

**Rappahannock-Rapidan Regional Commission
2008 Travel Time Survey**



Rappahannock Rapidan
Regional Commission
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Suite 106
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Introduction

Travel time, or the time required to traverse a route between any two points, is a fundamental measure in transportation. Elements of a travel time study--operating speed, elapsed travel time and duration and frequency of delays are all performance measures that convey a broader picture of how traffic moves. Beginning with the 2007 study and continuing with this study, the Rappahannock Rapidan Commission (RRRC) initiated the travel time process for the Planning District Nine (Culpeper, Fauquier, Madison, Orange, Rappahannock Counties) region.

The primary utility of the travel time study is to compare over time how traffic flows on a corridor. RRRC intends to perform these studies annually, choosing different corridors to review until a period of five years has elapsed. Therefore, data collected during the initial corridor analyses will serve as the base line for the future measurements. Starting in the sixth year of the study, the same corridor segments that were analyzed five years previous will be re-visited, i.e. segments that were driven in 2007 will be revisited in 2012, 2008 in 2013, 2009 in 2014 and so forth.

RRRC will use the travel time studies, in conjunction with other data such as traffic counts and level of service information, to create an overall Congestion Management System for the PD9 region. Congestion Management Systems are mandated by federal law for metropolitan planning areas and are a useful tool to evaluate and monitor traffic congestion.

Methodology

The “test vehicle” technique was used during this study. This method consists of a vehicle specifically dispatched to drive with the traffic stream for the express purpose of data collection. A stopwatch was started at the beginning of each test run to record the cumulative lapsed time between the starting and end points along each corridor segment. When the test vehicle was stopped or forced to travel slowly (10 miles per hour or below), a second stopwatch was used to measure the duration of each stop/delay. In addition, the location of each stop/delay was recorded. Two data collection runs were made in each direction during the morning (7 to 9 a.m.) and afternoon (4 to 6 p.m.) peak hours for each segment. As much as possible, the test car was driven at the legally posted speed limit and, on segments of four-lane divided highways, in the right lane.

The average travel characteristics are defined below:

Travel Time – Number of minutes needed to travel between two points. Travel time is equivalent to the addition of running time and stop/delay time (*see definitions below*).

Running Time – The time period when the vehicle is in motion.

Stop/Delay Time – The time period when vehicle has stopped moving or has almost stopped moving.

Average Travel Speed – The average speed of travel between two control points, including delays. The average travel speed is computed by taking the length of the highway segment under consideration and dividing it by the average travel time of that segment.

Average Running Speed – The average speed of travel between two control points only when the vehicle is in motion. The average running speed is computed by taking the length of the highway segment under consideration and dividing it by the average running time of that segment.

Study Corridor Segments

The second RRRC travel time study measured speed and delay along three segments of Route 15, including the business route segments near the towns of Culpeper and Warrenton and a longer segment where Route 15 leaves Route 29 near Culpeper and travels south through counties of Madison and Orange and the towns of Orange and Gordonsville. The segment lengths corresponded with sections delineated by the VDOT Traffic Engineering Division to perform their annual average daily traffic volume estimates.

The three Route 29 segments measured were 26.89 miles between Route 29 and Louisa County (Corridor A), 5.82 miles along the business route in Culpeper County and the Town of Culpeper (Corridor B) and 4.30 miles along the business route in Fauquier County and the Town of Warrenton (Corridor C). Taken together these segments are approximately 35 miles in length.

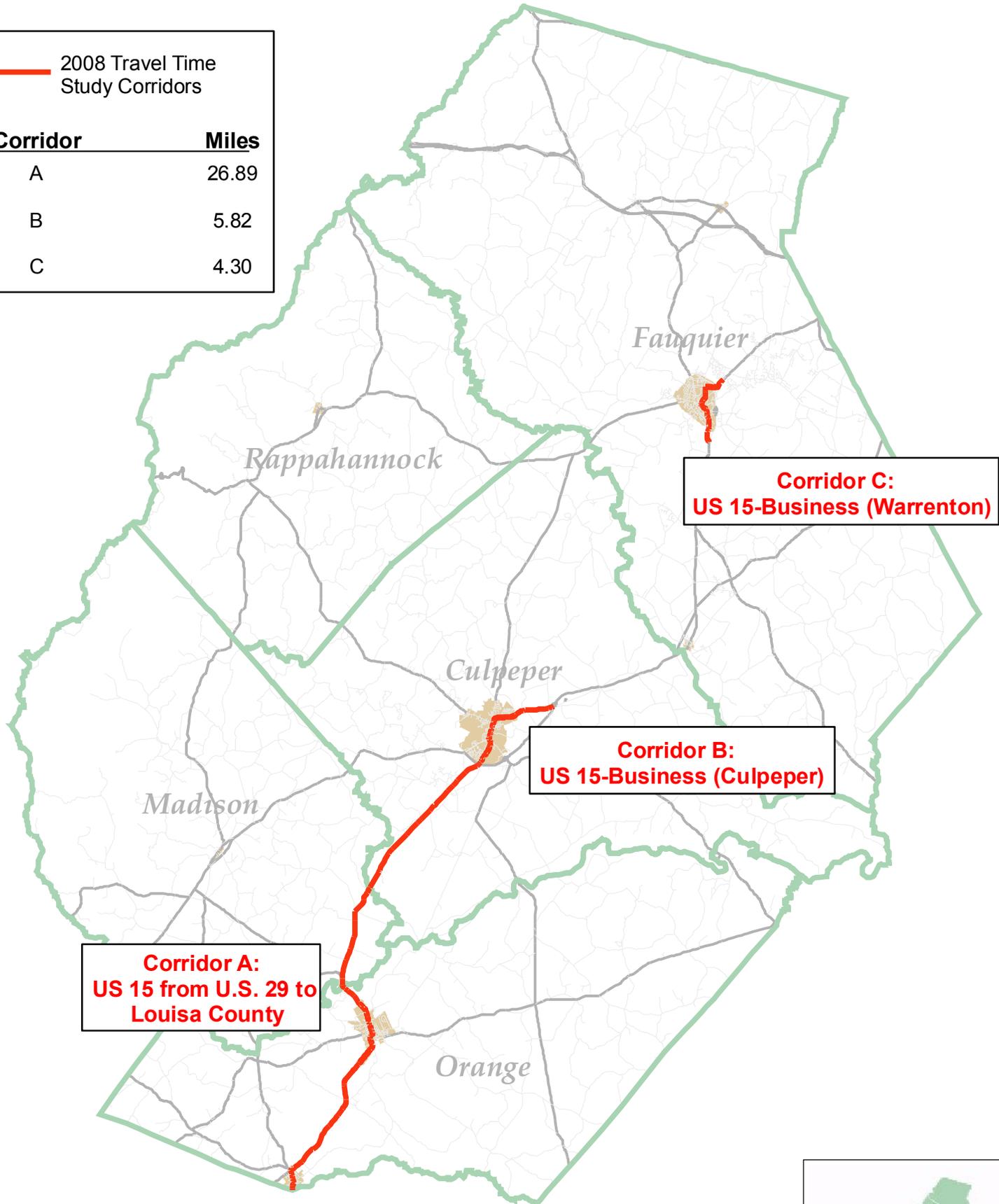
Each corridor segment contained varying speed limits. Thus, for each segment length, an average posted speed limit was computed. Calculations can be found in Table 1. In Corridor A, speed limits varied from 25 mph to 55 mph. In addition, Corridor A contained a school zone that was in operation during the AM peak run, with a posted speed limit of 25 mph. In corridor B, speed limits varied from 25 mph to 55 mph. In corridor C, speed limits varied from 25 mph to 45 mph.

