

Spot Safety Project Evaluation

Project Information

Order ID: 41000033708

Project ID: 07-09-1293

Location: SR 1009 (Main Street) at SR 1113 (Kivett Drive);
SR 1009 (Main Street) at SR 1970 (English Road)

County: Guilford

City: High Point

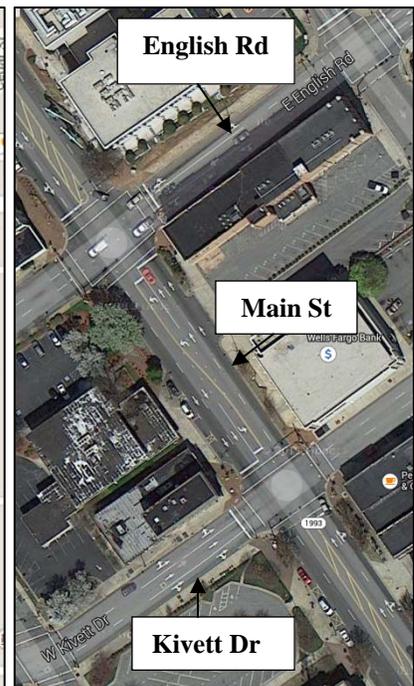
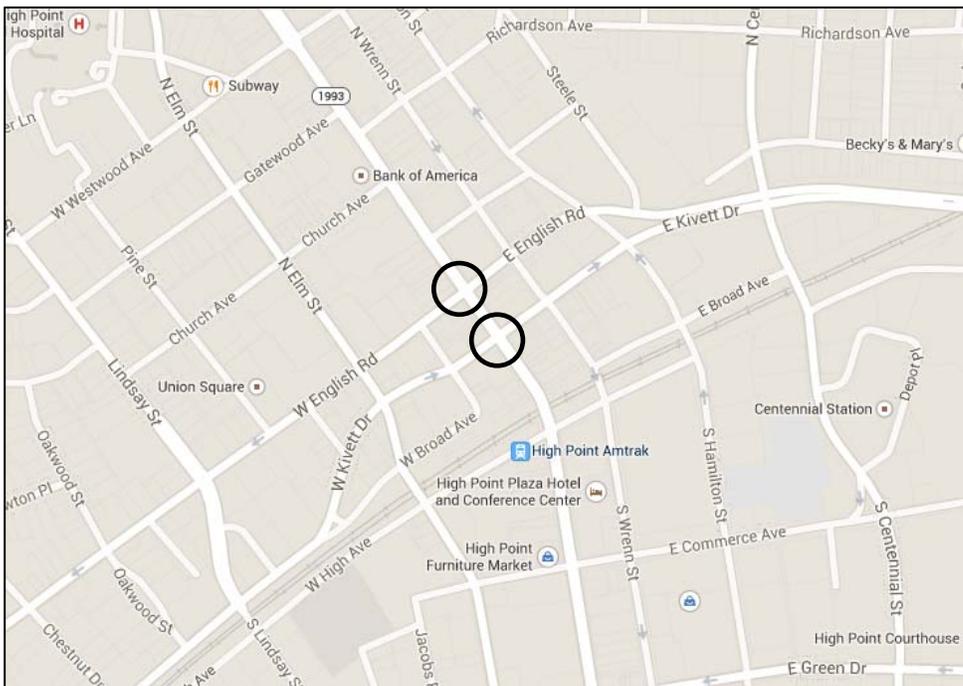
Division: 7

Signal ID: 07-0770; 07-0780

Countermeasure: Install optically programmed green signal heads for southbound Main St at the Kivett Dr intersection, and for northbound Main St at the English Rd intersection. During the before study period, back plates were installed on the northbound Main St signal heads at both intersections. During the after study period, back plates were installed on the southbound Main St signal heads at both intersections. These additional countermeasures were also analyzed in this study.

| | | | |
|---------------------|----------------|-------------------|-----------------------|
| Project Completion: | NB back plates | July 2009 | Project Cost: N/A |
| | 07-09-1293 | December 13, 2011 | Project Cost: \$7,000 |
| | SB back plates | July 2013 | Project Cost: N/A |

Map and Aerial (from Google Maps – Coordinates are 35.958951, -80.006732)



Naive Before and After Analysis

| | |
|---|--|
| Before Period 1: | July 1, 2006 through June 30, 2009 (3 years) |
| Const. Period (<i>NB Backplates</i>): | July 1, 2009 through July 31, 2009 |
| Before Period 2 (<i>NB Backplates</i>): | August 1, 2009 through October 31, 2011 (2.25 years) |
| Const. Period (<i>07-09-1293</i>): | November 1, 2011 through January 31, 2012 |
| After Period 1 (<i>07-09-1293</i>): | February 1, 2012 through June 30, 2013 (1.41 years) |
| Const. Period (<i>SB Backplates</i>): | July 1, 2013 through July 31, 2013 |
| After Period 2 (<i>SB Backplates</i>): | August 1, 2013 through January 31, 2015 (1.5 years) |

Analysis Criteria: Treatment data consists of all crashes within 150 feet of the subject intersections.

Target Crashes: For Project 07-09-1293 (optically programmed green), target crashes include:
NB Red Light Running crashes & Rear End crashes at the Kivett Dr intersection;
SB Red Light Running crashes & Rear End crashes at the English Rd intersection.

For the NB Backplate installation, target crashes include:
NB Red Light Running crashes & Rear End crashes at both intersections.

For the SB Backplate installation, target crashes include:
SB Red Light Running crashes & Rear End crashes at both intersections.

