## Appendix A <br> HEPMPO Safety Survey Content

Hagerstown / Eastern Panhandle MPO Safety Study
(c) Progress $\longrightarrow$
Start Here
We want your input!
The Hagerstown / Eastern Panhandle Metropolitan Planning Organization (HEPMPO) is
conducting a regional traffic safety study to help identify key corridors or locations of
safety concern. The HEPMPO will continue to work with the WVDOT and MDOT to
program projects and promote other strategies to improve safety within the region to
support state goals of zero fatalities. In this survey, please tell us what you think are the
primary safety concerns in the region and provide any specific areas of concern on the
interactive map.
II

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## Appendix B RSA -Washington St. (Hagerstown)



## Washington Street (US 40 Eastbound)

Burhans Boulevard to Cannon Avenue Hagerstown, Maryland

Conducted on:
November 28, 2018

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## Overview

A Road Safety Audit (RSA) was conducted on Washington Street (US 40 Eastbound) between Burhans Blvd to Cannon Ave in Washington County, Maryland. An RSA is a formal safety review of a defined section of roadway in which most safety aspects are reviewed and evaluated. Once completed, the group's findings are documented in a report. The RSA team consisted of members representing HEPMPO, Hagerstown City Engineering, Maryland SHA District 6, Washington County Sheriff's Department, and Michael Baker International. The attending members are identified in Table 1.

The study area was a 0.8-mile-long section of Washington Street (US 40 Eastbound) that spanned from Burhans Blvd to Cannon Ave. The study area consists of an urban one-way corridor with multiple signalized intersections and includes on-street parallel parking throughout the section.

Washington Street has a 2017 Annual Average Daily Traffic (AADT) volume of 10,901 vehicles and a crash rate of 811 crashes per 100 million vehicle-miles of travel (MVMT) within the study area. This is higher than the 2017 Statewide Crash Rate of 168 crashes per 100MVMT (see Crash Data section chart). The highest number of intersection-related crashes occur at or near Jonathan Street. Aggregating crashes at or near the intersection and 2017 estimates of approach traffic volume, the resulting intersection crash rate is 1.2 crashes per million entering vehicles (MEV). This value is not significantly high but does warrant consideration of continued monitoring and/or low-cost safety improvements.

Upon completion of the review, suggestions and opportunities for improvement to safety were developed. General observations and corresponding recommendations related to traffic operations and the roadway/roadside features can be found in the Observations and Recommendations Sections. The suggestions were divided into three categories. Those categories were:

- Short Term - Improvements that could be accomplished in a relatively short timeframe with existing funds.
- Intermediate - Improvements that would require development of plans and identification of funding source. These improvements typically would not require permitting and would be constructed within existing right of way.
- Long Term - Improvements that require coordination outside of the department in addition to development of plans including permitting and/or right of way and are not currently funded.


## Short Term Improvements

1. Evaluate all signalized intersections to provide consistent one way and no turn signing at similar intersections
2. Adjust all signs to reflect recommended lane configuration changes as applicable
3. Investigate restriction of LTOR onto Locust Ave
4. Add signing and pavement marking improvements (Detailed signing and pavement marking recommendations can be found in the Pavement Markings and Signing Recommendations Section)

## Intermediate Improvements

1. Provide backplates on all signal heads
2. Evaluate traffic signal timing and confirm yellow and all red clearance interval calculations and implementation
3. Consider adding red light cameras at intersections with higher crash rates

## Long Term Improvements

1. Evaluate and reconstruct driveway entrances to public parking areas west of Locust Street to enable more fluid entry of vehicles into driveways
2. Add pedestrian pushbuttons, heads, and phasing/timing at all intersections where it doesn't currently exist

## Crash Data

Figure 1: Washington Street Crash Data


## RSA Team

The RSA team comprised of members representing HEPMPO, Hagerstown City Engineering, SHA District 6, Washington County Sheriff's Department, and Michael Baker International. The RSA team's various experience and safety concerns allowed for adequate discussion throughout the RSA process. Table 1 lists the attendees and their organizations that were involved in the field study.

Table 1: Washington Street RSA Field Team

| Name |  |
| :--- | :--- |
| Matt Mullenax | HEPMPO |
| Steve Thomas | HEPMPO |
| John Wolford | Maryland State Highway Administration |
| Doug Mullendore | Washington County Sheriff |
| Jim Bender | City of Hagerstown, Assistant City Engineer |
| Rodney Tissue | City of Hagerstown, City Engineer |
| Rebecca Christman | Michael Baker International |
| Jim Frazier | Michael Baker International |
| Gary Greening | Michael Baker International |
| Dan Szekeres | Michael Baker International |

## Observations and Recommendations: Traffic Operations

During the field visit, the Audit team walked the study location while taking photographs and documenting general traffic observations related to operating speeds, traffic volumes, intersections, driveways, and the traffic mix. Recommendations are suggested based upon the general observations and issues. Each issue observed during the field visit is identified with further detail within this section. Table 2 indicates the observations and corresponding recommendations related to traffic operations.

Table 2: Observations and Recommendations Related to Traffic Operations

| Traffic Operation | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| Operating Speeds | Traffic generally follows speed limit, except on the downhill east of the Potomac Street intersection. At the same location, vehicles slow down to turn into a public parking lot | - Evaluate and reconstruct driveway entrances to public parking areas west of Locust Street to enable more fluid entry of vehicles into driveways | 1.1 |
|  | Traffic seems to be traveling too fast while approaching the Cannon Ave intersection for the available sight distance through the intersection | - Provide signing and pavement marking guidance through the Cannon Ave intersection | 1.2 |
| Volumes | Heavy, constant traffic volume | General observation - no recommendations | n/a |
|  | Anecdotal evidence suggests traffic volume/congestion is negatively impacted by incident diversions from I-81 and I-70 | - Improve one way signing and pavement markings for people unfamiliar with the corridor | 2.1 |
|  | Parking spaces heavily utilized in central section, less so as distance increases from center of town. | - Install $10^{\prime \prime}$ parking lane pavement marking to emphasize delineation between travel lanes and parking areas | 2.2 |


| Traffic Operation | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| Intersections | Traffic Signals at most intersections along study corridor | - Evaluate all signalized intersections to provide consistent one way and no turn signing at similar intersections <br> - Provide backplates on all signal heads <br> - Add pedestrian pushbuttons, heads, and phasing/timing at all intersections where it doesn't currently exist <br> - Investigate restriction of LTOR onto Locust Ave <br> - Replace existing 4-section signal heads with 5 -section signal heads <br> - Evaluate traffic signal timing and confirm yellow and all red clearance interval calculations and implementation <br> - Consider adding red light cameras at intersections with higher crash rates | 3.1 |
|  | Many vehicles straddle lane lines when using turn lanes | - Where possible - Eliminate $8^{\prime}$ turn lanes and combine turn lane with through lane. Use available space to widen 2 through lanes to 11' lanes with a shoulder. Provide skip lines through intersection as warranted and taper back to meet two 10 ' receiving through lanes. Provide through and straight/turn arrow pavement marking on newly configured lanes at intersections where warranted. Conduct LOS analysis prior to making lane revisions <br> - Adjust all signs to reflect recommended lane configuration changes as applicable | 3.2 |
|  | Driver observed turning wrong way into one-way traffic flow | - Evaluate all signalized intersections to provide consistent one way and no turn signing at similar intersections <br> - Provide thru and straight/turn arrow pavement markings to accentuate and reinforce traffic flow direction at problem intersections | 3.3 |


| Traffic <br> Operation | Observations | Recommendations | Link to <br> Issue |
| :---: | :--- | :--- | :---: |
| Driveways | Extreme slowing observed for <br> vehicles entering newly built <br> driveways into public parking areas | - Evaluate and reconstruct driveway <br> entrances to public parking areas <br> west of Locust Street to enable <br> more fluid entry of vehicles into <br> driveways | 4.1 |

## Issue 1: Operating Speeds

### 1.1 Downhill East of Potomac Street

## Observations

Traffic generally follows speed limit, except on the downhill east of the Potomac Street intersection. At the same location, vehicles slow down to turn into a public parking lot

Based on crash data from 2013 to May 2018, 43\% of the reported crashes between Potomac St and Locust St were rear end midblock collisions

## Suggestions

## Long-term

- Evaluate and reconstruct driveway entrances to public parking areas west of Locust Street to enable more fluid entry of vehicles into driveways


| 1.2 | Cannon Avenue Intersection Approach |
| :--- | :--- | Observations

Traffic seems to be traveling too fast while approaching the Cannon Ave intersection for the available sight distance through the intersection

## Suggestions

## Short-term

- Provide signing and pavement marking guidance through the Cannon Ave intersection


## Issue 2: Volumes

| 2.1 | Incident Diversions Impacting Volumes |
| :--- | :--- |
| Observations |  |
| Anecdotal evidence suggests traffic <br> volume/congestion is negatively impacted by <br> incident diversions from I-81 and I-70 |  |
| Suggestions |  |
| Short-term <br> Improve one way signing and pavement <br> markings for people unfamiliar with the <br> corridor |  |



\section*{| 2.2 | Parking Spaces |
| :--- | :--- |}

## Observations

Parking spaces heavily utilized in central section, less so as distance increase from center of town

Based on crash data from 2013 to May 2018, 26\% of reported crashes in the study section involved a parked vehicle

## Suggestions

## Short-term

- Install 10 " parking lane pavement marking to emphasize delineation between travel lanes and parking areas



## Issue 3: Intersections

### 3.1 Traffic Signals

Observations
Traffic signals at most intersections along study corridor

## Suggestions

## Short-term

- Evaluate all signalized intersections to provide consistent one way and no turn signing at similar intersections
- Investigate restriction of LTOR onto Locust Ave


## Intermediate-term

- Provide backplates on all signal heads
- Evaluate traffic signal timing and confirm yellow and all red clearance interval calculations and implementation
- Consider adding red light cameras at intersections with higher crash rates Long-term
- Add pedestrian pushbuttons, heads, and phasing/timing at all intersections where it does not currently exist
- Replace existing 4 -section signal heads with 5 -section signal heads


| 3.2 | Vehicles Straddle Lane Lines |
| :--- | :--- |

## Observations

Many vehicles straddle lane lines when using turn lanes

## Suggestions

## Short-term

- Where possible - Eliminate 8' turn lanes and combine turn lane with through lane. Use available space to widen 2 through lanes to $11^{\prime}$ lanes with a shoulder. Provide skip lines through intersection as warranted and taper back to meet two 10 ' receiving through lanes. Provide through and straight/turn arrow pavement marking on newly configured lanes at intersections where warranted. Conduct LOS analysis prior to making lane revisions
- Adjust all signs to reflect recommended lane configuration changes as applicable


### 3.3 Wrong Way Driving

## Observations

Driver observed turning wrong way into one-way traffic during RSA field view

Although a driver was observed turning the wrong way, there have been no reported head-on collisions from 2013 to May 2018

Google maps photos captured a wrong-way driver in 2017 in Washington St. west of Burhans Blvd (shown in photo)

## Suggestions

## Short-term

- Evaluate all signalized intersections to provide consistent one way and no turn signing at similar intersections
- Provide thru and straight/turn arrow pavement markings to accentuate and reinforce traffic flow direction at problem intersections



## Issue 4: Driveways

### 4.1 Public Parking Areas

## Observations

Extreme slowing observed for vehicles entering newly built driveways into public parking areas

Based on crash data from 2013 to May 2018, 50\% of the reported crashes near the parking area driveways were rear end crashes.

## Suggestions

## Long-term

- Evaluate and reconstruct driveway entrances to public parking areas west of Locust Street to enable more fluid entry of vehicles into driveways


## Issue 5: Traffic Mix

### 5.1 Typical Urban Section

## Observations

Typical urban section with expectation of pedestrians at every intersection. Heavy pedestrian use at Potomac intersection because of school children changing classes through intersection. A crossing guard is present at Potomac intersection to assist school children

Based on crash data from 2013 to May 2018, there were 5 pedestrian related crashes and 3 bicycle related crashes within the study corridor. Of those crashes, $75 \%$ of them resulted in an injury

## Suggestions

## Long-term

- Add pedestrian pushbuttons, heads, and phasing/timing at all intersections where it doesn't currently exist
- Relocate two crosswalks at Potomac St intersection to be closer to corners to improve visibility of pedestrians



## Observations and Recommendations: Roadway/ Roadside Features

During the field visit, the Audit team walked the study location while taking photographs and documenting the general roadway and roadside features. Recommendations are suggested based upon the general observations and issues. Each issue observed during the field visit is identified with further detail within this section. Table 3 indicates the observations and corresponding recommendations related to roadway/roadside features.

