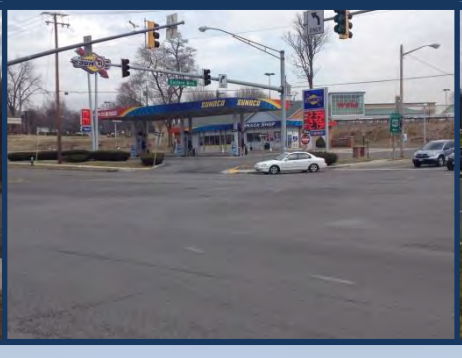
US 40 Dual Highway
Pedestrian Safety Study and Audit


APPENDICES

FINAL

August 28, 2015

Hagerstown Eastern Panhandle MPO

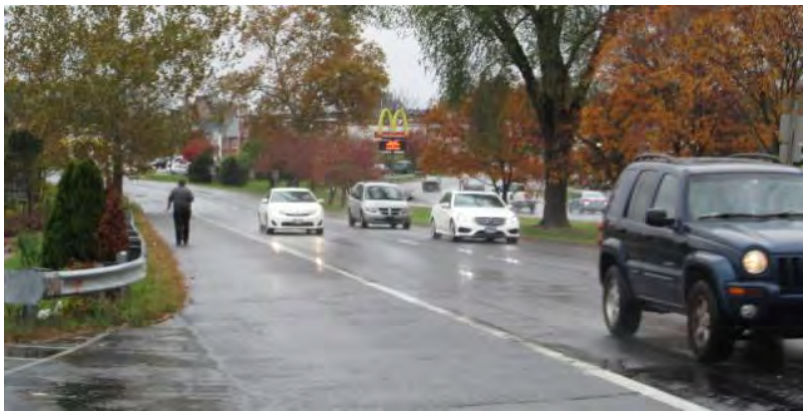
Michael Baker INTERNATIONAL

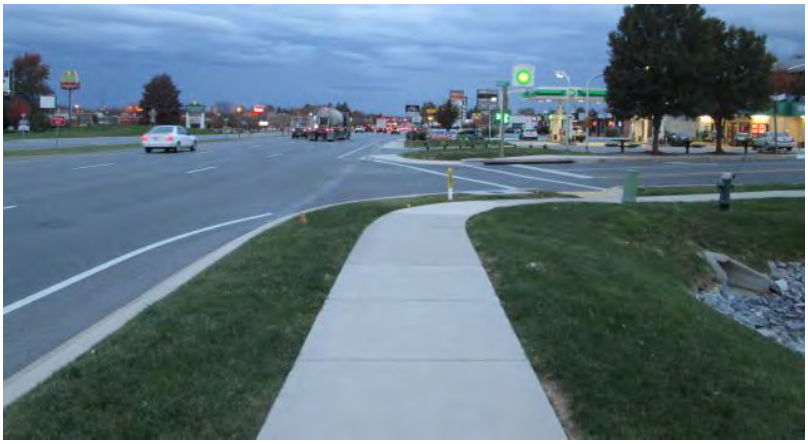
Appendix Contents

Appendix A:
SHA US 40 Pedestrian Safety Improvements Study

US 40 (Dual Highway)
Pedestrian Safety Improvements Study
Hagerstown, MD

BCS 2007-05II, Task 19





Prepared for:

Maryland State Highway Administration
District 6

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January 2015

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

I. INTRODUCTION

A study was performed along a 2.3 mile segment of US 40 (Dual Highway) in Hagerstown, Maryland to determine if pedestrian safety improvements were needed. This report documents the findings of this study, including evaluation of existing pedestrian accommodations and lighting conditions, field observations, crash data analysis, and identification of potential pedestrian safety improvements.

II. EXISTING CONDITIONS REVIEW

The study corridor is located along US 40 (Dual Highway) in Washington County, Maryland, from Cannon Avenue to Redwood Circle as shown in **Figure 1**. The length of the corridor is 2.3 miles and US 40 is assumed to run in an east-west direction.

Figure 1: Location Map

1. Study Area Roadway

US 40 is classified as an Urban Other Principal Arterial in the 2013 Highway Location Reference (HLR) for Washington County, Maryland. Within Washington County, US 40 runs from the Allegany County line in the west, to the Fredrick County line in the east with interchanges at I-81 and I-70. The study area of US 40 is a 4-lane divided highway(two travel lanes in each direction) and contains fourteen intersections.

The portion of US 40 from Cannon Avenue to Redwood Circle has a significant variation in AADT, as show in **Table 1.** The AADT is higheer at the east end, closer to the I-70 interchange, and lower near Cannon Avenue where the roadway is dualized. The speed limit ranges between 25 MPH and 45 MPHs along the corridor as shown in **Table 2**. The 2013 Highway Location Reference Manual pages for this section of US 40 can be found in **Appendix B**.

Table 1: AADT along the Corridor

Section	AADT
N. Cannon Ave to End of Couplet	11,540
S. Cannon Ave to End of Couplet	Not Available
End of Couplet to Cleveland Ave	25,970
Cleveland Ave to Mt Aetna Rd	38,230
Mt Aetna Rd to Redwood Cir	34,690

Table 2: Speed Limit along the Corridor

Section	Speed Limit
Cannon Ave to just west of Cleveland Ave	25 MPH
Just West of Cleveland Ave to Hagerstown corporate limits	35 MPH
Hagerstown Corporate Limits to Redwood Cir	45 MPH

2. Intersection Traffic Controls

The 14 intersections along this corridor are controlled by various forms of traffic control (signalized, stop controlled, and right-in/right-out). See **Appendix C** for a graphical depiction of the type of traffic control used at each intersection.

Traffic signals control the following intersections along US 40:

- S. Cannon Ave
- N. Cannon Ave
- Cleveland Ave
- Manor Dr/Tracys Ln
- Eastern Blvd
- Mt Aetna Rd West

- Mt Aetna Rd
- Edgewood Dr

Side Street Stop Control with All Turning Movements along US 40:

- Cornell Ave
- Redwood Cir
- Crest View Rd

Side Street Stop Control with Right-in/Right–Out or Partial Access:

- E. Washington St
- Colonial Dr
- Beverly Dr

3. Field Study

A site visit was performed on Wednesday, October 29, 2014. During the site visit, the existing pedestrian accommodations, pedestrian generators (origins and destinations), and existing roadway elements were identified. Proposed improvements were then evaluated alongside existing site conditions and observed pedestrian movements in order to identify potential improvements.

The field review included observations of pedestrian behavior, collection of site photographs and a visual assessment of pedestrian activity, origins and destinations along the corridor. A visual lighting inspection as well as light meter readings was also performed during evening darkness to assess the pedestrian lighting conditions along the corridor at night. A photo log from the field review can be found in **Appendix A**.

4. Pedestrian Accommodations

Pedestrian accommodations along this corridor include sidewalk, crosswalks, ADA compliant ramps, and Accessible Pedestrian Signals/Countdown Pedestrian Signals (ASP/CPS). See **Appendix C, Figure C-1** and **Figure C-2** for a graphical depiction of the existing pedestrian accommodations along the corridor. **Tables 3** and **4** depict the sections of the corridor that have sidewalk and the sections that do not. **Table 5** shows the existing pedestrian crosswalk and ramp accommodations at the intersections along the corridor.

Table 3: Sidewalk along the South Side of Eastbound US 40

Roadway Sections (South side of US 40 eastbound)	Sidewalk	No Sidewalk
S. Cannon Ave to McDonalds Parking Lot	x	
McDonalds Parking Lot to S. Cleveland Ave		x
S. Cleveland Ave to Colonial Dr	x	
Colonial Dr to 7-Eleven by S. Edgewood Dr		x
7-Eleven by S. Edgewood Dr to just East of Edgewood Dr	x	
Just East of Edgewood Dr to Redwood Cir		x

Table 4: Sidewalk along the North Side of Westbound US 40

Roadway Sections (North side of US 40 westbound)	Sidewalk	No Sidewalk
N. Cannon Ave to N. Eastern Blvd	x	
N. Eastern Blvd to Mt Aetna Rd		x
Mt Aetna Rd to United Center (Re/Max Realty) Entrance	x	
United Center (Re/Max Realty) Entrance to just west of Crest View Rd		x
Just West of Crest View Rd to just East of Redwood Cir	x	

Table 5: Pedestrian Crossing Accommodations at US 40 Intersections

Intersections	APS/CPS	APS Only	Crosswalks	Missing Ramps	ADA Ramps	Non ADA Ramps	No Pedestrian Crossing Accommodation
S. Cannon Ave			All Legs	2		6	
N. Cannon Ave			All Legs			8	
E. Washington St			1 Leg	1		1	
Cleveland Ave			1 Leg			6	
Manor Dr/ Tracys Ln	2 Legs		3 Leg		3	3	
Eastern Blvd		1 Leg	1 Leg			2	
Colonial Dr							x
Cornell Ave							x
Mt Aetna Rd W							x
Mt Aetna Rd			1 Leg		4		
Beverly Dr							x
Crestview Rd							x
Edgewood Dr	4 Legs		All Legs		8		
Redwood Cir			1 Leg		2		

5. Unprotected Pedestrian Movements

Pedestrian movements at unprotected locations (including mid-block crossing, walking on the roadway shoulder, etc). were observed during the field study and locations were discussed during the coordination meeting held November 19, 2014 with the Hagerstown MPO. The team members present during the meeting discussed locations where they had observed inappropriate or potentially dangerous pedestrian activity in addition to identifying pedestrian origin/destinations along the corridor.

Most gaps in pedestrian connectivity showed a continued, unprotected usage by pedestrians. During the site visit, pedestrians were observed walking along the shoulder where there was no sidewalk, crossing mid-block and in some cases impeding traffic

flow. See **Appendix C** for a graphical inventory of the observations of unprotected pedestrian movements.

Pedestrians were observed at the following locations (The numbers below also correspond to the numbers in **Appendix C Figures C-1 and C-2):**

1) A pedestrian crossed US 40 EB mid block, forcing traffic to stop (she got tired of waiting and then walked out in traffic). She was going from the south side of US 40 EB to the McDonald's parking lot.
2) An elderly pedestrian with a small hand cart walked out in the road due to the lack of ramps on the NW corner of the E. Washington St intersection instead of using the sidewalk.
3) There is a worn trail between the end of the sidewalk near the Best Western and the McDonalds on the south side of US 40 and pedestrians were observed walking along the shoulder.
4) Multiple pedestrians crossed US 40 at Cleveland Street where there are no marked crosswalks.
5) Pedestrians crossed the bridge over Antietam Creek in the right travel lane of US 40 westbound because there are no shoulders and no sidewalk available on the north side of the roadway. These pedestrians continued crossing Eastern Boulevard where there are no marked crosswalks.
6) Pedestrians observed walking along the shoulder on the south side of US 40 from Colonial Drive to Mt Aetna Road.
7) Multiple pedestrians observed crossing US 40 at Mt Aetna Rd and a path is worn along the north side of US 40 between the two legs of Mt Aetna Road.
8) There is a worn path along the south side of US 40 between the 7-Eleven near Edgewood Drive and Foxshire Plaza. Pedestrians were also observed walking along the shoulder of US 40 EB where it was wide enough along this section of US 40.
9) There is a worn path along the south side of US 40 between S. Edgewood Dr and the parking lot for the Med Express.

6. Origins and Destinations of Pedestrians

Major origin and destination generators were identified along the corridor. Some of the key origin/destinations are shown in **Table 6**. The fast-food restaurants along the corridor are also key origin/destinations. A more comprehensive graphical depiction of the origin/destinations along the corridor can be found in **Appendix C** in **Figures C-1** and **C-2**.

Table 6: Key Origins and Destinations along the Corridor

Origin/Destination	Description/ Reason it is a Major Pedestrian Generator
Hagerstown Shopping Center	Aldi(discount grocery store), Super Shoes, Family Dollar
Cancun Cantina	Largest bar/nightclub in the county
Bradford Apartments	Low income housing with a high immigrant population
El Eden (Latino Grocery)	Grocery Store
Foxshire Plaza	Shopping Center with Dollar General
Meritus Health	Hospital
Hagerstown Commons Plaza	Shopping Center with Martin's

The existing pedestrian accommodations do not currently connect all of the key origin/destinations along the corridor. These gaps in the pedestrian accommodations network are shown in **Appendix C, Figures C-1** and **C-2**.

7. Transit

The transit/county commuter bus routes that run along the corridor are flag-down routes, which mean that a pedestrian can flag down a public transit bus at any point along the corridor from Cannon Avenue to Mt Aetna Road. This makes it difficult to draw any definitive conclusions about the impact of transit operations along the corridor on pedestrian safety.

8. Lighting Conditions

During the site visit, a visual lighting inspection was conducted in evening darkness along the entire corridor and light readings were taken at all intersections as well as at multiple locations along the corridor. The recommended pedestrian lighting level for non-commercial areas between intersections is 0.1 foot-candles (fc) and 0.2 fc for commercial areas. The sections of US 40 between intersections that met the above recommendations were from Cannon Ave to Cleveland St and from Redwood Dr to Redwood Cir. The rest of the midblock sections along the corridor had lower than recommended lighting levels. See **Appendix D** for a graphical depiction of the existing lighting conditions. **Table 7** shows the observed and recommended lighting levels at all of the intersections along the corridor.

Table 7 – Existing and Recommended Intersection Pedestrian Lighting Levels

Intersection	Functional Classification	Pedestrian Classification	Observed Lighting Levels	IESNA Recommended Lighting Levels
N. Cannon Ave	Major/Local	High	0.4 fc	2.6 fc
S. Cannon Ave	Major/Local	High	0.4 fc	2.6 fc
E. Washington St	Major/Local	Medium	Dark	2.0 fc
Cleveland Ave	Major/Collector	Medium	1.3 fc and 0.1 fc	2.2 fc
Tracys Ln and Manor Dr	Major/Local	Medium	Dark	2.0 fc
Eastern Blvd	Major/Collector	Medium	0.1 fc	2.2 fc
Colonial Dr	Major/Local	Medium	Dark	2.0 fc
Cornell Ave	Major/Local	Medium	Dark	2.0 fc
Mt Aetna Rd W.	Major/Collector	Medium	0.1 fc	2.2 fc
Mt Aetna Rd	Major/Collector	Medium	2.5 fc	2.2 fc
Beverly Dr.	Major/Local	Medium	Dark	2.0 fc
Crestview Rd	Major/Local	Medium	Dark	2.0 fc
Edgewood Dr	Major/Collector	High	0.1 fc	2.4 fc
Redwood Cir	Major/Local	Medium	Dark	2.0 fc

Each location was categorized into the Pedestrian Conflict area classifications outlined in the MDSHA Lighting Guidelines. These classifications are:

High:
Areas with significant numbers of pedestrians expected to be on the sidewalks or crossing the streets during darkness. Examples are downtown retail areas, near theaters, concert halls, stadiums, and transit terminals.

Medium:
Areas where fewer pedestrians use the street at night. Typical are downtown office areas, blocks with libraries, apartments, neighborhood shopping, industrial, older city areas, and streets with transit lines.

Low:
Areas with very low volumes of night pedestrian usage. These can occur in any of the cited roadway classifications but may be typified by suburban single family streets, very low density residential developments, and rural or semi-rural areas.

III. Crash Data Analysis

Crash data for January 1, 2009 through September 30, 2014 (approximately 5 ¾ years) was provided by Maryland State Highway Administration (MDSHA), District 6 Traffic. This data was used to analyze the crash type (**Figure 2**) and probable causes of crashes (**Figure 3**) in multiple sections along the corridor. It was also used to identify probable causes of pedestrian crashes along the corridor. There were a total of 383 crashes with 14 involving pedestrians. The crash rate per 100 million vehicle miles traveled (100 MVMT) was significantly higher along the study corridor compared to the statewide average. In **Table 8** and **Table 9** below, the values that are in bold and italicized are significantly higher than the statewide average rate. See **Appendix F-1, F-2, and F-3** for a detailed breakdown of the probable causes reported for the Rear End, Other and Pedestrian crashes respectively.

Table 8 – Crash Severity (Crashes per 100 MVMT)[1]

	Study Rate	Statewide Rate
Fatal	*2.4*	1.2
Injury	*92.0*	80.1
Property Damage	*131.5*	114.6
Total Crashes	*225.8*	195.9

Table 9 – Crash Type (Crashes per 100 MVMT)[1]

	Study	Statewide
Opposite Direction	3.5	3.1
Rear End	*102.0*	77.8
Sideswipe	30.0	25.1
Left Turn	13	18
Angle	34.2	34.4
Pedestrian	*8.3*	5
Parked Vehicle	0.6	0.9
Fixed Object	18.9	21.1
Other	*15.9*	3.4

[1] The values shown in Table 8 and Table 9 vary slightly from the values found in Appendix E, due to the inclusion in the initial crash data report of four crashes outside of the study corridor. These crashes were removed from the analysis.

Figure 2: Density of Crashes by Location
US 40 Safety Study (Hagerstown MD)
Jan 1, 2009—Sept 30, 2014

Note: Isolated crashes not included

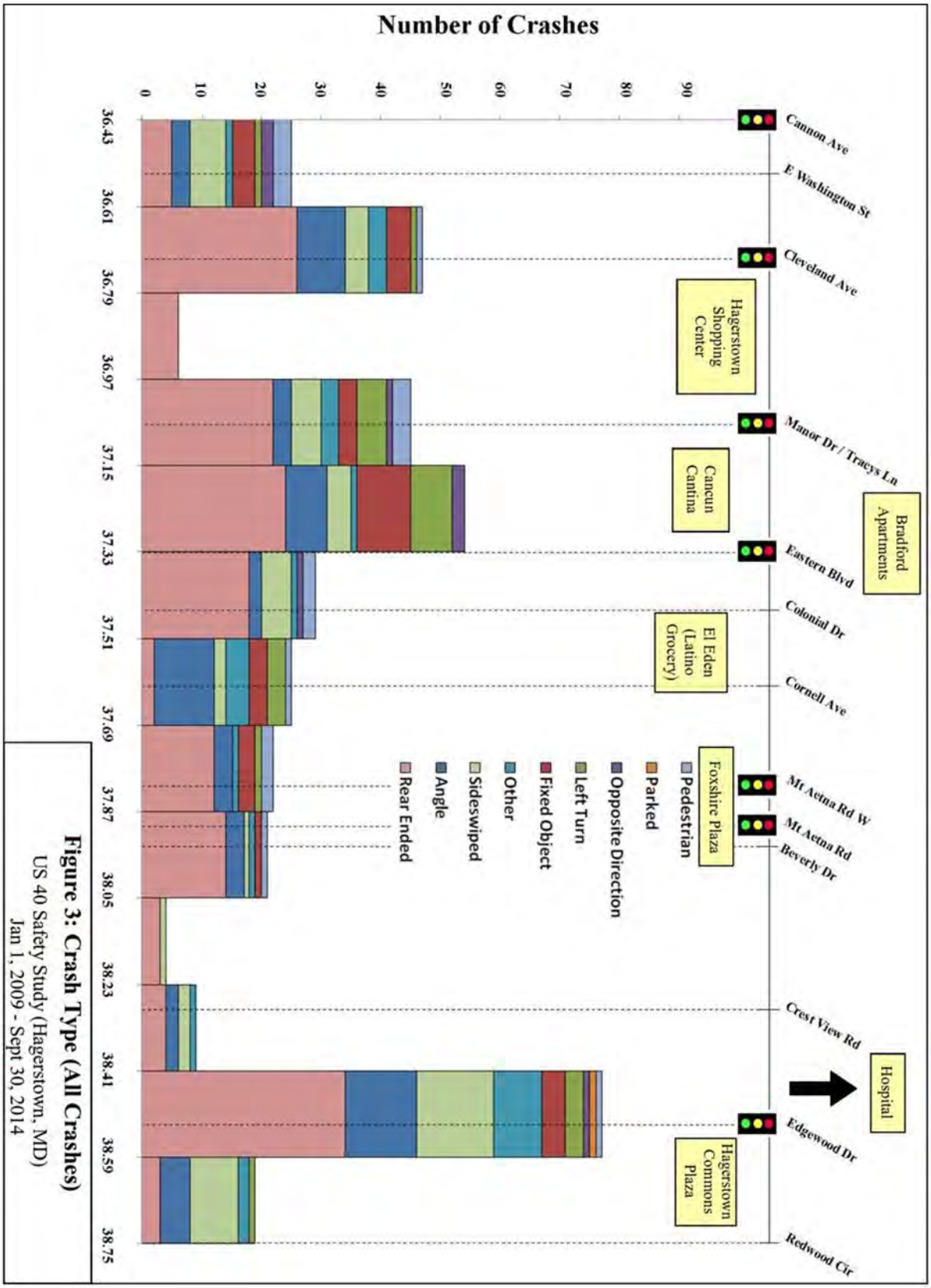


Figure 3: Crash Type (All Crashes)
US 40 Safety Study (Hagerstown, MD)
Jan 1, 2009 - Sept 30, 2014

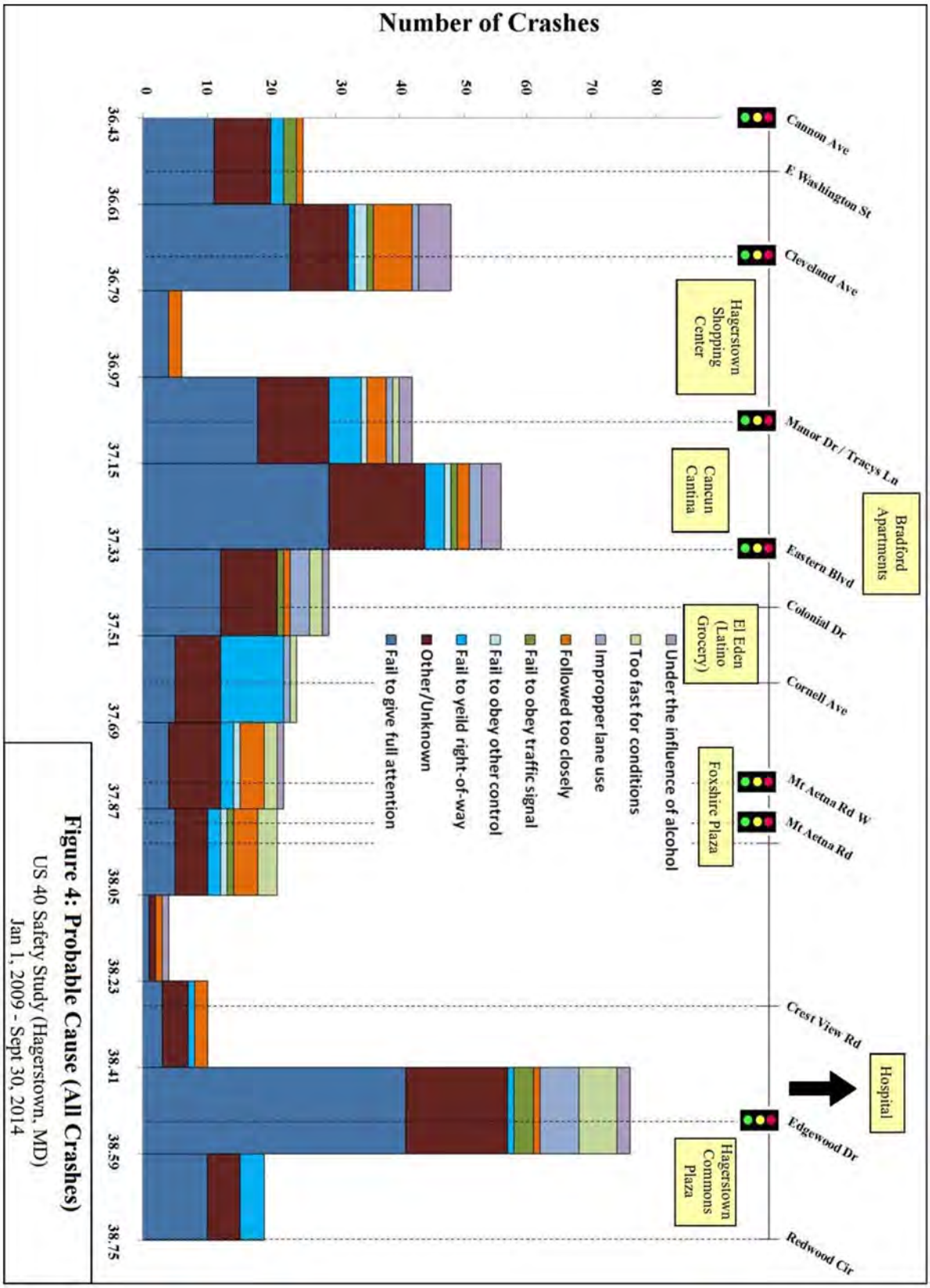


Figure 4: Probable Cause (All Crashes)
US 40 Safety Study (Hagerstown, MD)
Jan 1, 2009 - Sept 30, 2014

Table 10 shows a breakdown of the pedestrian crashes with the distribution of severity, contributing factors, and probable causes. The two most frequent contributing factors were nighttime/darkness and the use of alcohol. The most commonly reported probable cause was Other/Unknown. The majority of the pedestrian crashes involved the pedestrian being in the roadway as well as the involvement of alcohol or drugs/medication in the pedestrian or the driver. Of the three fatal pedestrian crashes, all involved the pedestrians being in the roadway, two involved alcohol in the pedestrian's system, and two were at night. In all three pedestrian fatalities, the pedestrians were reported as at fault.

Table 10 – Pedestrian Crash Summary (1/1/2009 - 9/30/2014)[2]

Severity			Contributing Factors			Probable Cause		
Total	13							
Fatal	3	23%	Night	9	69%	Other/Unknown	9	69%
Injury	10	77%	Rain/Snow	3	23%	Rain/Snow	1	8%
Prop. Damage	0	0%	Alcohol	5	38%	Under Influence of Drugs	2	15%
			Intersection	0	0%	Illegally in Roadway	1	8%

Table 11 is a summary of all crashes along the corridor between Jan 1, 2009 and Sept 30, 2014. The most frequently reported probable cause was failure to give full time and attention (44% of total crashes).

Table 11 – Probable Cause (All Crashes) (1/1/2009 - 9/30/2014)[2]

Probable Cause		
Fail to give full attention	169	44%
Other/Unknown	95	25%
Fail to yield right-of-way	32	8%
Fail to obey other controls	6	2%
Fail to obey traffic signal	8	2%
Followed too closely	29	8%
Improper Lane use	14	4%
Too fast for conditions	15	4%
Under to influence of alcohol	15	4%

IV. Proposed Improvements

1. Proposed Pedestrian Accommodations

[2] The values shown in Table 10 and Table 11 also vary slightly from the values found in Appendix E, due to the inclusion in the initial crash data report of four crashes outside of the study corridor. These crashes were removed from the analysis.

After analyzing the existing pedestrian facilities, observed pedestrian movements, and crash data reports several conceptual pedestrian improvements were proposed. See **Appendix G-1** and **G-2** for diagrams of the improvement concepts.

Pedestrian accommodations were recommended where pedestrian movements were observed and there are currently no pedestrian accommodations. **Table 12** is a summary of the number or quantity of proposed improvement by type. APS/CPS was proposed at all existing and proposed crosswalks. New ADA compliant ramps were proposed where missing along the corridor to allow all pedestrians to access the sidewalk and crosswalks. Signs were proposed where there are unexpected or free right turns and where there are sight distance concerns. Marked crosswalks are proposed at all intersections to more safely cross US 40 and the side streets. Sidewalk was proposed where there are currently gaps in pedestrian connectivity, however there are some challenges to installing certain sections of sidewalk as discussed both below and earlier in the report.

Table 12 – Estimated Improvement Quantities

Item	Quantity
Additional APS/CPS	8 EA
Additional Crosswalks	18 EA
New Sidewalk Installation	9200 LF
New Sign Assemblies (including sign, supplemental plaque and support)	14 EA
New ADA Compatible Ramp with Detectible Warning Surface	40 EA

2. Potential Conflicts

The topography along this segment of US 40 is rolling with some areas that have drop-offs and ditches where proposed sidewalk is recommended. Potential conflicts with installing proposed sidewalk are identified below:

- There appears to be sufficient right-of-way along this section of US 40 to accommodate sidewalks in most areas, however a formal right-of-way investigation is recommended.
- Along eastbound US 40, between just east of the McDonald's parking lot and Cleveland Street, there is a steep grade at the end of the shoulder that is protected with w-beam Traffic Barrier. Widening in this section could be expensive and/or challenging.
- The area along US 40 eastbound between Colonial Drive and Cornell Avenue has a significant drainage ditch and a steep grade.

- There is a culvert and steep slope on the south side of US 40 eastbound just west of Covenant Life Church. There may also be limited right-of-way on the south side of US 40 through this section of roadway.
- Along the southside of US 40 between Beverly Dr and the sidewalk in front of the 7-Eleven near Edgewood Dr there is a drainage ditch.

V. Conclusion

There are a number of potential improvements which might be implemented along this corridor in order to improve the safety and functionality for pedestrians. These include:

- Facilitate pedestrian mobility along the corridor by installing sidewalks and crosswalks, particularly in areas where there is existing pedestrian activity. A more detailed investigation of right-of-way and utility impacts will be required for this effort.
- MDSHA and local stakeholders should investigate the feasibility of upgrading pedestrian lighting along the corridor, particularly in high conflict areas.
- Consider performing a more detailed investigation of the vehicular crashes along the corridor, particularly the elevated rear end crash rate.

Appendix A: Photo Log

WB US 40 Facing EB Towards Intersection with E. Washington St

WB US 40 Facing WB towards Intersection with E. Washington St

WB US 40 Facing WB towards Intersection with N. Cleveland St

WB US 40 Facing EB towards Intersection with Manor Dr / Tracys Ln

WB US 40 Facing EB towards Intersection with Beverly Dr

WB US 40 Facing WB towards Intersection with Cornell Ave

WB US 40 Facing EB towards Intersection with Mt Aetna Rd

WB US 40 Facing WB towards Intersection with Crestview Rd

WB US 40 Facing EB towards Intersection with N. Edgewood Dr

WB US 40 Facing WB towards Intersection with N. Edgewood Dr

WB US 40 Facing EB towards Intersection with Redwood Cir

WB US 40 Facing WB towards Intersection with Redwood Cir

EB US 40 Facing WB towards Intersection with N. Cannon Ave

EB US 40 Facing EB towards Intersection with N. Cleveland St

EB US 40 Facing EB towards Intersection with Manor Dr / Tracys Ln

EB US 40 Facing WB towards Intersection with Manor Dr / Tracys Ln

EB US 40 Facing WB towards Intersection with N. Eastern Blvd

EB US 40 Facing EB towards Intersection with Colonial Dr

EB US 40 Facing WB towards Intersection with Cornell Ave

EB US 40 Facing EB towards Intersection with Mt Aetna Rd

EB US 40 Facing EB towards Intersection with Mt Aetna Rd

EB US 40 Facing WB towards Intersection with Crestview Rd

EB US 40 Facing EB towards Intersection with N. Edgewood Dr

EB US 40 Facing WB towards Intersection with N. Edgewood Dr

EB US 40 Facing EB towards Intersection with Redwood Cir

Appendix B: Highway Location Reference

STATE HIGHWAY LOCATION REFERENCE

COUNTY: WASHINGTON
DISTRICT: 6
DATE: 12/31/13

ROUTE NUMBER: **US 40** **CONTINUED**
INVENTORY DIRECTION: EAST
ROUTE NAME: WASHINGTON ST

STATE SYSTEM		FUNCTIONAL CLASS	MEDIAN TYPE	ACCESS CONTROL	NHS	MILEPOINT		MILEPOINT DESCRIPTION	MARKED LANES	SURFACE WIDTH/TYPE*	AADT
STATE SECONDARY	U	URB OPA	NONE (UNDIV)	NONE	NHS	35.690	MU1610	MCPHERSON ST	3	36I	11,540
						35.700		R/R #CSX 831 843 Y			
						35.700		STRUC #21066			
						35.710		R/R #CR 534 896 E			
						35.710		STRUC #21056			
						35.730			2	24I	
						35.760	MU2470	WALNUT ST			
						35.760		TRAFFIC SIGNAL			
						35.830	MU2030	PROSPECT ST			
						35.830		TRAFFIC SIGNAL			
						35.833		THE PRESBYTERIAN CHURCH			
						35.930	MU1230	JONATHAN ST			
						35.930	MU2301	SUMMIT AVE			
						35.930		TRAFFIC SIGNAL			
						35.945		WASHINGTON CO COURTHOUSE			
						35.970	MU5170	ALLEY 17			
						35.970	MU565	COURT PL			
						36.007		TRAFFIC SIGNAL			
						36.007		PED X-WALK			
						36.020	MU9110	HAYES ALLEY			
						36.020	MU2130	ROCHESTER PL			
						36.080	MU2005	POTOMAC ST			
						36.080		TRAFFIC SIGNAL			
						36.130	MU2055	RENAISSANCE WAY			
						36.230	MU1431	N LOCUST ST			
						36.230		TRAFFIC SIGNAL			
						36.230	MU1430	S LOCUST ST			
						36.320		HAGERSTOWN CHURCH OF THE BRETHREN			
						36.330	MU1760	MULBERRY AVE			
						36.330		TRAFFIC SIGNAL			
						36.375	MU5240	ALLEY 24			
						36.430	MU331	N CANNON AVE			
						36.430	MU330	S CANNON AVE			
						36.430		TRAFFIC SIGNAL			

Begin Project Limits

*A,B = UNIMPROVED; C = GRADED & DRAINED; D,E = SOIL,GRAVEL,STONE; F,G = LOW TYPE BITUMINOUS
H,I = HIGH TYPE BITUMINOUS; J = CONCRETE; K= BRICK; L = BLOCK

STATE HIGHWAY LOCATION REFERENCE

COUNTY: WASHINGTON
DISTRICT: 6
DATE: 12/31/13

ROUTE NUMBER: **US 40** **CONTINUED**
INVENTORY DIRECTION: EAST
ROUTE NAME: WASHINGTON ST

STATE SYSTEM		FUNCTIONAL CLASS	MEDIAN TYPE	ACCESS CONTROL	NHS	MILEPOINT		MILEPOINT DESCRIPTION	MARKED LANES	SURFACE WIDTH/TYPE*	AADT
STATE SECONDARY	U	URB OPA	NONE (UNDIV)	NONE	NHS	36.460	MU5220	ALLEY 22	2	24I	11,540
			POSITIVE BARRIER			36.530			4	48I	25,970
NAME: DUAL HWY						36.530		END COUPLET			
			UNPROTECTED			36.540					
						36.540	MU2510	E WASHINGTON ST			
						36.660		SPUR TO S CLEVELAND AVE			
						36.680		SPUR FR MD 64			
						36.710					38,230
						36.710	MU480	S CLEVELAND AVE			
						36.710	MD 64	N CLEVELAND AVE			
						36.710		TRAFFIC SIGNAL			
						36.750		SPUR FR S CLEVELAND AVE			
						36.750		SPUR TO MD 64			
						36.800		BEGIN BIKE ROUTE			
						36.810		SPEED LIMIT 35 MPH			
						36.945		DIRECTIONAL CROSSOVER			
						36.980		STRUC #21013 HAMILTON RUN			
						37.050	MU1505	MANOR DR			
						37.050	MU2370	TRACYS LA			
						37.050		TRAFFIC SIGNAL			
						37.170		DIRECTIONAL CROSSOVER			
			POSITIVE BARRIER			37.265					
						37.330	MU705	EASTERN BLVD			
						37.330		TRAFFIC SIGNAL			
						37.350		BEGIN BRIDGE			
						37.370		STRUC #21014 ANTIETAM CREEK			
						37.370		STRUC #21158 ANTIETAM CREEK			
			UNPROTECTED			37.390					
						37.390		END BRIDGE			
			POSITIVE BARRIER			37.440					
						37.440	CO321	S COLONIAL DR			
						37.440	CO1291	N COLONIAL DR			
						37.500		SPEED LIMIT 45 MPH			
	R					37.550		OUT CORP LMTS HAGERSTOWN			
			UNPROTECTED			37.600					

*A,B = UNIMPROVED; C = GRADED & DRAINED; D,E = SOIL,GRAVEL,STONE; F,G = LOW TYPE BITUMINOUS
H,I = HIGH TYPE BITUMINOUS; J = CONCRETE; K= BRICK; L = BLOCK

STATE HIGHWAY LOCATION REFERENCE

COUNTY: WASHINGTON
DISTRICT: 6
DATE: 12/31/13

ROUTE NUMBER: **US 40** **CONTINUED**
INVENTORY DIRECTION: EAST
ROUTE NAME: DUAL HWY

STATE SYSTEM		FUNCTIONAL CLASS	MEDIAN TYPE	ACCESS CONTROL	NHS	MILEPOINT		MILEPOINT DESCRIPTION	MARKED LANES	SURFACE WIDTH/TYPE*	AADT
STATE SECONDARY	R	URB OPA	UNPROTECTED	NONE	NHS	37.600	CO391	CORNELL AVE	4	48I	38,230
						37.790		CROSSOVER			
						37.810					34,690
						37.810	CO937	MT AETNA RD W			
						37.810	OP415	TULSA LA			
						37.810		TRAFFIC SIGNAL			
			CURBED			37.820					
			UNPROTECTED			37.890					
						37.890	CO310	MT AETNA RD			
						37.890		DIRECTIONAL CROSSOVER			
						37.890		TRAFFIC SIGNAL			
						37.910		SPUR TO MT AETNA RD			
						37.930	CO318	BEVERLY DR			
						37.930		DIRECTIONAL CROSSOVER			
						38.057		COVENANT LIFE CHURCH			
						38.270			5	60I	
						38.270	CO395	CREST VIEW RD			
						38.270		CROSSOVER			
	U					38.400		IN CORP LMTS HAGERSTOWN			
						38.510			4	48I	
						38.510	MU710	EDGEWOOD DR			
						38.510		TRAFFIC SIGNAL			
						38.620		DIRECTIONAL CROSSOVER			
						38.640		DIRECTIONAL CROSSOVER			
			End Project Limits			38.750	CO652	REDWOOD CIR			
						38.750		CROSSOVER			
			POSITIVE BARRIER			38.950					
	R					39.050	CO398	DAY RD			
						39.050	CO787	EMMERT RD			
						39.050		OUT CORP LMTS HAGERSTOWN			
						39.050		DIRECTIONAL CROSSOVER			
	U					39.220		IN CORP LMTS HAGERSTOWN			
						39.257		CROSSOVER			
	R					39.270		OUT CORP LMTS HAGERSTOWN			
						39.340	MU 25	ALL STAR CT			

*A,B = UNIMPROVED; C = GRADED & DRAINED; D,E = SOIL,GRAVEL,STONE; F,G = LOW TYPE BITUMINOUS
H,I = HIGH TYPE BITUMINOUS; J = CONCRETE; K= BRICK; L = BLOCK

Appendix C: Existing Pedestrian Accommodations

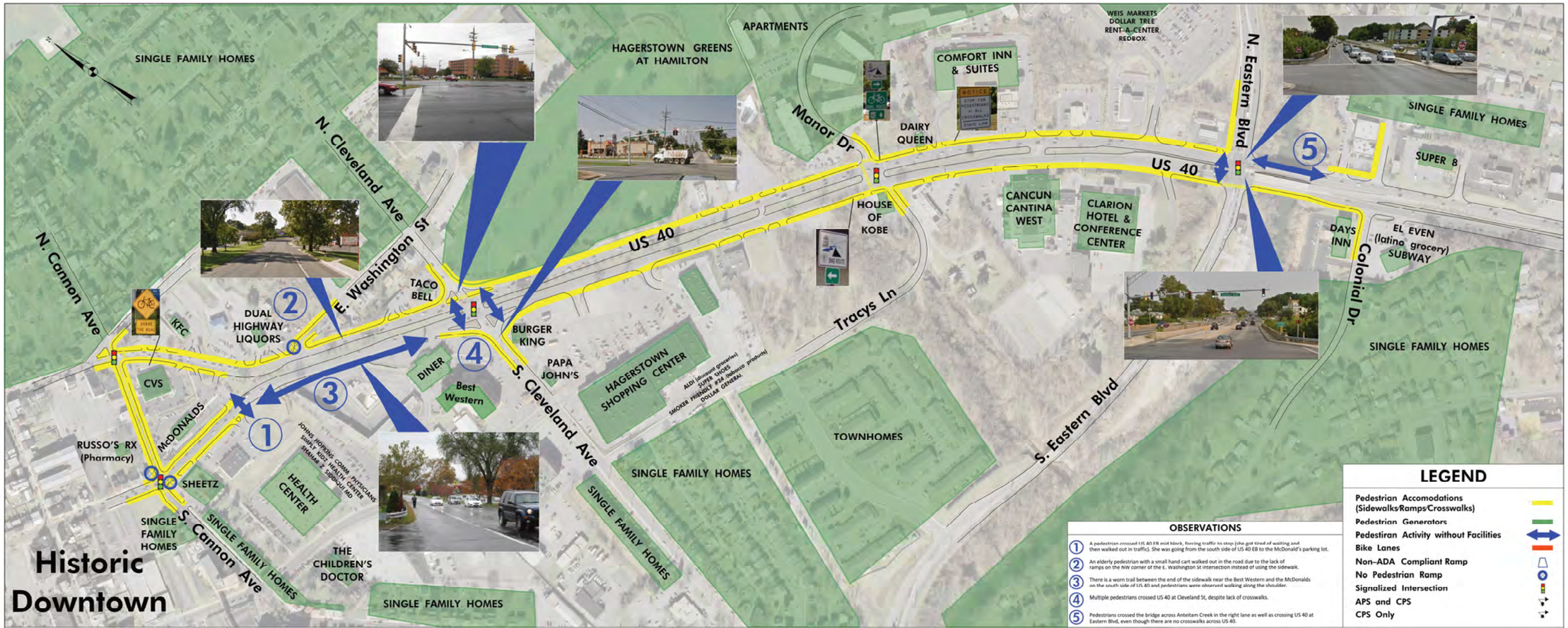


Figure C-1: Existing Pedestrian Accommodations (North)
US 40 Safety Study (Hagerstown, MD)
December 2014