Results

The results of the travel time analysis are summarized in the following tables. Tables 2 through 7 detail the segment analyzed, segment length, travel time, running time, stop/delay time, average posted speed limit, average travel speed, average running speed, difference of average travel speed from posted speed limit during difference of average running speed from posted speed limit and average number of traffic signals per mile of segment analyzed. Tables 8 through 13 specifically delineate the stops/delay in each segment by cause, location, and time of the stop/delay. Delays in each segment corridor varied, with traffic signals the most prevalent cause for delay. Stop signs, yield markers, vehicle left turns on two-lane segments and school entrances also contributed delays.

2008 RRRC Travel Time Study Corridors

2008 Travel Time Study Corridors	
Corridor	Miles
A	26.89
B	5.82
C	4.30

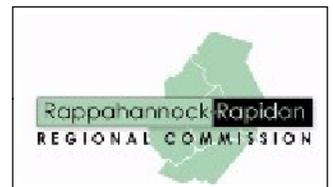
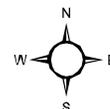
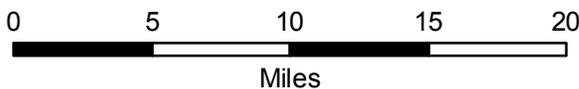


Corridor A:
US 15 from U.S. 29 to
Louisa County

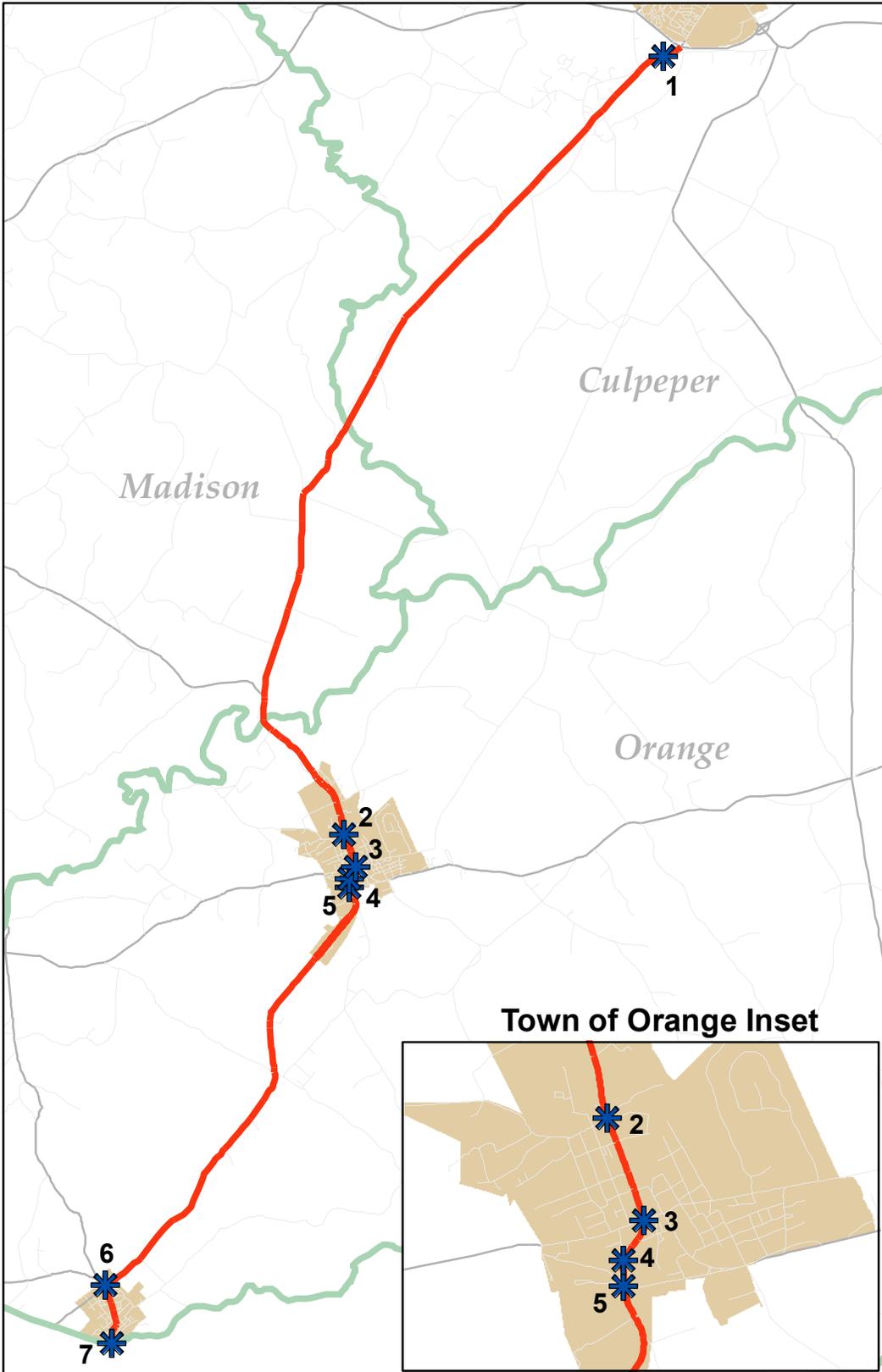
Corridor B:
US 15-Business (Culpeper)