Table 3: Observations and Recommendations Related to Roadway/Roadside Features

| Roadway/ <br> Roadside <br> Features | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| General <br> Roadway <br> Features | One-way corridor | - Evaluate all signalized intersections to provide consistent one way and no-turn signing at similar intersections | 1.1 |
|  | $36^{\prime}$ curb to curb pavement width, less at bulbouts/intersection | - Reconfigure SB approach lanes on Potomac Street north of intersection to combine left turn lane and through lane and thereby provide room to widen through lanes. Conduct LOS analysis prior to lane reconfiguration <br> - Revise loading zone/parking, turn, and through lanes at Burhans Boulevard intersection (Begin approach lane revisions at Washington Avenue/Antietam Street split) <br> - Adjust all signs to reflect recommended lane configuration changes as applicable | 1.2 |
|  | Typical midblock sections are 2-10' travel lanes and 2-8' parking lanes | - Revise as suggested per signing and pavement marking recommendations | 1.3 |
|  | Bulb-outs built at most intersections | General observation - no recommendations | n/a |
|  | Typical intersection mainline approach provides 2-10' travel lanes and 2-8' parking lanes | - Where possible - Eliminate $8^{\prime}$ turn lanes and combine turn lane with through lane. Use available space to widen 2 through lanes to $11^{\prime}$ lanes with a shoulder. Provide skip lines through intersection as warranted and taper back to meet two 10 receiving through lanes. Provide through and straight/turn arrow pavement marking on newly configured lanes at intersections where warranted. Conduct LOS analysis prior to making lane revisions | 1.4 |


| Roadway/ <br> Roadside <br> Features | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
|  |  | - Adjust all signs to reflect recommended lane configuration changes as applicable |  |
|  | Painted crosswalks at signalized intersections | - Add pedestrian pushbuttons, heads, and phasing/timing at all intersections where it doesn't currently exist | 1.5 |
|  | Sight distance problem/ can't see receiving lanes at Cannon Avenue intersection | - Provide signing and pavement marking guidance through the Cannon Ave intersection | 1.6 |
| Roadside Features | Urban setting - Sidewalks along both sides of study corridor | General observation - no recommendations | n/a |
|  | Urban setting - Streetscape is typically urban with street furniture (lamp posts, tree wells, parking signs, fire hydrants, buildings at back of sidewalk, etc.) | General observation - no recommendations | n/a |
|  | Entire study section has concrete curb and gutter with curb inlets | General observation - no recommendations | n/a |
|  | Curbside parallel, metered parking is typical throughout the study corridor | - Revise parking lane edge lines to 10 " <br> - Add triangular/transverse hatching in advance of parking lanes where applicable <br> - Revise loading zone/parking, turn, and through lanes at Burhans Boulevard intersection (Begin approach lane revisions at Washington Avenue/Antietam Street split) <br> - Add and designate a loading zone in front of Washington County Planning and Zoning building west of Jonathan Street | 2.1 |

## Issue 1: General Roadway Features

| 1.1 | One-way Corridor |
| :--- | :--- |
| Observations |  |
| US 40 is a one-way corridor through Hagerstown |  |
| Photo of EB US 40/Jonathan St intersection |  |
| Suggestions |  |
| Short-term <br> Evaluate all signalized intersections to <br> provide consistent one way and no-turn <br> signing at similar intersections |  |



### 1.2 Pavement Width

## Observations

$36^{\prime}$ curb to curb pavement width, less at bulbouts/intersections

## Suggestions

## Short-term

- Reconfigure SB approach lanes on Potomac Street north of intersection to combine left turn lane and through lane and thereby provide room to widen through lanes. Conduct LOS analysis prior to lane reconfiguration
- Revise loading zone/parking, turn, and through lanes at Burhans Boulevard intersection (Begin approach lane revisions at Washington Avenue/Antietam Street split)
- Adjust all signs to reflect recommended lane configuration changes as applicable



### 1.3 Midblock Sections

## Observations

Typical midblock sections are 2-10' travel lanes and 2-8' parking lanes

Photo of downhill section east of US 40/Potomac St intersection showing typical midblock section

## Suggestions

## Short-term

- Revise lane configurations as suggested per signing and pavement marking recommendations (see Pavement Markings and Signing Recommendations)


### 1.4 $\quad$ Typical Intersection Mainline Approach

## Observations

Typical intersection mainline approach provides 2$10^{\prime}$ travel lanes and one $8^{\prime}$ turning lane

## Suggestions

## Short-term

- Where possible - Eliminate $8^{\prime}$ turn lanes and combine turn lane with through lane. Use available space to widen 2 through lanes to $11^{\prime}$ lanes with a shoulder. Provide skip lines through intersection as warranted and taper back to meet two 10 ' receiving through lanes. Provide through and straight/turn arrow pavement marking on newly configured lanes at intersections where warranted. Conduct LOS analysis prior to making lane revisions
- Adjust all signs to reflect recommended lane configuration changes as applicable


| 1.5 | Painted Crosswalks |
| :--- | :--- |
| Observations |  |
| Painted crosswalks at signalized intersections |  |
| Photo shows the US40/Walnut St intersection, <br> where there are currently no pedestrian <br> pushbuttons or pedestrian signal heads |  |
| Suggestions |  |
| Long-term <br> Add pedestrian pushbuttons, heads, and <br> phasing/timing at all intersections where it <br> doesn't currently exist |  |



### 1.6 Sight Distance at Cannon Ave

## Observations

Sight distance problem/ can't see receiving lanes at Cannon Avenue intersection

## Suggestions



## Issue 2: Roadside Features

### 2.1 Metered Parking

## Observations

Curbside parallel, metered parking is typical throughout the study corridor

Based on crash data from 2013 to May 2018, 26\% of reported crashes in the study section involved a parked vehicle

## Suggestions

## Short-term

- Revise parking lane edge lines to $10^{\prime \prime}$
- Add triangular/transverse hatching in advance of parking lanes where applicable
- Revise loading zone/parking, turn, and through lanes at Burhans Boulevard intersection (Begin approach lane revisions at Washington Avenue/Antietam Street Split)
- Add and designate a loading zone in front of Washington County Planning and Zoning building west of Jonathan Street



## Pavement Markings and Signing Recommendations

Signing and pavement marking improvements were recommended following the field visit and analysis of crash history. Generally, signing and pavement markings are suggested to be added throughout the study area to advise drivers of lane designations, one-way streets, and turn prohibitions. Table 4 indicates the recommended signing and pavement marking recommendations for each section of the study area.

Table 4: Washington Street Signing and Pavement Marking Recommendations


Figure 2: Pavement Marking Recommendations at Washington Ave/Antietam St Intersection


Figure 3: Pavement Marking Recommendations east of Washington Ave/Antietam St Intersection


Figure 4: Pavement Marking Recommendations at Washington St/Burhans Blvd Intersection


Figure 5: Pavement Marking Recommendations at Washington St/Walnut St Intersection


Figure 6: Pavement Marking Recommendations at Washington St/Prospect St Intersection


Figure 7: Pavement Marking Recommendations at Washington St/Jonathan St Intersection


Figure 8: Pavement Marking Recommendations at Washington St/Potomac St Intersection


Figure 9: Pavement Marking Recommendations east of Washington St/Potomac St Intersection


Figure 10: Pavement Marking Recommendations at Washington St/Locust St Intersection


Figure 11: Pavement Marking Recommendations at Washington St/Mulberry St Intersection


Figure 12: Pavement Marking Recommendations at Washington St/Cannon Ave Intersection



Figure 13: Burhans Blvd/Washington St Intersection - Eastbound Recommendations


Figure 14: Burhans Blvd/Washington St Intersection - Northbound Recommendations


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Washington Street

Figure 15: Burhans Blvd/Washington St Intersection - Southbound Recommendations


Figure 16: Walnut St/Washington St Intersection - Eastbound Recommendations


Figure 17: Walnut St/Washington St Intersection - Northbound Recommendations


Figure 18: Walnut St/Washington St - Southbound Recommendations


Figure 19: Prospect St/Washington St Intersection - Eastbound Recommendations


Figure 20: Prospect St/Washington St Intersection - Southbound Recommendations


Figure 21: Johnathan St/Summit Ave/Washington St Intersection - Eastbound Recommendations


Figure 22: Johnathan St/Summit Ave/Washington St Intersection - Northbound
Recommendations


Figure 23: Potomac St/Washington St Intersection - Eastbound Recommendations


Figure 24: Potomac St/Washington St Intersection - Southbound Recommendations (view 1)


Figure 25: Potomac St/Washington St Intersection - Southbound Recommendations (view 2)


Figure 26: Locust St/Washington St Intersection - Eastbound Recommendations


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Washington Street

Figure 27: Locust St/Washington St Intersection - Northbound Recommendations


Figure 28: Mulberry St/Washington St Intersection - Eastbound Recommendations


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Figure 29: Mulberry St/Washington St Intersection - Southbound Recommendations


Figure 30: Cannon Ave/Washington St Intersection - Eastbound Recommendations


Figure 31: Cannon Ave/Washington St Intersection - Southbound Recommendations


Figure 32: Cannon Ave/Washington St Intersection - Northbound Recommendations


## Appendix C <br> RSA - WV 9 (Johnsontown)



## Road Safety Audit

## WV-9

Traver's Country Store to Dollar General Berkeley County, West Virginia

Conducted on:
December 12, 2018

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## Overview

A Road Safety Audit (RSA) was conducted on WV-9 through Johnsontown (between Traver's Country Store and Dollar General) in Berkeley County, West Virginia. An RSA is a formal safety review of a defined section of roadway in which most safety aspects are reviewed and evaluated. Once completed, the group's findings were documented in a report. The RSA team consisted of members representing HEPMPO, WVDOH District 5, WVDOH Traffic Engineering, Berkeley County Planning Department, FHWA-WV Division, Berkeley County Office of Homeland Security and Emergency Management, and Michael Baker International. The attending members are identified in Table 1.

The study area is a 0.3-mile-long section of WV-9 that spans from the Traver's Country Store to the Dollar General through Johnsontown. The study area consists of an off-set intersection as well as various vertical and horizontal curves. Many driveways to businesses, churches, and private houses are located throughout the section.

WV-9 has a 2017 Annual Average Daily Traffic (AADT) volume of 8,346 vehicles and a crash rate of 547 crashes per 100 million vehicle-miles of travel (MVMT) within the study area. This is higher than the 2013 Average Statewide Crash Rate of 300 crashes per 100MVMT (see Crash Data section chart). The highest number of intersection-related crashes occur at or near Cherry Run Road. Aggregating crashes at or near the Cherry Run and Baxter Road intersections with 2017 estimates of approach traffic volumes, the resulting intersection crash rate is 1.0 crashes per million entering vehicles (MEV). This value is not significantly high but does warrant consideration of continued monitoring and/or low-cost safety improvements.

Upon completion of the review, suggestions and opportunities for improvement to safety were developed. General observations and corresponding recommendations related to traffic operations and the roadway/roadside features can be found in the Observations and Recommendations Sections. The suggestions were divided into three categories. Those categories were:

- Short Term - Improvements that could be accomplished in a relatively short timeframe with existing funds.
- Intermediate - Improvements that would require development of plans and identification of funding source. These improvements typically would not require permitting and would be constructed within existing right of way.
- Long Term - Improvements that require coordination outside of the Division of Highways in addition to development of plans including permitting and/or right of way and are not currently funded.


## Short Term Improvements

1. Conduct speed/sight distance study to reduce speed limit through 'village' area
2. Address vegetation trimming through regular maintenance
3. Work with property owner of Traver's Country Store to provide traffic flow guidance
4. Conduct traffic counts and consider narrowing to a 1-lane exit at Dollar General
5. Add signing and pavement marking improvements (Detailed signing and pavement marking recommendations can be found in the Pavement Markings and Signing Recommendations Section)

## Intermediate Improvements

1. Coordinate uniform mailbox placement and add 'shoulder' surface (stone) for mail delivery vehicle
2. Create stone shoulders

## Long Term Improvements

1. Improve typical cross section to include paved shoulders
2. Improve drainage/pipe/swale at Baxter Road intersection
3. Extend pipe and drainage ditch configuration at Cherry Run Road intersection
4. Add turn/decel lane (including a RTL heading westbound at the Cherry Run Intersection)
5. Relocate residential driveway at intersection with Baxter Road
6. Realign and reprofile roadway

## Crash Data

Figure 1: WV-9 Crash Data


## RSA Team

The RSA team was comprised of members representing HEPMPO, WVDOH District 5, WVDOH Traffic Engineering, Berkeley County Planning Department, FHWA-WV Division, Berkeley County Office of Homeland Security and Emergency Management (OHSEM), and Michael Baker International. The RSA team's various experience and safety concerns allowed for adequate discussion throughout the RSA process. Table 1 lists the attendees and their organizations that were involved in the field study.

Table 1: WV-9 RSA Field Team

| Name Organization |  |
| :--- | :--- |
| Matt Mullenax | HEPMPO |
| Steve Thomas | HEPMPO |
| Shaneka Owens | FHWA-WV Division |
| Chandra Inglis-Smith | FHWA-WV Division |
| David Chappell | WVDOH |
| Ken Clohan | WVDOH District 5 |
| Donna Hardy | WVDOH |
| Donald Meadows | WVDOH Operations |
| Ryan Satterfield | WVDOH |
| Matthew Skiles | Werkeley County |
| Laura Hoffmaster | Berkeley County |
| Randy Lilly | Michael Baker International |
| Rebecca Christman | Michael Baker International |
| Jim Frazier | Michael Baker International |
| Gary Greening | Michael Baker International |
| Dan Szekeres |  |

## Observations and Recommendations: Traffic Operations

During the field visit, the Audit team walked the study location while taking photographs and documenting general traffic observations related to operating speeds, traffic volumes, intersections, driveways, and the traffic mix. Recommendations were suggested based upon the general observations and issues. Each issue observed during the field visit is identified with further detail within this section. Table 2 indicates the observations, the corresponding recommendations, and the link to a photo illustrating the specific issue related to traffic operations.