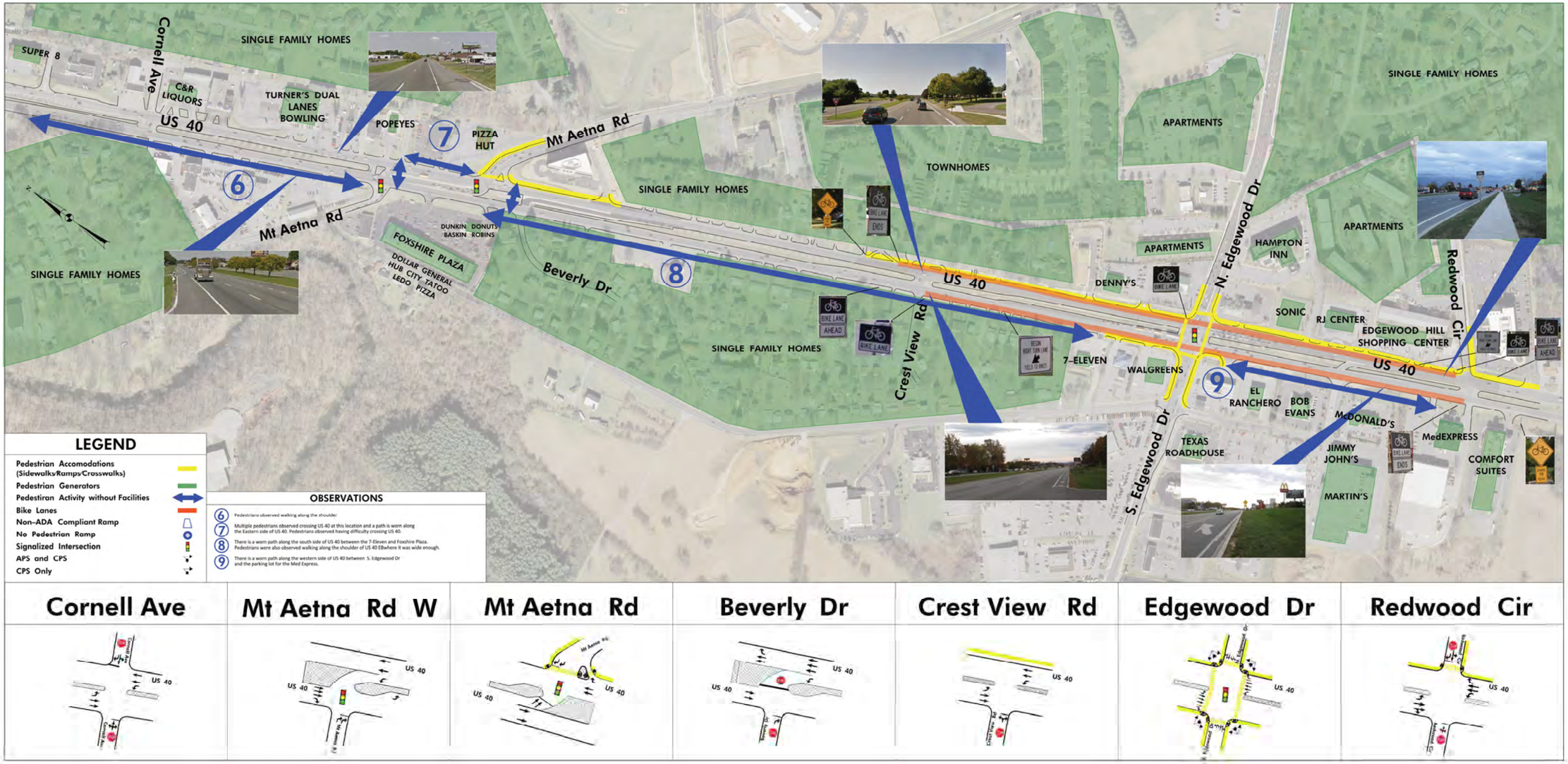
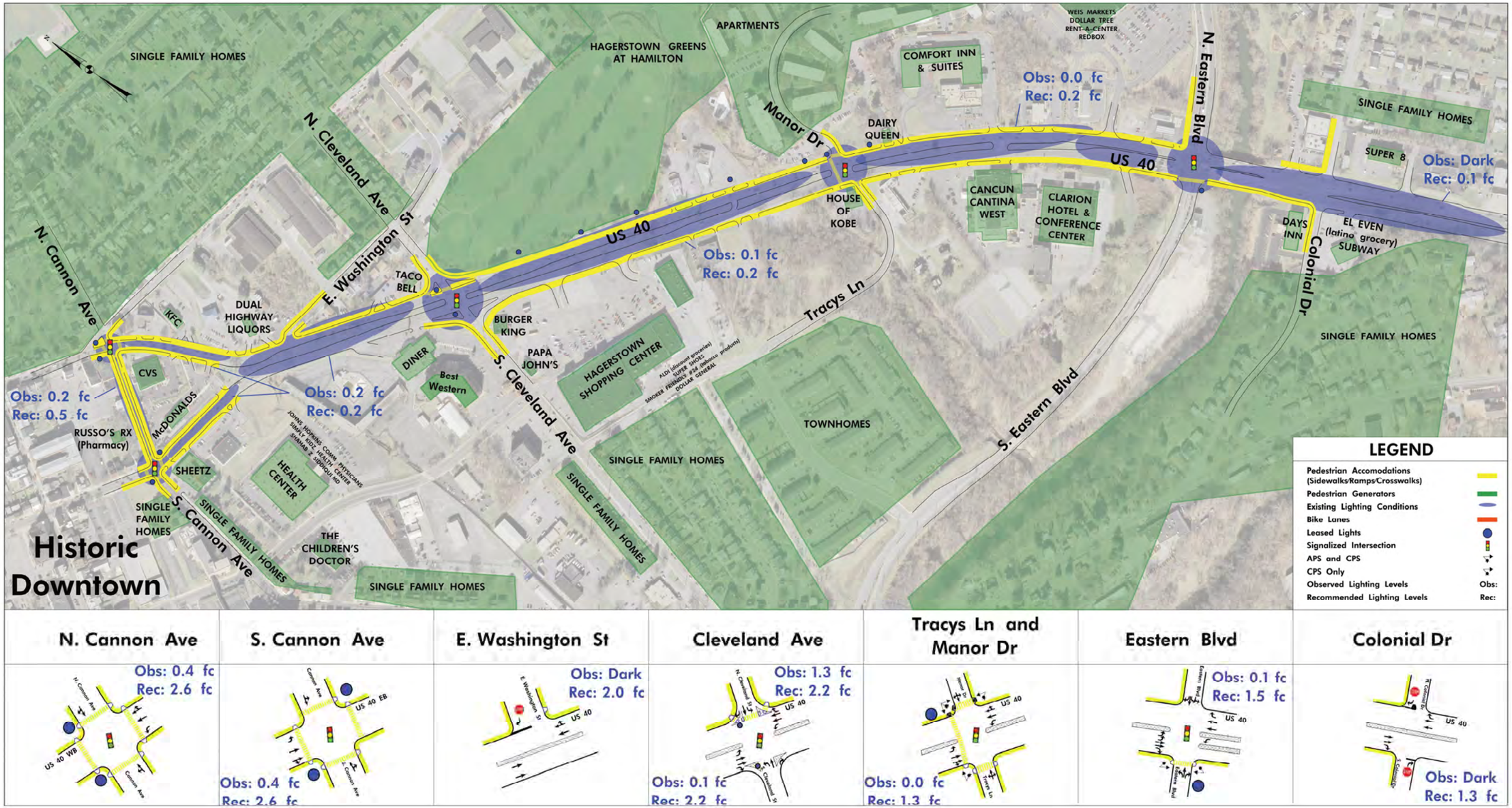


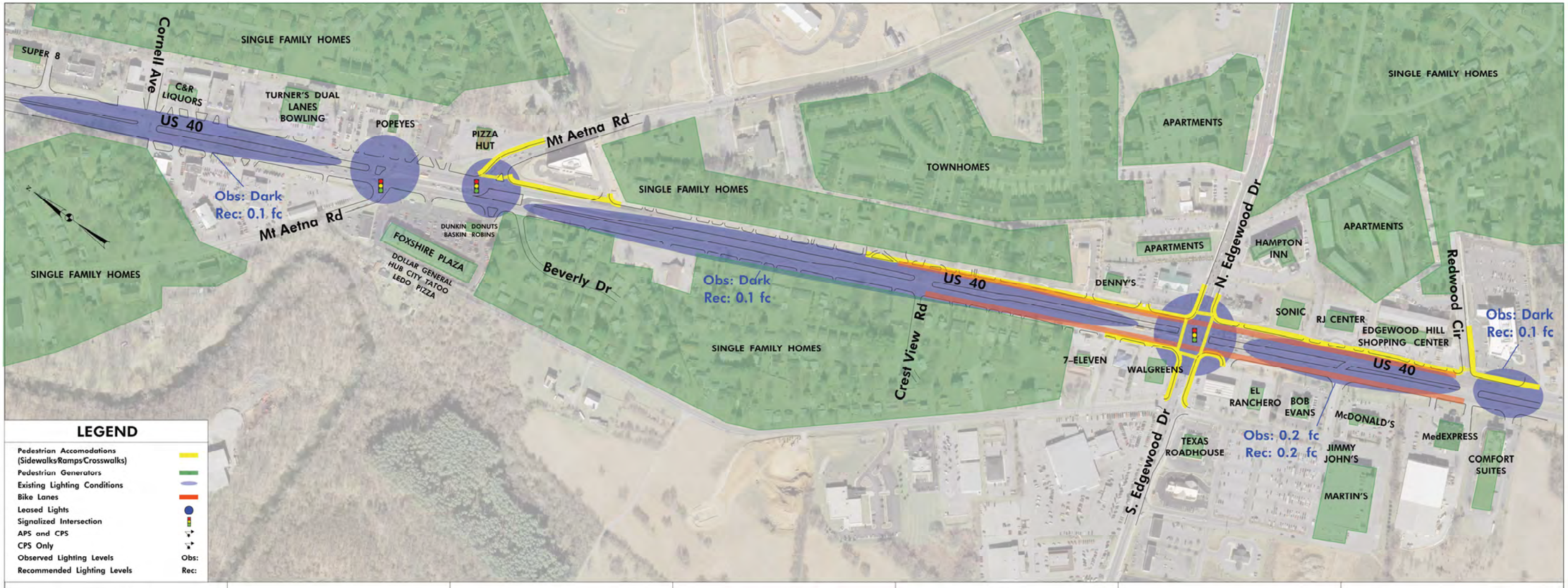
Figure C-2: Existing Pedestrian Accommodations (South)
US 40 Safety Study (Hagerstown, MD)
December 2014

Appendix D: Lighting Conditions



N. Cannon Ave	S. Cannon Ave	E. Washington St	Cleveland Ave	Tracys Ln and Manor Dr	Eastern Blvd	Colonial Dr
Obs: 0.4 fc Rec: 2.6 fc	Obs: 0.4 fc Rec: 2.6 fc	Obs: Dark Rec: 2.0 fc	Obs: 1.3 fc Rec: 2.2 fc Obs: 0.1 fc Rec: 2.2 fc	Obs: 0.0 fc Rec: 1.3 fc	Obs: 0.1 fc Rec: 1.5 fc	Obs: Dark Rec: 1.3 fc

Figure D-1: Lighting Conditions (North)
US 40 Safety Study (Hagerstown, MD)
December 2014



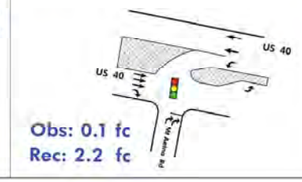
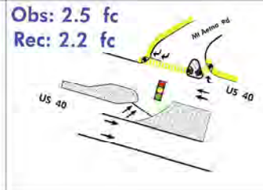
Cornell Ave	Mt Aetna Rd W	Mt Aetna Rd	Beverly Dr	Crest View Rd	Edgewood Dr	Redwood Cir
 Obs: Dark Rec: 1.3 fc	 Obs: 0.1 fc Rec: 2.2 fc	 Obs: 2.5 fc Rec: 2.2 fc	 Obs: Dark Rec: 1.3 fc	 Obs: Dark Rec: 1.3 fc	 Obs: 0.1 fc Rec: 2.2 fc	 Obs: Dark Rec: 2.0 fc

Figure D-2: Lighting Conditions (South)

US 40 Safety Study (Hagerstown, MD)
December 2014

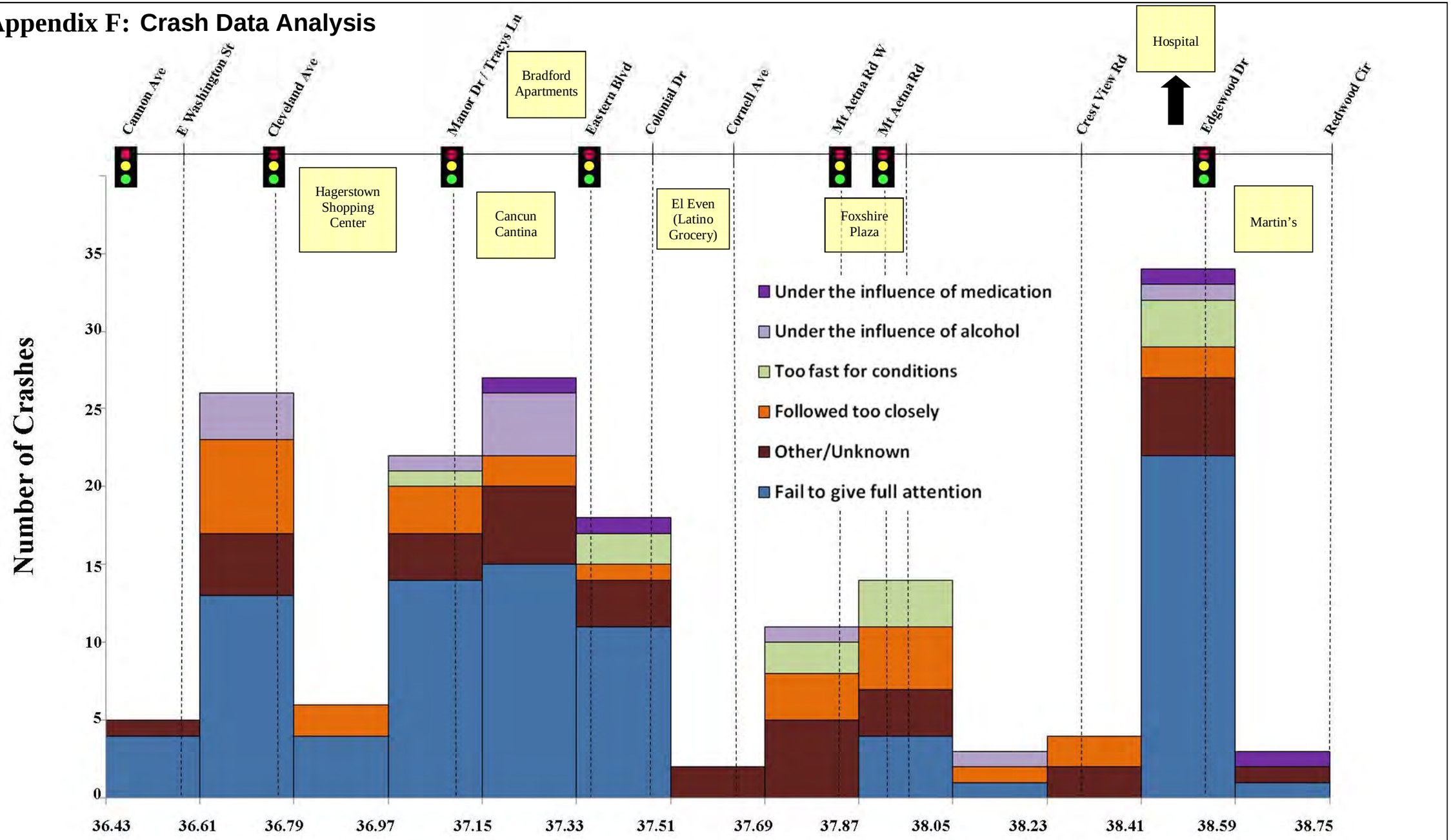


Figure F-1: Probable Cause (Rear End Crashes)
US 40 Safety Study (Hagerstown, MD)
December 2014

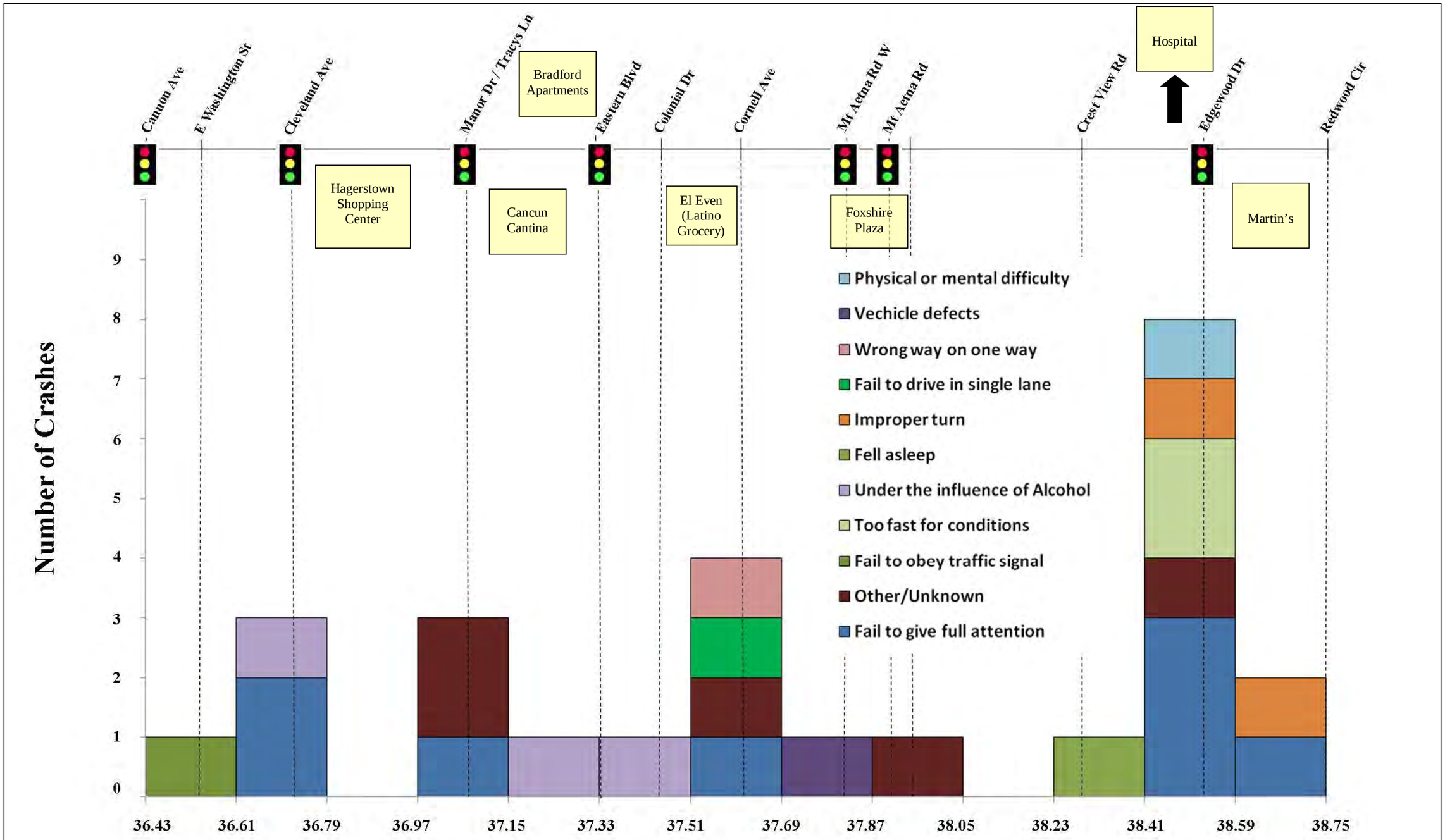


Figure F-2: Probable Cause (Other Crashes)
US 40 Safety Study (Hagerstown, MD)
December 2014

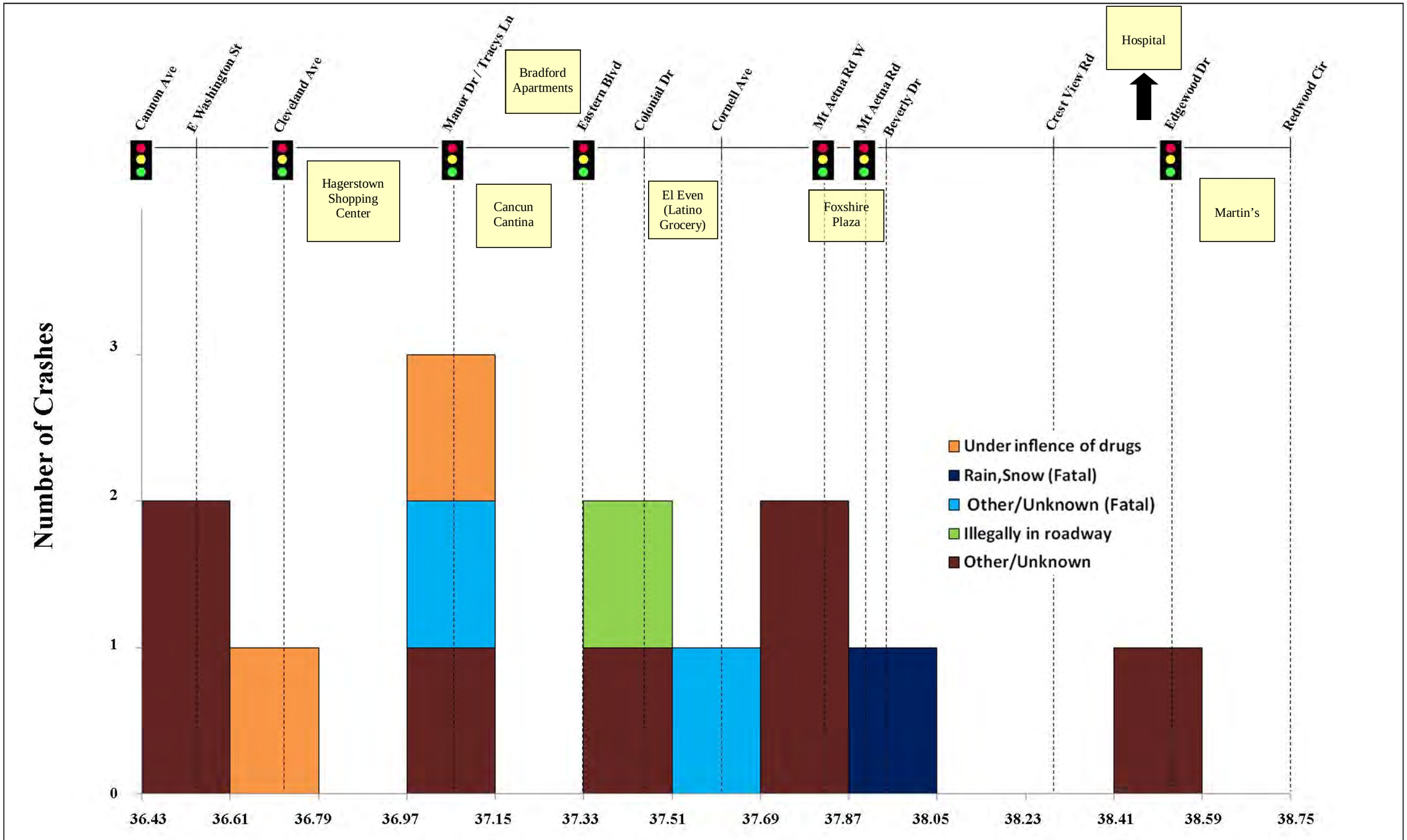


Figure F-3: Probable Cause (Pedestrian Crashes)
US 40 Safety Study (Hagerstown, MD)
December 2014

Appendix G: Improvement Concepts

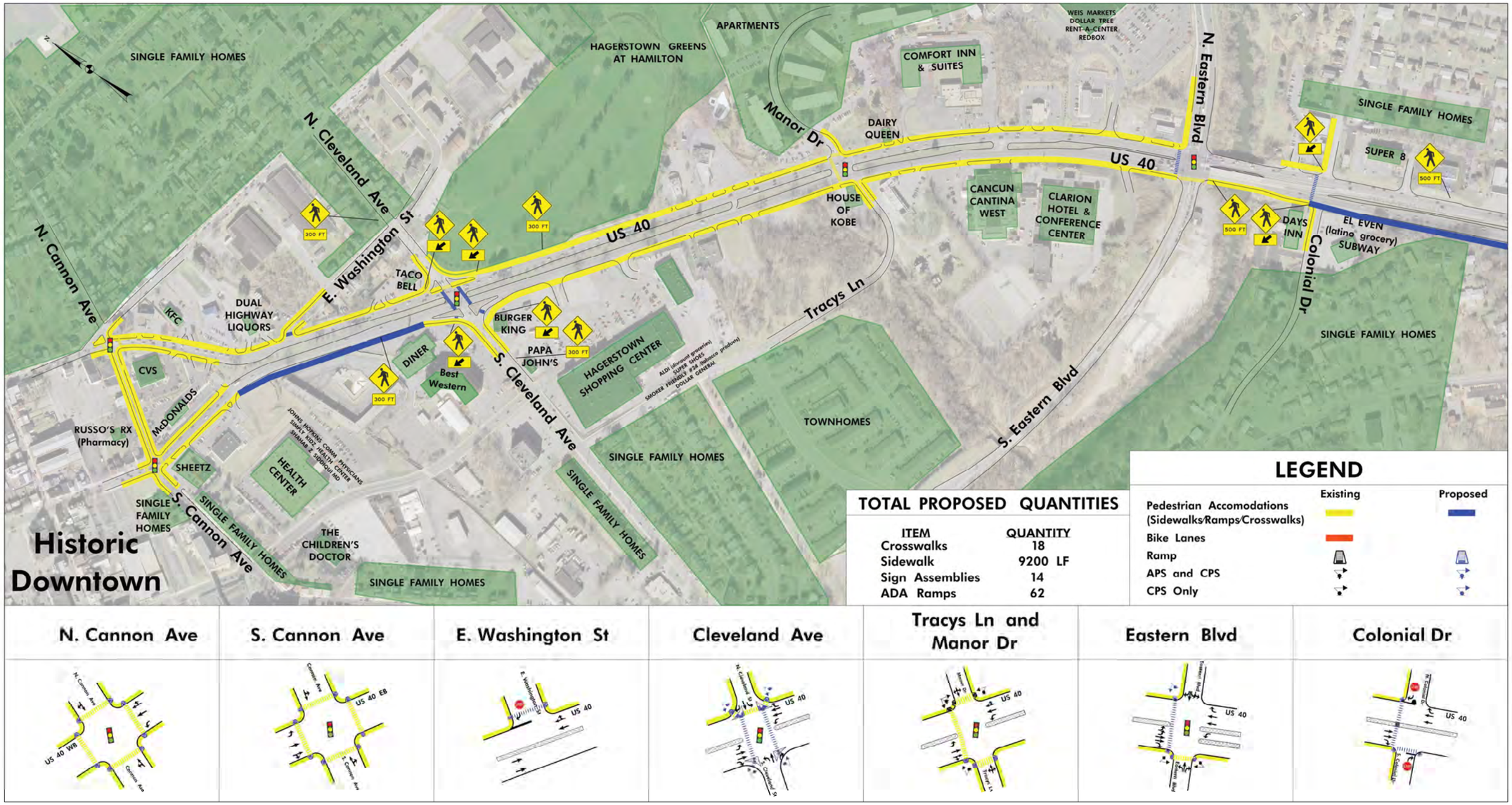


Figure G-1: Proposed Pedestrian Accommodations (North)
US 40 Safety Study (Hagerstown, MD)
December 2014

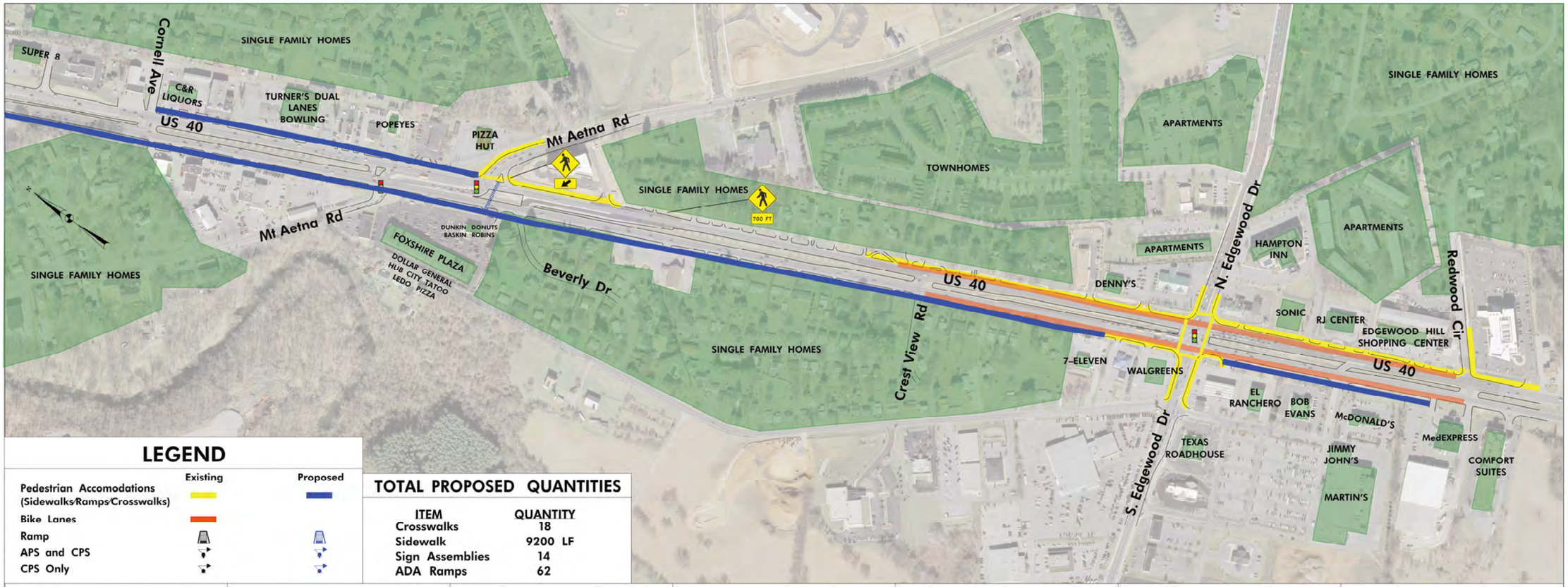


Figure G-2: Proposed Pedestrian Accommodations (South)

US 40 Safety Study (Hagerstown, MD)
December 2014

Appendix B:
SHA Intersection Traffic and Pedestrian Counts

Maryland State Highway Administration
Highway Information Services Division
Turning Movement Count Study - Field Sheet

Station ID: S1997210010
Date: Thursday 02/05/2015
Location: US 40 (Washington St) at N. Cannon Ave/S. Ca

County: Washington
Town: none
Weather: Clear

Comments: LOS AM: A (0.41); PM: A (0.55)

Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	1156		16:00	17:00	1483

Hour	N. Cannon Ave From North				S. Cannon Ave From South				US 40 From East				US 40 From West				Grand Total
Begin	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
6:00	14	34	0	48	0	33	15	48	0	0	0	0	32	478	35	545	641
7:00	20	41	0	61	0	59	23	82	0	0	0	0	32	763	67	862	1005
8:00	**31**	**53**	**0**	**84**	**0**	**83**	**35**	**118**	**0**	**0**	**0**	**0**	**38**	**848**	**68**	**954**	**1156**
9:00	51	78	0	129	0	94	41	135	0	0	0	0	61	743	64	868	1132
10:00	36	63	0	99	0	82	28	110	0	0	0	0	52	731	57	840	1049
11:00	45	75	0	120	0	107	20	127	0	0	0	0	42	679	58	779	1026
12:00	71	98	0	169	0	132	38	170	0	0	0	0	64	923	71	1058	1397
13:00	67	74	0	141	0	97	37	134	0	0	0	0	69	917	56	1042	1317
14:00	62	69	0	131	0	114	23	137	0	0	0	0	73	806	73	952	1220
15:00	58	85	0	143	0	124	28	152	0	0	0	0	91	946	44	1081	1376
16:00	**83**	**96**	**0**	**179**	**0**	**144**	**34**	**178**	**0**	**0**	**0**	**0**	**80**	**997**	**49**	**1126**	**1483**
17:00	69	85	0	154	0	138	36	174	0	0	0	0	89	974	52	1115	1443
18:00	46	94	0	140	0	96	26	122	0	0	0	0	87	801	37	925	1187
TOTAL	**653**	**945**	**0**	**1598**	**0**	**1303**	**384**	**1687**	**0**	**0**	**0**	**0**	**810**	**10606**	**731**	**12147**	**15432**
AM Peak	**31**	**53**	**0**	**84**	**0**	**83**	**35**	**118**	**0**	**0**	**0**	**0**	**38**	**848**	**68**	**954**	**1156**
PM Peak	**83**	**96**	**0**	**179**	**0**	**144**	**34**	**178**	**0**	**0**	**0**	**0**	**80**	**997**	**49**	**1126**	**1483**

Hour	N. Cannon Ave North Leg			S. Cannon Ave South Leg			US 40 East Leg			US 40 West Leg		
Ending	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.
6:00	0	2	0	0	10	0	0	3	0	0	0	0
7:00	0	3	0	0	15	0	0	12	0	0	9	0
8:00	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**16**	**0**	**0**	**5**	**0**
9:00	0	3	0	2	7	0	0	14	0	0	3	0
10:00	0	1	0	0	5	0	0	10	0	0	6	0
11:00	0	1	0	0	5	0	1	4	0	0	0	0
12:00	0	0	0	1	5	0	0	6	0	1	0	0
13:00	0	2	0	0	7	0	0	12	0	0	1	0
14:00	2	3	0	0	10	0	0	9	0	0	6	0
15:00	0	1	0	0	6	0	0	9	0	0	9	0
16:00	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**8**	**0**	**0**	**8**	**0**
17:00	0	1	0	1	25	0	0	17	0	0	7	0
18:00	0	1	0	1	15	0	0	11	0	1	1	0
Total	**2**	**18**	**0**	**5**	**129**	**0**	**1**	**131**	**0**	**2**	**55**	**0**
AM Peak	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**16**	**0**	**0**	**5**	**0**
PM Peak	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**8**	**0**	**0**	**8**	**0**

Station ID: S1997210010 **County:** Washington **Comments:** LOS AM: A (0.41); PM: A (0.55)

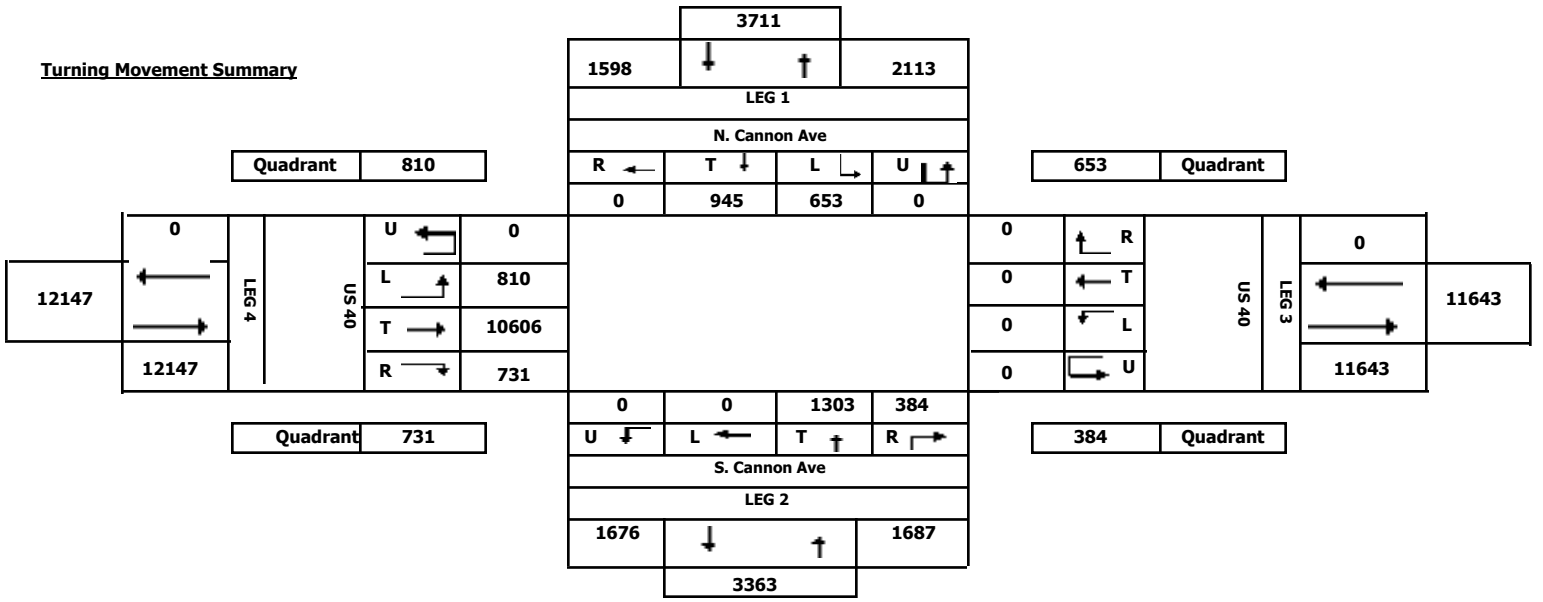
Date: Thursday 02/05/2015 **Town:** none

Location: US 40 (Washington St) at N. Cannon Ave/S. Ca **Weather:** Clear

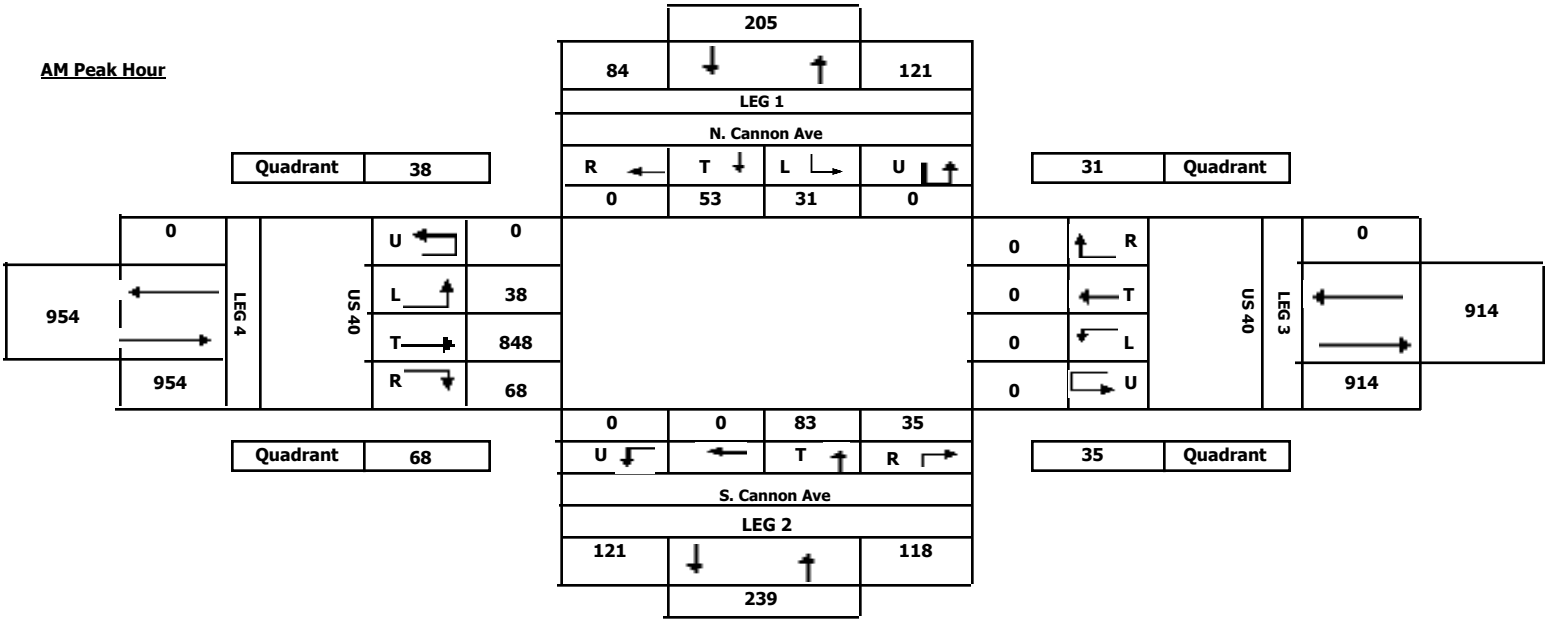
Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	1156		16:00	17:00	1483

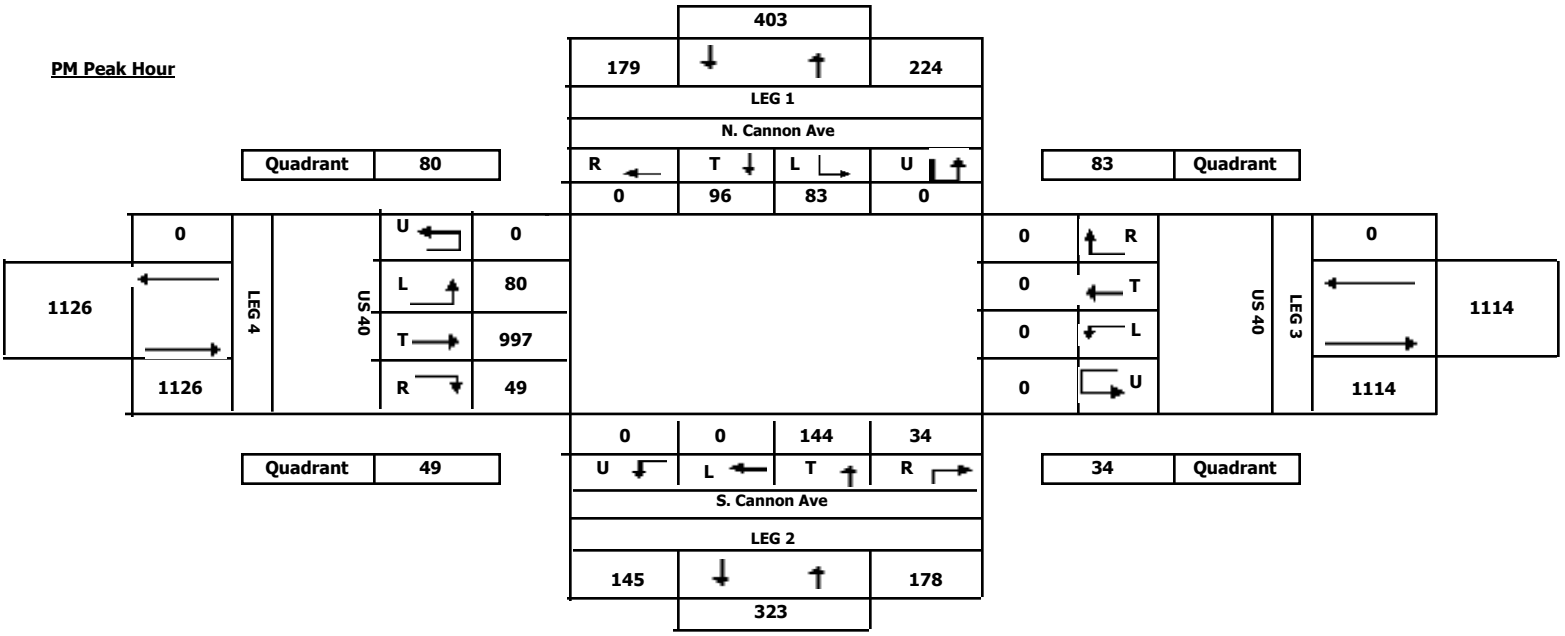
Turning Movement Summary



AM Peak Hour



PM Peak Hour



Maryland State Highway Administration
Highway Information Services Division
Turning Movement Count Study - Field Sheet

Station ID: S2000210007
Date: Wednesday 01/28/2015
Location: US 40 at Mt. Aetna Rd West/Tulsa La

County: Washington
Town: none
Weather: Cold

Comments: LOS AM: A (0.56); PM: D (0.84)

Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	2891		16:00	17:00	4213

Hour	Tulsa La From North				Mt. Aetna Rd W From South				US 40 From East				US 40 From West				Grand Total
Begin	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
6:00	0	1	1	2	0	0	65	65	28	389	0	417	0	863	4	867	1351
7:00	0	1	0	1	0	0	115	115	67	936	2	1005	1	1273	19	1293	2414
8:00	**1**	**1**	**3**	**5**	**0**	**0**	**158**	**158**	**126**	**1326**	**2**	**1454**	**2**	**1244**	**28**	**1274**	**2891**
9:00	0	0	0	0	0	0	106	106	142	1040	0	1182	1	1000	29	1030	2318
10:00	0	1	3	4	0	0	114	114	132	1076	3	1211	1	903	30	934	2263
11:00	0	1	0	1	0	0	135	135	140	1175	3	1318	0	1075	37	1112	2566
12:00	0	2	2	4	0	0	135	135	161	1253	6	1420	2	985	18	1005	2564
13:00	0	0	5	5	0	0	81	81	164	1274	1	1439	3	948	26	977	2502
14:00	0	0	0	0	0	0	134	134	146	1403	2	1551	1	1105	26	1132	2817
15:00	0	1	2	3	0	0	175	175	221	1709	3	1933	3	1254	43	1300	3411
16:00	**0**	**0**	**2**	**2**	**0**	**0**	**178**	**178**	**243**	**2416**	**3**	**2662**	**0**	**1340**	**31**	**1371**	**4213**
17:00	0	0	0	0	0	0	211	211	202	2312	5	2519	1	1262	28	1291	4021
18:00	0	0	5	5	0	0	143	143	111	1800	5	1916	0	1005	16	1021	3085
TOTAL	**1**	**8**	**23**	**32**	**0**	**0**	**1750**	**1750**	**1883**	**18109**	**35**	**20027**	**15**	**14257**	**335**	**14607**	**36416**
AM Peak	**1**	**1**	**3**	**5**	**0**	**0**	**158**	**158**	**126**	**1326**	**2**	**1454**	**2**	**1244**	**28**	**1274**	**2891**
PM Peak	**0**	**0**	**2**	**2**	**0**	**0**	**178**	**178**	**243**	**2416**	**3**	**2662**	**0**	**1340**	**31**	**1371**	**4213**

Hour	Tulsa La North Leg			Mt. Aetna Rd W South Leg			US 40 East Leg			US 40 West Leg		
Ending	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.
6:00	0	0	0	0	0	0	0	0	12	0	0	1
7:00	0	0	0	0	1	0	0	0	30	0	0	6
8:00	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**52**	**0**	**0**	**7**
9:00	0	1	0	0	0	0	0	0	50	0	0	5
10:00	0	0	0	0	0	0	0	0	42	0	0	7
11:00	0	0	0	0	0	0	0	0	32	0	0	16
12:00	0	0	0	0	1	0	0	0	48	0	0	16
13:00	0	1	0	0	0	0	0	0	33	0	0	8
14:00	0	1	0	0	0	0	0	0	50	0	1	9
15:00	0	0	0	0	0	0	0	0	63	0	0	7
16:00	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**62**	**0**	**0**	**12**
17:00	0	3	0	0	0	0	0	1	49	0	0	18
18:00	0	1	0	0	0	0	0	0	38	0	0	18
Total	**0**	**9**	**0**	**0**	**2**	**0**	**0**	**1**	**561**	**0**	**1**	**130**
AM Peak	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**52**	**0**	**0**	**7**
PM Peak	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**62**	**0**	**0**	**12**

Station ID: S2000210007 **County:** Washington **Comments:** LOS AM: A (0.56); PM: D (0.84)

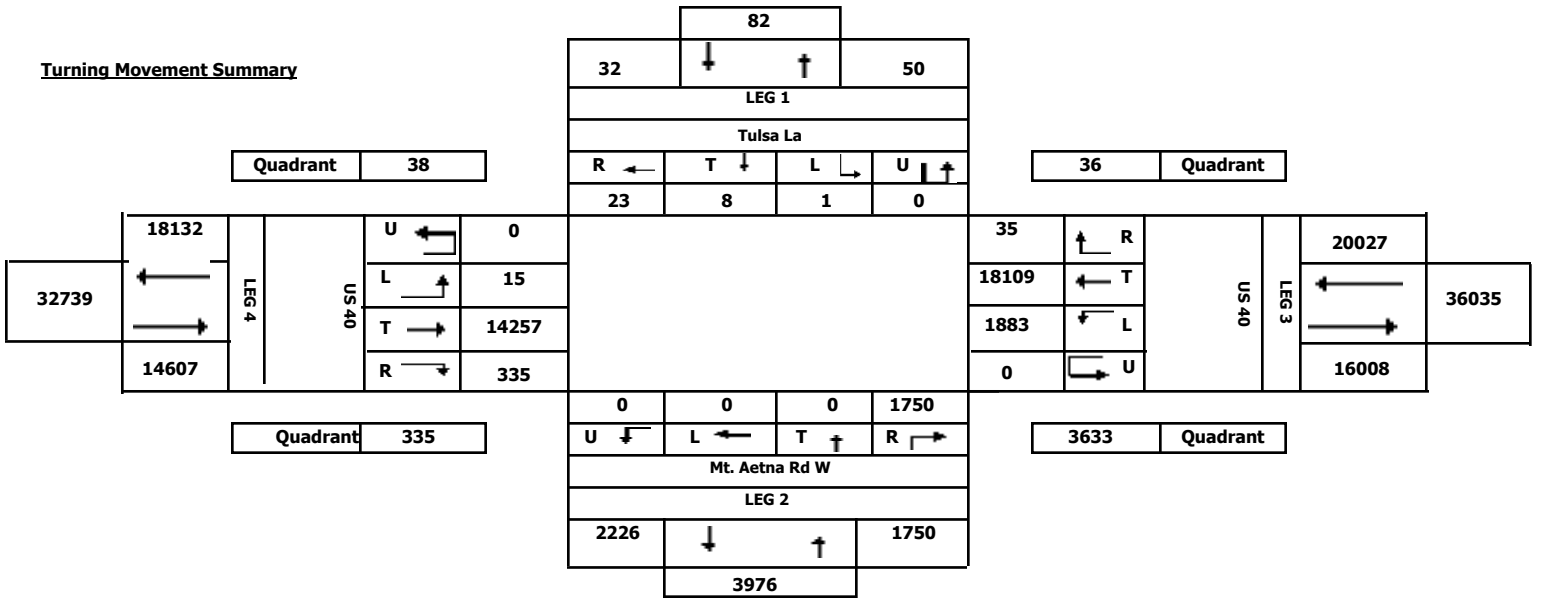
Date: Wednesday 01/28/2015 **Town:** none

Location: US 40 at Mt. Aetna Rd West/Tulsa La **Weather:** Cold

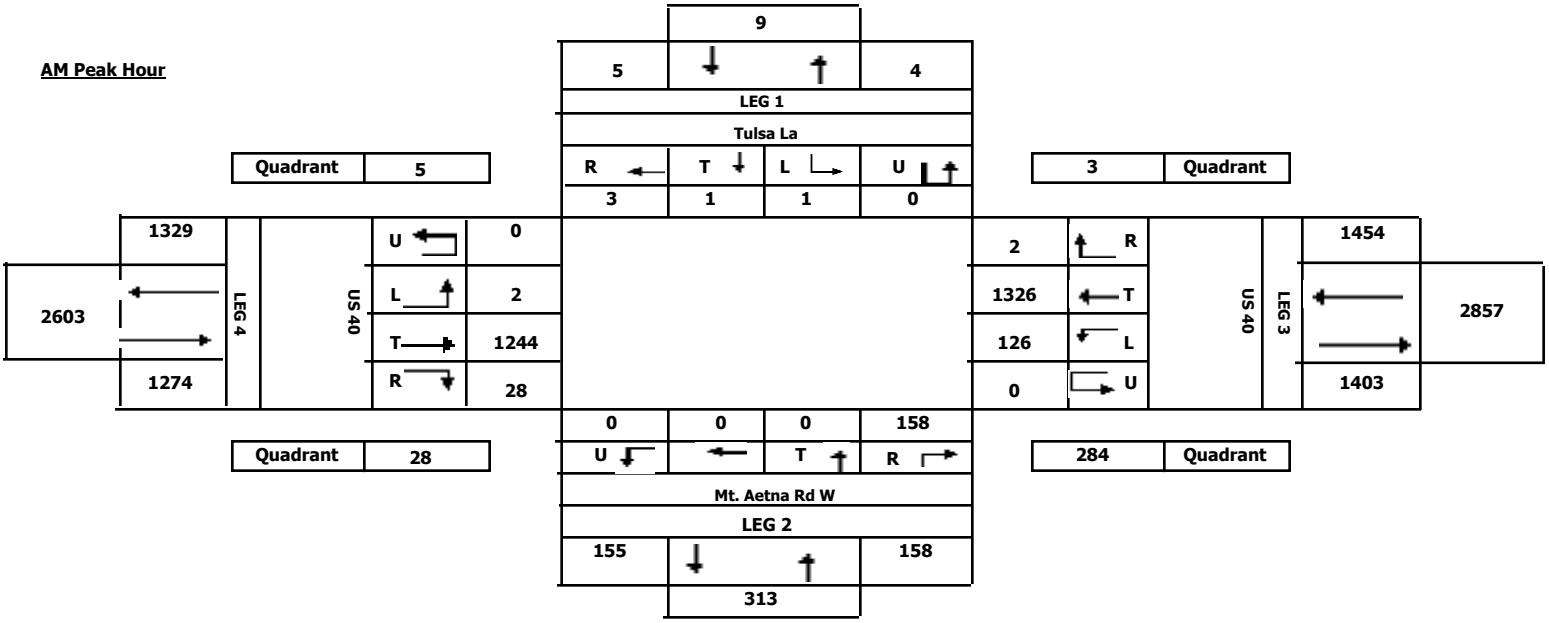
Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	2891		16:00	17:00	4213

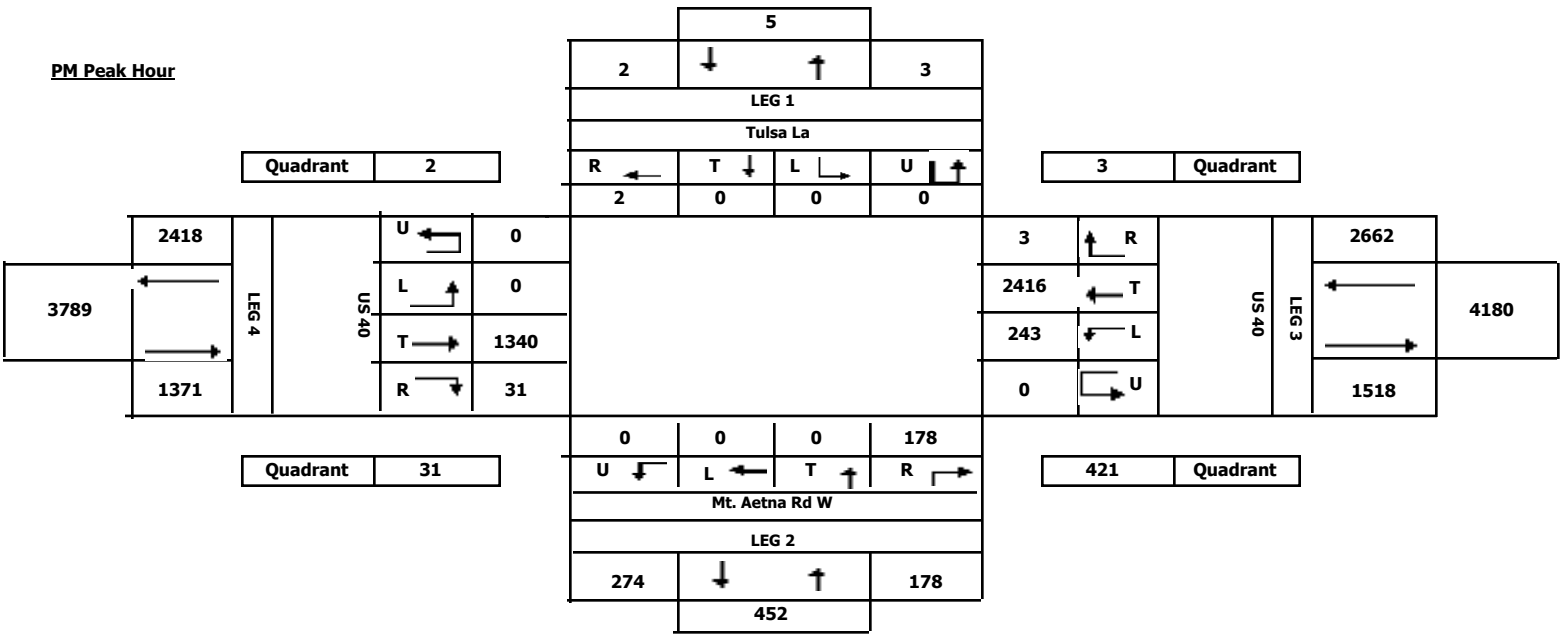
Turning Movement Summary



AM Peak Hour



PM Peak Hour



Maryland State Highway Administration
Highway Information Services Division
Turning Movement Count Study - Field Sheet

Station ID: S2000210008
Date: Thursday 01/22/2015
Location: US 40 at Mt. Aetna Rd

County: Washington
Town: none
Weather: Cold

Comments: LOS AM: B (0.63); PM: D (0.84)

Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	2713		16:00	17:00	3492

Hour	Mt. Aetna Rd From North				Mt. Aetna Rd From South				US 40 From East				US 40 From West				Grand Total
Begin	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
6:00	0	0	109	109	0	0	42	42	0	392	16	408	245	651	1	897	1456
7:00	0	0	302	302	0	0	58	58	0	765	24	789	439	941	5	1385	2534
8:00	**0**	**0**	**375**	**375**	**0**	**0**	**54**	**54**	**0**	**860**	**39**	**899**	**460**	**916**	**9**	**1385**	**2713**
9:00	0	0	415	415	0	0	41	41	0	708	19	727	399	778	9	1186	2369
10:00	0	0	342	342	0	0	21	21	0	731	13	744	336	722	5	1063	2170
11:00	0	0	413	413	0	0	24	24	0	805	19	824	366	821	3	1190	2451
12:00	0	0	386	386	0	0	44	44	0	849	19	868	392	866	3	1261	2559
13:00	0	0	422	422	0	0	46	46	0	848	24	872	406	842	3	1251	2591
14:00	0	0	439	439	0	0	31	31	0	911	17	928	379	901	1	1281	2679
15:00	0	0	528	528	0	0	18	18	0	1128	21	1149	400	968	4	1372	3067
16:00	**0**	**0**	**747**	**747**	**0**	**0**	**32**	**32**	**0**	**1185**	**19**	**1204**	**411**	**1090**	**8**	**1509**	**3492**
17:00	0	0	512	512	0	0	27	27	0	1277	52	1329	466	1063	9	1538	3406
18:00	0	0	335	335	0	0	54	54	0	929	20	949	377	774	4	1155	2493
TOTAL	**0**	**0**	**5325**	**5325**	**0**	**0**	**492**	**492**	**0**	**11388**	**302**	**11690**	**5076**	**11333**	**64**	**16473**	**33980**
AM Peak	**0**	**0**	**375**	**375**	**0**	**0**	**54**	**54**	**0**	**860**	**39**	**899**	**460**	**916**	**9**	**1385**	**2713**
PM Peak	**0**	**0**	**747**	**747**	**0**	**0**	**32**	**32**	**0**	**1185**	**19**	**1204**	**411**	**1090**	**8**	**1509**	**3492**

Hour	Mt. Aetna Rd North Leg			Mt. Aetna Rd South Leg			US 40 East Leg			US 40 West Leg		
Ending	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.
6:00	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	10
8:00	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**12**
9:00	0	2	0	0	0	0	0	1	0	0	0	13
10:00	0	0	0	0	0	0	0	0	0	0	0	25
11:00	0	3	0	0	0	0	0	0	0	0	0	19
12:00	0	0	0	0	0	0	0	0	0	0	0	29
13:00	0	0	0	0	0	0	0	0	0	0	0	25
14:00	0	1	0	0	0	0	0	0	0	0	0	23
15:00	0	2	0	0	0	0	0	0	0	0	0	17
16:00	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26**
17:00	0	0	0	0	1	0	0	0	0	0	0	20
18:00	0	0	0	0	0	0	0	0	0	0	0	15
Total	**0**	**11**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**234**
AM Peak	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**12**
PM Peak	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26**

Station ID: S2000210008 **County:** Washington **Comments:** LOS AM: B (0.63); PM: D (0.84)

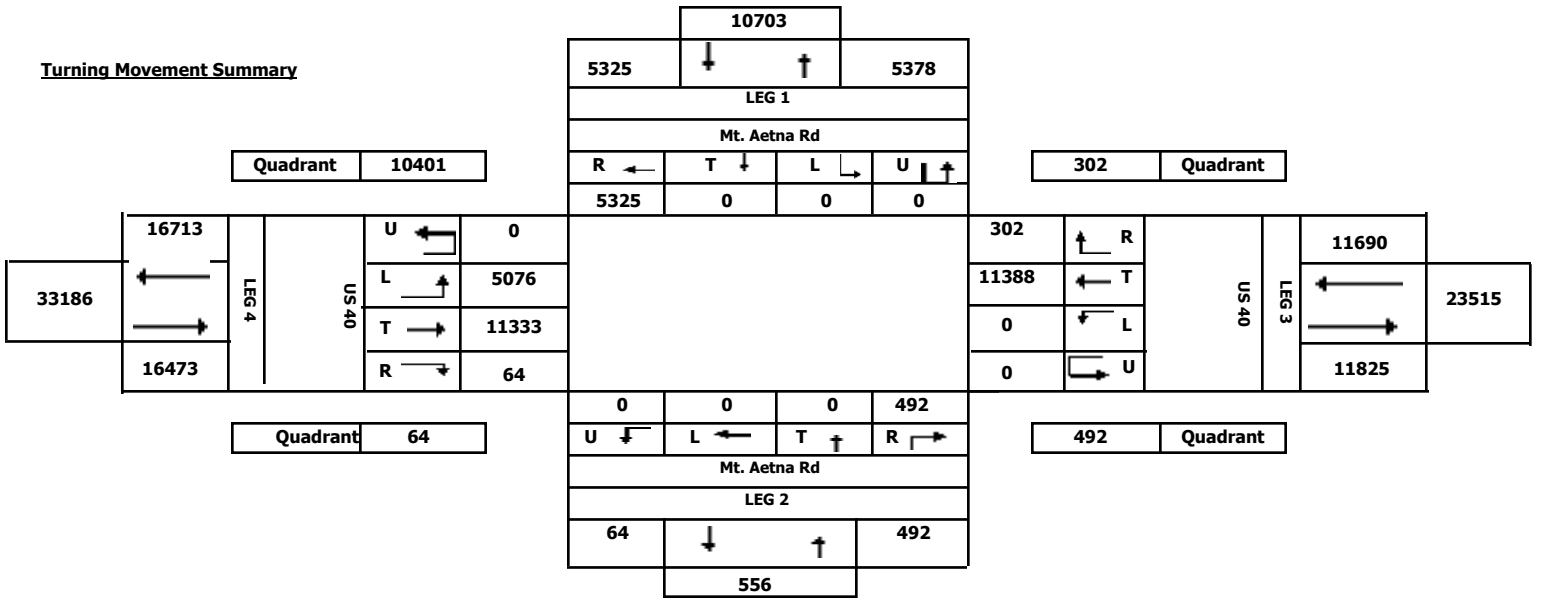
Date: Thursday 01/22/2015 **Town:** none

Location: US 40 at Mt. Aetna Rd **Weather:** Cold

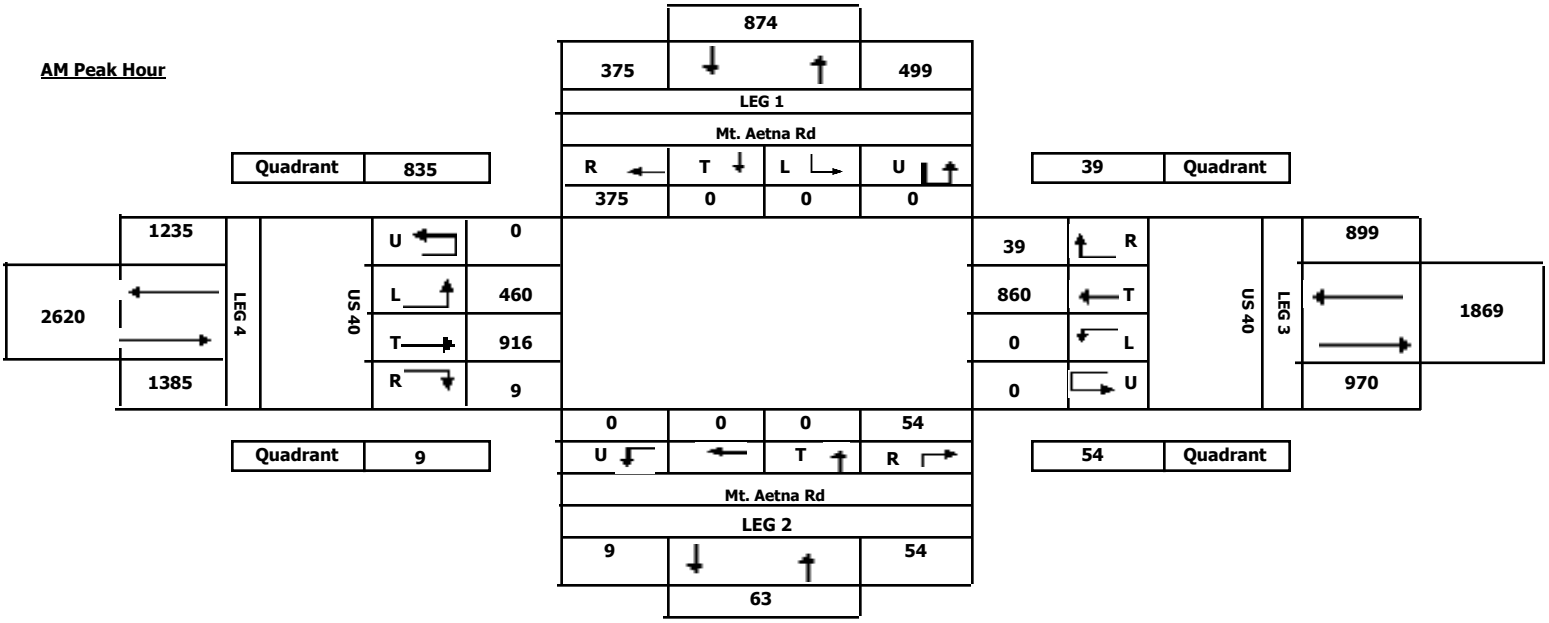
Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	2713		16:00	17:00	3492

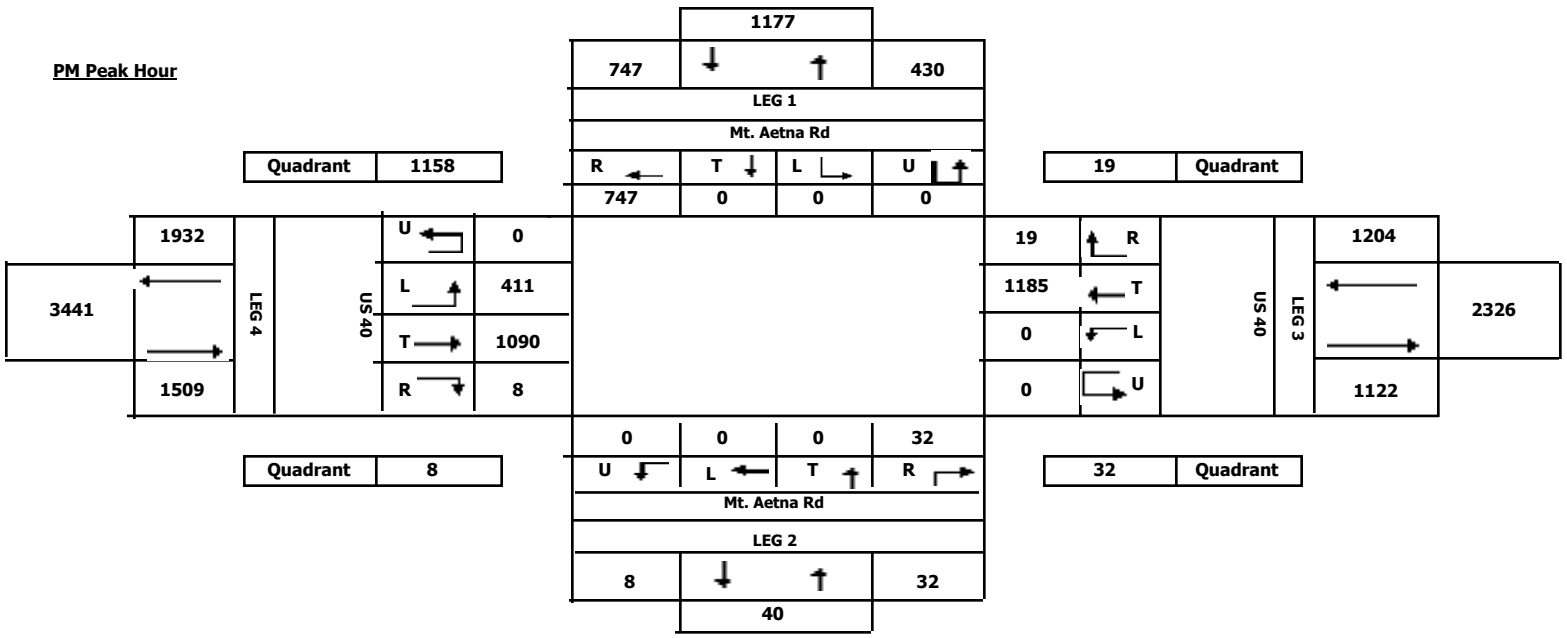
Turning Movement Summary



AM Peak Hour



PM Peak Hour



Maryland State Highway Administration
Highway Information Services Division
Turning Movement Count Study - Field Sheet

Station ID: S2003210003
Date: Thursday 01/29/2015
Location: US 40 at MANOR DR/TRACEYS LA

County: Washington
Town: none
Weather: Clear

Comments: LOS AM: A (0.37); PM: A (0.46)

Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	1691		16:00	17:00	2204

Hour	Manor Dr From North				Traceys La From South				US 40 From East				US 40 From West				Grand Total
Begin	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
6:00	32	5	19	56	0	3	2	5	2	251	12	265	28	470	0	498	824
7:00	34	6	39	79	0	3	5	8	7	530	17	554	40	747	2	789	1430
8:00	**44**	**7**	**67**	**118**	**1**	**4**	**3**	**8**	**1**	**680**	**14**	**695**	**37**	**833**	**0**	**870**	**1691**
9:00	18	5	34	57	0	3	2	5	5	705	23	733	29	792	1	822	1617
10:00	17	4	25	46	1	1	6	8	12	735	21	768	33	726	0	759	1581
11:00	20	3	21	44	0	6	6	12	8	792	18	818	30	775	1	806	1680
12:00	24	2	28	54	2	3	5	10	10	871	14	895	31	911	1	943	1902
13:00	22	4	20	46	6	3	3	12	16	805	24	845	44	896	3	943	1846
14:00	33	5	40	78	1	8	8	17	12	911	26	949	48	939	1	988	2032
15:00	33	2	48	83	0	3	5	8	8	895	22	925	34	955	2	991	2007
16:00	**37**	**9**	**36**	**82**	**2**	**10**	**4**	**16**	**17**	**1013**	**45**	**1075**	**59**	**970**	**2**	**1031**	**2204**
17:00	23	4	38	65	1	5	6	12	15	892	40	947	65	804	2	871	1895
18:00	12	2	30	44	1	6	2	9	5	711	25	741	38	592	1	631	1425
TOTAL	**349**	**58**	**445**	**852**	**15**	**58**	**57**	**130**	**118**	**9791**	**301**	**10210**	**516**	**10410**	**16**	**10942**	**22134**
AM Peak	**44**	**7**	**67**	**118**	**1**	**4**	**3**	**8**	**1**	**680**	**14**	**695**	**37**	**833**	**0**	**870**	**1691**
PM Peak	**37**	**9**	**36**	**82**	**2**	**10**	**4**	**16**	**17**	**1013**	**45**	**1075**	**59**	**970**	**2**	**1031**	**2204**

Hour	Manor Dr North Leg			Traceys La South Leg			US 40 East Leg			US 40 West Leg		
Ending	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.
6:00	0	1	0	0	0	0	0	0	2	0	1	0
7:00	0	1	0	0	1	0	0	0	9	0	1	0
8:00	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**2**
9:00	0	3	0	0	0	0	0	0	10	0	0	1
10:00	0	2	0	1	5	0	0	0	7	1	0	1
11:00	0	4	0	0	4	0	0	0	12	0	2	0
12:00	1	3	0	0	2	0	0	0	15	0	1	4
13:00	0	4	0	0	1	0	0	0	7	0	0	4
14:00	0	6	0	0	2	0	0	0	12	0	2	1
15:00	0	6	0	0	0	0	0	0	9	0	0	3
16:00	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**5**	**0**	**1**	**0**
17:00	0	2	0	0	1	0	0	0	16	0	1	5
18:00	0	1	0	0	0	0	0	0	11	0	2	1
Total	**2**	**34**	**0**	**1**	**18**	**0**	**0**	**1**	**119**	**1**	**11**	**22**
AM Peak	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**2**
PM Peak	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**5**	**0**	**1**	**0**

Station ID: S2003210003 **County:** Washington **Comments:** LOS AM: A (0.37); PM: A (0.46)

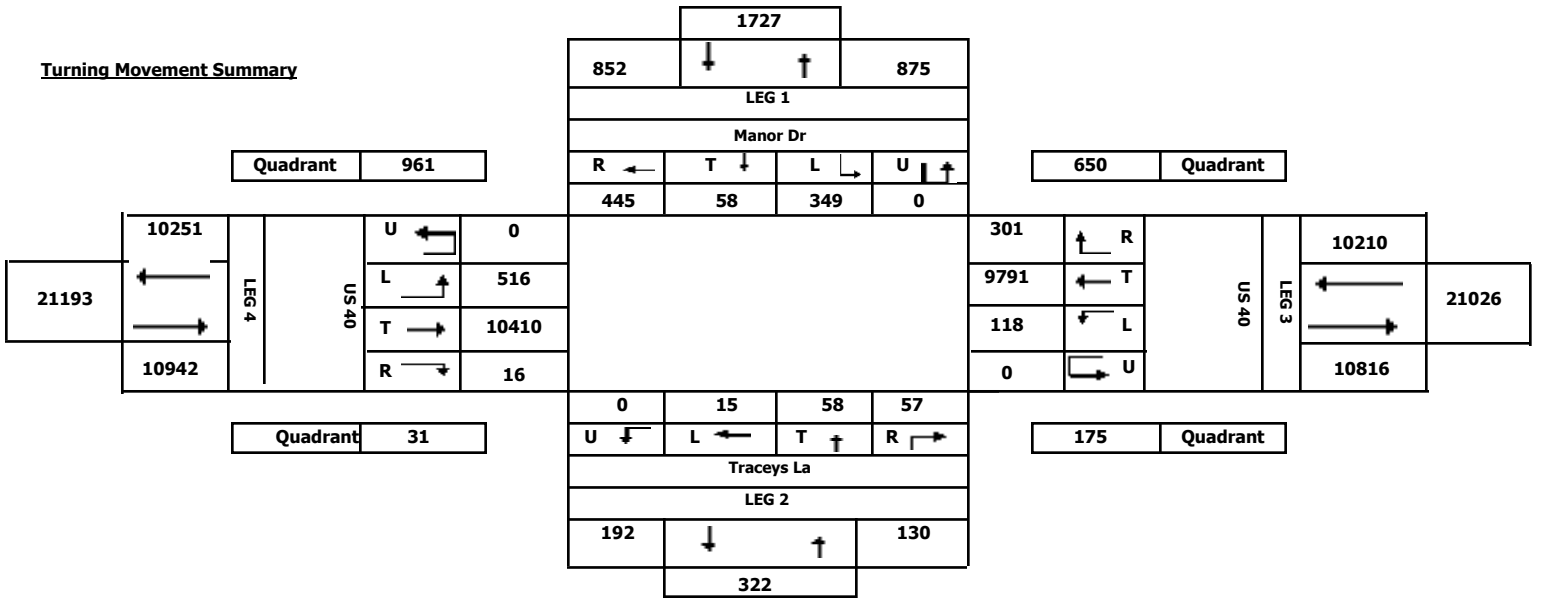
Date: Thursday 01/29/2015 **Town:** none

Location: US 40 at MANOR DR/TRACEYS LA **Weather:** Clear

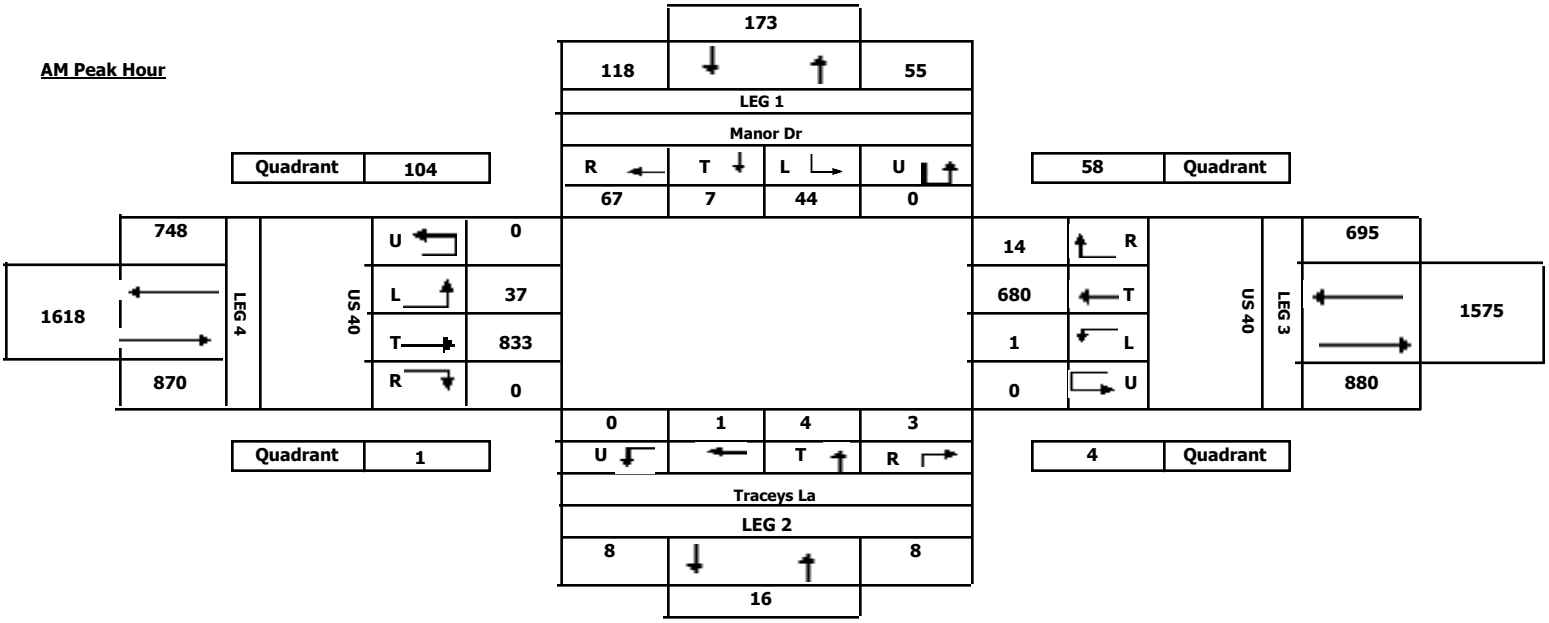
Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	1691		16:00	17:00	2204

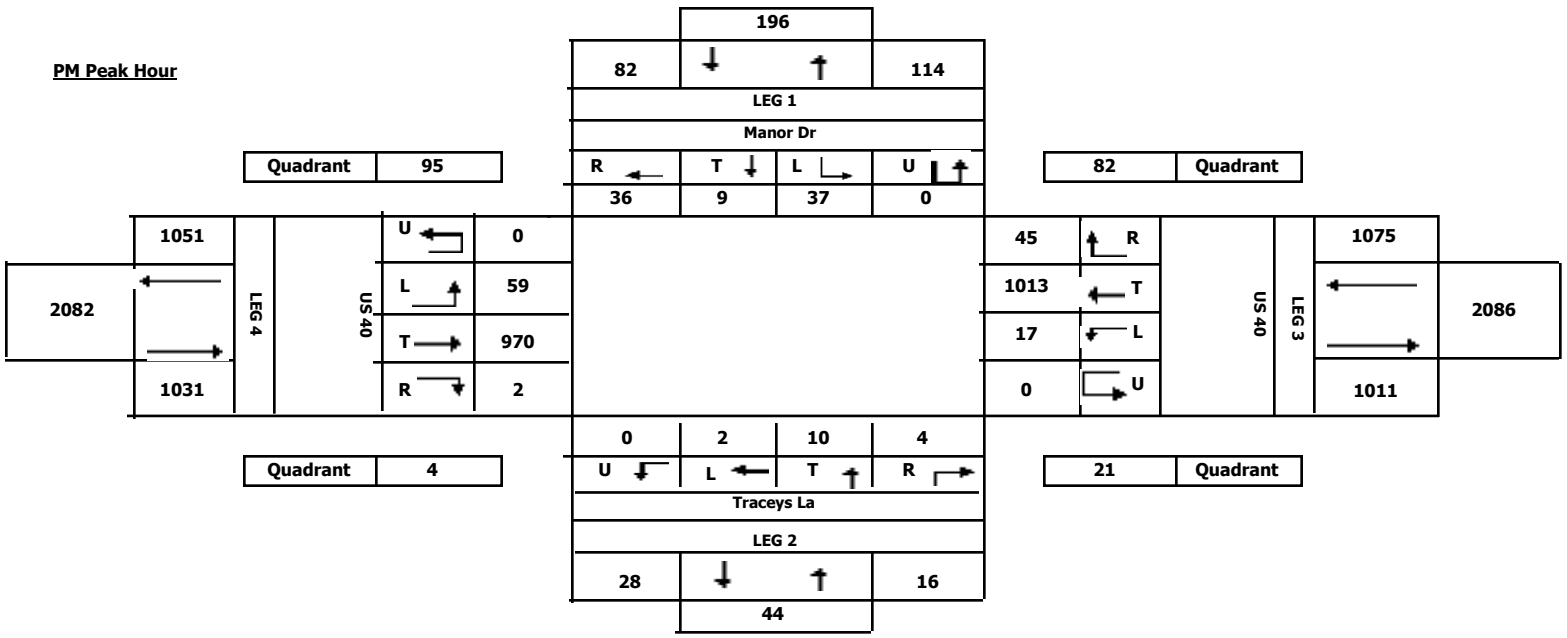
Turning Movement Summary



AM Peak Hour



PM Peak Hour



Maryland State Highway Administration
Highway Information Services Division
Turning Movement Count Study - Field Sheet

Station ID: S2000210006
Date: Wednesday 01/28/2015
Location: US 40 at Edgewood Dr

County: Washington
Town: none
Weather: Cold

Comments: LOS AM: A (0.57); PM: B (0.67)

Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		07:00	08:00	3190		16:00	17:00	4008

Hour	Edgewood Dr From North				Edgewood Dr From South				US 40 From East				US 40 From West				Grand Total
Begin	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
6:00	302	81	19	402	86	98	19	203	15	286	188	489	14	654	60	728	1822
7:00	**422**	**137**	**26**	**585**	**187**	**163**	**30**	**380**	**64**	**661**	**484**	**1209**	**36**	**881**	**99**	**1016**	**3190**
8:00	365	111	35	511	194	200	37	431	75	748	420	1243	81	643	90	814	2999
9:00	315	155	28	498	178	187	38	403	58	554	304	916	79	507	63	649	2466
10:00	297	159	46	502	187	205	38	430	63	504	212	779	66	515	88	669	2380
11:00	358	167	43	568	207	185	51	443	82	515	193	790	61	512	97	670	2471
12:00	377	174	55	606	235	169	58	462	73	506	169	748	78	494	91	663	2479
13:00	346	197	39	582	226	217	38	481	67	561	159	787	63	554	106	723	2573
14:00	441	205	55	701	213	170	57	440	80	661	268	1009	102	642	124	868	3018
15:00	437	255	57	749	244	288	67	599	78	782	322	1182	84	708	149	941	3471
16:00	**576**	**270**	**53**	**899**	**236**	**292**	**51**	**579**	**108**	**1015**	**322**	**1445**	**158**	**787**	**140**	**1085**	**4008**
17:00	439	262	39	740	247	275	35	557	92	1079	407	1578	88	730	122	940	3815
18:00	369	178	34	581	207	231	28	466	87	747	287	1121	75	578	123	776	2944
TOTAL	**5044**	**2351**	**529**	**7924**	**2647**	**2680**	**547**	**5874**	**942**	**8619**	**3735**	**13296**	**985**	**8205**	**1352**	**10542**	**37636**
AM Peak	**422**	**137**	**26**	**585**	**187**	**163**	**30**	**380**	**64**	**661**	**484**	**1209**	**36**	**881**	**99**	**1016**	**3190**
PM Peak	**576**	**270**	**53**	**899**	**236**	**292**	**51**	**579**	**108**	**1015**	**322**	**1445**	**158**	**787**	**140**	**1085**	**4008**

Hour	Edgewood Dr North Leg			Edgewood Dr South Leg			US 40 East Leg			US 40 West Leg		
Ending	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.
6:00	0	0	0	0	0	0	0	0	0	0	0	7
7:00	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
8:00	0	0	0	0	0	0	0	1	0	0	0	16
9:00	0	0	0	0	0	0	0	0	0	0	0	18
10:00	0	0	0	0	0	0	0	3	0	0	0	23
11:00	0	0	0	0	0	0	0	1	1	0	0	21
12:00	0	0	0	0	0	0	0	1	0	0	0	14
13:00	0	1	0	0	0	0	0	0	0	0	0	14
14:00	0	1	1	0	0	0	0	0	10	0	1	6
15:00	0	1	0	0	0	0	0	0	14	0	0	28
16:00	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**19**	**0**	**0**	**17**
17:00	0	0	1	0	0	0	0	1	5	0	0	14
18:00	0	0	0	0	0	0	0	0	6	0	0	10
Total	**0**	**3**	**2**	**0**	**0**	**0**	**0**	**9**	**55**	**0**	**1**	**195**
AM Peak	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
PM Peak	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**19**	**0**	**0**	**17**

Station ID: S2000210006 **County:** Washington **Comments:** LOS AM: A (0.57); PM: B (0.67)

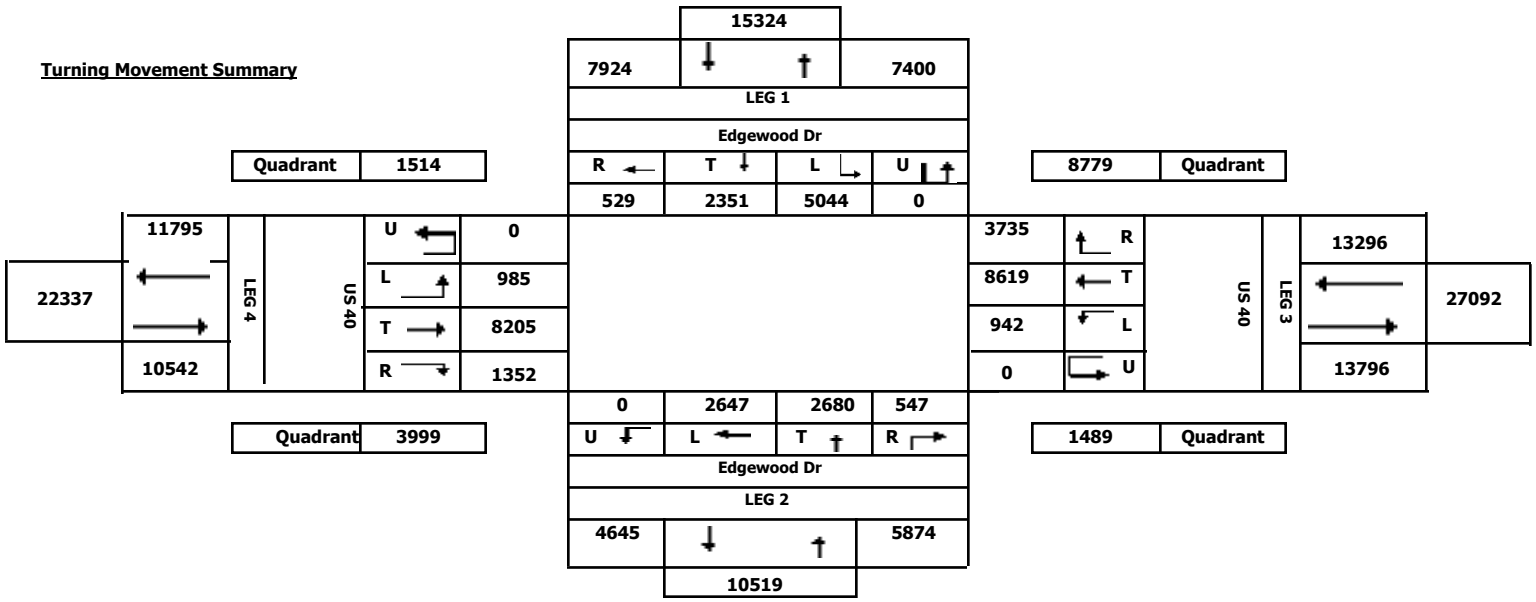
Date: Wednesday 01/28/2015 **Town:** none