For simplicity, in the tables and collision diagrams,
Target Crash 1 = NB Red Light Running crashes & Rear End crashes
Target Crash 2 = SB Red Light Running crashes & Rear End crashes

Main St at Kivett Dr

| Treatment Information | Before 1 | Before 2 Backplates (BP)- NB | After 1 Optically Program Green (OPG) - NB | After 2 Backplates (BP) - SB |
|------------------------------|-----------------|---|---|---|
| | 3 years | 2.25 years | 1.41 years | 1.5 years |
| Total | 35 | 40 | 17 | 21 |
| Crashes per year | 11.67 | 17.78 | 12.06 | 14.00 |
| Severity Index | 4.59 | 4.88 | 8.94 | 3.82 |
| | | | | |
| Target 1: NB | 12 | 10 | 4 | 7 |
| Crashes per year | 4.00 | 4.44 | 2.84 | 4.67 |
| Severity Index | 5.32 | 7.66 | 4.70 | 4.17 |
| | | | | |
| Red Light Runner | 11 | 8 | 4 | 4 |
| Crashes per year | 3.67 | 3.56 | 2.84 | 2.67 |
| Rear End | 1 | 2 | 0 | 3 |
| Crashes per year | 0.33 | 0.89 | 0.00 | 2.00 |
| | | | | |
| Target 2: SB | 6 | 14 | 4 | 4 |
| Crashes per year | 2.00 | 6.22 | 2.84 | 2.67 |
| Severity Index | 4.70 | 5.76 | 6.55 | 4.70 |
| | | | | |
| Red Light Runner | 6 | 13 | 3 | 4 |
| Crashes per year | 2.00 | 5.78 | 2.13 | 2.67 |
| Rear End | 0 | 1 | 1 | 0 |
| Crashes per year | 0.00 | 0.44 | 0.71 | 0.00 |
| | | | | |
| Volume ('07, '10, '12, '14) | 22,500 | 20,600 | 19,500 | 19,100 |

| Injury Crash Information | Before 1 (3 yrs) | | Before 2 (2.25 yrs) | | After 1 (1.41 yrs) | | After 2 (1.5 yrs) | |
|---------------------------------|-------------------------|--------|----------------------------|--------|---------------------------|--------|--------------------------|--------|
| | Total | Per Yr | Total | Per Yr | Total | Per Yr | Total | Per Yr |
| Fatal injury Crashes | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Class A injury Crashes | 0 | 0.00 | 0 | 0.00 | 1 | 0.71 | 0 | 0.00 |
| Class B injury Crashes | 3 | 1.00 | 6 | 2.67 | 1 | 0.71 | 1 | 0.67 |
| Class C injury Crashes | 14 | 4.67 | 15 | 6.67 | 7 | 4.96 | 7 | 4.67 |
| Property Damage Only | 18 | 6.00 | 19 | 8.44 | 8 | 5.67 | 13 | 8.67 |

*Note: Due to the size and complexity of the table, Target crashes per year are highlighted in red to point out these results.

Main St at English Rd

| Treatment Information | Before 1 | Before 2 Backplates (BP) - NB | After 1 Optically Program Green (OPG) - SB | After 2 Backplates (BP) - SB |
|------------------------------|-----------------|--|---|---|
| | 3 years | 2.25 years | 1.41 years | 1.5 years |
| Total | 26 | 27 | 18 | 12 |
| Crashes per year | 8.67 | 12.00 | 12.77 | 8.00 |
| Severity Index | 3.56 | 6.55 | 5.93 | 5.32 |
| | | | | |
| Target 1: NB | 6 | 5 | 8 | 3 |
| Crashes per year | 2.00 | 2.22 | 5.67 | 2.00 |
| Severity Index | 2.23 | 20.60 | 6.55 | 8.40 |
| | | | | |
| Red Light Runner | 6 | 4 | 8 | 3 |
| Crashes per year | 2.00 | 1.78 | 5.67 | 2.00 |
| Rear End | 0 | 1 | 0 | 0 |
| Crashes per year | 0.00 | 0.44 | 0.00 | 0.00 |
| | | | | |
| Target 2: SB | 4 | 4 | 3 | 1 |
| Crashes per year | 1.33 | 1.78 | 2.13 | 0.67 |
| Severity Index | 2.85 | 4.70 | 3.47 | 8.40 |
| | | | | |
| Red Light Runner | 2 | 3 | 1 | 1 |
| Crashes per year | 0.67 | 1.33 | 0.71 | 0.67 |
| Rear End | 2 | 1 | 2 | 0 |
| Crashes per year | 0.67 | 0.44 | 1.42 | 0.00 |
| | | | | |
| Volume ('07, '10, '12, '14) | 22,300 | 21,100 | 19,700 | 18,900 |

| Injury Crash Information | Before 1 (3 yrs) | | Before 2 (2.25 yrs) | | After 1 (1.41 yrs) | | After 2 (1.5 yrs) | |
|---------------------------------|-------------------------|--------|----------------------------|--------|---------------------------|--------|--------------------------|--------|
| | Total | Per Yr | Total | Per Yr | Total | Per Yr | Total | Per Yr |
| Fatal injury Crashes | 0 | 0.00 | 1 | 0.44 | 0 | 0.00 | 0 | 0.00 |
| Class A injury Crashes | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Class B injury Crashes | 2 | 0.67 | 2 | 0.89 | 1 | 0.71 | 3 | 2.00 |
| Class C injury Crashes | 7 | 2.33 | 8 | 3.56 | 11 | 7.80 | 4 | 2.67 |
| Property Damage Only | 17 | 5.67 | 16 | 7.11 | 6 | 4.26 | 5 | 3.33 |

*Note: Due to the size and complexity of the table, Target crashes per year are highlighted in red to point out these results.