Table 2: Observations and Recommendations Related to Traffic Operations

| Traffic Operation | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| Operating Speeds | The general perception is that vehicles cresting hills too fast for available sight distance | - Conduct speed study to reduce speed limit through 'village' area <br> - Advance signing <br> - Realign and reprofile roadway <br> - Add turn/decel lanes <br> - Improve typical cross section to include paved shoulders | 1.1 |
|  | Slow vehicles entering and exiting offset intersection of Baxter Road and Cherry Run Road create a safety concern due to sight distance constraints | - Conduct speed study to reduce speed limit <br> - Advance intersection signing <br> - Add turn/decel lanes <br> - Improve typical cross section to include paved shoulders <br> - Realign and reprofile roadway | 1.2 |
| Volumes | Constant/steady flow of traffic through study area. Not notably light and not notably congested | N/A | Not notably congested |
| Intersections | Sight distance issue at Baxter Road intersection due to signs, vegetation and hedge | - Relocate private advertising and directional signs <br> - Maintain vegetation overgrowth | 2.1 |
|  | Evidence of vehicles over-running pavement edges while entering and exiting Cherry Run Road intersection | - Revise pavement markings <br> - Consider geometric improvements | 2.2 |
|  | Slow vehicles entering and exiting offset intersection of Baxter Road and Cherry Run Road create a safety concern due to sight distance constraints | - Advanced intersection signing <br> - Add turn/decel lanes <br> - Improve typical cross section to include paved shoulders | 2.3 |


| Traffic Operation | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| Driveways | Driveway/parking area for Traver's Country Store is heavily utilized and unchannelized | - Work with property owner to provide traffic flow guidance <br> - Realign and reprofile roadway thereby providing additional circulation/parking area in front of business | 3.1 |
|  | Exiting/entering from southern end of unchanneled parking area has sight distance constraints due to vertical curve/hill on WV-9 | - Work with property owner to provide traffic flow guidance | 3.2 |
|  | Driveway to 'Open Arms Ministry" has created a gravel/mud decel lane/large turning radius | - Create stone shoulders <br> - Improve typical cross section to include paved shoulders | 3.3 |
|  | Residential driveway located in radius of Baxter Road Intersection | - Relocate residential driveway | 3.4 |
|  | Driveway to Dollar General has two exit lanes which may create mutual sight distance obstruction when used concurrently | - Conduct traffic counts and consider revising pavement markings to a 1-lane exit | 3.5 |
|  | Driveway to 'Country Side Auto Sales' has sight distance constraint due to vertical curve/hill | - Improve typical cross section to include paved shoulders <br> - Realign and reprofile roadway | 3.6 |
|  | Remainder of driveways are low volume, residential, predominantly gravel, with no specific/unique noted issues | N/A | Remainder of driveways have no noted issues |
| Traffic Mix | A dirt pedestrian path was worn in from south side of Dollar General parking lot to adjacent property roadside area - No other evidence of pedestrian roadside activity | N/A | No noted pedestrian issues |
|  | No bicycle traffic noted | N/A | No bicycle traffic noted |
|  | Anecdotal evidence of school bus stop at property north of Cherry Run Road/Opposite from Baxter Road intersection with concern for stopped vehicles and sight distance of high-speed approaching vehicles expressed. | N/A <br> (A video of the area indicates that there is no longer a bus stop at that location) | No bus stop noted |
|  | No unusual heavy vehicle percentage noted | N/A | No unusual heavy vehicle traffic |

## Issue 1: Operating Speeds

### 1.1 Vehicles Cresting Hills Too Fast

## Observations

The general perception is that vehicles are cresting hills too fast for available sight distance.

Based on crash data from 2013 to 2017, 30\% of the reported crashes within the study area occurred while cresting the hill near Traver's Country Store. 75\% of which occurred during dry conditions

## Suggestions

## Short-term

- Conduct speed study to reduce speed limit through 'village' area
- Advanced signing


## Long-term

- Realign and reprofile roadway
- Add turn/decel lanes
- Improve typical cross section to include paved shoulders



### 1.2 Slow Vehicles Entering and Exiting

## Observations

Slow vehicles entering and exiting offset intersection of Baxter Road and Cherry Run Road create a safety concern due to sight distance constraints

Based on crash data from 2013 to 2017, 65\% of the reported crashes along the corridor occurred in the vicinity of the offset intersection

## Suggestions

## Short-term

- Conduct speed study to reduce speed limit through 'village' area
- Advanced intersection signing


## Long-term

- Add turn/decel lanes
- Improve typical cross section to include paved shoulders
- Realign and reprofile roadway



## Issue 2: Intersections

### 2.1 $\quad$ Baxter Road Intersection

## Observations

Sight distance issue at Baxter Road intersection due to signs, vegetation and hedge

Based on crash data from 2013 to 2017, 23\% of the crashes along the corridor were angle crashes, $86 \%$ of which occurred in dry conditions.

## Suggestions

## Short-term

- Relocate private advertising and directional signs
- Maintain vegetation overgrowth


### 2.2 Cherry Run Road Intersection <br> Observations

Evidence of vehicles over-running pavement edges while entering and exiting Cherry Run Road intersections

Picture shows the NW corner of the Cherry Run Road/WV-9 intersection

## Suggestions

## Short-term

- Revise pavement markings


## Long-term

- Consider geometric improvements


| 2.3 | Offset Intersection of Baxter Road and <br> Cherry Run Road |
| :--- | :--- |
| Observations |  |
| Slow vehicles entering and exiting offset <br> intersection of Baxter Road and Cherry Run Road <br> create a safety concern due to sight distance <br> constraints. |  |
| Based on crash data from 2013 to 2017, 65\% of <br> the reported crashes along the corridor occurred <br> in the vicinity of the offset intersection |  |
| Suggestions |  |
| Short-term <br> - Advance intersection signing |  |
| Long-term |  |
| - Add turn/decel lanes |  |
| - Improve typical cross section to include |  |
| paved shoulders |  |



## Issue 3: Driveways

| 3.1 | Driveway/Parking Area for Traver's Country <br> Store |
| :--- | :--- |
| Observations |  |
| Driveway/parking area for Traver's Country Store <br> is heavily utilized and unchannelized |  |
| Photo of Traver's Country Store parking lot, facing <br> westbound WV-9 |  |
| Suggestions |  |
| Short-term <br> • Work with property owner to provide traffic <br> flow guidance |  |
| Long-term <br> Realign and reprofile roadway thereby <br> providing additional circulation/parking area <br> in front of business |  |



| 3.2 | Exiting/Entering from Unchanneled Parking <br> Area |
| :--- | :--- |
| Observations |  |
| Exiting/entering from southern end of <br> unchanneled parking area has sight distance <br> constraints due to vertical curve/hill on WV-9 |  |
| Photo of Traver's Country Store parking lot, facing <br> eastbound WV-9 |  |
| Suggestions |  |
| Short-term <br> Work with property owner to provide traffic <br> flow guidance |  |



### 3.3 Open Arms Ministry Driveway

## Observations

Driveway near 'Open Arms Ministry' has created a gravel/mud decel lane/large turning radius

Picture facing westbound WV-9 at 'Open Arms Ministry' driveway prior to the Cherry Run Road intersection

## Suggestions

Intermediate-term

- Create stone shoulders


## Long-term

- Improve typical cross section to include paved shoulders


| 3.4 | Residential Driveway in Radius of Baxter <br> Road Intersection |
| :--- | :--- |
| Observations |  |
| Residential driveway located in radius of Baxter <br> Road intersection |  |
| Suggestions |  |
| Long-term <br> • Relocate residential driveway |  |



| 3.5 | Driveway to Dollar General |
| :--- | :--- |
| Observations |  |
| Driveway to Dollar General has two exit lanes <br> which may create mutual sight distance <br> obstruction when used concurrently |  |
| Suggestions |  |
|  |  |
| Short-term |  |
| Conduct traffic counts and consider revising |  |
| pavement markings to a 1-lane exit |  |



| 3.6 | Country Side Auto Sales Driveway |
| :--- | :--- |
| Observations |  |
| Driveway to 'Country Side Auto Sales' has sight <br> distance constraint due to vertical curve/hill |  |
| Suggestions |  |
|  |  |
| Long-term <br> - Improve typical cross section to include <br> paved shoulders |  |
| Realign and reprofile roadway |  |



## Observations and Recommendations: Roadway/ Roadside Features

During the field visit, the Audit team walked the study location while taking photographs and documenting the general roadway and roadside features. Recommendations are suggested based upon the general observations and issues. Each issue observed during the field visit is identified with further detail within this section. Table 3 indicates the observations, the corresponding recommendations, and the link to a photo illustrating the specific issue related to the roadway and roadside features.

Table 3: Observations and Recommendations Related to Roadway/Roadside Features

| Roadway/ <br> Roadside <br> Features | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| General <br> Roadway <br> Features | Study area located between two vertical curves (hills) with sight distance constraints | - Add advance signing <br> - Speed and sight distance study to reduce speed limit <br> - Realign and reprofile roadway | 1.1 |
|  | Two $12^{\prime}$ lanes with no/minimal ( $1^{\prime}-4^{\prime}$ ) shoulders | - Improve typical cross section to include paved shoulders | 1.2 |
| Roadside Features | Drainage issues at Baxter Run Road intersection | - Drainage/pipe/swale improvements <br> - Relocate residential driveway | 2.1 |
|  | A few mailboxes close to roadway edge causing mail delivery vehicle to stop in roadway for mail deliveries. Other mailboxes with evidence of dirt/mud mail truck tire tracks off pavement edge | - Coordinate uniform mailbox placement and add 'shoulder' surface (stone) for mail delivery vehicle <br> - Improve typical cross section to include paved shoulders | 2.2 |
|  | Evidence of many crashes (vehicle parts/crash debris along roadside) throughout the study section | - Implement various safety improvement recommendations as noted here-in | 2.3 |
|  | Guiderail along roadway at Cherry Run Road intersection is missing object markers at all ends except one. It also has no delineators | - Install object markers <br> - Install delineators | 2.4 |
|  | Guiderail end facing Cherry Run Road approach detached from supports (evidence of crash or over-running) | - Install delineators <br> - Revise pavement markings <br> - Geometric improvements at intersection | 2.5 |
|  | Vegetation in close proximity to roadway along creek (tributary) is not maintained. Anecdotal evidence suggests this makes a sight distance obstruction in growing season. | - Address vegetation trimming through regular maintenance | 2.6 |


| Roadway/ <br> Roadside <br> Features | Observations | Recommendations | Link to <br> Issue |
| :---: | :--- | :--- | :---: |
|  | Drainage pipe and swale at Cherry Run <br> Road intersection at very edge of <br> pavement. Unprotected pavement edge <br> shows evidence of vehicle scraping | - Add maintenance markers/delineators <br> - Revise pavement markings <br> - Extend pipe and drainage ditch <br> configuration and install shoulder | 2.7 |

## Issue 1: General Roadway Features

### 1.1 Sight Distance Constraints

## Observations

Study area located between two vertical curves (hills) with sight distance constraints

The picture shows eastbound WV-9 as it approaches the study area

## Suggestions

## Short-term

- Add advanced intersection signing
- Speed and sight distance study to reduce speed limit


## Long-term

- Realign and reprofile roadway



### 1.2 No/Minimal ( $1^{\prime}-4^{\prime}$ ) Shoulders

## Observations

Two $12^{\prime}$ lanes with no/minimal ( $1^{\prime}-4^{\prime}$ ) shoulders
Based on crash data from 2013 to 2017, 30\% of the reported crashes within the study section were single vehicle, sideswipe, or head on crashes. $75 \%$ of the single vehicle crashes hit a fixed object (pole, tree, guardrail, embankment)

## Suggestions

## Long-term

- Improve typical cross section to include paved shoulders


## Issue 2: Roadside Features

| 2.1 | Drainage Issues at Baxter Run Road <br> Intersection |
| :--- | :--- |
| Observations |  |
| Drainage issues at Baxter Run Road intersection |  |
| Picture shows drainage along WV-9, west of the |  |
| Baxter Run Road intersection |  |



### 2.2 Mailboxes Close to Roadway Edge

## Observations

A few mailboxes are close to the roadway edge causing mail delivery vehicle to stop in the roadway for mail deliveries. Other mailboxes have evidence of dirt/mud mail truck tire tracks off of the pavement edge.

## Suggestions

## Intermediate-term

- Coordinate uniform mailbox placement and add 'shoulder' surface (stone) for mail delivery vehicle


## Long-term

- Improve typical cross section to include paved shoulders


### 2.3 $\quad$ Evidence of Crashes

## Observations

Evidence of many crashes (vehicle parts/crash debris along roadside) throughout the study section

The corridor crash rate for this section of roadway is 547 crashes per 100 million VMT. Picture shows eastbound WV-9 just prior to Traver's Country Store parking lot

## Suggestions

## Various-term

Implement various safety improvements recommendations as noted here-in


### 2.4 Missing Guiderail Object Markers

## Observations

Guiderail along roadway at Cherry Run Road intersection is missing object markers at all ends except one. It also has no delineators

Guiderail pictured is at the Cherry Run Road intersection. Additional evidence of cars scraping against guiderail

## Suggestions

## Short-term

- Install object markers
- Install delineators


### 2.5 Guiderail at Cherry Run Road

## Observations

Guiderail end facing Cherry Run Road approach detached from supports

Evidence of crash or over-running. Picture shows guiderail along NW corner of the Cherry Run Road/WV-9 intersection.

## Suggestions

## Short-term

- Install delineators
- Revise pavement markings


## Long-term

- Geometric improvements at intersection
$\qquad$



### 2.6 Vegetation in Close Proximity to

## Observations

Vegetation in close proximity to roadway along creek (tributary) is not maintained. Anecdotal evidence suggests this makes a sight distance obstruction for Baxter Rd in growing season.

## Suggestions

## Short-term

Address vegetation trimming through regular maintenance

## 2.7 Drainage Pipe and Swale at Cherry Run Road Intersection

## Observations

Drainage pipe and swale at Cherry Run Road intersection at very edge of pavement.
Unprotected pavement edge shows evidence of vehicle scraping

Picture shows pavement edge of NE corner of the Cherry Run Road/WV-9 intersection.

## Suggestions

## Short-term

- Add maintenance markers/delineators
- Revise pavement markings


## Long-term

- Extend pipe and drainage ditch configuration and install shoulders



## Pavement Markings and Signing Recommendations

Signing and pavement marking improvements were recommended following the field visit and analysis of crash history. Generally, signing and pavement markings are suggested to be added throughout the WV-9 study area to lower the speed of drivers by creating a 'village' atmosphere. Additional delineation and warning signs are recommended to advise drivers of various, unique, elements of the section. Table 4 and the following figures indicate the specific recommended signing and pavement markings for the WV-9 study section.