Location: US 40 at Edgewood Dr **Weather:** Cold

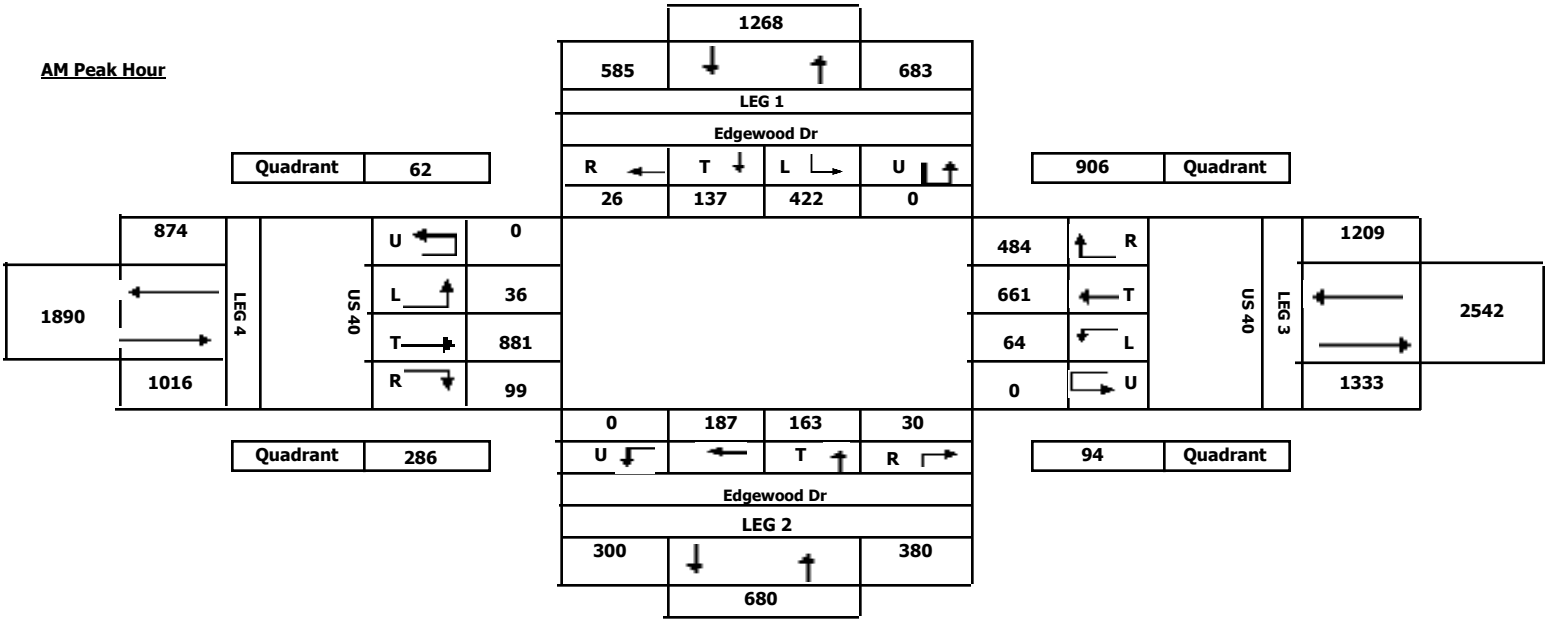
Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		07:00	08:00	3190		16:00	17:00	4008

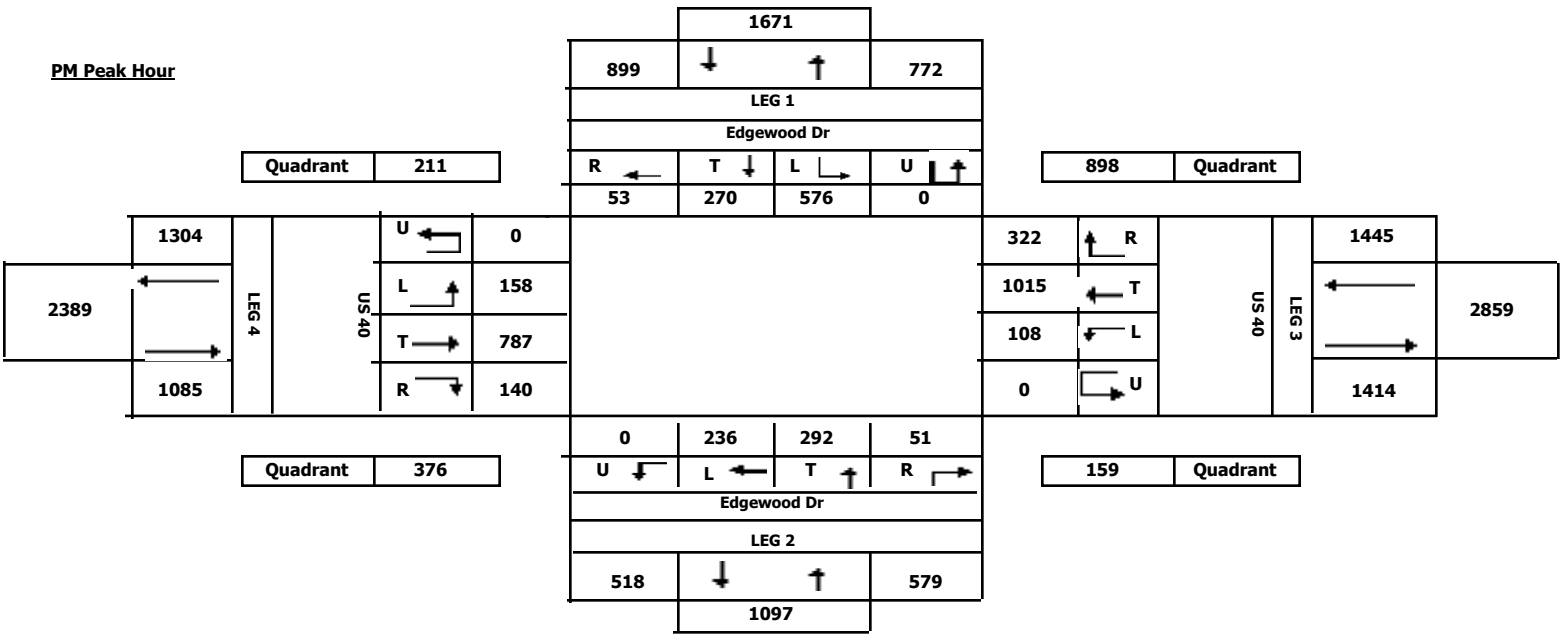
Turning Movement Summary



AM Peak Hour



PM Peak Hour



Maryland State Highway Administration
Highway Information Services Division
Turning Movement Count Study - Field Sheet

Station ID: S2000210005
Date: Thursday 01/29/2015
Location: US 40 at Eastern Blvd

County: Washington
Town: none
Weather: Cold

Comments: LOS AM: B (0.63); PM: C (0.72)

Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	3328		16:00	17:00	3948

Hour	Eastern Blvd From North				Eastern Blvd From South				US 40 From East				US 40 From West				Grand Total
Begin	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
6:00	365	106	27	498	13	84	11	108	14	204	256	474	66	444	11	521	1601
7:00	613	134	69	816	30	122	17	169	16	616	656	1288	117	651	17	785	3058
8:00	**542**	**225**	**84**	**851**	**24**	**171**	**17**	**212**	**24**	**691**	**649**	**1364**	**160**	**725**	**16**	**901**	**3328**
9:00	265	135	129	529	33	196	17	246	27	670	493	1190	184	684	12	880	2845
10:00	333	132	117	582	23	120	20	163	15	544	401	960	168	555	16	739	2444
11:00	237	149	176	562	19	155	20	194	16	660	550	1226	161	573	23	757	2739
12:00	311	161	209	681	39	166	16	221	28	791	566	1385	202	740	14	956	3243
13:00	329	175	119	623	24	200	13	237	33	744	594	1371	217	706	19	942	3173
14:00	375	164	190	729	46	208	10	264	61	894	612	1567	230	684	26	940	3500
15:00	423	186	156	765	48	230	17	295	47	762	585	1394	224	758	24	1006	3460
16:00	**321**	**232**	**204**	**757**	**58**	**278**	**26**	**362**	**45**	**980**	**674**	**1699**	**220**	**880**	**30**	**1130**	**3948**
17:00	375	211	199	785	52	158	10	220	28	797	682	1507	166	695	25	886	3398
18:00	198	68	58	324	29	99	13	141	16	633	476	1125	119	492	13	624	2214
TOTAL	**4687**	**2078**	**1737**	**8502**	**438**	**2187**	**207**	**2832**	**370**	**8986**	**7194**	**16550**	**2234**	**8587**	**246**	**11067**	**38951**
AM Peak	**542**	**225**	**84**	**851**	**24**	**171**	**17**	**212**	**24**	**691**	**649**	**1364**	**160**	**725**	**16**	**901**	**3328**
PM Peak	**321**	**232**	**204**	**757**	**58**	**278**	**26**	**362**	**45**	**980**	**674**	**1699**	**220**	**880**	**30**	**1130**	**3948**

Hour	Eastern Blvd North Leg			Eastern Blvd South Leg			US 40 East Leg			US 40 West Leg		
Ending	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.
6:00	0	0	0	0	0	0	0	0	2	0	0	2
7:00	0	0	0	0	2	0	0	0	6	0	3	13
8:00	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**
9:00	0	0	0	0	0	0	0	0	4	0	0	13
10:00	0	0	0	0	4	0	0	0	2	0	1	15
11:00	0	0	0	0	2	0	0	0	6	0	0	19
12:00	0	0	0	0	1	0	0	0	3	0	1	16
13:00	2	3	0	0	0	0	0	0	2	0	0	16
14:00	1	0	0	0	0	0	0	0	2	1	0	18
15:00	0	1	0	2	1	0	0	0	5	0	1	32
16:00	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**1**	**3**	**0**	**0**	**13**
17:00	0	0	1	0	1	1	0	0	0	0	1	25
18:00	0	0	1	0	0	0	0	0	3	0	0	10
Total	**3**	**5**	**3**	**2**	**12**	**1**	**0**	**1**	**38**	**1**	**7**	**201**
AM Peak	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**
PM Peak	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**1**	**3**	**0**	**0**	**13**

Station ID: S2000210005 **County:** Washington **Comments:** LOS AM: B (0.63); PM: C (0.72)

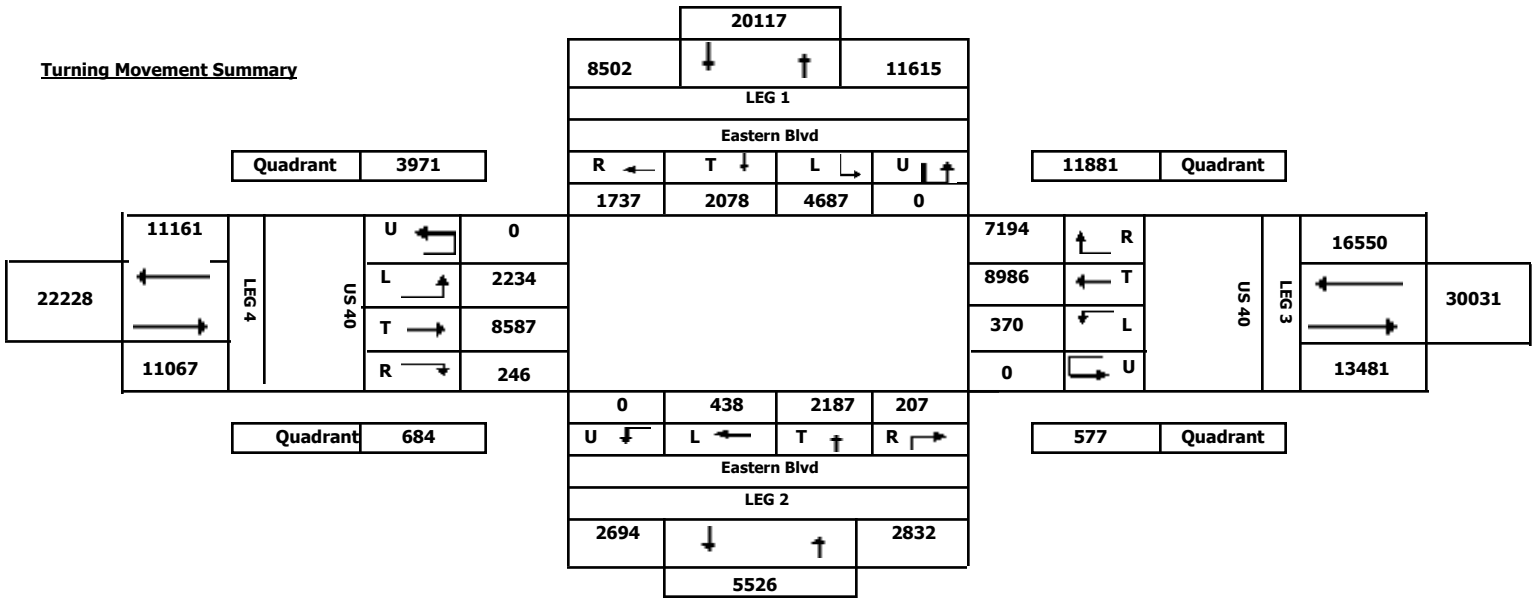
Date: Thursday 01/29/2015 **Town:** none

Location: US 40 at Eastern Blvd **Weather:** Cold

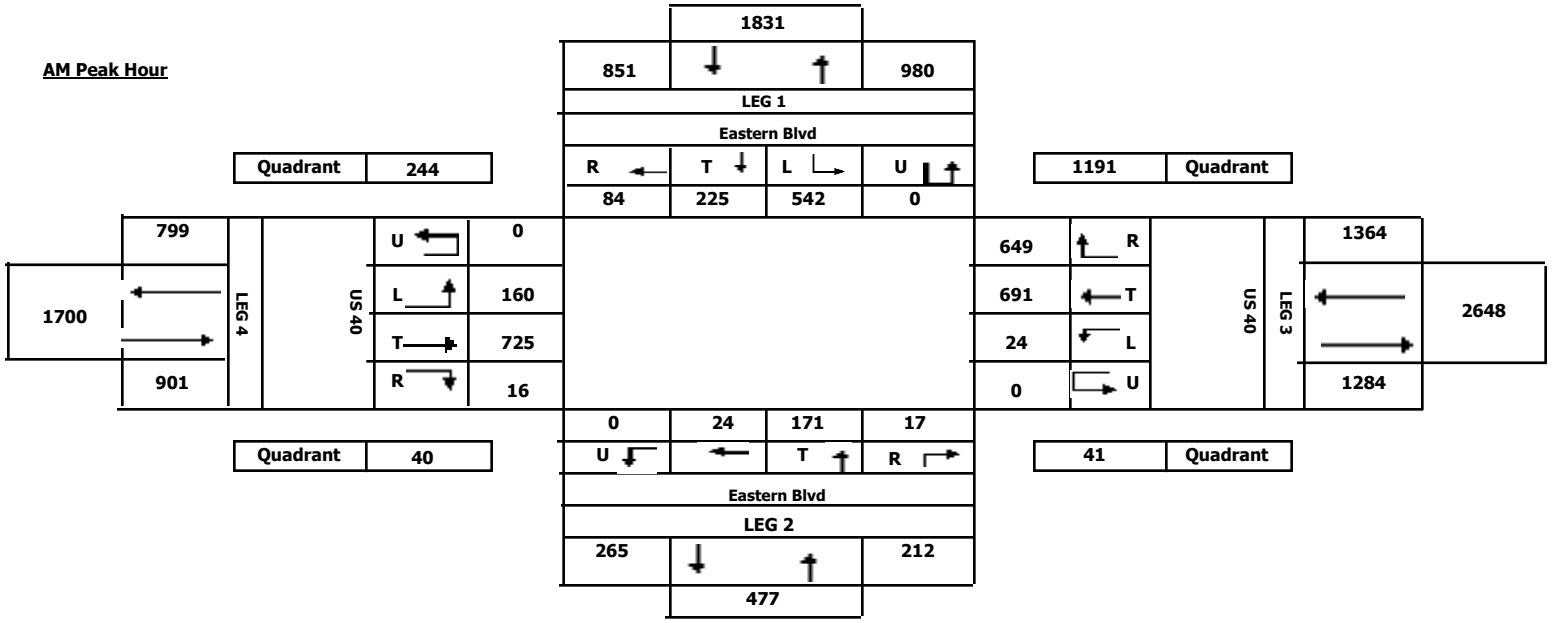
Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		08:00	09:00	3328		16:00	17:00	3948

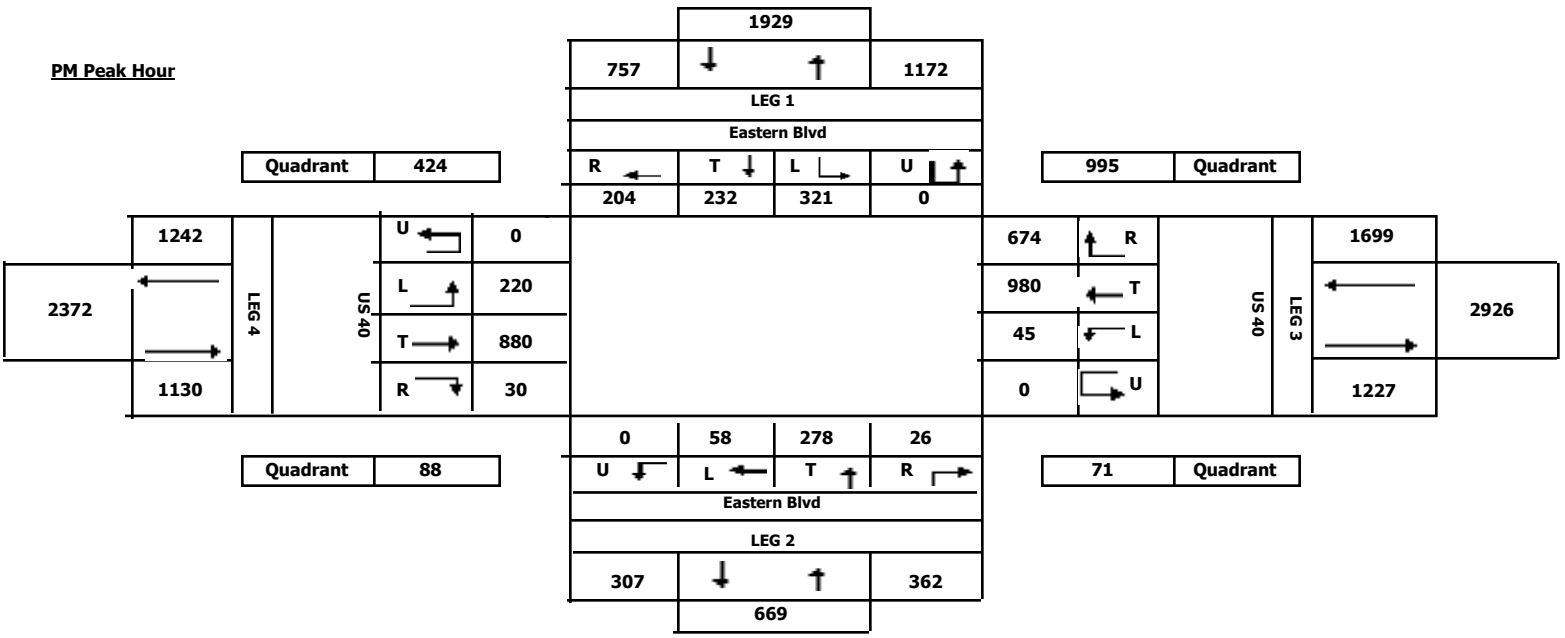
Turning Movement Summary



AM Peak Hour



PM Peak Hour



Maryland State Highway Administration
Highway Information Services Division
Turning Movement Count Study - Field Sheet

Station ID: S1998210001
Date: Thursday 01/22/2015
Location: US 40 at MD 64/N. Cleveland Ave

County: Washington
Town: none
Weather: Cold

Comments: LOS AM: A (0.42); PM: A (0.62)

Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin 11:00	End 12:00	Volume 2119	PM PERIOD 12:00PM-19:00PM	Begin 16:00	End 17:00	Volume 2907

Hour	MD 64 From North				N. Cleveland Ave From South				US 40 From East				US 40 From West				Grand Total
Begin	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	
6:00	29	12	56	97	16	10	23	49	16	222	17	255	18	435	26	479	880
7:00	46	29	100	175	33	12	34	79	17	540	21	578	36	725	43	804	1636
8:00	48	45	86	179	30	23	56	109	54	704	24	782	54	789	63	906	1976
9:00	39	38	62	139	47	29	59	135	90	675	27	792	43	687	63	793	1859
10:00	37	37	38	112	50	45	52	147	84	589	23	696	32	622	45	699	1654
11:00	**43**	**47**	**51**	**141**	**89**	**34**	**77**	**200**	**163**	**766**	**35**	**964**	**56**	**675**	**83**	**814**	**2119**
12:00	65	52	58	175	108	61	82	251	148	791	46	985	63	693	92	848	2259
13:00	44	47	94	185	84	54	68	206	145	877	55	1077	65	683	68	816	2284
14:00	62	58	79	199	78	50	84	212	129	915	69	1113	70	730	95	895	2419
15:00	62	57	70	189	75	80	78	233	137	1011	76	1224	101	761	75	937	2583
16:00	**42**	**68**	**82**	**192**	**85**	**87**	**88**	**260**	**170**	**1170**	**96**	**1436**	**121**	**817**	**81**	**1019**	**2907**
17:00	65	47	92	204	85	100	79	264	151	1151	149	1451	110	767	97	974	2893
18:00	42	45	77	164	73	43	54	170	82	751	56	889	91	607	51	749	1972
TOTAL	**624**	**582**	**945**	**2151**	**853**	**628**	**834**	**2315**	**1386**	**10162**	**694**	**12242**	**860**	**8991**	**882**	**10733**	**27441**
AM Peak	**43**	**47**	**51**	**141**	**89**	**34**	**77**	**200**	**163**	**766**	**35**	**964**	**56**	**675**	**83**	**814**	**2119**
PM Peak	**42**	**68**	**82**	**192**	**85**	**87**	**88**	**260**	**170**	**1170**	**96**	**1436**	**121**	**817**	**81**	**1019**	**2907**

Hour	MD 64 North Leg			N. Cleveland Ave South Leg			US 40 East Leg			US 40 West Leg		
Ending	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.	Bicycle	PED.	U.T.
6:00	0	3	0	0	0	0	0	2	0	0	0	1
7:00	0	0	0	0	0	0	0	0	0	0	0	9
8:00	0	4	0	0	2	0	0	0	0	0	0	10
9:00	0	1	0	0	1	0	0	0	0	0	0	4
10:00	0	6	0	0	2	0	0	2	0	0	0	1
11:00	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**17**
12:00	0	2	0	0	6	0	0	2	0	0	0	12
13:00	0	4	0	0	3	0	0	1	0	0	1	14
14:00	0	1	0	0	7	0	0	0	0	0	1	8
15:00	0	4	0	0	4	0	0	2	0	0	0	8
16:00	**0**	**3**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**21**
17:00	0	2	0	0	5	0	0	2	0	0	0	13
18:00	0	2	0	0	3	0	0	0	0	0	0	16
Total	**0**	**33**	**0**	**0**	**39**	**0**	**0**	**12**	**0**	**0**	**2**	**134**
AM Peak	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**17**
PM Peak	**0**	**3**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**21**

Station ID: S1998210001 **County:** Washington **Comments:** LOS AM: A (0.42); PM: A (0.62)

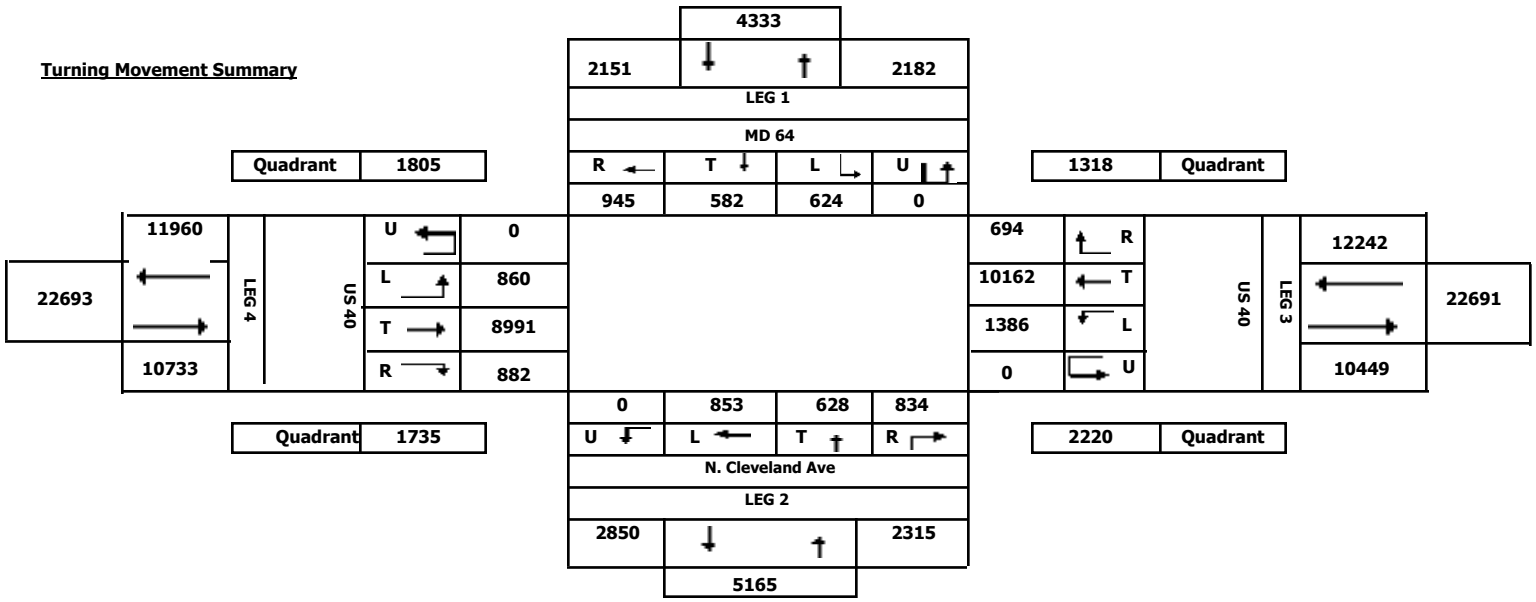
Date: Thursday 01/22/2015 **Town:** none

Location: US 40 at MD 64/N. Cleveland Ave **Weather:** Cold

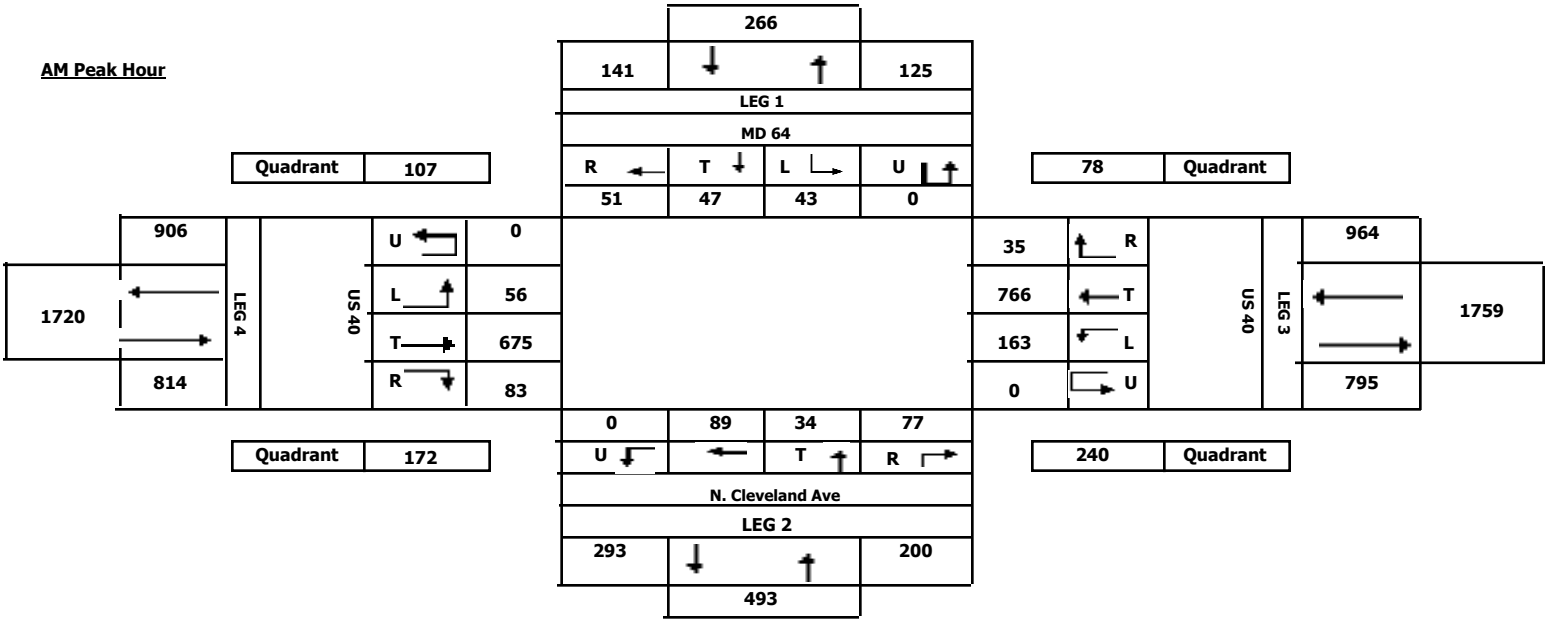
Interval (dd): 60 min

PEAK HOURS	AM PERIOD 6:00AM-12:00PM	Begin	End	Volume	PM PERIOD 12:00PM-19:00PM	Begin	End	Volume
		11:00	12:00	2119		16:00	17:00	2907

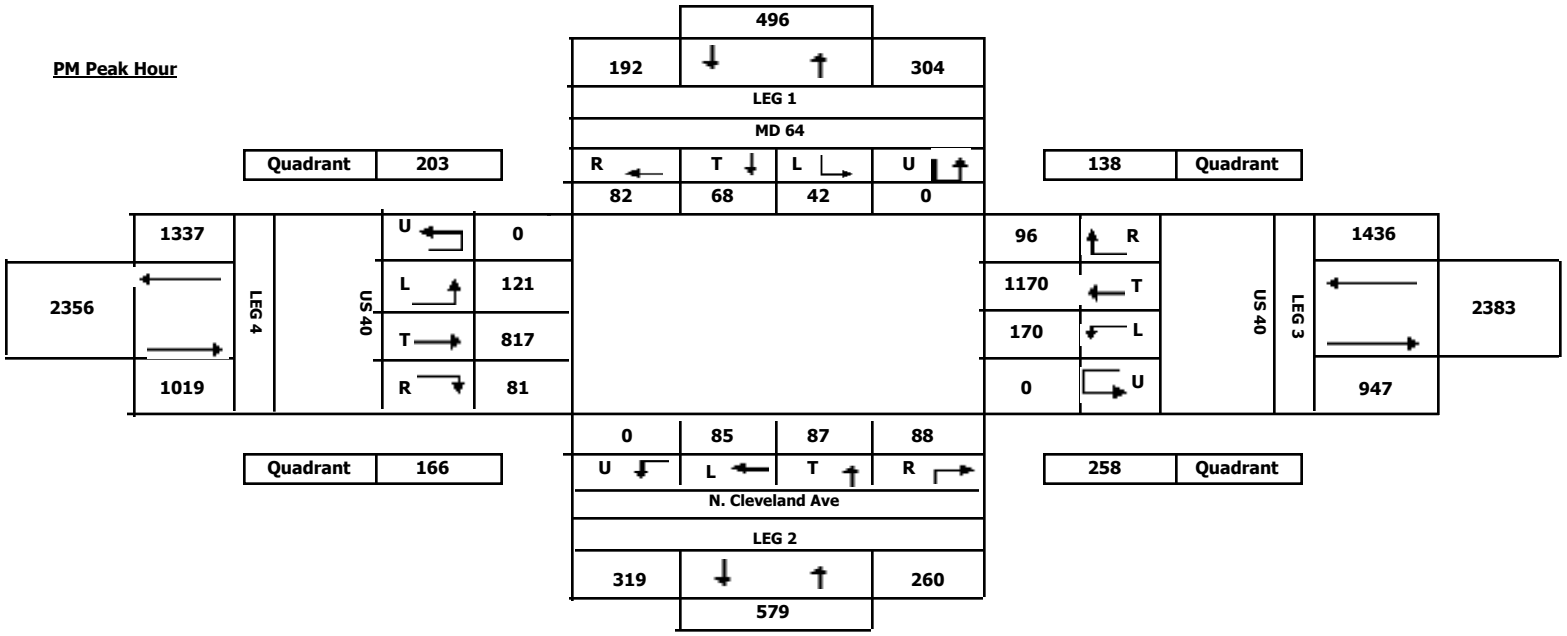
Turning Movement Summary



AM Peak Hour



PM Peak Hour



Appendix C:
Additional Study Pedestrian Counts

Date Wednesday, April 29, 2015
Location US 40 at Cleveland Ave
Weather Good

Time	West Side of US 40						East Side of US 40						North Side of Cleveland Ave						South Side of Cleveland Ave					
	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total
	N	S		N	S		N	S		N	S		E	W		E	W		E	W		E	W	
7:00	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	0	0	0	0	0	0	0	0	0	1	1	2	0	1	1	0	0	0	1	0	1	1	0	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	0	1	5	1	6
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	2
17:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	3	3
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	1
17:45	0	0	0	0	1	1	2	0	2	0	0	0	0	1	1	0	0	0	0	0	0	1	1	2
TOTAL	0	0	0	0	1	1	2	0	2	0	0	0	2	4	6	0	0	0	0	0	0	2	6	8

Date Wednesday, April 29, 2015
Location US 40 at Manor Dr
Weather Good

Time	West Side of US 40						East Side of US 40						North Side of Manor Dr						South Side of Manor Dr					
	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total
	N	S		N	S		N	S		N	S		E	W		E	W		E	W		E	W	
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	1	1	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0
8:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	1	0	1	2	1	3	0	1	1	2	0	2	0	0	0
12:00	1	1	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
12:15	0	1	1	1	0	1	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0
12:30	0	0	0	1	0	1	0	0	0	2	0	2	0	2	2	0	0	0	1	0	1	0	0	0
12:45	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
TOTAL	1	2	3	2	0	2	1	1	2	2	0	2	3	3	6	0	0	0	2	0	2	0	0	0
16:00	0	0	0	0	0	0	0	0	0	1	0	1	0	4	4	0	0	0	2	0	2	0	0	0
16:15	1	3	4	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	4	0	4	0	0	0
16:30	1	0	1	0	1	1	0	0	0	0	0	0	2	1	3	0	0	0	0	3	3	0	0	0
16:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2	3	5	0	1	1	0	0	0	3	0	3	2	5	7	0	0	0	6	3	9	0	0	0

Date Friday, May 1, 2015
Location US 40 at Eastern Blvd
Weather Good

Time	West Side of US 40						East Side of US 40						Eastern Blvd N						Eastern Blvd S					
	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total
	N	S		N	S		N	S		N	S		E	W		E	W		E	W		E	W	
8:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0
TOTAL	0	1	1	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
12:30	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0
12:45	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0
TOTAL	2	0	2	0	2	2	0	0	0	0	0	0	0	1	1	0	1	1	5	2	7	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	1	1	0	0	0
17:15	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
17:45	0	0	0	0	1	1	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
TOTAL	1	0	1	0	2	2	0	0	0	0	2	2	0	2	2	0	0	0	0	2	2	0	0	0

Date Thursday, June 4, 2015
Location US 40 at Mt. Aetna Rd
Weather Light rain in AM, then cloudy and cool

Time	West Side of US 40						East Side of US 40						North Side of Mt Aetna Rd						South Side of Mt Aetna Rd					
	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total
	N	S		N	S		N	S		N	S		E	W		E	W		E	W		E	W	
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	2	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	2	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date Friday, May 1, 2015
Location US 40 at Edgewood Dr
Weather Good

Time	West Side of US 40						East Side of US 40						N Edgewood Dr						S Edgewood Dr					
	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total
	N	S		N	S		N	S		N	S		E	W		E	W		E	W		E	W	
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	2	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	1	1	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	1	1	2	0	0	0	2	0	2	0	1	1	1	0	1	0	0	0	0	1	1	1	0	1

Date Thursday, June 4, 2015
Location US 40 at Redwood Circle
Weather Light rain in AM, then cloudy and cool

Time	West Side of US 40						East Side of US 40						North Side of Redwood Cir						South Side of Redwood Cir					
	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total	Going		Total	Midblock		Total
	N	S		N	S		N	S		N	S		E	W		E	W		E	W		E	W	
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	6	6	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0
15:30	0	1	1	0	2	2	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	1	0	2	2	0	1	1	0	0	0	1	0	1	0	0	0	2	0	2	0	0	0

Appendix D:
SHA Signal Timing Data

HAGERSTOWN "Green" System (Washington @ Potomac) - US.40 E/B(Washington) & Cannon

Configuration Phase Sequence

Controller Sequence (MM)1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B	B										
Sequence 1																
Ring 1	1	9	2	3	4	11	.	.	.	.	.	.	.	.	.	.
Ring 2	5	10	6	7	8	12	.	.	.	.	.	.	.	.	.	.

Phases In Use / Exclusive PED (MM)1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases in Use		X	X	X				X								
Exclusive PED																

Phase Compatibility (MM)1-1-2

Phase	Compatible Phase
n/a	Barrier Mode

Overlap Direction Descriptions

Overlap	Description

Administration (MM)1-7-1

Enable CU/Cabinet Interlock CRC	No
Request Download Controller Data	No
Controller Database CRC	0000
Enable Automatic Backup to Datakey	Yes

Backup Prevent (MM)1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing /	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Backup	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM)1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
With	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MMU Channel) (MM)1-3

	Phase / Overlap	Type	Dimming				Power Up				Auto		Flash Together
			Red	Yellow	Green	Dark	Auto	Red	Yellow	Dark	Red	Yellow	
1	1	O				+	X				X		
2	2	O				+	X				X		
3	3	O				+	X				X		
4	4	O				+	X				X		
5	5	O				+	X				X		
6	6	O				+	X				X		
7	7	O				+	X				X		
8	8	O				+	X				X		
9	9	O				+	X				X		
10	10	O				+	X				X		
11	2	P				+	X				X		
12	6	P				+	X				X		
13	13	O				+	X				X		
14	14	O				+	X				X		
15	15	O				+	X				X		
16	16	O				+	X				X		

HAGERSTOWN "Green" System (Washington @ Potomac) - US.40 E/B(Washington) & Cannon

Controller Timing Plan (MM)2-1
Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction		EB	SBLT	SB				NB								
Min Green	0	15	3	10	0	0	0	10	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	0	7	0	7	0	7	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	0.0	5.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	0	40	10	25	0	0	0	25	0	0	0	0	35	35	35	35
Max 2	0	80	10	45	0	0	0	45	0	0	0	0	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	3.0	3.0	4.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	2.0	1.0	1.0	1.0	2.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HAGERSTOWN "Green" System (Washington @ Potomac) - US.40 E/B(Washington) & Cannon

Controller Options

Controller Options (MM)2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Green Phase																
Guaranteed Passage																
Non Act 1		X														
Non Act 2																
Dual Entry				X				X								
Conditional Service																
Conditional Reservice																
Ped Reservice																
Rest In Walk																
Flashing Walk																
Ped Clear Yellow																
Ped Clear Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Red Revert: 2.0

Act Pre-Time (MM)2-7

Pre-Time Mode Enable: No Free Input Enables Pre-Timed: Yes

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed Phase																

Phase Recall Options (MM)2-8

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall																
Ped Recall																
Max Recall		X		X				X								
Soft Recall																
No Rest																
AI Calc																

HAGERSTOWN "Green" System (Washington @ Potomac) - US.40 E/B(Washington) & Cannon

Coordination Pattern Data
Pattern Data (MM)3-2

Pattern - 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits in	Percent
Cycle	70	Std (COS)	111	Offsets in	Percent
Offset Value	50%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (Split Pat 1)	0	56	0	44	0	0	0	44	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	44%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits in	Percent
Cycle	70	Std (COS)	122	Offsets in	Percent
Offset Value	43%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (Split Pat 2)	0	56	0	44	0	0	0	44	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	44%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits in	Percent
Cycle	90	Std (COS)	211	Offsets in	Percent
Offset Value	4%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (Split Pat 3)	0	60	0	40	0	0	0	40	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	40%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits in	Percent
Cycle	90	Std (COS)	222	Offsets in	Percent
Offset Value	86%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (Split Pat 4)	0	60	0	40	0	0	0	40	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	40%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 5

Split Pattern	5	TS2 (Pat-Off)	1-2	Splits in	Percent
Cycle	90	Std (COS)	233	Offsets in	Percent
Offset Value	8%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (Split Pat 5)	0	59	0	41	0	0	0	41	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	41%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 6

Split Pattern	6	TS2 (Pat-Off)	1-3	Splits in	Percent
Cycle	120	Std (COS)	311	Offsets in	Percent
Offset Value	50%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (Split Pat 6)	0	62	0	38	0	0	0	38	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	38%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 7

Split Pattern	7	TS2 (Pat-Off)	2-1	Splits in	Percent
Cycle	120	Std (COS)	333	Offsets in	Percent
Offset Value	58%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (Split Pat 7)	0	66	0	34	0	0	0	34	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	34%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

HAGERSTOWN "Green" System (Washington @ Potomac) - US.40 E/B(Washington) & Cannon

Coordination Split Pattern Data

Split Pattern Data (MM)3-3

Split Pattern - 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (percent)	0	56	0	44	0	0	0	44	0	0	0	0	0	0	0	0
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	44%	0%	0%

Split Pattern - 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (percent)	0	56	0	44	0	0	0	44	0	0	0	0	0	0	0	0
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	44%	0%	0%

Split Pattern - 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (percent)	0	60	0	40	0	0	0	40	0	0	0	0	0	0	0	0
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	40%	0%	0%

Split Pattern - 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (percent)	0	60	0	40	0	0	0	40	0	0	0	0	0	0	0	0
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	40%	0%	0%

Split Pattern - 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								

Splits (percent)	0	59	0	41	0	0	0	41	0	0	0	0	0	0	0	0
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	41%	0%	0%

Split Pattern - 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (percent)	0	62	0	38	0	0	0	38	0	0	0	0	0	0	0	0
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	38%	0%	0%

Split Pattern - 7

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		EB	SBLT	SB				NB								
Splits (percent)	0	66	0	34	0	0	0	34	0	0	0	0	0	0	0	0
Coordinated Phases		X														
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	34%	0%	0%

HAGERSTOWN "Green" System (Washington @ Potomac) - US.40 E/B(Washington) & Cannon

Preemptor

Preempt Plan (MM)4-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Track Clear Vehicle																
Track Clear Overlap																
Enable Trailing																
Dwell Vehicle		X														
Dwell Ped																
Dwell Overlap		X														
Cycling Vehicle																
Cycling Ped																
Cycling Overlap																
Exit Phase																
Exit Calls																
Special Funciton																

Enable	Yes	Preempt Override	No	Interlock Enable	No
Detector Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	0	CLR > GRN	No
Term Overlap Asap	No	PC Through Yellow	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	Flash Exit Color	Green	Exit Option	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Preempt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	8	4.0	2.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	8	0.0	0	4.0	2.0

Preempt Active Out	On	Preempt Active Dwell	No
Other Priority Preempt	On	Non-Priority Preempt	No
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return % Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Track Clear Vehicle																
Track Clear Overlap																
Enable Trailing																
Dwell Vehicle				X												
Dwell Ped																
Dwell Overlap				X												
Cycling Vehicle																
Cycling Ped																
Cycling Overlap																
Exit Phase		X														
Exit Calls																
Special Funciton																

Enable	Yes	Preempt Override	No	Interlock Enable	No
Detector Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	0	CLR > GRN	No
Term Overlap Asap	No	PC Through Yellow	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	Flash Exit Color	Green	Exit Option	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Preempt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	8	4.0	2.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	8	0.0	0	4.0	2.0

Preempt Active Out	On	Preempt Active Dwell	No
Other Priority Preempt	On	Non-Priority Preempt	No
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return % Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Track Clear Vehicle																
Track Clear Overlap																
Enable Trailing																
Dwell Vehicle			X					X								
Dwell Ped																
Dwell Overlap			X					X								
Cycling Vehicle																
Cycling Ped																
Cycling Overlap																
Exit Phase		X														
Exit Calls																
Special Funciton																

Enable	Yes	Preempt Override	No	Interlock Enable	No
Detector Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	0	CLR > GRN	No
Term Overlap Asap	No	PC Through Yellow	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	Flash Exit Color	Green	Exit Option	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Preempt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	8	4.0	2.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	8	0.0	0	4.0	2.0

Preempt Active Out	On	Preempt Active Dwell	No
Other Priority Preempt	On	Non-Priority Preempt	No
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return % Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Configuration

Controller Sequence Priority

	1	2	3	4	5	6	7	8	9	10	11	12
Ring 1 Phases . .	2	1	3	4	9	10	0	0	0	0	0	0
Ring 2 Phases . .	6	5	7	8	11	12	0	0	0	0	0	0

Phase

	1	2	3	4	5	6	7	8	9	10	11	12
In Use.	X	X	X	X	.	.	X	X	.	.	.	.
Exclusive Ped . .	.	.	.	.	.	.	.	.	.	.	.	.
Direction	WB	WB	PMPT	SB			PMPT	NB				

Overlap

	A	B	C	D
Direction . . .				