Overall Summary Results

Main St at Kivett Dr

| | <u>From Before 1 to Before 2 (NB BP)</u> | <u>From Before 2 to After 1 (NB OPG)</u> | <u>From After 1 to After 2 (SB BP)</u> |
|-----------------------------|---|---|---|
| Total Crashes per year: | + 52 % (increase) | - 32 % (reduction) | + 16 % (increase) |
| Total Crash Severity: | + 6 % (increase) | + 83 % (increase) | - 57 % (reduction) |
| NB Target Crashes per year: | + 11 % (increase) | - 36 % (reduction) | + 65 % (increase) |
| NB Target Crash Severity: | + 44 % (increase) | - 39 % (reduction) | - 11 % (reduction) |
| SB Target Crashes per year: | + 211 % (increase) | - 54 % (reduction) | - 6 % (reduction) |
| SB Target Crash Severity: | + 23 % (increase) | + 14 % (increase) | - 28 % (reduction) |
| Volume: | - 8 % (reduction) | - 5 % (reduction) | - 2 % (reduction) |

Main St at English Rd

| | <u>From Before 1 to Before 2 (NB BP)</u> | <u>From Before 2 to After 1 (SB OPG)</u> | <u>From After 1 to After 2 (SB BP)</u> |
|-----------------------------|---|---|---|
| Total Crashes per year: | + 38 % (increase) | + 6 % (increase) | - 37 % (reduction) |
| Total Crash Severity: | + 84 % (increase) | - 9 % (reduction) | - 10 % (reduction) |
| NB Target Crashes per year: | + 11 % (increase) | + 155 % (increase) | - 65 % (reduction) |
| NB Target Crash Severity: | + 824 % (increase) | - 68 % (reduction) | + 28 % (increase) |
| SB Target Crashes per year: | + 33 % (increase) | + 20 % (increase) | - 69 % (reduction) |
| SB Target Crash Severity: | + 65 % (increase) | - 26 % (reduction) | + 142 % (increase) |
| Volume: | - 5 % (reduction) | - 7 % (reduction) | - 4 % (reduction) |

Items for Discussion/Concerns

The results were mixed between intersections and between time periods.

In order to provide a better overall picture of the results, below is a summary of the change in crashes per year from Before Period 1 (3-year time period before changes were implemented) to After Period 2 (1.5-year time period after all changes were implemented).

Main St at Kivett Dr

| | <u>Before 1</u> | <u>After 2</u> | <u>Percent Change</u> |
|----------------------------|-----------------|----------------|-----------------------|
| Total Crashes per year | 11.67 | 14.00 | + 20 % (increase) |
| NB Target Crashes per year | 4.00 | 4.67 | + 17 % (increase) |
| SB Target Crashes per year | 2.00 | 2.67 | + 34 % (increase) |

Main St at English Rd

| | <u>Before 1</u> | <u>After 2</u> | <u>Percent Change</u> |
|----------------------------|-----------------|----------------|-----------------------|
| Total Crashes per year | 8.67 | 8.00 | - 8% (reduction) |
| NB Target Crashes per year | 2.00 | 2.00 | 0 % (no change) |
| SB Target Crashes per year | 1.33 | 0.67 | - 50 % (reduction) |

Please see the collision diagrams for Before Period 1, Before Period 2, After Period 1, and After Period 2 for the visual depiction of crash trends at each intersection. Be aware that the after time periods are shorter than the before time periods; therefore, a crash type that experienced no change or an increase in crashes per year could be shown with fewer crashes in the after period collision diagrams.

Data Prepared For

The Traffic Safety Unit *of the*
Transportation Mobility and Safety Division *of the*
Division of Highways *of the*
North Carolina Department of Transportation

Data Prepared By

Principal Investigator: Carrie L. Simpson, PE
Work Group/Consultant: NCDOT - Safety Evaluation Group
Date: March 30, 2015

SS #07-09-1293
 Order # 41000033716
 Guilford County

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 16,400 (2007)

Before Period #1
 7/1/2006 - 6/30/2009
 3 Years

Main St at Kivett Dr

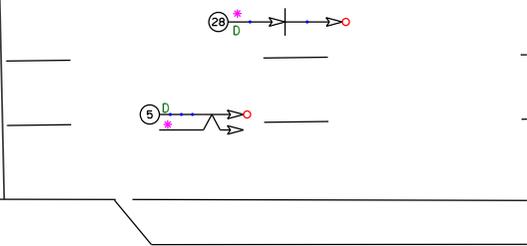
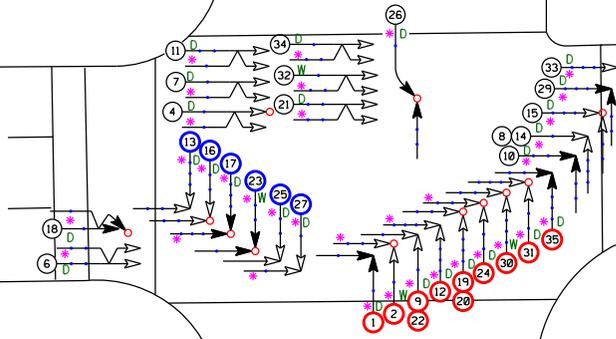
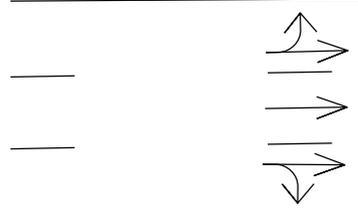
SR 1970 (Kivett Dr)
 35 MPH
 ADT (Year)
 5700 (2007)

SR 1113 (Kivett Dr)
 35 MPH
 ADT (Year)
 6700 (2007)

TIME PERIODS
 NOT EQUAL

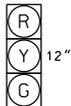


| LEGEND | | | | | | | |
|--------|-----------------|--|----------------|--|---------------|--|-----------------|
| | MOVING VEHICLE | | ANGLE | | 9 MPH OR LESS | | PEDESTRIAN |
| | PEDESTRIAN | | TURNING | | 10 MPH TO 19 | | ANIMAL |
| | PARKED VEHICLE | | BACKING | | 20 MPH TO 29 | | DRIVER AT FAULT |
| | PARKING VEHICLE | | SIDESWPE | | 30 MPH TO 39 | | DRY |
| | FIXED OBJECT | | OUT OF CONTROL | | 40 MPH TO 49 | | WET |
| | HEAD ON | | FATALITY | | 50 MPH TO 59 | | ICY OR SNOWY |
| | REAR END | | SPEED UNKNOWN | | 60 MPH TO 69 | | ONLY |
| | RAN OFF ROAD | | | | 70 AND UP | | |



07-0780 SIGNAL FACE I.D.