Table 4: WV-9 Signing and Pavement Marking Recommendations

| Signing and Pavement Marking Recommendations | Figure <br> Reference |
| :--- | :---: |
| -Conduct speed study to reduce speed limit through study section due to sight <br> distance constraints approaching offset intersection and village-like nature of <br> study area | A. |
| - Add 'Advanced Speed Limit Reduction' signs (W3-5) | B. |
| - Add 'Speed Limit' signs (R2-1) | C. |
| - Add 'Offset Side Roads' signs (W2-7R) with advisory special caution plaque and |  |
| distance plaque (W15-2aP) | D. |
| - Add 'Johnsontown Unincorporated' signs (I-2) to contribute to 'village' atmosphere |  |
| of section/area | E. |
| - Add object markers (OM3-L/R) at guiderail ends | F. |
| - Add 'Large Double Arrow' sign (W1-7) at Cherry Run Road T-intersection | G. |
| - Add maintenance markers (flexible delineator posts) at drainage ditch drop-off at | H. |
| Cherry Run Road | Add guiderail web delineators and top delineators along all guiderail sections |
| • | I. |
| - Revise pavement markings and lane widths at Cherry Run Road approach to WV-9 | J. |
| - Add speed reduction markings in advance of curves | K. |

Figure 2: Signing and Pavement Marking Recommendations through Johnsontown (Entire Study Area)


Figure 3: Signing and Pavement Marking Recommendations at WV-9 and Cherry Run Road intersection


Figure 4: Signing and Pavement Marking Recommendations at WV-9 and Cherry Run Road


Figure 5: Signing and Pavement Marking Recommendations for Eastbound WV-9


Figure 6: Signing and Pavement Marking Recommendations for Westbound WV-9


## Appendix D <br> RSA - Summit Point Road



## Road Safety Audit

## Summit Point Road

Shirley Road to Lloyd Road

Conducted on:

Jefferson County, West Virginia

December 11, 2018

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## Overview

A Road Safety Audit (RSA) was conducted on Summit Point Road (between Shirley Road and Lloyd Road) in Jefferson County, West Virginia. An RSA is a formal safety review of a defined section of roadway in which most safety aspects are reviewed and evaluated. Once completed, the group's findings were documented in a report. The RSA team consisted of members representing HEPMPO, WVDOH District 5, WVDOH Traffic Engineering, FHWAWV Division, Jefferson County Sheriff's Office, and Michael Baker International. The attending members are identified in Table 1.

The study area is a 1.4-mile-long section of Summit Point Road that spans from Shirley Road to Lloyd Road. The study area consists of an elementary school zone, various horizontal and vertical curves as well as sporadic intersections and driveways throughout the section.

Summit Point Road has a 2017 Annual Average Daily Traffic (AADT) volume of 2,237 vehicles and a crash rate of 735 crashes per 100 million vehicle-miles of travel (MVMT) within the study area. This is significantly higher than the 2013 Average Statewide Crash Rate of 300 crashes per 100MVMT (see Crash Data section chart). The highest number of intersection-related crashes occur at or near Lloyd Road. Aggregating crashes at or near the intersection and 2017 estimates of approach traffic volume, the resulting intersection crash rate is 2.3 crashes per million entering vehicles (MEV). This value is typically considered of concern and warrants consideration of potential safety improvement strategies.

Upon completion of the review, suggestions and opportunities for improvement to safety were developed. General observations and corresponding recommendations related to traffic operations and the roadway/roadside features can be found in the Observations and Recommendations Sections. The suggestions were divided into three categories. Those categories were:

- Short Term - Improvements that could be accomplished in a relatively short timeframe with existing funds.
- Intermediate - Improvements that would require development of plans and identification of funding source. These improvements typically would not require permitting and would be constructed within existing right of way.
- Long Term - Improvements that require coordination outside of the Division of Highways in addition to development of plans including permitting and/or right of way and are not currently funded.


## Short Term Improvements

1. Conduct speed study to reduce speed limit
2. Conduct curve speed study (using ball-bank indicator) and vertical curve sight distance study
3. Add signing and pavement marking improvements (Detailed signing and pavement marking recommendations can be found in the Pavement Markings and Signing Recommendations Section)

## Intermediate Improvements

1. Add shoulder stone
2. Adjust/relocate ditches farther from pavement edge
3. Add guiderail along drop offs west of Pembroke Way
4. Consider removing trees and other fixed objects that are within the clear zone
5. Add High Friction Surface Treatment (HSFT) to curves with wet weather crash history
6. Add intersection street lighting at Lloyd Road curve
7. Add safety edge during next resurfacing
8. Inspect and improve culverts and drainage issues at curves with wet weather crash history

## Long Term Improvements

1. Consider widening and reprofiling to meet current typical sections

## Crash Data

Figure 1: Summit Point Road Crash Data


## RSA Team

The RSA team comprised of members representing HEPMPO, WVDOH District 5, WVDOH Traffic Engineering, FHWA-WV Division, Jefferson County, and Michael Baker International. The RSA team's various experience and safety concerns allowed for adequate discussion throughout the RSA process. Table 1 lists the attendees and their organizations that were involved in the field study.

Table 1: Summit Point Road RSA Field Team

| Name | Organization |
| :--- | :--- |
| Matt Mullenax | HEPMPO |
| Steve Thomas | HEPMPO |
| Shaneka Owens | FHWA-WV Division |
| Chandra Inglis-Smith | FHWA-WV Division |
| David Chappell | WVDOH |
| Ken Clohan | WVDOH District 5 |
| Donna Hardy | WVDOH |
| Donald Meadows Operations |  |
| Ryan Satterfield | WVDOH |
| Matthew Skiles | Jefferson County |
| Sheriff Pete Dougherty | Michael Baker International |
| Rebecca Christman | Michael Baker International |
| Jim Frazier | Michael Baker International |
| Rebecca Bankard | Michael Baker International |
| Dan Szekeres |  |

## Observations and Recommendations: Traffic Operations

During the field visit, the Audit team walked the study location while taking photographs and documenting general traffic observations related to operating speeds, traffic volumes, intersections, driveways, and the traffic mix. Recommendations were suggested based upon the general observations and data. Each issue observed during the field visit is identified with further detail within this section. Table 2 indicates the observations and corresponding recommendations related to traffic operations.

Table 2: Observations and Recommendations Related to Traffic Operations

| Traffic Operation | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| Operating Speeds | The general perception is that motorists are going too fast for available sight distances (vertical and horizontal) | - Conduct speed study, ball bank curves, vertical curve sight distance study <br> - Reduce speed limit | 1.1 |
| Volumes | Generally low volumes | General observation - no recommendation | Low traffic volumes observed |
| Intersections | Sight distance issues at the following intersections: <br> - Summit Point Road/Lloyd Road <br> - Summit Point Road/Locust Hill Road | - Advance intersection sign (W2-2) with distance plaques (W16-2aP) <br> - Consider widening and reprofiling roadway | $\begin{aligned} & 2.1 \\ & 2.2 \end{aligned}$ |
| Driveways | Anecdotal evidence indicated that heavy traffic volumes utilize school driveways at the beginning of the school year. Queueing on Summit Point Road is a resulting problem | - Upgrade school zone flashers (S5-1) <br> - Additional/revised signing and pavement markings | 3.1 |
|  | Remainder of driveways with low volumes resulted with no notable concerns other than universal sight distance issues associated with the entire study area | - Conduct Speed Study <br> - Reduce speed limit <br> - Consider removing roadside obstructions/vegetation within clear zone | 3.2 |
| Traffic Mix | No pedestrian or bicycle traffic noted, however there is a 'Share the Road' sign located on Lloyd Road approximately 700 ft . south of the Summit Point Road intersection | General observation - no recommendation | No noted pedestrian or bicycle traffic |


| Traffic <br> Operation | Observations | Recommendations | Link to <br> Issue |
| :---: | :--- | :--- | :---: |
|  | No unusual heavy vehicle percentage <br> noted, however a number of utility trucks <br> were observed at the Shirley Road <br> intersection at the western terminus of <br> the project limits | General observation - no <br> recommendation | Normal heavy <br> vehicle traffic |
|  | Anecdotal evidence suggests road is <br> frequently used to access Summit Point <br> Motor Sports Park; resulting in an <br> expectation that traffic mix includes many <br> drivers unfamiliar with roadway <br> geometry, especially on weekends | - Additional/revised signing and <br> pavement markings <br> Reduce speed limit | 4.1 |

## Issue 1: Operating Speeds

### 1.1 Motorists are Driving Too Fast

## Observations

The general perception is that motorists are going too fast for available sight distances (vertical and horizontal)

Based on crash data from 2013 to 2017, 71\% of the reported crashes throughout the section were single vehicle crashes. $87 \%$ of those crashes were run off the road/hit fixed object crashes (embankment, fence, pole, tree, roll-over).

## Suggestions

## Short-term

- Conduct speed study (using ball-bank indicator) and vertical curve sight distance study
- Reduce speed limit



## Issue 2: Intersections

| 2.1 | Sight Distance at Summit Point Road/Lloyd <br> Road Intersection |
| :--- | :--- |
| Observations |  |
| Sight distance issue at the Summit Point <br> Road/Lloyd Road intersection |  |
| Based on crash data from 2013 to 2017, 23\% of <br> the reported crashes along the corridor occurred <br> at this intersection. 60\% of those crashes being <br> either right-angle or head-on. |  |
| Suggestions |  |
| Short-term <br> • Advanced intersection sign (W2-2) with <br> distance plaques (W16-2aP) |  |
| Long-term <br> - Consider widening and reprofiling roadway |  |



### 2.2 Sight Distance at Summit Point Road/Locust Hill Road Intersection

## Observations

Sight distance issue at the Summit Point
Road/Locust Hill Road intersection
Picture taken facing west at Locust Hill
Drive/Summit Point Road intersection

## Suggestions

## Short-term

- Advanced intersection sign (W2-2) with distance plaques (W16-2aP)


## Long-term

- Consider widening and reprofiling roadway



## Issue 3: Driveways

### 3.1 Queueing on Summit Point Road $^{2}$

Observations
Anecdotal evidence indicated that heavy traffic volumes utilize school driveways at the beginning of the school year. Queueing on Summit Point Road is a resulting problem

The picture shows the current westbound school zone flasher along Summit Point Road. Based on crash data from 2013 to 2017, 83\% of the reported crashes through the school zone were single vehicle (hit animal or run off the road) crashes.

## Suggestions

## Short-term

- Upgrade school zone flashers(S5-1)
- Provide additional signing and pavement markings



## Issue 4: Traffic Mix

| 4.1 | Drivers Unfamiliar with the Roadway |
| :--- | :--- |
| Observations |  |
| Anecdotal evidence suggests that Summit Point <br> Road is frequently used to access Summit Point <br> Motor Sports Park; resulting in an expectation that <br> the traffic mix includes many drivers that are <br> unfamiliar with the roadway geometry, especially <br> on weekends |  |
| Based on crash data from 2013 to 2017, 43\% of <br> the reported crashes within the study section <br> occurred on the weekend. 89\% of those crashes <br> occurred in wet road conditions. |  |
| Suggestions |  |
| Short-term <br> - Reduce speed limit <br> - Additional/revised signing and pavement <br> markings |  |



## Observations and Recommendations: Roadway/ Roadside Features

During the field visit, the Audit team walked the study location while taking photographs and documenting the general roadway and roadside features. Recommendations were suggested based upon the general observations and issues. Each issue observed during the field visit was identified with further detail within this section. Table 3 indicates the observations and corresponding recommendations related to roadway/roadside features.

Table 3: Observations and Recommendations Related to Roadway/Roadside Features

| Roadway/ <br> Roadside <br> Features | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| General <br> Roadway <br> Features | Very narrow lanes and no shoulders | - Long term - Consider widening and reprofiling to meet current typical sections | 1.1 |
|  | Roadway resurfaced recently with skid resistant mix | - Add safety edge during next resurfacing | 1.2 |
|  | A large portion of the study section includes vertical and/or horizontal curves | - Additional curve signage | 1.3 |
|  | A large portion of the study section is posted with and/or should be posted with advisory reduced speed limit signs associated with curves or sight distance | - Reduce speed limit <br> - Add High Friction Surface Treatment (HSFT) to curves with wet weather crash history | 1.4 |
|  | Each of the following sections exhibit unique roadway attributes: | Recommendations are specific to each unique roadway section |  |
|  | - Lloyd Road curve area | - Add intersection street lighting <br> - Revise and/or provide additional signing and pavement markings <br> - Add HFST | 1.5 |
|  | - Locust Hill Drive intersection area | - Revise and/or provide additional signs | 1.6 |
|  | - South Jefferson Elementary school zone influence area | - Update existing school zone flashers <br> - Add advance school zone flashers | 1.7 |
|  | . West of the School to McCormack Lane | - Add guiderail along drop offs west of Pembroke Way | 1.8 |
|  | - Winding/rolling section adjacent to White House Farm | - Add HFST to curves <br> - Revise and/or provide additional signing and pavement markings | 1.9 |
|  | - Shirley Road intersection | - Revise and/or provide additional signing | 1.10 |


| Roadway/ <br> Roadside <br> Features | Observations | Recommendations | Link to Issue |
| :---: | :---: | :---: | :---: |
| Roadside Features | No shoulders | - Add shoulder stone | 2.1 |
|  | Greater than $3^{\prime \prime}$ pavement edge drop-off throughout the section | - Add shoulder stone <br> - Add safety edge during next resurfacing | 2.2 |
|  | Vegetation and fixed objects (trees, poles, fences) along the corridor in close proximity to the roadway. Many exhibited signs of having been hit | - Delineate fixed objects that are close to the roadway using post mounted delineators or retro-reflective tape as appropriate <br> - Consider removing trees and other fixed objects that are within the clear zone | 2.3 |
|  | Drainage ditches close to roadway edge in many locations | - Adjust/relocate ditches farther from pavement edge | 2.4 |

## Issue 1: General Roadway Features

### 1.1 Narrow Lanes and No Shoulders

Observations
Very narrow lanes and no shoulders
Based on crash data from 2013 to 2017, 71\% of the reported crashes throughout the section were single vehicle crashes. $87 \%$ of those crashes were run off the road/hit fixed object crashes (embankment, fence, pole, tree, roll-over)

## Suggestions

## Long-term

- Consider widening and reprofiling to meet current typical sections



## 1.2 <br> Roadway Resurfaced with Skid Resistant Mix

## Observations

Roadway resurfaced recently with skid resistant mix

Based on crash data from 2013 to 2017, 69\% of the reported crashes through the section occurred in wet conditions and $62 \%$ of the reported crashes were run-of-the-road crashes.