Load Switch Channel/Driver Group Assign (Info Only):

Load Switch (MMU) Channel	Signal Driver Phase/ Ovlap	Group Ped
1	1	.
2	2	.
3	3	.
4	4	.
5	0	.
6	0	.
7	7	.
8	8	.
9	0	.
10	0	.
11	0	.
12	0	.
13	0	.
14	0	.
15	0	.
16	0	.

Configuration Continued

	Enable BIU: 1	2	3	4	5	6	7	8
Terminal/Facilities.								
Detector Rack.								

Type 2 Runs as Type 1. . .	
MMU Disable.	
Diagnostic Enable.	
Peer-Peer Comm Enable. . .	

	1	2	3	4	5	6	7	8	9	10
Peer To Peer Addresses . .	255	255	255	255	255	255	255	255	255	255

Port 2:

Port 2 Protocol	Terminal
Port 2 Enable	NO
AB3418 Address.	0
AB3418 Group Address.	0
AB3418 Response Delay	0
AB3418 Single Flag Enable . . .	NO
AB3418 Drop-Out Time.	0
AB3418 TOD SF Select.	0
Data Rate	1200 bps
Data, Parity, Stop.	8, 0, 1

Port 3:

Port 3 Protocol	Telemetry
Port 3 Enable	YES
Telemetry Address	8
System Detector 9-16 Address. .	0
Telemetry Response Delay. . . .	8000
AB3418 Address.	0
AB3418 Group Address.	0
AB3418 Response Delay	0
AB3418 Single Flag Enable . . .	NO
AB3418 Drop-Out Time.	0
AB3418 TOD SF Select.	0
Duplex.	Full
Data Rate	1200 bps
Data, Parity, Stop.	8, 0, 1

Configuration Continued

Event Enabling		Alarm Enabling
Critical RFE'S (MMU/TF)		ALARM 1
Non-Critical RFE'S (DET/TEST)		ALARM 2
Detector Errors		ALARM 3
Coordination Errors		ALARM 4
MMU Flash Faults	X	ALARM 5
Local Flash Faults	X	ALARM 6
Preempt		ALARM 7
Power On/Off	X	ALARM 8
Low Battery	X	ALARM 9
		ALARM 10
		ALARM 11
		ALARM 12
		ALARM 13
		ALARM 14
		ALARM 15
		ALARM 16

Supervisor Access Code . . . ****
Data Change Access Code . . ****

MMU Compatibility Program (Info Only)

Channel Is Allowed to Time With Channel

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
3	.	.	.	.	.	.	.	.	.	.	.	.	.		
4	.	.	.	.	.	.	.	.	.	.	.	.			
5	.	.	.	.	.	.	.	.	.	.	.				
6	.	.	.	.	.	.	.	.	.	.					
7	.	.	.	.	.	.	.	.	.						
8	.	.	.	.	.	.	.	.							
9	.	.	.	.	.	.	.								
10	.	.	.	.	.	.									
11	.	.	.	.	.										
12	.	.	.	.											
13	.	.	.												
14	.	.													
15	.														

Version Info:

Software Assy.	Part No.	Version
Boot	27831	2.83
Program	45561	7.9
Application		. 3
Help	27891	6.33
Configuration	27918	C189

By-Phase Timing Data

	Phase											
	1	2	3	4	5	6	7	8	9	10	11	12
Direction	WB	WB	PMPT	SB			PMPT	NB				
Minimum Green	5	15	5	5	0	0	5	5	5	5	5	5
Bike Min Green	0	0	0	0	0	0	0	0	0	0	0	0
Cond Serv Min Grn	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10
Ped Clearance	7	16	0	7	0	7	0	16	0	16	0	16
Veh Extension	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	5.0	5.0
Alt Veh Exten	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Extension	0	0	0	0	0	0	0	0	0	0	0	0
Max 1	15	40	10	25	0	0	10	25	35	35	35	35
Max 2	25	60	10	45	0	0	10	45	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0
Det. Fail Max	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	4.0	4.0	4.0	4.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0	3.0
Red Clearance	1.0	2.0	2.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act. B4 Init	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Actuation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	30	30	30	30	30	30	30	30	30	30	30	30
Time B4 Reduction	0	0	0	0	0	0	0	0	0	0	0	0
Cars Waiting	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Recall Data, Dimming

	Phase											
	1	2	3	4	5	6	7	8	9	10	11	12
Locking Detector. . . .	.	.	.	.	.	.	.	.	.	.	.	.
Vehicle Recall.	X	X	.	X	.	.	.	X	.	.	.	.
Pedestrian Recall . . .	.	.	.	.	.	.	.	.	.	.	.	.
Recall To Max	X	X	.	X	.	.	.	X	.	.	.	.
Soft Recall	.	.	.	.	.	.	.	.	.	.	.	.
Don't Rest Here	.	.	.	.	.	.	.	.	.	.	.	.
Ped Dark if No Call . .	.	.	.	.	.	.	.	.	.	.	.	.

Dimming:

	Load Switch															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green/Walk. . . .	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Yellow/Ped Clear.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Red/Don't Walk. .	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Coordination Patterns

Pattern 1
Cycle Length . . 70 COS 111
Offset 0
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 19 2- 46 3- 0 4- 35
Phase 5- 0 6- 0 7- 0 8- 35
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .	X	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Omit	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Pattern 2
Cycle Length . . 70 COS 122
Offset 93
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 19 2- 46 3- 0 4- 35
Phase 5- 0 6- 0 7- 0 8- 35
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .	X	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Omit	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Pattern 3
Cycle Length . . 90 COS 211
Offset 96
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 18 2- 46 3- 0 4- 36
Phase 5- 0 6- 0 7- 0 8- 36
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .	X	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Omit	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Coordination Patterns

Pattern 4
Cycle Length . . 90 COS 222
Offset 0
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 17 2- 50 3- 0 4- 33
Phase 5- 0 6- 0 7- 0 8- 33
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .	X	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Omit	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Pattern 5
Cycle Length . . 90 COS 233
Offset 0
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 17 2- 50 3- 0 4- 33
Phase 5- 0 6- 0 7- 0 8- 33
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .	X	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Omit	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Pattern 6
Cycle Length . . 120 COS 311
Offset 0
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 19 2- 52 3- 0 4- 29
Phase 5- 0 6- 0 7- 0 8- 29
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .	X	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Omit	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Coordination Patterns

Pattern 7
Cycle Length . . 120 COS 333
Offset 34
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 14 2- 49 3- 0 4- 37
Phase 5- 0 6- 0 7- 0 8- 37
Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0

Phase Number:	1	2	3	4	5	6	7	8	9	10	11	12
Coord Phases . . .		X	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall . .	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Omit	.	.	.	.	.	.	.	.	.	.	.	.

Alt Sequence . . A: . B: . C: . D: . E: . F: .

Preemptors

Preemptor 1

Active	X	Det Lock	X	Ped Dark	
Priority Preemption		Yel-Red To Grn		Ped Active	
Outputs Only During Hold		Flash All Outputs		Zero Ped Clr Time	
Terminate Overlap ASAP		Terminate Phases		Ped Clr Thru Yel	
Don't Override Flash		Duration Time	0		
Flash During Hold		Delay Time	0		
No CVM in Flash		Inhibit Time	0		
Fast Flash Grn on Hold Phase		Min Ped Clear	0		
Enable Max Time		Max Time	0		
		Exit Max	0		
		Min Hold Time	10		
		Hold Delay Time	0		

	Green	Yellow	Red
Minimum	5	0.0	0.0
Track Clear	0	0.0	0.0
Hold		0.0	0.0

Phase/Overlap	1	2	3	4	5	6	7	8	9	10	11	12/	A	B	C	D
Terminate Overlap																
Track Clearance Phase																
Hold Phases		X														
Exit Phases	X															
Exit Calls on Phase																

Out of Flash Color for Exit Phases . . . . Green

Preemptor 2

Active	X	Det Lock	X	Ped Dark	
Priority Preemption		Yel-Red To Grn		Ped Active	
Outputs Only During Hold		Flash All Outputs		Zero Ped Clr Time	
Terminate Overlap ASAP		Terminate Phases		Ped Clr Thru Yel	
Don't Override Flash		Duration Time	0		
Flash During Hold		Delay Time	0		
No CVM in Flash		Inhibit Time	0		
Fast Flash Grn on Hold Phase		Min Ped Clear	5		
Enable Max Time		Max Time	0		
		Exit Max	0		
		Min Hold Time	10		
		Hold Delay Time	0		

	Green	Yellow	Red
Minimum	0	0.0	0.0
Track Clear	0	0.0	0.0
Hold		0.0	0.0

Phase/Overlap	1	2	3	4	5	6	7	8	9	10	11	12/	A	B	C	D
Terminate Overlap																
Track Clearance Phase																
Hold Phases	X															
Exit Phases				X				X								
Exit Calls on Phase																

Out of Flash Color for Exit Phases . . . . Green
Linked Preemptor 0

Preemptors

Preemptor 3

Active	X	Det Lock	X	Ped Dark	
Priority Preemption		Yel-Red To Grn		Ped Active	
Outputs Only During Hold		Flash All Outputs		Zero Ped Clr Time	
Terminate Overlap ASAP		Terminate Phases		Ped Clr Thru Yel	
Don't Override Flash		Duration Time	0		
Flash During Hold		Delay Time	0		
No CVM in Flash		Inhibit Time	0		
Fast Flash Grn on Hold Phase		Min Ped Clear	0		
Enable Max Time		Max Time	0		
		Exit Max	0		
		Min Hold Time	10		
		Hold Delay Time	0		

	Green	Yellow	Red
Minimum	5	0.0	0.0
Track Clear	0	0.0	0.0
Hold		0.0	0.0

Phase/Overlap	1	2	3	4	5	6	7	8	9	10	11	12/	A	B	C	D
Terminate Overlap																
Track Clearance Phase																
Hold Phases			X					X								
Exit Phases		X														
Exit Calls on Phase																

Out of Flash Color for Exit Phases . . . . Green

Linked Preemptor 0

Preemptor 4

Active	X	Det Lock	X	Ped Dark	
Priority Preemption		Yel-Red To Grn		Ped Active	
Outputs Only During Hold		Flash All Outputs		Zero Ped Clr Time	
Terminate Overlap ASAP		Terminate Phases		Ped Clr Thru Yel	
Don't Override Flash		Duration Time	0		
Flash During Hold		Delay Time	0		
No CVM in Flash		Inhibit Time	0		
Fast Flash Grn on Hold Phase		Min Ped Clear	0		
Enable Max Time		Max Time	0		
		Exit Max	0		
		Min Hold Time	10		
		Hold Delay Time	0		

	Green	Yellow	Red
Minimum	5	0.0	0.0
Track Clear	0	0.0	0.0
Hold		0.0	0.0

Phase/Overlap	1	2	3	4	5	6	7	8	9	10	11	12/	A	B	C	D
Terminate Overlap																
Track Clearance Phase																
Hold Phases				X			X									
Exit Phases		X														
Exit Calls on Phase																

Out of Flash Color for Exit Phases . . . . Green

Linked Preemptor 0

Preemptors

Preemptor 5

Active	Det Lock	Ped Dark
Priority Preemption	Yel-Red To Grn	Ped Active
Outputs Only During Hold	Flash All Outputs	Zero Ped Clr Time
Terminate Overlap ASAP	Terminate Phases	Ped Clr Thru Yel
Don't Override Flash	Duration Time 0	
Flash During Hold	Delay Time 0	
No CVM in Flash	Inhibit Time 0	
Fast Flash Grn on Hold Phase	Min Ped Clear 0	
Enable Max Time	Max Time 0	
	Exit Max 0	
	Min Hold Time 0	
	Hold Delay Time 0	

	Green	Yellow	Red
Minimum	0	0.0	0.0
Track Clear	0	0.0	0.0
Hold		0.0	0.0

Phase/Overlap	1	2	3	4	5	6	7	8	9	10	11	12/	A	B	C	D
Terminate Overlap																
Track Clearance Phase																
Hold Phases																
Exit Phases																
Exit Calls on Phase																

Out of Flash Color for Exit Phases . . . . Green

Linked Preemptor 0

Preemptor 6

Active	Det Lock	Ped Dark
Priority Preemption	Yel-Red To Grn	Ped Active
Outputs Only During Hold	Flash All Outputs	Zero Ped Clr Time
Terminate Overlap ASAP	Terminate Phases	Ped Clr Thru Yel
Don't Override Flash	Duration Time 0	
Flash During Hold	Delay Time 0	
No CVM in Flash	Inhibit Time 0	
Fast Flash Grn on Hold Phase	Min Ped Clear 0	
Enable Max Time	Max Time 0	
	Exit Max 0	
	Min Hold Time 0	
	Hold Delay Time 0	

	Green	Yellow	Red
Minimum	0	0.0	0.0
Track Clear	0	0.0	0.0
Hold		0.0	0.0

Phase/Overlap	1	2	3	4	5	6	7	8	9	10	11	12/	A	B	C	D
Terminate Overlap																
Track Clearance Phase																
Hold Phases																
Exit Phases																
Exit Calls on Phase																

Out of Flash Color for Exit Phases . . . . Green

Linked Preemptor 0

SIGNAL NUMBER: 21004037.05 LOCATION: US 40 @ Manor Dr. / Tracey's La.

COUNTY: Washington DEVELOPED BY: TDSD 7/03 DATE INSTALLED: 8-6-03

RDM INFORM	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
ROAD NAME:	US 40	US 40		Manor	US 40	US 40		Tracey				
DIRECTION:	E/B	W/B		S/B	W/B	E/B		N/B				
MOVEMENT:	Left	Thru		Thru	Left	Thru		Thru				
INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
MIN GREEN	5	30		8	5	30		8				
BIKE GRN												
CS GREEN												
WALK				7								
PED CLEAR				23								
VEH EXT	3.0	5.0		3.0	3.0	5.0		3.0				
VEH EXT 2												
MAX EXT												
MAX 1	20	60		25	20	60		25				
MAX II	25	100		35	25	100		35				
MAX III												
DET MAX												
YELLOW	4.0	5.0		4.0	4.0	5.0		4.0				
RED CLEAR	1.0	1.0		2.0	1.0	1.0		2.0				
RED RVT												
ACT B4												
SEC/ACT												
MAX INI												
TIME B4												
CARS WT												
TTREDUC												
MIN GAP												

CONFIGURATION SUBMENU

1. CONTROLLER SEQUENCE

PRIORITY	1	2	3	4	5	6	7	8	9	10	11	12
RING 1	1	2	3	4	9	10						
RING 2	5	6	7	8	11	12						
CG		1		1								

2. PHASES IN USE

	PHASE NUMBER											
	1	2	3	4	5	6	7	8	9	10	11	12
PHASES IN USE	X	X		X	X	X		X				
EXCLUSIVE PED												

3. PHASE TO LOAD SWITCH -MMU- ASSIGNMENT

LOAD SWITCH MMU	SIGNAL DRIVER GROUP		LOAD SWITCH MMU	SIGNAL DRIVER GROUP	
CHANNEL	PH/OLAP	PED	CHANNEL	PH/OLAP	PED
1			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

4. SDLC OPTIONS - ENABLES

	BIU NUMBER							
	1	2	3	4	5	6	7	8
TERM & FACIL								
DETECTOR	X	X						
TYPE 2 RUNS AS TYPE 1								
MMU DISABLE							X	
DIAGNOSTIC ENABLE TEST FIXTURE								
PEER TO PEER ENABLE								

PEER TO PEER ADDRESS:

1:	2:	3:	4:	5:
6:	7:	8:	9:	10:

6. Port 3

	Telemetry
Port 3 Protocol	
Port 3 Enable	YES
Telemetry Address	02
System Detector 9 - 16 Address	
Telemetry Response Delay	8000
Duplex	Full
Modem Data Rate	1200
Data, Parity, Stop	8, 0, 1

7. ENABLE EVENT LOGS

CRITICAL RFE'S DET-TEST	
NON-CRITICAL RFE'S DET-TEST.	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	X
PREEMPT	
POWER ON-OFF	X
LOW BATTERY	X
SPARE	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	

ONTROLLER SUBMENU

PHASE OVERLAP ASSIGNMENTS

	OVERLAP CONSISTS OF PHASES:											
VLP PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1	X											
2		X										
3			X									
4				X								
5					X							
6						X						
7							X					
8								X				
9									X			
10										X		
11											X	
12												X

3. PED TIMING CARRYOVER

PHASE	CARRYOVER PHASE	PHASE	CARRYOVER PHASE
1		7	
2		8	
3		9	
4		10	
5		11	
6		12	

5. PED OVERLAP ASSIGNMENTS

	OVERLAP CONSISTS OF PHASES:											
OVLP PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

5. CONTROLLER OVERLAP DATA

OVERLAP A	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												

ADVANCE GREEN TIMER	
LAG-LEAD GREEN TIMER	
LAG-LEAD YELLOW TIMER	
LAG-LEAD RED TIMER	

OVERLAP B	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												

ADVANCE GREEN TIMER	
LAG-LEAD GREEN TIMER	
LAG-LEAD YELLOW TIMER	
LAG-LEAD RED TIMER	

OVERLAP C	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												

ADVANCE GREEN TIMER	
LAG-LEAD GREEN TIMER	
LAG-LEAD YELLOW TIMER	
LAG-LEAD RED TIMER	

OVERLAP D	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												

ADVANCE GREEN TIMER	
LAG-LEAD GREEN TIMER	
LAG-LEAD YELLOW TIMER	
LAG-LEAD RED TIMER	

4. CONTROLLER RECALL DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCKING MEMORY				X				X				
VEHICLE RECALL		X				X						
PED RECALL												
RECALL TO MAX				X								
SOFT RECALL												
DON'T REST HERE												
PED DARK N/CALL												

DELAYS:

12-27-07

PHASE 4 BAD 6'x30' PRESENCE LOOP DETECTOR
LEFT LANE MANOR DRIVE S/B

* RECALLED Φ4 MAX 1 TO 15/MAX 2 TO 25

Randy Plunkard
12-27-07

Φ4 camera LL = Det #20 RL Det #28 9-5-08 Jeff McVay

6. CONTROLLER START/FLASH DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
POWER START		X				X						
EXTERNAL START		X				X						
ENTRY REM FLASH		X				X						
EXIT REM FLASH		X				X						
REM FLASH YELLOW												
FL TOGETHER PHS		X		X		X		X				
FL TOGETHER OVLPS	A1			B1			C1			D1		
POWER START	Green											
EXTERNAL START	Green											
POWER START ALL RED TIME	0											
POWER START FLASH TIME	8 Seconds											

REMOTE FLASH OPTIONS	
OUT OF FLASH YELLOW	
OUT OF FLASH ALL RED	
MINIMUM RECALL	
USE ALTERNATE FLASH	
FLASH THRU LOAD SWITCHES	

7. NO SERVE PHASES

	CANNOT SERVE WITH :										
PHASE	12	11	10	9	8	7	6	5	4	3	2
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											

8. DIMMING

LOAD SWITCH	1	2	3	4	5	6	7	8
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								
LOAD SWITCH	9	10	11	12	13	14	15	16
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								

9. CONTROLLER OPTION DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
GUAR PASSAGE												
NONACTUATED I		X				X						
NONACTUATED II												
DUAL ENTRY		X		X		X		X				
COND SERVICE												
COND RESERVICE												
ACT REST IN WALK												
FLASHING WALK												

FIVE SECTION LEFT TURN HEADS

5-2	7-4	1-6	
3-8	11-10	9-12	

DUAL ENTRY	On	RESERVED	
COND SERVICE ENABLE		BACKUP PROTECTION GRP 1	On
COND SERVICE DET X SWITCHING		BACKUP PROTECTION GRP 2	
PED CLR PROTECT		BACKUP PROTECTION GRP 3	
SPEC PREEMPT OVLP FLASH		SIMULTANEOUS GAP GRP 1	On
LOCK DETECTORS IN RED ONLY	X	SIMULTANEOUS GAP GRP 2	On

PREEMPTOR SUBMENU

PRIORITY PREEMPTOR 1

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												

TERM OVLP	A:	B:	C:	D:
ACTIVE			PED DARK	
PRIORITY			PED ACTIVE	
DET LOCK			ZERO PC TIME	
HOLD FLASH			PC THRU YELLOW	
TERM OVLP ASAP			TERM PHASES	
DON'T OVERRIDE FLASH			ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS			NO CVM IN FLASH	
YELLOW-RED GOES GREEN			FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME			OUT OF FLASH	

MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			

PRIORITY PREEMPTOR 2

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												

TERM OVLP	A:	B:	C:	D:
ACTIVE			PED DARK	
PRIORITY			PED ACTIVE	
DET LOCK			ZERO PC TIME	
HOLD FLASH			PC THRU YELLOW	
TERM OVLP ASAP			TERM PHASES	
DON'T OVERRIDE FLASH			ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS			NO CVM IN FLASH	
YELLOW-RED GOES GREEN			FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME			OUT OF FLASH	

MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			

PRIORITY PREEMPTOR 3

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												

TERM OVLP	A:	B:	C:	D:
ACTIVE			PED DARK	
PRIORITY			PED ACTIVE	
DET LOCK			ZERO PC TIME	
HOLD FLASH			PC THRU YELLOW	
TERM OVLP ASAP			TERM PHASES	
DON'T OVERRIDE FLASH			ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS			NO CVM IN FLASH	
YELLOW-RED GOES GREEN			FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME			OUT OF FLASH	

MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			

PRIORITY PREEMPTOR 4

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												

TERM OVLP	A:	B:	C:	D:
ACTIVE			PED DARK	
PRIORITY			PED ACTIVE	
DET LOCK			ZERO PC TIME	
HOLD FLASH			PC THRU YELLOW	
TERM OVLP ASAP			TERM PHASES	
DON'T OVERRIDE FLASH			ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS			NO CVM IN FLASH	
YELLOW-RED GOES GREEN			FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME			OUT OF FLASH	

MAX TIME		DURATION TIME	
MIN HOLD TIME		DELAY TIME	
MIN PED CLEAR		INHIBIT TIME	
EXIT MAX		HLD DELAY TIME	

	GREEN	YELLOW	RED
MINIMUM			
TRACK CLEAR			
HOLD			

COORDINATOR SUBMENU

COORDINATOR OPTIONS

SPLIT UNITS	%	ACT CRD PHASE				
OFFSET UNITS	%	ACT WALK/REST				
INTERCNT FMT	Std	INHIBIT MAX				
INTERCNT SRC	TIM	MAX2 SELECT	X			
RESYNC COUNT	5	MULTISYNC				
TRANSITION	Smooth	FLOAT FORCE OFF				
DWELL PERIOD	0					
FREE ALTERNATE SEQUENCE	A	B	C	D	E	F

COORD MANUAL AND SPLIT DEMAND

MANUAL ENABLE				MANUAL PATTERN								
SPLIT DEMAND				DEMAND 1				DEMAND 2				
DEMAND CALL TIME												
DEMAND CYCLE COUNT												
DEMAND PHASE	1	2	3	4	5	6	7	8	9	10	11	12
DEMAND 1 PHASE												
DEMAND 2 PHASE												

COORD AUTO PERM MIN GREEN

PHASE	AUTO PERM MIN GRN	PHASE	AUTO PERM MIN GRN
1		7	
2		8	
3		9	
4		10	
5		11	
6		12	

STD FORMAT

COORD PATTERN	1	OFFSET	3
CYCLE LENGTH	120	C/O/S	1-1-1

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:

PHASE 1:	21	2:	49	3:		4:	30					
PHASE 5:	21	6:	49	7:		8:	30					
PHASE 9:		10:		11:		12:						
VEH PERMISSIVE				1:		2:						
VEH PERM 2DISP												
PHASE RESERVICE												
SPLIT EXTENSION/RING				1:		2:						
SPL DMD PATTERN				1:		2:						
XARTERY PATTERN												
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	2	OFFSET	5
CYCLE LENGTH	120	C/O/S	1-2-2

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:

PHASE 1:	20	2:	50	3:		4:	30					
PHASE 5:	20	6:	50	7:		8:	30					
PHASE 9:		10:		11:		12:						
VEH PERMISSIVE				1:		2:						
VEH PERM 2DISP												
PHASE RESERVICE												
SPLIT EXTENSION/RING				1:		2:						
SPL DMD PATTERN				1:		2:						
XARTERY PATTERN												
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	3	OFFSET	0
CYCLE LENGTH	135	C/O/S	2-1-1

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:

PHASE 1:	19	2:	54	3:		4:	27					
PHASE 5:	19	6:	54	7:		8:	27					
PHASE 9:		10:		11:		12:						
VEH PERMISSIVE				1:		2:						
VEH PERM 2DISP												
PHASE RESERVICE												
SPLIT EXTENSION/RING				1:		2:						
SPL DMD PATTERN				1:		2:						
XARTERY PATTERN												
PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	4	OFFSET	78
CYCLE LENGTH	135	C/O/S	2-3-3

PLAN FORMAT 4

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:					
PHASE 1:	16	2: 59	3:	4: 25	
PHASE 5:	16	6: 59	7:	8: 25	
PHASE 9:		10:	11:	12:	
VEH PERMISSIVE			1:	2:	
VEH PERM 2DISP					
PHASE RESERVE					
SPLIT EXTENSION/RING			1:	2:	
SPL DMD PATTERN			1:	2:	
XARTERY PATTERN					

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	6	OFFSET	4
CYCLE LENGTH	150	C/O/S	3-3-3

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:					
PHASE 1:	20	2: 56	3:	4: 24	
PHASE 5:	20	6: 56	7:	8: 24	
PHASE 9:		10:	11:	12:	
VEH PERMISSIVE			1:	2:	
VEH PERM 2DISP					
PHASE RESERVE					
SPLIT EXTENSION/RING			1:	2:	
SPL DMD PATTERN			1:	2:	
XARTERY PATTERN					

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	5	OFFSET	4
CYCLE LENGTH	150	C/O/S	3-3-3

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:					
PHASE 1:	20	2: 56	3:	4: 24	
PHASE 5:	20	6: 56	7:	8: 24	
PHASE 9:		10:	11:	12:	
VEH PERMISSIVE			1:	2:	
VEH PERM 2DISP					
PHASE RESERVE					
SPLIT EXTENSION/RING			1:	2:	
SPL DMD PATTERN			1:	2:	
XARTERY PATTERN					

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		C/O/S	

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:					
PHASE 1:		2:	3:	4:	
PHASE 5:		6:	7:	8:	
PHASE 9:		10:	11:	12:	
VEH PERMISSIVE			1:	2:	
VEH PERM 2DISP					
PHASE RESERVE					
SPLIT EXTENSION/RING			1:	2:	
SPL DMD PATTERN			1:	2:	
XARTERY PATTERN					

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

IC/TOD SUBMENU

TE SET)	
E SET)	
NUAL NIC PROGRAM STEP	
NUAL TOD PROGRAM STEP	
NC REFERENCE TIME	03:15
NC REFERENCE	REFERENCE TIME
EK 1 BEGINS ON 1st SUNDAY	
SABLE DAYLIGHT SAVINGS	
ST BEGINS LAST SUNDAY	

. NIC/TOD WEEKLY PROGRAMS

EK	SUN	MON	TUE	WED	THU	FRI	SAT
1	1	2	2	2	2	2	1
2							
3							
4							
5							
6							
7							
8							
9							
10							

3. NIC/TOD YEARLY PROGRAMS

WEEK OF YEAR	1	2	3	4	5	6	7	8
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	9	10	11	12	13	14	15	16
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	17	18	19	20	21	22	23	24
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	25	26	27	28	29	30	31	32
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	33	34	35	36	37	38	39	40
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	41	42	43	44	45	46	47	48
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR				49	50	51	52	53
WEEKLY PROGRAM				1	1	1	1	1

4. NIC/TOD HOLIDAY PROGRAM

HOLIDAY	FLOAT/FIXED	MON/MON	DOW/DOM	WOM/YEAR	PROG
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

5. NIC PROGRAM STEP

STEP	PGM	TIME	PATTERN	OVERRIDE
1	1	0000	0	
2	2	0000	0	
3	2	0630	2	
4	2	0830	0	
5	2	1530	4	
6	2	1830	0	
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

TOD PROGRAM STEPS

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												

ETECTOR SUBMENU

DETECTOR TYPE/TIMERS

ET	TYPE	LOCK	EXTEND	DELAY	NO RESET	LOG ENABLE
1						
2						
3						
4						
5	1			8		
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28	1			8		
29						
30						
31						
32						

2. DETECTOR PHASE ASSIGNMENT

	PHASE ASSIGNMENT											
DETECTOR	1	2	3	4	5	6	7	8	9	10	11	12
1		X										
2		X										
3						X						
4						X						
5												
6												
7												
8												
9	X											
10					X							
11												
12												
13												
14												
15												
16												
17												
18												
19												
20				X								
21												
22												
23												
24								X				
25												
26												
27												
28				X								
29												
30												
31												
32												

3. PED AND SYSTEM DETECTOR LOCAL ASSIGNMENT

SYSTEM DETECTOR LOG INTERVAL							
LOCAL	PHASE PED DETECTOR						
PED DET		1	2	3	4	5	6
NUMBER							
		7	8	9	10	11	12
NUMBER							

LOCAL	LOCAL SYSTEM DET NUMBER							
DETECTOR	1	2	3	4	5	6	7	8
NUMBER								
	9	10	11	12	13	14	15	16
NUMBER								

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Edgewood

Configuration Phase Sequence

Controller Sequence (MM)1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	1	2	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	4	3	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	4	3	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	11	12	15	16	.	.	.	.	.	.	.	.

Phases In Use / Exclusive PED (MM)1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases in Use	X	X	X	X	X	X										
Exclusive PED																

Phase Compatibility (MM)1-1-2

Phase	Compatible Phase
n/a	Barrier Mode

Overlap Direction Descriptions

Overlap	Description

Administration (MM)1-7-1

Enable CU/Cabinet Interlock CRC	No
Request Download Controller Data	No
Controller Database CRC	0000
Enable Automatic Backup to Datakey	Yes

Backup Prevent (MM)1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing /	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Backup	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM)1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	X	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	6	.	X	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	8	.	.	.	X	.	.	.		.	.	.	.	.	.	.	.
With	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MMU Channel) (MM)1-3

	Phase / Overlap	Type	Dimming				Power Up				Auto		Flash Together
			Red	Yellow	Green	Dark	Auto	Red	Yellow	Dark	Red	Yellow	
1	1	O				+	X				X		
2	2	O				+	X					X	X
3	0	O				+	X				X		
4	4	O				+	X				X		X
5	5	O				+	X				X		
6	6	O				+	X					X	X
7	0	O				+	X				X		
8	8	O				+	X				X		X
9	2	P				+	X						
10	4	P				+	X						
11	6	P				+	X						
12	3	P				+	X						
13	0	O				+	X				X		
14	0	O				-	X				X		X
15	0	O				+	X				X		
16	0	O				-	X				X		X

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Edgewood

Controller Timing Plan (MM)2-1
Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	EBLT	WB	NB	SB	WBLT	EB										
Min Green	8	20	8	8	8	20	0	0	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	5	5	0	7	0	0	0	10	0	10	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	24	48	42	0	24	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	2.5	5.0	2.5	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	25	60	35	45	25	60	0	0	35	35	35	35	35	35	35	35
Max 2	35	100	35	45	35	100	0	0	40	40	40	40	40	40	40	40
Max 3	35	90	45	60	35	90	0	0	0	0	0	0	0	0	0	0
DYM Max	35	90	45	60	35	90	0	0	0	0	0	0	0	0	0	0
DYM Stp	10.0	15.0	10.0	15.0	10.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.5	5.0	4.0	4.0	3.5	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	2.0	2.0	4.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	35	0	0	0	35	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Edgewood

Controller Options

Controller Options (MM)2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Green Phase																
Guaranteed Passage																
Non Act 1		X				X										
Non Act 2																
Dual Entry																
Conditional Service																
Conditional Reservice																
Ped Reservice																
Rest In Walk																
Flashing Walk																
Ped Clear Yellow																
Ped Clear Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Red Revert: 2.0

Act Pre-Time (MM)2-7

Pre-Time Mode Enable: No Free Input Enables Pre-Timed: Yes

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed Phase																

Phase Recall Options (MM)2-8

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector	X	X	X	X	X	X										
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Edgewood

Coordination Pattern Data
Pattern Data (MM)3-2

Pattern - 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits in	Percent
Cycle	120	Std (COS)	111	Offsets in	Percent
Offset Value	90%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 1)	17	31	27	25	17	31	0	0	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	48%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X
Special Function Output																

Pattern - 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits in	Percent
Cycle	120	Std (COS)	122	Offsets in	Percent
Offset Value	3%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 2)	15	35	20	30	15	35	0	0	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	50%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X
Special Function Output																

Pattern - 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits in	Percent
Cycle	135	Std (COS)	211	Offsets in	Percent
Offset Value	78%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 3)	17	35	24	24	17	35	0	0	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	52%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X
Special Function Output																

Pattern - 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits in	Percent
Cycle	135	Std (COS)	233	Offsets in	Percent
Offset Value	60%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 4)	15	37	24	24	15	37	0	0	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	52%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X
Special Function Output																

Pattern - 5

Split Pattern	5	TS2 (Pat-Off)	1-2	Splits in	Percent
Cycle	150	Std (COS)	311	Offsets in	Percent
Offset Value	92%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 5)	16	36	24	24	16	36	0	0	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	52%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X
Special Function Output																

Pattern - 6

Split Pattern	6	TS2 (Pat-Off)	1-3	Splits in	Percent
Cycle	150	Std (COS)	333	Offsets in	Percent
Offset Value	90%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 6)	16	36	22	26	16	36	0	0	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	52%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X
Special Function Output																

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Edgewood

Coordination Split Pattern Data
Split Pattern Data (MM)3-3

Split Pattern - 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (percent)	17	31	27	25	17	31	0	0	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	48%	0%	0%

Split Pattern - 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (percent)	15	35	20	30	15	35	0	0	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	50%	0%	0%

Split Pattern - 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (percent)	17	35	24	24	17	35	0	0	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	52%	0%	0%

Split Pattern - 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (percent)	15	37	24	24	15	37	0	0	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	52%	0%	0%

Split Pattern - 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										

Splits (percent)	16	36	24	24	16	36	0	0	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	52%	0%	0%

Split Pattern - 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (percent)	16	36	22	26	16	36	0	0	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	52%	0%	0%

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Edgewood

Preemptor

Preempt Plan (MM)4-1

Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Track Clear Vehicle																
Track Clear Overlap																
Enable Trailing																
Dwell Vehicle	X					X										
Dwell Ped																
Dwell Overlap	X					X										
Cycling Vehicle																
Cycling Ped																
Cycling Overlap																
Exit Phase		X				X										
Exit Calls			X	X	X											
Special Funciton																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Detector Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	0	CLR > GRN	No
Term Overlap Asap	No	PC Through Yellow	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	Flash Exit Color	Green	Exit Option	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Preempt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	10	4.0	1.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	10	0.0	0	4.0	1.0

Preempt Active Out	On	Preempt Active Dwell	No
Other Priority Preempt	On	Non-Priority Preempt	No
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return % Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Track Clear Vehicle																
Track Clear Overlap																
Enable Trailing																
Dwell Vehicle				X												
Dwell Ped																
Dwell Overlap				X												
Cycling Vehicle																
Cycling Ped																
Cycling Overlap																
Exit Phase	X				X											
Exit Calls			X	X												
Special Funciton																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Detector Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	0	CLR > GRN	No
Term Overlap Asap	No	PC Through Yellow	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	Flash Exit Color	Green	Exit Option	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Preempt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	10	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	10	0.0	0	4.0	1.0

Preempt Active Out	On	Preempt Active Dwell	No
Other Priority Preempt	On	Non-Priority Preempt	No
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return % Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Track Clear Vehicle																
Track Clear Overlap																
Enable Trailing																
Dwell Vehicle			X													
Dwell Ped																
Dwell Overlap								X								
Cycling Vehicle																
Cycling Ped																
Cycling Overlap																
Exit Phase				X												
Exit Calls	X				X											
Special Funciton																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Detector Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	0	CLR > GRN	No
Term Overlap Asap	No	PC Through Yellow	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	Flash Exit Color	Green	Exit Option	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Preempt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	10	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	10	0.0	0	4.0	1.0

Preempt Active Out	On	Preempt Active Dwell	No
Other Priority Preempt	On	Non-Priority Preempt	No
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return % Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Track Clear Vehicle																
Track Clear Overlap																
Enable Trailing																
Dwell Vehicle		X			X											
Dwell Ped																
Dwell Overlap		X			X											
Cycling Vehicle																
Cycling Ped																
Cycling Overlap																
Exit Phase		X				X										
Exit Calls	X		X	X												
Special Funciton																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Detector Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	0	CLR > GRN	No
Term Overlap Asap	No	PC Through Yellow	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	Flash Exit Color	Green	Exit Option	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Preempt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	10	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	10	0.0	0	4.0	1.0

Preempt Active Out	On	Preempt Active Dwell	No
Other Priority Preempt	On	Non-Priority Preempt	No
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return % Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SIGNAL NUMBER: 21004037.33 LOCATION: US 40 @ Eastern Blvd.