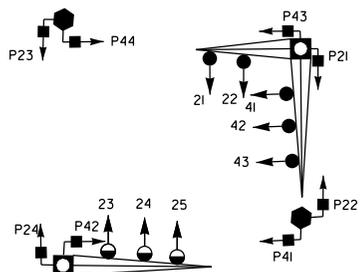
All Heads L.E.D.



21, 22,
23, 24, 25
41, 42, 43



P21, P22
P23, P24
P41, P42
P43, P44



Target Crash 1 -
NB Red Light Runner/Rear End

Target Crash 2 -
SB Red Light Runner/Rear End

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 16,100 (2007)

N.C. DEPARTMENT of TRANSPORTATION
 DIVISION of HIGHWAYS
 TRANSPORTATION MOBILITY and
 SAFETY DIVISION

TRAFFIC SAFETY UNIT

Date: 03-26-2015

Prepared By: C Simpson

SS #07-09-1293
 Order # 41000033716
 Guilford County

Before Period #2
 NB Main St. Backplates
 8/1/2009 - 10/31/2011
 2.25 Years

Main St at Kivett Dr

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 15,200 (2010)

| LEGEND | | | |
|--------|-----------------|--|-----------------|
| | MOVING VEHICLE | | ANGLE |
| | PEDESTRIAN | | TURNING |
| | PARKED VEHICLE | | BACKING |
| | PARKING VEHICLE | | SIDESWIPE |
| | FIXED OBJECT | | OUT OF CONTROL |
| | HEAD ON | | INJURY |
| | REAR END | | FATALITY |
| | RAN OFF ROAD | | SPEED UNKNOWN |
| | 9 MPH OR LESS | | PEDESTRIAN |
| | 10 MPH TO 19 | | ANIMAL |
| | 20 MPH TO 29 | | DRIVER AT FAULT |
| | 30 MPH TO 39 | | DRY |
| | 40 MPH TO 49 | | WET |
| | 50 MPH TO 59 | | ICY OR SNOWY |
| | 60 MPH TO 69 | | ONLY |

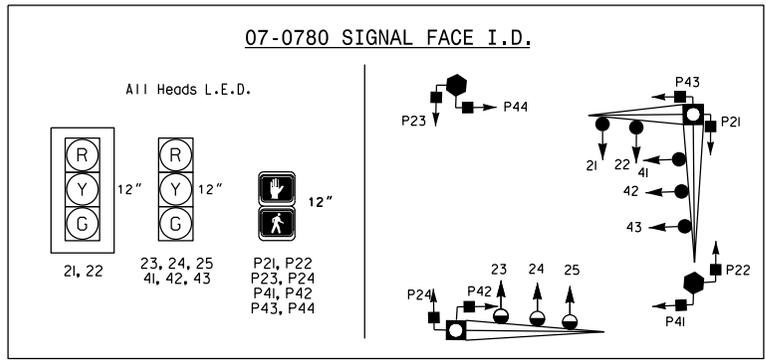
TIME PERIODS
 NOT EQUAL



SR 1970 (Kivett Dr)
 35 MPH
 ADT (Year)
 5600 (2010)

Non-target: SB RLR was a police car with sirens

SR 1113 (Kivett Dr)
 35 MPH
 ADT (Year)
 5800 (2010)



Target Crash 1 -
 NB Red Light Runner/Rear End

Target Crash 2 -
 SB Red Light Runner/Rear End

Non-target: Light green but slowed for sirens

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 14,600 (2010)

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Date: 03-26-2015 Prepared By: C Simpson

SS #07-09-1293
 Order # 41000033716
 Guilford County

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 14,400 (2012)

After Period #1
 Optically Programmed
 Green Signal Heads
 2/1/2012 - 6/30/2013
 1.41 Years

Main St at Kivett Dr

SR 1970 (Kivett Dr)
 35 MPH
 ADT (Year)
 5500 (2012)

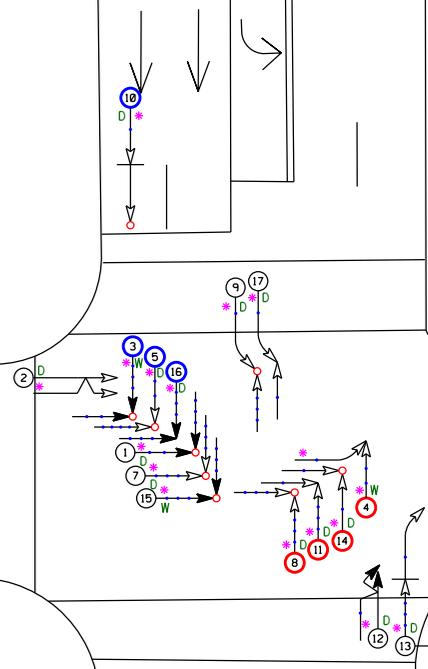
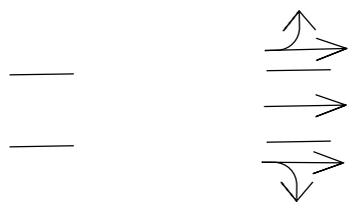
SR 1113 (Kivett Dr)
 35 MPH
 ADT (Year)
 5600 (2012)

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 13,500 (2012)