## Suggestions

## Intermediate-term

- Add safety edge during next resurfacing


### 1.3 Vertical and Horizontal Curves

## Observations

A large portion of the study section includes vertical and/or horizontal curves

## Suggestions

## Short-term

- Additional curve signage


### 1.4 $\quad$ Advisory Reduced Speed Limit Signs

## Observations

A large portion of the study section is posted with and/or should be posted with advisory reduced speed limit signs associated with curves or sight distance

## Suggestions

## Short-term

- Reduce speed limit


## Intermediate-term

- Add High Friction Surface Treatment (HSFT) to curves with wet weather crash history


### 1.5 Lloyd Road Curve Area

## Observations

Lloyd Road intersects with Summit Point Road in a sharp curve, creating sight distance issues and confusion to drivers traveling southbound on Summit Point Road

Based on crash data from 2013 to 2017, 23\% of the reported crashes along the corridor occurred at this intersection. $60 \%$ of those crashes being either angle or head-on.

## Suggestions

## Short-term

- Revise and/or provide additional signing and pavement markings


## Intermediate-term

- Add intersection street lighting
- Add High Friction Surface Treatment (HSFT)


| 1.6 | Locust Hill Drive Intersection Area |
| :--- | :--- |
| Observations |  |
| Locust Hill Drive intersects with Summit Point <br> Road between two horizontal curves, creating <br> sight distance issues for drivers turning in/out of <br> Locust Hill Drive <br> Picture taken facing east from Locust Hill <br> Drive/Summit Point Road intersection. |  |
| Suggestions |  |
|  | Short-term <br> Revise and/or provide additional signs |



## 1.7 <br> South Jefferson Elementary School Zone Area

## Observations

The South Jefferson Elementary School is located within a vertical crest curve and a horizontal curve. School zone flashers are out of date.

Based on crash data from 2013 to 2017, 83\% of the reported crashes through the school zone were single vehicle (hit animal or run off the road) crashes.

## Suggestions

Short-term

- Update existing school zone flashers
- Add advance school zone flashers
- Provide additional signing and pavement markings



### 1.8 West of the School to McCormack Lane

## Observations

McCormack Lane intersects with Summit Point Road

Based on crash data from 2013 to 2017, 100\% of the reported crashes in the vicinity of the McCormack Lane intersection were single vehicle (hit animal or run-off-the-road) crashes and occurred at night.

## Suggestions

## Short-term

- Revise and/or provide additional signs


## Long-term

- Add guiderail along drop-offs west of Pembroke Way



### 1.9 $\quad$ Section Adjacent to White House Farm

## Observations

Windy/rolling section of roadway limits sight distance throughout area adjacent to White House Farm

Based on crash data from 2013 to 2017, 100\% of the reported crashes in the curves around White House Farm were single vehicle (hit embankment, tree, other fixed object) crashes and in the eastbound direction.

## Suggestions

## Short-term

- Revise and/or provide additional signs and pavement markings


## Intermediate-term

- Add High Friction Surface Treatment to curves



### 1.10 Shirley Road Intersection

## Observations

Summit Point has a low ground clearance at the point where Shirley Road intersects. Limited sight distance for vehicles turning onto Summit Point Road from Shirley Road.

## Suggestions

Short-term

- Revise and/or provide additional signs


## Issue 2: Roadside Features

| 2.1 | No Shoulders |
| :--- | :--- |
| Observations |  |
| Sections of roadway with no shoulders |  |
| Suggestions |  |
|  |  |
| Intermediate-term    <br> • Add shoulder stone    <br>     |  |



### 2.2 Pavement Edge Drop-off

## Observations

Greater than 3" pavement edge drop-off
throughout the section

## Suggestions

## Intermediate-term

- Add shoulder stone
- Add safety edge during next resurfacing


| 2.3 | Vegetation and Fixed Objects |
| :--- | :--- |
| Observations |  |
| Vegetation and fixed objects (trees, poles, fences) <br> along the corridor in close proximity to the <br> roadway. Many exhibited signs of having been hit. |  |
| Suggestions |  |
| Short-term <br> - $\quad$Delineate fixed objects that are close to the <br> roadway using post mounted delineators or <br> retro-reflective tape as appropriate <br> Intermediate-term <br> Consider removing trees and other fixed <br> objects that are within the clear zone |  |



### 2.4 Drainage Ditch

## Observations

Drainage ditches close to roadway edge in many locations

## Suggestions

## Intermediate-term

- Adjust/relocate ditches farther from pavement edge



## Pavement Markings and Signing Recommendations

Signing and pavement marking improvements were recommended following the field visit and analysis of crash history. Generally, signing and pavement markings are suggested to be added throughout the study area to advise drivers of intersections, horizontal and vertical curves, and the school zone. Additional delineation and warning signs are recommended for various, unique, elements of the section. Table 4 indicates the recommended signing and pavement marking recommendations for each section of the study area.

Table 4: Summit Point Road Signing and Pavement Marking Recommendations

| Signing and Pavement Marking Recommendations |  | Figure Reference |
| :---: | :---: | :---: |
| Lloyd Road curve area (See Figures 2 through 5) | - Add plowable RPMs to centerline and edge lines (Raised Pavement Markings) | A. |
|  | - Add dotted extension lines through intersection | B. |
|  | - Add stop bar to Lloyd Road | C. |
|  | - Add "Slow Curve Arrow" pavement marking in advance of curve for both directions | D. |
|  | - Increase size of 'Large Single Arrow' signs (W1-6) | E. |
|  | - Add chevrons (W1-8) along curve on either side of Lloyd Road in both directions | F. |
|  | - Add appropriately colored reflectorized strips to warning sign posts | G. |
| Locust Hill Drive intersection area (see Figure 6) | - Add 'Side Road’ sign (W2-2) and distance plaque 200' (W16-2aP) in advance of intersection to the west (due to sight distance issue) | H. |
|  | - Add chevrons (W1-8) for both approach directions of curve west of Locust Hill Road | I. |
| South Jefferson Elementary school zone influence area (see Figure 6) | - Add advance School Zone Speed Limit flashing warning signs (S4-5) | J. |
|  | - Update school zone speed limit flashing signs and flashing lights (S5-1) | к. |
|  | - Add plowable RPMs through section on centerline and edge lines | L. |
| West of the school to McCormack Lane (see Figure 6) | - Add chevrons (W1-8) for both approach directions along 3 curves within section | M. |
| Winding/rolling section adjacent to White House Farm (see Figure 8) | - Add advance 'Winding Road' (W1-5R, W1-5L) sign and reduced speed limit plaque (W13-1p) for both approach directions | N. |
|  | - Add plowable RPMs through section on centerline and edge lines | O. |
|  | - Add chevrons (W1-8) with sign post reflectorized strips on 3 curves within section | P. |
| Shirley Road intersection (see Figure 8) | - Relocate and update 'Low Ground Clearance' RR signing (W10-5) to Shirly Road visible to turning traffic for Summit Point Road | Q. |
|  | - Add 'Stop Ahead' sign (W3-1) to address alignment and advance visibility of existing Stop Sign | R. |
|  | - Add 'Large Double Arrow' (W1-7) sign at T-intersection | S. |

Figure 2: Signing and Pavement Marking Recommendations for the Lloyd Road Curve Area


Figure 3: Signing and Pavement Marking Recommendations WB approach to Lloyd Road


Figure 4: Signing and Pavement Marking Recommendations at Lloyd Road Intersection


Figure 5: Signing and Pavement Marking Recommendations EB approach to Lloyd Road


Figure 6: Signing and Pavement Marking Recommendations for Locust Hill Drive Intersection and School Zone Area


Figure 7: Signing and Pavement Marking Recommendations West of the School to McCormack Lane


Figure 8: Signing and Pavement Marking Recommendations through Winding/Rolling Section adjacent to White House Farm


## Appendix E <br> Public Participation

## Public Survey Results - Metro Quest

## Summary

| Dates | October 15, 2018- <br> November 15, 2018 |
| :---: | :---: |
| Visitors | 663 |
| Participants | 400 |


| 1\% |  | Age of Participants |
| :---: | :---: | :---: |
|  |  |  |
| 23\% | 26\% | $\square 25$ and under |
|  |  | - 26 to 40 |
| 50\% |  | $\square 41$ to 60 |
|  |  | $\square 61$ to 80 |

## Safety Issues

Biggest Transportation Safety Issue


# Map Markers 

| Marker Type | Number of Markers |
| :--- | :---: |
| Roadway Safety | 496 |
| Driver Behavior | 282 |
| Pedestrian Safety | 121 |
| Other Comments | 77 |
| Bicycle Safety | 61 |
| Transit Safety | 39 |
| Total | $\mathbf{1 , 0 7 6}$ |

## Other Comments

| Visit ID | Comment |
| :--- | :--- |
| 3258764 | l-81 has to find a way to get rid of the truck traffic in a separate lane or add lanes because the <br> trucks drive way too fast. many accidents here are caused by aggressive truck driving |
| 3258799 | Highway Safety and the reduction of crashes which are the leading causes of fatalities and <br> serious injuries within the region. To see agencies working together to implement safety <br> concerns into their SHSP. |
| 3258807 | Although I did not site road conditions as my top 3 concerns. Potholes and unacceptable road <br> conditions should be noted by the DOH. I see DOH truck drive and pass over these potholes <br> and call and they are not addressed in a timely manner. Winter is coming and these holes will <br> only get larger and create more driving hazards on the roads. |
| 3258818 | Over all I think a bypass for Martinsburg, Winchester Ave to 45 would help that congestion so <br> much so traffic just needing to get onto 81 could bypass this mess in both directions! though <br> it does not seem as bad in the mornings. |
| 3258828 | I didn't put a whole lot of points on the map for it, but generally people screwing around on <br> their phones while driving is a big problem. |
| 3258837 | 81 is a mess all the time. In the 5 miles either way at exit 23 in falling waters there are <br> accidents all the time and sadly fatalities not uncommonly. Something needs to be done |
| 3258840 | Slow drivers in passing lane and people passing on the right side. |
| 3258841 | Construction is a big safety concern. Roads are constantly being closed during the busiest <br> hours causing road congestion, aggressive driving and accidents. |
| 3258843 | If we had car cams in certain DOJ employee vehicles like mine, we could report the offenders <br> and if we had more law enforcement monitoring highways there would be less issues. You <br> never see police sitting on the interstate like we used to. |
| 3258850 | Once all the construction is completed, I think there will be fewer accidents. And since there <br> isn't much can be done to "straighten" 81 Sb out, in WV, I guess we will just have to be alert. |
| 3258858 | There are a lot of cars that run red lights in the Berkeley county area. I witness this several <br> times every day. Red light cameras are a great deterrent to this. |
| 3258863 | Better enforcement of speed limits, possibly lowering speed limit thru commercial, congested <br> areas such as between exit 16 and 12 on I 81. Complete 3rd lane in each direction from Md. <br> line to Va. line and limit trucks from left lane with strict enforcement. |


| Visit ID | Comment |
| :---: | :---: |
| 3258868 | WV should by a law to use speed cameras |
| 3258871 | Redo the exit 12 intersection or add a bypass |
| 3258872 | 81 both North and South bound notice more agressive drivers, distracted drivers that travel under speed limit causing close calls |
| 3258874 | Tractor trailers on 81 are dangerous. |
| 3258903 | Speeding is an out of control problem across the entire area. I often drive near the speed limit or about 5 mph over and still get tailgated and passed most of the time by multiple vehicles. It's as if speed limits do not exist anymore and enforcement is lacking. |
| 3258904 | The road lines need to be visible at night \& especially in the rain. Something needs to be done about this!! |
| 3258906 | This is great and appreciate the opportunity to share my thoughts on street safety. I have noticed things before and it would be great if there was a site to enter this information like this at any given time. |
| 3258915 | The lines need to be painted so that they can be seen well at night \& especially in the rain! |
| 3258923 | Additional overhead warning signs in this corridor might help, especially right before northbound I-81 WV Exit 20. Any accident shuts down the Interstate for hours. |
| 3258931 | there is tremendous growth in area and also significant substance abuse. need further assessment on increasing safety and control |
| 3258953 | Traffic around the panhandle is ridiculous. We depend on the roadways to be clear and safe. $\mathrm{I}-81$ is one of the most dangerous roads in this area. I hear of bad wrecks on an almost daily basis. |
| 3258994 | Construction should be at night only. Police should monitor regularly |
| 3258998 | There's an overpass on $81 \mathrm{NB}, 3$ or 3.5 mm that needed repaired - at least 4 times it was "patched worked" to correct and blew out every 2-3 weeks. FINALLY, they did the whole stretch of road, and it "took". Why wait this long? The reduction to 1 lane caused lots of traffic, anger, lateness, over and over again. Fix things right the first time - would have been cheaper in the long run. |
| 3258999 | Can we also enforce handicap spaces? Many use the tag when the person assigned that tag are not in the vehicle. Places like Walmart almost always have violations. |
| 3259032 | We drive 81 from Martinsburg to Winchester Costco every 2 weeks and from Martinsburg to areas near Hagerstown every week or so. My main problem is the number and speed of trucks, followed by aggressive driever, plus construction. |
| 3259037 | Mowing and trimming brush and trees on narrow back roads should take a little more priority. People tend to stay in the middle of the road to avoid the brush. |
| 3259049 | Please get speed enforcement somewhere ... anywhere in WV on 81. Those 24 miles are 99\% of the time unenforced. Most people drive at least 80. |
| 3259058 | I believe I put most of my negative opinions / improvements in the drop boxes and locations on the map. I will say the recent improvements and fresh pavement in areas is a very welcomed beginning to future improvements. Its great to see they are rebuilding the wv / md bridge. As someone who travels 81 north and south multiple times a day it is nice to be able to voice my opinions. Thank you |
| 3259082 | Crashes are going to happen. Is there a way to have a traffic control company on stand-by in the event of a crash that closes the Interstate that can direct traffic on the surface roads. When you have a crash on the interstate everyone bails off onto US-11. However, the traffic |