COUNTY: Washington DEVELOPED BY: TDSD 7/03 DATE INSTALLED: 8-6-03

RDM INFORM	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
ROAD NAME:	US 40	US 40	Eastern	Eastern	US 40	US 40						
DIRECTION:	E/B	W/B	N/B	S/B	W/B	E/B						
MOVEMENT:	Left	Thru	All	All	Left	Thru						
INTERVALS	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	PHASE 10	PHASE 11	PHASE 12
MIN GREEN	5	20	8	8	5	20						
BIKE GRN												
CS GREEN												
WALK						7						
PED CLEAR						15						
VEH EXT	3.0	5.0	3.0	3.0	3.0	5.0						
VEH EXT 2												
MAX EXT	10		15	15	10							
MAX 1	25	60	30	35	25	60						
MAX II	35	100	45	50	35	100						
MAX III	35		45	50	35							
DET MAX												
YELLOW	4.0	5.0	4.0	4.0	4.0	5.0						
RED CLEAR	1.0	1.5	1.5	1.5	1.0	1.5						
RED RVT												
ACT B4												
SEC/ACT												
MAX INI												
TIME B4												
CARS WT												
TTREDUC												
MIN GAP												

CONFIGURATION SUBMENU

1. CONTROLLER SEQUENCE

PRIORITY	1	2	3	4	5	6	7	8	9	10	11	12
RING 1	1	2	3	4	9	10						
RING 2	5	6	7	8	11	12						
CG			Λ		Λ							

2. PHASES IN USE

	PHASE NUMBER											
	1	2	3	4	5	6	7	8	9	10	11	12
PHASES IN USE	X	X	X	X	X	X						
EXCLUSIVE PED												

3. PHASE TO LOAD SWITCH -MMU- ASSIGNMENT

LOAD SWITCH MMU	SIGNAL DRIVER GROUP		LOAD SWITCH MMU	SIGNAL DRIVER GROUP	
CHANNEL	PH/OLAP	PED	CHANNEL	PH/OLAP	PED
1			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

4. SDLC OPTIONS - ENABLES

	BIU NUMBER							
	1	2	3	4	5	6	7	8
TERM & FACIL								
DETECTOR	X	X	X					
TYPE 2 RUNS AS TYPE 1	X							
MMU DISABLE								
DIAGNOSTIC ENABLE TEST FIXTURE								
PEER TO PEER ENABLE								

PEER TO PEER ADDRESS

1:	2:	3:	4:	5:
6:	7:	8:	9:	10:

6. Port 3

	Telemetry
Port 3 Protocol	
Port 3 Enable	
Telemetry Address	03
System Detector 9 - 16 Address	
Telemetry Response Delay	
Duplex	Full
Modem Data Rate	1200
Data, Parity, Stop	8, 0, 1

7. ENABLE EVENT LOGS

CRITICAL RFE'S DET-TEST	
NON-CRITICAL RPE'S DET-TEST.	
DETECTOR ERRORS	
COORDINATION ERRORS	
MMU FLASH FAULTS	
LOCAL FLASH FAULTS	X
PREEMPT	
POWER ON-OFF	X
LOW BATTERY	X
SPARE	
ALARM 1	
ALARM 2	
ALARM 3	
ALARM 4	
ALARM 5	
ALARM 6	
ALARM 7	
ALARM 8	
ALARM 9	
ALARM 10	
ALARM 11	
ALARM 12	
ALARM 13	
ALARM 14	
ALARM 15	

NTROLLER SUBMENU

PHASE OVERLAP ASSIGNMENTS

	OVERLAP CONSISTS OF PHASES:											
VLP PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1	X											
2		X										
3			X									
4				X								
5					X							
6						X						
7							X					
8								X				
9									X			
10										X		
11											X	
12												X

3. PED TIMING CARRYOVER

PHASE	CARRYOVER PHASE	PHASE	CARRYOVER PHASE
1		7	
2		8	
3		9	
4		10	
5		11	
6		12	

5. PED OVERLAP ASSIGNMENTS

	OVERLAP CONSISTS OF PHASES:											
OVLP PHASE	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

5. CONTROLLER OVERLAP DATA

OVERLAP A	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												

ADVANCE GREEN TIMER	
LAG-LEAD GREEN TIMER	
LAG-LEAD YELLOW TIMER	
LAG-LEAD RED TIMER	

OVERLAP B	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												

ADVANCE GREEN TIMER	
LAG-LEAD GREEN TIMER	
LAG-LEAD YELLOW TIMER	
LAG-LEAD RED TIMER	

OVERLAP C	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												

ADVANCE GREEN TIMER	
LAG-LEAD GREEN TIMER	
LAG-LEAD YELLOW TIMER	
LAG-LEAD RED TIMER	

OVERLAP D	1	2	3	4	5	6	7	8	9	10	11	12
STANDARD												
PROTECTED												
PERMITTED												
ENABLE LAG												
ENABLE LEAD												
SPARE												

ADVANCE GREEN TIMER	
LAG-LEAD GREEN TIMER	
LAG-LEAD YELLOW TIMER	
LAG-LEAD RED TIMER	

4. CONTROLLER RECALL DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
LOCKING MEMORY	X		X	X	X							
VEHICLE RECALL		X				X						
PED RECALL						X						
RECALL TO MAX												
SOFT RECALL												
DON'T REST HERE												
PED DARK N/CALL												

DELAYS:

7. NO SERVE PHASES

PHASE	CANNOT SERVE WITH: 12	11	10	9	8	7	6	5	4	3	2
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											

8. DIMMING

LOAD SWITCH	1	2	3	4	5	6	7	8
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								
LOAD SWITCH	9	10	11	12	13	14	15	16
DIM GRN-WLK								
DIM YEL-PC								
DIM RED-DW								

6. CONTROLLER START/FLASH DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
POWER START		X				X						
EXTERNAL START		X				X						
ENTRY REM FLASH		X				X						
EXIT REM FLASH		X				X						
REM FLASH YELLOW												
FL TOGETHER PHS		X				X						
FL TOGETHER OVLPS	A:			B:			C:			D:		

POWER START	Green
EXTERNAL START	Green
POWER START ALL RED TIME	0
POWER START FLASH TIME	0 Seconds
REMOTE FLASH OPTIONS	
OUT OF FLASH YELLOW	
OUT OF FLASH ALL RED	
MINIMUM RECALL	
USE ALTERNATE FLASH	
FLASH THRU LOAD SWITCHES	

9. CONTROLLER OPTION DATA

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
GUAR PASSAGE												
NONACTUATED I		X				X						
NONACTUATED II												
DUAL ENTRY												
COND SERVICE												
COND RESERVICE												
ACT REST IN WALK												
FLASHING WALK												

FIVE SECTION LEFT TURN HEADS

5-2	7-4	1-6	
5-8	11-10	9-12	

DUAL ENTRY		RESERVED	
COND SERVICE ENABLE		BACKUP PROTECTION GRP 1	OFF
COND SERVICE DET X SWITCHING		BACKUP PROTECTION GRP 2	
PED CLR PROTECT		BACKUP PROTECTION GRP 3	
SPEC PREEMPT OVLP FLASH		SIMULTANEOUS GAP GRP 1	ON
LOCK DETECTORS IN PED ONLY	X	SIMULTANEOUS GAP GRP 2	

PREEMPTOR SUBMENU

PRIORITY PREEMPTOR @ 3

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES	X					X						
EXIT PHASES			X									
EXIT CALLS												

TERM OVLP	A:		B:		C:	D:
ACTIVE			yes		PED DARK	
PRIORITY					PED ACTIVE	
DET LOCK			yes		ZERO PC TIME	
HOLD FLASH					PC THRU YELLOW	
TERM OVLP ASAP					TERM PHASES	
DON'T OVERRIDE FLASH					ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS					NO CVM IN FLASH	
YELLOW-RED GOES GREEN					FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME					OUT OF FLASH	

MAX TIME			DURATION TIME			
MIN HOLD TIME	10		DELAY TIME			
MIN PED CLEAR			INHIBIT TIME			
EXIT MAX			HLD DELAY TIME			
	GREEN		YELLOW		RED	
MINIMUM	10		0		0	
TRACK CLEAR						
HOLD			0		0	

PRIORITY PREEMPTOR @ 5

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES		X			X							
EXIT PHASES			X									
EXIT CALLS												

TERM OVLP	A:		B:		C:	D:
ACTIVE			yes		PED DARK	
PRIORITY					PED ACTIVE	
DET LOCK			yes		ZERO PC TIME	
HOLD FLASH					PC THRU YELLOW	
TERM OVLP ASAP					TERM PHASES	
DON'T OVERRIDE FLASH					ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS					NO CVM IN FLASH	
YELLOW-RED GOES GREEN					FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME					OUT OF FLASH	

MAX TIME			DURATION TIME			
MIN HOLD TIME	10		DELAY TIME			
MIN PED CLEAR			INHIBIT TIME			
EXIT MAX			HLD DELAY TIME			
	GREEN		YELLOW		RED	
MINIMUM	10		0		0	
TRACK CLEAR						
HOLD			0		0	

PRIORITY PREEMPTOR @ 4

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES				X	X							
EXIT PHASES	X											
EXIT CALLS												

TERM OVLP	A:		B:		C:	D:
ACTIVE			yes		PED DARK	
PRIORITY					PED ACTIVE	
DET LOCK			yes		ZERO PC TIME	
HOLD FLASH					PC THRU YELLOW	
TERN OVLP ASAP					TERM PHASES	
DON'T OVERRIDE FLASH					ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS					NO CVM IN FLASH	
YELLOW-RED GOES GREEN					FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME					OUT OF FLASH	

MAX TIME			DURATION TIME			
MIN HOLD TIME	10		DELAY TIME			
MIN PED CLEAR			INHIBIT TIME			
EXIT MAX			HLD DELAY TIME			
	GREEN		YELLOW		RED	
MINIMUM	10		0		0	
TRACK CLEAR						
HOLD			0		0	

PRIORITY PREEMPTOR 4

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
TERM PHASE OVLP												
TRK CLR PHASE												
HOLD PHASES												
EXIT PHASES												
EXIT CALLS												

TERM OVLP	A:		B:		C:	D:
ACTIVE					PED DARK	
PRIORITY					PED ACTIVE	
DET LOCK					ZERO PC TIME	
HOLD FLASH					PC THRU YELLOW	
TERM OVLP ASAP					TERM PHASES	
DON'T OVERRIDE FLASH					ACTIVE ONLY DURING HOLD	
FLASH ALL OUTPUTS					NO CVM IN FLASH	
YELLOW-RED GOES GREEN					FAST FLASH GRN ON HOLD	
ENABLE MAX PREEMPT TIME					OUT OF FLASH	

MAX TIME			DURATION TIME			
MIN HOLD TIME			DELAY TIME			
MIN PED CLEAR			INHIBIT TIME			
EXIT MAX			HLD DELAY TIME			
	GREEN		YELLOW		RED	
MINIMUM						
TRACK CLEAR						
HOLD						

COORDINATOR SUBMENU

COORDINATOR OPTIONS

SPLIT UNITS	%	ACT CRD PHASE				
OFFSET UNITS	%	ACT WALK/REST				
INTERCNT FMT	Std	INHIBIT MAX				
INTERCNT SRC	TIM	MAX2 SELECT	X			
RESYNC COUNT	5	MULTISYNC				
TRANSITION	Smooth	FLOAT FORCE OFF				
DWELL PERIOD	0					
FREE ALTERNATE SEQUENCE	A	B	C	D	E	F

COORD MANUAL AND SPLIT DEMAND

MANUAL ENABLE		MANUAL PATTERN										
SPLIT DEMAND		DEMAND 1					DEMAND 2					
DEMAND CALL TIME												
DEMAND CYCLE COUNT												
DEMAND PHASE	1	2	3	4	5	6	7	8	9	10	11	12
DEMAND 1 PHASE												
DEMAND 2 PHASE												

COORD AUTO PERM MIN GREEN

PHASE	AUTO PERM MIN GRN	PHASE	AUTO PERM MIN GRN
1		7	
2		8	
3		9	
4		10	
5		11	
6		12	

STD FORMAT

COORD PATTERN	1	OFFSET	0
CYCLE LENGTH	120	C/O/S	1-1-1

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:

PHASE 1:	19	2:	36	3:	20	4:	25					
PHASE 5:	19	6:	36	7:		8:						
PHASE 9:		10:		11:		12:						
VEH PERMISSIVE				1:		2:						
VEH PERM 2DISP												
PHASE RESERVICE												
SPLIT EXTENSION/RING				1:		2:						
SPL DMD PATTERN				1:		2:						
XARTERY PATTERN												

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	2	OFFSET	0
CYCLE LENGTH	120	C/O/S	1-2-2

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:

PHASE 1:	15	2:	~~39~~ 36	3:	~~26~~ 13	4:	~~46~~ 27					
PHASE 5:	15	6:	~~39~~ 36	7:		8:						
PHASE 9:		10:		11:		12:						
VEH PERMISSIVE				1:		2:						
VEH PERM 2DISP												
PHASE RESERVICE												
SPLIT EXTENSION/RING				1:		2:						
SPL DMD PATTERN				1:		2:						
XARTERY PATTERN												

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	3	OFFSET	0
CYCLE LENGTH	135	C/O/S	2-1-1

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:

PHASE 1:	18	2:	36	3:	22	4:	24					
PHASE 5:	18	6:	36	7:		8:						
PHASE 9:		10:		11:		12:						
VEH PERMISSIVE				1:		2:						
VEH PERM 2DISP												
PHASE RESERVICE												
SPLIT EXTENSION/RING				1:		2:						
SPL DMD PATTERN				1:		2:						
XARTERY PATTERN												

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	4	OFFSET	0
CYCLE LENGTH	135	C/O/S	2-3-3

PLAN FORMAT 4

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:				
PHASE 1:	13	2: 42	3: 26	4: 19
PHASE 5:	13	6: 42	7:	8:
PHASE 9:		10:	11:	12:
VEH PERMISSIVE			1:	2:
VEH PERM 2DISP				
PHASE RESERVICE				
SPLIT EXTENSION/RING			1:	2:
SPL DMD PATTERN			1:	2:
XARTERY PATTERN				

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	6	OFFSET	0
CYCLE LENGTH	150	C/O/S	3-3-3

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:				
PHASE 1:	16	2: 38	3: 26	4: 20
PHASE 5:	16	6: 38	7:	8:
PHASE 9:		10:	11:	12:
VEH PERMISSIVE			1:	2:
VEH PERM 2DISP				
PHASE RESERVICE				
SPLIT EXTENSION/RING			1:	2:
SPL DMD PATTERN			1:	2:
XARTERY PATTERN				

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN	5	OFFSET	0
CYCLE LENGTH	150	C/O/S	3-1-1

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:				
PHASE 1:	16	2: 40	3: 22	4: 22
PHASE 5:	16	6: 40	7:	8:
PHASE 9:		10:	11:	12:
VEH PERMISSIVE			1:	2:
VEH PERM 2DISP				
PHASE RESERVICE				
SPLIT EXTENSION/RING			1:	2:
SPL DMD PATTERN			1:	2:
XARTERY PATTERN				

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES		X				X						
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

STD FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		C/O/S	

PLAN FORMAT

COORD PATTERN		OFFSET	
CYCLE LENGTH		PLAN	

SPLITS:				
PHASE 1:		2:	3:	4:
PHASE 5:		6:	7:	8:
PHASE 9:		10:	11:	12:
VEH PERMISSIVE			1:	2:
VEH PERM 2DISP				
PHASE RESERVICE				
SPLIT EXTENSION/RING			1:	2:
SPL DMD PATTERN			1:	2:
XARTERY PATTERN				

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
COORD PHASES												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
PHASE OMIT												
SPARE												
	A	B	C	D	E	F						
ALT SEQUENCE												

NIC/TOD SUBMENU

ATE SET:	
IME SET:	
ANUAL NIC PROGRAM STEP	
ANUAL TOD PROGRAM STEP	
YNC REFERENCE TIME	03:15
YNC REFERENCE	REFERENCE TIME
EEK 1 BEGINS ON 1st SUNDAY	
ISABLE DAYLIGHT SAVINGS	
ST BEGINS LAST SUNDAY	

2. NIC/TOD WEEKLY PROGRAMS

EEK	SUN	MON	TUE	WED	THU	FRI	SAT
1	1	2	2	2	2	2	1
2							
3							
4							
5							
6							
7							
8							
9							
10							

3. NIC/TOD YEARLY PROGRAMS

WEEK OF YEAR	1	2	3	4	5	6	7	8
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	9	10	11	12	13	14	15	16
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	17	18	19	20	21	22	23	24
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	25	26	27	28	29	30	31	32
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	33	34	35	36	37	38	39	40
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR	41	42	43	44	45	46	47	48
WEEKLY PROGRAM	1	1	1	1	1	1	1	1
WEEK OF YEAR				49	50	51	52	53
WEEKLY PROGRAM				1	1	1	1	1

4. NIC/TOD HOLIDAY PROGRAM

HOLIDAY	FLOAT/FIXED	MON/MON	DOW/DOM	WOM/YEAR	PROG
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

5. NIC PROGRAM STEP

STEP	PGM	TIME	PATTERN	OVERRIDE
1	1	0000	0	
2	2	0000	0	
3	2	0630	2	
4	2	0830	0	
5	2	1530	4	
6	2	1830	0	
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

TOD PROGRAM STEPS

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

TOD PROGRAM STEP			
DAY PGM NUM			
STEP BEGINS			
FLASH		DIM ENABLE	
RED REST		ALT VEH EXTSN	
SPARE		DET LOG ENABLE	
SPARE		SPARE	
SPARE		SPARE	
DET DIAG PLAN			

ALTERNATE SEQUENCE	A	B	C	D	E	F

PHASE	1	2	3	4	5	6	7	8	9	10	11	12
MAX2 ENABLE												
MAX3 ENABLE												
VEH RECALL												
VEH MAX RECALL												
PED RECALL												
COND SERV INH												
PHASE OMIT												
SPECIAL FCTNS									(1-8)			

ETECTOR SUBMENU

DETECTOR TYPE/TIMERS

ET	TYPE	LOCK	EXTEND	DELAY	NO RESET	LOG ENABLE
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20					Left Front — Ø4	
21						
22						
23						
24					Left Center Ø4	
25						
26						
27						
28					Right Center Ø4	
29						
30						
31						
32	1			8	Right Front Ø4	

Delay

3 1 4

4 1 4

5 1 4

2. DETECTOR PHASE ASSIGNMENT

DETECTOR	PHASE ASSIGNMENT 1	2	3	4	5	6	7	8	9	10	11	12
1	X											
2	X											
3						X						
4						X						
5					X							
6		X										
7		X										
8												
9			X									
10			X									
11												
12												
13												
14												
15												
16												
17	X											
18												
19			X									
20				X								
21					X							
22												
23			X									
24				X								
25	X											
26												
27			X									
28				X								
29												
30												
31												
32				X								

3. PED AND SYSTEM DETECTOR LOCAL ASSIGNMENT

SYSTEM DETECTOR LOG INTERVAL								
LOCAL	PHASE PED DETECTOR							
PED DET NUMBER		1	2	3	4	5	6	
		7	8	9	10	11	12	
NUMBER								
LOCAL	LOCAL SYSTEM DET NUMBER							
DETECTOR	1	2	3	4	5	6	7	8
NUMBER	41	45	43	46		47		
	9	10	11	12	13	14	15	16
NUMBER								

Ø4 CAM loops

33 Ø4

34 Ø4

35 Ø4

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Md.64(Cleveland)

Configuration Phase Sequence

Controller Sequence (MM)1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B	B										
Sequence 1																
Ring 1	1	9	2	3	4	11	.	.	.	.	.	.	.	.	.	.
Ring 2	5	10	6	7	8	12	.	.	.	.	.	.	.	.	.	.

Phases In Use / Exclusive PED (MM)1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases in Use	X	X	X	X	X	X	X	X								
Exclusive PED																

Phase Compatibility (MM)1-1-2

Phase	Compatible Phase
n/a	Barrier Mode

Overlap Direction Descriptions

Overlap	Description

Administration (MM)1-7-1

Enable CU/Cabinet Interlock CRC	No
Request Download Controller Data	No
Controller Database CRC	0000
Enable Automatic Backup to Datakey	Yes

Backup Prevent (MM)1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing /	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Backup	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM)1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	X	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	6	.	X	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	8	.	.	.	X	.	.	.		.	.	.	.	.	.	.	.
With	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MMU Channel) (MM)1-3

	Phase / Overlap	Type	Dimming				Power Up				Auto		Flash Together
			Red	Yellow	Green	Dark	Auto	Red	Yellow	Dark	Red	Yellow	
1	1	O				+	X				X		
2	2	O				+	X				X		X
3	3	O				+	X				X		
4	4	O				+	X				X		X
5	5	O				+	X				X		
6	6	O				+	X				X		X
7	7	O				+	X				X		
8	8	O				+	X				X		X
9	9	O				+	X				X		
10	10	O				+	X				X		
11	2	P				+	X				X		
12	6	P				+	X				X		
13	13	O				+	X				X		
14	14	O				+	X				X		
15	15	O				+	X				X		
16	16	O				+	X				X		

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Md.64(Cleveland)

Controller Timing Plan (MM)2-1

Plan 1

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**EBLT**	**WB**	**NBLT**	**SB**	**WBLT**	**EB**	**SBLT**	**NB**								
Min Green	8	20	8	8	8	20	8	8	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	0	7	0	0	0	0	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	5.0	3.0	3.0	3.0	5.0	3.0	3.0	0.0	0.0	0.0	0.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	25	60	20	30	25	60	20	30	0	0	0	0	35	35	35	35
Max 2	35	100	30	45	35	100	30	45	0	0	0	0	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	35	0	30	45	35	0	30	45	0	0	0	0	0	0	0	0
DYM Stp	10.0	0.0	10.0	15.0	10.0	0.0	10.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.5	5.0	3.5	3.5	3.5	5.0	3.5	3.5	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
Red Clear	1.5	1.5	1.5	2.5	1.5	1.5	1.5	2.5	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	30	30	30	30	30	30	30	30	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Md.64(Cleveland)

Controller Options

Controller Options (MM)2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Green Phase																
Guaranteed Passage																
Non Act 1		X				X										
Non Act 2																
Dual Entry		X		X		X		X								
Conditional Service																
Conditional Reservice																
Ped Reservice																
Rest In Walk																
Flashing Walk																
Ped Clear Yellow																
Ped Clear Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Red Revert: 2.0

Act Pre-Time (MM)2-7

Pre-Time Mode Enable: No Free Input Enables Pre-Timed: Yes

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed Phase																

Phase Recall Options (MM)2-8

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector	X			X	X			X								
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Md.64(Cleveland)

Coordination Pattern Data
Pattern Data (MM)3-2

Pattern - 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits in	Percent
Cycle	120	Std (COS)	111	Offsets in	Percent
Offset Value	50%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (Split Pat 1)	25	38	17	20	25	38	17	20	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits in	Percent
Cycle	120	Std (COS)	122	Offsets in	Percent
Offset Value	46%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (Split Pat 2)	20	40	20	20	20	40	20	20	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits in	Percent
Cycle	135	Std (COS)	211	Offsets in	Percent
Offset Value	70%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (Split Pat 3)	24	35	18	23	24	35	18	23	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits in	Percent
Cycle	135	Std (COS)	233	Offsets in	Percent
Offset Value	19%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (Split Pat 4)	22	40	16	22	22	40	16	22	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 5

Split Pattern	5	TS2 (Pat-Off)	1-2	Splits in	Percent
Cycle	150	Std (COS)	311	Offsets in	Percent
Offset Value	76%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (Split Pat 5)	20	40	16	24	20	40	16	24	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

Pattern - 6

Split Pattern	6	TS2 (Pat-Off)	1-3	Splits in	Percent
Cycle	150	Std (COS)	333	Offsets in	Percent
Offset Value	76%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (Split Pat 6)	20	40	16	24	20	40	16	24	0	0	0	0	0	0	0	0
Preference 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preference 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X
Special Function Output																

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Md.64(Cleveland)

Coordination Split Pattern Data
Split Pattern Data (MM)3-3

Split Pattern - 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (percent)	25	38	17	20	25	38	17	20	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern - 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (percent)	20	40	20	20	20	40	20	20	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern - 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (percent)	24	35	18	23	24	35	18	23	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern - 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (percent)	22	40	16	22	22	40	16	22	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern - 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								

Splits (percent)	20	40	16	24	20	40	16	24	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern - 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NBLT	SB	WBLT	EB	SBLT	NB								
Splits (percent)	20	40	16	24	20	40	16	24	0	0	0	0	0	0	0	0
Coordinated Phases		X				X										
Vehicle Recalls																
Ped Recalls																
Max Recalls																
Phase Omit													X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

US.40 HAGERSTOWN(US40 @ Mt.Aetna) - US.40 & Md.64(Cleveland)

Preemptor

Preempt Plan (MM)4-1

No Enabled Preempts

Appendix E:
US 40 Pedestrian Survey Forms

US 40 Pedestrian Survey

A pedestrian safety study is underway for US 40 Dual Highway from Cannon Avenue to Redwood Circle. This corridor has had several recent pedestrian fatalities and has become a priority for the City of Hagerstown and the County. As the study gets underway, a survey has been developed to obtain public insights and opinions for those living or working near US 40. Please let us know specific issues you have had walking along US 40 and whether there are any improvements that would make this corridor more walkable for you or others.

Thank you very much for any input you can provide!

3 Ways to Submit Your Results

(1) Take survey online at:	(2) Fill out and drop in box at:	(3) Fill out and send to:
https://www.surveymonkey.com/r/us40study	Bradford Apartments 55 Manor Drive Hagerstown, MD 21740	Matthew Mullenax Hagerstown/Eastern Panhandle MPO 33 West Washington St., Suite 402 Hagerstown, MD 21740

Tell Us About Yourself

1. **What is your age?** _____

2. **Where do you live and work?**
   Home Street Name and Zip Code: _____
   Work Street Name and Zip Code: _____

3. **Do you walk along the US 40 corridor?**
   - ☐ Yes
   - ☐ No, and I would not consider walking along the corridor
   - ☐ No, but I would if improvements were made

4. **If Yes to Question 3, what time of day do you typically walk?**
   - ☐ Morning Peak (6-9am)
   - ☐ Midday
   - ☐ Evening Peak (4-7pm)
   - ☐ Night

5. **If Yes to Question 3, at what locations do you usually walk along US40?**
   _____
   _____

Evaluate the Walkability on or near US40

6. **In general, how walkable is it along US 40?**
   ☐ 1= Bad ☐ 2 ☐ 3= Just Ok ☐ 4 ☐ 5= Great

7. **What would encourage you and others to walk more within the area?**
   _____
   _____
   _____

TURN OVER FOR MORE QUESTIONS

Tell us about the specific walking issues along US40

8. **Is there room to walk? Tell us the problems and location!**
   - ☐ Sidewalk and paths started and stopped
   - ☐ Sidewalks were broken and cracked
   - ☐ Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
   - ☐ No sidewalks, paths, or shoulders
   - ☐ Too much traffic

   Problem Locations: _____

9. **If you cross US40, at what locations do you typically cross and to what destination?**
   Crossing location(s): _____
   _____
   Destinations(s): _____
   _____

10. **Was it easy to cross streets? Tell us the problems and locations!**
    - ☐ Road was too wide
    - ☐ Traffic signals made us wait too long or did not give us enough time to cross
    - ☐ Needed striped crosswalks or traffic signals
    - ☐ Not well lighted
    - ☐ Parked cars blocked our view of traffic
    - ☐ Trees or plants blocked our view of traffic
    - ☐ Needed curb ramps or ramps needed repair

    Problem Locations: _____

11. **Did drivers behave well? Tell us the problems and locations!**
    - ☐ Drivers backed out of driveways without looking
    - ☐ Drivers did not yield to people crossing the street
    - ☐ Drivers turned into people crossing the street
    - ☐ Drivers drove too fast
    - ☐ Drivers sped up to make it through traffic lights or drove through traffic lights

    Problem Locations: _____

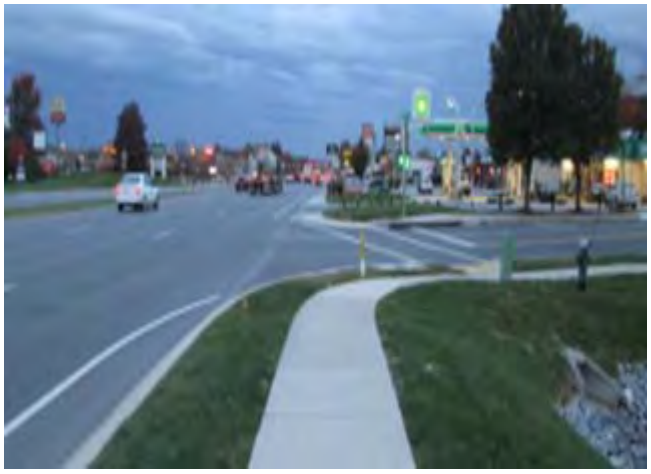
12. **Do you have any ideas to improve pedestrian safety or walkability along US40?**
    - ☐ Yes, tell your ideas below:
    - ☐ No

    _____
    _____

Appendix F:
PRSA Workbook and Presentation Materials

US 40 Hagerstown MD
Pedestrian Safety Road Audit (PSRA)
May 19, 2015

Workshop Handbook



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Agenda

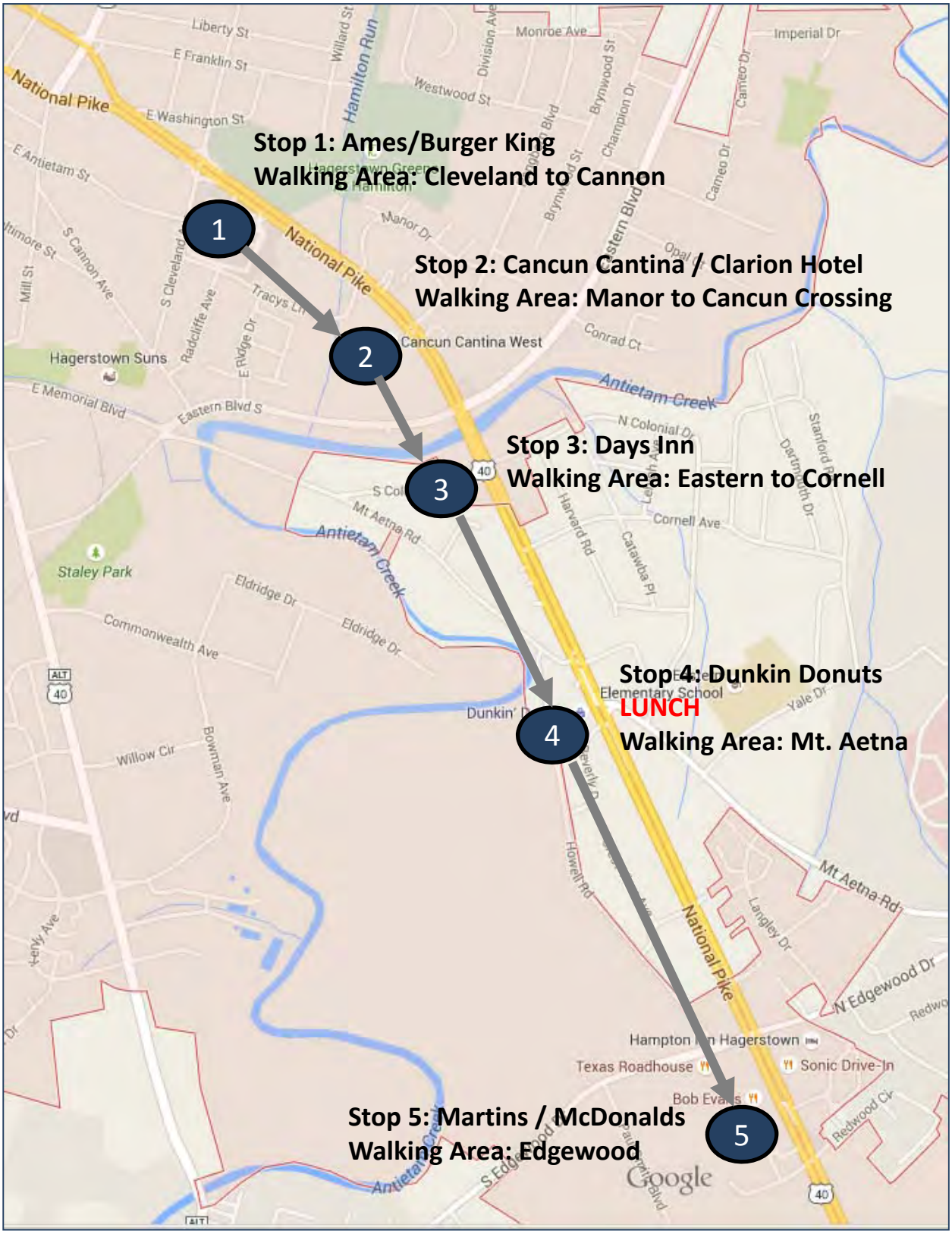
Pedestrian Safety Road Audit (PSRA)
US 40, Hagerstown, MD

5/19/2015

120 W. Washington Street, 2nd Floor

Agenda Item	Time
WELCOME ¨ Sign-In ¨ Team Introductions ¨ Audit Overview	9:00 AM – 9:15 AM
BACKGROUND & FEEDBACK ¨ Review of US 40 Corridor / SHA Study Results ¨ PRSA Guidelines and Checklist Overview ¨ Stakeholder Feedback (Issues/Concerns)	9:15 AM – 10: 30 AM
TRANSPORTATION TO FIELD LOCATION ¨ Meet at defined location along corridor	10:30 AM – 10:45 AM
WALKING AUDIT (AM)	10:45 AM – 12:00 PM
LUNCH ¨ Personal Choice / Group Decision	12:00 PM – 1:00 PM
WALKING AUDIT (PM)	1:00 PM – 2:30 PM
TEAM ASSESSMENT (Return to Meeting Location) ¨ Recap Next Steps ¨ Summarize (Issues/Concerns) ¨ Identify Solutions & Improvement Priorities ¨ Team Recommendations	2:30 PM – 3:30 PM

Walking Audit Plan



1. PRESENTATATION SLIDES

US 40 Hagerstown MD
Pedestrian Safety Road Audit (PSRA)

May 19, 2015

Workshop Handbook

Meeting Agenda
Presentation
Field Maps
FHWA Prompt List
Field Note Sheets

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Presentation Agenda

- ❑ Study Overview
- ❑ PRSA Background
- ❑ SHA Study Highlights
- ❑ Survey Overview
- ❑ Additional Data
  - Traffic
  - Pedestrian counts
  - ADA deficiencies
- ❑ Strategy Toolbox
- ❑ Funding Issues

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Why are We Here?

- ❑ Multiple fatalities along US 40
- ❑ 2014 MDOT Tour Meeting Letter (Hagerstown/Washington County)
- ❑ Multiple Herald Articles / News Stories
- ❑ SHA Inventory Study
- ❑ City of Hagerstown Livable Street Guidelines (2014)

	MAJOR STREET NAME	TOTAL NUMBER OF PED/BIKE CRASHES	*NUMBER OF PEDESTRIAN CRASHES*	*NUMBER OF BICYCLE CRASHES*
1	WASHINGTON ST	**23**	*14*	*9*
2	DUAL HWY	**20**	*17*	*3*
3	POTOMAC ST	**13**	*10*	*3*
4	FRANKLIN ST	**11**	*9*	*2*
5	BURHANS BLVD	**9**	*4*	*5*
6	LOCUST ST	**9**	*5*	*4*
7	GARLAND GROH BLVD	**8**	*8*	*0*
8	ANTIETAM ST	**6**	*3*	*3*
9	BALTIMORE ST	**6**	*5*	*1*
10	POTOMAC AVE	**6**	*5*	*1*

Table 2 – Top Ten Streets for Bicycle and Pedestrian Crashes

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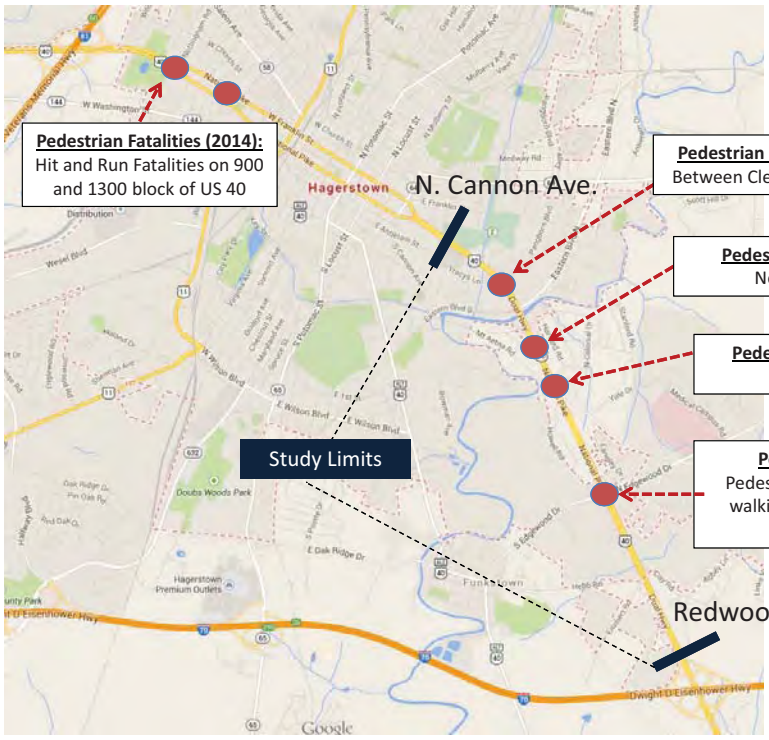
Study Overview

Study Location and Recent Fatalities



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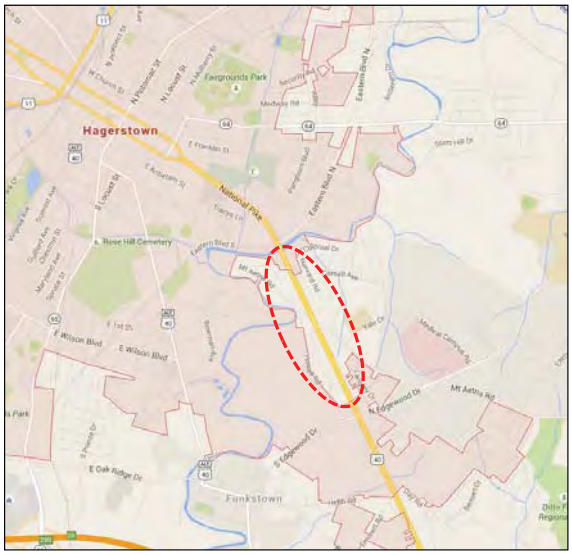
Key Noted Issues

- Boundary between the city and Washington County zigzags along the route and regulations regarding sidewalks differ between the two jurisdictions.
- County officials have indicated that the responsibility for pedestrian-safety improvements on the county portion of U.S. 40 lies with the Maryland State Highway Administration.



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Study Purpose

- ❑ Build off SHA Study
  - Additional pedestrian counts and traffic data
  - Survey
  - Enhance ADA assessment
  - More detailed assessment of strategies
- ❑ Conduct a Pedestrian Road Safety Audit (PRSA)
- ❑ Summarize PRSA conclusions
- ❑ Identify appropriate strategies
  - Matrix of strategies (with priorities)
  - Intersection schematics

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PRSA Background

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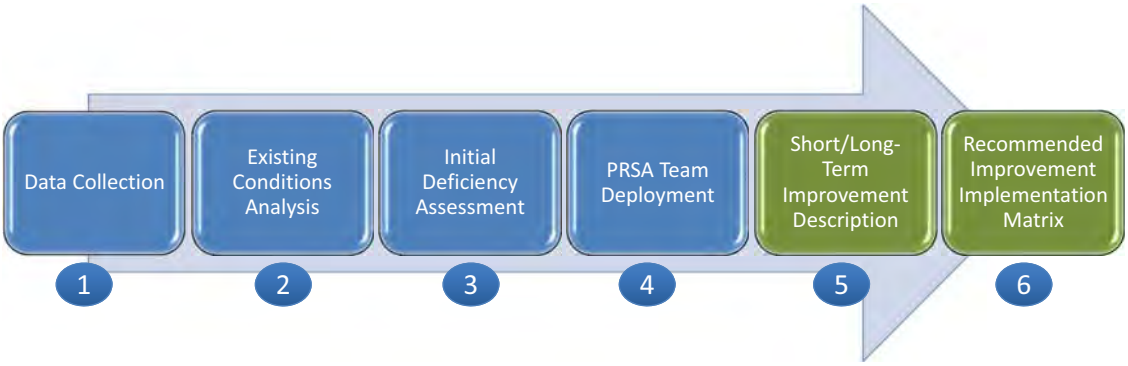
What is a PRSA?

What is a Pedestrian Road Safety Audit ?

- FHWA Program
- Safety Performance Evaluation for all roadway users
- Multi-discipline team
- Identify deficiencies and opportunities for improvements



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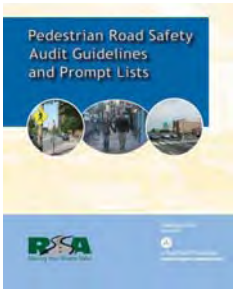
What is a PRSA?

Objectives of the Pedestrian Road Safety Audit



- Document baseline conditions
- Make recommendations to address deficiencies of physical design and for educational programs
- Develop conceptual sketches of the improvements
- Develop phased recommendations for implementation as time and resources permit
- Identify Opportunities

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Review of the US 40 Corridor

Why Conduct a Safety Audit for US 40?

- Purpose and Need Statement
- Identified as a Corridor of Concern for the Washington County Board of County Commissioners
- Recent Pedestrian Fatalities
- High Crash Corridor
- Crash Severity Corridor

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SHA Study Highlights

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SHA Study - Traffic

Table 1: AADT along the Corridor

Section	AADT
N. Cannon Ave to End of Couplet	11,540
S. Cannon Ave to End of Couplet	Not Available
End of Couplet to Cleveland Ave	25,970
Cleveland Ave to Mt Aetna Rd	38,230
Mt Aetna Rd to Redwood Cir	34,690

Table 2: Speed Limit along the Corridor

Section	Speed Limit
Cannon Ave to just west of Cleveland Ave	25 MPH
Just West of Cleveland Ave to Hagerstown corporate limits	35 MPH
Hagerstown Corporate Limits to Redwood Cir	45 MPH

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SHA Study – Pedestrian Crashes

Table 10 shows a breakdown of the pedestrian crashes with the distribution of severity, contributing factors, and probable causes. The two most frequent contributing factors were nighttime/darkness and the use of alcohol. The most commonly reported probable cause was Other/Unknown. The majority of the pedestrian crashes involved the pedestrian being in the roadway as well as the involvement of alcohol or drugs/medication in the pedestrian or the driver. Of the three fatal pedestrian crashes, all involved the pedestrians being in the roadway, two involved alcohol in the pedestrian's system, and two were at night. In all three pedestrian fatalities, the pedestrians were reported as at fault.

Table 10 – Pedestrian Crash Summary (1/1/2009 - 9/30/2014)[2]

Severity			Contributing Factors			Probable Cause		
Total	13							
Fatal	3	23%	Night	9	69%	Other/Unknown	9	69%
Injury	10	77%	Rain/Snow	3	23%	Rain/Snow	1	8%
Prop. Damage	0	0%	Alcohol	5	38%	Under Influence of Drugs	2	15%
			Intersection	0	0%	Illegally in Roadway	1	8%

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SHA Study – Pedestrian Accomodations

Table 5: Pedestrian Crossing Accommodations at US 40 Intersections

Intersections	APS/CPS	APS Only	Crosswalks	Missing Ramps	ADA Ramps	Non ADA Ramps	No Pedestrian Crossing Accommodation
S. Cannon Ave			All Legs	2		6	
N. Cannon Ave			All Legs			8	
E. Washington St			1 Leg	1		1	
Cleveland Ave			1 Leg			6	
Manor Dr/ Tracys Ln	2 Legs		3 Leg		3	3	
Eastern Blvd		1 Leg	1 Leg			2	
Colonial Dr							x
Cornell Ave							x
Mt Aetna Rd W							x
Mt Aetna Rd			1 Leg		4		
Beverly Dr							x
Crestview Rd							x
Edgewood Dr	4 Legs		All Legs		8		
Redwood Cir			1 Leg		2		

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SHA Study – Intersection Lighting

Table 7 – Existing and Recommended Intersection Pedestrian Lighting Levels

Intersection	Functional Classification	Pedestrian Classification	Observed Lighting Levels	IESNA Recommended Lighting Levels
N. Cannon Ave	Major/Local	High	0.4 fc	2.6 fc
S. Cannon Ave	Major/Local	High	0.4 fc	2.6 fc
E. Washington St	Major/Local	Medium	Dark	2.0 fc
Cleveland Ave	Major/Collector	Medium	1.3 fc and 0.1 fc	2.2 fc
Tracys Ln and Manor Dr	Major/Local	Medium	Dark	2.0 fc
Eastern Blvd	Major/Collector	Medium	0.1 fc	2.2 fc
Colonial Dr	Major/Local	Medium	Dark	2.0 fc
Cornell Ave	Major/Local	Medium	Dark	2.0 fc
Mt Aetna Rd W.	Major/Collector	Medium	0.1 fc	2.2 fc
Mt Aetna Rd	Major/Collector	Medium	2.5 fc	2.2 fc
Beverly Dr.	Major/Local	Medium	Dark	2.0 fc
Crestview Rd	Major/Local	Medium	Dark	2.0 fc
Edgewood Dr	Major/Collector	High	0.1 fc	2.4 fc
Redwood Cir	Major/Local	Medium	Dark	2.0 fc

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Survey

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Survey Conducted for Study

- ❑ March-April 2015
- ❑ 99 Responses
  - English Online (98) ; Spanish Online (0) ; Hardcopy Drop-off (1)

US 40 Pedestrian Survey

A pedestrian safety study is underway for US 40 Dual Highway from Cannon Avenue to Redwood Circle. This corridor has had several recent pedestrian fatalities and has become a priority for the City of Hagerstown and the County. As the study gets underway, a survey has been developed to obtain public insights and opinions for those living or working near US 40. Please let us know specific issues you have had walking along US 40 and whether there are any improvements that would make this corridor more walkable for you or others.

Thank you very much for any input you can provide!

3 Ways to Submit Your Results

(1) Take survey online at: https://www.surveymonkey.com/r/us40study

(2) Fill out and drop in box at: Bradford Apartments, 55 Manor Drive Hagerstown, MD 21740

(3) Fill out and send to: Matthew Fullerton, Hagerstown/Eastern Panhandle MPO, 33 West Washington St., Suite 402, Hagerstown, MD 21740

Tell Us About Yourself

1. What is your age? _____
2. Where do you live and work?
   Home Street Name and Zip Code: _____
   Work Street Name and Zip Code: _____
3. Do you walk along the US 40 corridor?
   ☐ Yes
   ☐ No, and I would not consider walking along the corridor
   ☐ No, but I would if improvements were made
4. If Yes to Question 3, what time of day do you typically walk?
   ☐ Morning Peak (6-9am) ☐ Midday
   ☐ Evening Peak (4-7pm) ☐ Night
5. If Yes to Question 3, at what locations do you usually walk along US40?

Evaluate the Walkability on or near US40.

6. In general, how walkable is it along US 40?
   ☐ 1= Bad ☐ 2 ☐ 3= Just Ok ☐ 4 ☐ 5= Great
7. What would encourage you and others to walk more within the area?