TIME PERIODS
 NOT EQUAL

LEGEND

| | | | | | | | |
|--|-----------------|--|----------------|--|---------------|--|-----------------|
| | MOVING VEHICLE | | ANGLE | | 9 MPH OR LESS | | PEDESTRIAN |
| | PEDESTRIAN | | TURNING | | 10 MPH TO 19 | | ANIMAL |
| | PARKED VEHICLE | | BACKING | | 20 MPH TO 29 | | DRIVER AT FAULT |
| | PARKING VEHICLE | | 30 MPH TO 39 | | 40 MPH TO 49 | | DRY |
| | FIXED OBJECT | | 50 MPH TO 59 | | 60 MPH TO 69 | | WET |
| | HEAD ON | | SIDESWIPE | | 70 AND UP | | ICY OR SNOWY |
| | REAR END | | OUT OF CONTROL | | FATALITY | | ONLY |
| | RAN OFF ROAD | | INJURY | | SPEED UNKNOWN | | |

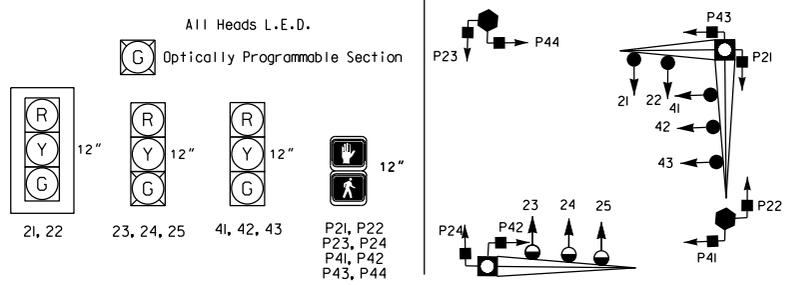


Non-target: Slowing for right turner - Assume light green

Target Crash 1 -
 NB Red Light Runner/Rear End

Target Crash 2 -
 SB Red Light Runner/Rear End

07-0780 SIGNAL FACE I.D.



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TRAFFIC SAFETY UNIT

Date: 03-26-2015

Prepared By: C Simpson

SS #07-09-1293
 Order # 41000033716
 Guilford County

After Period #2
 SB Main St. Backplates
 8/1/2013 - 1/31/2015
 1.5 Years

Main St at Kivett Dr

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 14,000 (2014)

LEGEND

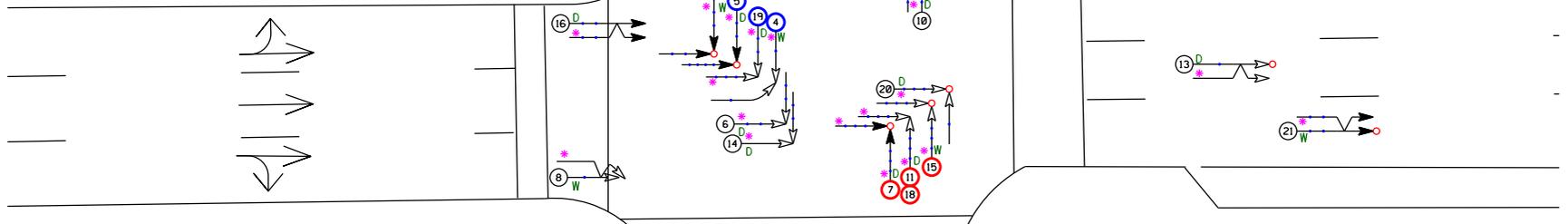
| | | | | | | | |
|--|-----------------|--|----------------|--|---------------|--|-----------------|
| | MOVING VEHICLE | | ANGLE | | 9 MPH OR LESS | | PEDESTRIAN |
| | PEDESTRIAN | | TURNING | | 10 MPH TO 19 | | ANIMAL |
| | PARKED VEHICLE | | BACKING | | 20 MPH TO 29 | | DRIVER AT FAULT |
| | PARKING VEHICLE | | SIDESWIPE | | 30 MPH TO 39 | | DRY |
| | FIXED OBJECT | | OUT OF CONTROL | | 40 MPH TO 49 | | WET |
| | HEAD ON | | INJURY | | 50 MPH TO 59 | | ICY OR SNOWY |
| | REAR END | | FATALITY | | 60 MPH TO 69 | | OILY |
| | RAN OFF ROAD | | | | 70 AND UP | | |
| | | | | | SPEED UNKNOWN | | |

TIME PERIODS
 NOT EQUAL



SR 1970 (Kivett Dr)
 35 MPH
 ADT (Year)
 5400 (2014)

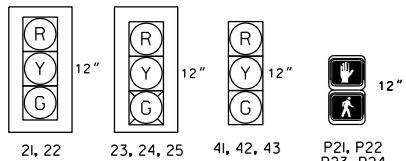
SR 1113 (Kivett Dr)
 35 MPH
 ADT (Year)
 5800 (2014)



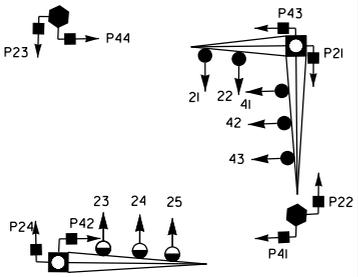
07-0780 SIGNAL FACE I.D.

All Heads L.E.D.

Optically Programmable Section



P21, P22
 P23, P24
 P41, P42
 P43, P44



Target Crash 1 -
 NB Red Light Runner/Rear End

Target Crash 2 -
 SB Red Light Runner/Rear End

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 13,000 (2014)

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
TRANSPORTATION MOBILITY and
SAFETY DIVISION

TRAFFIC SAFETY UNIT

Date: 03-26-2015 Prepared By: C Simpson

SS #07-09-1293
 Order # 41000033716
 Guilford County

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 16,000 (2007)

Before Period #1
 7/1/2006 - 6/30/2009
 3 Years

Main St at English Rd

SR 1988 (English Rd)
 35 MPH
 ADT (Year)
 5600 (2007)