| Visit ID | Comment |
| :---: | :---: |
|  | control devices on US-11 are not timed to handle the influx of traffic. Therefore you have tractor-trailers on roads not designed for their use, trying to get through signals or intersections not timed for their use. Which cause traffic snarls traffic to a stand still in the entire corridor. I know the police have better things to do but if we had a traffic control company that can direct traffic and disable traffic signals to keep the flow moving. You have a line of cars at an intersection and only 5 can get through before the light changes for no oncoming traffic. |
| 3259211 | The whole interstate should be 3 lanes. |
| 3259283 | Poor speed limit enforcement area wide. |
| 3259321 | A lot of rough roads in the area, need to be fixed. I see a lot of work being done on this, but there is a lot more. Understand it takes money and time. |
| 3259336 | When construction is done in MD I hope the 3 lane will not end where it looks like it's going to now, right past the first exit. It will cause too much congestion there. It would be best if it ended by splitting off to the 70 exit or going farther north in MD. Where it stops now will cause more problems than it helped. |
| 3259347 | Exit 12 Martinsburg. Depending on time of day, exit back up on 181 ramp dangerous. Traffic lights should be timed as a delay on one can cause real issues. |
| 3259355 | See lots of cell phone use ! also aggressive drivers. |
| 3259372 | 181 I know has been a problem for many years, but reducing Truck speeds by 5-10 mph below automobile traffic will help significantly from my experience where this is done in other states. |
| 3259377 | Please hurry with 81 construction too many accidents and back up traffic |
| 3259433 | The ih81 and ih70 cloverleaf merges are of concern |
| 3259491 | There are no synchronized traffic lights anywhere in Berkeley County. This hinders traffic flow everywhere. |
| 3259689 | Left lane driving is out of control on I81. Every morning i literally watch cars enter 81 and proceed straight to the far left lane and drive below the posted speed limit. Most of the time there are no cars in front of them and they nearly drive straight across to the outside lane. Moving violations for driving in the incorrect lane should be targeted. |
| 3259904 | 81 north and south needs to be 3 lanes from the VA and WV state line to Hagerstown MD. Also 81 north exit 16 needs to he redesigned. the on ramp and off ramp are extremely dangerous |
| 3259984 | Rt 11 through Pikeside is also a mess. It's especially crazy when P\&G employees get off of work and they tend to pull right out in front of people. I live less than a mile away and certain times of the day, I have a difficult time just getting out of my driveway because all of the traffic. |
| 3259994 | Thank you for the opportunity to share concerns. |
| 3260006 | Driver aggression is a major issue, as well as distracted drivers. Aggressive, distracted drivers make the perfect situation for an accident to occur |
| 3260035 | There needs to be more police patrols on 81 to try to deter distracted driving and road rage incidents. Also, please review the road layout around the 23 mm southbound. Please try to get the Henshaw Road Bridge on 81 northbound replaced instead of just bandaiding it together every week! |


| Visit ID | Comment |
| :---: | :---: |
| 3260160 | The growth and the infrastructure is not there in the system. The water drainage is a huge issue in it causes major issues with all the water run off stays in the roads. |
| 3260257 | In Martinsburg on W. King St. and Winchester Ave intersection heading WEST on King the light should ALWAYS BE GREEN--traffic on Winchester Ave. is currently not allowed to turn left, so there is no reason for traffic heading WEST on King St. at that intersection to stop. |
| 3260257 | 1. In Martinsburg on W. King St. and Winchester Ave intersection heading WEST on King the light should ALWAYS BE GREEN--traffic on Winchester Ave. is currently not allowed to turn left, so there is no reason for traffic heading WEST on King St. at that intersection to stop. <br> 2. Raleigh St. Extension and Race Street (current 4 way stop) desperately needs a LIGHT. |
| 3260339 | WV needs to do a better job of resurfacing their roads. In a couple of places on Rt. 9 traveling West, there are dips in the roadway that are becoming deeper, causing vehicles to bounce. Since the flooding I have noticed that the sides of the roadways are slowly being repaired, however, travel on Rt. 9 between Largent, WV, and Berkeley Springs, WV, there are several very deep gullies that are dangerously close to the travel lanes. The roadways need to be widened and existing gullies need to be filled in to prevent further deterioration to the travel lanes. |
| 3260343 | Charles Towns narrow roadways made narrower by ridiculous curbs that project and create a hazard for people and vehicles, traffic congestion, lack of pedestrian safety, speed limits set to high. Main traffic going right downtown makes stopping or shopping downtown impossible. Turn signals for left hand turns would be nice too. |
| 3260361 | Drivers are becoming more aggressive about running red lights. Every day I see at least multiple drivers enter an intersection after the light has turned red so that they don't have to wait for the next green light. |
| 3260396 | Wv roads have gotten better, so please keep them up |
| 3260399 | Road system is not keeping up with population as far as enough lanes, pavement resurfacing, lanes for bikes |
| 3260478 | Short merge distance when entering l-81 at exit 20, Spring Mills. Difficult merge when semis are 2 or 3 abreast. |
| 3260505 | many roads need repaved and pot holes fixed. Traffic congestion is a major problem in this growing area. Roads were not designed for all the traffic now. |
| 3260624 | Amount of truck traffic on 181. |
| 3260736 | Route 9 west in Hedgesville near High school. Apple Harvest drive by the Commons up to Rt 11 interchange is bad. Interstate 81 is a DEATH TRAP! |
| 3260736 | Route 9 west in Hedgesville near High school. Apple Harvest drive by the Commons up to Rt 11 interchange is bad. Interstate 81 is a DEATH TRAP |
| 3260775 | Many drivers fail to use lights when required and when needed for safety. Speeding of commercial vehicles in residential areas is a problem. Arrogant and distracted driving is common. |
| 3260788 | Stop tearing down woodlands and forests and stop destroying wildlife habitat. You are causing too much destruction with construction. We now have flooding issues where we never did and too much development leads to overcrowding and less breathable air. Stop it. |
| 3260987 | I don't drive on 181 because it is a death trap most of the time...aggressive drivers and distracted drivers are rampant!!!! |


| Visit ID | Comment |
| :---: | :---: |
| 3261127 | I-81 in Maryland is an important tourism industry corridor it needs safe, attractive, inviting exits with more amenity signage. |
| 3261158 | Less wrecks daily |
| 3261282 | Lots of bad patches on bridges along all of 81 and 70 between hagerstown and Hancock areas. |
| 3261385 | 81 needs to be wider with easier on and off ramps--with more room to merge into traffic. |
| 3261435 | Trucks are a major problem. When accidents do occur it completely halts traffic for hours at a time because usually big trucks are involved. There ought to be designated truck lanes |
| 3261813 | Route 9 @ I-81 is a traffic issue that needs to be addressed and is confusing. Add third lane to I-81 from VA to Exit 12. Keep large trucks in right lane and not center lane or left lane |
| 3261841 | Their should be 3 lanes on 181 and limit the commercial vehicles to the right lane only. When they try to pass doing 1 mph faster but still only doing 60 mph does nothing but slow down traffic and cause aggressive drivers, there should be more enforcement also. I also think the speed limit should be 70 thru all states. |
| 3261907 | Any opportunity to widen roadways for pedestrian and bike use would be a tremendous benefit to those of us who live arund the Harpers Ferry histric district. |
| 3261914 | Consider Morgan County part of your Eastern Panhandle group! We are adjacent to both Washington and Berkeley Counties and deal with traffic issues as well - particularly commercial traffic looking to take a short cut from Hagerstown to Winchester. |
| 3261959 | There is insufficient enforcement of the speed limits on the interstate highways. Very insufficient. |
| 3261970 | The speed of 80 mph is ridiculous. No signaling when changing lanes, people on their cell phones, aggressive driving is a major issue all thru WV and MD. |
| 3261980 | Installing guide rails on interstates at the edge of the road surface does not allow for any maneuvering by drivers to avoid a potential collision. <br> Speed limits should be consistent from one area to another for the same road types and conditions. For example, why is 181 in Hagerstown limited to 60 mph while the same road type for 170 is 70 mph ? This causes confusion and aggressive driving. |
| 3262068 | Widening of I-81 south of Exit 8 needs to be a priority. Completion of all phases of Inwood by-pass needs to be a priority. |
| 3262076 | roundabouts |
| 3262179 | commercial vehicles are larger and larger, going at speeds exceeding the posted speed limit, limiting visibility around them. Drivers are consistently speeding and driving very aggressively, passing unsafely. More safety patrols are needed. Housing and other developments approved should take into consideration the impact of traffic on neighborhoods. My road, Route 67, has become very unsafe over my 22 years of living here and very little is done to protect the citizens of the valley and their pets from aggressive driving of commuters through our valley. |
| 3262179 | commercial vehicles are larger and larger, going at speeds exceeding the posted speed limit, limiting visibility around them. Drivers are consistently speeding and driving very aggressively, passing unsafely. More safety patrols are needed. Housing and other developments approved should take into consideration the impact of traffic on neighborhoods. My road, Route 67, has become very unsafe over my 22 years of living here and very little is done to protect the citizens of the valley and their pets from aggressive |


| Visit ID | Comment |
| :---: | :---: |
|  | driving of commuters through our valley. I'd like to see more accommodation for pedestrians, more emphasis on beauty, safety and quality of life which will enhance the value and appreciation of our natural beauty here in Washington County and create a more hospitable environment for our citizens and guests visiting the county. Ultimately, our quality of life is at great risk by over development and poor planning. We need wisdom and long term vision. |
| 3262185 | Numerous overhead signs lights are out / not working properly on I-70 and I-81 in Maryland. Makes the state of Maryland look like it is not open for business and does not care about safety. If lights are out what is is not being done. Major issue with bridge drainage opening blocked with debris and not cleaned out before major storms. September and October 2018 we saw numerous bridge drainage blocked and growing green plants in debris. |
| 3262311 | Very concerned about the traffic impact of new JCDA-sponsored businesses, especially TeMa and Rockwool. |
| 3262464 | Sytete police need to get after the agressive commercial drivers |
| 3262518 | I have witnessed a lot of aggressive driving on I 70 between Hagerstown and Frederick. Better policing of this problem would be a help. |
| 3262521 | 81 needs to be widened especially between Exit 5 and 6 . Safety hazard trying to merge onto 81 |
| 3262529 | I'm extremely concerned about the possible truck traffic from the Rockwool and TEMA. Their projections are staggering. We already have serious issues with traffic and there are a great deal of busses traveling on the same path that these trucks would be driving. I'm especially concerned about these issues with inclement weather. They will also seriously impact the condition of roads |
| 3262937 | Hwy 81 needs to have speed limit reduced in West Virginia. |
| 3263076 | This road is very dangerous because when it rains debris is in the road and rock slides are common |
| 3263129 | I-81 and I 70 are far too crowded with commercial traffic and especially in Maryland far too congested very unsfe and getting significantly worse every day |
| 3263158 | I'd like to see better traffic patterns. Growth to the area is here and coming and our roads are not ready for it. |
| 3263162 | All the sidewalks in Charles Town lack ADA and safe crosswalks |
| 3263179 | Something needs to be worked out with the state to repave every single overpass in Washington County on 70 in both directions. There is no excuse for the amount of temporary patches and holes that open up frequently. |
| 3263187 | $\mathrm{I}-81$ needs to be widened to 3 lanes through MD and Franklin County PA. I-70 should be widened to 3 lanes between Hagerstown and Frederick. The population increase and the increased commercial truck traffic; due to all of the warehouses that have been constructed recently, is causing major congestion and traffic delays. <br> Drivers need to be educated on the proper way to merger on to the interstates and what a Yield sign means. |
| 3263298 | please look at trying to expedite the I-81 improvements to expand to the PA line. traffic is congested on this stretch every day and leads to accidents due to impatient drivers. |


| Visit ID | Comment |
| :--- | :--- |
|  | alternate routes are in poor standards and drivers are unwilling to take other means due to <br> poor roads, conditions, etc. |
| 3263541 | I-81 is unsafe. |
| 3263544 | As stated on the map, Exit 12 on Highway 81, leading to the Commons and Lowe's in Martinsburg is a <br> true nightmare. And with the addition of more stores and an apartment complex, it will only get <br> worse. This area is not built to handle the traffic flow. |
| 3264197 | Would like to more turn lanes at stop lights. More enforcement for aggressive driving. |
| 3264466 | As Jefferson County continues to develop, a long term traffic solution will need to be completed for the <br> 340/Harpers Ferry area and in Wash. Co. to relieve traffic back ups over the 340 bridge, |
| 3264519 | Additional lanes for 81 |
| 3264779 | Thank you! |
| 3266253 | Distracted and aggressive driving from 270 corridor thru to the 81 corridor. |
| 3267074 | Need more radar and police patrols for all the assholes |
| 3267288 | Need more public transport options like commuter trains, buses, etc. |
| 3268432 | The Inwood bridge over 81 to enter 81 needs to be expanded to three or four lanes. Traffic waiting to <br> get on 81 South bound sometimes wait thru two or three lights prior to getting on 81. <br> The exit for 81 into Martinsburg (12) coming northbound and waiting to get off of 81 towards Foxcroft <br> is extremely dangerous as the exit traffic backs up on 81. |
| 3268542 | Please try to find solutions to fix the major congestion and safety issues related to "malfunction <br> junction" 9-11-45 |
| 3268759 | Rat 340 between the bridges is terrible because of congestion. |
| 3268784 | Boonsboro is ridiculous with backups and trying to get through town. |
| 3268818 | Widen 81 faster. Fix Rt 45 and Foxcroft Ave intersection <br> 3270512For God's sake please alter the traffic flow at the exit ramps both north and south off 81 onto Apple <br> Harvest Drive. The short turn lane onto foxcroft backs up traffic onto the ramps creating unsafe back <br> ups onto 81. It also increases frustration leading to aggressive driving. There are too many res lights <br> which could be eliminated by altering the north bound exit ramp to the east of mcdonald's so that cars <br> going onto foxcroft Avenue don't have an additional turn needed once off the exit but go straight onto <br> foxcroft and eliminate the light off the current northbound exit ramp. <br> there are constantly vehicles blocking the intersection. |
| 3268973 |  |
| time for where they are going too |  |