TURN OVER FOR MORE QUESTIONS

Tell us about the specific walking issues along US40

8. Is there room to walk? Tell us the problems and location!
   ☐ Sidewalk and paths started and stopped
   ☐ Sidewalks were broken and cracked
   ☐ Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
   ☐ No sidewalks, paths, or shoulders
   ☐ Too much traffic
   Problem Locations: _____
9. If you cross US40, at what locations do you typically cross and to what destination?
   Crossing location(s): _____
   Destinations(s): _____
10. Was it easy to cross streets? Tell us the problems and locations!
    ☐ Road was too wide
    ☐ Traffic signals made us wait too long or did not give us enough time to cross
    ☐ Needed striped crosswalks or traffic signals
    ☐ Not well lighted
    ☐ Parked cars blocked our view of traffic
    ☐ Trees or plants blocked our view of traffic
    ☐ Needed curb ramps or ramps needed repair
    Problem Locations: _____
11. Did drivers behave well? Tell us the problems and locations!
    ☐ Drivers backed out of driveways without looking
    ☐ Drivers did not yield to people crossing the street
    ☐ Drivers turned into people crossing the street
    ☐ Drivers drove too fast
    ☐ Drivers sped up to make it through traffic lights or drove through traffic lights
    Problem Locations: _____
12. Do you have any ideas to improve pedestrian safety or walkability along US40?
    ☐ Yes, tell your ideas below:
    ☐ No

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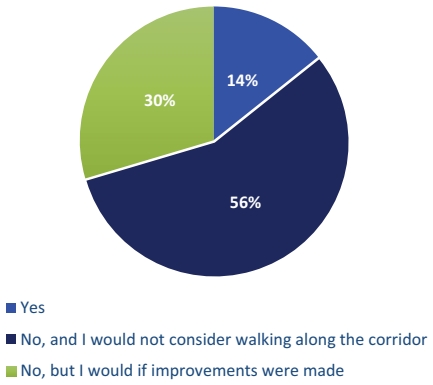
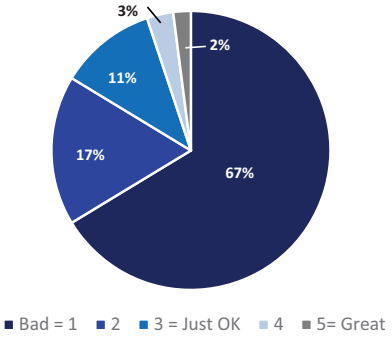
Survey Reponses

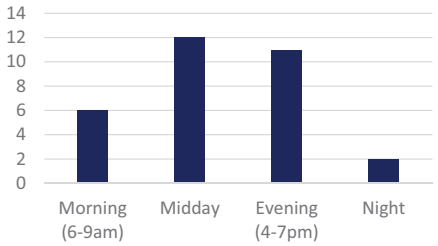
Do you walk along US 40 corridor?



In general, how walkable is it along US40?



What time of day do you typically walk?



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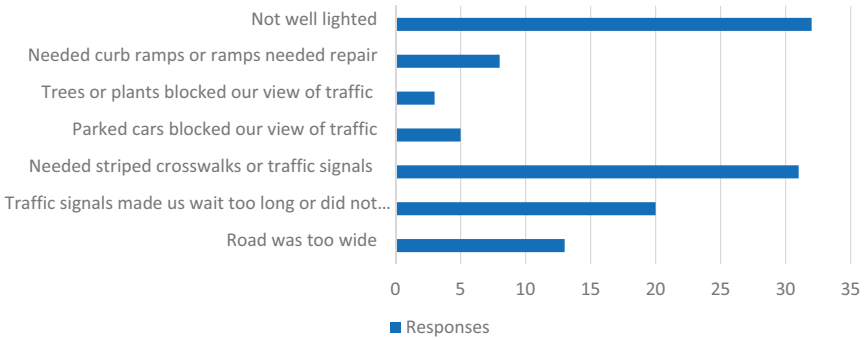
Survey Reponses

If you cross US 40, at what locations do you typically cross and to what destinations

Rank	Crossing Location (along US 40)	Destination
1	Edgewood	Martins, CVS, Sonic, Community College, Robinwood Drive
2	Cleveland	Downtown, Shopping Center, CVS
3	Eastern	Sonic, Auto Shop
4	Mt. Aetna	Community College, Dunkin Donuts, Foxshire Shopping
5	Cannon	CVS
6	Cornell	Edgewood Shopping

Was it easy to cross streets?



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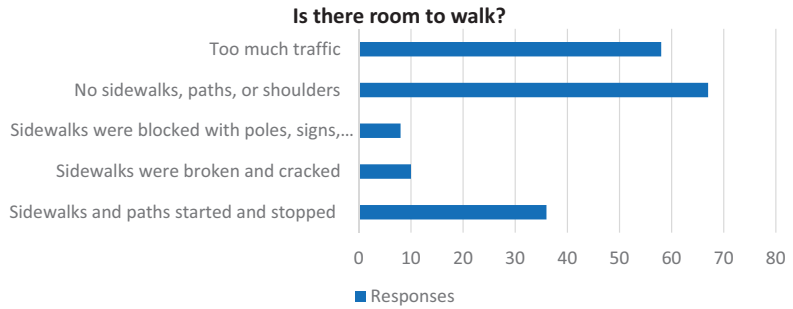
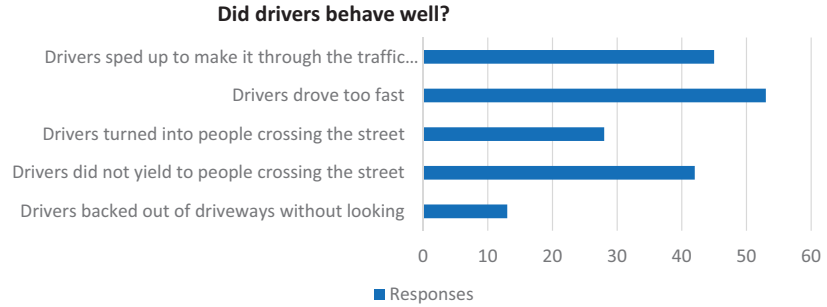
Survey Reponses





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Survey Recommended Strategies

Rank	Strategy	Examples
1	Better Marked and Lighted Crosswalks	Lighting in Median, Mid-Block crossings
2	New Sidewalks at Missing Locations	Eastern Blvd Pedestrian Bridge
3	Enforcement	Both Pedestrian (Alcohol) and Vehicle (Aggressive driving, High Speeds)
4	Pedestrian Education	Light-Colored Clothing, Signing, No Pedestrians on Bridge
5	Median Fencing	-----
6	Traffic Improvements	Reduce Speed Limit, “Road Diet”, Roundabouts, Speed Bumps, Traffic Light at Cornell, No U-turns (e.g. Edgewood)
7	Pedestrian Bridge	At Mt Aetna, South of Edgewood
8	Do Nothing	-----
9	Pedestrian Signal Timing Improvements	-----
10	Public Transportation along US 40	-----

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Traffic

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US 40 Corridor Traffic Congestion and Speeds

TomTom (2011-2012 Weekday) Travel Time Ratios

** Yellow = Medium Traffic Congestion, Red = High Traffic Congestion*

TomTom Average Weekday Travel Speeds

** Green = 25-34mph, Yellow = 35-39mph, Orange =40-44mph, Red = 45-50mph*

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Pedestrian Counts

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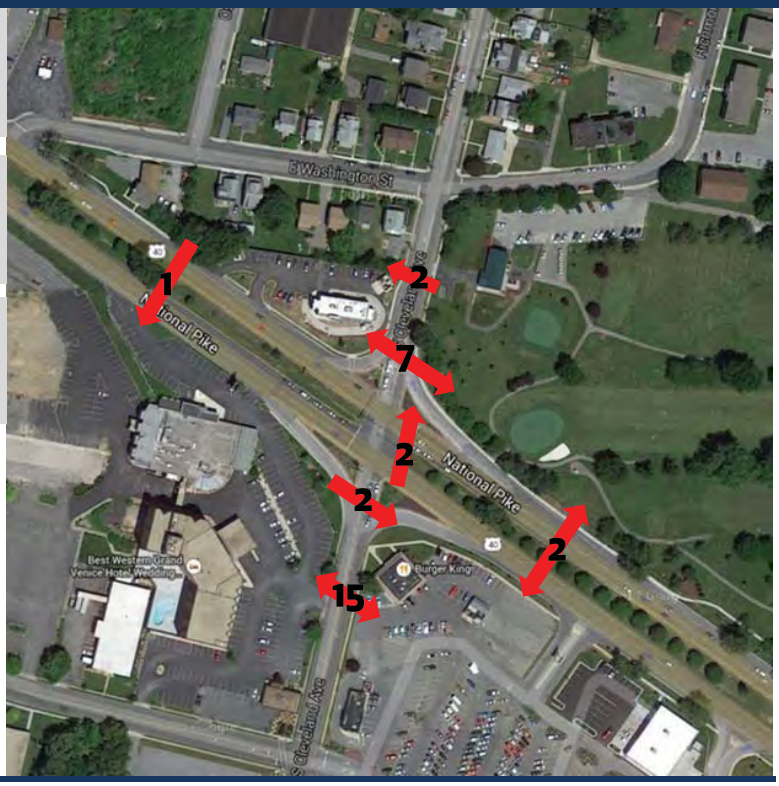
Pedestrian Counts (Cleveland Ave)

US 40 at Cleveland Avenue

AM, Midday, PM 3-hr Total Count
(Wed, April 29: 7-8am, 11am-12pm, 5-6pm)

31 Crossings



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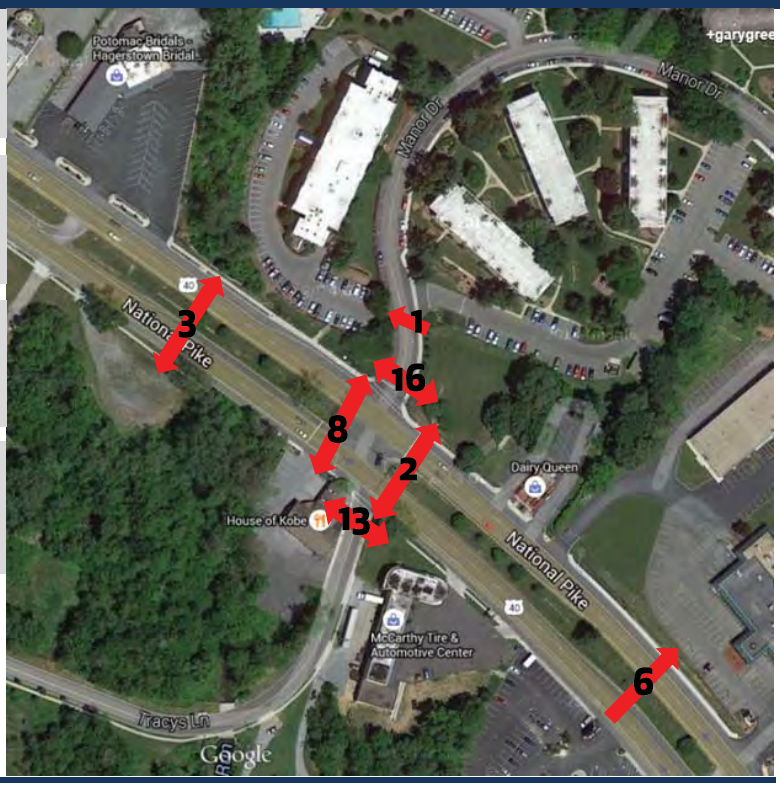
Pedestrian Counts (Manor Drive)

US 40 at Manor Drive

AM, Midday, PM 3-hr Total Count
(Wed, April 29: 7-8am, 11am-12pm, 5-6pm)

49 Crossings

SHA Study (Jan 2015) 6am-7pm Total = 68



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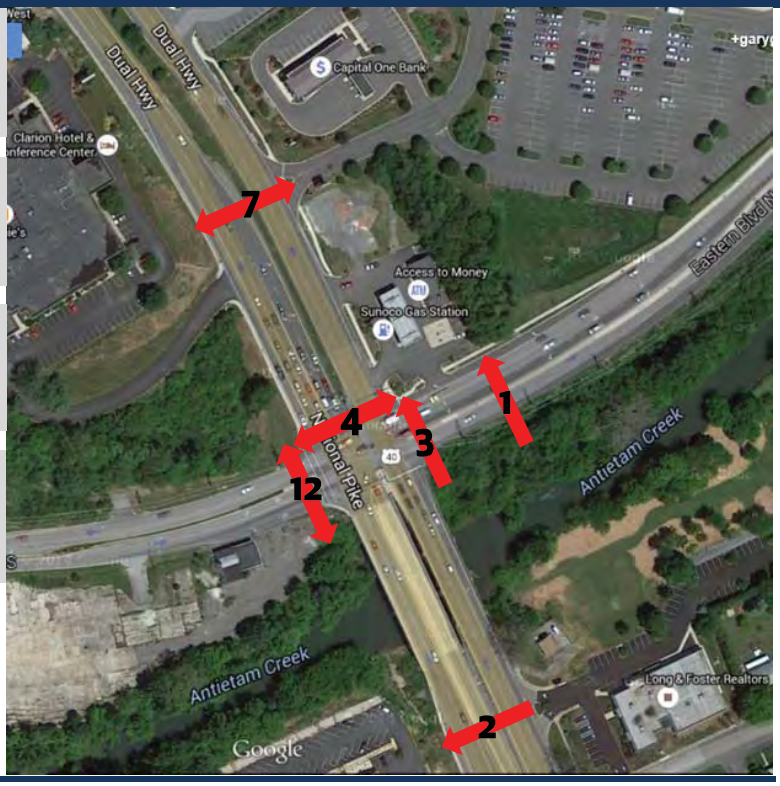
Pedestrian Counts (Eastern Blvd)

US 40 at Eastern Blvd

AM, Midday, PM 3-hr Total Count
(Fri, May 1: 7-8am, 11am-12pm, 5-6pm)

29 Crossings

SHA Study (Jan 2015) 6am-7pm Total = 31



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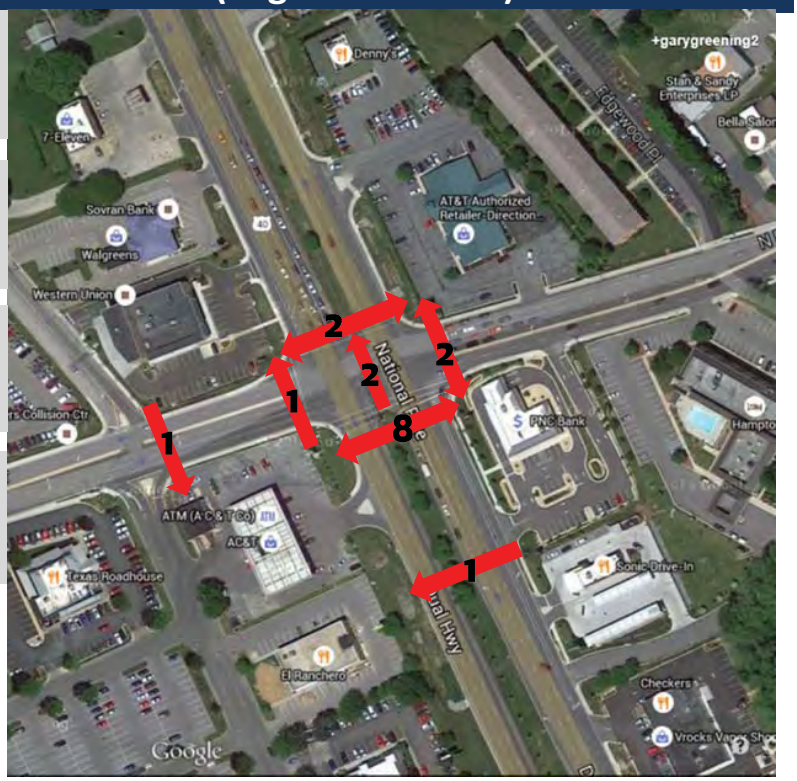
Pedestrian Counts (Edgewood Drive)

US 40 at Edgewood Drive

AM, Midday, PM
3-hr Total Count
(Fri, May 1: 7-8am, 11am-12pm, 5-6pm)

17 Crossings

SHA Study (Jan 2015)
6am-7pm Total = 13



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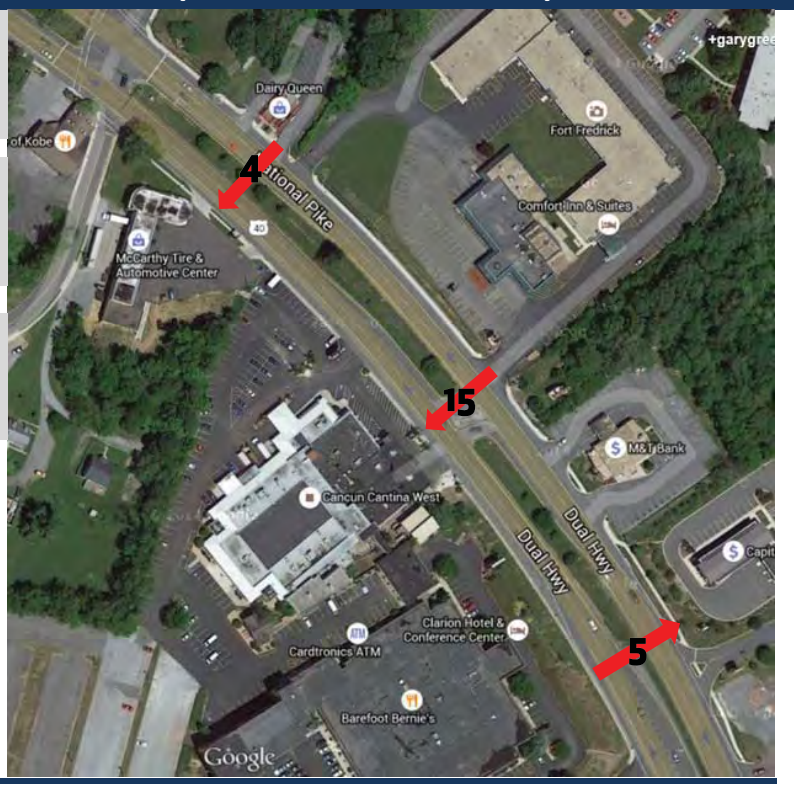
Pedestrian Counts (Near Cancun Cantina)

Between Manor and Edgewood

Night
1-hr Count
(Sat, May 9: 11pm-12am)

24 Crossings



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ADA* Assessment

* Americans with Disabilities Act

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ADA Standards

- **Maryland SHA "Accessibility Policy and Guidelines for Pedestrian Facilities along State Highways "** (June 2010)
  - "All projects …shall accommodate and provide accessibility for persons with disabilities where it is reasonable, feasible and appropriate to do so…"
  - Features of the roadway specifically intended for pedestrians such as sidewalks, driveway aprons, curb ramps and crosswalks must meet accessibility design criteria.
- **Sidewalk Standards**
  - Be 5' wide standard (3' min. is allowed across driveways or with a design exception.)
  - Have a 2% max. cross slope
  - Have no vertical lips >1/4" (or ½" if beveled)
  - Have no steep running slopes
  - Have curb cuts meeting slope and width criteria at all pedestrian walkways which are intersected by curbs.

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ADA Issues Found on US 40 Corridor

- Existing sidewalk width constraints
- Steep existing sidewalk cross slopes
- Vertical lips greater than ½ inch
- Steep running slopes
- Missing ramps / curb obstructions
- Driveway and alley curb cut deficiencies
- Existing worn dirt paths

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Examples Noted in Corridor

Existing Sidewalk Width Constraints

Debris and weeds west of Taco Bell (west of N. Cleveland Ave.)

Dairy Queen east of Manor Drive (mailbox)

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Examples Noted in Corridor

Vertical Lips > ½ inch

Inlet in front of Golf Course east of N. Cleveland Ave.

Missing Ramps/ Curbing obstructs access to sidewalk

Sheetz east of S. Cannon Ave.

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Strategies

What is Being Done Now?

- **Washington County Sheriff's Department/ Hagerstown Police Department distributing safety vests at night (200)**
- **SHA plans for projects by 2018**
  - **New lighting**
  - **Pedestrian Amenities**
  - **Accessible Pedestrian Signals (APS) for eight intersections**
- **Identification of over 9,000ft of sidewalk needs to make a continuous network on both sides of US 40**

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Countermeasure Toolbox

5 "E's - Engineering, Education, Encouragement, Enforcement, Evaluation

Intersections

- Curb Ramps
- Marked/Hi Viz Crosswalks
- Curb Extensions
- Crossing Islands
- Raised Pedestrian Crossings
- Lighting and Illumination
- Automated Pedestrian Detection
- Leading Pedestrian Interval/Exclusive Pedestrian Phasing
- Advance Yield/Stop Lines
- Right Turn on Red Prohibitions
- Driver Education

Mid-Block Facilities

- High-Intensity Activated Crosswalk (HAWK) Signal/ Rectangular Rapid Flash Beacon (RRFB)
- Illuminated Crosswalk
- Improved Signage
- Speed Reduction/Traffic Calming
- Driver Education

Discouraging Mid-Block Crossing

- Pedestrian Fence/Median Barrier
- Improved Signage to Encourage Crossing at Appropriate Locations
- Pedestrian Overpasses
- Pedestrian Education

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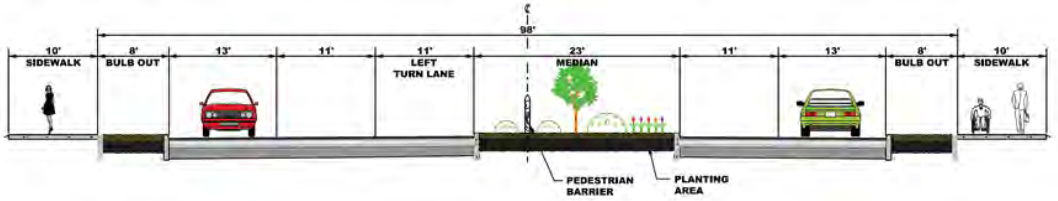
Fencing and Barriers to Prevent Crossing

Example from US 40 in Frederick, MD



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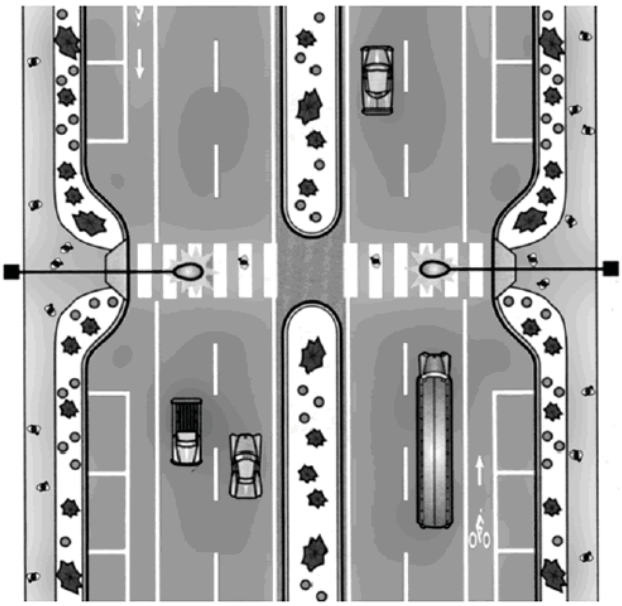
Mid-Block Crossing

Curb extensions, Lighting, Markings



HAWK signal, Chevy Chase, MD

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Intersection Improvements

Existing Conditions

With Mitigation

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Enhanced Enforcement

Montgomery County Police Department

http://www.mdhighwaysafetysummit.org/uploads/2/0/1/9/20190749/4_bmoreped_presenstationv2.pdf

How We Do Enforcement

- Moved from Warnings to Citations
- Noticeable reduction in amount of pedestrian violations in a short amount of time
- Issued over 2,100 citations to Pedestrians
- This was done at several locations
- Return trips to our HIAs (maintenance)

Crosswalk Stings

- Plain clothes officer legally in crosswalk
  - Established in crosswalk
  - Crosses street like any normal citizen
- Every car that does not yield is stopped
- Conducted at several locations
- Has resulted in behavior change
- Return trips to locations (maintenance)

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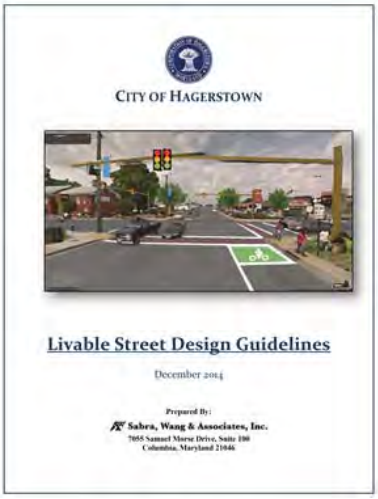
Complete Streets



In city guidelines, US 40 designated as "Auto-Oriented Commercial/Industrial Spoke"

<u>Pedestrian Provisions:</u>

- Min 5 foot sidewalk on both sides
- Min 3 foot buffer / green zone on both sides
- Accessible pedestrian signals

Auto-Oriented Commercial/Industrial Spokes

Auto-oriented commercial/ industrial spokes (spokes) are characterized by an auto-oriented development pattern with buildings set back from the street and parking lots lining the roadway in front of commercial buildings. They are multilane divided highways classified as major collectors or arterials. Spoke roadways do not provide a pedestrian friendly environment and are not likely to attract high levels of pedestrian activity other than at transit stops and individual activity centers; although segments of spoke roadways may have sidewalks lining one side. Many spoke roadways enter the City limits as spokes and transition into other roadway typology as land use patterns and density changes. A typical cross-section can be found in supplement B.

AUTO ORIENTED COMMERCIAL/ INDUSTRIAL (SPOKES)

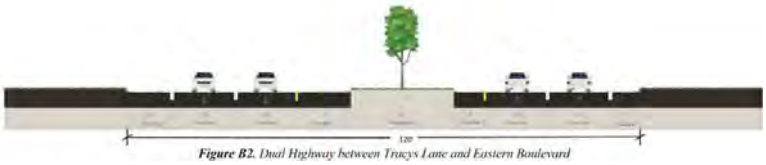


Figure B2. Dual Highway between Tracys Lane and Eastern Boulevard

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Funding

State Funding Programs

STATE FUNDING PROGRAMS

These are State Highway Administration dedicated funding programs that support bicycle and pedestrian improvements on state roads. SHA internally identifies, designs and constructs many of the projects. Local communities can identify and request projects for SHA evaluation.

ADA Retrofit (SHA Fund 33): A fund to upgrade existing sidewalks, curb ramps, intersections and driveway entrances along state roadways to be compliant with the Americans with Disabilities Act (ADA).

Requirements:

- Fund 33's purpose is to retrofit existing, non-compliant sidewalks up to the latest ADA standards.
- Projects are not limited to Priority Funding Areas.

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State Funding Programs

Sidewalk Retrofit (SHA Fund 79): A fund to construct missing sidewalk segments along State roadways to fill gaps within the pedestrian network. The missing segment must be located in an Urban Area (as defined by the Census). Local matching fund contributions may be reduced or eliminated for projects located in Designated Sustainable Communities, in a Priority Funding Area, or where SHA determines that there is a substantial public safety risk or significant impediment to pedestrian access.

Requirements:

- Local jurisdiction must provide public notice of the sidewalk project and citizens an opportunity to provide input; help secure right-of-way, easements, or right-of-entry agreements; and agree to maintain or repair the sidewalks after completion.
- The cost to construct or reconstruct a sidewalk shall be shared equally between the State and local government, except as provided below. If a sidewalk is located in a "Sustainable Community" per Housing and Community Development Article §§6-301 and 6-305, construction *may* be funded entirely by the state.
    - If a sidewalk is located in a Priority Funding Area and SHA determines that a *substantial* public safety risk or *significant* impediment to pedestrian access exists and the adjoining roadway is under neither construction nor reconstruction, sidewalk construction shall be identified as a system preservation project and *may* be funded 100 percent by the state.
    - If a sidewalk is located in a Priority Funding Area and requested by the local government, the construction costs may be split between the state (75 percent) and local jurisdiction (25 percent).

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2. FIELD MAPS

Appendix C: Existing Pedestrian Accommodations

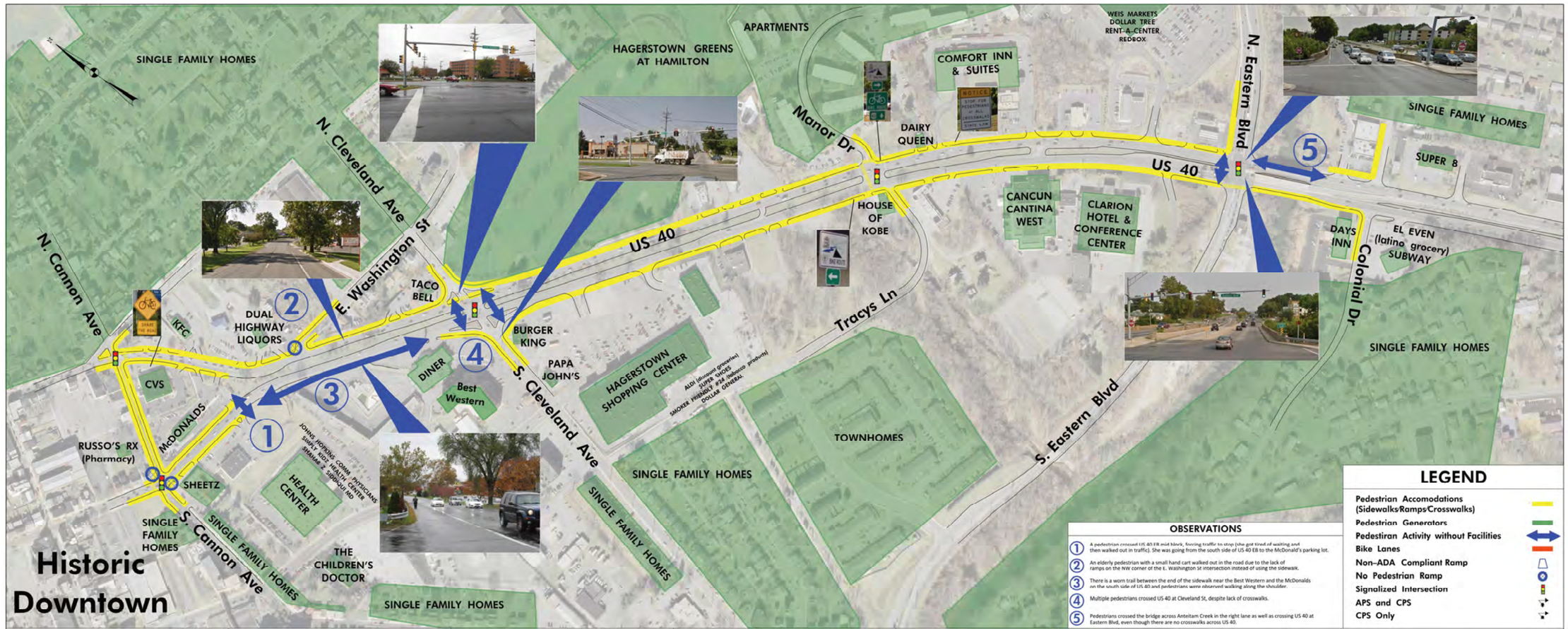

Figure C-1: Existing Pedestrian Accommodations (North)

US 40 Safety Study (Hagerstown, MD)
December 2014

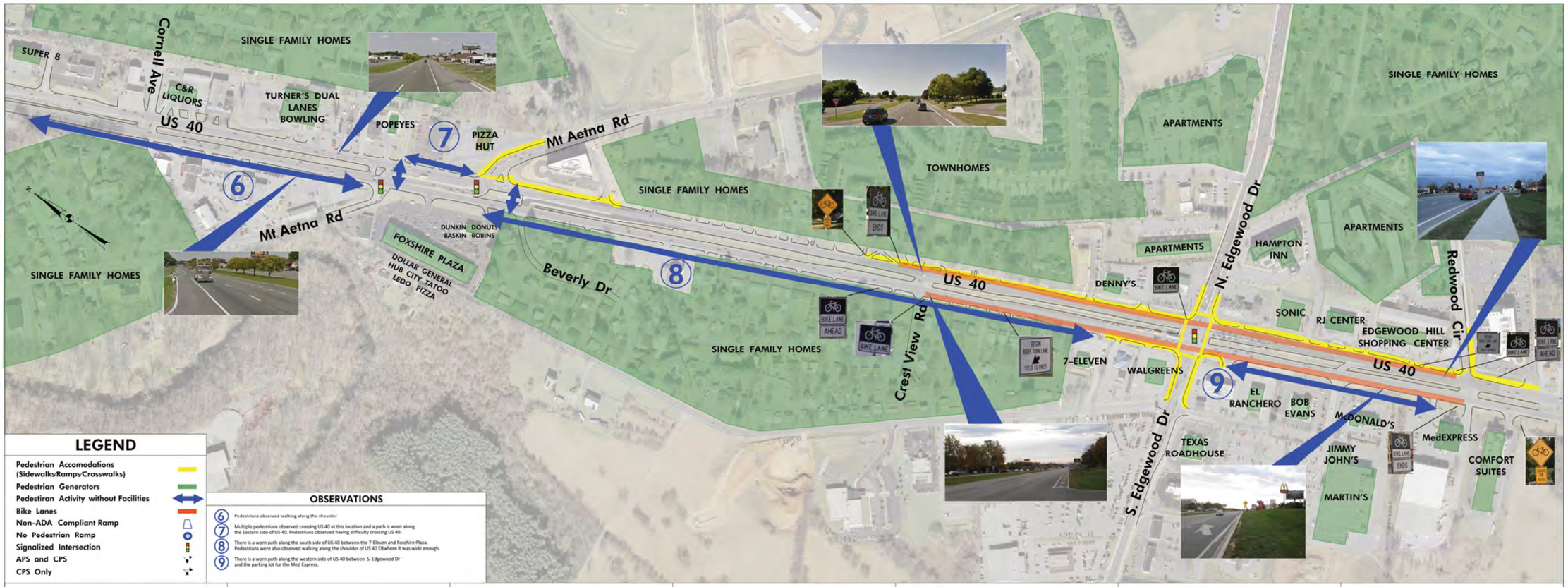

Figure C-2: Existing Pedestrian Accommodations (South)

US 40 Safety Study (Hagerstown, MD)
December 2014

3. FHWA PROMPT LISTS

Master Prompt List

RSA Matrix

Universal Considerations (For Entire RSA Site)

I. Needs of Pedestrians: Do pedestrian facilities address the needs of all pedestrians?

II. Connectivity and Convenience of Pedestrian Facilities: Are safe, continuous, and convenient paths provided along pedestrian routes throughout the study area?

III. Traffic: Are design, posted, and operating traffic speeds compatible with pedestrian safety?

IV. Behavior: Do pedestrians or motorists regularly misuse or ignore pedestrian facilities?

V. Construction: Have the effects of construction on all pedestrians been addressed adequately?

VI. School Presence: Is the safety of children in school zones adequately considered?

Topic	Subtopic	RSA Zones			
		A. Streets	B. Street Crossings	C. Parking Areas/Adjacent Developments	D. Transit Areas
Pedestrian Facilities	1. Presence, Design, and Placement	Sidewalks, paths, ramps, and buffers	Crossing treatments, intersections	Sidewalks and paths	Seating, shelter, waiting/ loading/unloading areas
	2. Quality, Condition, and Obstructions	Sidewalks, paths, ramps, and buffers	Crossing treatments (see prompts in A)	Sidewalks and paths (see prompts in A)	Seating, shelter, waiting/ loading/unloading areas (see prompts in A)
	3. Continuity and Connectivity	Continuity/ Connectivity with other streets and crossings	Continuity/connectivity of crossing to ped network; channelization of peds to appropriate crossing points	Continuity/connectivity of pedestrian facilities through parking lots/ adjacent developments	Connectivity of ped network to transit stops
	4. Lighting	Pedestrian level lighting along the street	Lighting of crossing	Pedestrian level lighting in parking lots/adjacent developments (see prompts in A and B)	Lighting at and near transit stop
	5. Visibility	Visibility of all road users	Visibility of crossing/ waiting pedestrians and oncoming traffic	Visibility of pedestrians and backing/turning vehicles; visibility of pedestrian path	Visibility of pedestrians/ waiting passengers and vehicles/buses
Traffic	6. Access Management	Driveway placement and design along streets	Driveway placement next to intersections	Driveway placement and use in relation to pedestrian paths	n/a*
	7. Traffic Characteristics	Volume and speed of adjacent traffic, conflicting conditions	Volume and speed of traffic approaching crossing, conflicting movements	Traffic volume and speed in parking lots and developments, conflicting conditions	Volume and speed of adjacent traffic and traffic at crossings to bus stops, conflicting conditions
Traffic Control Devices	8. Signs and Pavement Markings	Use and condition of signs, pavement markings, and route indicators	Use and condition of signs, pavement markings, and crossing indicators	Use and condition of signs, pavement markings for travel path and crossing points	Use and condition of transit-related signs and pavement markings
	9. Signals	n/a*	Presence, condition, timing, and phasing of signals	n/a*	See prompts in B

A. Streets

Master Prompt	Detailed Prompt		RSA Stages			
			planning	design	construction	post-construction
A.1 Presence, Design, and Placement	A.1.1	Are sidewalks provided along the street?	✔	✔	✔	✔
	A.1.2	If no sidewalk is present, is there a walkable shoulder (e.g. wide enough to accommodate cyclists/pedestrians) on the road or other pathway/trail nearby?	✔	✔	✔	✔
	A.1.3	Are shoulders/sidewalks provided on both sides of bridges?	✔	✔	✔	✔
	A.1.4	Is the sidewalk width adequate for pedestrian volumes?	✔	✔	✔	✔
	A.1.5	Is there adequate separation distance between vehicular traffic and pedestrians?	✔	✔	✔	✔
	A.1.6	Are sidewalk/street boundaries discernable to people with visual impairments?		✔	✔	✔
	A.1.7	Are ramps provided as an alternative to stairs?	✔	✔	✔	✔
A.2 Quality, Conditions, and Obstructions	A.2.1	Will snow storage disrupt pedestrian access or visibility?	✔	✔	✔	✔
	A.2.2	Is the path clear from both temporary and permanent obstructions?	✔	✔	✔	✔
	A.2.3	Is the walking surface too steep?	✔	✔	✔	✔
	A.2.4	Is the walking surface adequate and well-maintained?		✔	✔	✔
A.3 Continuity and Connectivity	A.3.1	Are sidewalks/walkable shoulders continuous and on both sides of the street?	✔	✔	✔	✔
	A.3.2	Are measures needed to direct pedestrians to safe crossing points and pedestrian access ways?		✔	✔	✔
A.4 Lighting	A.4.1	Is the sidewalk adequately lit?	✔	✔	✔	✔
	A.4.2	Does street lighting improve pedestrian visibility at night?	✔	✔	✔	✔
A.5 Visibility	A.5.1	Is the visibility of pedestrians walking along the sidewalk/ shoulder adequate?	✔	✔	✔	✔
A.6 Driveways	A.6.1	Are the conditions at driveways intersecting sidewalks endangering pedestrians?		✔	✔	✔
	A.6.2	Does the number of driveways make the route undesirable for pedestrian travel?	✔	✔	✔	✔

A. Streets

Master Prompt	Detailed Prompt		RSA Stages			
			planning	design	construction	post-construction
A.7 Traffic Charachteristics	**A.7.1**	Are there any conflicts between bicycles and pedestrians on sidewalks?				✔
A.8 Signs and Pavement Markings	**A.8.1**	Are pedestrian travel zones clearly delineated from other modes of traffic through the use of striping, colored and/or textured pavement, signing, and other methods?		✔	✔	✔
	A.8.2	Is the visibility of signs and pavement markings adequate during the day and night?		✔	✔	✔

B. Street Crossings

Master Prompt	Detailed Prompt		RSA Stages			
			planning	design	construction	post-construction
B.1 Presence, Design, and Placement	B.1.1	Do wide curb radii lengthen pedestrian crossing distances and encourage high-speed right turns?		✔	✔	✔
	B.1.2	Do channelized right turn lanes minimize conflicts with pedestrians?		✔	✔	✔
	B.1.3	Does a skewed intersection direct drivers' focus away from crossing pedestrians?	✔	✔	✔	✔
	B.1.4	Are pedestrian crossings located in areas where sight distance may be a problem?	✔	✔	✔	✔
	B.1.5	Do raised medians provide a safe waiting area (refuge) for pedestrians?	✔	✔	✔	✔
	B.1.6	Are supervised crossings adequately staffed by qualified crossing guards?				✔
	B.1.7	Are marked crosswalks wide enough?		✔	✔	✔
	B.1.8	Do at-grade railroad crossings accommodate pedestrians safely?		✔	✔	✔
	B.1.9	Are crosswalks sited along pedestrian desire lines?	✔	✔	✔	✔
	B.1.10	Are corners and curb ramps appropriately planned and designed at each approach to the crossing?		✔	✔	✔
B.2 Quality, Condition, and Obstructions	See prompts in Section A for potential issues on obstructions and protruding objects that apply to street crossings					
	B.2.1	Is the crossing pavement adequate and well maintained?				✔
	B.2.2	Is the crossing pavement flush with the roadway surface?			✔	✔
B.3 Continuity and Connectivity	B.3.1	Does pedestrian network connectivity continue through crossings by means of adequate, waiting areas at corners, curb ramps and marked crosswalks?	✔	✔	✔	✔
	B.3.2	Are pedestrians clearly directed to crossing points and pedestrian access ways?		✔	✔	✔
B.4 Lighting	B.4.1	Is the pedestrian crossing adequately lit?	✔	✔	✔	✔

B. Street Crossings

Master Prompt	Detailed Prompt		RSA Stages			
			planning	design	construction	post-construction
B.5 Visibility	B.5.1	Can pedestrians see approaching vehicles at all legs of the intersection/crossing and vice versa?	✔	✔	✔	✔
	B.5.2	Is the distance from the stop (or yield) line to a crosswalk sufficient for drivers to see pedestrians?		✔	✔	✔
	B.5.3	Do other conditions exist where stopped vehicles may obstruct visibility of pedestrians?		✔	✔	✔
B.6 Access Management	B.6.1	Are driveways placed close to crossings?	✔	✔	✔	✔
B.7 Traffic Characteristics	B.7.1	Do turning vehicles pose a hazard to pedestrians?				✔
	B.7.2	Are there sufficient gaps in the traffic to allow pedestrians to cross the road?	✔	✔	✔	✔
	B.7.3	Do traffic operations (especially during peak periods) create a safety concern for pedestrains?				✔
B.8 Signs and Pavement Markings	B.8.1	Is paint on stop bars and crosswalks worn, or are signs worn, missing, or damaged?			✔	✔
	B.8.2	Are crossing points for pedestrians properly signed and/or marked?		✔	✔	✔
B.9 Signals	B.9.1	Are pedestrian signal heads provided and adequate?		✔	✔	✔
	B.9.2	Are traffic and pedestrian signals timed so that wait times and crossing times are reasonable?		✔	✔	✔
	B.9.3	Is there a problem because of an inconsistency in pedestrian actuation (or detection) types?	✔	✔	✔	✔
	B.9.4	Are all pedestrian signals and push buttons functioning correctly and safely?			✔	✔
	B.9.5	Are ADA accessible push buttons provided and properly located?		✔	✔	✔

C. Parking Areas/Adjacent Developments

Master Prompt	Detailed Prompt		RSA Stages			
			planning	design	construction	post-construction
C.1 Presence, Design, and Placement	**C.1.1**	Do sidewalks/paths connect the street and adjacent land uses?	✔	✔	✔	✔
	C.1.2	Are the sidewalks/paths designed appropriately?		✔	✔	✔
	C.1.3	Are buildings entrances located and designed to be obvious and easily accessible to pedestrians?	✔	✔	✔	✔
C.2 Quality, Condition, and Obstructions	See prompts in Section **A** for potential issues on obstructions and protruding opbjects that apply to sidewalks and walkways at parking areas/adjacent developments					
	See prompts in Section **A** for potential issues on surface conditions that apply to sidewalks and walkways at parking areas/adjacent developments					
	C.2.1	Do parked vehicles obstruct pedestrian paths?				✔
C.3 Continuity and Connectivity	**C.3.1**	Are pedestrian facilities continuous? Do they provide adequate connections for pedestrian traffic?	✔	✔	✔	✔
	C.3.2	Are transitions of pedestrian facilities between developments/projects adequate?		✔	✔	✔
C.4 Lighting	See prompts in Section **A and B** for potential issues on lighting that apply to sidewalks and walkways at parking areas/adjacent developments					
C.5 Visibility	**C.5.1**	Are visibility and sight distance adequate?	✔	✔	✔	✔
C.6 Access Management	**C.6.1**	Are travel paths for pedestrians and other vehicle modes clearly delineated at access openings?	✔	✔	✔	✔
	C.6.2	Do drivers look for and yield to pedestrian when turning into and out of driveways?			✔	✔
C.7 Traffic Characteristics	**C.7.1**	Does pedestrian or driver behavior increase the risk of a pedestrian collision?				✔
	C.7.2	Are buses, cars, bicycles, and pedestrians separated on the site and provided with their own designated areas for travel?	✔	✔	✔	✔
C.8 Signs and Pavement Markings	**C.8.1**	Are travel paths and crossing points for pedestrians properly signed and/or marked?		✔	✔	✔

D. Transit Areas

Master Prompt	Detailed Prompt		RSA Stages			
			planning	design	construction	post-construction
D.1 Presence, Design, and Placement	D.1.1	Are bus stops sited properly?	✔	✔	✔	✔
	D.1.2	Are safe pedestrian crossings convenient for transit and school bus users?	✔	✔	✔	✔
	D.1.3	Is sight distance to bus stops adequate?	✔	✔	✔	✔
	D.1.4	Are shelters appropriately designed and placed for pedestrian safety and convenience?		✔	✔	✔
D.2 Quality, Condition, and Obstructions	D.2.1	Is the seating area at a safe and comfortable distance from vehicle and bicycle lanes?		✔	✔	✔
	D.2.2	Do seats (or persons sitting on them) obstruct the sidewalk or reduce its usable width?		✔	✔	✔
	D.2.3	Is a sufficient landing area provided to accommodate waiting passengers, boarding/alighting passengers, and through/bypassing pedestrian traffic at peak times?		✔	✔	✔
	D.2.4	Is the landing area paved and free of problems such as uneven surfaces, standing water, or steep slopes?		✔	✔	✔
	D.2.5	Is the sidewalk free of temporary/permanent obstructions that constrict its width or block access to the bus stop?	✔	✔	✔	✔
D.3 Continuity and Connectivity	D.3.1	Is the nearest crossing opportunity free of potential hazards for pedestrians?	✔	✔	✔	✔
	D.3.2	Are transit stops part of a continuous network of pedestrian facilities?	✔	✔	✔	✔
	D.3.3	Are transit stops maintained during periods of inclement weather?		✔	✔	✔
D.4 Lighting	D.4.1	Are access ways to transit facilities well-lit to accommodate early-morning, late-afternoon, and evening	✔	✔	✔	✔
D.5 Visibility	D.5.1	Are open sight lines maintained between approaching buses and passenger waiting and loading areas?		✔	✔	✔
D.7 Traffic Characteristics	D.7.1	Do pedestrians entering and leaving buses conflict with cars, bicycles, or other pedestrians?		✔	✔	✔
D.8 Signs and Pavement Markings	D.8.1	Are appropriate signs and pavement markings provided for school bus and transit stops?		✔	✔	✔

4. FIELD NOTE SHEETS

Field Note Sheets

Location	From	To	Issue	Proposed Improvement	Timeframe (Short, Medium, Long)	Priority (H, M, L)	Responsible Agency

Field Note Sheets

Location	From	To	Issue	Proposed Improvement	Timeframe (Short, Medium, Long)	Priority (H, M, L)	Responsible Agency

Other Field Notes

Other Field Notes

Appendix G:
Full-Page Safety Improvement Concept Plans

CANNON AVENUE

E FRANKLIN STREET

US 40 WESTBOUND

40

CANNON AVENUE

US 40 EASTBOUND

40

LEGEND

- Proposed Signal Pole
- Existing Signal Pole
- Proposed Pedestrian Signal Head
- Existing Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Proposed Pushbutton Pole
- Proposed ADA-Compliant Curb Ramp
- Proposed Pavement Markings

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 1-
US 40 WB and EB
at Cannon Avenue

July 2015

N.T.S.

