety concerns
- Increased traffic speeds on neighborhood streets

Talbot Court is proposed to be extended from its current intersection with Whitefriars Lane to a new intersection with Fullwood Lane located approximately 600 feet west of the intersection of Fullwood Lane and S. Trade Street.



The proposed extension would require the removal of a single family home that is currently opposite the intersection of Whitefriars Court and Talbot Lane.

The proposed extension would provide residents of the Hampton Green subdivision with an additional point of ingress and egress. This additional connection has the potential to improve emergency response times simply because of the additional ingress and egress point. It is important to note that the placement of the connection is not optimal for the back portion of the neighborhood given its placement within the neighborhood.

The extension of Talbot Court would provide residents with the opportunity to avoid the congested intersection of Whitefriars Lane and S. Trade Street. Under its current configuration in the AM peak hour this intersection is blocked by the NB left turn lane queue (1,185 feet). This queue forces drivers to wait for unacceptable, courtesy gaps to enter the traffic stream NB on S. Trade Street. The extension of Talbot Court would allow residents to bypass this congestion and access, Fullwood Lane directly.

With Mecklenburg County Schools currently out of session, traffic counts at the intersection of S. Trade Street and Whitefriars Lane was not an option. However, since the neighborhood of Hampton Green only has one point of access and the total number of single family (132), trip generation for the neighborhood was used to evaluate the existing intersection configuration and the future proposed conditions with Talbot Lane Extension and with the S. Trade Street/Fullwood Lane intersection improvements.

Table 2 on the following page depicts the Trip Generation potential of the Hampton Green neighborhood.

Table 2 - Trip Generation												
Hampton Gren												
Land Use		Intensity		Daily			AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out	Total	In	Out
210	Single Family Detached Housing	132	d.u.	1,342	671	671	102	26	76	135	85	50
Total Net New External Trips				**1,342**	**671**	**671**	**102**	**26**	**76**	**135**	**85**	**50**

Table 3depicts the operational characteristics of the intersection of Whitefriars Lane and S. Trade Street as well as the future intersection of Talbot Lane and Fullwood Lane. Both intersections were evaluated under the following scenarios:

- Existing Conditions (2012)
- 2012 with the Talbot Extension
- 2019 with the connection and the S. Trade /Fullwood intersection improvements.

Table 3 - Level of Service		
Talbot Connection Results		
Condition	Whitefriars Ln	Talbot Connection
	EB LOS & Delay	NB LOS & Delay
AM Peak Hour		
2012 Existing Conditions - NO Connection	D (33.2)	-
2012 Existing Conditions - WITH Connection	C (18.1)	D (34.0)
2019 Build-Improved - WITH Connection	A (8.9)	F (54.7)
PM Peak Hour		
2012 Existing Conditions - NO Connection	D (32.3)	-
2012 Existing Conditions - WITH Connection	D (25.7)	C (21.8)
2019 Build-Improved - WITH Connection	B (11.3)	E (35.0)

The results of the analysis indicate that the existing intersection of Whitefriars Lane currently operates at LOS D in the AM and PM peak hours. With the addition of a second access point, Whitefriars Lane is projected to operate at LOS C in the AM peak hour and LOS D in the PM peak hour in 2012. In 2019 with the conversion to RIRO, Whitefriars would operate at LOS A in the AM peak hour and LOS B in the PM peak hour.

The intersection of Talbot Extension and Fullwood Lane is projected to operate at LOS D in the AM peak hour and LOS C in the PM peak hour in 2012. In 2019, the intersection is projected to operate at LOS F in the AM and LOS E in the PM peak hour. The 2019 horizon year operations are not surprising, since the S. Trade Street/Fullwood Lane intersection improvements would have removed

the left-turn capabilities from Whitefiars Lane, returning the intersection back to a single point of full movement access.

Under this configuration, medium to long delays on Talbot Court Extension should be anticipated during the AM and PM peak hours. Frustration associated with the long delays and congestion would likely result in drivers taking advantage of unacceptable gaps thus creating a potential safety concern leading to a potential increase in left-turn/angle and rear-end collisions. Of additional concern are the courtesy gaps afforded by others drivers that can increase these collision types as well.

The intersection of the extension of Talbot Court with Fullwood Lane and its placement does raise several concerns:

1. Potential increase in use of the connection, cutting through the neighborhood, to bypass the congested intersection of Fullwood Lane and S. Trade Street.
2. Potential inability of drivers exiting Talbot Court onto Fullwood Lane to safely make a left-turn movement onto Fullwood Lane due to presence of queuing vehicles.
3. Potential sight distance concerns due to the placement of the intersection in a horizontal curve and in advance of a vertical curve to the west.
4. The proposed intersection would be within the influence of the existing right-turn lane queue in the PM peak hour.
5. The inability to provide a significant gap in traffic along Fullwood Lane during the peak hours to safely ingress and egress from the Talbot Court extension.

With current traffic congestion and queues extending up to or beyond the potential intersection of the extension of Talbot Court with Fullwood Lane, there is the possibility of increased cut through traffic. The connection of Talbot Court would provide a convenient bypass of the intersection of Fullwood Lane and S. Trade Street, especially in the PM peak hour and for drivers traveling EB Fullwood Lane to SB S. Trade Street. These drivers would have the ability to make two right-turns and an unopposed left-turn to avoid a significant amount of congestion. For drivers traveling from NB S. Trade Street to WB Fullwood Lane there is not a significant advantage to using this cut-through.

The proposed extension of Talbot Court would intersect Fullwood Lane in the middle of a horizontal curve. In addition, Fullwood Lane enters into a vertical curve to the west with a change in elevation of 23 feet from the elevation of the potential intersection with Talbot Court. The combination of a vertical curve and a horizontal curve create the ability to have limited sight distance. This problem is further compounded by the traffic volumes along Fullwood Lane in the peak hours.

Conclusion

The proposed extension of Talbot Court to intersect with Fullwood Lane has the potential to increase overall connectivity, decrease emergency response times and address future roadway impacts to Whitefriars Lane (conversion to RIRO) that is created under the Fullwood/S. Trade roadway project, thus improving ingress and egress to the Hampton Green neighborhood. The extension of Talbot Court also has the potential to increase cut through traffic, requires the taking of an existing home and create a potential safety and operational concern at the intersection with Fullwood Lane.

Considering the factors highlighted above, Talbot Court is not the optimal location of creating a secondary connection to the Hampton Green neighborhood. Furthermore, the need to provide Hampton Green with an additional point of access is a result of the S. Trade Street/Fullwood Lane intersection improvements. The Town of Matthews should evaluate additional alternatives for access other than through the extension of Talbot Court such as Demaree Lane.