| Visit ID | Comment |
| :---: | :---: |
| 3270647 | Rt 11 Pikeside near the P\&G entrance rd. At certain times of the day...you are unable to exit the side streets due to the heavy influx of cars from Proctor \& Gamble...as well as the Air Guard traffic. Rt 11 was congested prior to the P\&G entrance. Unfair to homeowners/ tax payers in this area. |
| 3272194 | Excessive speed in construction areas |
| 3272518 | 81- Morning and Evening commute- very congested even in areas where there are 3 lanes. Safety concern on 81 S @ Exit 12 in WV where the lanes shift from 3 to 2 . Drivers wait until last minute to merge. |
| 3272628 | MARC service to WV is critical to decreasing congestion in Frederick and the 270 corridor. Published data on ridership are understated and most likely inaccurate. A more recent and comprehensive survey is necessary to fully understand the impact of MARC's WV service on commuters, congestion on the 270 corridor and quality of life for citizens of Jefferson and Berkeley counties. |
| 3273905 | Aggressive Driving and drivers who do not know right of way law are of particular issue on all roads, 170 and I 81 to the extreme. Excessive lane changes and speed are another issue. Many times motorcycles weave in and out of traffic changing lanes unsafely. |
| 3274334 | Appears that traffic congestion, stop and go traffic, lack of turn lanes, etc., cause aggressive driver behavior and constant lane changing that makes for unsafe commutes to and from work, along the I81/Martinsburg to Charles Town road. |
| 3275428 | Bad congestion at exit 12. |
| 3276410 | Apple Harvest Drive needs congestion needs fixed badly! Work on it! |
| 3278075 | Something needs to be done by route 9 and I-81. |
| 3284196 | Lack of law enforcement on major roadways to address driver behavior, intersections being blocked and creating traffic jams, aggressive driving on interstate, failure to YIELD to the right of way. The public in this area needs to be educated about 3 and 4 way stops. Some of those intersections need stoplights because there are too many accidents due to driver lack of knowledge about right of way. Construction patterns should not change every other day. This causes chaos and distracted driving. |
| 3284280 | Having relocated from Denver Colorado I have seen traffic issues progess over the years of residency there. The Martinsburg area along I-81 has serious traffic issues that could easily be resolved with very little added costs/construction required to make these improvements. Another item I have noticed is a lack of traffic enforcement from local/state enforcement officials in these areas that have high congestion and accidents (red lights being ran, improper lane changes, blocking intersections etc...). Without any form of enforcement drivers have literally gotten away with multiple infractions that can prevent accidents or road rage incidents further down these roadways. |
| 3286009 | MORE LAW ENFORCEMENT ON INTERSTATE HWYS |
| 3286982 | Traffic safety could be improved by being more proactive. More positive guidance in design and signage. Add more frequent signage for roadways after resurfacing and ditch cleanout- that there is no shoulder. Implement ITS for the corridor for traffic delays, construction, additional traffic per sporting events, possible tornado crossings and weather related. Frensors for freezing roads, etc. Promote more transit to/from the larger cities. |
| 3288186 | We need bus options in Jefferson County that coincide with all trains departing and arriving at Harpers Ferry and/or Duffields. |
| 3289229 | The "move over" law seems to be creating near accidents along l-81. |
| 3289286 | I think the state government needs to start issuing more resources to the Eastern Panhandle. Within the next five years this will be the top producing, most populated area in the state. |
| 3289587 | The growing commercial traffic and upcoming traffic with P\&G facility raise great concerns about I-81. Additionally, distracted driving, especially with texting, is a grave concern in the entire region. |
| 3290149 | Need more police presence!!! |


| Visit ID | Comment |
| :---: | :---: |
| 3290753 | I am most familiar with Martinsburug as a cyclist and a pedestrian. The lack of crosswalks and true bike lanes is troublesome. Driver respect of bikers and pedestrians is very very low. |
| 3297735 | Traffic congestion will continue to grow unless we seriously boost our efforts with bike lanes, public bus systems, and pedestrian safety. |
| 3298307 | Law enforcement needs to patrol 81 and 9 much more for excessive speeding 10+ miles over speed limit. Especially dangerous in construction when done by big trucks. |
| 3298327 | Washington County needs three lanes on 70 and 81 around Hagerstown. Congestion is heavy creating frustration which leads to road rage. That leads to accidents. |
| 3298959 | I have seen a broad overall decline in driver courtesy and adherence to basic rules. In the last 3 months. I have seen at least 10 people ignore red lights and stop signs. Also there is not enough police personnel to patrol the roads and highways because they are needed to assist in drug enforcement and accidents. People know this and are taking advantage of the situation. |
| 3301522 | I believe that a lot of the traffic issues in the Martinsburg area could be alleviated with coordinated signal timing. It's very common to get a green light and within 20 feet get a red light, so traffic doesn't flow smoothly at all. This is especially true around Exit 12. It's totally dangerous trying to get off 81 north and try to make a right turn at the end of the exit. A lot of drivers block traffic coming from the west just trying to make a left turn onto Foxcroft avenue. It's getting worse the more businesses that are added to that area of town. |
| 3307331 | Commercial truck traffic on US 522 is the single most important issue in Morgan County. It has a detrimental effect on the livability of the Town of Bath, most of which is within earshot of US 522. It is unsafe from due to all the materials that are transported through the town--with nothing in place to make sure dangerous materials are monitored and controlled. It is a hazard to property on US 522. Just a few years ago a semi-truck traveling on 522 went off the road and destroyed a house. It disturbs the peace and tranquility of the area and inhibits people from stopping and walking around town. It is a health hazard due to pollution from the hundreds of thousands (if not millions) of exhaust belching semi-trucks passing through. Sometime it's so bad, the smell of diesel exhaust is overwhelming: I think I'm living in a large metropolitan area or at an airport where you can smell aviation exhaust (which smells similar to diesel exhaust). |

## Word Cloud of Comments



## Public Meetings

Public Meeting Sign-In Sheet
Martinsburg, WV - June 4th

INTERMATIONAL

## Public Meeting Sign-In Sheet

Hagerstown, MD - June 5, 2019


## Public Meeting Sign-In Sheet <br> Ranson, WV - June 6, 2019



## Public Meeting Comment Form

Regional Traffic Safety Study

Comment Form - Public Meeting
June $4^{\text {th }}-6^{\text {th }}, 2019$
Comment:
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| Name |  |
| :---: | :--- |
| Address |  |
| City/State/Zip |  |
| Email |  |

Would you like to be added to HEPMPO's Mailing List?


## Public Comments - Email/Website

| Name | Comment | HEPMPO Response |
| :---: | :--- | :--- |
| Kate Lewis Brown | Something must be done about the overcrowded I-81 <br> highway that is the site of far too many accidents, not <br> to mention long waits while accidents are cleared. Too <br> many of us are increasing traffic on back roads to avoid <br> I-81. This adds to the likelihood of congestion and <br> accidents on side roads and doubles the time to get to <br> a destination. The narrow lanes at exit 8 are <br> unbelievably dangerous. Of course, it would be a little <br> less dangerous if people drove at 55 through the work <br> area, but most don't. I don't have the answers because <br> I'm not an expert on road design. But I have to travel I- <br> 81 frequently for long distances and it is always <br> overcrowded and frequently requires trying to exit the <br> highway when encountering another traffic stoppage. | Safety on I-81 is one of the highest <br> priorities for the region. <br> Construction is on-going to widen <br> parts of the interstate in WV and MD <br> and safety plans and enforcement <br> help minimize accidents, but there is <br> no foolproof solution. Future <br> studies by HEPMPO hope to address <br> some of the diversions related I-81 <br> and I-70 congestion incidents. The <br> studies will be posted on our <br> website: www.hepmpo.net |
| Bob McEachern | wher |  |
| 340 Harpers Ferry to Charlestown- Bad light times, <br> short access to new rte 9, bottlenecks galore, bumpy, <br> and Border Patrol light should not operate after hours | US Route 340 has a high number of <br> crashes for the region especially at <br> intersections. In additional to our <br> study, the WV Department of <br> Highways is implementing <br> operational improvements along US |  |
| Route 340 in the near future. |  |  |

## Public Outreach

## HEPMPO Public Notice

PUBLI C NOTICE: The Hagerstown/Eastern Panhandle MPO hereby notifies all interested persons that the DRAFT Regional Traffic Safety and Improvement Study covering Washington County MD, and Berkeley and Jefferson Counties WV, is available for comment and review.

The public comment period will be from May 15 to June 15, 2019. Those persons wishing to review the draft study will find copies on display at the Washington County Free Library-Hagerstown and Charles Town Library, download a copy at www.hepmpo.net, or may request a copy by contacting the HEPMPO office, located at 33 W. Washington St., Suite 402, Hagerstown, MD 21740. Business hours are 8:00 am to 4:00 pm.

Questions and all written comments should be directed to Matt Mullenax at 240-313-2081, mmullenax@hepmpo.net or at the office address. Only written comments will be accepted.

To comment online visit: www.hepmpo.net/ contact. In addition, three public meetings on the draft study will be held throughout the area: (1) J une 4th - Martinsburg Public Library-Martinsburg Room, 5-7:00pm, (2) June 5th Washington County Free Library-Hagerstown-Conference Room 334, 5-7:00pm and (3) June 6th - Ranson City Hall-Council Chambers, 5-7:00pm. A formal presentation will be posted online and given at the public meetings.

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| All Contonties Have Creat Hers A+ Rattleg Wuth The | eat Sarvice, And |
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## HEPMPO puts two draft studies out for public comment



Trathc travels along interstate 81 in June 2018.
For The soumal

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MARTINSBURG - Ares residents will have the chance to comment on two of the Hagerstown/Eastern Panhandle Metropolitan Planning Organization's improvement studies.

The two studies, which focus on regional traffic safety and improvement as well as the feasibility of the Weverton Railroad Crossing, are open for public comment now through June 15.

Three public meetings on the draft Regional Traffic Safety Study will be held from 5 to 7 p.m. June 4 at the Martinsburg Public Library-Martinsburg Room; 5 to 7 p.m. June 5 at the Washington County Free Library-Hagerstown-Conference Room 334: and 5 to 7 p.m. June 6 at the Ranson City Hall-Council Chambers.

A public meeting on the Weverton draft will be held on May 30 at the Mather Training Center-Upper Classroom in Harpers Ferry from 5-7 p.m.


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- Pursuit beginning in Morgan County ends in crash
- Boyd's Steakhouse announces it's closing its
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A formal presentation will be posted online and given at the public meetings.

The 171-page Regional Traffic Safety Study deals with federal performance measures, local safety initiatives and strategies, regional roadway safety assessments, priority safety corridors, road safety audits and future steps and integration.

This study includes anslysis and identification of priority road segments in both Maryland and West Virginia by number of crashes, crash rate, number of fatalities and injuries and number of fatalities and injuries rate for crash years 2013 to 2017," HEPMPO Executive Director Matt Mullenax said at HEPMPO's Interstate Council meeting at Hagerstown Regional Airport Wednesday. "This also includes priority intersections according to crash number."

The study's objectives are outlined as: develop a process for HEPMPO to monitor and address safety issues in the future; conduct a regional safety assessment based on the latest available crash data and public input; and conduct pilot road safety audits as a template for future application at select sites.

The study is conducted with staff from federal, state, regional and local agencies in the HEPMPO region. which includes Berkeley and Jefferson counties.

With that, three crash studies were conducted in the region and presented at Wednesday's meeting. In Berkeley County, crash data from W.Va. $\theta$ near the intersection of Baxter Rosd and Cherry Run Road showed 25 total crashes, or 547 crashes per 100 million vehicle miles traveled, from 2013 to 2017. In Jefferson County, a portion of Summit Point road, which included the intersection at Pembroke Way and another at Lloyd Road, saw 42 total crashes in the same span, or 735 crashes per 100 million VMT. The study in Washington County included Washington Steet, where 129 total crashes were collected, or 811 crashes per 100 million VMT.
-I will say that the crash rates at each of our Road Safety Audit sections are higher than their respective statewide averages for facilities of a similar type," Mullenax said.

When it comes to safety planning, the HEPMPO identified eight roles for itself:

- Monitor public insights on safety issues and locations.
- Monitor regional and corridor crash trends and performance messures.
- Evaluate crash data at a planning level.
- Prioritize corridors of safety concern.
- Identify potential road safety sudit locations.
- Support road safety sudit implementation.
- Identify if the region is supporting state goals.
- Document needs and progress in the Long Range Transportation Plan.

Those roles are further explained in the study.
"What we want to hear from the public is to look at the analysis that we've completed and see if we missed something and does this line up with your experiences when you're in and about our region." Mullenax said.

GAMING ATTENDANT SI BARTENDERS Josephine's \& 19th Hole- Berkeley Springs D6.20.19 | Ranson, WV (25438)

Field Techniclan
ISCO Industries, inc.
06.19.19 | Martinsburg, WV (25404)

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The 74-page study on the Weverton Rail Crossing outlines the purpose of the project, provides history of the area, provides a site assessment, outlines trail demand and counts, shows conceptual design options for the rail crossing, lists a summary of the planning costs, provides an environmental screening assessment and outlines future steps.

Weverton, Maryland, is in Washington County and is about 3 miles east of Harpers Ferry, along the Potomac River. The CSX Rail Line runs parallel to the river and several recreational trails are in the area, including the Chesapeake and Ohio Canal Towpath, the Appalachian Trail, U.S. Bike Route 11 and the Potomac River Water Trail.

According to the study. Weverton provides an access point to the trails but current crossing of the CSX Railroad is not a designated public crossing site.

The purpose and need of the study is 'to identify any environmental concerns and assess potential design options to provide a formal and safe crossing of the CSX Railroad that links the C\&O Canal Towpath and the Appalachian Trail along the Potomac River."

Mullenax said an automated trail counter at the C\&O Canal location showed 26,000 crossings in 2018. He said there are around 20 to 30 trains that go through the area on a double track.

Two options are currently being looked at to increase crossing safety. An at-grade option as well as a pedestrian bridge are being considered. The at-grade option could be priced around $\$ 400,000$, while the pedestrian bridge could cost an estimated $\$ 3.4$ million.


Those wishing to review the materials can pick up copies at the Charles Town Library or the Washington County Free Library-Hagerstown, downiload a copy at www.hepmpo.net or request a copy by contacting the HEPMPO office.