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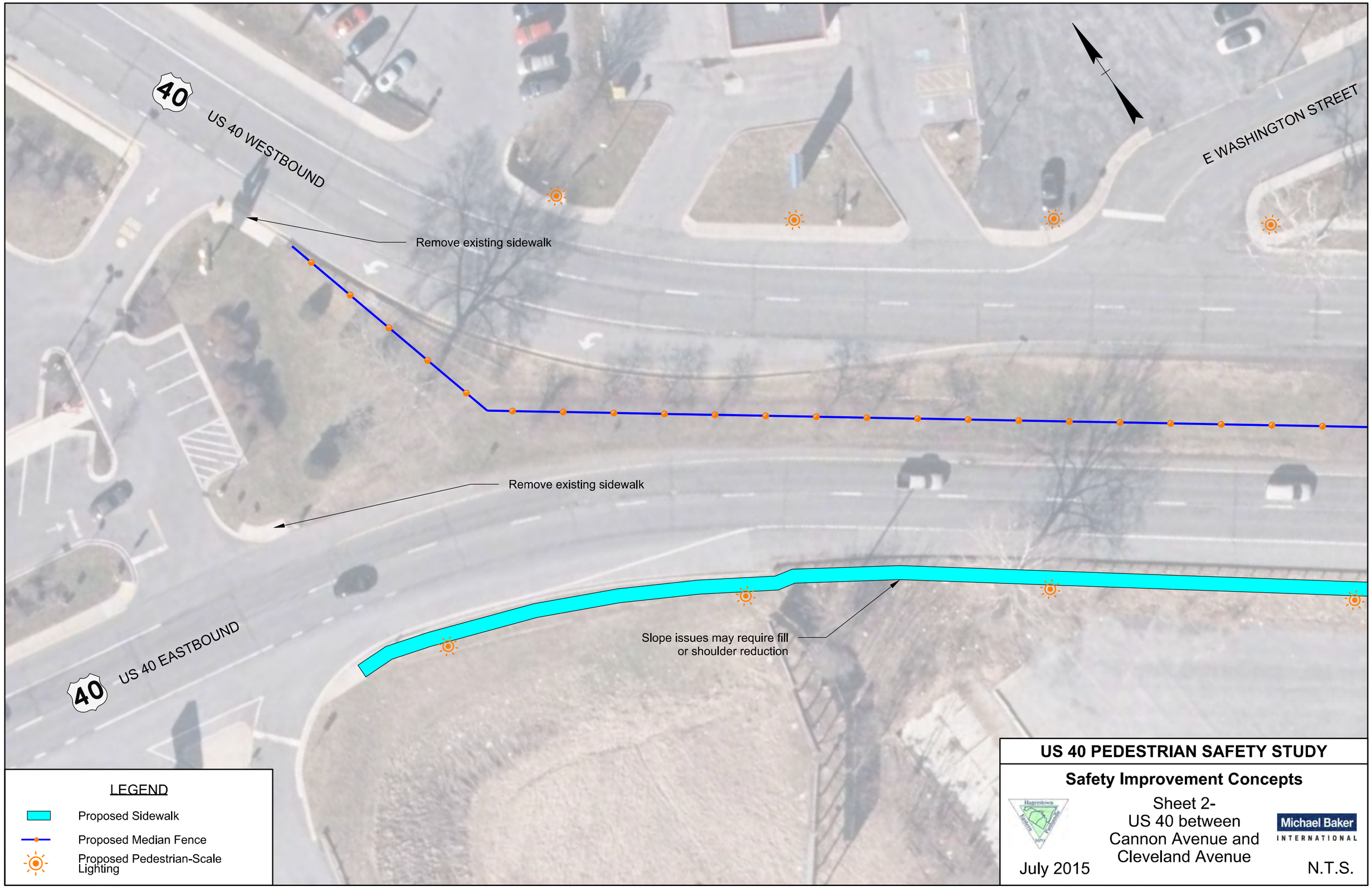

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 2-
US 40 between
Cannon Avenue and
Cleveland Avenue

July 2015

N.T.S.

W11-2
W16-7P

W11-2
W16-7P

40 US 40 WESTBOUND

Realign island

Realign curbline to provide
width for sidewalk

MATCH LINE
SEE SHEET 3.2

40 US 40 EASTBOUND

W11-2
W16-7P

W11-2
W16-7P

Existing sidewalk may
need widening

CLEVELAND AVENUE

LEGEND

- Proposed Signal Pole
- Existing Signal Pole
- Proposed Pedestrian Signal Head
- Existing Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Proposed Pushbutton Pole
- Proposed ADA-Compliant Curb Ramp
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Curbline
- Proposed Pedestrian-Scale Lighting

SIGN LEGEND

W11-2

W16-7P

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 3.1-
US 40 at
Cleveland Avenue

July 2015

N.T.S.

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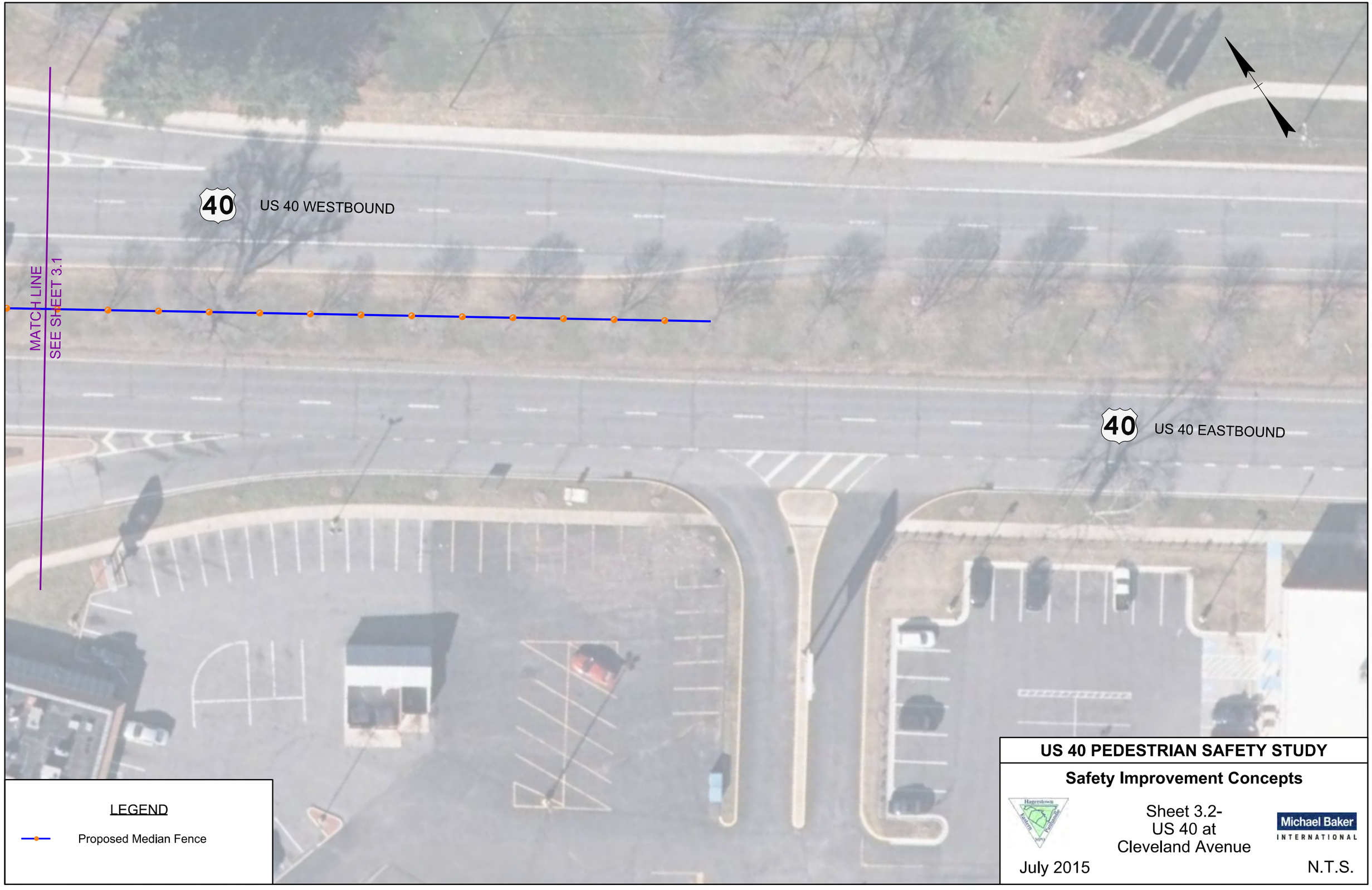


LEGEND

Proposed Median Fence

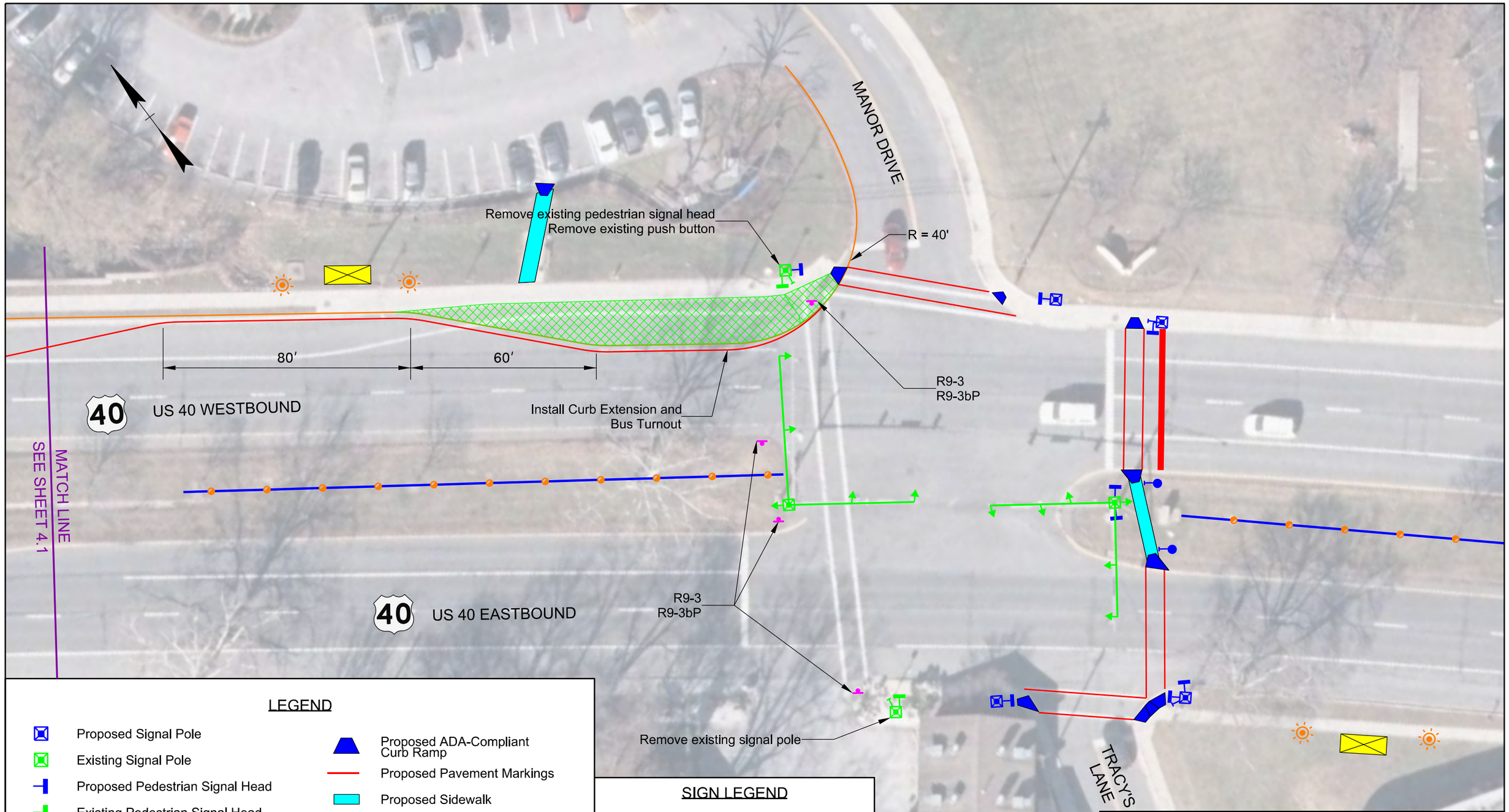
US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 3.2-
US 40 at
Cleveland Avenue

July 2015

N.T.S.



LEGEND

- Proposed Signal Pole
- Existing Signal Pole
- Proposed Pedestrian Signal Head
- Existing Pedestrian Signal Head
- Existing Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Existing Pedestrian Pushbutton
- Proposed Pushbutton Pole
- Proposed Pedestrian-Scale Lighting
- Proposed ADA-Compliant Curb Ramp
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Curbline
- Proposed Pedestrian Shelter
- Proposed Grass

SIGN LEGEND

R9-3

R9-3bP

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 4-
US 40 at
Manor Drive

July 2015

N.T.S.

Michael Baker INTERNATIONAL

40 US 40 WESTBOUND

R9-3
R9-3bP

R9-3
R9-3bP

R9-3
R9-3bP

R9-3
R9-3bP

40 US 40 EASTBOUND

LEGEND

- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Pedestrian-Scale Lighting
- Proposed Street Lighting

SIGN LEGEND

R9-3

R9-3bP

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 5A-
US 40 at U-Turn
Between Manor Drive
and Eastern Blvd

July 2015

N.T.S.

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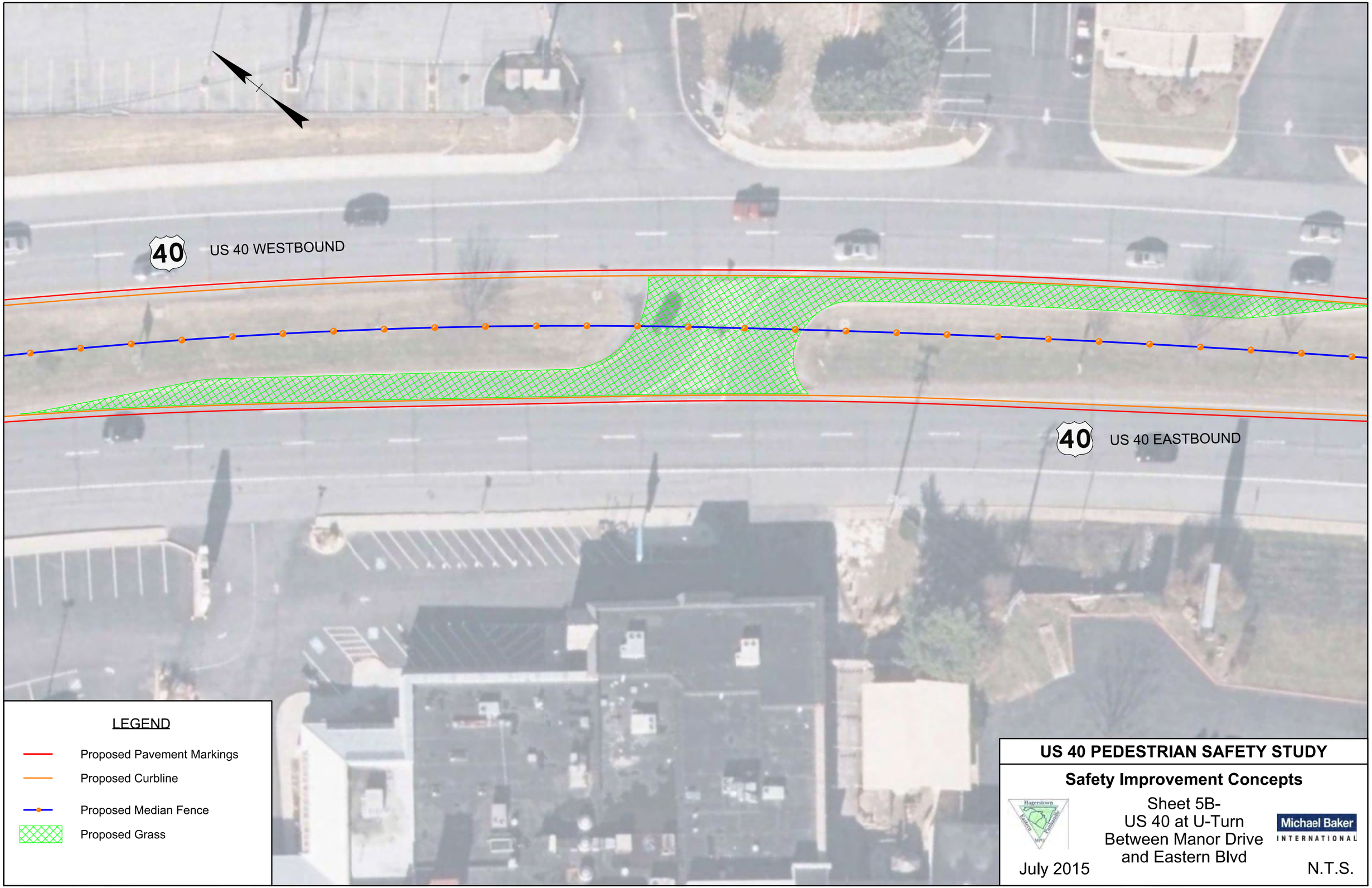


LEGEND

- Proposed Pavement Markings
- Proposed Curbline
- Proposed Median Fence
- Proposed Grass

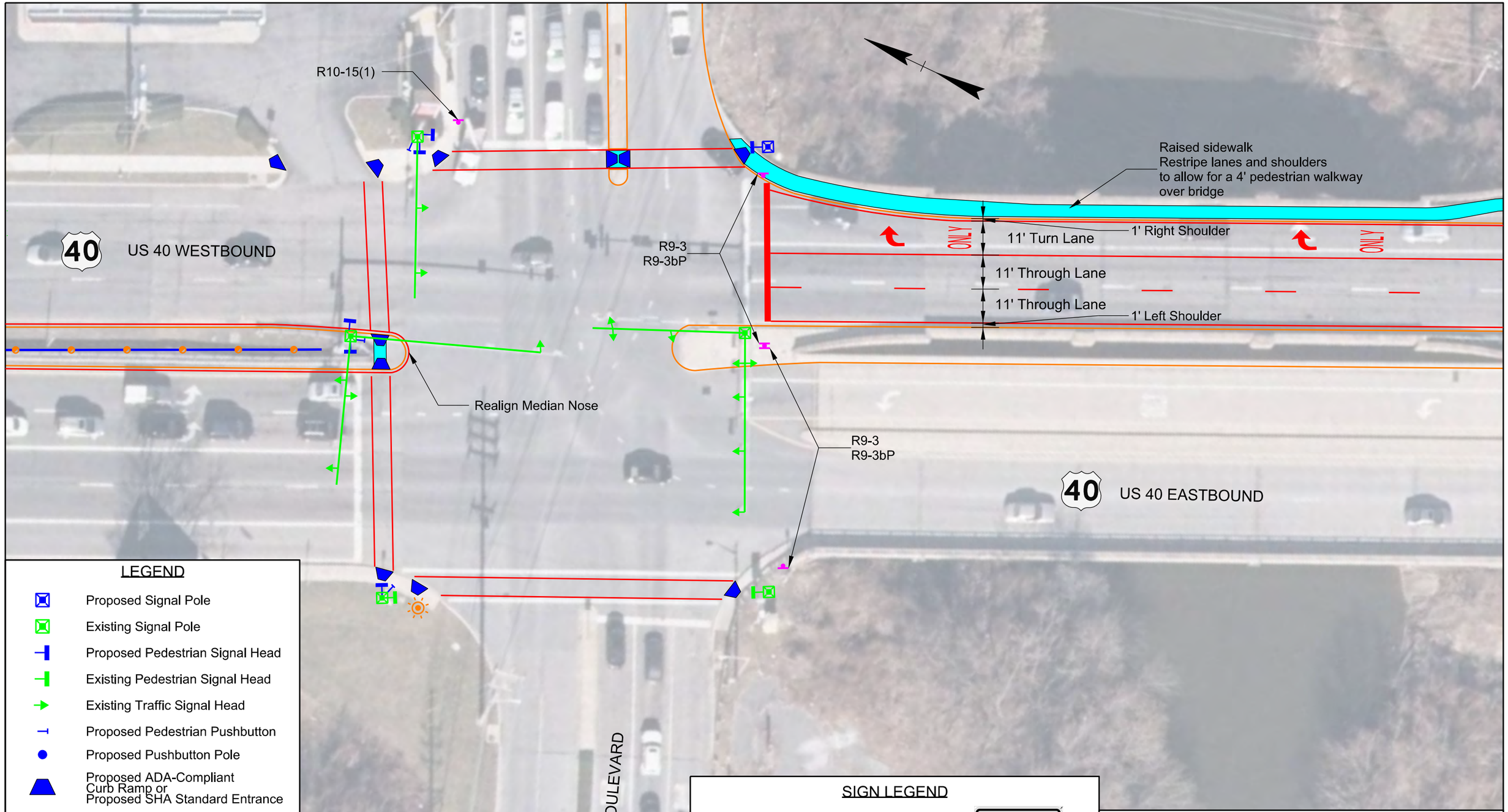
US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 5B-
US 40 at U-Turn
Between Manor Drive
and Eastern Blvd

July 2015

N.T.S.



LEGEND

- Proposed Signal Pole
- Existing Signal Pole
- Proposed Pedestrian Signal Head
- Existing Pedestrian Signal Head
- Existing Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Proposed Pushbutton Pole
- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Curbline
- Proposed Ground Mounted Sign
- Proposed Pedestrian-Scale Lighting

SIGN LEGEND

R9-3

R9-3bP

R10-15(1)

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 6-
US 40 at
Eastern Blvd

July 2015

N.T.S.

CORNELL AVENUE

40 US 40 WESTBOUND

R9-3

R9-3

40 US 40 EASTBOUND

LEGEND

- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Curbline

SIGN LEGEND

R9-3

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 7-
US 40 at
Cornell Avenue

July 2015

N.T.S.

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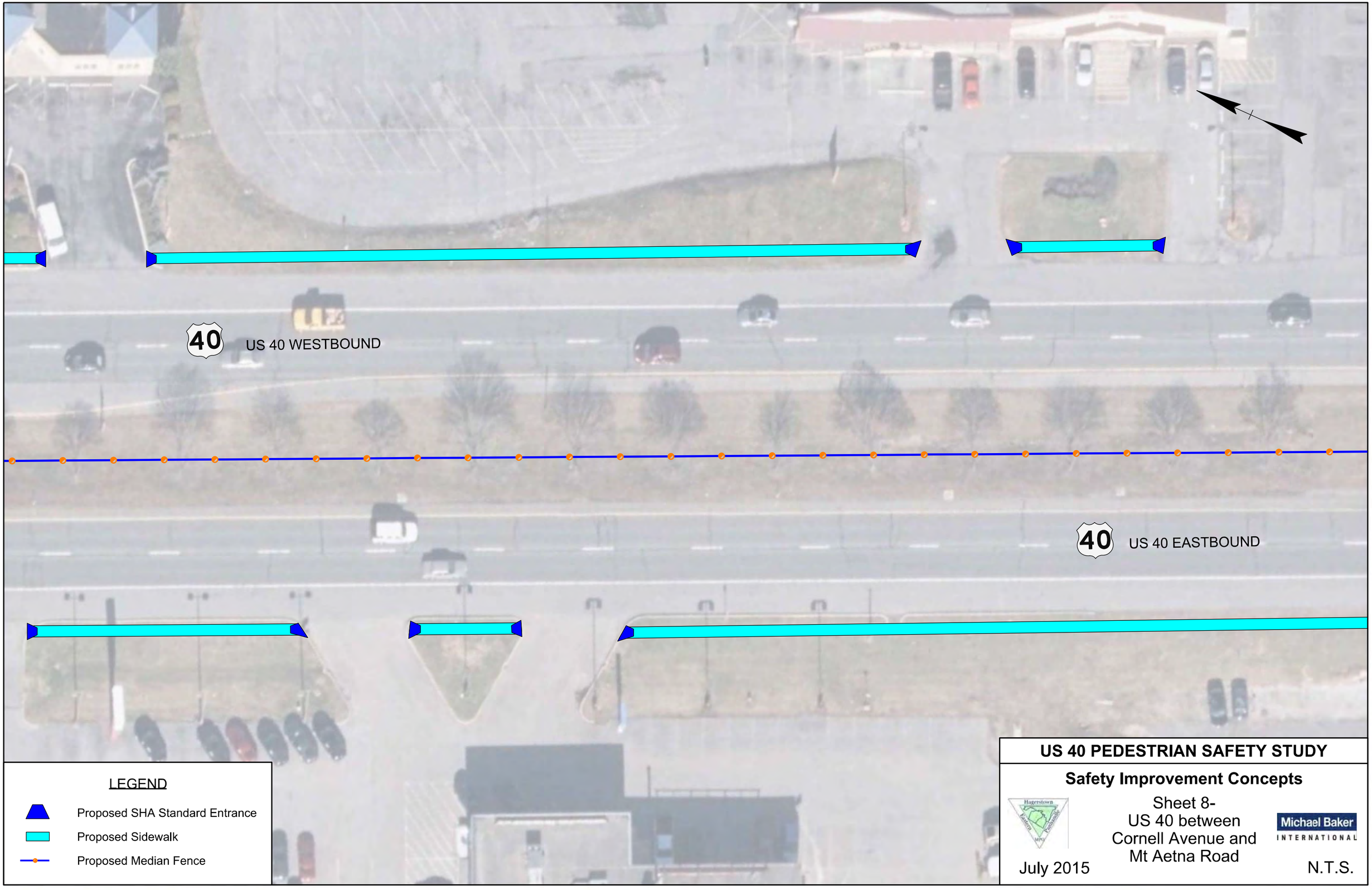

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 8-
US 40 between
Cornell Avenue and
Mt Aetna Road

July 2015

N.T.S.

40 US 40 WESTBOUND

40 US 40 EASTBOUND

R9-3
R9-3bP

R9-3
R9-3bP

R9-3
R9-3bP

MATCH LINE
SEE SHEET 9A.2

MT AETNA ROAD

LEGEND

- Existing Signal Pole
- Existing Traffic Signal Head
- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Curbline
- Proposed Grass

SIGN LEGEND

R9-3

R9-3bP

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 9.1-
US 40 at
Mt Aetna Road

July 2015

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MT AETNA ROAD

MATCH LINE
SEE SHEET 9A.1

40 US 40 WESTBOUND

40 US 40 EASTBOUND

W11-2
W16-7P

W11-2
W16-9P

R10-23

175′

Install pedestrian actuated signal
to be activated by pushbuttons.

LEGEND

- Proposed Signal Pole
- Existing Signal Pole
- Proposed Pedestrian Signal Head
- Proposed Traffic Signal Head
- Existing Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Pole Mounted Sign
- Proposed Curbline
- Proposed Pedestrian Shelter

SIGN LEGEND

R10-23


W11-2


W16-7P

W16-9P

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 9.2
US 40 at
Mt Aetna Road

July 2015

N.T.S.

40 US 40 WESTBOUND

R9-3
R9-3bP

R9-3
R9-3bP

R9-3
R9-3bP

R9-3
R9-3bP

40 US 40 EASTBOUND

CREST VIEW ROAD

LEGEND

- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Pavement Markings
- Proposed Curbline

SIGN LEGEND

R9-3

R9-3bP

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 10-
US 40 at
Crest View Road

July 2015

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40 US 40 WESTBOUND

R9-3
R9-3bP

R9-3
R9-3bP

R9-3
R9-3bP

R9-3
R9-3bP

40 US 40 EASTBOUND

LEGEND

- Proposed ADA-Compliant Curb Ramp
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Street Lighting

SIGN LEGEND

R9-3

R9-3bP

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 11-
US 40 between
Edgewood Drive
and Redwood Circle

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N.T.S.

REDWOOD CIRCLE

40 US 40 WESTBOUND

40 US 40 EASTBOUND

ONLY

ONLY

ONLY

ONLY

ONLY

ONLY

LEGEND

- Proposed Signal Pole
- Proposed Pedestrian Signal Head
- Proposed Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Proposed Pushbutton Pole
- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Curbline

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Sheet 12-
US 40 at
Redwood Circle

July 2015

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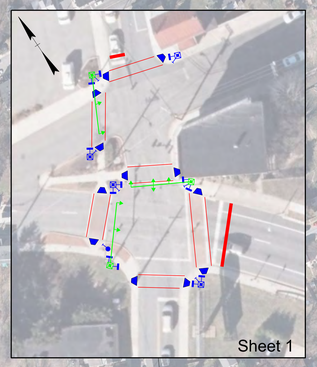
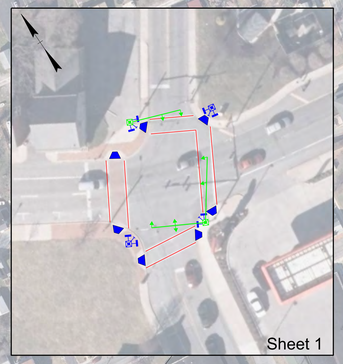
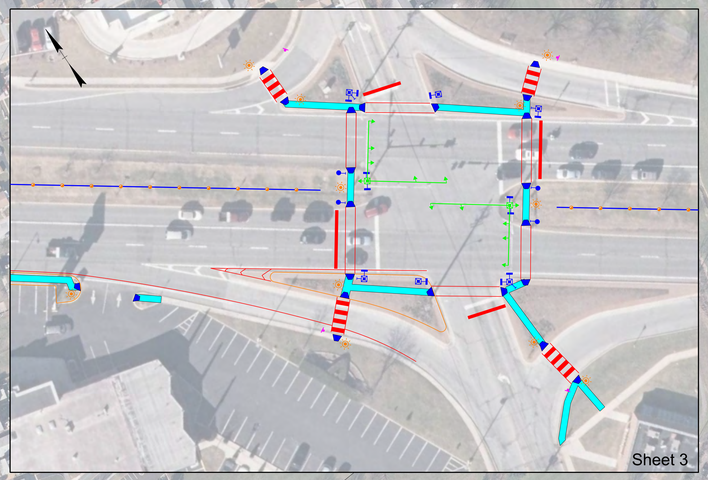
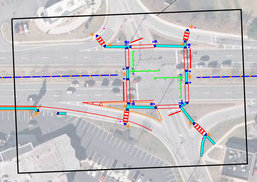
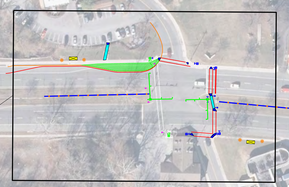
Appendix H:
US 40 (Dual Highway) PRSA Recommendations Corridor Map

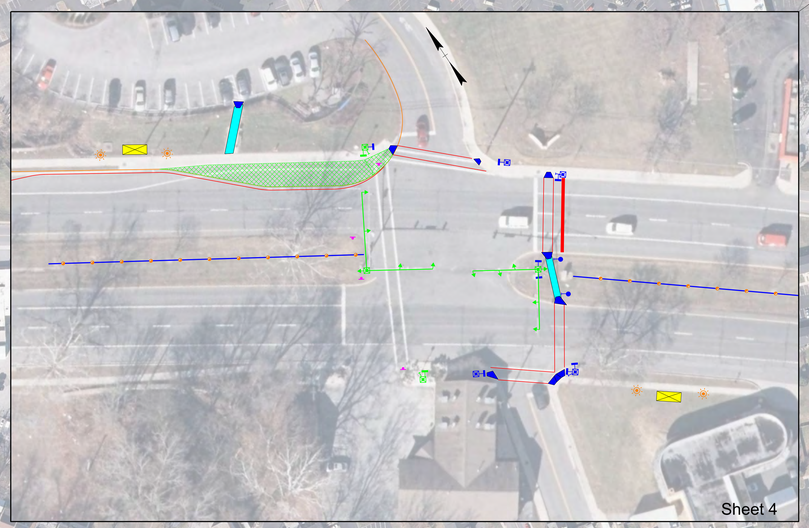












E FRANKLIN STREET

CLEVELAND AVENUE

MANOR DRIVE

CANNON AVENUE

TRACY'S LANE

US 40 WESTBOUND

US 40 EASTBOUND

MATCH LINE A

LEGEND

- Proposed Signal Pole
- Existing Signal Pole
- Proposed Pedestrian Signal Head
- Existing Pedestrian Signal Head
- Proposed Traffic Signal Head
- Existing Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Proposed Pushbutton Pole
- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Curbline
- Proposed Pedestrian-Scale Lighting
- Proposed Pedestrian Shelter
- Proposed Grass
- Proposed Street Lighting
- Proposed Pole Mounted Sign

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Overall Project Location
Part 1

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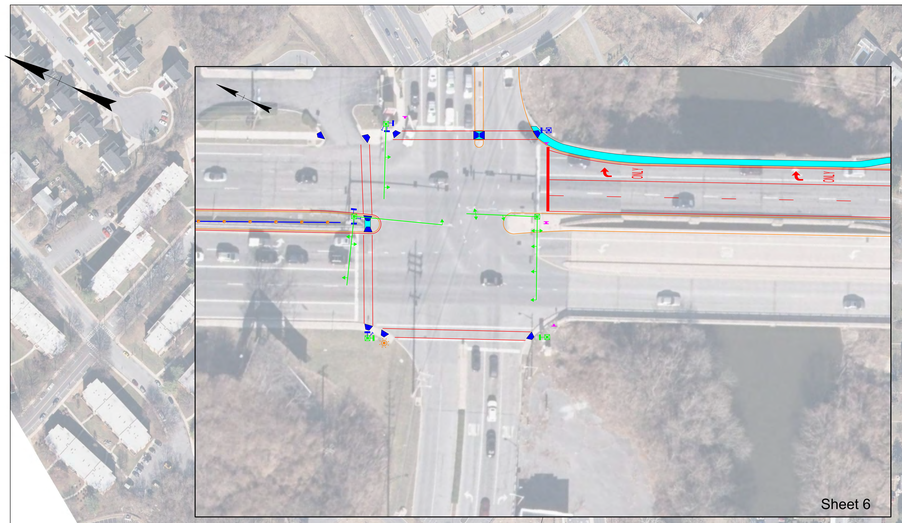

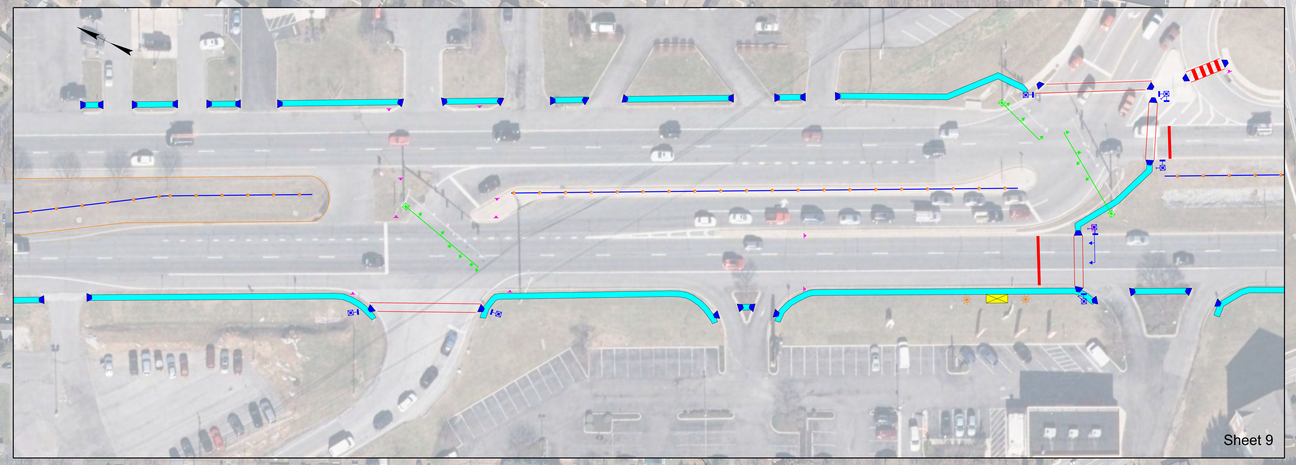

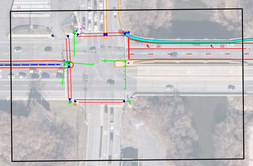

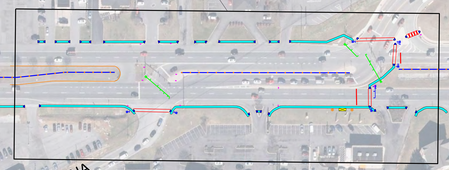

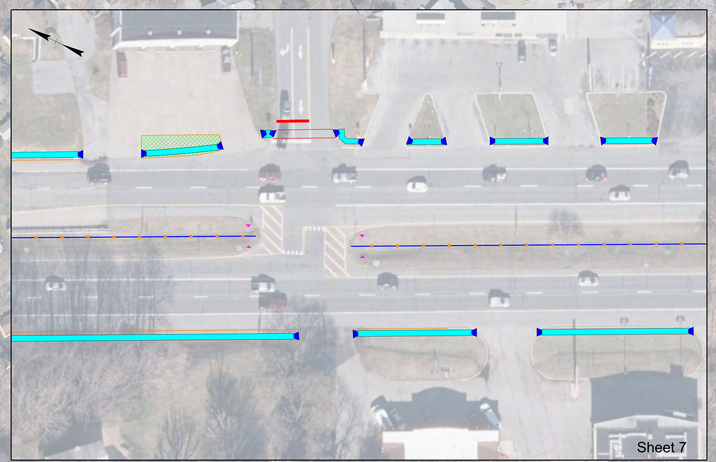

MATCH LINE A

MATCH LINE B

US 40 WESTBOUND

US 40 EASTBOUND

EASTERN BOULEVARD

CORNELL AVENUE

MT. AETNA ROAD

MT. AETNA ROAD

US 40 WESTBOUND

US 40 EASTBOUND

LEGEND

- Proposed Signal Pole
- Existing Signal Pole
- Proposed Pedestrian Signal Head
- Existing Pedestrian Signal Head
- ProposedTraffic Signal Head
- Existing Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Proposed Pushbutton Pole
- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Curbline
- Proposed Pedestrian-Scale Lighting
- Proposed Pedestrian Shelter
- Proposed Grass
- Proposed Street Lighting
- Proposed Pole Mounted Sign

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Overall Project Location
Part 2

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MATCH LINE B

US 40 WESTBOUND

US 40 EASTBOUND

US 40 WESTBOUND

US 40 EASTBOUND

CREST VIEW ROAD

REDWOOD CIRCLE

Sheet 12

Sheet 10

LEGEND

- Proposed Signal Pole
- Existing Signal Pole
- Proposed Pedestrian Signal Head
- Existing Pedestrian Signal Head
- ProposedTraffic Signal Head
- Existing Traffic Signal Head
- Proposed Pedestrian Pushbutton
- Proposed Pushbutton Pole
- Proposed ADA-Compliant Curb Ramp or Proposed SHA Standard Entrance
- Proposed Pavement Markings
- Proposed Sidewalk
- Proposed Median Fence
- Proposed Ground Mounted Sign
- Proposed Curbline
- Proposed Pedestrian-Scale Lighting
- Proposed Pedestrian Shelter
- Proposed Grass
- Proposed Street Lighting
- Proposed Pole Mounted Sign

US 40 PEDESTRIAN SAFETY STUDY

Safety Improvement Concepts

Overall Project Location
Part 3

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