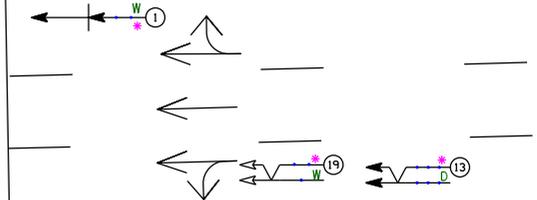
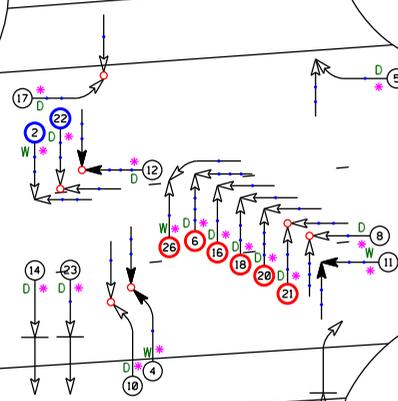
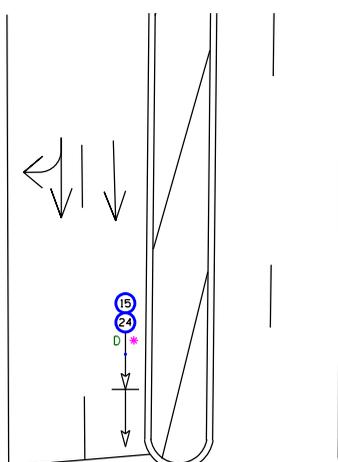
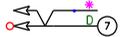
LEGEND

| | | | | | | | |
|--|-----------------|--|----------------|--|---------------|--|-----------------|
| | MOVING VEHICLE | | ANGLE | | 9 MPH OR LESS | | PEDESTRIAN |
| | PEDESTRIAN | | TURNING | | 10 MPH TO 19 | | ANIMAL |
| | PARKED VEHICLE | | BACKING | | 20 MPH TO 29 | | DRIVER AT FAULT |
| | PARKING VEHICLE | | SIDESWPE | | 30 MPH TO 39 | | DRY |
| | FIXED OBJECT | | OUT OF CONTROL | | 40 MPH TO 49 | | WET |
| | HEAD ON | | INJURY | | 50 MPH TO 59 | | ICY OR SNOWY |
| | REAR END | | FATALITY | | 60 MPH TO 69 | | OLT |
| | RAN OFF ROAD | | SPEED UNKNOWN | | 70 AND UP | | |

TIME PERIODS
 NOT EQUAL



SR 1113 (English Rd)
 35 MPH
 ADT (Year)
 6600 (2007)



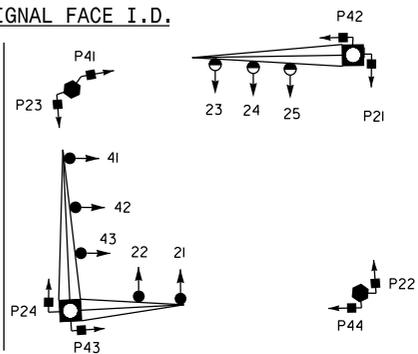
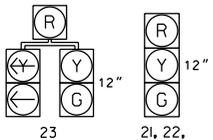
3 - Non-target: Slowing for pedestrian -
 Light green

Target Crash 1 -
 NB Red Light Runner/Rear End

Target Crash 2 -
 SB Red Light Runner/Rear End

07-0770 SIGNAL FACE I.D.

All Heads L.E.D.



SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 16,400 (2007)

N.C. DEPARTMENT of TRANSPORTATION
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SAFETY DIVISION

TRAFFIC SAFETY UNIT

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 Guilford County

Before Period #2
 NB Main St. Backplates
 8/1/2009 - 10/31/2011
 2.25 Years

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 16,500 (2010)

| LEGEND | | | | | | | |
|--------|-----------------|--|----------------|--|---------------|--|-----------------|
| | MOVING VEHICLE | | ANGLE | | 9 MPH OR LESS | | PEDESTRIAN |
| | PEDESTRIAN | | TURNING | | 10 MPH TO 19 | | ANIMAL |
| | PARKED VEHICLE | | BACKING | | 20 MPH TO 29 | | DRIVER AT FAULT |
| | PARKING VEHICLE | | SIDESWIPE | | 30 MPH TO 39 | | DRY |
| | FIXED OBJECT | | OUT OF CONTROL | | 40 MPH TO 49 | | WET |
| | HEAD ON | | INJURY | | 50 MPH TO 59 | | ICY OR SNOWY |
| | REAR END | | FATALITY | | 60 MPH TO 69 | | ONLY |
| | RAN OFF ROAD | | 70 AND UP | | SPEED UNKNOWN | | |

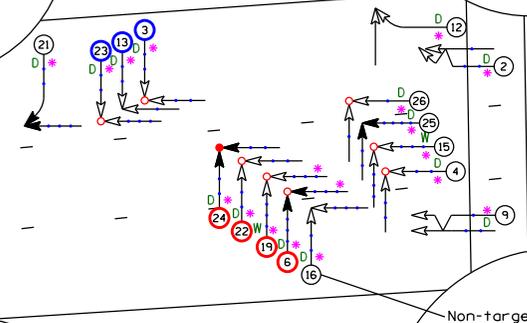
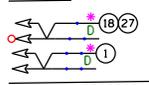
Main St at English Rd

TIME PERIODS
 NOT EQUAL

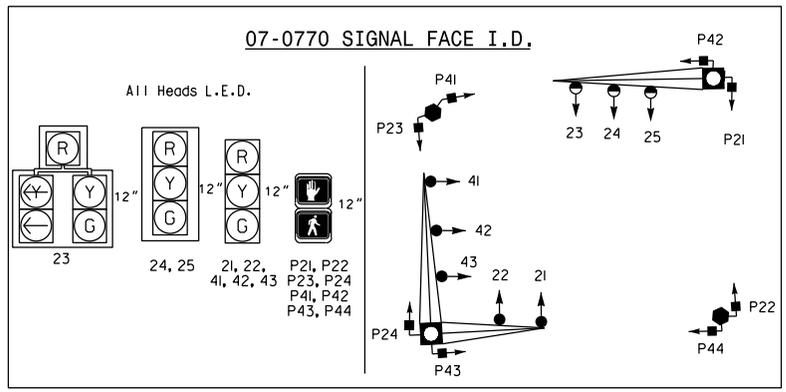


SR 1988 (English Rd)
 35 MPH
 ADT (Year)
 5400 (2010)