Corridor C:
US 15-Business (Warrenton)

Created by RRRC for general planning purposes only.
Data is from various sources and may vary in
accuracy and completeness.
File: Travel_Time_Base_2008.mxd
Date: 4/18/2008



2008 RRRC Travel Time Study: Corridor A



Segment Length: 26.89 Miles

AM Avg Posted Speed Limit: 51.43 mph

PM Avg Posted Speed Limit: 51.65 mph

Average Travel Time Through:

Town of Orange: 7:52

*Total Mileage in Town: 3.53 Miles

Town of Gordonsville: 3:11

*Total Mileage in Town: 1.30 Miles

Southbound Trip Averages

AM Peak Average Travel Time: 36:23

AM Peak Average Travel Speed: 44.34 mph

AM Peak Average Running Time: 34:49

AM Peak Average Running Speed: 46.35 mph

PM Peak Average Travel Time: 35:54

PM Peak Average Travel Speed: 44.94 mph

PM Peak Average Running Time: 34:56

PM Peak Average Running Speed: 46.20 mph

Northbound Trip Averages

AM Peak Average Travel Time: 34:55

AM Peak Average Travel Speed: 46.22 mph

AM Peak Average Running Time: 34:00

AM Peak Average Running Speed: 47.46 mph

PM Peak Average Travel Time: 35:40

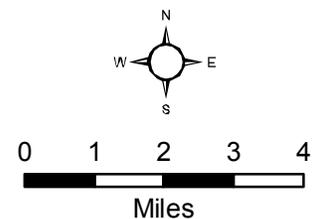
PM Peak Average Travel Speed: 45.24 mph

PM Peak Average Running Time: 34:02

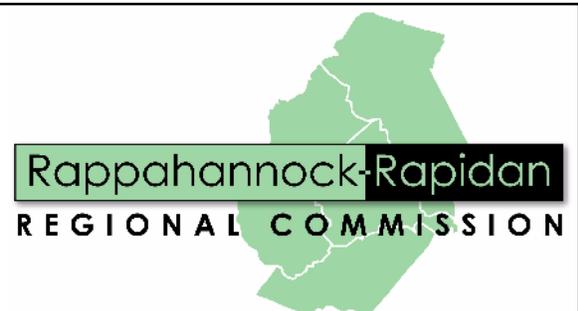
PM Peak Average Running Speed: 47.41 mph

Points of Delay:

- #1 School Zone (Police Direction)
- #2 Traffic Light (Spicers Mill Rd.)
- #3 Traffic Light (Main Street, Orange)
- #4 Traffic Light (Caroline Street, Orange)
- #5 Traffic Light (Berry Hill Road, Orange)
- #6 Traffic Circle (Gordonsville)
- #7 Vehicle Left Turn (Holladay Avenue)



- Points of Delay
- Study Corridor A
- County Boundary
- Town Boundary



2008 RRRC Travel Time Study: Corridor B

Segment Length: 5.82 Miles

Avg Posted Speed Limit: 40.17 mph

Average Travel Time Through:

Town of Culpeper: 9:35

*Total Mileage in Town: 3.68 Miles

Northbound Trip Averages

AM Peak Average Travel Time: 12:16

AM Peak Average Travel Speed: 28.47 mph

AM Peak Average Running Time: 10:32

AM Peak Average Running Speed: 33.15 mph

PM Peak Average Travel Time: 13:52

PM Peak Average Travel Speed: 25.20 mph

PM Peak Average Running Time: 10:53

PM Peak Average Running Speed: 32.11 mph

Southbound Trip Averages

AM Peak Average Travel Time: 13:32

AM Peak Average Travel Speed: 25.82 mph

AM Peak Average Running Time: 10:54

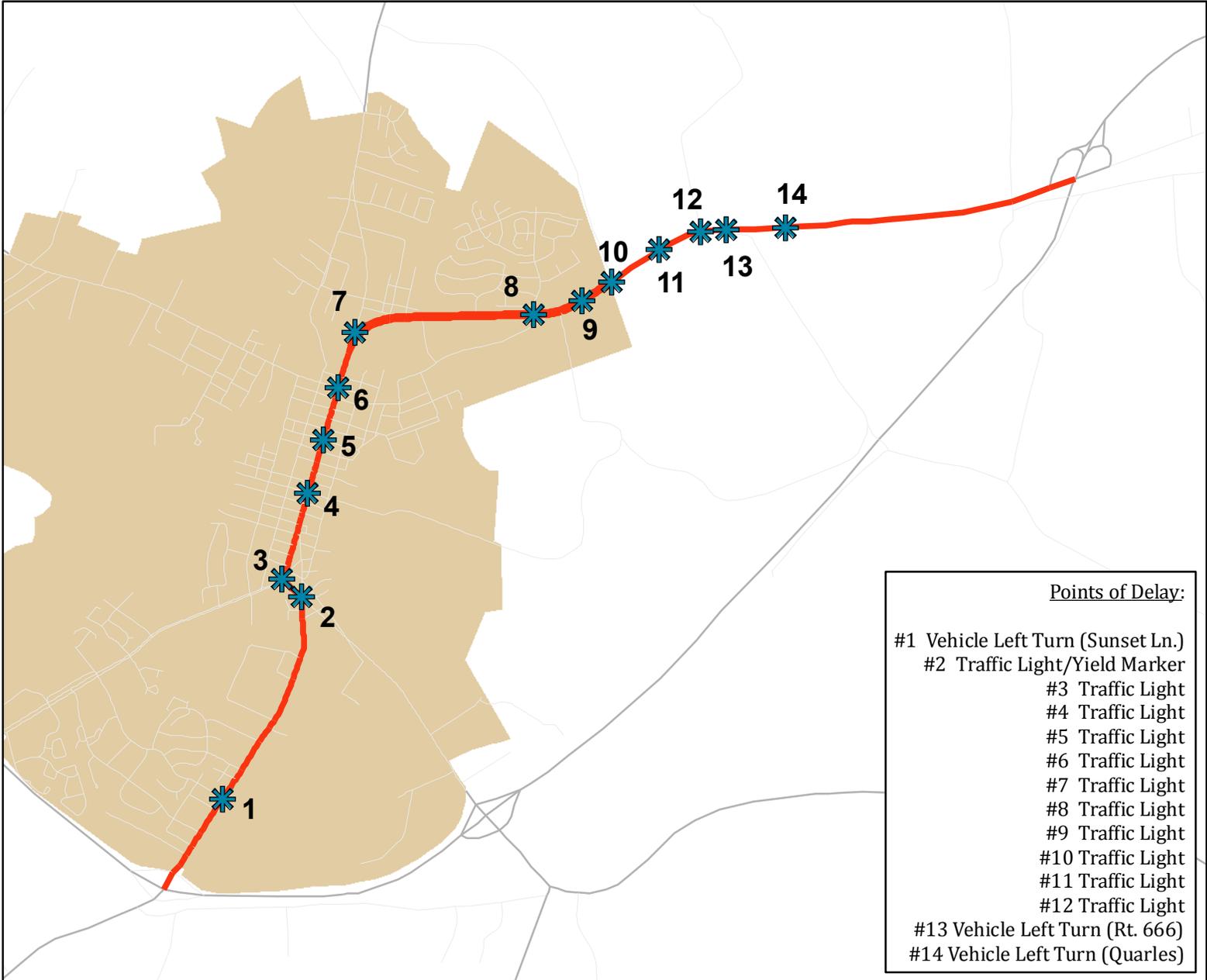
AM Peak Average Running Speed: 32.04 mph

PM Peak Average Travel Time: 14:49

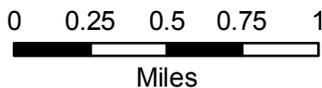
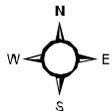
PM Peak Average Travel Speed: 23.58 mph

PM Peak Average Running Time: 11:05

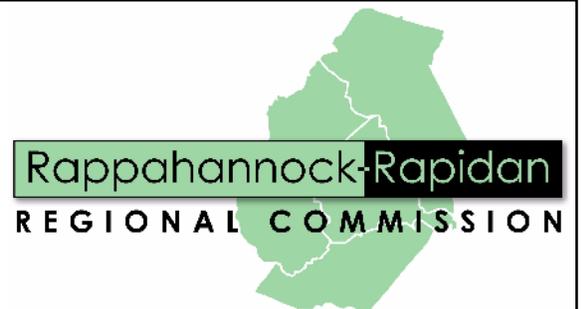
PM Peak Average Running Speed: 31.51 mph



- Points of Delay:
- #1 Vehicle Left Turn (Sunset Ln.)
 - #2 Traffic Light/Yield Marker
 - #3 Traffic Light
 - #4 Traffic Light
 - #5 Traffic Light
 - #6 Traffic Light
 - #7 Traffic Light
 - #8 Traffic Light
 - #9 Traffic Light
 - #10 Traffic Light
 - #11 Traffic Light
 - #12 Traffic Light
 - #13 Vehicle Left Turn (Rt. 666)
 - #14 Vehicle Left Turn (Quarles)



- Points of Delay
- Study Corridor B
- County Boundary
- Town Boundary



2008 RRRC Travel Time Study: Corridor C

Segment Length: 4.30 Miles

Avg Posted Speed Limit: 35.21 mph

Average Travel Time Through:

Town of Warrenton: 8:47

*Total Mileage in Town: 3.23 Miles

Northbound Trip Averages

AM Peak Average Travel Time: 9:41

AM Peak Average Travel Speed: 26.64 mph

AM Peak Average Running Time: 8:24

AM Peak Average Running Speed: 30.71 mph

PM Peak Average Travel Time: 9:41

PM Peak Average Travel Speed: 26.67 mph

PM Peak Average Running Time: 8:35

PM Peak Average Running Speed: 30.06 mph

Southbound Trip Averages

AM Peak Average Travel Time: 10:26

AM Peak Average Travel Speed: 24.75 mph

AM Peak Average Running Time: 8:38

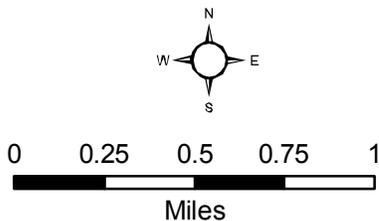
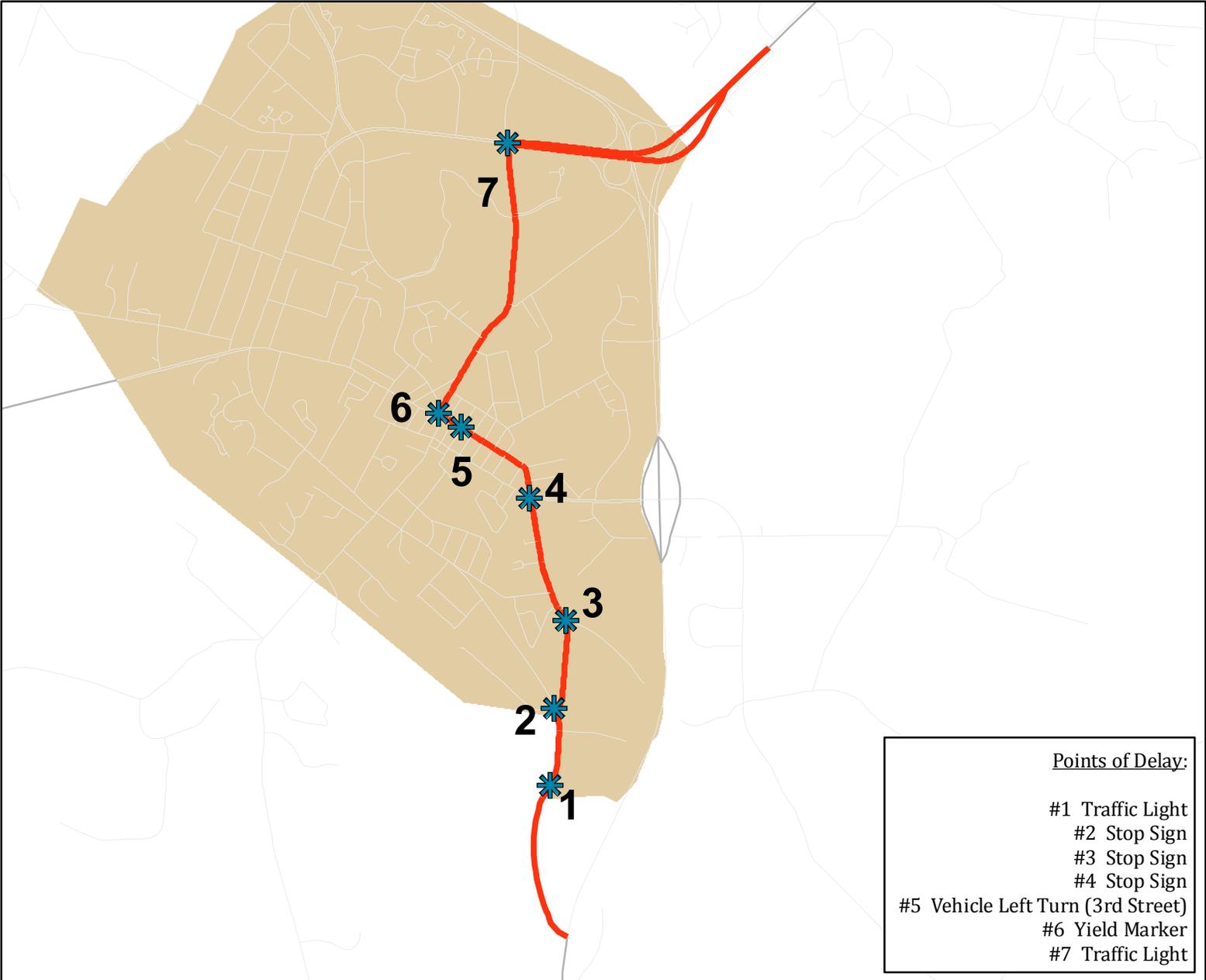
AM Peak Average Running Speed: 29.91 mph

PM Peak Average Travel Time: 11:20

PM Peak Average Travel Speed: 22.78 mph

PM Peak Average Running Time: 8:21

PM Peak Average Running Speed: 30.93 mph



-  Points of Delay
-  County Boundary
-  Town Boundary
-  Study Corridor C



TABLE 1: AVERAGE POSTED SPEED LIMIT CALCULATIONS

	SEGMENT MILES AT x MPH					AVG. POSTED SPEED LIMIT
	25	35	40	45	55	
CORRIDOR A	1.3	1.3	-	2.5	21.8	51.65
CORRIDOR A "AM"	1.6	1.3	-	2.2	21.8	51.43
CORRIDOR B	1.2	1.8	-	1.4	1.4	40.17
CORRIDOR C	1.7	0.5	1.2	0.9	-	35.21

Calculations were computed using the following equation, where "x" is equal to the total mileage of the corridor segment. Corridor A is used in this example:

$$(1.3/x)(25) + (1.3/x)(35) + (2.5/x)(45) + (21.8/x)(55)$$

TABLE 2
CORRIDOR SEGMENT “A” – ROUTE 29 TO LOUISA COUNTY
AM PEAK (7:00 – 9:00 a.m.)

TRIP ID	Length (Miles)	Travel Time = Running Time+ Stopped/Delay Time (Minutes/Seconds)	Running Time (Minutes/Seconds)	Stop/Delay Time – 10 MPH or Lower (Minutes/Seconds)	Posted Speed Limit (MPH)	Average Travel Speed (MPH)	Average Running Speed (MPH)	Difference (+/-) of Average Travel Speed from Posted Speed Limit	Difference (+/-) of Average Running Speed from Posted Speed Limit
Southbound 1	26.89	36:26	34:14	2:12	51.43* (Average)	44.28	47.13	(-7.15)	(-4.30)
Southbound 2	26.89	36:20	35:23	0:57	51.43* (Average)	44.41	45.60	(-7.02)	(-5.83)
Southbound AVERAGE	26.89	36:23	34:48.5	1:34.5	51.43* (Average)	44.34	46.35	(-7.09)	(-5.08)
Northbound 1	26.89	35:10	33:40	1:40	51.65 (Average)	45.88	47.92	(-5.77)	(-3.73)
Northbound 2	26.89	34:39	34:19	0:20	51.65 (Average)	46.56	47.01	(-5.09)	(-4.64)
Northbound AVERAGE	26.89	34:54.5	33:59.5	1:00	51.65 (Average)	46.22	47.46	(-5.43)	(-4.19)

Notes: Southbound Trip #1 and #2 posted speed limit includes 0.3 mile segment of 25 MPH school zone at Pearl Sample Elementary School in Culpeper County.

TABLE 3
CORRIDOR SEGMENT “A” – ROUTE 29 TO LOUISA COUNTY
PM PEAK (4:00 – 6:00 p.m.)