Questions and written comments should be directed to Mullenax at 240-313-2081,
mmullenax@hepmpo.net or the office address at 33 W . Washington St., Suite 402, Hagerstown, Md. 21740.

In other business:

- The HEPMPO approved the Eastern Panhandle Transit Authority's Transit Development Plan, the Interstate 81 and Interstate 70 Transportation Systems Management and Operations Plan, a draft of the Fiscal Year 2020 Unified Planning Work Program, the FY 2019 Self-Certification and a draft of the Public Participation Plan Revisions.
- The HEPMPO spproved an amendment to the 2019-2020 Transportation Improvement Plan regarded improvements at Tabler Station slong 1-81, adding a new project.
- People struggling with homelessness appreciste
- and seek - support from community
- Morgan Commission considers relocating B11
Center and Sherif's Dept.
= Golf toumament to benefit family during medical
hardship
= One of a kind bird feeder crait to support
Martinsburg Union Rescue Mission
- Director of Radiology to retire after 45 years of
service to the Eastem Panhandle
= Black Hawk crew chief fought drug crisis from the
skies
= Today's thought
= Today in History


The proposed interchange improvements include widening 1-81 Exit 8 northbound and southbound entrance and exit ramps to accommodate an additional lane on each; improving the turning radius on 1-81 northbound exit ramp to allow free flow right turn onto Tabler Station Road; widening along Tabler Station Road westbound to allow free flow right turn onto the $1-81$ northbound entrance ramp; and widening along Tabler Station Road to allow for free flow right turn from l-81 northbound exit ramp.
"The proposed improvements should alleviate traffic congestion issues involving the ramps," the amendment said.

Funding includes $\$ 100,000$ in both engineering and right-of-way funding in addition to $\$ 4$ million in construction funding.

- The HEPMPO also made the following adjustments to the TIP:
- Increase construction funding in FY 2019 to a new total of $\$ 4.6$ million and to cancel right-of-way funding in FY 2019 for a bridge replacement project along Mill Creek.
- Move the construction funding to FY 2020 , retaining the same amount of $\$ 2.9$ million, due to needing a traffic study for ramp repair at Exit 16 on I-81.
- Move the engineering funding to FY 2019, retaining the same amount of $\$ 225,000$ and to increase construction funding for FY 2020 to a new total of $\$ 5,633,333$ in a widening project on W.Va. 45 on Apple Harvest Drive.
- Increase the construction funding in FY 2020 to a new total of $\$ 1,250,000$ for bridge replacement at Bakerton Road Bridge in Jefferson County.
- Two bridge inspections in Jefferson County were also adjusted to be added to the FY 2019-2020 TIP, including the Bloomery Road Tunnel ( $\$ 500,000$ ) and the Shenandoah River Bridge $(\$ 550,000)$.
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## Safety studies ready for public comment; pedestrian bridge over Weverton RR tracks considered



This tratlic study was prepared by Michael Eaker international for the Hagerstown Eastern Panhande Metropoltan Planning Organization.


Weverton Rail Crossing study
May 15, 2019 •
This eatety study of the Weveton Rall Crossing was prepared by Mchael Eaker international for the Hagerstown/Eastern Panhanole Mercpoltan.

Top 5
Priority roads corridors, ranked by total crashes from 2013 to 2017, in the Regional Traffic Safety Study.

## MARYLAND

1. U.S. 40 eastbound, from Tracys Lane to Covenant Life Church: 134
2. Interstate 70 eastbound, from mile marker 26 to mile marker 27: 133
3. Hallway Boulevard, from Interstate 81 to Virginia
Avenue: 124
4. Md. 65 from Starke Road to

Richardson Avenue: 113
5. Interstate 81 southbound,
from Exit 8 to mile marker 7 : 105

## WEST VIRGINIA

1. W.Va. 45 (Apple Harvest Drive), from Advent Drive to New York Avenue: 399
2. U.S. 11 (Winchester

Avenue), from King Street to Jefferson Avenue: 287
3. U.S. 340, from Candlewood Drive to WVa. 9: 202
4. WVa. 51, from the rairoad tracks to North Seminary Street 171


The ideas are in a study by the consulting firm Michael Baker International. The Hagerstown/Eastern Panhandle Metropolitan Planning Organization engaged the firm to look at the railroad crossing. as well as problem stretches of roads and streets in parts of Maryland and West Virginia. The firm has been working on the studies for months.

Draft versions of both studies are ready for public comment. Public hearings have been scheduled to get input on each report.

Work on the railroad

The Weverton Rail Crossing Feasibility Study looked for ways hikers can safely cross CSX railroad tracks at the site that links the C\&O
Canal National Historical Park towpath with the Appalachian Trail.

The land in southern Washington County is privately owned and not designated as a crossing, said Matt Mullenax, HEPMPO's executive director.

According to the study, the crossing goes over two sets of tracks.

Between 27 and 33 trains travel through the area each day, including freight trains and Amtrak and MARC commuter trains. Meanwhile, an estimated 26,000 people each year use the trails. In addition, people have been parking on an abandoned section of highway still owned by the state of Maryland to get access to the trails.

The study makes two recommendations.

One is a 100 -foot-long pedestrian bridge standing at least 23 feet over the tracks, to allow for train clearance. Hikers and bike riders would use ramps to get to the bridge by ramps. The estimated cost would be $\$ 3.5$ million.

Another option is a system of gates triggered to close by oncoming trains, the way "stop traffic" crossing arms are signaled when trains approach. The eight-foot-wide trail gates would be like those on a crossing at the Schuylkill River Trail in Philadelphia. The estimated cost would be $\$ 475,000$.

Copies of the draft study are available at the Washington County Free Library in downtown Hagerstown and Charies Town Library. The draft study is also posted at www. heompo.net.

Written comments will be taken until June 15 . They should be submitted online at www. hepmpo.net/contact or sent to the HEPMPO office at 33 W . Washington St., Suite 402, Hagerstown. MD 21740.

A public meeting on the draft study will be held 5 to 7 p.m. May 30 at the Mather Training Center in Harpers Ferry-

Washington County Board of Education briefs
14 nrs ago
Area students make dean's list at Bucknell University Jun 6,2019

Salem Avenue to get three relocated portable classrooms
Jun 5, 2019
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McConnellsburg native earns degree from Alvernia University Jun 5, 2019

Barnes receives degree from Susquehanna University
Jun5, 2019
Three area students win collegesponsored National Merit scholarships $\operatorname{Jun} 4,2019$

## BUSINESS

Volvo hints at more investment in Washington County factory Jun 5, 2019

Prime Time audience finds 'Bliss' Jun 5, 2019

Antietarn Broadband issues update on outages; bill credit extended Jun 3, 2019
Council, officials to discuss vision for Hagerstown stadium Jun 3, 2019

Discovery Station adding new position as attendance continues increasing Jun 2, 2019

## LOCAL BUSINESS DIRECTORY



1. W.Va. 45 (Apple Harvest Drive), from Advent Drive to New York Avenue: 399

## 2. U.S. 11 (Winchester

 Avenue), from King Street to Jefferson Avenue: 2673. U.S. 340, from Candlewood Drive to W.Va. 8: 202
4. W.V. 51, from the railroad tracks to North Seminary
Street 171

## 5. W.Va. 9 (Edwin Miller

Boulevard), from Interstate 81 to Advanced Auto Parts: 170.

Copies of the draft study are available at the Washington County Free Library in downtown Hagerstown and Charles Town Library. The draft study is also posted at www.heompo.net.

Written comments will be taken until June 15 . They should be submitted online at www. hepmpo.net/contact or sent to the HEPMPO office at 33 W . Washington St., Suite 402. Hagerstown. MD 21740.

A public meeting on the draft study will be held 5 to 7 p.m. May 30 at the Mather Training Center in Harpers Ferry.

Problem roads

The draft Regional Traffic Safety study pinpoints problem areas throughout the region, including stretches of roads and specific intersections.

It also includes more details looks, called Road Safety Audits, for part of Washington Street in Hagerstown, a segment of W.V. 9 in Berkeley County and a stretch of Summit Point Road in Jefferson County. W.Va. In some places, those audits recommend taking specific steps, from improving signs to moving driveways to studying speed limits.
"Most of these are going to have to be drilled down a little further" to get specific costs and more precise recommendations, Mullenax ssid.

Written comments will be taken until June 15 . Comments can be submitted online or sent to the HEPMPO office. Copies of the draft study are available at the same places as the rail study.

Public meetings on the draft traffic study are scheduled:

- June 4 from 5 to 7 p.m. at the Martinsburg (W.Va.) Public Library.
- June 5 from 5 to 7 p.m. at the Washington County Free Library in Hagerstown.
- June 6 from 5 to 7 p.m. at City Hall in Ranson, W.Va.


Lewis and Clark Circus setup
By Madelaine Mceher and Colleen McGrath May 29, 2019


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## Maryland

## HEPMPO posts draft studies for public comment, listed safety concerns

The number one safety concern from 2013-2017 was traffic congestion


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WASHINGTON COUNTY, Md. - The Hagerstown/Eastern Panhandle MPO made the DRAFT Regional Traffic Safety and Improvement Study covering Washington County, Maryland, and Berkeley and Jefferson Counties WV available for comment and review.

In the five-year report from 2013-2017, over 95 fatalities occurred in Washington County,Maryland and over 65 motor-vehicle fatalities happened in Berkeley County, West Virginia. This study was provided by the National Highway Traffic Safety Administration website.

According to HEPMPO's Executive Director, Matt Mullenax, this survey was completed as an effort to be on the same page as drivers on the road
"We took those comments, we immediately met with our stakeholders, we also analyzed the data and so now that we've done that, we want to bring this back to the public and say is what we see in the data line up with what you see out while you're driving around the area," Mullenax said.

Mullenax said three public meetings on the draft study will be held throughout the area: (1) June 4th Martinsburg Public Library-Martinsburg Room, 5-7:00 pm, (2) June 5th - Washington County Free Library-Hagerstown-Conference Room 334, 5-7:00pm and (3) June 6th - Ranson City Hall-Council Chambers, 5-7:00pm.

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# Regional Traffic Safety Study presentation given in <br> Martinsburg 

By Matt Welch mwelch@journal-news net Jun 5, 2018 ©


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MARTINSBURG - Hagerstown Eastern Panhandle Municipal Planning Organization officials gave a public presentation inside the Martinsburg Room at the Martinsurg Public Library Tuesday to present findings published in a draft of the organization's Regional Traffic Safety Study.

HEPMPO Executive Director Matt Mullenax said the organization has received plenty of comments during the public comment period, which ends June 15.

The goals of the study, according to the presentation done with consulting firm Michael Baker International, are to develop a process for HEPMPO to monitor and address safety issues in the future, conduct a regional safety assessment based on the latest available crash data and public input and to conduct pilot Road Safety Audits as a template for future application at select sites.

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There is a really simple way to get rid of that awful musty smell of in the house.


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undervear
- New state expungement law to offer second
chance


## FEATURED JOBS

HEPMPO used federal, state, regional, county and city officials and local law enforcement to collect data and draft the study

In Berkeley County, a 0.4 -mile stretch of road on W.Va. 9 in Johnsontown from Traver's Country Store to Dollar General was used as an RSA location.

In Berkeley County, crash data from W.Va. 9 near the intersection of Baxter Road and Cherry Run Road showed 25 total crashes, or 547 crashes per 100 million vehicle miles traveled, from 2013 to 2017.

Recommendations made in the study include signage improvements near offsetting intersections on that stretch of road as well as warning signs and a lowered speed limit. Debris from crashes was viewed during the time of the audit, officials said.


Audits like these in the future are to be done to help understand crash data and how to limit injuries and fatalities. Anyone can access the public numbers, Mullenax said.
"The data that we have, they can request from (the Department of Transportation), as well," he said. "But we're going to take all the data, comments and responses will be up on our websites when the study is complete."

HEPMPO's role in the study was: to monitor public insights on safety issues and locations; monitor regional and corridor crash trends and performance measures; evaluate crash data at a planning level: prioritize corridors of safety concerns; identify potential RSA locations; support RSA implementation; identify if the region is supporting the state's goals; and document needs and progress in the Long Range Transportation Plan.

Members of the public were able to go online last fall and rank their top transportation safety priorities as well as drop markers on an interactive map for the location of the problem. Overall, traffic congestion, distracted driving and aggressive driving ranked as the top three priorities followed by, in order, bad road surfaces, commercial vehicles, construction, bicycle/pedestrian safety and drunk driving.

What we were most interested in hearing from the public were their top concerns and priorities, and more specifically, drilling it down to a specific location," Mullenax said.

One thousand and seventy-six comments were given on the interactive map. Mullenax said.

D6.16.19 | Martinsburg, WV (25401)
Plckera/Farm Laborers
Appalachlan Orchard Company 06,16.19 | Martinsburg, WV (25402)

## CDL Clase A Driver

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06.15 .19 | Berryvile, VA (22611)

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Latest News

HEPMPO also collected crash data from 2013 to 2017 to document and monitor trends in crashes. In Berkeley County, crash data showed a minimal rise in injury crashes, going from slightly under 800 a year in 2013 to just above 600 a year in 2017 . The total number of crashes, however, in Berkeley County rose from just under 1,500 a year in 2013 to simost 2,000 a year in 2017.

Taking that data and adding public insight and input from local agencies help HEPMO find areas of safety concern, but it's not an exact science. Challenges with data collection can lead to inconsistencies, the presentation pointed out.

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Police say everyone should carry this new safety device that protects against attackers.

## OPEN

The data did, however, led HEPMPO officials to identifying an assessment of primary crash attributes in the surrounding areas at the top 20 locations.



Strategies for correcting issues can then be discussed.
"There's no one-size-fits-all solution," Jim Frazier, with Michael Baker International, said during the presentation. "For every type of strategy, there is a different counteraction."

The solutions also offer non-infrastructure strategies for things such as distracted driving.

It was also noted that RSAs are likely the best way to identify potential strategies for any given corridor. The federal department of highways estimated RSAs reduce crash rates 10 to 60 percent.

Another public meeting on the topic of regional road safety will be held Thursday at Ranson City Hall from 5 to 7 p.m.