SR 1113 (English Rd)
 35 MPH
 ADT (Year)
 5100 (2010)



Non-target: NB RLR was an EMS with sirens activated



Target Crash 1 -
 NB Red Light Runner/Rear End

Target Crash 2 -
 SB Red Light Runner/Rear End

Non-target: Light green but slowed for sirens

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 15,200 (2010)

N.C. DEPARTMENT of TRANSPORTATION
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SS #07-09-1293
 Order # 41000033716
 Guilford County

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 15,500 (2012)

After Period #1
 Optically Programmed
 Green Signal Heads
 2/1/2012 - 6/30/2013
 1.41 Years

Main St at English Rd

SR 1988 (English Rd)
 35 MPH
 ADT (Year)
 5300 (2012)

Non-target: Slowing for right
 turner - Assume light green

SR 1113 (English Rd)
 35 MPH
 ADT (Year)
 4100 (2012)

SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 14,400 (2012)

TIME PERIODS
 NOT EQUAL

⊕ Target Crash 1 -
 NB Red Light Runner/Rear End

⊕ Target Crash 2 -
 SB Red Light Runner/Rear End

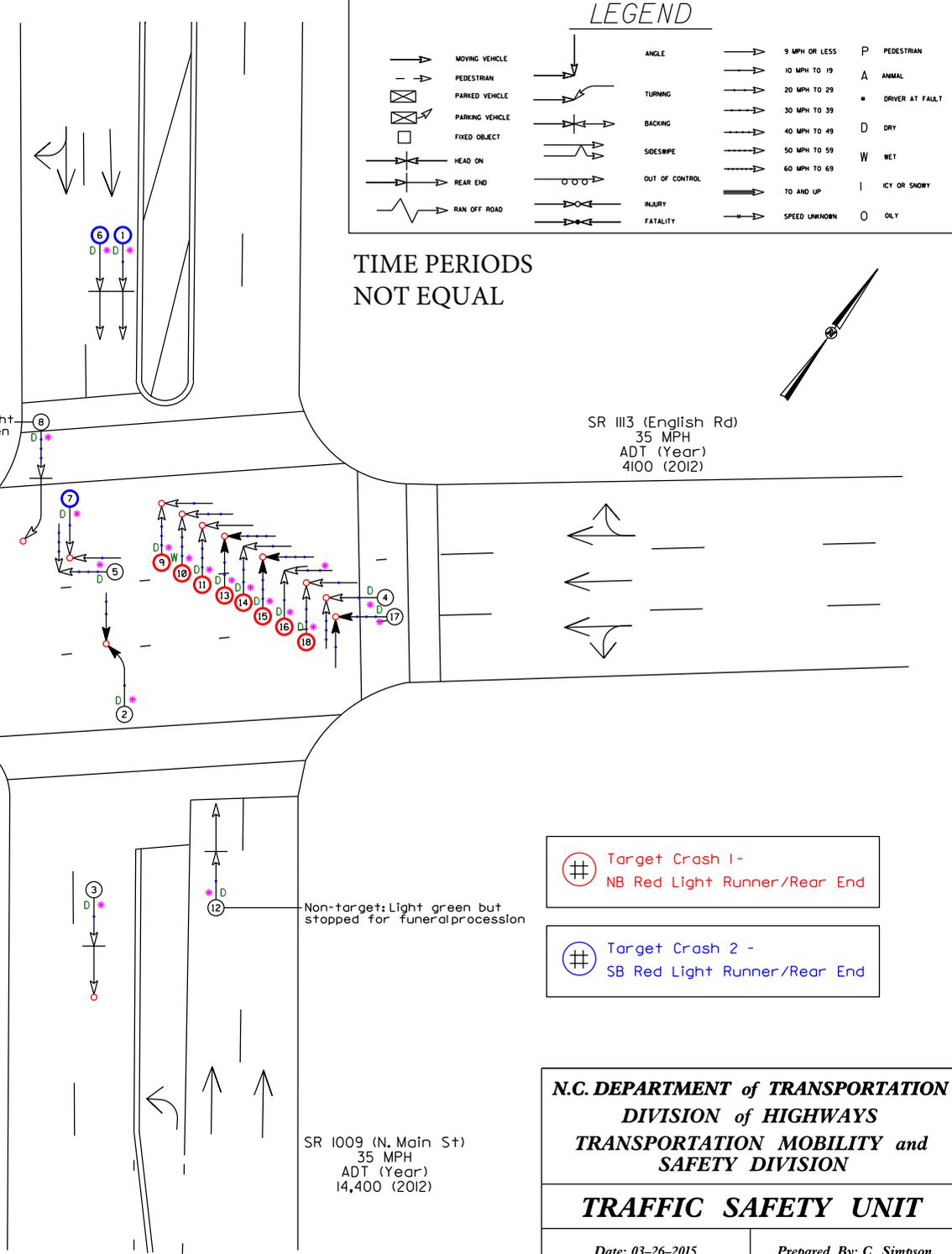
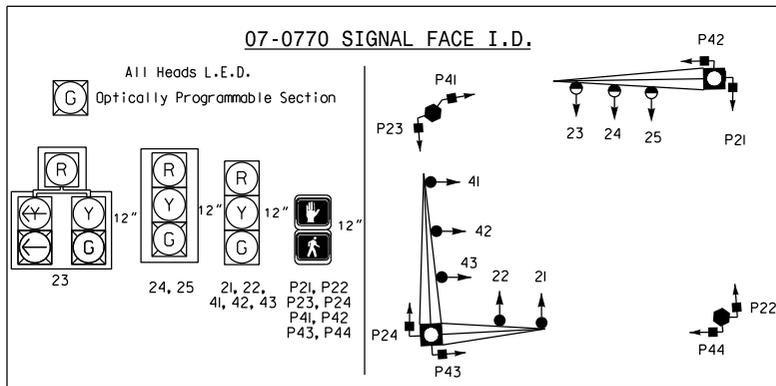
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| LEGEND | | | | | | | |
|--------|-----------------|--|----------------|--|---------------|--|-----------------|
| | MOVING VEHICLE | | ANGLE | | 9 MPH OR LESS | | PEDESTRIAN |
| | PEDESTRIAN | | TURNING | | 10 MPH TO 19 | | ANIMAL |
| | PARKED VEHICLE | | BACKING | | 20 MPH TO 29 | | DRIVER AT FAULT |
| | PARKING VEHICLE | | SIDESWPE | | 30 MPH TO 39 | | DRY |
| | FIXED OBJECT | | OUT OF CONTROL | | 40 MPH TO 49 | | WET |
| | HEAD ON | | INJURY | | 50 MPH TO 59 | | ICY OR SNOWY |
| | REAR END | | FATALITY | | 60 MPH TO 69 | | ONLY |
| | RAN OFF ROAD | | | | 70 AND UP | | |
| | | | | | SPEED UNKNOWN | | |