TRIP ID	Length (Miles)	Travel Time = Running Time+ Stopped/Delay Time (Minutes/Seconds)	Running Time (Minutes/Seconds)	Stop/Delay Time – 10 MPH or Lower (Minutes/Seconds)	Posted Speed Limit (MPH)	Average Travel Speed (MPH)	Average Running Speed (MPH)	Difference (+/-) of Average Travel Speed from Posted Speed Limit	Difference (+/-) of Average Running Speed from Posted Speed Limit
Southbound 1	26.89	35:53	35:18	0:35	51.65 (Average)	44.96	45.71	(-6.69)	(-5.94)
Southbound 2	26.89	35:55	34:33	1:22	51.65 (Average)	44.92	46.70	(-6.73)	(-4.95)
Southbound AVERAGE	26.89	35:54	34:55.5	0:58.5	51.65 (Average)	44.94	46.20	(6.71)	(-5.45)
Northbound 1	26.89	35:15	34:05	1:10	51.65 (Average)	45.77	47.34	(-5.88)	(-4.31)
Northbound 2	26.89	36:05	33:59	2:06	51.65 (Average)	44.71	47.48	(-6.94)	(-4.17)
Northbound AVERAGE	26.89	35:40	34:02	1:38	51.65 (Average)	45.24	47.41	(-6.41)	(-4.24)

TABLE 4
CORRIDOR SEGMENT “B” – BUSINESS ROUTE 15 (CULPEPER)
AM PEAK (7:00 – 9:00 a.m.)

TRIP ID	Length (Miles)	Travel Time = Running Time+ Stopped/Delay Time (Minutes/Seconds)	Running Time (Minutes/Seconds)	Stop/Delay Time – 10 MPH or Lower (Minutes/Seconds)	Posted Speed Limit (MPH)	Average Travel Speed (MPH)	Average Running Speed (MPH)	Difference (+/-) of Average Travel Speed from Posted Speed Limit	Difference (+/-) of Average Running Speed from Posted Speed Limit
Southbound 1	5.82	14:02	11:05	2:57	40.17 (Average)	24.88	31.51	(-15.29)	(-8.66)
Southbound 2	5.82	13:01	10:43	2:18	40.17 (Average)	26.83	32.58	(-13.34)	(-7.59)
Southbound AVERAGE	5.82	13:31.5	10:54	2:37.5	40.17 (Average)	25.82	32.04	(-14.35)	(-8.13)
Northbound 1	5.82	11:50	10:21	1:29	40.17 (Average)	29.51	33.74	(-10.66)	(-6.43)
Northbound 2	5.82	12:42	10:43	1:59	40.17 (Average)	27.50	32.58	(-12.67)	(-7.59)
Northbound AVERAGE	5.82	12:16	10:32	1:44	40.17 (Average)	28.47	33.15	(-11.70)	(-7.02)

TABLE 5
CORRIDOR SEGMENT “B” – BUSINESS ROUTE 15 (CULPEPER)
PM PEAK (4:00 - 6:00 p.m.)

TRIP ID	Length (Miles)	Travel Time = Running Time+ Stopped/ Delay Time (Minutes/ Seconds)	Running Time (Minutes/ Seconds)	Stop/Delay Time – 10 MPH or Lower (Minutes/ Seconds)	Posted Speed Limit (MPH)	Average Travel Speed (MPH)	Average Running Speed (MPH)	Difference (+/-) of Average Travel Speed from Posted Speed Limit	Difference (+/-) of Average Running Speed from Posted Speed Limit
Southbound 1	5.82	14:21	11:29	2:52	40.17 (Average)	24.33	30.41	(-15.84)	(-9.76)
Southbound 2	5.82	15:16	10:41	4:35	40.17 (Average)	22.87	32.69	(-17.30)	(-7.48)
Southbound AVERAGE	5.82	14:48.5	11:05	3:43.5	40.17 (Average)	23.58	31.51	(-16.59)	(-8.66)
Northbound 1	5.82	14:11	10:42	3:29	40.17 (Average)	24.62	32.64	(-15.55)	(-7.53)
Northbound 2	5.82	13:32	11:03	2:29	40.17 (Average)	25.80	31.60	(-14.37)	(-8.57)
Northbound AVERAGE	5.82	13:51.5	10:52.5	2:59	40.17 (Average)	25.20	32.11	(-14.97)	(-8.06)

TABLE 6
CORRIDOR SEGMENT “C” – BUSINESS ROUTE 15 (WARRENTON)
AM PEAK (7:00 – 9:00 a.m.)

TRIP ID	Length (Miles)	Travel Time = Running Time+ Stopped/ Delay Time (Minutes/ Seconds)	Running Time (Minutes/ Seconds)	Stop/Delay Time – 10 MPH or Lower (Minutes/Seco nds)	Posted Speed Limit (MPH)	Average Travel Speed (MPH)	Average Running Speed (MPH)	Difference (+/-) of Average Travel Speed from Posted Speed Limit	Difference (+/-) of Average Running Speed from Posted Speed Limit
Southbound 1	4.30	10:32	8:32	2:00	35.21 (Average)	24.49	30.23	(-10.72)	(-4.98)
Southbound 2	4.30	10:19	8:43	1:36	35.21 (Average)	25.01	29.60	(-10.20)	(-5.61)
Southbound AVERAGE	4.30	10:25.5	8:37.5	1:48	35.21 (Average)	24.75	29.91	(-10.46)	(-5.30)
Northbound 1	4.30	9:52	8:16	1:36	35.21 (Average)	26.15	31.21	(-9.06)	(-4.00)
Northbound 2	4.30	9:30	8:32	0:58	35.21 (Average)	27.16	30.23	(-8.05)	(-4.98)
Northbound AVERAGE	4.30	9:41	8:24	1:17	35.21 (Average)	26.64	30.71	(-8.57)	(-4.50)

TABLE 7
CORRIDOR SEGMENT “C” – BUSINESS ROUTE 15 (WARRENTON)
PM PEAK (4:00 – 6:00 p.m.)