SS #07-09-1293
 Order # 41000033716
 Guilford County

After Period #2
 SB Main St. Backplates
 8/1/2013 - 1/31/2015
 1.5 Years

Main St at English Rd

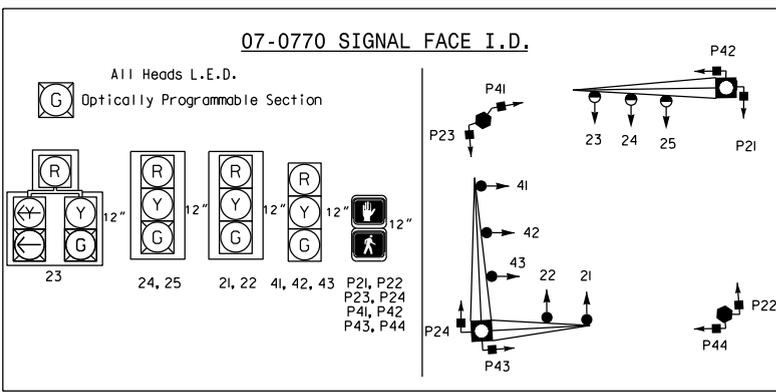
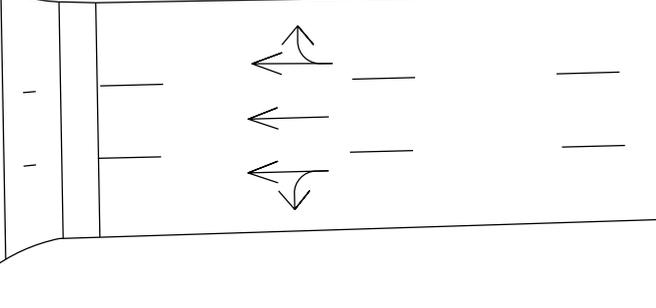
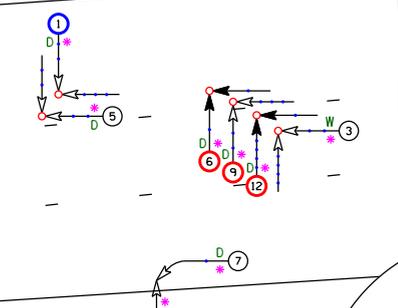
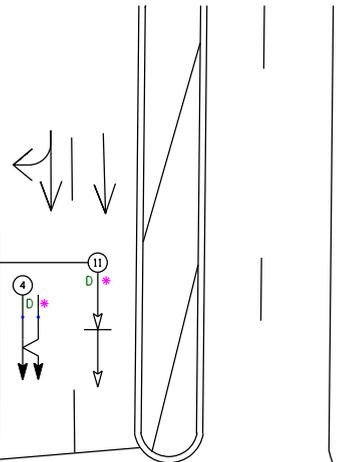
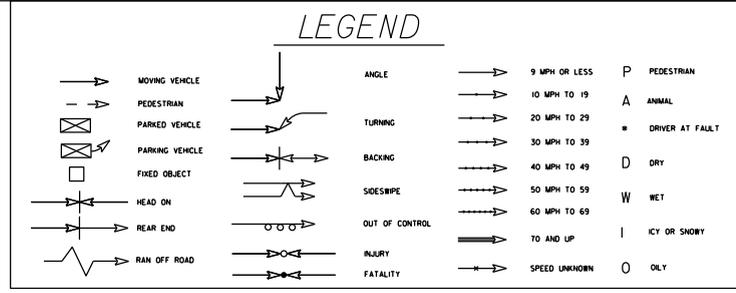
SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 15,000 (2014)

Non-target: Light was green -
 Stopped for traffic ahead

SR 1988 (English Rd)
 35 MPH
 ADT (Year)
 5200 (2014)

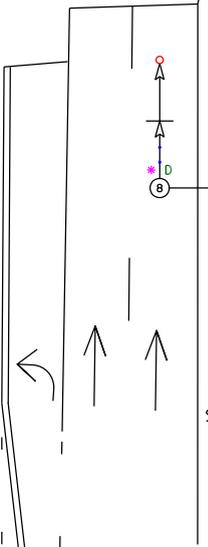
SR 1113 (English Rd)
 35 MPH
 ADT (Year)
 3600 (2014)

TIME PERIODS
 NOT EQUAL



Target Crash 1 -
 NB Red Light Runner/Rear End

Target Crash 2 -
 SB Red Light Runner/Rear End



SR 1009 (N. Main St)
 35 MPH
 ADT (Year)
 14,000 (2014)

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