TRIP ID	Length (Miles)	Travel Time = Running Time+ Stopped/ Delay Time (Minutes/ Seconds)	Running Time (Minutes/Seconds)	Stop/Delay Time – 10 MPH or Lower (Minutes/Seconds)	Posted Speed Limit (MPH)	Average Travel Speed (MPH)	Average Running Speed (MPH)	Difference (+/-) of Average Travel Speed from Posted Speed Limit	Difference (+/-) of Average Running Speed from Posted Speed Limit
Southbound 1	4.30	11:44	8:27	3:17	35.21	21.99	30.53	(-13.22)	(-4.68)
Southbound 2	4.30	10:55	8:14	2:41	35.21	23.63	31.34	(-11.58)	(-3.87)
Southbound AVERAGE	4.30	11:19.5	8:20.5	2:59	35.21	22.78	30.93	(-12.43)	(-4.28)
Northbound 1	4.30	9:59	8:43	1:16	35.21	25.84	29.60	(-9.37)	(-5.61)
Northbound 2	4.30	9:22	8:27	0:55	35.21	27.54	30.53	(-7.67)	(-4.68)
Northbound AVERAGE	4.30	9:40.5	8:35	1:05.5	35.21	26.67	30.06	(-8.54)	(-5.15)

TABLE 8: CORRIDOR A | STOPS/DELAYS (10 MPH or Below) | AM Peak

TRIP ID	Jurisdiction	Stop/Delay Cause	Stop/Delay Location (Intersection)	Stopped/Delay Time (Minutes/Seconds)
Southbound #1	Culpeper County	School Entrance (Police Direction)	Route 9566/Pearl Sample Elementary School	1:18
	Town of Orange	Traffic Signal	Spicers Mill Rd.	0:11
	Town of Orange	Traffic Signal	Main Street	0:30
	Town of Orange	Traffic Signal	Caroline Street	0:13
Southbound #2	Town of Orange	Traffic Signal	Spicers Mill Rd.	0:13
	Town of Orange	Traffic Signal	Main Street	0:31
	Town of Orange	Traffic Signal	Caroline Street	0:09
	Town of Orange	Traffic Signal	Berry Hill Road	0:04
Northbound #1	Town of Orange	Traffic Signal	Main Street	1:40*
Northbound #2	Town of Gordonsville	Yield Marker	Gordonsville Circle	0:11
	Town of Orange	Traffic Signal	Main Street	0:09

*Delay at Main Street in Town of Orange during trip Northbound #1 included two cycles of traffic signal.

TABLE 9: CORRIDOR A | STOPS/DELAYS (10 MPH or Below) | PM Peak

TRIP ID	Jurisdiction	Stop/Delay Cause	Stop/Delay Location (Intersection)	Stopped/Delay Time (Minutes/Seconds)
Southbound #1	Town of Orange	Traffic Signal	Caroline Street	0:10
	Town of Orange	Traffic Signal	Berry Hill Road	0:04
	Town of Gordonsville	Yield Marker	Gordonsville Circle	0:21
Southbound #2	Town of Orange	Traffic Signal	Main Street	0:57
	Town of Orange	Traffic Signal	Caroline Street	0:25
Northbound #1	Town of Gordonsville	Vehicle Left Turn	Route 1019 (Holladay Ave.)	0:04
	Town of Gordonsville	Yield Marker	Gordonsville Circle	0:05
	Town of Orange	Traffic Signal	Berry Hill Road	0:42
	Town of Orange	Traffic Signal	Main Street	0:19
Northbound #2	Town of Gordonsville	Yield Marker	Gordonsville Circle	0:08
	Town of Orange	Traffic Signal	Berry Hill Road	1:06
	Town of Orange	Traffic Signal	Main Street	0:52*

*Delay at Main Street in Town of Orange during trip Northbound #2 included two cycles of traffic signal.

TABLE 10: CORRIDOR B | STOPS/DELAYS (10 MPH or Below) | AM Peak

TRIP ID	Jurisdiction	Stop/Delay Cause	Stop/Delay Location (Intersection)	Stopped/Delay Time (Minutes/Seconds)
Southbound #1	Culpeper County	Traffic Signal	Montanus Parkway	0:44
	Town of Culpeper	Traffic Signal	Ira Hoffman Lane	0:46
	Town of Culpeper	Traffic Signal	Main Street/Route 229	0:17
	Town of Culpeper	Traffic Signal	Evans Street	0:20
	Town of Culpeper	Traffic Signal	Madison Road	0:31
	Town of Culpeper	Yield Marker	Orange Road	0:19
Southbound #2	Culpeper County	Traffic Signal	Bradford Road	0:13
	Culpeper County	Traffic Signal	Montanus Parkway	0:40
	Town of Culpeper	Traffic Signal	Ira Hoffman Lane	0:10
	Town of Culpeper	Traffic Signal	Old Brandy Road/Belle Avenue	0:34
	Town of Culpeper	Traffic Signal	Main Street/Route 229	0:19
	Town of Culpeper	Traffic Signal	Evans Street	0:09
	Town of Culpeper	Traffic Signal	Madison Road	0:11
	Town of Culpeper	Yield Marker	Orange Road	0:02
Northbound #1	Town of Culpeper	Traffic Signal	Germanna Highway	0:08
	Town of Culpeper	Traffic Signal	Davis Street	0:13
	Town of Culpeper	Traffic Signal	Evans Street	0:16
	Town of Culpeper	Traffic Signal	Ira Hoffman Lane	0:14
	Culpeper County	Traffic Signal	Montanus Parkway	0:38
Northbound #2	Town of Culpeper	Yield Marker	Main Street	0:03
	Town of Culpeper	Traffic Signal	Evans Street	0:36
	Town of Culpeper	Traffic Signal	Walmart/Kohls/Dominion Square	0:21
	Town of Culpeper	Traffic Signal	Ira Hoffman Lane	0:30
	Culpeper County	Traffic Signal	Montanus Parkway	0:20
	Culpeper County	Traffic Signal	Bradford Road	0:09

TABLE 11: CORRIDOR B | STOPS/DELAYS (10 MPH or Below) | PM Peak

TRIP ID	Jurisdiction	Stop/Delay Cause	Stop/Delay Location (Intersection)	Stopped/Delay Time (Minutes/Seconds)
Southbound #1	Culpeper County	Traffic Signal	Bradford Road	0:08
	Culpeper County	Traffic Signal	Montanus Parkway	0:28
	Town of Culpeper	Traffic Signal	Ira Hoffman Lane	0:54
	Town of Culpeper	Traffic Signal	Walmart/Kohls/Dominion Square	0:11
	Town of Culpeper	Traffic Signal	Old Brandy Road/Belle Avenue	0:11
	Town of Culpeper	Traffic Signal	Evans Street	0:52
	Town of Culpeper	Traffic Signal	Chandler Street	0:08
Southbound #2	Culpeper County	Traffic Signal	Bradford Road	0:19
	Town of Culpeper	Traffic Signal	Main Street/Route 229	0:48
	Town of Culpeper	Traffic Signal	Evans Street	2:25*
	Town of Culpeper	Traffic Signal	Chandler Street	0:05
	Town of Culpeper	Traffic Signal	Madison Road	0:58
Northbound #1	Town of Culpeper	Vehicle Left Turn	Sunset Lane	0:17
	Town of Culpeper	Traffic Signal	Germanna Highway	0:22
	Town of Culpeper	Traffic Signal	Chandler Street	0:08
	Town of Culpeper	Traffic Signal	Evans Street	0:48
	Town of Culpeper	Traffic Signal	Walmart/Kohls/Dominion Square	0:26
	Town of Culpeper	Traffic Signal	Ira Hoffman Lane	0:47
	Culpeper County	Traffic Signal	Montanus Parkway	0:32
	Culpeper County	Vehicle Left Turn	Braggs Corner Road	0:09
Northbound #2	Town of Culpeper	Traffic Signal	Germanna Highway	0:08
	Town of Culpeper	Traffic Signal	Davis Street	0:50
	Town of Culpeper	Traffic Signal	Evans Street	0:45
	Town of Culpeper	Traffic Signal	Ira Hoffman Lane	0:22
	Culpeper County	Vehicle Left Turn	Quarles – North of Route 666	0:24

*Delay at Evans Street in Town of Culpeper during trip Southbound #2 included two cycles of traffic signal.

TABLE 12: CORRIDOR C | STOPS/DELAYS (10 MPH or Below) | AM Peak

TRIP ID	Jurisdiction	Stop/Delay Cause	Stop/Delay Location (Intersection)	Stopped/Delay Time (Minutes/Seconds)
Southbound #1	Town of Warrenton	Traffic Signal	Blackwell Road	1:10
	Town of Warrenton	Yield Marker	Main Street	0:10
	Town of Warrenton	Stop Sign	East Lee Street/Meetze Road	0:17
	Town of Warrenton	Stop Sign	Old Meetze Road	0:05
	Town of Warrenton	Stop Sign	Shirley Avenue/James Madison Hwy	0:15
	Town of Warrenton	Traffic Signal	Alwington Boulevard	0:02
Southbound #2	Town of Warrenton	Traffic Signal	Blackwell Road	0:50
	Town of Warrenton	Yield Marker	Main Street	0:22
	Town of Warrenton	Stop Sign	East Lee Street/Meetze Road	0:12
	Town of Warrenton	Stop Sign	Old Meetze Road	0:04
	Town of Warrenton	Stop Sign	Shirley Avenue/James Madison Hwy	0:08
Northbound #1	Town of Warrenton	Traffic Signal	Alwington Boulevard	0:36
	Town of Warrenton	Stop Sign	Old Meetze Road	0:05
	Town of Warrenton	Stop Sign	East Lee Street/Meetze Road	0:08
	Town of Warrenton	Traffic Signal	Lee Highway	0:47
Northbound #2	Town of Warrenton	Traffic Signal	Alwington Boulevard	0:13
	Town of Warrenton	Stop Sign	Old Meetze Road	0:05
	Town of Warrenton	Stop Sign	East Lee Street/Meetze Road	0:06
	Town of Warrenton	Traffic Signal	Lee Highway	0:34

TABLE 13: CORRIDOR C | STOPS/DELAYS (10 MPH or Below) | PM Peak

TRIP ID	Jurisdiction	Stop/Delay Cause	Stop/Delay Location (Intersection)	Stopped/Delay Time (Minutes/Seconds)
Southbound #1	Town of Warrenton	Traffic Signal	Blackwell Road	1:33
	Town of Warrenton	Yield Marker	Main Street	0:19
	Town of Warrenton	Vehicle Left Turn	Third Street	0:12
	Town of Warrenton	Stop Sign	East Lee Street/Meetze Road	0:39
	Town of Warrenton	Stop Sign	Old Meetze Road	0:05
	Town of Warrenton	Stop Sign	Shirley Avenue/James Madison Hwy	0:07
	Town of Warrenton	Traffic Signal	Alwington Boulevard	0:22
Southbound #2	Town of Warrenton	Traffic Signal	Blackwell Road	2:20*
	Town of Warrenton	Yield Marker	Main Street	0:06
	Town of Warrenton	Stop Sign	East Lee Street/Meetze Road	0:05
	Town of Warrenton	Stop Sign	Old Meetze Road	0:05
	Town of Warrenton	Stop Sign	Shirley Avenue/James Madison Hwy	0:05
Northbound #1	Town of Warrenton	Traffic Signal	Alwington Boulevard	0:07
	Town of Warrenton	Stop Sign	Old Meetze Road	0:06
	Town of Warrenton	Stop Sign	East Lee Street/Meetze Road	0:08
	Town of Warrenton	Traffic Signal	Lee Highway	0:55
Northbound #2	Town of Warrenton	Traffic Signal	Alwington Boulevard	0:23
	Town of Warrenton	Stop Sign	Old Meetze Road	0:05
	Town of Warrenton	Stop Sign	East Lee Street/Meetze Road	0:14
	Town of Warrenton	Traffic Signal	Lee Highway	0:13

*Delay at Blackwell Road in Town of Warrenton during trip Southbound #2 included two cycles of traffic signal.



DISCLAIMER

Prepared in cooperation with the US Department of Transportation, Federal Highway Administration, and the Virginia Department of Transportation

The contents of this report reflect the views of the Rappahannock-Rapidan Regional Commission (RRRC). The Commission is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the views or policies of the US Department of Transportation, Federal Highway Administration, or Virginia Department of Transportation. This report does not constitute a standard, specification, or regulation.